

Overview

The Alexandria Mobility Plan (AMP), a strategic update to the 2008 Transportation Master Plan, focuses on expanding high-quality transportation choices so transportation in the city continues to serve the needs of residents, businesses, and visitors as the region grows and new technology impacts the ways we get around.

The community-driven planning process raised several priorities including reducing congestion, improving transit, cut-through traffic, and making the transportation system safer. This input informed a set of recommendations that will address these needs and improve access to safe and convenient travel choices for all Alexandria.



Vision

Safe, seamless, and connected mobility options foster a thriving Alexandria for all.

Guiding Principles

All components of the AMP will advance the vision and guiding principles, which work together to improve transportation choices and ACCESS in Alexandria.



Accessible



Connected



Convenient



Equitable



Safe



Sustainable



Plan Chapters



Transit



*Smart
Mobility*



Streets



*Pedestrian
and Bicycle*



*Supporting
Travel Options*



*Curb Space
and Parking*



Why update the AMP?

- Accommodate local and regional population and job growth
- Prepare for new mobility options and emerging technology
- Promote environmental responsibility
- Enhance the focus on equity

The AMP will improve access to safe and convenient travel choices.

The plan commits the City to:



Apply an early and ongoing equity focus to all aspects of City projects, initiatives, programs, and services from conception through implementation



Make our transportation network flexible and adaptable to factors such as climate change, pandemics, and technological advancements



Be proactive and data-driven in decision-making



Develop partnerships that advance shared goals to serve the community

Policies and Strategies

The AMP contains policies and strategies that seek to improve and expand access to transportation choices and key destinations throughout Alexandria. In addition to the policies and strategies listed here, the full draft plan includes specific actions that the City will take to advance the implementation of these strategies.



Transit

Policies

- 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.
- B. *Make transit easier to use:*** Increase transportation choices by reducing or eliminating barriers to taking transit.

Strategies

- 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.

Advancing Transportation Equity

The strategies in the AMP will work to review transit fare policy to ensure transit access for people of all means, use data to ensure that resources are distributed equitably, add more frequent, all-day bus service citywide (particularly in the West End), and create curb space policies to ensure greater access for persons with limited mobility.



Smart Mobility

Policies

- A. *Improve safety and efficiency:*** Use technology to manage congestion for safe and efficient city streets and protect the character of neighborhoods.
- B. *Prepare for new technology:*** Plan proactively and flexibly to ensure cost-effective investment in technology that can improve travel choices.

Strategies

- 1.** Expand smart signal technology to enable detection and real-time signal adjustments.
- 2.** Strategically invest in partnerships to expand City data, technology, and communications capabilities.
- 3.** Upgrade capabilities of the Traffic Management Center to better manage congestion in real-time.
- 4.** Proactively prepare for connected and autonomous vehicles.
- 5.** Develop a framework for pilot projects to test new modes, infrastructure, or initiatives.



Promoting Choices

The AMP promotes choice through strategies that will:

Make non-auto travel options more efficient and convenient so you can use them for everyday trips

Deploy technology to enable you to make more informed travel choices based on what is fastest or easiest

Provide new travel choices such as ferries

Reducing Congestion and Cut-Through Traffic

The strategies in the AMP will work to expand use of smart signals to improve traffic flow, mitigate impacts of cut-through traffic on local streets, promote partnerships to support continued telework and flexible work schedules, support more frequent and efficient bus service to attract ridership and reduce traffic, and much more.



Streets

Policies

- A. *Protect neighborhoods from cut-through traffic:*** Reduce cut-through traffic burdening City neighborhoods.
- B. *Achieve Vision Zero:*** Use data to eliminate traffic-related deaths and serious injuries by 2028.
- C. *Leverage smart mobility:*** Recognizing that driving is important in the City, use Smart Mobility to manage congestion and neighborhood safety.

Strategies

- 1.** Implement the Vision Zero Action Plan to eliminate traffic fatalities and serious injuries by 2028.
- 2.** Develop a comprehensive program to reduce speeding and cut-through traffic on local streets.
- 3.** Ensure new development minimizes negative impacts to the street network.
- 4.** Work with regional, state, and private sector partners to develop tools to keep traffic on highways and reduce regional cut-through traffic.
- 5.** Consider the use of speed cameras and other automated tools to improve safety.
- 6.** Maintain a state of good repair for our streets using a proactive, data-driven, and equitable approach.





Pedestrian and Bicycle

Policies

- A. Prioritize safety:** Focus on vulnerable street user crashes to help achieve Vision Zero.
- B. Address network gaps:** Complete pedestrian and bicycle networks equitably and cost-effectively.

Strategies

- 1.** Create a safe, well-maintained, and comfortable walking and bicycling environment.
- 2.** Build out a continuous, connected, and accessible pedestrian network that enables people of all ages and abilities to move safely and comfortably.
- 3.** Build out a connected bicycle network of both on- and off-street facilities to benefit cyclists of all ages and abilities.
- 4.** Upgrade or install infrastructure that increases the accessibility of City streets and public spaces for people of all ages and abilities.
- 5.** Educate all street users about safety and traffic laws.





Supporting Travel Options

Policies

- A. Enhance choice:** Make it easier for more people to choose an alternative to driving alone.
- B. Promote work flexibility:** Encourage continued telework and flexible schedules to reduce congestion and emissions.
- C. Focus on all trips:** Shift non-commute trips away from driving alone.

Strategies

- 1. Use information, programs, and encouragement to make it easier for residents and workers to choose options other than driving alone.
- 2. Use the Potomac River to expand transportation options.
- 3. Create mobility hubs.
- 4. Pursue regional approaches to reduce traffic and congestion, particularly during peak times.



Curb Space and Parking

Policies

- A. Connect parking policy to City goals:** Achieve broader City goals related to sustainability, congestion, and housing affordability through parking.
- B. Ensure parking availability:** Seek to maintain parking availability in the city's residential and commercial districts, recognizing that some people may need to walk a short distance to their destination.
- C. Promote equitable allocation of curb space:** Treat all curb space as a public asset that should be allocated in an equitable manner for its highest and best use, appropriate for the specific location, time of day, and time of year.

Strategies

- 1. Implement a prioritization framework for making changes to curb space.
- 2. Consider pricing, regulation, data, and communications to manage parking availability.
- 3. Reconsider parking requirements in new developments.
- 4. Promote electric vehicle charging opportunities.

AMP Outcomes

Together, the elements of the plan will lead to tangible and measurable progress towards achieving the plan's vision, guiding principles, and citywide goals to improve not just transportation, but also equity and quality of life.



Increased access to high-quality transportation choices for all Alexandrians



More and easier connections to jobs, opportunities, and community destinations



Better overall experience traveling around the city



Reduced number and severity of crashes



Increase in non single-occupant vehicle travel



Equitable outcomes for all Alexandrians, especially neighborhoods and populations that have been historically underserved

How will the AMP help the City?

- Serves as a work plan for staff to improve mobility choices in the community
- Establishes metrics and targets to promote accountability
- Guides transportation decision-making
- Promotes flexibility to adapt to new ideas, technologies, and trends
- Provides a foundation for securing funding to advance existing plans and new projects



Alexandria Mobility Plan

October 2021



Alexandria
Mobility
Plan



Acknowledgments

The development of the Alexandria Mobility Plan (AMP) would not be possible without the contributions from many individuals and organizations. The City thanks you for your dedication to the AMP development process.

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Alexandria Chamber of Commerce
Alexandria City Public Schools
Alexandria Economic Development Partnership
Alexandria Housing Development Corporation

Alexandria Redevelopment and Housing Authority Alive!
Bicycle and Pedestrian Advisory Committee
Carpenter Shelter
Casa Chirilagua
Commission on Aging - Transportation Committee

Commission on Persons with Disabilities
Community Lodgings
Del Ray Business Association
Eisenhower Partnership
Ethiopian Business Association
Federation of Civic Associations

Homes for America (Brent Place)
Hopkins House
Tenants and Workers United
Volunteer Alexandria
West End Business Association
West End Coalition
YMCA

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Contents

Overview



Transit

The Transit chapter focuses on making transit more customer-friendly, reliable, and efficient to better serve existing customers and attract new ones.



Smart Mobility

The Smart Mobility chapter focuses on how the City can incorporate technology into the transportation network to better manage traffic.



Streets

The Streets chapter seeks to identify ways to make City streets function better for all users, with the goal of making the street network more efficient and safer.



Pedestrian and Bicycle

The Pedestrian and Bicycle chapter reflects the integration of the Pedestrian and Bicycle Chapter update in 2016 into the format of the AMP, while continuing to track progress since 2016 and highlighting the remaining priorities.



Supporting Travel Options

The Supporting Travel Options chapter focuses on how the City can support alternatives to driving alone through information, incentives, partnerships, and policies.



Curb Space and Parking

The Curb Space and Parking chapter focuses on how the City can use parking to help achieve its goals and manage competing demands for limited curb space.

Moving Forward

Appendix I: Implementation

Appendix II: Monitoring, Reporting, and Key Performance Indicators

Appendix III-A: Civic Engagement Process Summary

Appendix III-B: Civic Engagement Findings Summary



Credit: Hover Solutions for Visit Alexandria



We are excited to share the draft Alexandria Mobility Plan (AMP) with you. As a growing city with a constrained street network, we face difficult challenges when it comes to how we move. The AMP puts Alexandria in a strong position to address our transportation challenges now and into the future by focusing on choice and giving you more and better choices for getting you where you want to go. An intentional effort for consistency between the visions of related plans, such as the City Strategic Plan, City Master Plan, and Environmental Action Plan, ensures we are meaningfully working toward citywide goals to support overall livability, equity, quality of life, and mobility for the community.

This plan was developed during the 2020 COVID-19 pandemic, which dramatically changed travel patterns and the way we live our lives. The AMP recognizes that there will always be unknowns and that the City must seek to understand potential scenarios and plan for flexibility, adaptation, and resilience.

Yon Lambert, AICP

Director, Department of Transportation and Environmental Services

The process to update and modernize the 2008 Transportation Master Plan led to thousands of interactions with Alexandrians from all backgrounds and neighborhoods, informing and educating us on community experiences, needs, and aspirations for the future of mobility. Overwhelmingly, we heard from you about the need to manage congestion and cut-through traffic, improve public transit, and make streets safe for all users. The AMP includes policies and strategies to mitigate the effects of regional traffic on our streets, make transit more convenient and accessible, consider all types of travelers from all parts of the community when designing our services and our streets—all in a way that promotes access and equity, getting you where you need to go safely and efficiently no matter which mode of transportation you use.

The release of the draft AMP does not mark the end of our collaboration. The advancement of the AMP, its policies, and its strategies in the years to come will require continued partnership with the community. With a shared vision and direction, we will work to meet our needs together with strategic decisions that will affect mobility in the city over the next decade.

Melissa McMahon

Chair, Transportation Commission

Setting the Stage

The Alexandria Mobility Plan (AMP) is a strategic update to the City’s 2008 Transportation Master Plan. By using the term “mobility,” this update emphasizes the importance of providing useful options to allow people to have the freedom to choose how to get around. The AMP is not a list of specific projects such as the Capital Improvement Plan or mode-specific plans¹; instead, it lays out the policies and strategies that will guide transportation decisions for the next 10 years in pursuit of enhanced quality of life, sustainability, and equity, centered around the concept of choice.

Mobility vs. Transportation

On its most basic level, **transportation** is the simple act of moving people or goods from one location to another. Streets, sidewalks, buses, and trains are examples of infrastructure and options that help facilitate transportation, the existence of which alone does not equal mobility.

Mobility is about freedom of movement and having access to many transportation options that work for you, as well as the quality of those options to give you the ability to get you where you need to go. To have mobility is to be able to safely and affordably get to the resources that enable a fulfilling and healthy life—jobs, school, grocery store, doctors’ office, pharmacy, daycare, community centers, parks, and more.

1. <https://www.alexandriava.gov/TransportationPlanning>.



Accomplishments Since 2008

The City has made great strides in realizing the vision of the 2008 Transportation Master Plan in the years since its adoption.²

2008 Transportation Master Plan Actions and Strategies	Complete	Ongoing	Started
Transit Concept Plan			
T1. Public outreach to educate and determine where the greatest support lies for implementation	✓		
T2. Coordination with adjacent jurisdictions to ensure integration with existing transit services and future regional connections		✓	
T3. Prioritize transit corridors for investment	✓		
T4. Develop corridor-specific plans for dedicated transit lanes, ensuring new developments do not preclude dedicated transit lanes	✓		
T5. Identify locations for smart stations that will serve both the new system and existing transportation modes	✓		
T6. Ensure that development and redevelopment does not preclude efforts to expand public transit infrastructure		✓	
T7. Identify specific transit mode technology and newest techniques best suited for transit corridors and for the system as a whole	✓		
T8. Integrate existing DASH bus service with new transit system elements for DASH to serve as a high-frequency feeder system		✓	
T9. Incorporate traffic signal priority, traffic circulation changes, pedestrian and other on-street enhancements		✓	
T10. Create TMPs, Transit Overlay Zoning Districts, Parking Management Zones, etc. to coordinate efforts to support the system	✓		
T11. Investigate potential funding available through existing, new, and innovative revenue sources		✓	
T12. Develop extensive public outreach and marketing campaign to energize the citizenry around Alexandria's transportation future	✓		
T13. Coordinate with pertinent Boards and Commissions to ensure that the special transportation needs of all citizens are considered	✓		

2. The 2008 Transportation Master Plan's Pedestrian and Bicycle Concept Plans have been superseded by the City's Pedestrian and Bicycle Chapter update in 2016 to reflect changes that have occurred since 2008, including the Complete Streets policy, Capital Bikeshare program, and on-street bicycle facilities. The most recent biennial progress reports of project implementation can be found [here](#).

- 1

The Route 1 Metroway between Alexandria and Arlington opened in 2014 and provides bus rapid transit (BRT)-style service with bus-only lanes along much of its route.
- 2

Alexandria's Complete Streets Policy was adopted in 2011, and along with subsequent design guidelines and Vision Zero efforts, helps guide street improvements that enhance safety for all users.
- 3

Construction on the new Potomac Yard Metrorail Station between National Airport and Braddock Road on the Blue and Yellow lines began in 2019.

2008 Transportation Master Plan Actions and Strategies

	Complete	Ongoing	Started
Streets Actions and Strategies			
S1. Ensure that streets safely accommodate all users		✓	
S2. Formally develop and adopt a "Complete Streets" Policy	✓		
S3. Develop new and enhance existing education programs to market and educate the public on travel demand management (TDM) strategies		✓	
S4. Improve mobility through development of a comprehensive policy for incorporating technology into transportation infrastructure		✓	
S5. Improve safety at signalized intersections		✓	
S6. Focus on improvements to natural and human environment, preservation of historic resources, and creation of enjoyable public street spaces		✓	
S7. Develop a comprehensive design manual for City streetspace	✓		
S8. Explore opportunities to enhance the use of HOV lanes for periods of peak travel demand			✓
Parking Actions and Strategies			
P1. Complete a comprehensive study of City parking supply, demand, and parking policies	✓		
P2. Develop and implement guidelines and requirements for transit-oriented development (TOD) including max parking ratios, unbundled parking, and parking cash-out programs		✓	
P3. Ensure parking availability within the City's commercial, residential, and tourist districts through the development of a curb space management program		✓	
P4. Implement policies to discourage the development of surface parking lots	✓		
P5. Increase the use of information technology to provide real-time parking location and availability information		✓	
P6. Educate the property development and management community about unbundling parking from building leases		✓	
P7. Seek parking and transit solutions to minimize, if not eliminate, tour bus traffic in the residential areas of Old Town Alexandria	✓		



Shaping the Plan: Trends in Mobility

Several major forces are shaping how Alexandria is planning for its mobility needs now and into the next decade.

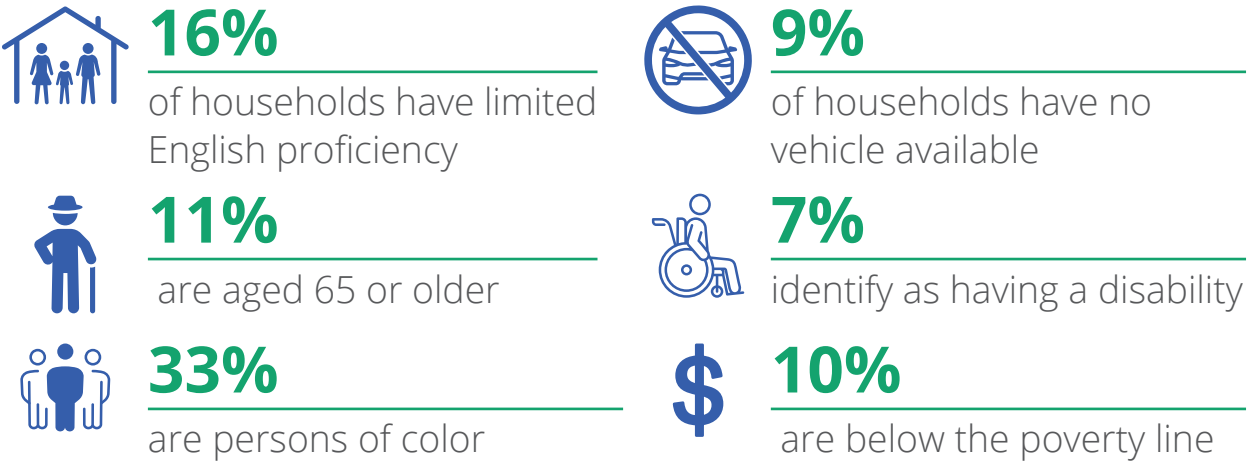
- Among the AMP’s core components is a recognition that not everyone who needs to travel in Alexandria has the same means, ability, or schedule
- Population and employment growth both locally and across the region require that the City manage demand on local streets and provide a range of options for getting around to keep Alexandria a desirable place to live, work, and visit
- Goals, targets, and actions of the Environmental Action Plan require that the City seek to minimize the carbon footprint of the transportation sector in light of the Climate Emergency declared by City Council
- Emerging technology related to monitoring traffic, new ways to get around, and data sharing provides new opportunities for addressing our mobility needs

The COVID-19 pandemic, which was a prominent influence during the bulk of the AMP planning process, is likely to have many long-term impacts to transportation and mobility, such as **increased rates of telework** and **more trips that occur outside of the traditional morning and evening rush hour**. Despite this, it will continue to be important for cities to provide a wide range of mobility options, especially to **ensure equity for their essential workers** who do not have the luxury of telework and more often rely on public transit and other non-motorized modes of transportation. By focusing more on all-day trip-making, this plan is preparing the City for a likely “new normal” with less drastic differences between peak and off-peak travel.

Planning for All

Alexandria is a diverse community with diverse needs

It is important that the City meet the needs of the Alexandria community, with intentional and focused attention to historically under-resourced communities to overcome existing disparities and achieve transportation equity. Of Alexandria’s citywide population:



Source: 2019 American Community Survey 5-Year Estimates, U.S. Census Bureau


Much of the transit network in the region—one of the major methods of combating traffic congestion—is centered around serving the commuting needs of 9-to-5 workers bound for the District of Columbia. Alexandria, however, has a significant population of workers with nontraditional work schedules who commute outside of the typical “rush hour.” Alexandria also has a sizeable population that does not have access to a car for work or nonwork trips that occur off-peak, when public transit is running less frequently or not at all.



A Growing Region

Alexandria plans for growth in transit-rich locations

 In Alexandria and the region, residential population growth has been about 1.5% per year since 2010. This growth rate is expected to continue through 2030.

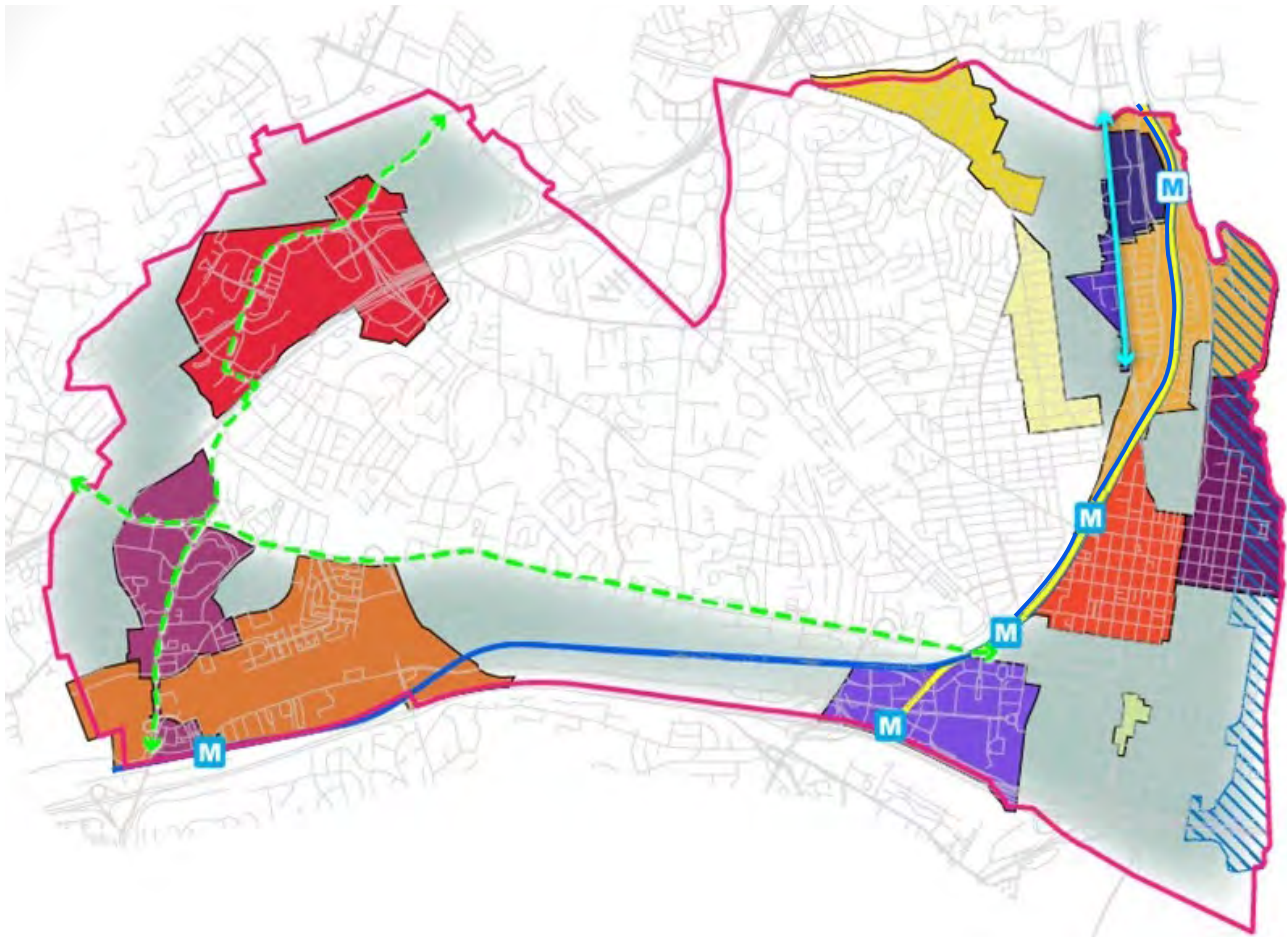
 Employment in Alexandria is forecasted to increase 1% per year through 2030.

The City routinely updates its Small Area Plans for specific neighborhoods that are anticipating growth and redevelopment. These community-driven plans outline neighborhood visions and provide guidance on levels and types of development. These planning efforts result in a concentration of diverse land uses and development density that will have access to existing and planned high-capacity transit hubs and corridors such as Metrorail stations and bus rapid transit (BRT) lines. This will minimize the impact of new development on the street network, create opportunities for people to move using different travel choices, and improve connections for both drivers and non-drivers.



Major employers are choosing Alexandria for their growth and expansion, most notably in Potomac Yard and Oakville Triangle, near both the Route 1 Metroway corridor and the Potomac Yard Metrorail station, and at the former Landmark Mall site near both the Van Dorn Metrorail station and the planned West End Transitway corridor.

Small Area Plans and Planned Development



- Existing Metroway
- Proposed BRT Lines
- Metrorail Line

- Existing Metrorail Station
- Future Metrorail Station


Color-Shaded Areas Indicate Locations of Small Area Plans or Planned Development


Transportation and the Environment

Transportation is the second-largest source of greenhouse gas (GHG) emissions in the region, most notably due to the use of private automobiles³

Transitioning to an electric vehicle fleet is a major way to reduce the environmental impact of the transportation sector, particularly as the electric energy sector transitions to renewable energy. However, electric vehicles still present many of the adverse effects and risks of traditional vehicles, such as the need for costly, space-intensive, and environmentally unfriendly parking structures, traffic congestion, crashes, non-tailpipe pollution, high personal or household financial costs, and inequitable access.

 42% of regional GHG emissions are from transportation and 60% of those are from passenger cars and trucks

 0.5% of cars in Alexandria are electric

 Alexandria residents are adopting electric vehicles at a faster rate than the national average — 5% versus 2% nationally⁴

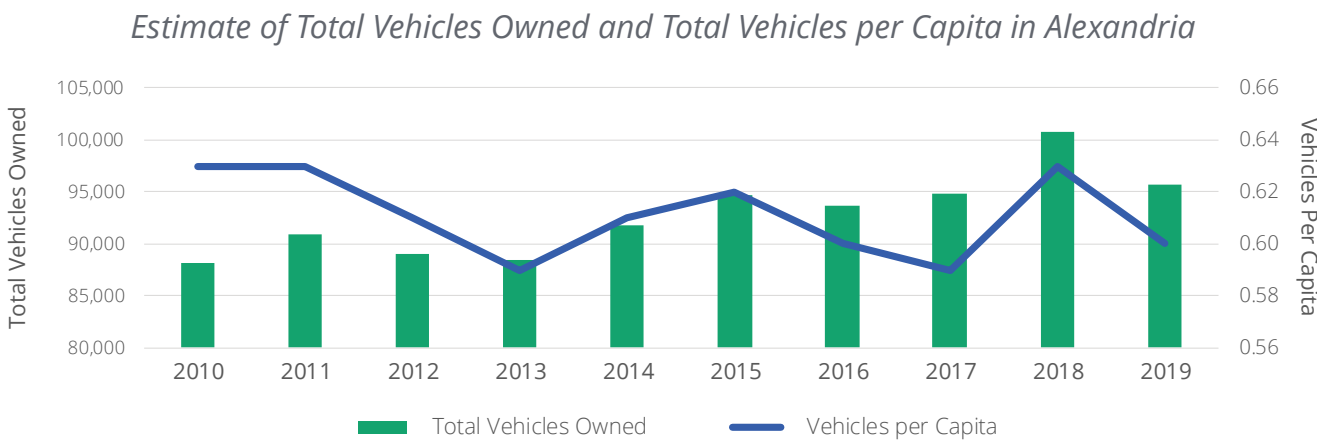
The City is updating its **Energy and Climate Change Action Plan** during 2021-2022, which is anticipated to identify further action needed to reduce the climate impacts of transportation in the city to achieve adopted GHG mitigation targets.

The City and DASH are working to electrify their fleets and expand adoption of electric vehicles through a variety of measures identified in the Environmental Action Plan and the Electric Vehicle Charging Infrastructure Readiness Strategy.⁵ This plan supports those efforts by promoting enabling infrastructure, but focuses attention on improving mobility choices and safety.

The number of cars in Alexandria is growing, but at a rate that is proportional to population growth

While vehicle ownership is increasing in the city, it is on pace with overall population growth, with vehicles per capita holding steady in the past decade (0.60 cars per capita in 2019).

The percentage of zero-vehicle households has remained relatively steady since 2010 at between 9 and 10% of all households.



U.S. Census Bureau, American Community Survey 1-Year Estimates (2019)

With more new **development near high-quality transit** and **improved mobility choices**, more people may feel comfortable moving to Alexandria **without a car or with fewer cars per household**.

3. City of Alexandria Community-Wide Greenhouse Gas Inventory [https://www.alexandriava.gov/uploadedFiles/tes/eco-city/Alexandria%202018GHG%20Factsheet_FINALene%20\(1\).pdf](https://www.alexandriava.gov/uploadedFiles/tes/eco-city/Alexandria%202018GHG%20Factsheet_FINALene%20(1).pdf).
4. Electric Vehicle Charging Infrastructure Readiness Strategy, 2021 - https://www.alexandriava.gov/uploadedFiles/tes/eco-city/info/Alexandria_EVRS_FINAL.pdf.

5. Electric Vehicle Charging Infrastructure Readiness Strategy, 2021 - https://www.alexandriava.gov/uploadedFiles/tes/eco-city/info/Alexandria_EVRS_FINAL.pdf.

Technology Adoption

Advancements in technology are contributing to converging trends in mobility innovation and disruption

In the past decade, adoption of new technologies has led to significant changes in the ways people travel, navigate, and make choices. The result of these trends is an increasing demand for real-time information and on-demand services, prompting the growth of transportation network companies (TNCs) like Uber and Lyft, map-based and navigation mobile applications like Waze, and micromobility services like shared bicycles and scooters. Technology also has enabled our transportation infrastructure to be more connected, responsive, and automated with such innovations as adaptive signal technology that reacts to real-time traffic conditions. Future technology, such as connected and autonomous vehicles, will require the City to prepare, respond, and manage impacts to traffic safety, roadway capacity, and general mobility.

Between 2011 and 2019, the percentage of adults in the U.S. who own a smartphone increased from 35 percent to 81 percent, with 96 percent of Americans owning a cell phone of any kind.⁶

6. Pew Research Center, Mobile Phone Ownership Over Time, <https://www.pewresearch.org/internet/fact-sheet/mobile/#:~:text=The%20share%20of%20Americans%20that,smartphone%20ownership%20conducted%20in%202011.>



Related Plans and Policies

The AMP does not exist in a vacuum. Many City plans, programs, and initiatives that included robust engagement efforts contain transportation-related policies and goals that have been and will continue to be kept at the forefront of AMP implementation and citywide transportation planning, with AMP guiding principles at the core. The policies and strategies developed for this plan have been designed to support and advance these related policies and goals to achieve a cohesive citywide vision for the future.



Note: The plans shown in this example diagram are not an exhaustive list.

Related AMP Chapters

	Transit	Smart Mobility	Streets	Pedestrian and Bicycle	Supporting Travel Options	Curb Space and Parking
City Strategic Plan	✓	✓	✓	✓	✓	✓
ALL Alexandria Resolution	✓	✓	✓	✓	✓	✓
Environmental Action Plan	✓	✓	✓	✓	✓	✓
Alexandria Master Plan and Small Area Plans	✓	✓	✓	✓	✓	✓
Transit Vision Plan	✓					
Complete Streets Policy and Design Guidelines	✓		✓	✓		✓
Smart Mobility Framework Plan	✓	✓	✓			✓
Vision Zero Action Plan	✓	✓	✓	✓		
Housing Master Plan	✓				✓	
Age-Friendly Plan for a Livable Community	✓		✓	✓	✓	✓

The Plan-Making Process

The AMP process began in mid-2019 and occurred over four main phases. Together, this process and the input of the community informed the development of the AMP.

- **Phase I:** Community visioning process to identify desired outcomes and help shape the guiding principles that serve as the foundation for the AMP.
- **Phase II:** Public outreach and engagement activities to get input on what Alexandrians value and want to prioritize in how they travel.
- **Phase III:** Targeted outreach and engagement to develop community-generated ideas for solutions that could achieve the goals of the AMP. Ideas were further refined through community feedback to become policies and strategies.
- **Phase IV:** Community review of the draft plan before finalization and formal adoption.



In addition to overall public engagement activities, the Alexandria Mobility Plan Advisory Committee (AMPAC) provided continuous input to City staff throughout the entirety of the AMP process. AMPAC membership included representation from the Transportation Commission as well as other citywide organizations.

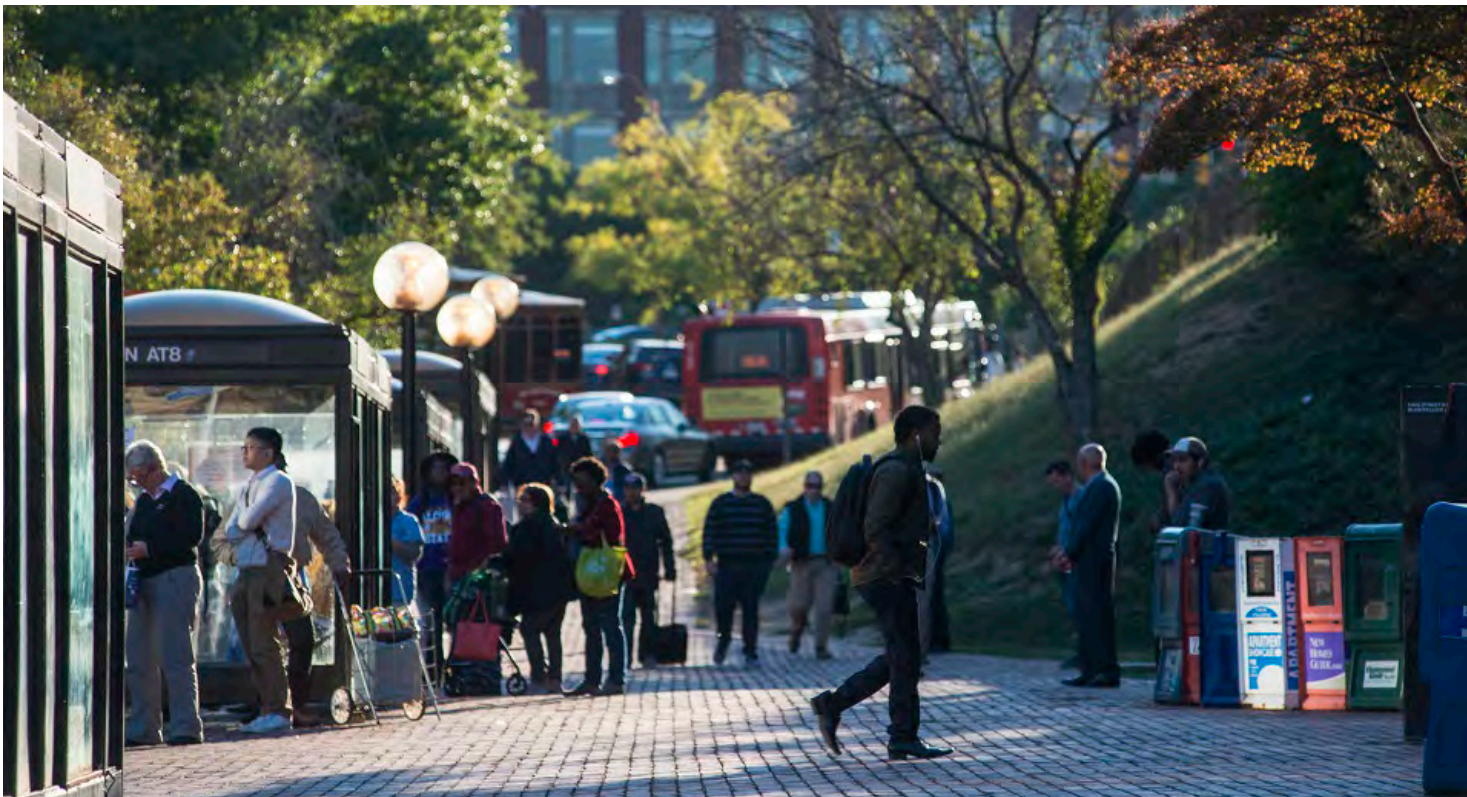
Sentiments heard and lessons learned during the engagement process are included throughout the plan document, and a detailed engagement summary can be found in **Appendix III – Civic Engagement Summary**.

How This Plan Will Be Used

The AMP will be used in a variety of ways to achieve its vision and guiding principles. First and foremost, this plan will serve as a workplan for the City to guide decision-making as it relates to transportation planning and design. With its strong ties to related City plans, targets, and policies, this plan also will help foster productive interdepartmental coordination across City agencies as strategies are advanced.

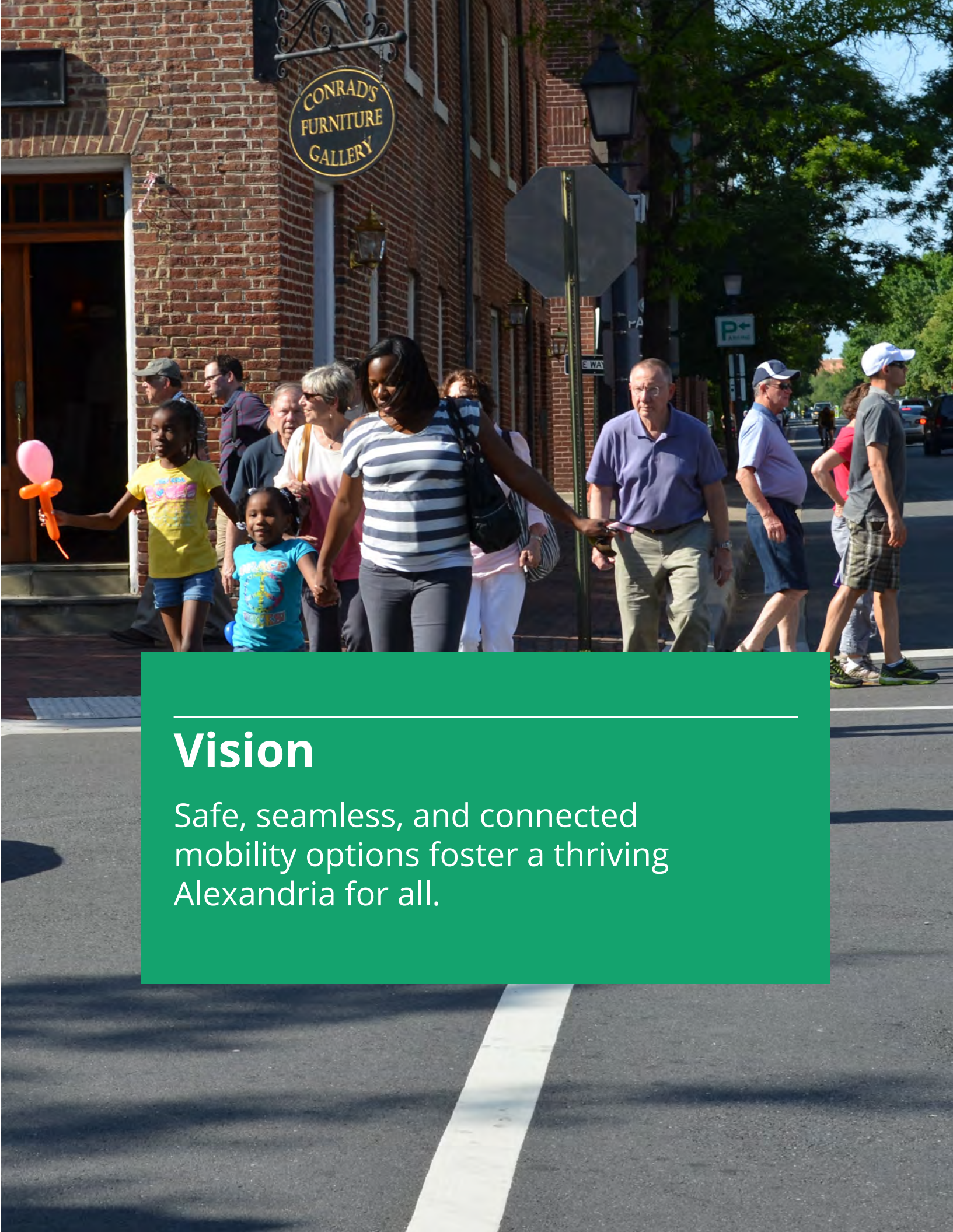
Having a strong planning document also makes Alexandria more competitive for a variety of grants and other funding sources and enables the City to advocate for legislative action at the Commonwealth government level. The purpose of the AMP is not to list all transportation projects for the next 10 years, but to establish policies and guidance that City staff will use to prioritize projects for grant applications. A well-thought-out plan and strong linkages to established guiding principles, policies, and strategies increases the City’s competitiveness in these funding and legislative policy pursuits, which will be critical to advance transportation planning, policies, and strategies.

In keeping with the overarching policy of adaptability and flexibility, it is important to note that the strategies within this plan are not exhaustive. As new initiatives develop, they will be considered compatible with the AMP as long as they are consistent with AMP policies and help to achieve its targets and guiding principles.



Plan Elements

This plan is made up of several key elements that build upon each other.



Vision

Safe, seamless, and connected mobility options foster a thriving Alexandria for all.

Guiding Principles and Measuring Progress

The City will track key performance indicators (KPIs) for each guiding principle through the life of this plan to understand how Alexandria as a whole is faring with regards to the specific outcomes that this plan seeks to achieve. To holistically track outcomes that address the equitable guiding principle, all KPIs are given an “equity lens” to measure progress in a way that is consistent with the City’s ALL Alexandria resolution and ensures equitable outcomes for all Alexandrians, especially neighborhoods and populations that have been historically underserved.

More detail on how the City plans to measure progress toward these principles, as well as chapter-specific metrics, can be found in **Appendix II – Monitoring, Reporting, and Key Performance Indicators**.

Accessible Alexandria will work to make its transportation network easily accessible for users of all ages and abilities.



- **Key Performance Indicator:** Percent of residents in close proximity to alternatives to driving.
- **Equity Lens:** Percent of residents (low income, people of color, seniors, and persons with disabilities) in close proximity to alternatives to driving.

Connected Alexandria’s transportation system will take you where you want to go seamlessly by leveraging technology and integrating transportation and land use.



- **Key Performance Indicator:** Percent of destinations that are connected to alternatives to driving.
- **Equity Lens:** Percent of low-wage jobs, Title 1 schools, and public health clinics that are connected to alternatives to driving.

Convenient Alexandria will provide a transportation system with high-quality mobility options that are reliable, frequent, proximate, and comfortable.



- **Key Performance Indicator:** Percent of residents who say it is easy to get around.
- **Equity Lens:** Percent of residents (low income, people of color, seniors) who say it’s easy to get around.

Equitable

Alexandria acknowledges that there are disparities in neighborhoods and populations in the city that have been historically underserved. Alexandria will be targeted, inclusive, and intentional in addressing gaps in mobility options available, their quality, and safety.



- **Key Performance Indicator:** All guiding principles will be measured for the city both as a whole and with an equity lens that examines how specific communities of greater need are faring with regards to the specific outcomes that this plan seeks to achieve.

Safe

Alexandria will eliminate all traffic deaths and serious injuries by 2028.



- **Key Performance Indicator:** Number of crashes, fatalities, and serious injuries.
- **Equity Lens:** Number of crashes, fatalities, and serious injuries within Equity Emphasis Areas.

Sustainable

Alexandria will prioritize low-carbon mobility options and reduce automobile dependency.



- **Key Performance Indicator:** Vehicle miles traveled and percent of commuters using alternative transportation options.
- **Equity Lens:** Percent of residents (low income, people of color, seniors, and persons with disabilities) in close proximity to alternatives to driving.

Why measure “Proximity to Alternatives to Driving?”

Driving is currently the most used mode of travel in Alexandria because it is often the only reasonable option available. A priority of the AMP is to give people choices. Every home has access to a street, but there are still many Alexandrians without nearby sidewalks, bike lanes and trails, or frequent transit, meaning they do not have the convenient choice to walk, bike, or take transit. Having choices benefits everyone, from cleaner air, healthier lifestyles, and less congestion. Having choices means that when gas prices rise or if there is a transit shutdown, people can still get around safely and conveniently.

Overarching Policies

This plan includes the following overarching policies that will help guide the City’s decision-making and implementation efforts across all chapters as it works to advance the vision, guiding principles, and strategies. While the guiding principles are about the outcomes this plan seeks to achieve, these overarching policies speak to core methods for achieving these outcomes.

Apply An Equity Focus To All City Actions

Transportation has historically worked to worsen inequality by physically dividing neighborhoods and through disinvestment in low-income and minority communities. To ensure that transportation decisions in Alexandria not only prevent repeating past mistakes, but are used as a tool to lessen inequality, the City will apply an early and ongoing equity focus to all aspects of City projects, initiatives, programs, and services from conception through implementation. The City will use a framework that ensures policy decisions advance racial and social equity for all Alexandria residents.

Make Our Transportation Network Flexible And Adaptable

The City of Alexandria will strive to accommodate unforeseen external disruptions to our city (such as extreme weather events due to climate change, pandemics, and technological advancements) by building flexibility and resiliency into decision-making. The City will consider such uncertainties at the start of all its projects and identify ways to build in flexibility and adaptability through pilot projects, flexible contract mechanisms, and by prioritizing investments that make sense in a broad array of potential future circumstances.

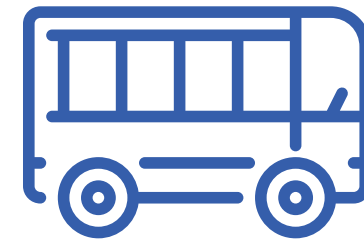
Be Proactive And Data-Driven

The City of Alexandria will be proactive and data-driven in decision-making and when implementing projects and initiatives that advance plans and policies. While community requests and input are an important supplement for decision-making and implementation, time and resources are best—and most equitably—used for proactive decision-making based on data. It also will be important for the City to build and expand its resources and capabilities to process new data sources as they become available into the future.

Develop Partnerships That Advance Shared Goals

The City will develop partnerships with public and private organizations to extend the capabilities of staff and programs to advance shared goals in service of the community. Partnerships of this nature could be formed with regional bodies or neighboring jurisdictions, for example, to foster collaborative data sharing and technology advancement that will improve travel safety, reliability, and mobility for Alexandrians while giving the public more useful tools to make informed travel choices.





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** **700+** **4**
Metrobus routes¹ bus stops Metrorail stations*

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

 **12,800** **10,100**
average weekday DASH passengers in 2019² average weekday Metrobus passengers in 2018²

 **28%**
of Alexandria households use public transit at least once a week³

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 hospitality⁵

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 "Accommodation 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.

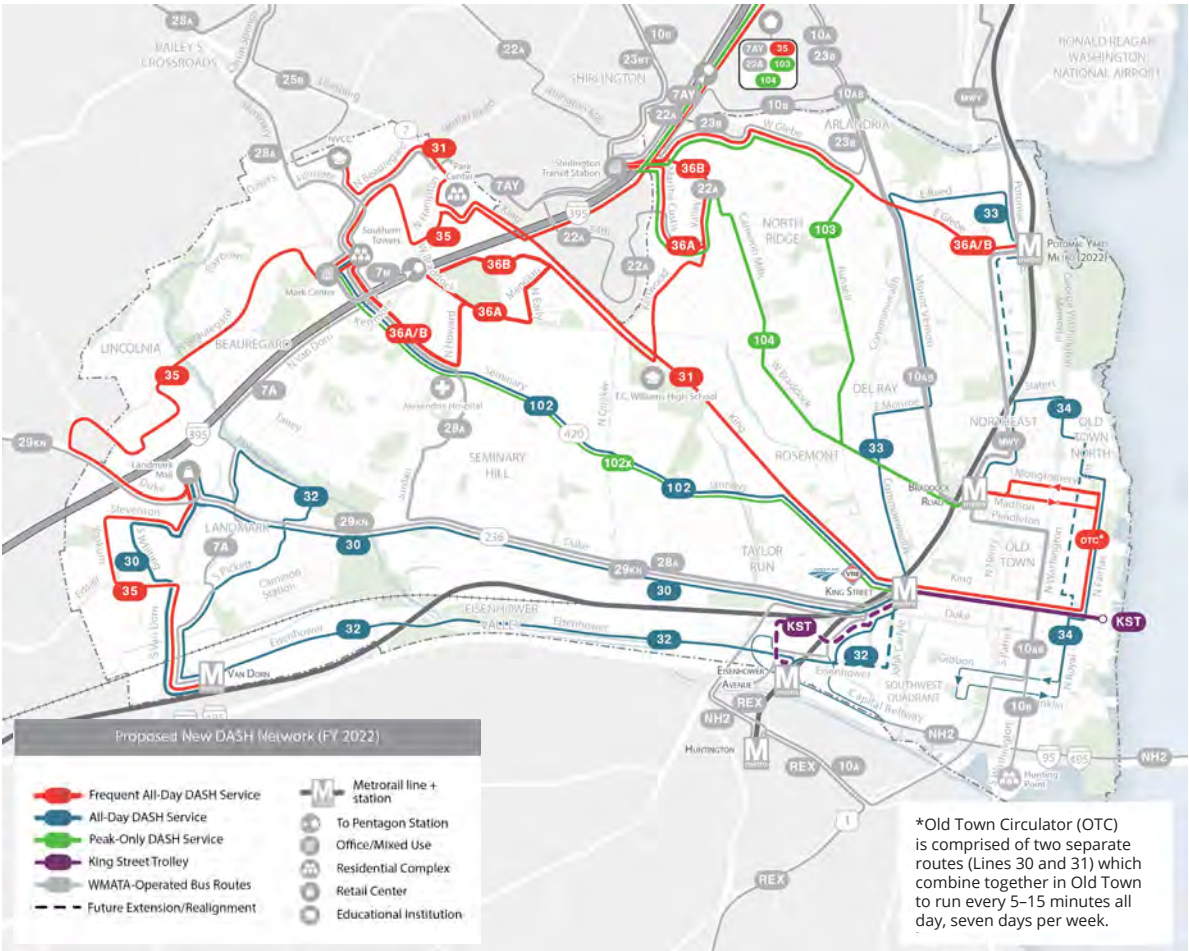




Existing Programs, Policies, and Initiatives

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. 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 **committed 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.

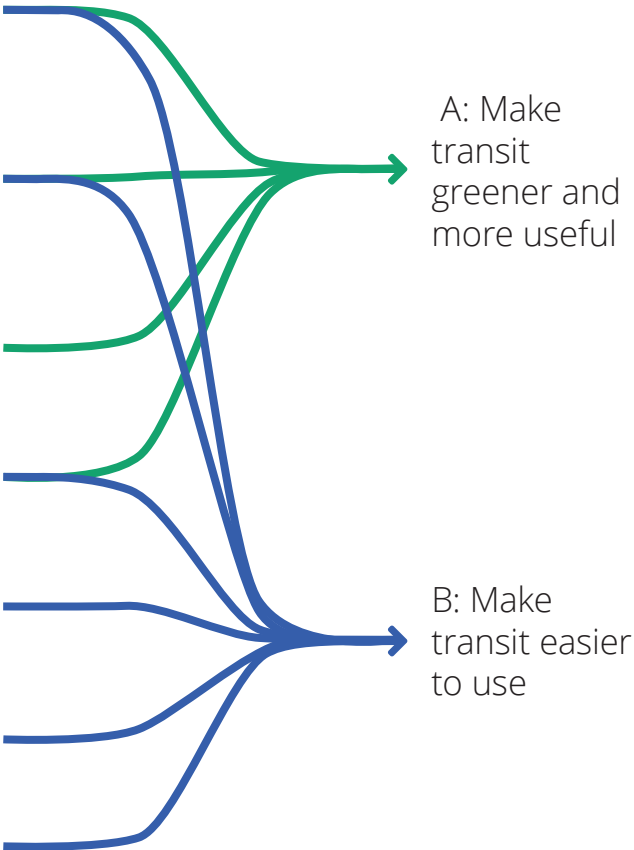
Strategies

That support policies

- 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

Policies

The City of Alexandria will...





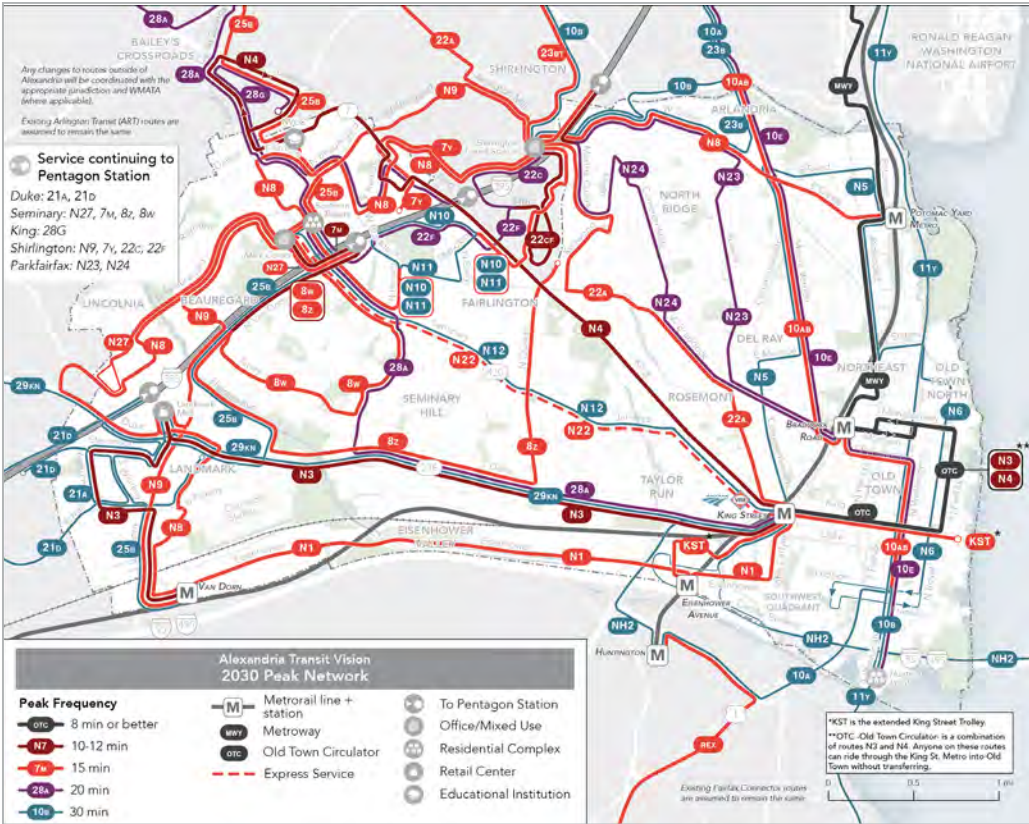
Strategies

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

Actions

- Begin implementing the New DASH Network⁸ 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



8. www.dashbus.com/newnetwork.

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

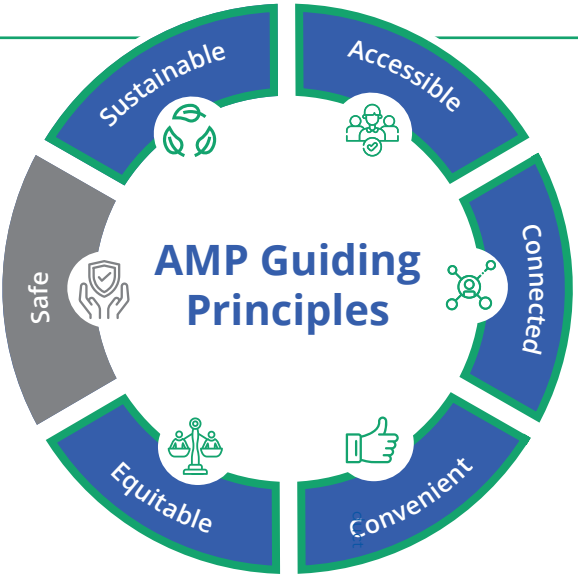
- 2030 Vision Plan Network

Environmental Action Plan 2040

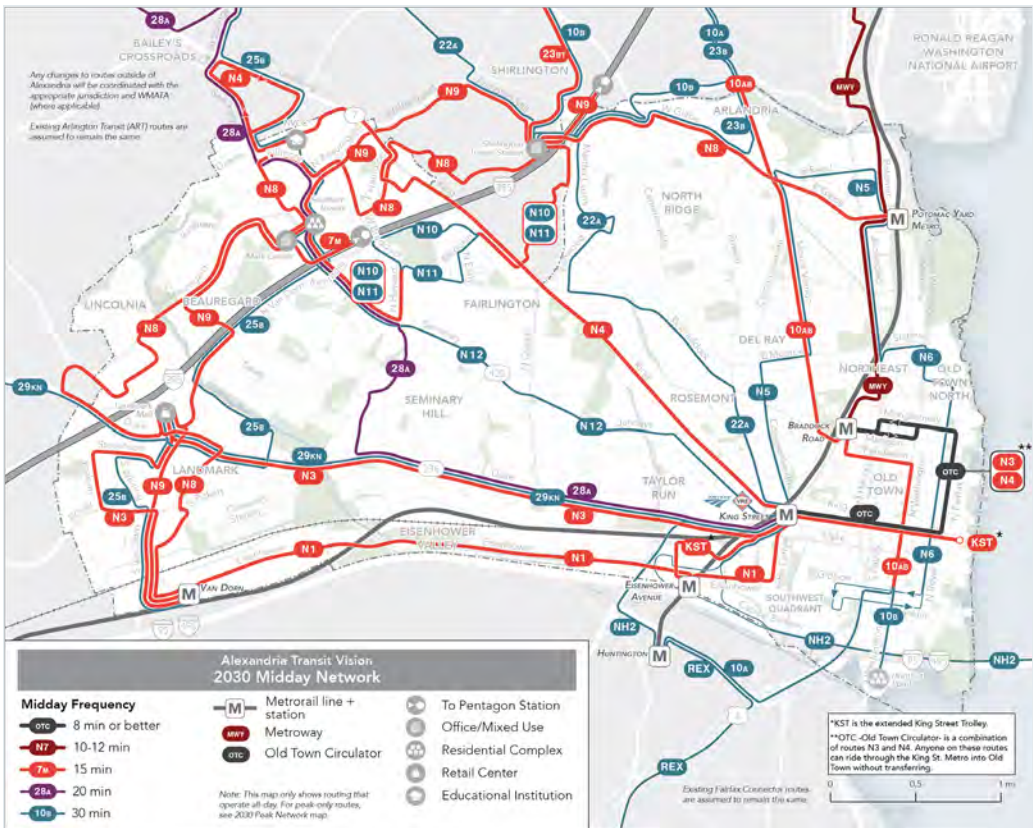
- Improve and Expand Low Carbon Options such as Transit, Bikes, and Walking

City Strategic Plan

- Multimodal Component and Goals



2030 Midday Transit Network





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.



Advancing City Plans and Goals

Alexandria Transit Vision Plan

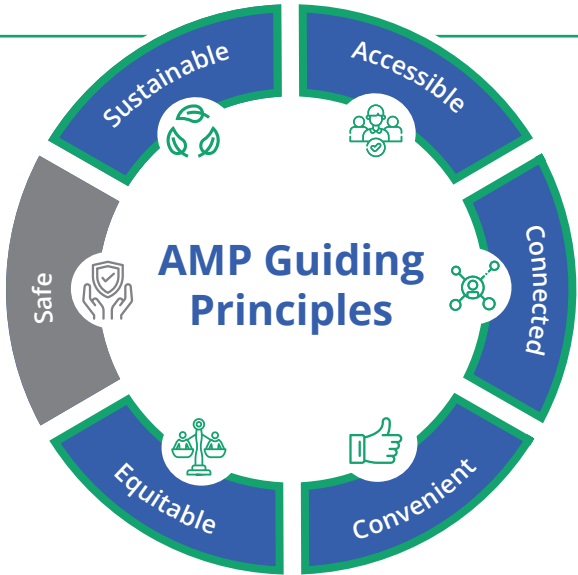
- 2030 Vision Plan Network

Environmental Action Plan 2040

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

City Strategic Plan

- Multimodal Component and Goals





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.

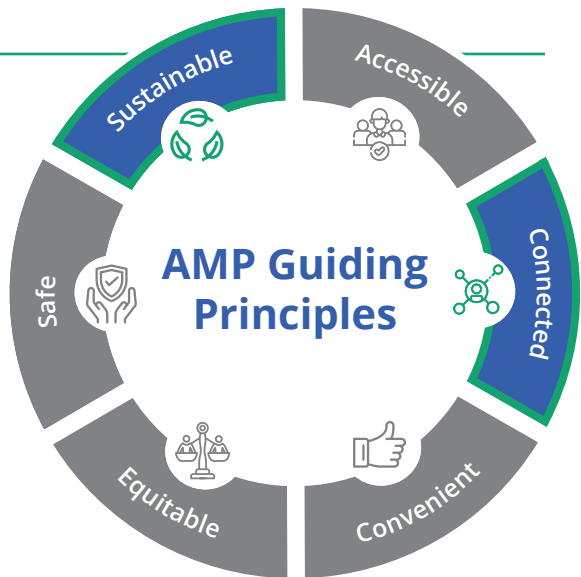
Advancing City Plans and Goals

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

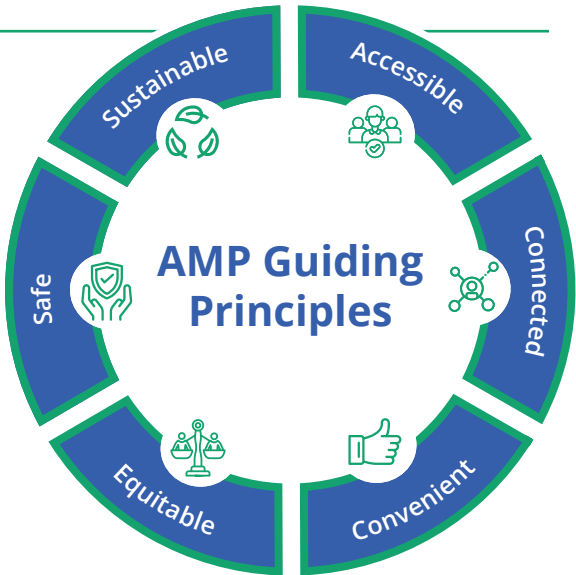
- Install Information Displays at Bus Stops

Age Friendly Plan For A Livable Community

- Provide Safe, Reliable, and Frequent Transit

Complete Streets Policy and Design Guidelines

Vision Zero Action Plan



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



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.

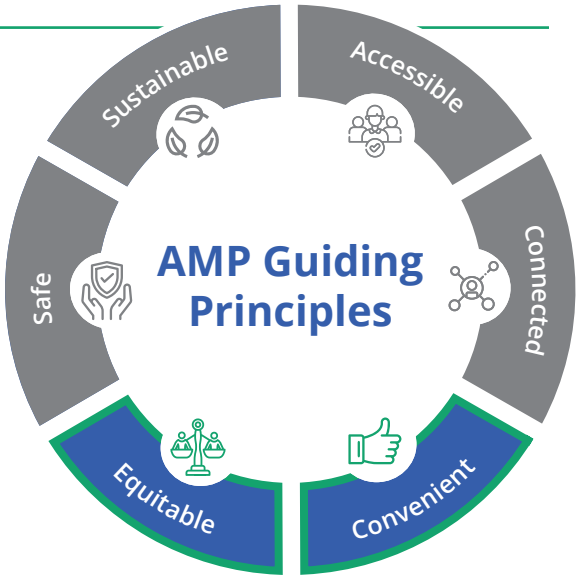
Advancing City Plans and Goals

Alexandria Transit Vision Plan

- Increasing Transit Access for Low-Income Alexandrians

Environmental Action Plan 2040

- Improve and Expand Alexandria’s Public Transit System



10. Metrobus Ridership Survey, 2018.



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

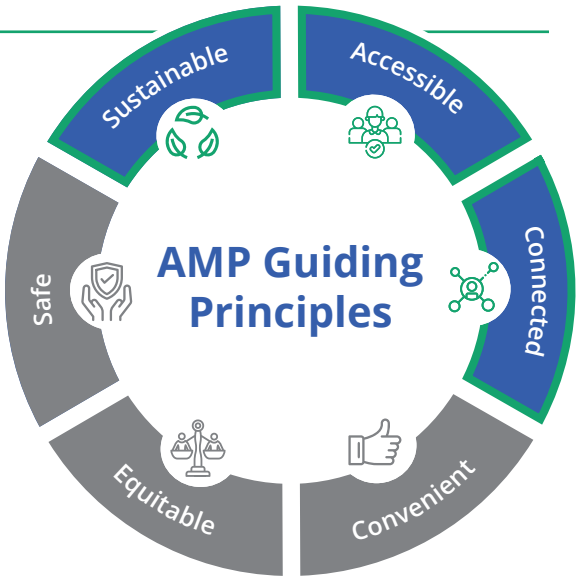
Addressing the Need

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





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

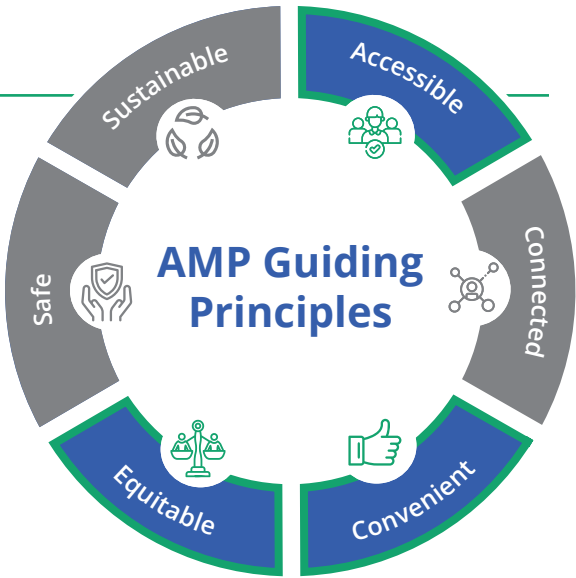
Paratransit programs have not changed considerably over the last 10 years. These programs are costly and will only get more expensive as the number of elderly and disabled residents are anticipated to increase. There are opportunities to make the programs more efficient while improving the customer experience.

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



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.





Smart Mobility

How the City incorporates technology into the transportation system to better manage traffic.



Introduction

Smart mobility is a broad term that incorporates the application of technology to streets, traffic signals, vehicles, parking systems, and other transportation infrastructure to make them more efficient and safe, while providing data that can help improve long-term decision-making about where and what changes to make to our streets. In the coming decade, converging innovations and technology are likely to play a transformative role in transportation. Given the limited ability to expand the street network, smart mobility initiatives will be instrumental in improving traffic flow. Alexandria's 2018 [*Smart Mobility Framework Plan*](#) describes a range of efforts that the City is taking to prepare for and incorporate technology into its transportation assets. Through these efforts, the City is working to lay the groundwork for future technology that will help better manage traffic on local streets.

Key Context



250+

traffic signals

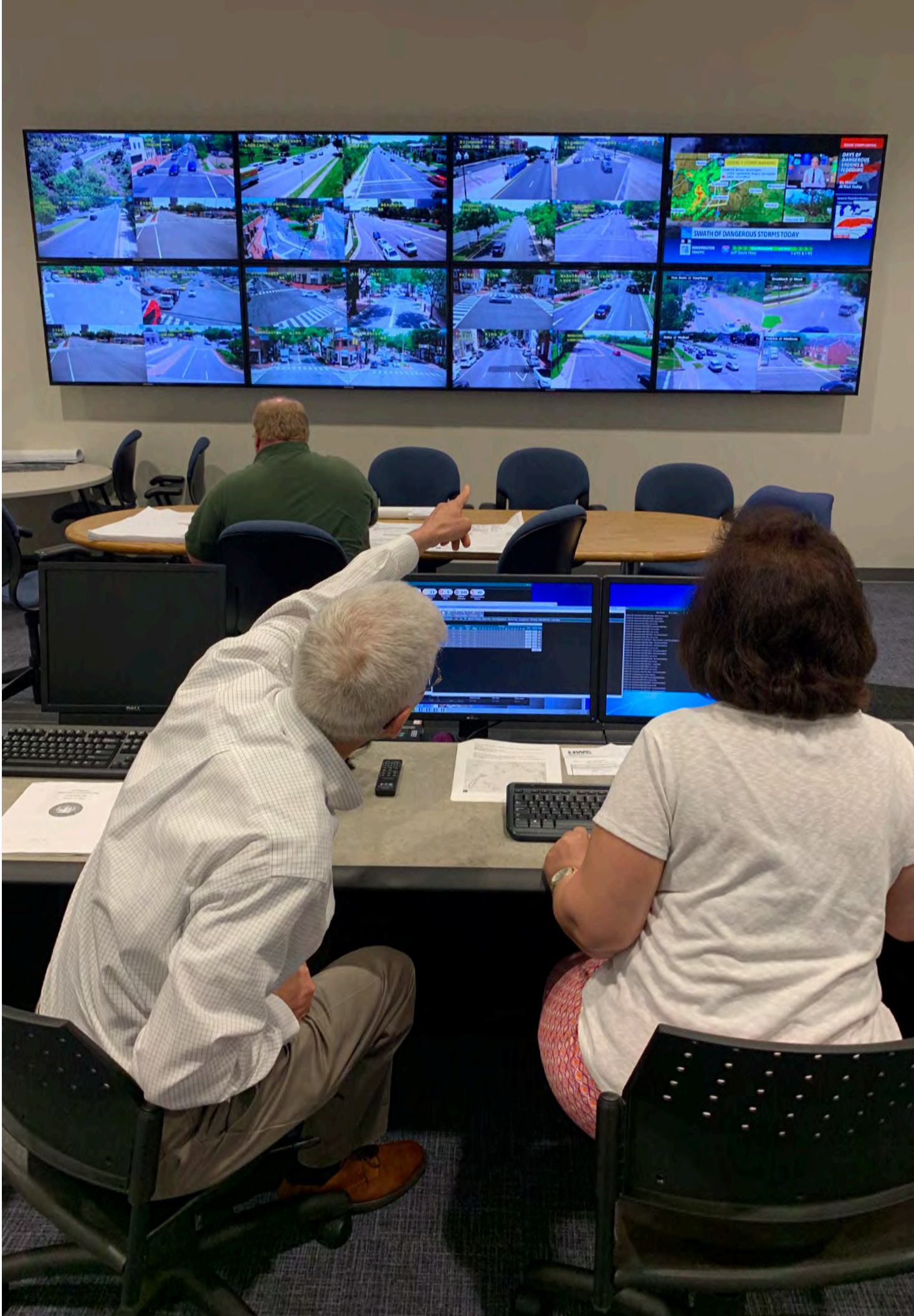
200 of which are 'connected' for central monitoring and control.¹



5

corridors with transit signal priority (TSP) and emergency vehicle preemption (EVP) installed

TSP and EVP allows vehicles such as buses, fire trucks, and other emergency vehicles to get through traffic signals quicker, keeping buses on schedule and improving response times for emergency vehicles.²



1. Smart Mobility Framework Plan, 2018, <https://www.alexandriava.gov/uploadedFiles/tes/info/Smart%20Mobility%20Framework.pdf>.
2. Smart Mobility, City of Alexandria, <https://www.alexandriava.gov/SmartMobility.html>.



Existing Programs, Policies, and Initiatives

Smart Mobility Program

Alexandria’s Smart Mobility program represents an investment in the future of transportation. The City is actively creating infrastructure for future advancements, such as autonomous and connected vehicles, which will make traveling by car, bus, bike, and foot faster, more efficient, and safer than ever. While the City is laying the foundation for innovations that may be 20 years into the future, some are just 5 to 10 years away—and some, such as real-time travel information collection and technologies that help emergency vehicles reach people faster and buses stay on schedule, are already in place. To date, the City has installed more than 145,000 feet of fiber-optic cable, 27 traffic cameras, and 30 smart traffic sensors. These investments ensure that Alexandria is at the forefront of a global movement to make cities as connected, innovative, and smart as possible.



Fiber-Optic Cable

The laying of fiber-optic cable is a key initiative of the City’s intelligent transportation system (ITS) initiative. The resulting fiber-optics network will become a conduit of real-time communications—linking traffic signals, weather stations, and other devices with the Traffic Management Center. These updates will allow the City to better manage and respond to delays and incidents, plan for special events, share critical alerts and data to better inform the public, and support new mobility technologies as they come online.

Passive Optical Networks

The City of Alexandria recently conducted a pilot project using Passive Optical Networks (PON) for traffic signal control. PON is a technology developed by cable companies to connect fiber-optic networks to homes and is much less expensive and easier to maintain than traditional signal control technology. The PON pilot was a success, and the City is deploying this technology through its ITS Integration Phase III and IV projects. Alexandria is one of the first municipalities in the country to use this technology.





Policies

The Smart Mobility chapter policies will guide the City’s decision-making around technology improvements that will make streets safer, more efficient, and prepared for the future.

Policy A: Improve safety and efficiency

Use technology to manage congestion for safe and efficient city streets and protect the character of neighborhoods.

In the past, cities have relied on physical infrastructure such as pavement markings, curbs, and signage to manage their transportation networks. As transportation moves into a new digital age, it is critical to incorporate technology and data into management practices. The City of Alexandria will apply technology to its streets, traffic signals, transit vehicles, and other transportation infrastructure to help make the best and most efficient use of our streets.

Policy B: Prepare for new technology

Plan proactively and flexibly to ensure cost-effective investment in technology that can improve travel choices.

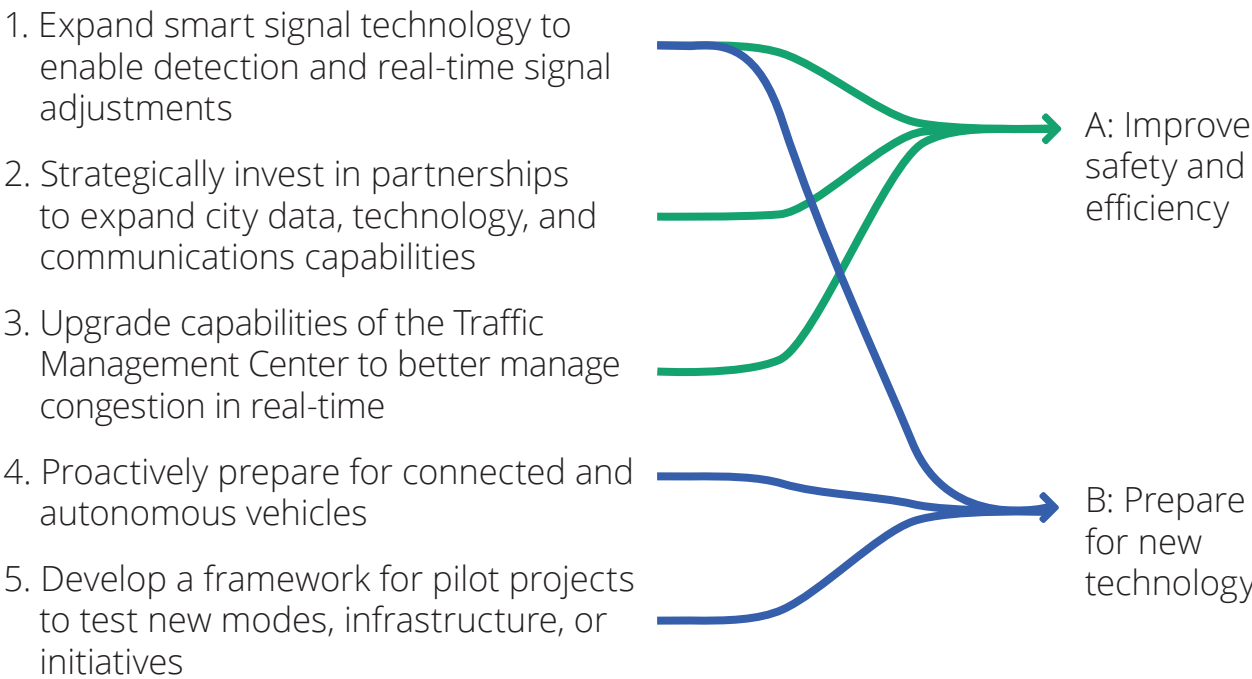
By taking a forward-looking approach, the City of Alexandria will position itself to keep pace with rapidly advancing technology and lay the groundwork for integrating future technologies. Planning flexibly will enable the City to adapt to the latest technologies as they continue to evolve.

Strategies

That support policies

Policies

The City of Alexandria will...



Managing Congestion: A Multifaceted Approach

The policies and strategies outlined in this chapter are part of a **multifaceted approach to addressing the challenge of congestion management** in Alexandria. While all strategies aimed at increasing options—particularly transit—can have a positive impact on congestion, strategies from other chapters that directly aim to reduce and manage traffic include:

- Develop a comprehensive program to reduce speeding and cut-through traffic on local streets (Streets Chapter)
- Ensure new development minimizes negative impacts to the street network (Streets Chapter)
- Work with regional, state, and private sector partners to develop tools to keep traffic on highways and reduce regional cut-through traffic (Streets Chapter)
- Pursue regional approaches to reduce traffic and congestion, particularly during peak times (Supporting Travel Options Chapter)



Strategies

Strategy 1. Expand smart signal technology to enable detection and real-time signal adjustments

Actions

- Integrate transit signal priority (TSP) and emergency vehicle preemption (EVP) into more of the City’s corridors. This involves upgrading the City’s traffic signals as well as the fleet of transit and emergency vehicles with preemption equipment
- Enable the use of vehicle detection at signals for more responsive timing through adaptive signal technology. Duke Street and Van Dorn Street will be the first two corridors to be prioritized for this effort
- Improve data collection through new platforms and technologies to better understand how people use the transportation system and improve decision-making



Addressing the Need

By installing signal technology that can respond and adapt to real-time vehicle location and movement data, the City can meet the need to manage traffic flow and move more people, transit, and emergency vehicles faster and safer while avoiding costly changes to the roadway network.

The City’s **Adaptive Traffic Signal Control project** aims to install smart detection equipment on traffic signals to respond to real-time conditions. This effort will optimize traffic flow, decrease delays, and reduce stops at intersections to help traffic move better on arterial streets and reduce traffic on local streets .

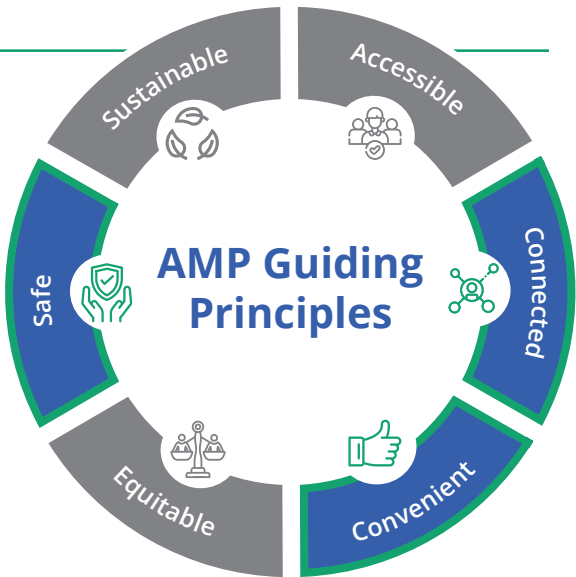
Advancing City Plans and Goals

Smart Mobility Framework Plan

- Install Intelligent/Adaptive and Traffic Responsive Traffic Signal Systems and Install TSP and EVP Equipment on Signals
- Install TSP and EVP Equipment on Buses and Fleet Vehicle

Vision Zero Action Plan

- Improve Data Collection and Evaluation





Strategy 2. Strategically invest in partnerships to expand city data, technology, and communications capabilities

Actions

- Develop a template for evaluating partnership opportunities and coordinating with neighboring jurisdictions, state agencies, and private companies to improve regional collaboration and safe, protected, and transparent data sharing
- Identify potential partnerships to improve information and communication about parking availability, gain a better understanding of how the curb space on City streets is being utilized, obtain anonymized travel pattern data from private mobility operators, and collect and analyze real-time data to inform traffic management and street design
- Utilize platforms and engage in regional coalitions to make transportation data more transparent and improve decision-making

Alexandria has joined the [WAZE for Cities Program](#), providing the City access to **real-time information** on incidents and slow-downs and providing drivers access to **advance notice on construction, crashes, and road closures**.



Addressing the Need

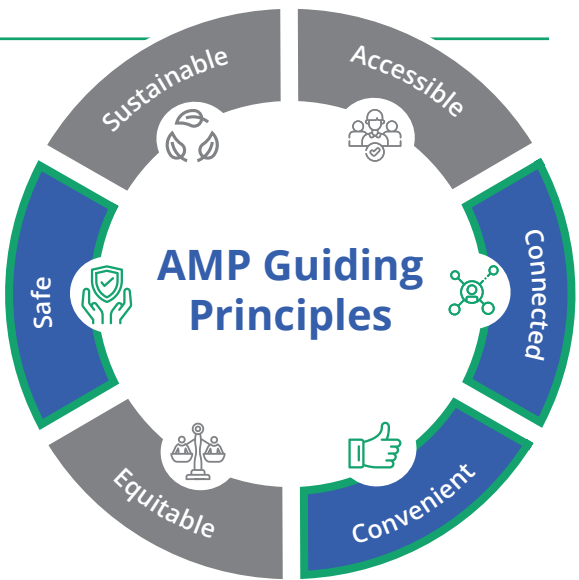
Partners are often needed to help expand a city's data, technology, and communications capabilities. The key to effective partnerships is to assess how transportation needs align across partners and identify specific opportunities for addressing shared goals that benefit all parties. Potential partners can include non-profits, schools or other institutions, nearby jurisdictions, regional bodies, or private companies. Bringing parties to the table that have similar needs or a different perspective can be beneficial in solving problems.

There is an increasingly large amount of data that can be generated from public-private partnerships. Processing and understanding this data requires a shift in thinking, more data analytics capabilities and resources, and increased collaboration.

Advancing City Plans and Goals

Smart Mobility Framework Plan

- Facilitate Data Exchange and Integrate Real-Time Data into Decision-Making Model



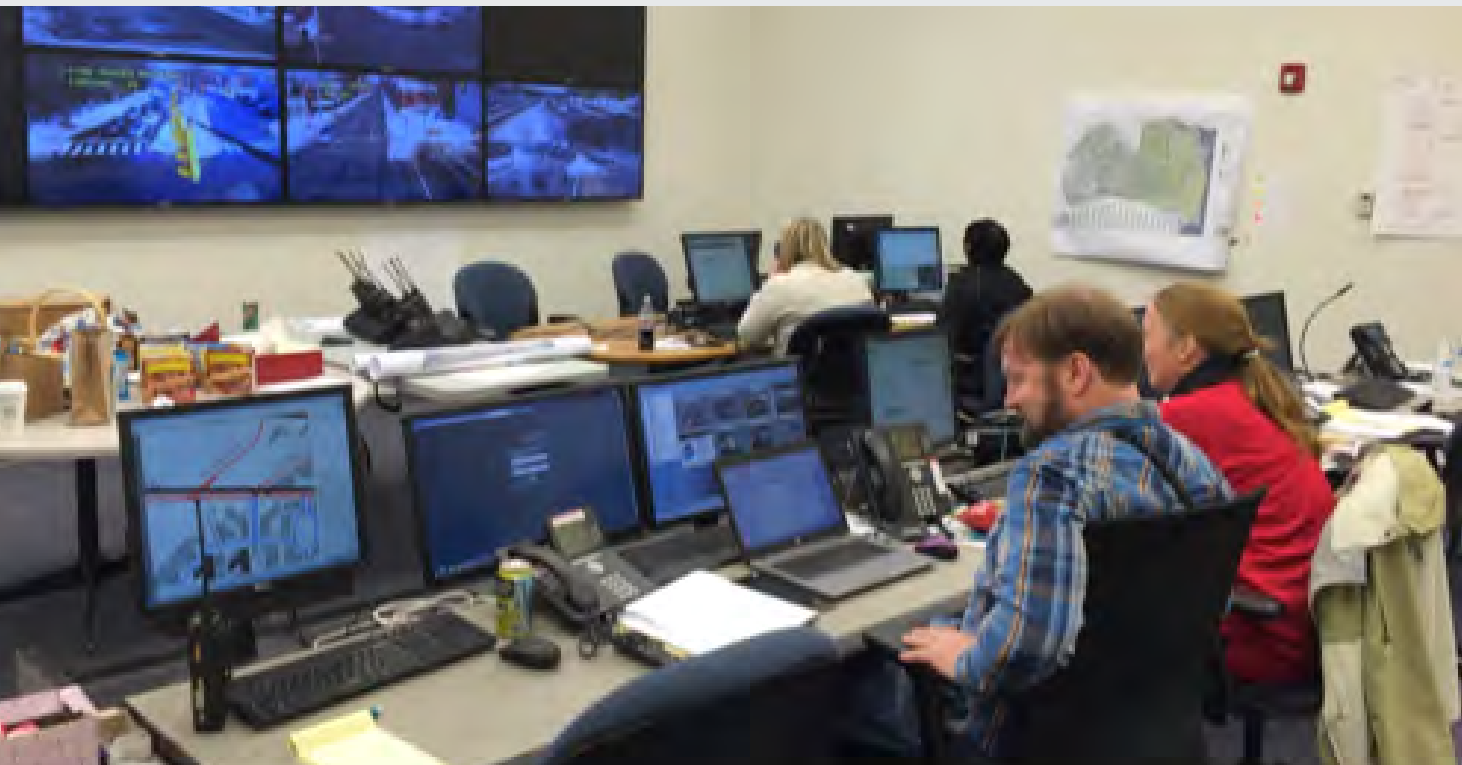
One of the key considerations when gathering and sharing data with private partners is how to ensure the **transparency and privacy** of data sharing processes. People want to know what information about them is being tracked and how it is being used. Keeping data anonymous, developing data management plans and procedures with partners prior to beginning any program, and being clear and deliberate to the user of how their information may or may not be used will benefit all parties involved.



Strategy 3. Upgrade capabilities of the Traffic Management Center to better manage congestion in real-time

Actions

- Equip Alexandria’s Traffic Management Center (TMC) to allow it to manage on-street traffic equipment, monitor overall system status including pavement condition during weather events, configure devices remotely, and analyze data
- Expand coverage of closed-circuit television (CCTV) cameras and improve traffic visualizations for more efficient management of traffic incidents
- Incorporate resiliency and redundancy measures, such as a virtual backups in the event of failures



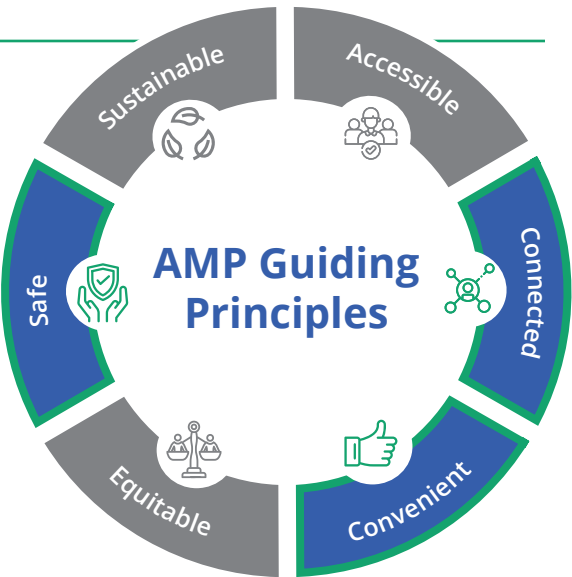
Addressing the Need

As Alexandria grows and technology changes, the TMC will require greater capabilities to control signal timing and phasing, dispatch and track City vehicles, and monitor real-time conditions and incidents. These increased capabilities will allow the City to better manage and respond to delays and incidents, plan for special events, share critical alerts and data to better inform the public, and support new mobility technologies as they come online.

Advancing City Plans and Goals

Smart Mobility Framework Plan

- Upgrade TMC, Facilitate Data Exchange, and Create Automated Interactive Maps
- Increase Coverage of CCTV
- Expand Network of Weather Sensor Stations / Pavement Sensor Technology





Strategy 4. Proactively prepare for connected and autonomous vehicles

Actions

- Consider pilot projects to lay the groundwork for and evaluate the effectiveness of various new technologies
- Prepare for connected vehicles by developing maintenance and infrastructure plans to ensure street readiness
- Prepare for autonomous or self-driving vehicles by developing policies to manage potentially significant increases in miles driven and traffic volumes within the city, including limiting zero-passenger miles and incentivizing shared use
- Ensure that safety is a priority when testing and implementing new technologies



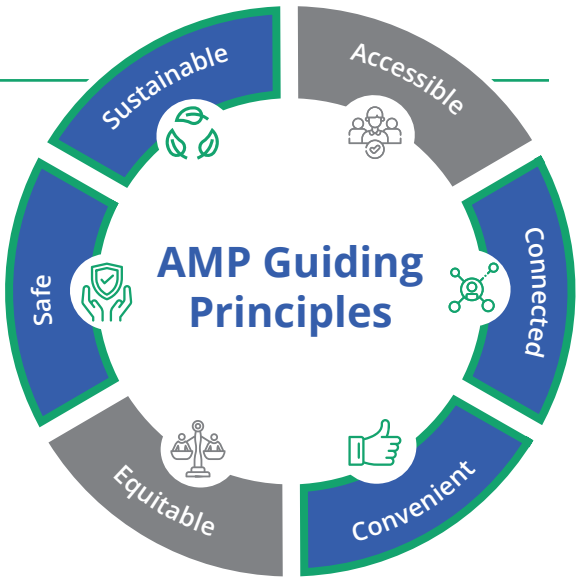
Addressing the Need

Autonomous and connected vehicles have the potential to improve roadway safety, enhance mobility for persons with disabilities, and potentially reduce congestion. Vehicle technology is advancing quickly, and the City needs to be well-positioned to adapt to these changes. It is important to prepare for connected vehicle technology through strategic investments that accommodate vehicle-to-infrastructure and vehicle-to-vehicle communications, which will help travelers find parking spaces, avoid traffic and crashes, navigate hazardous conditions, and more. Proactive policy making and monitoring will be needed to address potential for increased travel and congestion associated with the development and deployment of autonomous vehicles.

Advancing City Plans and Goals

Smart Mobility Program (20-Year Goals)

- Accommodate Self-Driving Vehicles and Connected Vehicles
- Accommodate Vehicle-to-Infrastructure Communications
- Accommodate Vehicle-to-Vehicle Communications





Strategy 5. Develop a framework for pilot projects to test new modes, infrastructure, or initiatives

Actions

- Create standards for appropriate use of pilot projects, including timeframes, public process, evaluation, and opportunities to make adjustments
 - Build upon lessons learned from the Dockless Mobility Pilot as well as national best practices from peer cities
 - Promote a framework that ensures transparency in pilot project execution

A pilot project is a small-scale, preliminary project or test that is conducted to evaluate feasibility, cost, effects, and improvements prior to the implementation of a full-scale or more expensive, resource-intensive project.

To date, transportation and smart mobility pilot projects haven taken many forms in Alexandria, such as Passive Optical Networks (PON) for traffic signal control, testing of shared bicycles and scooters (Dockless Mobility Pilot), conversion of on-street parking to sidewalk extensions (Parklet Pilot Program), and testing zero-emissions hydrogen fuel cell bus technology.



Addressing the Need

Flexible planning and a standard citywide framework are needed as new mobility options and technologies become available to ensure Alexandria is testing them with consistency, transparency, and a focus on equity.

Advancing City Plans and Goals

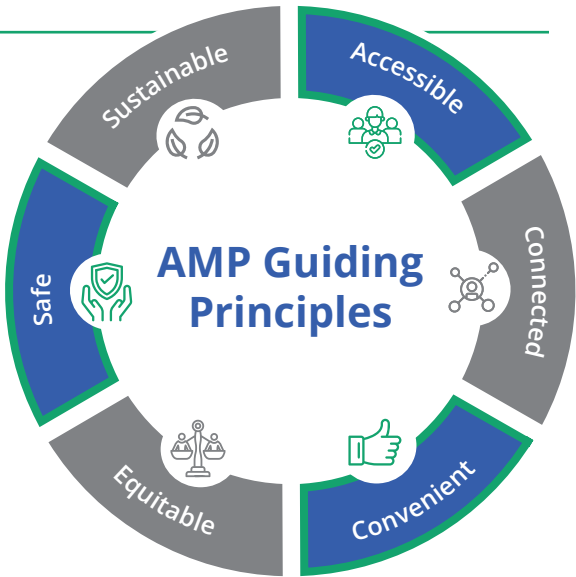
Smart Mobility Framework Plan

- Improve Accessibility, Plan for Emerging and Future Transportation Technologies

Environmental Action Plan 2040

- Adopt Permanent Regulations for Shared Mobility Devices Such as Dockless Bikes, Electric Scooters, and Other Personal Mobility Devices by Fiscal Year 2023

Vision Zero Action Plan



Credit: The Center for Transportation and the Environment (CTE)



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

Number of intersections with smart signal technology

Percent of intersections with smart signal technology* in Equity Emphasis Areas


Positive rating of traffic flow on major streets (Resident Survey) **

Transit travel times on Duke Street, Van Dorn Street, and upper King Street

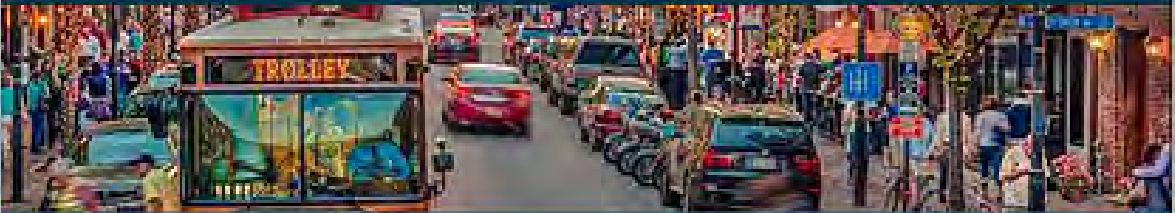
Equity Emphasis Areas were developed by the Metropolitan Washington Council of Governments using tract-level Census data to identify communities that have significant concentrations of low-income and/or minority populations. For more information, see **Appendix I - Monitoring, Reporting, and Key Performance Indicators**.


* Intersections with “smart signal technology” include those with traffic signals that are equipped with transit signal priority, emergency vehicle preemption, and/or activated adaptive signals.
** The Alexandria Resident Survey reports results based on race/ethnicity, income, and age in addition to all residents.

Credit: Redmon Group, Inc.




CITY OFALEXANDRIAEST. 1749




Bus Arrivals


Upcoming Arrivals




10B: HUNTING POINT SOUTH
N Washington St & King St
Next Arrival43 min




DASH AT7: Lee Center
King St and S Royal St
Next Arrival45 min




DASH AT3-4: ParkFairfax - Old Town/City Hall
King St and N Royal St
Next Arrival57 min



10B: BALLSTON NORTH
S Washington St & King St
Scheduled1:51 PM2:21 PM2:50 PM3:20 PM

Capital Bikeshare

King Street Trolley

Market Square / King St & Royal St


BIKES14


DOCKS1


The Trolley operates every 10-15 minutes on this schedule:

Sun - Wed: 11:00 AM - 10:30 PM

Thur - Sat: 10:30 AM - 12:00 mid






King Street-Old Town Metro

Fort Totten
6 min • 18 min

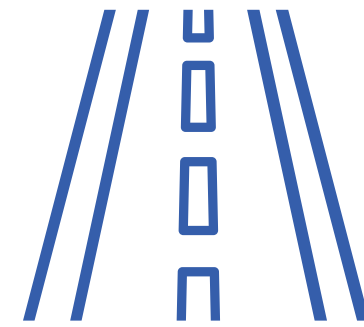
Huntington
1 min • 19 min

Weekday service adjustments for maintenance May 20-24 • blue lin

1:30 PM
Tuesday, May 21, 2019



High: 72°
Low: 55°



Streets

How the City designs and manages its streets.



Introduction

The streets of Alexandria are a limited public resource that must support multiple functions and serve many types of users including people who drive, walk, take transit, bike, or ride scooters. While other chapters address walking, biking, transit, and how technology can make our streets safer and improve traffic flow (smart mobility), a major focus of this chapter is on how the City will manage streets to prioritize local travel, improve safety, reduce congestion and cut-through traffic, and ensure that all users are considered in decisions surrounding our streets. Our streets also serve valuable purposes beyond mobility including social interaction, recreation, festivals, commerce, dining, and others that contribute to vibrant life in Alexandria.


This chapter incorporates two major existing City policies that recognize that streets serve a variety of users and that all need to be accommodated safely: the Complete Streets policy and Design Guidelines—related to how we design our streets for all users—and the Vision Zero Policy and associated ***Vision Zero Action Plan***, which takes a multifaceted, data-driven approach to eliminating serious travel-related injuries and fatalities.

This chapter does not duplicate these efforts, but attempts to advance them, while seeking to address concerns related to excessive traffic on local streets.



Key Context


 **37**
average number of people killed or seriously injured each year using Alexandria’s streets¹

 **42%**
of traffic on arterial streets in central Alexandria is just passing through
During peak travel periods, major streets experience their greatest amount of delay resulting in driver frustration and a diversion of traffic to local streets.

 **560 miles**
of travel lanes

2,300
intersections

320 miles
of sidewalks²

 **34%**
of Alexandrians have a positive view of traffic flow in the city
In the 2020 Resident Survey, respondents gave lower marks to traffic flow, car travel, overall ease of travel, public parking, and traffic enforcement compared to 2018. The rating for traffic flow is the lowest ranking since the survey began in 2016.³



1. Vision Zero Action Plan, 2017.

2. Miles of sidewalks in the public right-of-way. Source: City data.

3. Alexandria Resident Survey, 2020.



Existing Programs, Policies, and Initiatives

Several of the related City plans and programs introduced in the Overview chapter contain targets and policies that relate to streets. The goals and targets in the City Strategic Plan call for continued emphasis on multimodal street design to improve ease and safety of getting around by all modes.

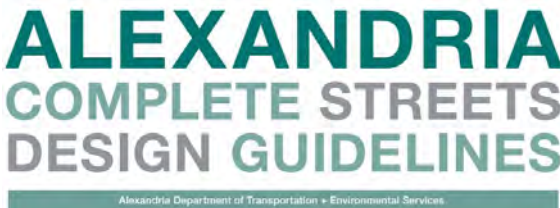
The Complete Streets Policy and the Vision Zero Policy and Action Plan responded to needs identified in the 2008 Transportation Master Plan and are now integrated into the Alexandria Mobility Plan (AMP).

Complete Streets Policy and Design Guidelines



The 2011 Complete Streets Policy directed planners, engineers, and developers to evaluate streets for safety and consider design elements and operational practices to enable safe access for all users, regardless of age, ability, or mode of transportation.

In 2016, the Alexandria Complete Streets Design Guidelines were published. The guidelines are a resource for City departments, design professionals, and developers, and communicate expectations regarding the design of the city's public and private streets.



Vision Zero Policy and Action Plan

Alexandria established a Vision Zero policy in 2017 with the goal of zero traffic deaths and serious injuries by 2028. By establishing the policy, the City recognizes that traffic deaths and serious injuries are preventable through proper engineering, enforcement, evaluation, and education.

The 2018 Vision Zero Action Plan is updated every year and identifies high-crash intersections that are priorities for safety improvements. The Action Plan lists the steps the City will take to improve data collection and evaluation; enhance City processes and collaboration; build safe streets for everyone; and promote a culture of safety.

Street Maintenance

Repaving Program

City streets are resurfaced based on their physical condition. When streets are planned for resurfacing, City staff work with the community to identify priority locations to improve safety, accessibility, and mobility by making changes such as upgrading curb ramps, adding missing crosswalks, upgrading high-priority crossings, and repairing sidewalks.

Street Cleaning and Snow Removal Program

The City's street cleaning program is responsible for street sweeping, leaf collection, and snow removal. This program maintains clean and accessible streets for all street users based on seasonal changes.





Policies

The Streets chapter policies will guide the City’s decision-making around programs and improvements that will reduce and mitigate the effects of cut-through traffic, improve safety, and leverage technology on city streets.

Policy A: Protect neighborhoods from cut-through traffic

Reduce cut-through traffic burdening City neighborhoods.

The City will pursue a multifaceted approach to reduce neighborhood cut-through traffic that burdens Alexandrians who live on, work on, or use local city streets. Through this pursuit, the City will work to balance the needs of local traffic and regional connectivity.

Policy B: Achieve Vision Zero

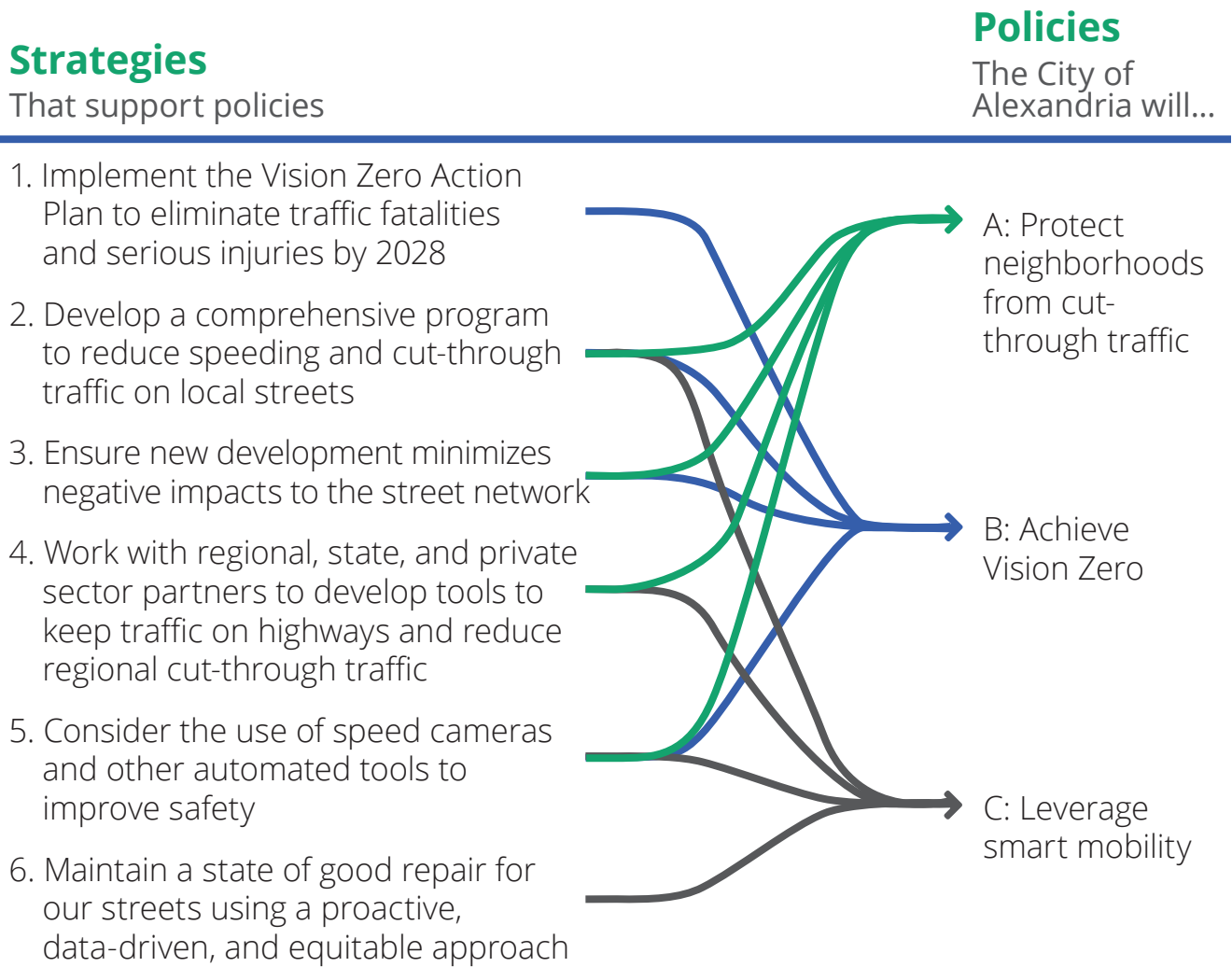
Use data to eliminate traffic-related deaths and serious injuries by 2028.

An average of 37 people in Alexandria are killed or seriously injured each year using the City’s streets.⁴ These injuries and deaths are preventable. The City will prioritize the use of data—particularly crash, crash risk, and traffic safety data—in decision-making to eliminate serious injuries and fatalities. A proactive, data-driven approach will provide transparency and equity when developing priorities, processes, and making decisions.

Policy C: Leverage smart mobility

Recognizing that driving is important in the City, use smart mobility to manage congestion and neighborhood safety.

Through the application of Alexandria’s Smart Mobility Framework Plan, the City will apply technology to streets and leverage data to better manage traffic, enhance safety, and increase its understanding of how the street network functions to improve quality of life in Alexandria.



4. Vision Zero Action Plan, 2017.



Strategies

Strategy 1. Implement the Vision Zero Action Plan to eliminate traffic fatalities and serious injuries by 2028

Actions

- Develop annual work plan priorities for promoting a culture of safety, building safer streets, improving data collection, and enhancing City processes and collaboration
- Prioritize high crash intersections and corridors for improvements, especially those in Equity Emphasis Areas
- Evaluate crash data for each project to enhance data-driven decision-making
- Apply national best practices as appropriate



Addressing the Need

Between 2016 and 2020, 21 people were killed and 144 people were seriously injured while traveling on Alexandria’s streets.

In addition to the life-altering impacts of these crashes, the perceived danger of being involved in a crash keeps many people from walking and biking, which limits the City’s ability to achieve a wide range of goals including reducing traffic congestion and greenhouse gas emissions.

61% of respondents would ride bikes more and 57% would walk more if they felt safer from traffic.⁶

More broadly, crashes contribute to travel delays and negatively affect the reliability of the transportation system.

Advancing City Plans and Goals

Age Friendly Plan for a Livable Community

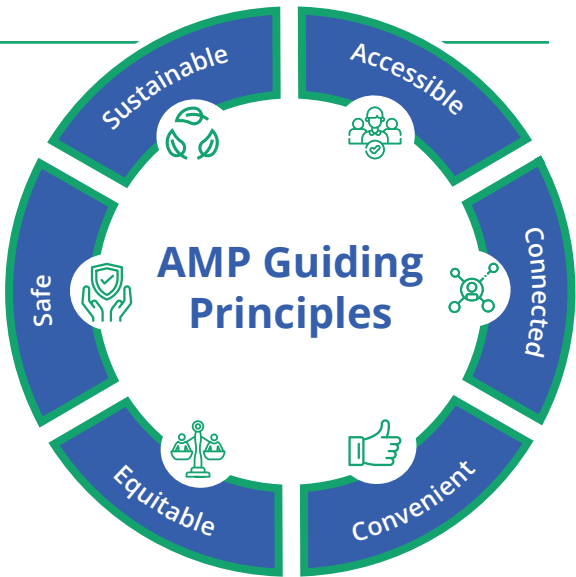
- Safe Walking, Biking, and Driving

Environmental Action Plan 2040

Vision Zero Action Plan

- Build Safe Streets for Everyone

Complete Streets Policy and Design Guidelines



6. Resident Transportation Needs Survey, 2017.



Strategy 2. Develop a comprehensive program to reduce speeding and cut-through traffic on local streets

Actions

- Outline procedures for addressing and monitoring cut-through traffic, traffic congestion, and speeding
- Develop criteria and list of data needs tailored to each traffic issue
- Identify specific design solutions appropriate for the street type and location to encourage regional traffic to stay on major thoroughfares



Addressing the Need

Congestion and cut-through traffic are significant issues in Alexandria. During outreach conducted in the summer and fall of 2019, 71 percent of respondents cited congestion as the biggest challenge for the future of mobility in Alexandria.

Forty-two percent of traffic in central Alexandria consists of trips that start and end outside of Alexandria.⁴ Less regional traffic on local streets may improve safety and the quality of life for residents and can help local traffic move more efficiently.

Advancing City Plans and Goals

City Strategic Plan

- Ease of Getting to Places

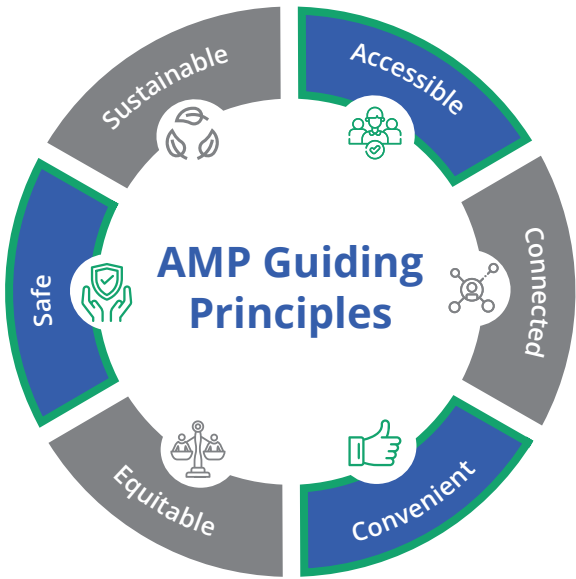
Complete Streets Policy and Design Guidelines

Smart Mobility Framework Plan

- Traffic Management

Vision Zero Action Plan

- Build Safe Streets for Everyone



4. Central Alexandria Traffic Study, 2017.



Strategy 3. Ensure new development minimizes negative impacts to the street network

Actions

- Update guidance for developers to better reflect City goals through traffic impact studies and best practices from around the country
- Require improved data collection and reporting after implementation
- Ensure proper consideration of all users through improved methods for measuring service levels for all modes and safety impacts on our transportation network
- Encourage study methodologies and mitigation measures such as transportation demand management programs and street design changes that place higher priority on local trips rather than regional trips to help reduce cut-through traffic



Addressing the Need

New developments have the potential to improve the areas around them, bringing more transit and safer intersections. However, they also have the potential to add more traffic and congestion.

Current traffic study practices for new developments focus on vehicle delay (expressed by “Level of Service”) but fail to fully consider impacts on other street users.

Advancing City Plans and Goals

Age Friendly Plan for a Livable Community

- Safe Walking, Biking, and Driving

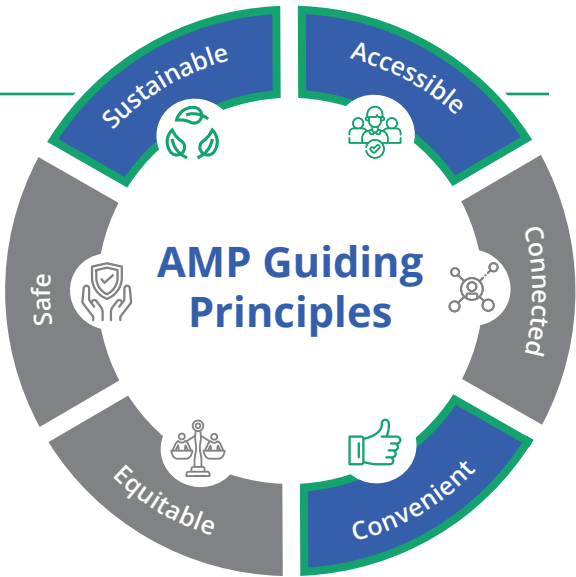
Complete Streets Policy and Design Guidelines

Environmental Action Plan 2040

- Reduce VMT, Green Building

Vision Zero Action Plan

- Enhance City Processes and Collaboration
- Build Safe Streets for Everyone





Strategy 4. Work with regional, state, and private sector partners to develop tools to keep traffic on highways and reduce regional cut-through traffic

Actions

- Coordinate with other jurisdictions and regional bodies to evaluate pricing strategies and other policies that promote highway travel versus travel on local streets
- Explore signal timing as a tool to keep regional traffic on highways
- Utilize variable messaging systems to use real-time travel comparisons to promote high-occupancy toll (HOT) lanes



Addressing the Need

Congestion and cut-through traffic are significant issues in Alexandria and many jurisdictions in the region. During outreach conducted in the summer and fall of 2019, 71 percent of respondents cited congestion as the biggest challenge for the future of mobility in Alexandria.

Forty-two percent of traffic in central Alexandria consists of trips that start and end outside of Alexandria.⁵ Coordination of efforts and resources with regional, state, and private sector partners is needed to address regional cut-through traffic.

Alexandria’s transportation network is linked to a complex regional network with multiple jurisdictions, transit operators, and statewide entities, making close coordination critical.

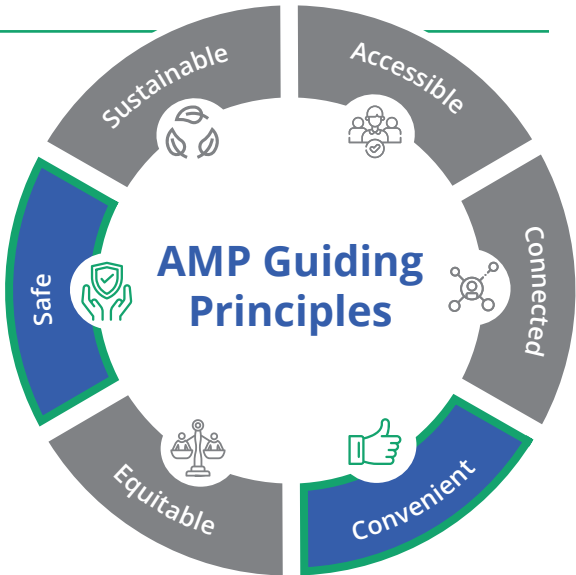
Advancing City Plans and Goals

Smart Mobility Framework Plan

- Optimize Traffic Flow, Improve Travel Times, Reduce Congestion

City Strategic Plan

- Distinctive and Vibrant Neighborhoods, Multimodal Transportation



5. Central Alexandria Traffic Study, 2017.



Strategy 5. Consider the use of speed cameras and other automated tools to improve safety

Actions

- Consider speed cameras in school zones, enabled in 2020
- If data demonstrates a safety benefit with the use of automated enforcement tools, explore legislative measures to expand the City’s ability to place speed cameras in areas where they can most improve safety
- Partner with the Alexandria Police Department to enforce traffic laws to protect vulnerable street users and promote equity

Automated Enforcement Using Cameras. Legislation passed in the summer of 2020 allows state and local police in Virginia to use speed cameras near highway construction zones and school zones. Alexandria is currently studying where to implement speed cameras.



Addressing the Need

Decades of unequal transportation investments and exclusionist planning policies mean that vulnerable populations are more likely to live on or near poorly designed roadways where crashes are more likely to occur, increasing their likelihood of being involved in a crash.

Human bias in traffic enforcement has resulted in the deaths of Black, Indigenous, and people of color during routine traffic stops. There is a need to balance these safety disparities with a better understanding of human bias in enforcement. Automated enforcement is one strategy to help reduce this human bias.

In 2020, the League of American Bicyclists and Safe Routes Partnership, two prominent organizations in the field of traffic safety, removed “enforcement” from their program frameworks. The League found that **“enforcement as a stand-alone traffic safety tactic is not particularly effective in achieving long-term safety outcomes,”** and supports the use of **alternatives to police-led traffic enforcement.** Automated enforcement is one alternative, along with street design improvements and educational diversion programs.

Advancing City Plans and Goals

City Strategic Plan

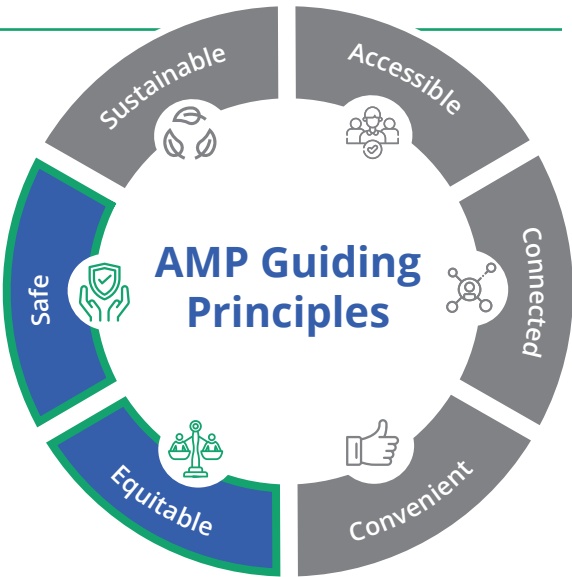
- Inclusive City, Safe and Resilient Community

Vision Zero Action Plan

- Improve Data Collection and Evaluation, Promote a Culture of Safety

ALL Alexandria

- Target equitable enforcement efforts



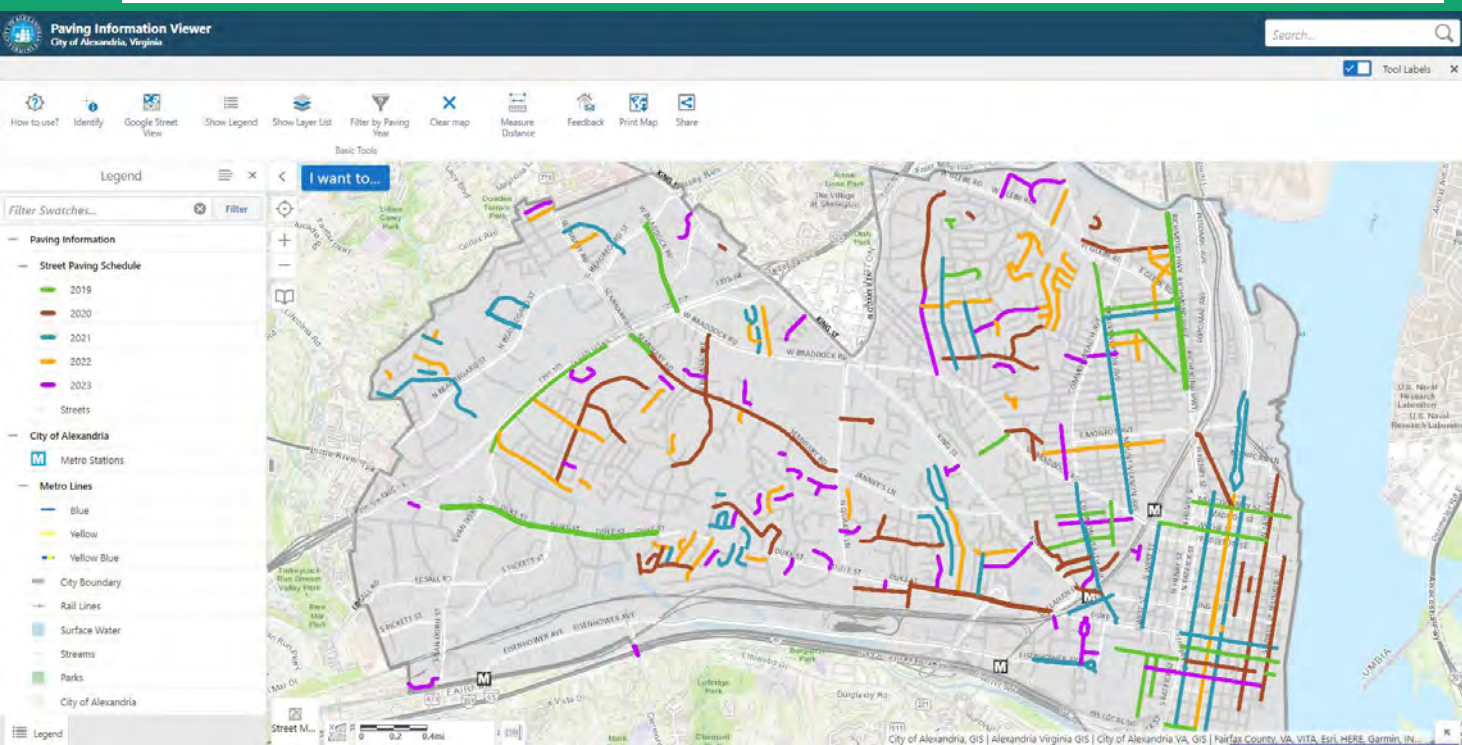


Strategy 6. Maintain a state of good repair for our streets using a proactive, data-driven, and equitable approach

Actions

- Seek to maintain our transportation assets to achieve a state of good repair in a cost-effective and minimally disruptive manner by coordinating utility work, fiber installation, and other street improvements when possible
- Use state and federal required methodologies based on pavement and bridge condition to ensure continued funding and equitable distribution of resources
- When local funding is available for additional service requests, ensure they are distributed evenly throughout the city

State of good repair refers to the maintenance, replacement, and rehabilitation of assets. City staff identify priority locations to **improve safety, accessibility, and mobility** by making changes such as **repaving roads, upgrading curb ramps, adding missing crosswalks, and repairing sidewalks.**



Addressing the Need

Streets that are not maintained can be safety hazards, barriers for persons with disabilities, or cause more long-standing damage. It is important to avoid skewing repairs to just where there are requests, but incorporating where data shows it is required. Continuous repair and rehabilitation of city streets and infrastructure will increase safety and accessibility while benefiting the user experience along city streets.

The City of Alexandria's **Street Maintenance and Repair program** aims to repair roads, sidewalks, curbs and gutters, and pavement areas in the public right-of-way. The City, with financial support from the Virginia Department of Transportation State of Good Repair program, manages its pavement by **regularly assessing condition, analyzing budget needs, performing routine maintenance, and undertaking minor and major paving projects.**

Advancing City Plans and Goals

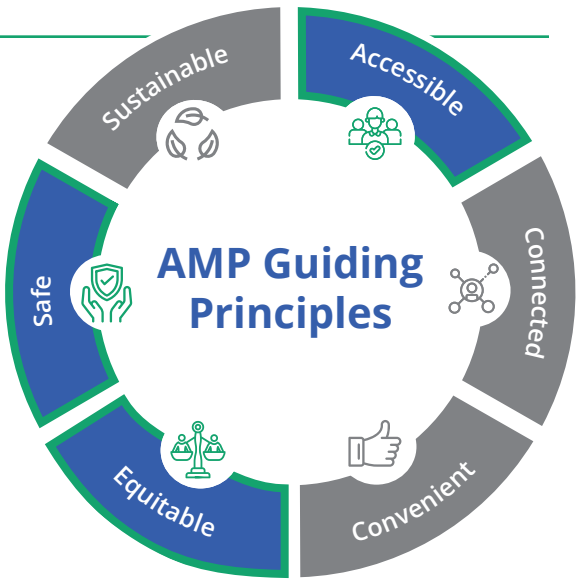
ALL Alexandria

City Strategic Plan

- Multimodal Transportation
- Distinctive and Vibrant Neighborhoods

Vision Zero Action Plan

- Improve Data Collection and Evaluation
- Build Safe Streets for Everyone



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

Number of fatal and serious crashes

Average Pavement Condition Rating (Pavement Condition Index)

Percent of Transportation Management Plans evaluated that meet mode split targets

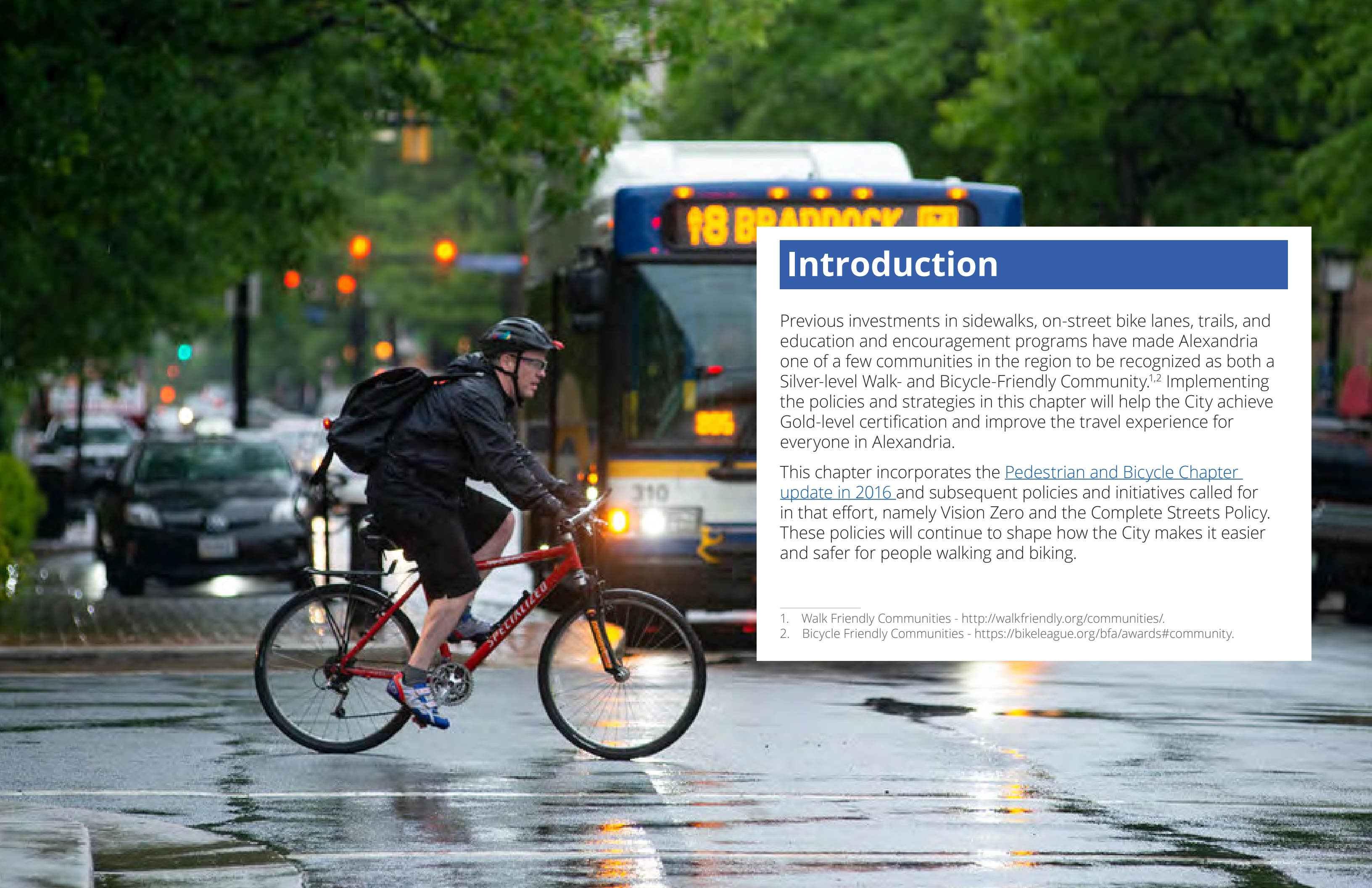


Credit: Evan Michio for City of Alexandria



Pedestrian and Bicycle

How the City is making it easier and safer to walk and bike.



Introduction

Previous investments in sidewalks, on-street bike lanes, trails, and education and encouragement programs have made Alexandria one of a few communities in the region to be recognized as both a Silver-level Walk- and Bicycle-Friendly Community.^{1,2} Implementing the policies and strategies in this chapter will help the City achieve Gold-level certification and improve the travel experience for everyone in Alexandria.

This chapter incorporates the [Pedestrian and Bicycle Chapter update in 2016](#) and subsequent policies and initiatives called for in that effort, namely Vision Zero and the Complete Streets Policy. These policies will continue to shape how the City makes it easier and safer for people walking and biking.

1. Walk Friendly Communities - <http://walkfriendly.org/communities/>.

2. Bicycle Friendly Communities - <https://bikeleague.org/bfa/awards#community>.



Key Context

 **59%**
of trips in Alexandria are less than 3 miles

Short trips like these are amenable to biking, walking, or transit when safe, convenient, and accessible routes are provided.³

 **5%**
of Alexandria residents walk or bike to work
This is higher than the statewide average of 3%, and higher than Arlington’s 4%; however, it is lower than Washington, DC’s 18%.⁴

Walking is the third most used travel mode on a typical weekday after personal car use and travel by Metrorail.⁵ **“Safe and comfortable places to walk and bike”** was one of the top four priorities cited during public engagement in fall 2019.⁶

3. 2017-2018 Regional Travel Survey, National Capital Region Transportation Planning Board, Metropolitan Washington Council of Governments
4. American Community Survey 2019 5-Year Estimates
5. 2017-2018 Regional Travel Survey, National Capital Region Transportation Planning Board, Metropolitan Washington Council of Governments
6. Alexandria Mobility Plan Priority Feedback, 2020



Over 50%
Alexandria residents that walked or biked for transportation in the past month

An even greater percentage walked, ran, or biked for recreation or fitness.⁷

Perceptions of walking vary by community. Public comments indicated that Old Town “revolves around walking,” while in Arlandria the City “does not do much to support walking.”



320 miles of sidewalks
21 miles of on-street bike lanes
23 miles of paved trails

The paved trails provide full separation from motor vehicles and serve transportation and recreational purposes for a wide range of users of all ages and abilities.



37
Capital Bikeshare stations in 2021
with plans to add several more in the next few years.



52 pedestrian-involved crashes in 2020⁸
10 bicycle-involved crashes in 2020⁸
Safety for people walking and bicycling needs improvement.

7. Alexandria Resident Transportation Needs Assessment Survey, 2017.
8. Vision Zero Performance Dashboard.



Existing Programs, Policies, and Initiatives

Complete Streets

Alexandria's Complete Streets Program works to implement the City's priority pedestrian and bicycle projects as identified in the 2008 Transportation Master Plan and Pedestrian and Bicycle Chapter update in 2016 and in accordance with the Vision Zero policy and Action Plan.

Repaving Program

City streets are resurfaced based on their condition rating. When streets are resurfaced, City staff identify areas where planned portions of the pedestrian and bicycle network also can be implemented by upgrading curb ramps, adding missing crosswalks, installing bike lanes, repairing sidewalks, and more to improve conditions for users of all ages and abilities.

Safe Routes to School

Alexandria City Public Schools employs a Safe Routes to School (SRTS) Coordinator to facilitate safety programs and organize walking and biking events at all elementary and middle schools. Additionally, the Department of Transportation and Environmental Services has a dedicated SRTS infrastructure planning and construction program as part of the Complete Streets Program.

Multi-Use Trails

Alexandria's trail system features more than 20 miles of paved, off-street, multi-use trails throughout the city, offering safe and enjoyable connections to key destinations for users of all ages and abilities. The City continues to expand the trail network by adding new trails and extending existing trails.

Bicycle Parking

The City of Alexandria is working to increase the number of both short- and long-term bicycle parking spaces. Bicycle parking is usually installed at the request of citizens or businesses. Additionally, the City requires bicycle parking as new development occurs in the city.

Shared Mobility

Capital Bikeshare, the regional bikeshare program, is expanding rapidly into the City of Alexandria. With 37 stations in Alexandria and more on the way, Capital Bikeshare is a convenient way of traveling by bike that can be used by residents and visitors alike. The City also has launched a pilot program to allow private companies to operate shared, dockless bicycles and scooters available for rent.

Walking and bicycling infrastructure benefit more than just those who walk or bike. For example, new mobility options, such as bikeshare or scooters, benefit from bicycle infrastructure on the road. Sidewalks that are Americans with Disabilities Act (ADA) accessible—have smooth surfaces, adequate width, and curb ramps on all corners—help not only those using mobility devices such as wheelchairs, but also those using strollers and wheeled luggage.





Policies

The Pedestrian and Bicycle chapter policies will guide the City’s decision-making around building out a citywide network of safe and connected sidewalks, bike lanes, and trails.

Policy A: Prioritize Safety

Focus on vulnerable street user crashes to help achieve Vision Zero.

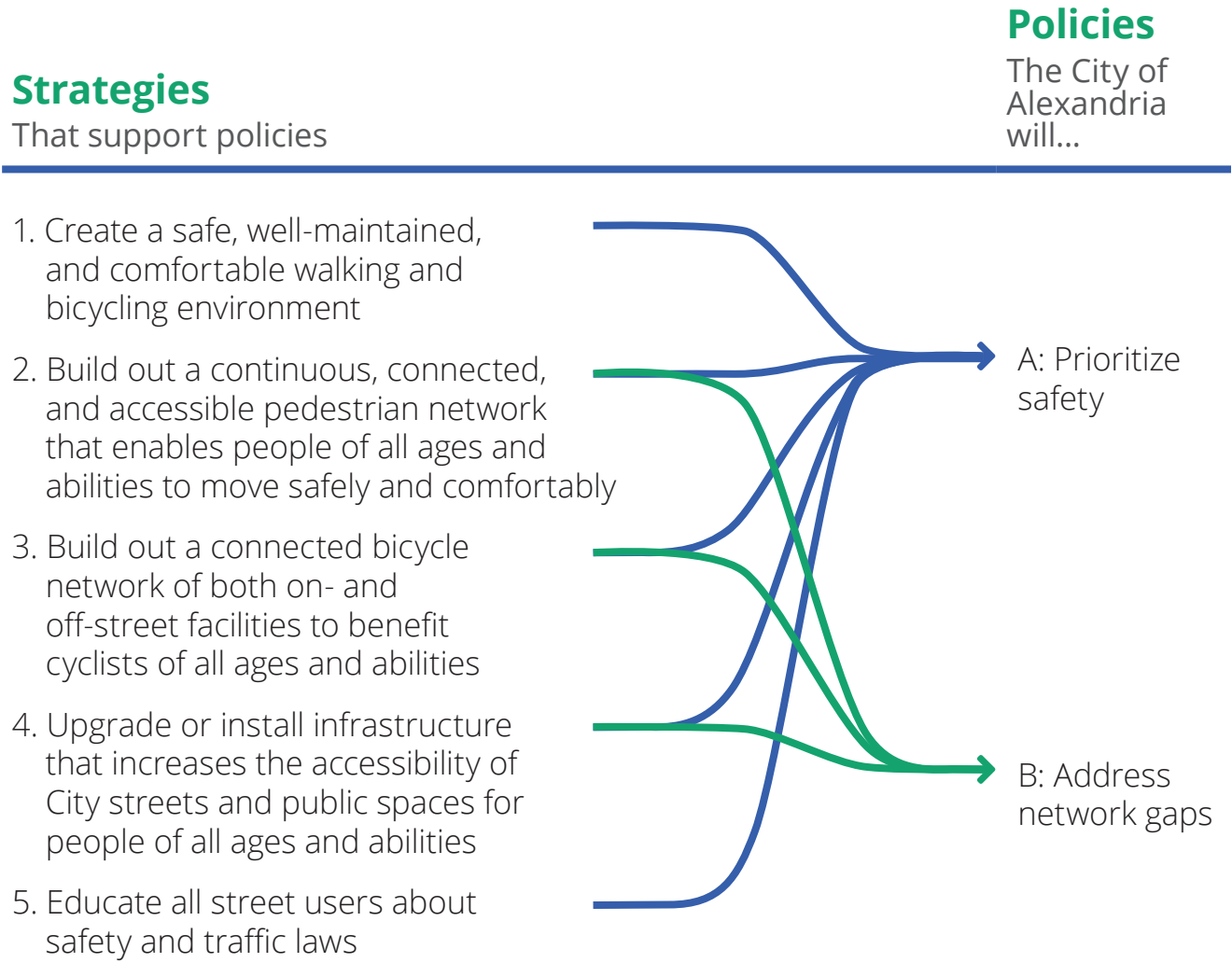
The City will focus on crashes involving vulnerable street users, including those who walk and bike, as a means of achieving Vision Zero.



Policy B: Address Network Gaps

Complete pedestrian and bicycle networks equitably and cost-effectively.

The City will complete the bicycle and pedestrian networks by pursuing funding for priority projects, accelerating work in underserved areas, and taking advantage of opportunities to make improvements through the repaving program.





Strategies

Strategy 1. Create a safe, well-maintained, and comfortable walking and bicycling environment

Actions

- Improve signage and wayfinding for people biking and walking
- Invest in ongoing maintenance and repair of the pedestrian and bicycle network
- Conduct construction inspections, address priority lighting deficiencies, and ensure timely snow plowing to ensure infrastructure is accessible at all times
- Prioritize safe access to transit, schools, senior centers, recreation centers, and improvements at high-crash locations



Addressing the Need

There is an increasing demand for safe and comfortable walking and bicycling facilities, as reflected in the Resident Transportation Needs survey the City conducts every two years. In 2016, 51 percent of the respondents indicated they would walk or bike more if there were more off-street walking, biking, or multi-use paths. In 2018, this increased to 66 percent of respondents.⁹

The safety of people walking and biking is a serious concern. From 2016 to 2019, pedestrian-involved crashes accounted for 30 percent of the serious injury and fatal crashes in the City of Alexandria. Nine pedestrians were killed and eight bicyclists were seriously injured during the same time frame.¹⁰

Electric shared bikes were introduced in Alexandria in 2019, and can help overcome a primary barrier to biking in the city—its hilly topography. The increasing popularity of e-bikes, both shared and personal, is likely help grow the number of cyclists in Alexandria, making improved facilities even more essential.

Advancing City Plans and Goals

Age Friendly Plan For A Livable Community

- Pedestrian-Safe Streets

Environmental Action Plan 2040

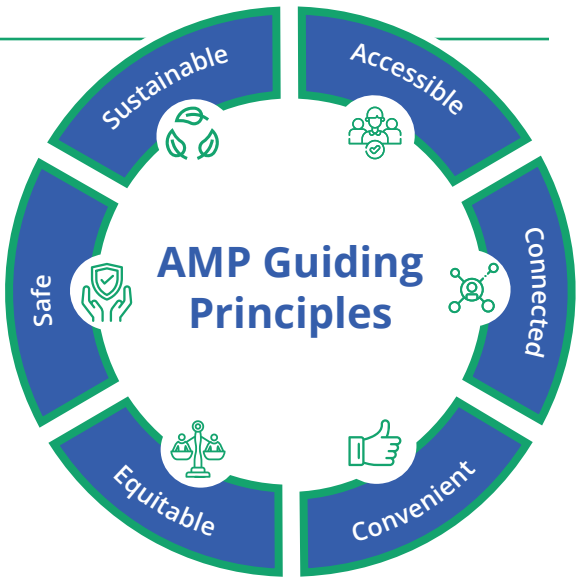
- Prioritize Low-Carbon Mobility Options
- Reduce Vehicle Miles Traveled (VMT)

Vision Zero Action Plan

- Build Safe Streets for Everyone

Complete Streets Policy and Design Guidelines

- Accommodate All Modes of Travel



9. Alexandria Resident Transportation Needs Assessment Survey, 2017.

10. Vision Zero Performance Dashboard.



Strategy 2. Build out a continuous, connected, and accessible pedestrian network that enables people of all ages and abilities to move safely and comfortably

Actions

- Make existing sidewalks and intersections safer and more comfortable, with a focus on high-crash locations per the Vision Zero Action Plan
- Continue addressing priority sidewalks to ensure sidewalks are present on both sides of all major streets and on at least one side of all other streets
- Reduce conflicts between modes by implementing treatments consistent with national best practices that are context appropriate, including increasing the number and quality of off-street connections and intersection improvements
- Improve off-street pedestrian access through neighborhoods, new developments, and across major barriers such as freeways or rail corridors



Addressing the Need

While nearly all Alexandria residents have easy access to sidewalks in their neighborhoods, 10 percent live within 330 feet of a sidewalk gap. There are sidewalk gaps present within 330 feet of three Alexandria City Public Schools.

Sidewalks are essential for transit access and can support a number of commercial and social activities as well, such as outdoor dining and sidewalk vendors.

Advancing City Plans and Goals

Age Friendly Plan For A Livable Community

- Pedestrian-Safe Streets

Environmental Action Plan 2040

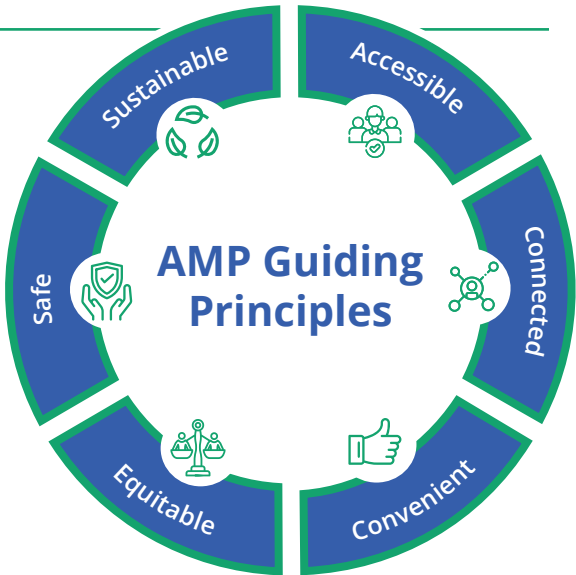
- Prioritize Low-Carbon Mobility Options
- Reduce Vehicle Miles Traveled (VMT)

Vision Zero Action Plan

- Build Safe Streets for Everyone

Complete Streets Policy and Design Guidelines

- Accommodate All Modes of Travel





Strategy 3. Build out a connected bicycle network of both on- and off-street facilities and shared mobility devices to benefit riders of all ages and abilities

Actions

- Expand bikeshare and availability of parking for bikes and micromobility devices such as shared/electric bikes and scooters
- Study building upon the planned network of bicycle routes to develop a citywide network of low-stress bicycle routes that are appealing to adults and children who are interested in riding but concerned about safety
- Integrate the off-street trail system with the on-street bicycle network by providing wayfinding and well-designed transitions at trail access points
- Build out the planned bicycle network with both on- and off-street facilities to provide safe connections within and between neighborhoods and to key destinations



Addressing the Need

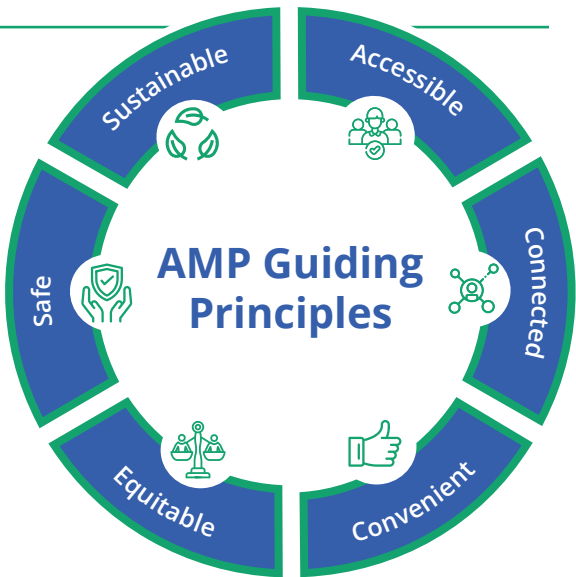
Currently, 54 percent of the population lives within 1/8 mile of a bike lane or paved trail; however, the network of these types of facilities is not continuous. For those wanting to bike to work, 62 percent of jobs in the city are within 1/8 mile of a bike lane or paved trail.

To improve the bike network for people of all ages and abilities, the City must build more off-street trails and on-street bike lanes with more separation from motor vehicles. There also is a lack of public bike parking in many commercial, mixed-use, and higher-density residential areas. These facilities also can be used by scooters and other types of micromobility vehicles.

Shared micromobility (Capital Bikeshare, Lime, Bird, etc.) provides users with on-demand access to bicycles, mopeds, and/or scooters at a variety of pick-up and drop-off locations. More people also are purchasing their own small mobility devices to use on a regular basis, increasing the demand for safe places to ride. **About two-thirds of Alexandrians indicated that they would walk and/or bike more if there were more off-street multi-use paths or trails.**¹¹

Advancing City Plans and Goals

- Environmental Action Plan 2040**
- Prioritize Low-Carbon Mobility Options
 - Reduce Vehicle Miles Traveled (VMT)
- Vision Zero Action Plan**
- Build Safe Streets for Everyone
- Age Friendly Plan For A Livable Community**
- Safe Walking, Biking, and Driving
- Complete Streets Policy and Design Guidelines**
- Accommodate All Modes of Travel



11. Alexandria Resident Transportation Needs Assessment Survey, 2017.



Strategy 4. Upgrade or install infrastructure that increases the accessibility of City streets and public spaces for people of all ages and abilities

Actions

- When repaving streets, upgrade corners and add high-visibility crosswalks where appropriate with accessible, directional ramps that meet, to the maximum extent possible, current ADA standards
- Upgrade or install new audible pedestrian signal push buttons at existing and new pedestrian signals to enhance access and safety for persons with disabilities
- Address tripping hazards on sidewalks and pedestrian areas as quickly as possible through routine maintenance projects and in response to service requests
- Prioritize safe and accessible access to transit stops, schools, and parks
- Install appropriate street lighting for those walking and bicycling, with consideration to areas with more people of color or low income residents



Addressing the Need

According to the U.S. Census, 11 percent of Alexandria’s population is aged 65 and older, 5 percent of the population under the age of 65 lives with a disability, and 17 percent of the population under the age of 16 lives with a disability.¹² Providing safe, comfortable, and accessible walking and biking routes is particularly important for members of these groups and others who may not or cannot drive a personal vehicle. These routes provide opportunities for physical activity and independent travel.

Advancing City Plans and Goals

Age Friendly Plan For A Livable Community

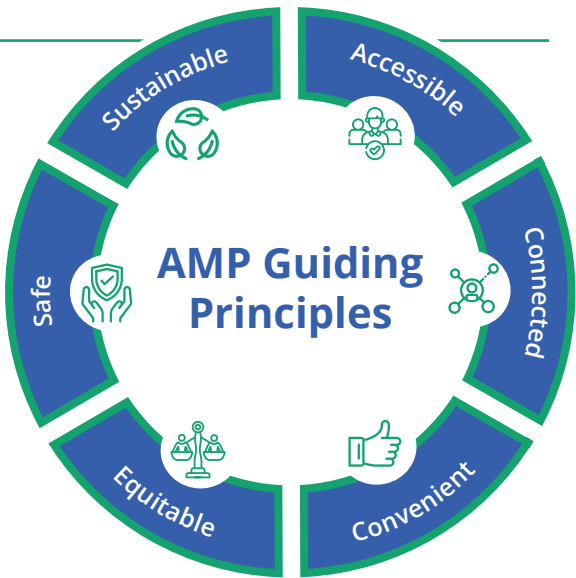
- Safe Walking, Biking, and Driving

Complete Streets Policy and Design Guidelines

- Accommodate All Modes of Travel
- Health and Safety for All Users

Vision Zero Action Plan

- Build Safe Streets for Everyone



12. Demographic and Housing Estimates, American Community Survey 1-Year Estimates, 2019.



Strategy 5. Educate all street users about safety and traffic laws

Actions

- Initiate targeted outreach that aims to increase adult and youth knowledge of safe walking, biking, and driving behaviors and traffic laws related to pedestrian, bicycle, and scooter travel
- Educate public and private sector design professionals, city groups, and the public who are involved with Alexandria’s transportation system on Complete Streets principles and design
- Pursue partnerships to expand the reach of education, outreach, and promotional efforts with GO Alex, the Alexandria Policy Department, Alexandria City Public Schools, MWCOG’s Street Smart Safety Campaign, local advocacy groups, and others

Existing education programs commonly focus on a single mode (for example, driver’s ed or a **"learn to ride"** bicycle safety class) and **may not fully address how different modes should interact on the street**. Virginia law states that drivers must give at least 3 feet of space when passing a person riding a bike. If there is not 3 feet of passing space in the shared travel lane, the driver must change lanes to pass. This can be hard to judge, and bicyclists may often need to ride close to the middle of the lane to avoid opening car doors and other obstacles.

One way to address these challenges is through **better education for all road users**. Frustrated by low attendance at adult bike safety classes, the City of Fort Collins, Colorado rebranded their class for drivers and saw attendance triple in the first year. The 90-minute Bicycle-Friendly Driver class covers:

- Why sharing the road is the safest alternative for both drivers and bicyclists
- What’s legal and what’s not legal, for both drivers and bicyclists
- Common crashes and how to avoid them
- Why bicyclists "take the lane" and what motorists should do in response
- How to navigate bicycle-related infrastructure such as sharrows, bike boxes, and green lanes

Addressing the Need

This strategy builds upon Vision Zero recommendations to reduce speed limits, educate all street users on their rights and responsibilities, and create a shared culture of safety to reduce the disproportionate impacts of crashes on pedestrians, bicyclists, and other vulnerable street users.

An average of 37 people in Alexandria are killed or seriously injured each year using the City’s streets.¹³

When pedestrians and bicyclists are involved in crashes, the crashes are more likely to be serious—34 percent of bicyclist or pedestrian crashes are serious versus just 6 percent of all crashes.

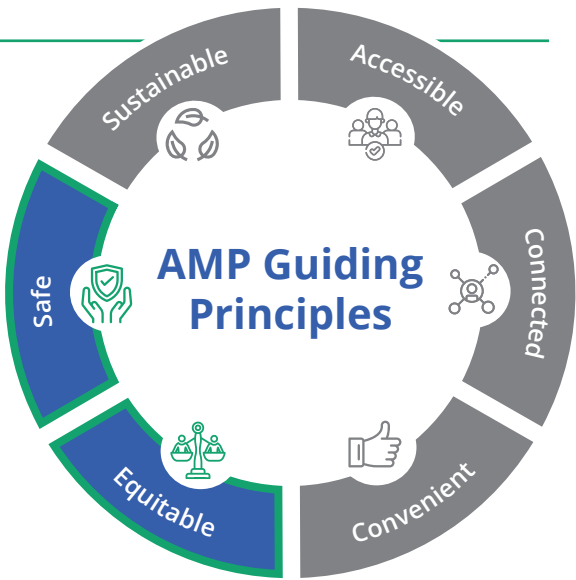
Advancing City Plans and Goals

Vision Zero Action Plan

- Promote a Culture of Safety

Complete Streets Policy and Design Guidelines

- Accommodate All Modes of Travel



13. Vision Zero Action Plan, 2017.





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

- Number of pedestrian- and bicycle-involved crashes
- Percent of people walking or biking to work (mode share)
- Linear feet of new sidewalk installed per year (Citywide and in Equity Emphasis Areas)
- Miles of bicycle facilities (on-street and paved off-street trails) installed per year (Citywide and in Equity Emphasis Areas)
- Positive rating of ease of walking (Resident Survey) *
- Positive rating of ease of travel by bicycle (Resident Survey)*
- Number of repaired curb ramps per year
- Number of accessible pedestrian signals installed per year
- Annual number of bikeshare trips
- Shared mobility trips to and from equity areas (as defined by the Dockless Mobility Program)
- Number of designated parking areas for bicycles, e-bikes, and scooters citywide and in equity areas (as defined by the Dockless Mobility Program)

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

Advancing Pedestrian and Bicycle Priority Projects

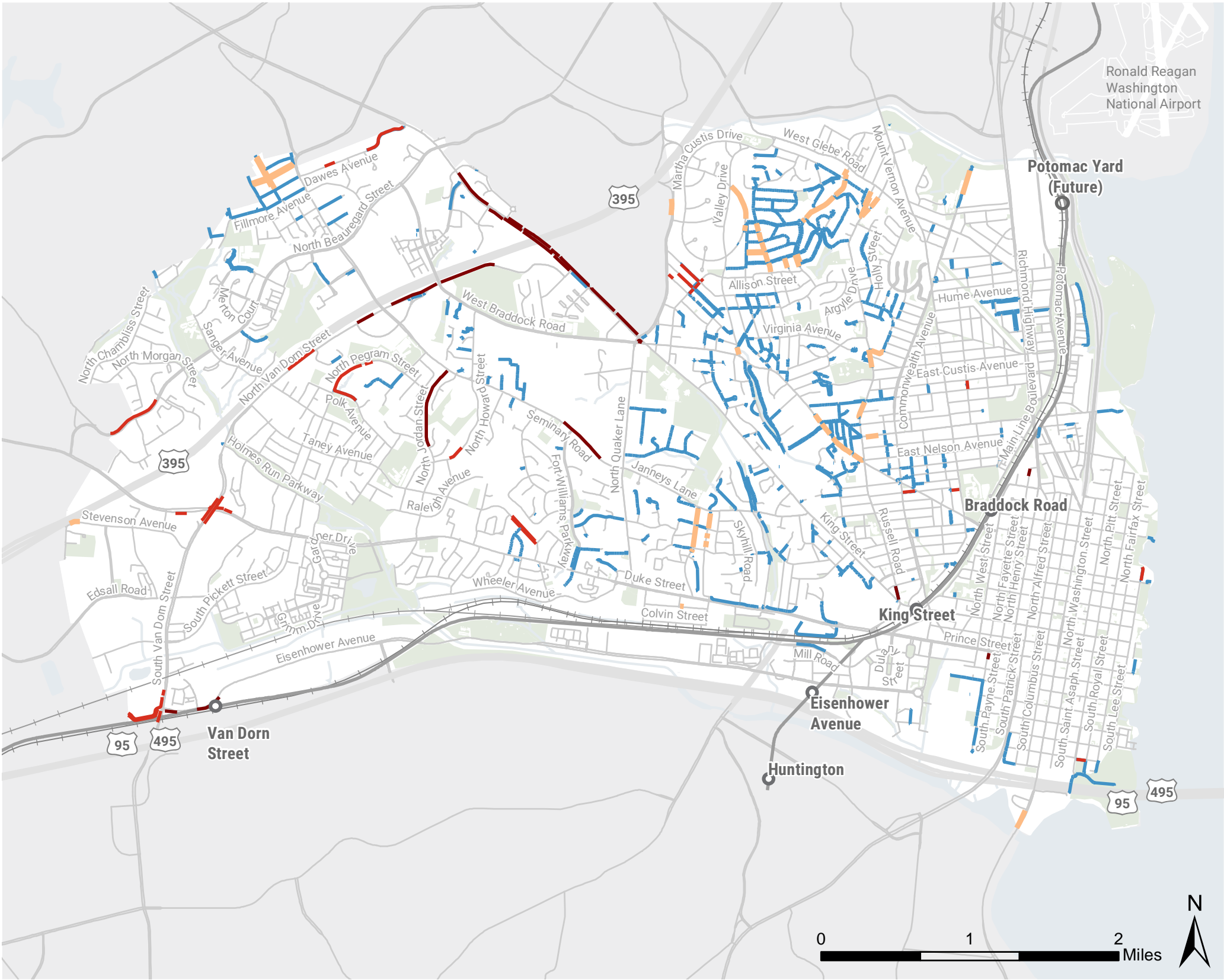
Pedestrian and bicycle projects were identified in the 2016 Pedestrian and Bicycle Chapter update to the 2008 Transportation Master Plan. The project maps and lists have been updated to reflect the progress made since 2016; completed projects have been removed and replaced by the next highest prioritization score. Prioritization results are based on a data-driven analysis of demand, safety, connectivity, and geography. For the full methodology, please refer to the 2016 Bicycle and Pedestrian Chapter update. Project maps are included on the following pages, and project lists can be found [here](#).

The City will continue to pursue funding from grants and through the City’s budget process and implement pedestrian and bicycle projects through routine street resurfacing, as part of larger capital investments, and in coordination with developers and redevelopment. Therefore, the order of the projects does not necessarily reflect the order in which they will be implemented.





Pedestrian Priority Projects

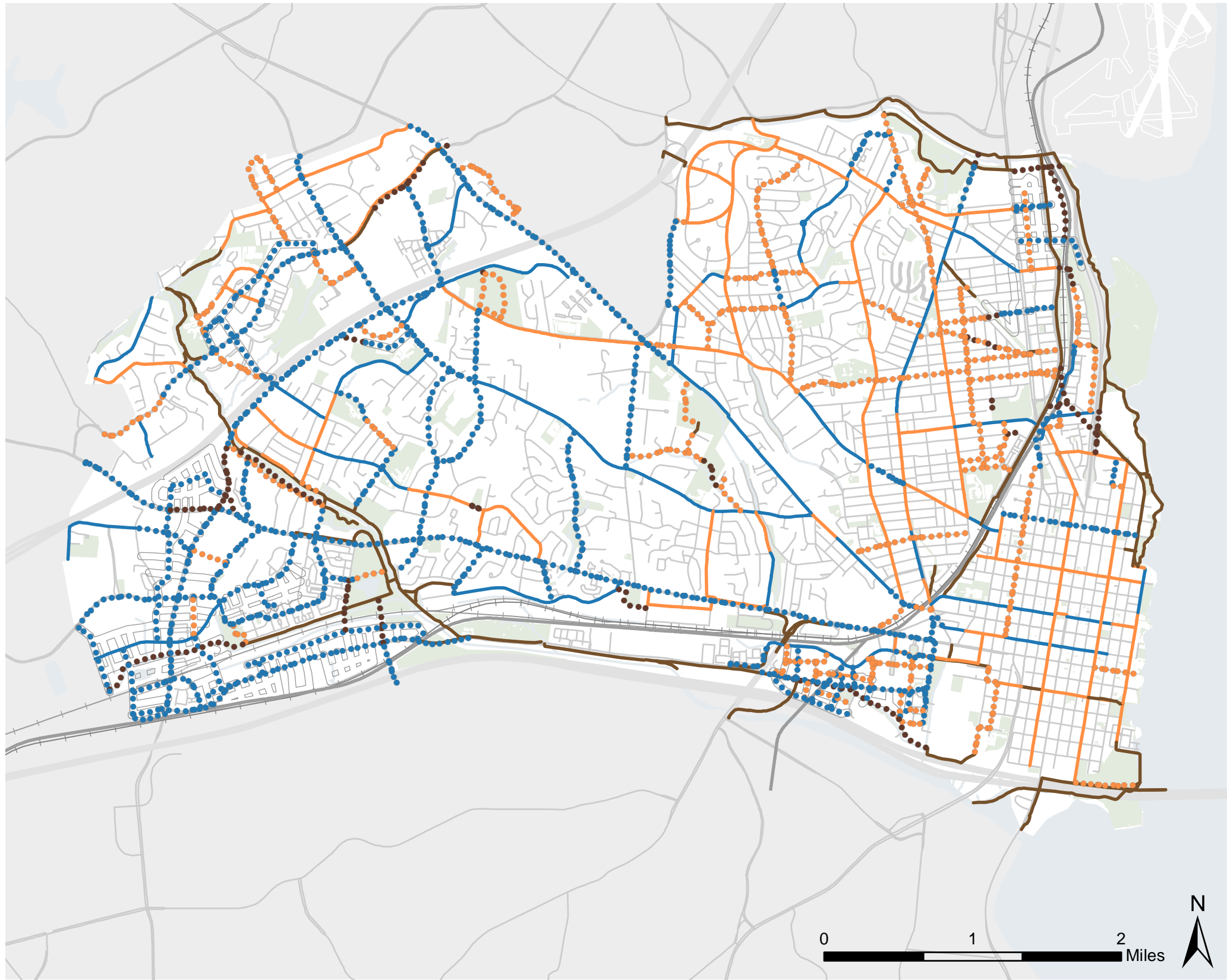


- Tier 1 Priority Sidewalk Gap
- Tier 2 Priority Sidewalk Gap
- Tier 3 Priority Sidewalk Gap
- Tier 4 Priority Sidewalk Gap

Remaining sidewalk gaps as of 2021 and their relative priority identified in the [Pedestrian and Bicycle Chapter update in 2016](#).



Bicycle Priority Projects



Existing Facility	Planned Bike Network
Dedicated Bike Lanes	Enhanced Bicycle Facility
Shared Lane Markings	Shared Lane Markings
Trail/Side Path	Trail/Side Path
Source: City of Alexandria 2021	Source: 2016 Bicycle and Pedestrian Chapter update

Information contained in this document is for planning purposes. Further analysis and engineering design are necessary prior to implementing any recommended bicycle facilities, including selecting the specific facility type and design for Enhanced Bicycle Facilities. Learn more about facility type definitions on page 49 of the [Pedestrian and Bicycle Chapter update in 2016](#).



Supporting Travel Options

*How the City encourages
alternatives to driving alone.*



Introduction

This chapter focuses on how the City can support alternatives to driving alone through information, incentives, partnerships, and policies to reduce congestion on our streets and make our transportation system more sustainable. These practices—often called Transportation Demand Management (TDM)—are not about forcing people out of their cars, but rather making a variety of transportation options (i.e. transit, carpool, telework, cycling, and walking) easy, accessible, and convenient to give more travel choices to more people.

The development of this chapter was called for in the ***Environmental Action Plan (EAP) 2040*** to improve the City's existing programs that support travel and mobility options to help achieve EAP and ***City Strategic Plan*** goals for reducing vehicle miles traveled in the city and increasing the share of biking, walking, and transit trips.

“

By FY2023, develop a stand-alone Transportation Demand Management Chapter in the Alexandria Mobility Plan (formerly the Transportation Master Plan) to promote low-carbon modes of transportation.

– Short-Term Action 7.2.1, *Environmental Action Plan 2040*


”

Key Context

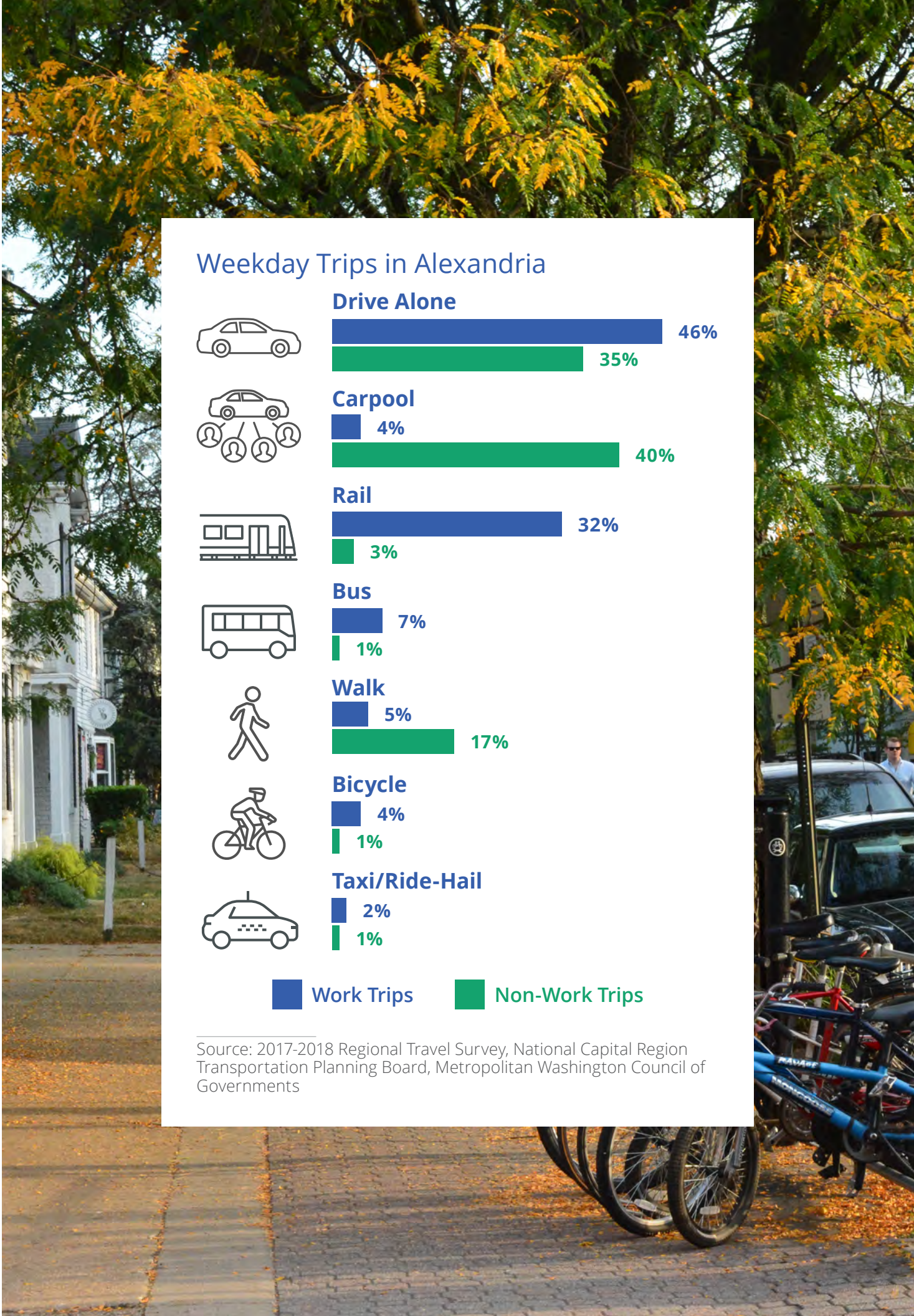
 **74%**
of trips in Alexandria are non-work trips¹

 **59%**
of trips in Alexandria are less than 3 miles¹

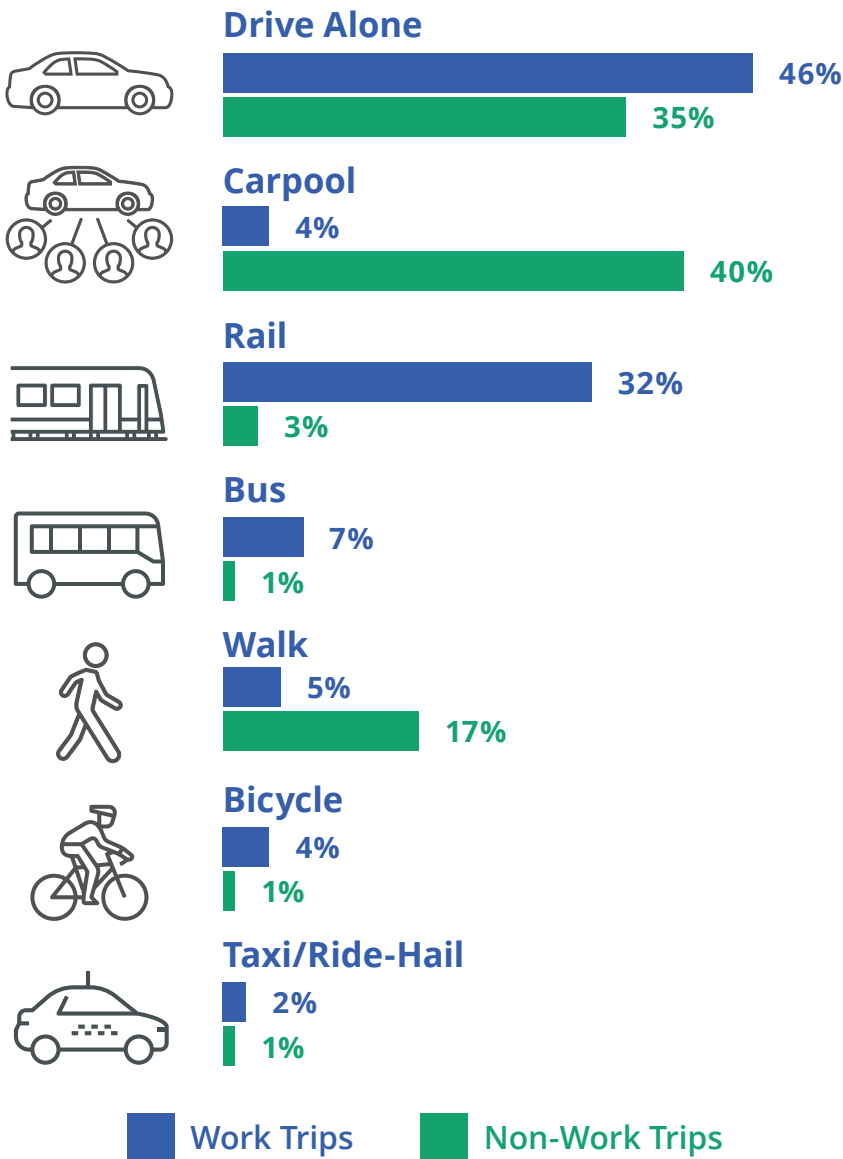
 **46%**
of commute trips in Alexandria are single-occupancy vehicle (SOV) trips¹

 **36%**
of carbon emissions in Alexandria are produced by transportation, making transportation the second-largest emissions-producing sector²

1. 2017-2018 Regional Travel Survey, National Capital Region Transportation Planning Board, Metropolitan Washington Council of Governments.
2. City of Alexandria Environmental Action Plan 2040.



Weekday Trips in Alexandria



Source: 2017-2018 Regional Travel Survey, National Capital Region Transportation Planning Board, Metropolitan Washington Council of Governments



Existing Programs, Policies, and Initiatives

GO Alex

The City’s GO Alex program provides residents, commuters, and employers with resources to help promote mobility options through:

- Developing employer-specific plans and resources
- Assisting in rideshare matching
- Promoting regional incentives to try different transportation options
- Providing travel tools and information across Alexandria

The policies and strategies in this chapter aim to support GO Alex by improving and expanding the reach of its programming to make more people more aware of Alexandria’s wide range of travel choices it offers such as bus service, commuter and intercity rail, bikeshare, micromobility, paratransit, and more.



Transportation Management Plans

A transportation management plan (TMP) is a site-specific plan to encourage residents and employees to take public transportation, walk, bike, or share a ride as opposed to driving alone to reduce rush hour congestion. Developers of new buildings are required to submit a TMP that outlines how they will reduce drive-alone trips and report back to the City.

In 2021, there are approximately 65 active TMPs in the city. TMPs help achieve efficient and sustainable use of transportation facilities by providing bikeshare memberships, transit passes, and information to residents and workers.





Policies

The Supporting Travel Options chapter policies will guide the City’s decision-making around increasing availability and encouraging use of flexible and sustainable travel options for all types of trips.

Policy A: Enhance choice

Make it easier for more people to choose an alternative to driving alone.

The City of Alexandria will apply evidenced-based practices that have been demonstrated to be the most effective at reducing drive-alone travel to reduce congestion, improve public health, and make the city more sustainable.

Policy B: Promote work flexibility

Encourage continued telework and flexible schedules to reduce congestion and emissions.

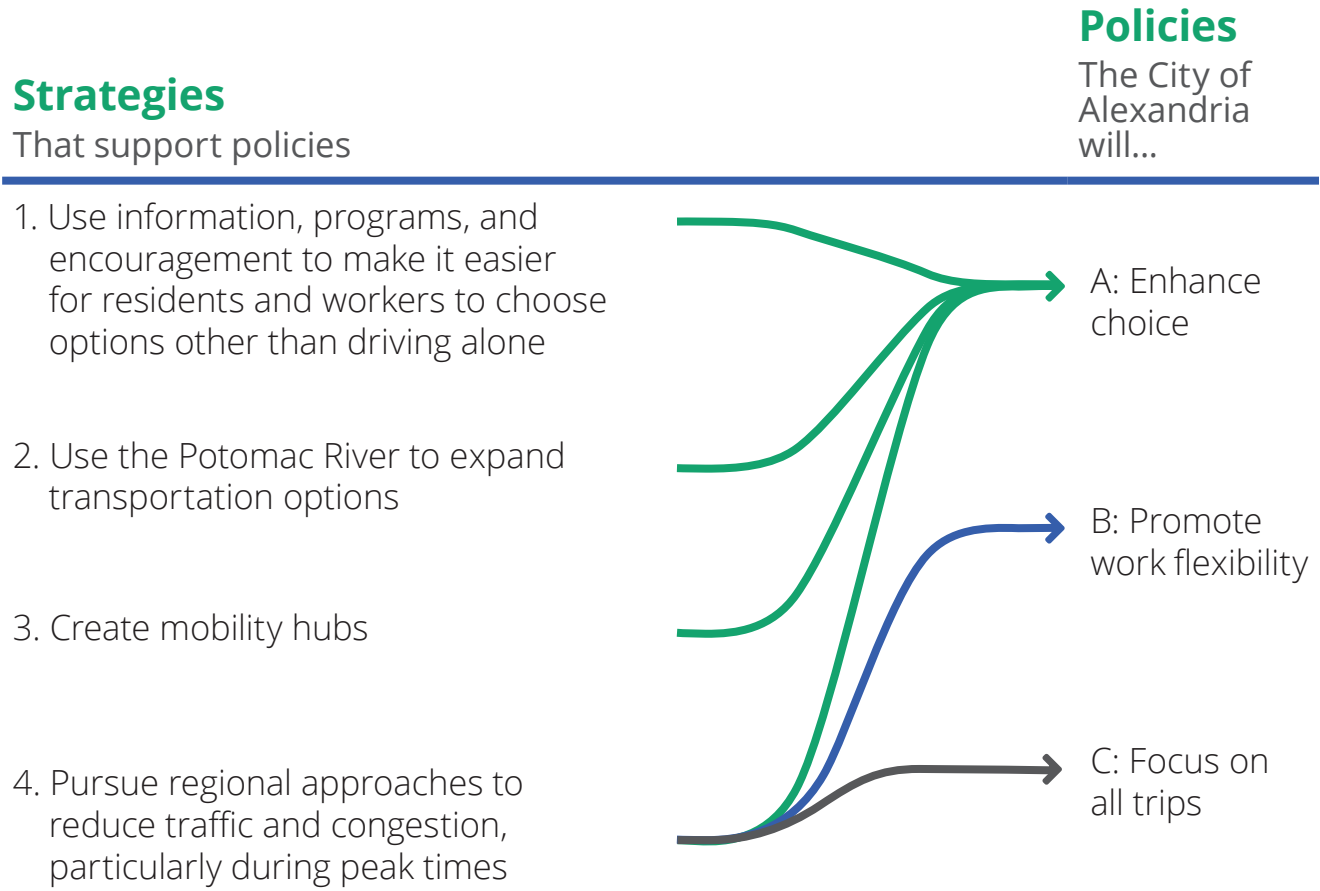
Teleworking and modified work schedules can help shift travel times and alleviate traffic congestion during peak periods. The City of Alexandria will work to encourage broader telework and flexible schedule practices among employers to reduce demand on the transportation network during peak periods.



Policy C: Focus on all trips

Shift non-commute trips away from driving alone.

Outreach and education regarding travel options is traditionally focused on commute-to-work trips, despite that fact that non-commute trips make up three quarters of all trips in Alexandria. The City of Alexandria will work to better understand how to expand mobility options for all travelers, whether they are traveling for school, errands, shopping, recreation, tourism, or other reasons. Reducing dependence on driving not only helps manage congestion, but also promotes a healthier and safer Alexandria. With the potential for long-term shifts in travel and commuting patterns during the COVID-19 pandemic and beyond, considering all types of trips is important.





Strategies

Strategy 1. Use information, programs, and encouragement to make it easier for residents and workers to choose options other than driving alone

Actions

- Identify an expanded set of community influencers (such as religious leaders, school principals, and athletic organizations), in addition to employers and residential property managers, to help encourage alternatives to driving alone
- Update the Transportation Management Plan program so new developments can better reduce and track congestion
- Develop a travel training and commuter assistance program to provide hands-on experience on taking a new (to you) way of traveling
- Expand use of real-time information to promote travel choices



Addressing the Need

Only 20 percent of Alexandrians are aware of GO Alex, the City’s program that works to encourage the use of public transit, ridesharing, bicycling, and walking as money- and time-saving alternatives that also are more environmentally-friendly.³ To increase the use of the variety of travel options available in Alexandria, it is important that people know about the program.

It is important that information on travel options—such as transit, bikeshare, car share, and rideshare—is available in one place so travelers can make informed decisions about which they choose.

Improved guidelines for developers can produce more and better-quality data on how new developments are impacting travel patterns and promoting multimodal options.

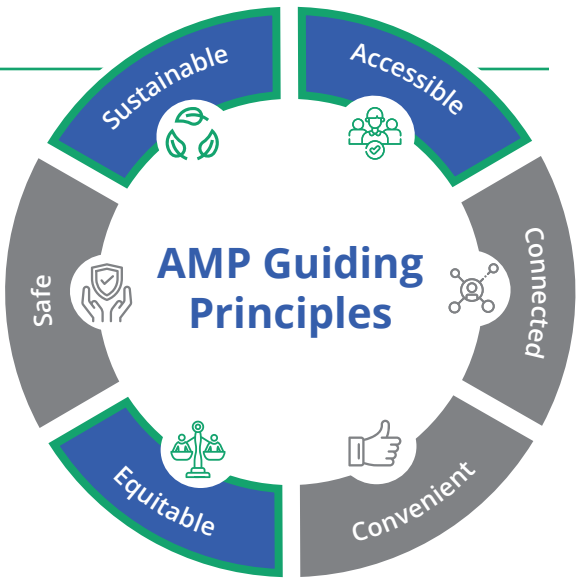
Advancing City Plans and Goals

Environmental Action Plan 2040

- Reduce Automobile Dependency and Educate Individuals and Employers on Mobility Options Other Than Single-Occupancy Driving
- Increase the Share of All Trips Taken by Public Transit, Walking, and Biking by at Least 15 Percent by 2023

City Strategic Plan

- Increase the Percentage of Commuters Using Alternative Transportation Options



Travel training refers to the practice of teaching people to travel independently on different modes of transportation, such as public transit. Travel training programs are intended to encourage behavior changes by giving people a level of comfort with and understanding of travel options that are new to them. These programs can be offered in a group setting or one-on-one and also can be specialized for seniors or people who have cognitive or physical mobility challenges.

3. AlexMoves – City of Alexandria Mobility Survey, 2019.



Strategy 2. Use the Potomac River to expand transportation options

Actions

- Partner with other jurisdictions, agencies, and private partners to determine the best ways to utilize the Potomac River as a transportation option
- Explore and evaluate new water transportation routes and services for commute and trips, errands, or entertainment
- Identify opportunities to integrate with other modes of transportation



Credit: Potomac Riverboat Company

Addressing the Need

There is a need to provide enhanced transportation options and transit connections, especially those that do not impact the city’s constrained street network, to make progress toward key environmental priorities such as reducing vehicle miles traveled.

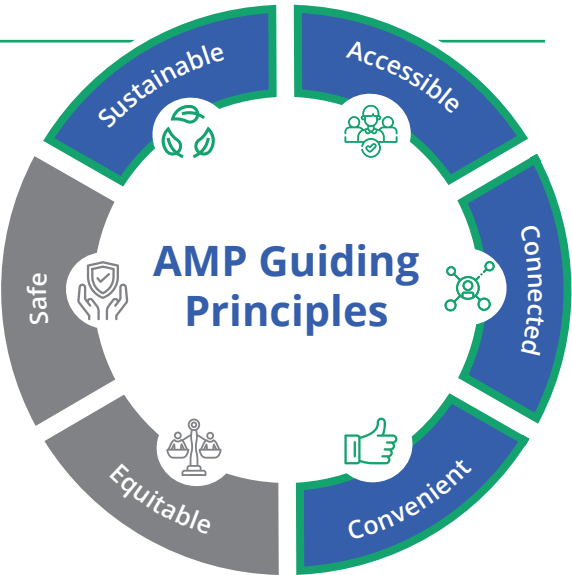
As noted during Alexandria Mobility Plan focus group meetings, the **Potomac River is an underutilized transportation resource** in the region and using it for new travel options could be an effective means of providing alternatives to driving and alleviating congestion.

During the WMATA Platform Improvement Project in the summer of 2019 that shut down Metrorail service in Alexandria, the Potomac Riverboat Company began offering new morning commuter service from Old Town Alexandria to The Wharf in Washington, DC. **This new ferry travel option was well received** among those who opted for it and **did not cause increased traffic or parking challenges at the waterfront**. This strategy will explore ways to build upon the success of that experiment.

Advancing City Plans and Goals

Environmental Action Plan 2040

- Reduce Vehicle Miles Traveled (VMT)





Strategy 3. Create mobility hubs

Actions

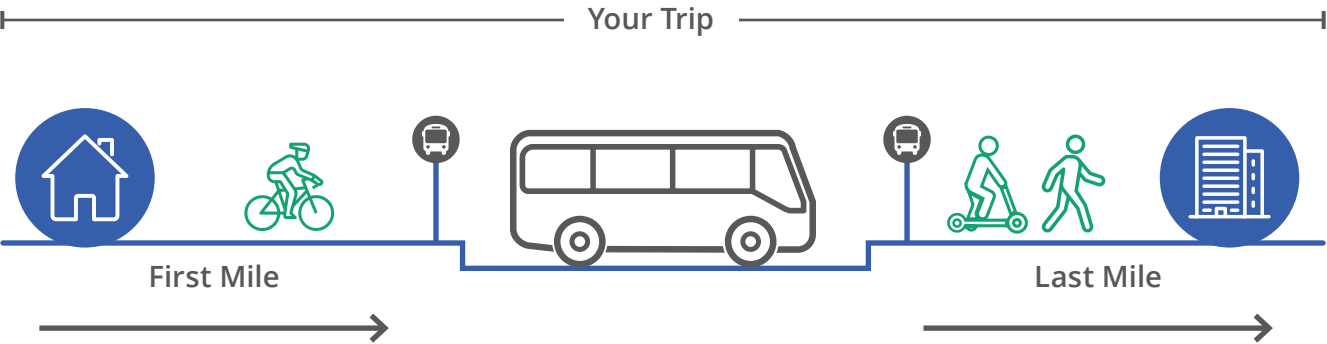
- Identify optimal locations for mobility hubs in strategic locations around the city. These mobility hubs will differ in size and scope based on location type and may incorporate elements to improve navigation for all users of the site through wayfinding and other features
- Incorporate charging infrastructure for carshare vehicles, personal vehicles, and micromobility devices (electric bikes, scooters, etc.)
- Focus on traditionally underserved communities and strategic locations to address first- and last-mile travel needs citywide



Addressing the Need

There is a need to better serve the city—especially areas with more limited transit service—with smaller-scale and more cost-effective travel options that offer alternatives to driving for getting to transit hubs or other short trips. Mobility hubs also provide convenient choices for which modes to use depending on the length and purpose of your trips

A **mobility hub** is a location that brings multiple modes of transportation together in one physical location and are often clustered near high-frequency transit stations such as a Metrorail station. Typical mobility hub components can support short trips and/or first- and last-mile journeys and include bicycle and scooter parking, electric vehicle chargers, carshare vehicles, and pedestrian wayfinding signage.



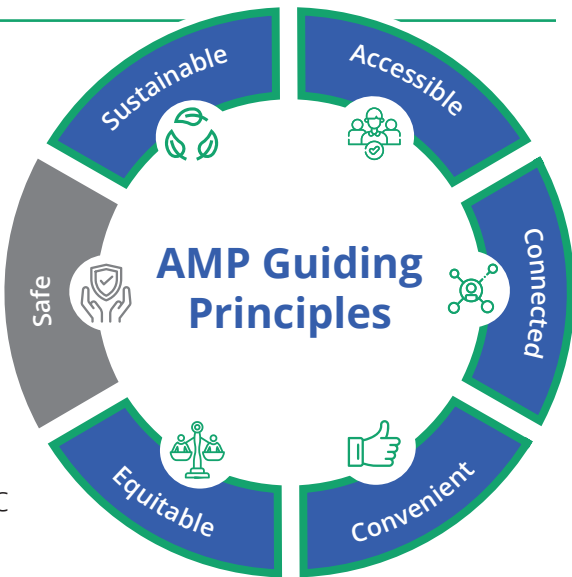
Advancing City Plans and Goals

Smart Mobility Framework Plan

- Improve and Expand Mobility on Demand as a Means to Improve Accessibility
- Plan for Emerging and Future Transportation Technologies

Environmental Action Plan 2040

- Adopt Permanent Regulations for Shared Mobility Devices such as Dockless Bikes, Electric Scooters, and Other Personal Mobility Devices by Fiscal Year 2023





Strategy 4. Pursue regional approaches to reduce traffic and congestion, particularly during peak times

Actions

- Coordinate with neighboring jurisdictions and regional entities to explore unifying local TDM programs into a more comprehensive regional effort
- Advocate for policies that will help manage congestion, such as telework incentives or a regional congestion pricing program
- Continue to support regional transportation initiatives, including Commuter Connections, and targeted TDM initiatives of a regional scale, such as the Northern Virginia Regional Multi-Modal Mobility Program (R3MP)



Addressing the Need

Vehicle miles traveled (VMT)—a measure of how much people are driving—in Alexandria was reduced by 12 percent between 2010 and 2018⁴ mostly due to travel on local streets. However, regional travel has not changed significantly and represents an equal proportion of VMT on City streets. With Alexandria generally bordered on two sides by I-395 and I-495, City streets can be used as cut-through or alternative routes, especially during congested periods. It is important that Alexandria continues to coordinate with regional partners to pursue efforts that will manage transportation demand to further decrease VMT and, thereby, reduce congestion and carbon emissions.

The Northern Virginia **Regional Multi-Modal Mobility Program (RM3P)** leverages “the collaborative use of real-time data by Virginia’s public and private sectors to improve travel safety, reliability, and mobility and to give the public the tools to make more informed travel choices.” The program includes elements such as data-exchange programs, commuter parking information systems, dynamic incentivization, artificial intelligence-based decision support system, and a multi-modal analytical planner. The program advances the use of technology to support jurisdictions and cities to achieve their goals of increasing modal splits and a more dynamic, safe, and efficient transportation system.

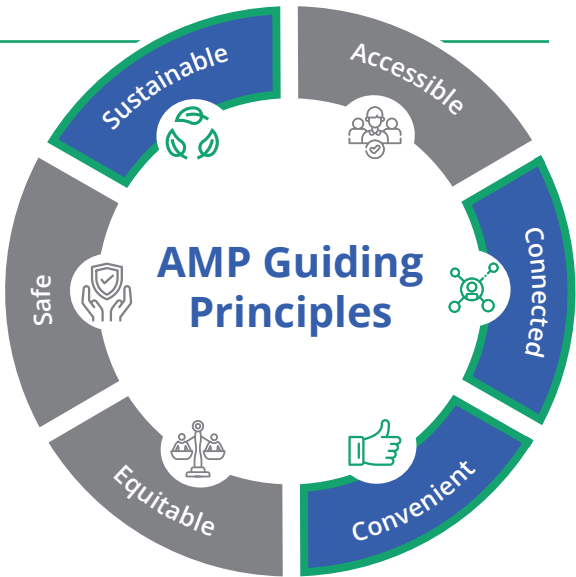
Advancing City Plans and Goals

Environmental Action Plan 2040

- Reduce Automobile Dependency and Educate Individuals and Employers on Mobility Options Other Than Single-Occupancy Driving

City Strategic Plan

- Increase the Percentage of Commuters Using Alternative Transportation Options



4. Vehicle Miles Travelled - Weekday Trends Modeled Region 2005 to 2018, National Capital Region Transportation Planning Board, Metropolitan Washington Council of Governments.

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

Number of community influencers involved with GO Alex

Percent of people taking non-single occupancy vehicles to work (mode share)

Weekday person hours of delay

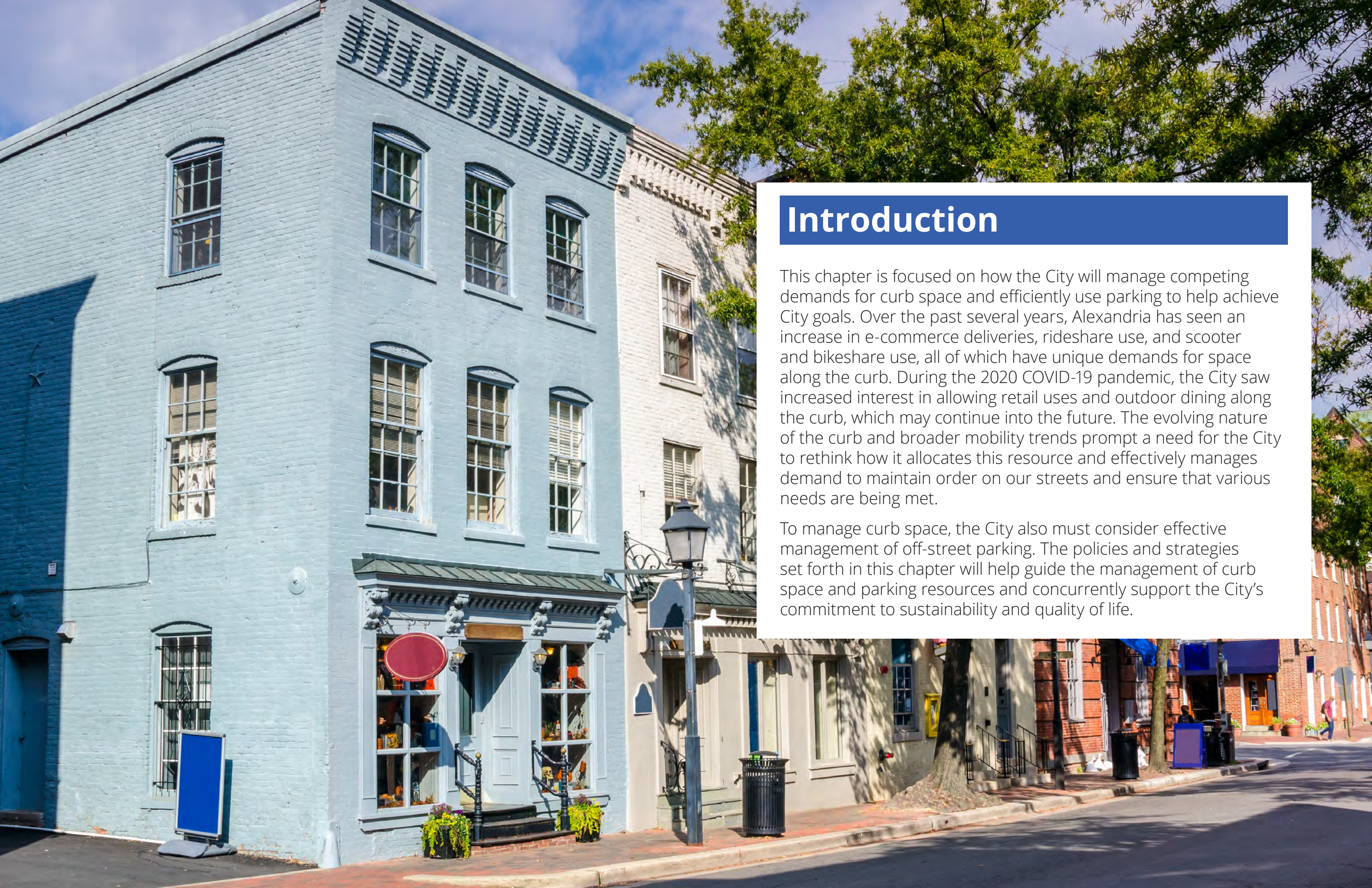
Credit: Hover Solutions for Visit Alexandria





Curb Space and Parking

*How the City regulates parking
and manages curb use.*



Introduction

This chapter is focused on how the City will manage competing demands for curb space and efficiently use parking to help achieve City goals. Over the past several years, Alexandria has seen an increase in e-commerce deliveries, rideshare use, and scooter and bikeshare use, all of which have unique demands for space along the curb. During the 2020 COVID-19 pandemic, the City saw increased interest in allowing retail uses and outdoor dining along the curb, which may continue into the future. The evolving nature of the curb and broader mobility trends prompt a need for the City to rethink how it allocates this resource and effectively manages demand to maintain order on our streets and ensure that various needs are being met.

To manage curb space, the City also must consider effective management of off-street parking. The policies and strategies set forth in this chapter will help guide the management of curb space and parking resources and concurrently support the City's commitment to sustainability and quality of life.



Key Context



126

unique on-street paid parking zones with space for more than 1,400 vehicles across the City

These zones are largely concentrated in Old Town. Street parking generally costs less than parking garages, which disincentives garage use and puts a great strain on street parking.



16

publicly accessible garages and 6 parking lots available for paid parking in Old Town

These facilities range in cost, typically featuring flat and hourly rates that cost more than metered street parking.



58%

Alexandrians that have a positive experience with “Availability of parking near my home.”¹



52%

Alexandrians that have a positive experience with “Availability of on-street and garage parking.”

Ratings for traffic flow, travel by car, overall ease of travel, and public parking among Alexandrians **decreased in 2020** compared to 2018.¹

1. Alexandria 2020 Resident Survey.

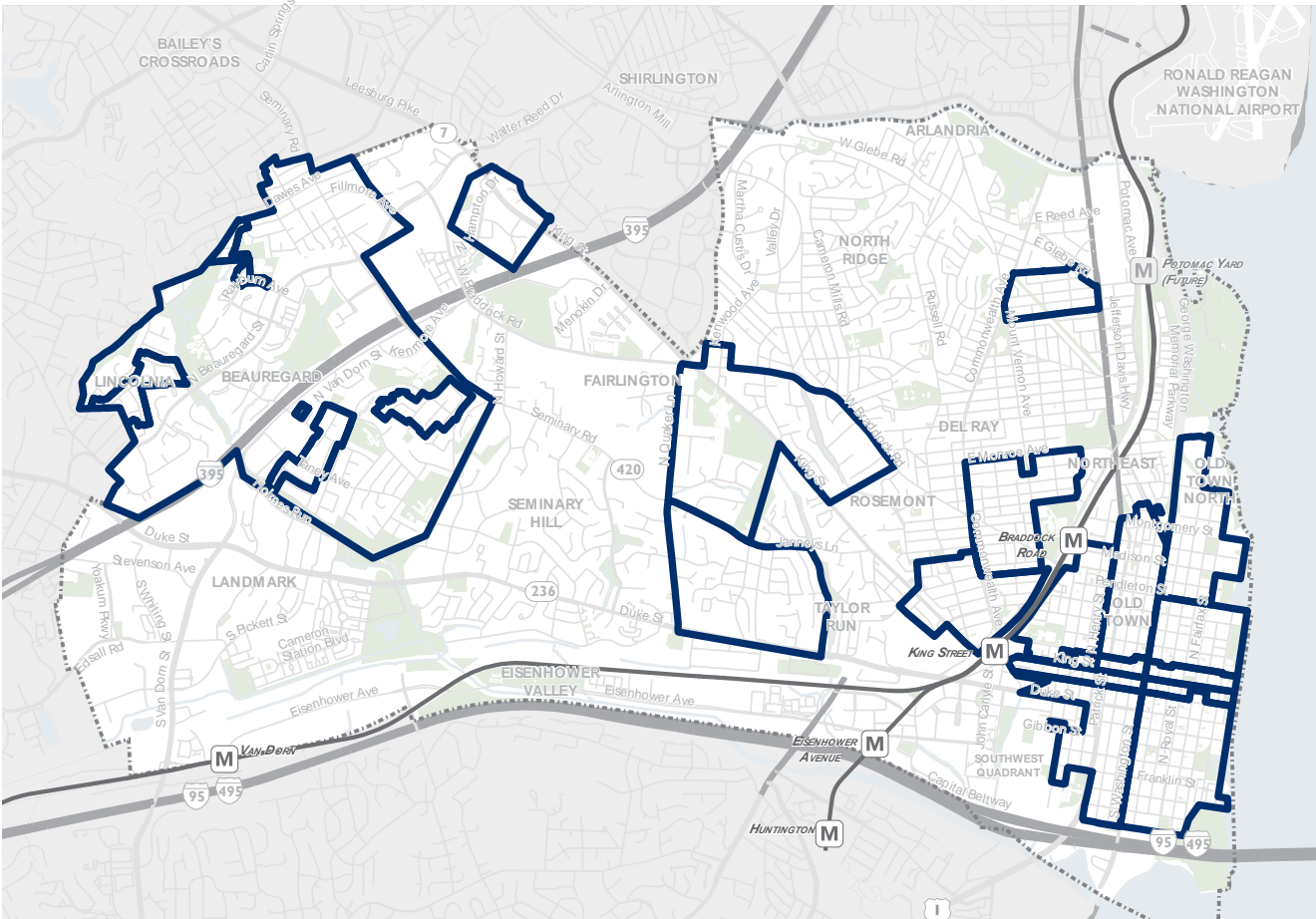




Existing Programs, Policies, and Initiatives

Residential Parking Permit Program

Alexandria’s Residential Parking Permit (RPP) program designates certain areas in the city as residential permit parking districts. As a means to preserve on-street parking in these areas for Alexandria residents, the RPP ordinance prohibits on-street parking for more than 2 or 3 hours during varying time periods. Only persons who maintain their residence within the boundaries of an RPP district are eligible to obtain parking permits, and vehicles that display these permits are exempt from the timed restrictions.



 Residential Parking Permit Districts

Electric Vehicle Charging

The Electric Vehicle Charging Infrastructure Readiness Strategy will develop a road map to anticipate the electric vehicle charging infrastructure needs of City residents, workforce members, and visitors as electric vehicles become more mainstream. The project includes:

- Evaluating projections for current and future electric vehicle charging infrastructure needs
- Recommending locations for publicly accessible charging infrastructure with integration into a broader regional network
- Reviewing and updating the City’s zoning, codes, permitting, and inspection codes and development processes and requirements
- Recommending policies, approaches, and synergies for locating electric vehicle charging infrastructure at businesses, multi-unit dwellings, single-family homes, right-of-way, and other locations along residential and commercial streets

Residential Pay by Phone Program

Certain residential permit blocks within Old Town have been made “pay by phone” for non-residents who choose to park. After a successful pilot, City Council made this permanent in 2019.

Parking Standards for New Development Study

This study, completed in 2018, conducted an assessment of the previous parking standards and established updated standards for new development projects. This update established an Enhanced Transit Area with reduced parking requirements to encourage non-auto travel, and outlined provisions for shared parking.

Micromobility Corrals

In some locations around Alexandria, the City has installed micromobility corrals to maximize curb space and encourage parking of micromobility devices in locations that do not hinder vehicle or pedestrian travel.



Policies

The Curb Space and Parking chapter policies will guide the City’s decision-making around smart use of curb space and make parking more efficient and available toward the advancement of City goals.

Policy A: Connect parking policy to City goals

Achieve broader City goals related to sustainability, congestion, and housing affordability through parking.

Parking facilities are expensive to build and maintain, and when it is easy to park, more people will drive. The goals of the Environmental Action Plan to reduce vehicle miles traveled and increase the use of sustainable travel modes require the City to reimagine the curb space. The City of Alexandria will continue to use policy to right-size parking facilities and unbundle the cost of parking from housing to reduce the cost burden of parking on non-vehicle owners and limit its role in contributing to traffic.

Policy B: Ensure parking availability

Seek to maintain parking availability in the city’s residential and commercial districts, recognizing that some people may need to walk a short distance to their destination.

The City will seek to ensure a reasonable parking option is available by strategically aligning curb space with its highest and best use and managing on- and off-street parking through technology and pricing.

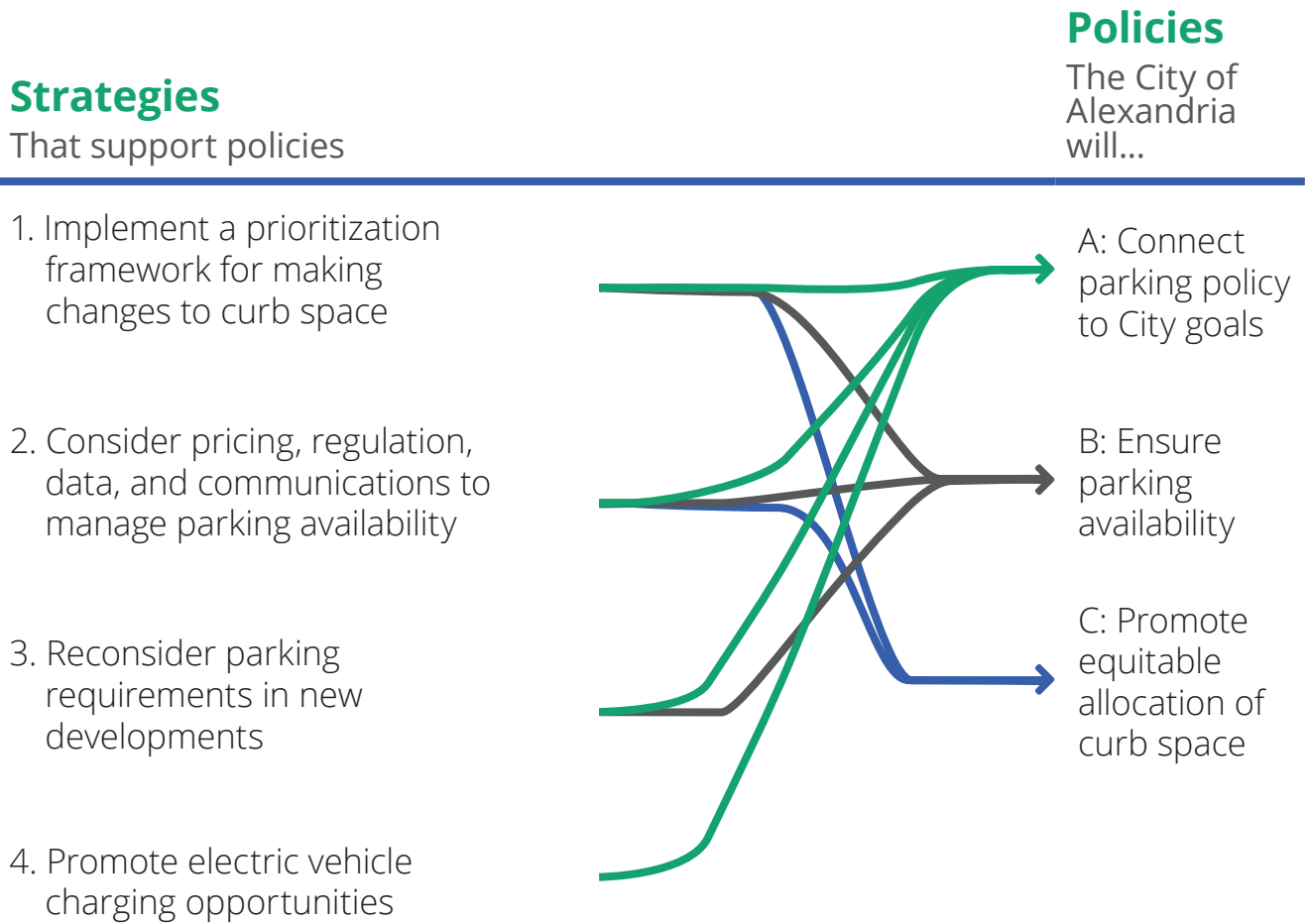
A recent study has demonstrated that in an urban area, more parking led to more car ownership, more driving, more congestion, less transit use, and less walking.²

2. More Parking Puts More Cars on the Road, Sightline Institute. <https://www.sightline.org/2021/01/28/more-parking-isnt-harmless-it-actually-makes-us-drive-more/>.

Policy C: Promote equitable allocation of curb space

Treat all curb space as a public asset that should be allocated in an equitable manner for its highest and best use, appropriate for the specific location, time of day, and time of year.

Recognizing the competing demands over curb space, the City of Alexandria will work to manage this finite resource in a way that considers a diversity of needs and maximizes community benefits and goals. Local context will drive decision-making to ensure that solutions for the curb space use are tailored to needs.





Strategies

Strategy 1. Implement a prioritization framework for making changes to curb space

Actions

- Implement a framework to prioritize parking, loading, drop-off, bike lanes, and mobility hubs, among other uses, when making curbside changes
- Work with the community and the Traffic and Parking Board to apply the framework when a new use is considered on a street

The City's **Curb Space Prioritization Framework** is included at the end of this chapter.



Credit: Misha Enriquez for Visit Alexandria

Addressing the Need

Alexandria's curb space is a valuable commodity and is very much in demand. Many modes of access—pedestrians, parking, transit, bicycles, and commercial and private vehicles—compete for curbside access to shops, restaurants, housing, offices, and community facilities. The City must find a way to balance these needs while encouraging the use of off-street parking and loading when appropriate to reduce the demand for the curb.

Advancing City Plans and Goals

Environmental Action Plan 2040

- Reduce Automobile Dependency and Educate Individuals and Employers on Mobility Options Other Than Single-Occupancy Driving

Complete Streets Policy and Design Guidelines

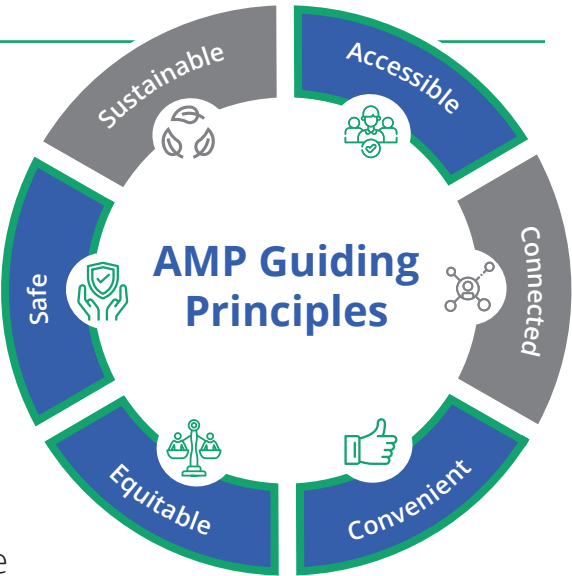
- Accommodate All Modes of Travel and for the Health and Safety of All Users
- Smart and Efficient Management of the Curbside

Age Friendly Plan for a Livable Community

- Those Who Walk, Drive, and Ride a Bicycle in Alexandria Can Do So Safely

Housing Master Plan

- Preserve the Long-Term Affordability and Physical Condition of the Existing Stock of Publicly Assisted Rental Housing, as well as Market Rental Housing Where Affordability Commitments Can Be Secured





Strategy 2. Consider pricing, regulation, data, and communications to manage parking availability

Actions

- Consider technology to collect and disseminate more and better data on parking availability and usage
- Improve signage and availability of real-time information via technology to guide users to off-street parking, pick-ups, drop-offs, and loading to free up on-street curb space whenever reasonable and practicable
- Consider coordinated pricing strategies to encourage more efficient and equitable use of on- and off-street parking spaces
- Improve the perception of safety in garages through improved communications, wifi connections, and cellular service



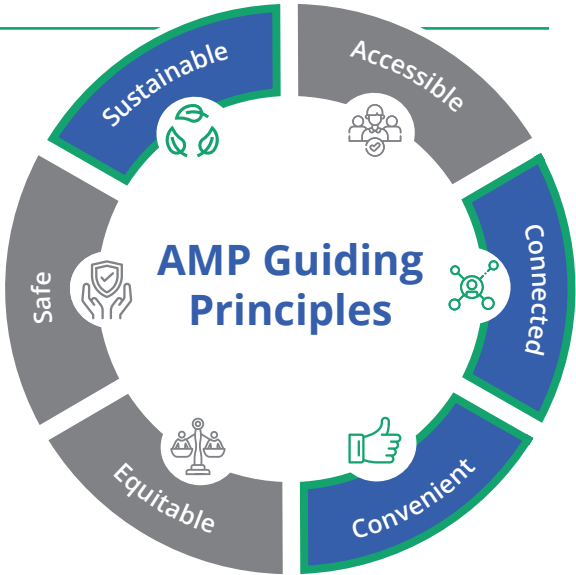
Addressing the Need

The perception that parking is hard to find in certain areas, while not always a reality, can lead to frustration and encourage drivers to circle the block to find available spaces or free parking. By making off-street parking more attractive through pricing or improved information, more people may use it, freeing up on-street spaces and reducing the perception that parking is in limited supply.

Advancing City Plans and Goals

Environmental Action Plan 2040

- Reduce Automobile Dependency and Educate Individuals and Employers on Mobility Options Other Than Single-Occupancy Driving





Strategy 3. Reconsider parking requirements in new developments

Actions

- Build upon recent efforts to right-size parking for residential and commercial development, recognizing that increased parking leads to increased traffic
- Review shared parking section of the zoning and ordinance to identify opportunities to make shared parking more viable. For example, a bank that closes at 5:00 PM and a restaurant that opens at 5:00 PM may be able to share parking facilities
- Leverage the ability of new data sources to regularly evaluate parking uses and trends
- Increase the percentage of parking spaces in new developments that can support electric vehicle charging



Addressing the Need

Parking facilities have several adverse effects on the natural and built environments, including increased stormwater run-off and pollution due to their impervious surfaces; reduced density of land development that hinders the use of sustainable travel options such as walking, biking, or public transit; and increased use of vehicles that can lead to more traffic congestion and air pollution. It is important to reconsider parking standards and requirements to reduce the number of parking facilities that may be larger than necessary.

Updating parking standards can yield several positive outcomes for communities. Maximum standards for off-street parking work to limit the construction of parking facilities that are larger than necessary. Recently, cities such as Hartford, CT and Portland, OR recognized the need to limit parking and established parking maximums in their regulations, thus controlling the amount of land and impervious surface associated with parking. **In Alexandria’s recent “Parking Standards for New Development Projects Study - Phase 2,” the City also has implemented parking maximums and an Enhanced Transit Area in which requirements are lower.**

Advancing City Plans and Goals

Housing Master Plan

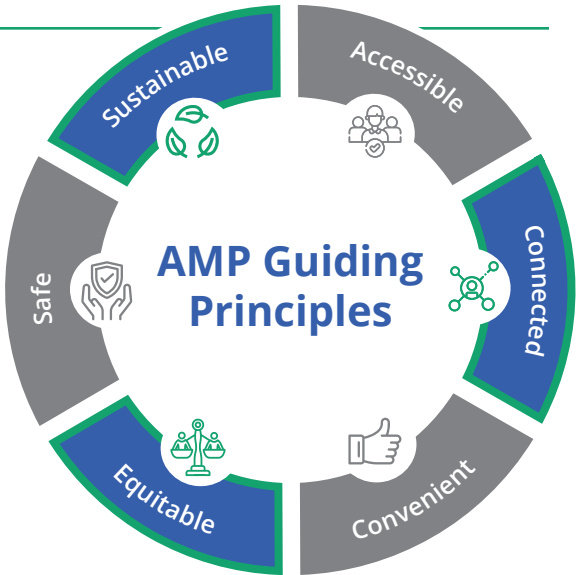
- Preserve the Long-Term Affordability and Physical Condition of the Existing Stock of Publicly Assisted Rental Housing

Environmental Action Plan 2040

- Reduce Automobile Dependency

City Strategic Plan

- Increase the Percentage of Commuters Using Alternative Transportation Options





Strategy 4. Promote electric vehicle charging opportunities

Actions

- Establish electric vehicle (EV) installation checklists for different uses
- Develop a policy for providing public charging infrastructure in public spaces
- Coordinate between parties interested in charging stations



Addressing the Need

Transportation accounts for more than a third of Alexandria’s greenhouse gas emissions. Converting more vehicle trips from internal combustion engine vehicle trips to electric vehicle trips can help reduce greenhouse gas emissions, especially as the energy to charge them is anticipated to come from increasingly sustainable and renewable sources. There are a growing number of Alexandrian’s who own or are interested in owning electric vehicles, and the increased numbers of EVs will require additional charging infrastructure to support them.

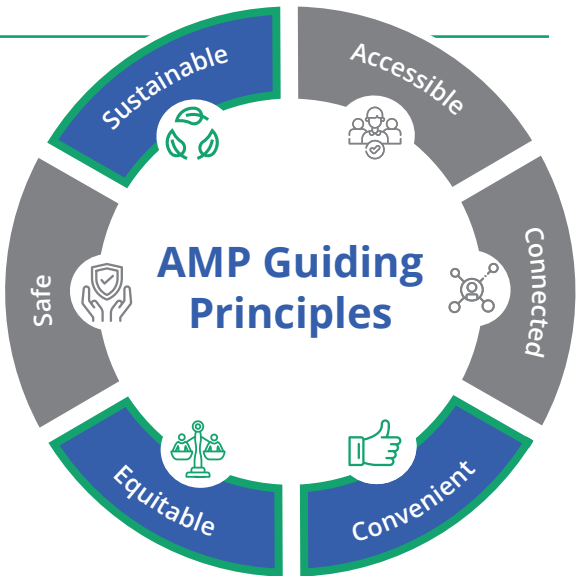
Advancing City Plans and Goals

Electric Vehicle Charging Infrastructure Readiness Strategy

- Meet electric vehicle charging demand

Environmental Action Plan 2040

- Implement and support implementation of publicly-accessible electric vehicle charging infrastructure that is supported by renewable energy



Curb Space Prioritization Framework

This framework sets priorities for curb access based on land uses. Land uses are broadly defined into four categories based on the kinds of curbside activity in different parts of the city.

Curb uses are also categorized broadly to enable future mobility options to fit into this framework. For example, previous plans mentioned bus stops, but did not anticipate bikeshare systems, dockless scooters, or ridehail companies like Uber and Lyft.

As part of the Alexandria Mobility Plan, the City has begun the work to realize Strategy 1 and develop a curb space prioritization framework. This framework outlines varying priorities for curb uses in areas of the city, depending on their land use. Staff will use this framework to guide future decisions.

This framework can be applied to existing streets as well as future streets outlined in small area plans.

When evaluating proposals and resident requests that will impact curb space, staff will work through the framework with affected parties to understand the needs and context of the street. This framework helps guide decision-makers when evaluating requests and applications—it is not a proposal for changing the City’s streets.

- The specific context for each block matters. If a proposal is not feasible on a given street, this framework would not apply.
- Not every curb use category will apply to every street. For example, low-density residential streets with available curb space will not need large (or any) changes to provide adequate access for people.
- Higher priority uses will not eliminate lower priorities. Providing access for goods, for example, does not mean that all the parking on a street will be eliminated, but instead that a parking space may be considered for removal to introduce improved access for goods.

Land Use Categories

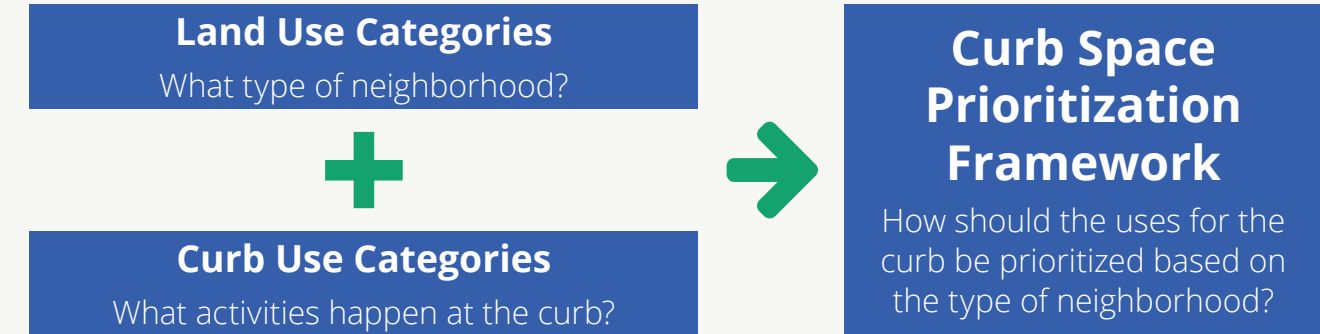
	Description:	Examples:
Residential	Predominantly residential uses, including detached houses, rowhouses, and apartment buildings	<ul style="list-style-type: none">• Cameron Station Blvd between Duke St and S. Pickett St• Taney Ave between N. Jordan St and Van Dorn St
Main Streets	Mixed-use neighborhoods with office, residential, and retail uses as well as neighborhood retail corridors	<ul style="list-style-type: none">• Mt Vernon Ave in Del Ray• King St in Old Town
Office & Commercial	Areas with predominantly office, retail, and other 'Downtown' functions—often high-density and often including residential towers	<ul style="list-style-type: none">• Eisenhower Ave between Holland Ln and Telegraph Rd in Carlyle• Duke St between Holland Ln and Dulany St
Warehouse and Industrial	Areas with mostly industrial and warehouse uses, including redeveloping areas adding retail uses and residential developments	<ul style="list-style-type: none">• Wheeler Ave west of S. Early St• S. Pickett St west of Van Dorn St

Curb Use Categories

	Examples:
City Plan Priorities	Safety improvements, bus lanes, bike lanes, green infrastructure, electric vehicle charging, and other items specifically included in City plans
Access for Goods	Loading zones, deliveries, food pick-up/drop-off
Access for People	Bus stops, pick-up/drop-off, bikeshare stations, scooter corrals
Parking	Metered parking, residential parking, bike parking
Activation	Parklets, in-street dining, public art

Curb Space Prioritization Framework

Priority:	Residential	Main Streets	Office & Commercial	Warehouse & Industrial
1: High	City Plan Priorities			
2	Access for People	Access for People	Access for People	Access for Goods
3	Parking	Access for Goods	Access for Goods	Access for People
4	Access for Goods	Activation	Parking	Parking
5: Low	Activation	Parking	Activation	Activation



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

Number of curb space changes informed by the CurbSpace Prioritization Framework introduced to the Traffic and Parking Board

Positive rating of ease of public parking (Resident Survey) *

Positive rating of availability of parking near my home (Resident Survey) *

Positive rating of availability of on-street and garage parking near shopping (Resident Survey) *

Number of publicly accessible level 2 or higher electric vehicle charging plugs per population

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



Credit: Misha Enriquez for Visit Alexandria



Moving Forward

This plan has outlined a series of ambitious, yet achievable policies, actions, and strategies for Alexandria. It serves as a work plan for staff to improve mobility choices in the community and guides transportation decision-making. It promotes flexibility to adapt to our changing environment and provides a foundation for securing funding to advance existing plans and new projects.

A Shared Responsibility for Implementation and Monitoring

Successfully executing the elements of the Alexandria Mobility Plan will take more than the efforts of any one City department. It will take the collective advocacy of citizens, dedication of staff, and leadership from elected officials. In **Appendix I - Implementation** and **Appendix II - Monitoring, Reporting, and Key Performance Indicators**, the specific steps of strategy implementation and process for tracking success is outlined in further detail.








Keeping the Plan Current

In keeping with the overarching policy of adaptability and flexibility, it is important to note that the strategies within this plan are not exhaustive. As new initiatives develop, they will be considered compatible with the AMP as long as they are consistent with AMP policies and help to achieve its targets and guiding principles. Many of the initiatives in this plan will require additional targeted outreach and community engagement as more details are developed.

The City anticipates providing a progress report to the Transportation Commission on an annual basis and assessing the key performance indicators and chapter metrics in 2024, 2027, and 2030. The City intends to conduct an update of the entire plan beginning in 2028, aligning with the target year to achieve the City’s Vision Zero goal.

AMP Outcomes

Together, the elements of the plan will lead to tangible and measurable progress toward achieving the plan’s vision, guiding principles, and citywide goals to improve not just transportation, but also equity and quality of life.

-  Increased access to high-quality transportation choices for all Alexandrians
-  More and easier connections to jobs, opportunities, and community destinations
-  Better overall experience traveling around the city
-  Reduced number and severity of crashes
-  Increase in non single-occupant vehicle travel



Equitable outcomes for all Alexandrians, especially neighborhoods and populations that have been historically underserved

Appendix I

Implementation

October 2021

Implementation

The chapters in the Alexandria Mobility Plan (AMP) highlight specific strategies that advance the AMP vision, other citywide initiatives, and previously developed plans. Each strategy is complemented by implementation actions that move the strategy from an actionable concept in the AMP to an implemented strategy within the city. Implementation actions are specific, detailed, and aligned with a timeline to advance the strategy and help to inform staff workload and direction.

The AMP is designed to be flexible. In addition to implementation actions providing direction for staff, the AMP also encourages staff to respond as new opportunities arise and conditions change over time. Therefore, continued tracking of progress on outlined strategies along with integration of new opportunities will help to ensure that staff efforts are aligned with AMP vision and goals.

Appendix I – Implementation focuses on the strategies, implementation actions, and tracking progress.

Components of the Implementation Matrix

Strategies

The strategies are organized by AMP chapter. The attributes of each strategy include the applicable policies, guiding principles, and related plans.

Implementation Actions

Each strategy in the AMP has a series of implementation actions that guide the path forward to completion. These actions vary in the required duration, type of effort, collaboration, and many other factors. The implementation actions are aligned with four different timelines:

- Short-term (by 2024)
- Medium-term (by 2027)
- Long-term (by 2030)
- Continual

The above timelines should be viewed as guides for City staff as they plan future work and projects.

Metrics

Tracking the progress of strategies and implementation actions can be measured through the metrics listed for each strategy, in addition to tracking progress towards completion. More detailed information for each metric, as well as data sources and baseline information can be found in **Appendix II – Monitoring, Reporting, and Key Performance Indicators**.

Plan Policies by Chapter

Transit

Policy A: Make transit greener and more useful

Policy B: Make transit easier to use

Smart Mobility

Policy A: Improve safety and efficiency

Policy B: Prepare for new technology

Streets

Policy A: Protect neighborhoods from cut-through traffic

Policy B: Achieve Vision Zero

Policy C: Leverage smart mobility

Pedestrian and Bicycle

Policy A: Prioritize safety

Policy B: Address network gaps

Supporting Travel Options

Policy A: Enhance choice

Policy B: Promote work flexibility

Policy C: Focus on all trips

Curb Space and Parking

Policy A: Connect parking policy to City goals

Policy B: Ensure parking availability

Policy C: Promote equitable allocation of curb space

Strategy Number	Strategy	Related Policies			Guiding Principles						Related Plan(s)	Implementation Actions				Related Metric(s)
		A	B	C	Accessible	Connected	Convenient	Equitable	Safe	Sustainable		Short-Term (by 2024)	Medium-Term (by 2027)	Long-Term (by 2030)	Continual	
Transit																
1	Implement a citywide transit network with frequent, all-day service	✓	✓	N/A	✓	✓	✓	✓		✓	Transit Vision Plan Environmental Action Plan 2040 City Strategic Plan	• Begin implementing the New DASH Network 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	• Percent of residents within ¼ mile of 15 minute or better service • Percent of people taking transit to work (mode share) • Positive rating of ease of travel by public transportation
2	Build out the city's priority transitway corridors and identify improvements on congested, high-ridership corridors to reduce travel times and improve reliability	✓	✓	N/A	✓	✓	✓	✓		✓	Transit Vision Plan Environmental Action Plan 2040 City Strategic Plan	• 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	• 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	• 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 (HOV) lanes, and other operational or street design improvements/pilot projects on corridors with frequent and congested bus service	• Positive rating of ease of travel by public transportation • Percent of people taking transit to work (mode share)
3	Transition the City's bus fleet to fully electric, zero-emission vehicles	✓		N/A		✓				✓	Transit Vision Plan Environmental Action Plan 2040				• 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	• Percent of people taking transit to work (mode share) • Rating of ease of travel by public transportation

Strategy Number	Strategy	Related Policies			Guiding Principles						Related Plan(s)	Implementation Actions				Related Metric(s)
		A	B	C	Accessible	Connected	Convenient	Equitable	Safe	Sustainable		Short-Term (by 2024)	Medium-Term (by 2027)	Long-Term (by 2030)	Continual	
Transit																
4	Improve the rider experience from trip planning, to accessing the stop, riding the bus, and arriving at the destination			N/A							Transit Vision Plan Environmental Action Plan 2040 Age Friendly Plan For A Livable Community Smart Mobility Framework Plan Complete Streets Policy Vision Zero Policy	<ul style="list-style-type: none">• 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	<ul style="list-style-type: none">• Build in options for storage of large items such as strollers or groceries and enact rider policies to encourage families to use transit		<ul style="list-style-type: none">• 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	<ul style="list-style-type: none">• Percent of bus stops with shelters• Percent of bus stops that are accessible for persons with disabilities
5	Evaluate DASH’s fare free service and continue to explore low-income WMATA fares			N/A							Transit Vision Plan Environmental Action Plan 2040	<ul style="list-style-type: none">• Monitor outcomes of implementing free fares on DASH• Identify funding sources for long-term sustainability of a DASH fare free program	<ul style="list-style-type: none">• Explore low-income fare products for WMATA services			<ul style="list-style-type: none">• Positive rating of ease of travel by public transportation
6	Support a better connected regional transit network			N/A							Environmental Action Plan 2040	<ul style="list-style-type: none">• 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	<ul style="list-style-type: none">• 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	<ul style="list-style-type: none">• Enhance connections to support future rail expansion, water transportation expansion, and future regional bus rapid transit corridors		<ul style="list-style-type: none">• Positive rating of ease of travel by public transportation• Percent of residents within ¼ mile of 15 minute or better service

Strategy Number	Strategy	Related Policies			Guiding Principles						Related Plan(s)	Implementation Actions				Related Metric(s)
		A	B	C	Accessible	Connected	Convenient	Equitable	Safe	Sustainable		Short-Term (by 2024)	Medium-Term (by 2027)	Long-Term (by 2030)	Continual	
Transit																
7	Modernize the paratransit program for the city's aging population		✓	N/A	✓		✓	✓			Age Friendly Plan For A Livable Community	• 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	• Positive rating of ease of travel by public transportation
Smart Mobility																
1	Expand smart signal technology to enable detection and real-time signal adjustments	✓	✓	N/A		✓	✓		✓		Smart Mobility Framework Plan Vision Zero Action Plan	• Integrate Transit Signal Priority (TSP) and Emergency Vehicle Preemption (EVP) into more of the City's corridors. This involves upgrading the City's traffic signals as well as the fleet of transit and emergency vehicles with preemption equipment	• Enable use of vehicle detection at signals for more responsive timing through adaptive signal technology. Duke Street and Van Dorn Street will be the first two corridors to be prioritized for this effort		• Improve data collection through new platforms and technologies to better understand how people use the transportation system and improve decision-making	• Number of intersections with smart signal technology • Percent of intersections with smart signal technology in Equity Emphasis Areas • Rating of traffic flow on major streets • Transit travel times on Duke Street, Van Dorn Street, and upper King Street
2	Strategically invest in partnerships to expand city data, technology, and communications capabilities	✓		N/A		✓	✓		✓		Smart Mobility Framework Plan	• Develop a template for evaluating partnership opportunities and coordinating with neighboring jurisdictions, state agencies, and private companies to improve regional collaboration and data sharing			• Identify potential partnerships to improve information and communication about parking availability, gain a better understanding of how the curb space on City streets is being utilized, obtain anonymized travel pattern data from private mobility operators, and collect and analyze real-time data to inform traffic management and street design • Utilize platforms and engage in regional coalitions to make transportation data more transparent and improve decision-making	• Number of intersections with smart signal technology • Percent of intersections with smart signal technology in Equity Emphasis Areas

Strategy Number	Strategy	Related Policies			Guiding Principles						Related Plan(s)	Implementation Actions				Related Metric(s)
		A	B	C	Accessible	Connected	Convenient	Equitable	Safe	Sustainable		Short-Term (by 2024)	Medium-Term (by 2027)	Long-Term (by 2030)	Continual	
Smart Mobility																
3	Upgrade capabilities of the Traffic Management Center to better manage congestion in real-time			N/A							Smart Mobility Framework Plan	<ul style="list-style-type: none">• Equip Alexandria's Traffic Management Center to allow it to manage on-street traffic equipment, monitor overall system status including pavement condition during weather events, configure devices remotely, and analyze data• Expand coverage of CCTV cameras and improve traffic visualizations for more efficient management of traffic incidents		<ul style="list-style-type: none">• Incorporate resiliency and redundancy measures, such as a virtual backups in the event of failures	<ul style="list-style-type: none">• Number of intersections with smart signal technology• Percent of intersections with smart signal technology in Equity Emphasis Areas• Positive rating of traffic flow on major streets• Transit travel times on Duke Street, Van Dorn Street, and upper King Street	
4	Proactively prepare for connected and autonomous vehicles			N/A							Smart Mobility Framework Plan	<ul style="list-style-type: none">• Consider pilot projects to lay the groundwork for and evaluate the effectiveness of various new technologies.	<ul style="list-style-type: none">• Prepare for connected vehicles by developing maintenance and infrastructure plans to ensure street readiness	<ul style="list-style-type: none">• Prepare for autonomous or self-driving vehicles by developing policies to manage potentially significant increases in miles driven and traffic volumes within the city, including limiting zero-passenger miles and incentivizing shared use	<ul style="list-style-type: none">• Ensure that safety is a priority when testing and implementing new technologies	<ul style="list-style-type: none">• Number of intersections with smart signal technology• Percent of intersections with smart signal technology in Equity Emphasis Areas
5	Develop a framework for pilot projects to test new modes, infrastructure, or initiatives			N/A							Smart Mobility Framework Plan Environmental Action Plan 2040 Vision Zero Action Plan	<ul style="list-style-type: none">• Create standards for appropriate use of pilot projects, including timeframes, public process, evaluation, and opportunities to make adjustments• Build upon lessons learned from the Dockless Mobility Pilot as well as national best practices from peer cities• Promote a framework that ensures transparency in pilot project execution				

Strategy Number	Strategy	Related Policies			Guiding Principles						Related Plan(s)	Implementation Actions				Related Metric(s)
		A	B	C	Accessible	Connected	Convenient	Equitable	Safe	Sustainable		Short-Term (by 2024)	Medium-Term (by 2027)	Long-Term (by 2030)	Continual	
Streets																
1	Implement the Vision Zero Action Plan to eliminate traffic fatalities and serious injuries by 2028		✔		✔	✔	✔	✔	✔	✔	Age Friendly Plan For A Livable Community Environmental Action Plan 2040 Complete Streets Policy and Design Guidelines Vision Zero Action Plan				<ul style="list-style-type: none">• Develop annual work plan priorities for promoting a culture of safety, building safer streets, improving data collection, and enhancing City processes and collaboration• Prioritize high crash intersections and corridors for improvements, especially those in Equity Emphasis Areas• Evaluate crash data for each project to enhance data-driven decision-making• Apply national best practices as appropriate	<ul style="list-style-type: none">• Number of fatal and serious crashes
2	Develop a comprehensive program to reduce speeding and cut-through traffic on local streets	✔	✔	✔	✔		✔		✔		City Strategic Plan Smart Mobility Framework Plan Complete Streets Policy and Design Guidelines Vision Zero Action Plan	<ul style="list-style-type: none">• Outline procedures for addressing and monitoring cut-through traffic, traffic congestion, and speeding• Develop criteria and list of data needs tailored to each traffic issue	<ul style="list-style-type: none">• Identify specific solutions for local traffic appropriate for the street type and location to encourage regional traffic to stay on major thoroughfares			<ul style="list-style-type: none">• Number of fatal and serious crashes
3	Ensure new development minimizes negative impacts to the street network	✔	✔		✔		✔		✔	✔	Age Friendly Plan For A Livable Community Complete Streets Policy and Design Guidelines Environmental Action Plan 2040 Vision Zero Action Plan	<ul style="list-style-type: none">• Update guidance for developers to better reflect City goals through traffic impact studies and best practices from around the country• Require improved data collection and reporting after implementation			<ul style="list-style-type: none">• Ensure proper consideration of all users through improved methods for measuring service levels for all modes and safety impacts on our transportation network• Encourage study methodologies and mitigation measures such as TDM programs and street design changes that place higher priority on local trips rather than regional trips to help reduce cut-through traffic	<ul style="list-style-type: none">• Percent of Transportation Management Plans evaluated that meet mode split targets
4	Work with regional, state, and private sector partners to develop tools to keep traffic on highways and reduce regional cut-through traffic	✔		✔			✔		✔		Smart Mobility Framework Plan City Strategic Plan	<ul style="list-style-type: none">• Coordinate with other jurisdictions and regional bodies to evaluate pricing strategies and other policies that promote highway travel versus travel on local streets• Explore signal timing as a tool to keep regional traffic on highways			<ul style="list-style-type: none">• Utilize variable messaging systems to use real time travel comparisons to promote high-occupancy toll (HOT) lanes	<ul style="list-style-type: none">• Positive rating of traffic flow on major streets

Strategy Number	Strategy	Related Policies			Guiding Principles						Related Plan(s)	Implementation Actions				Related Metric(s)
		A	B	C	Accessible	Connected	Convenient	Equitable	Safe	Sustainable		Short-Term (by 2024)	Medium-Term (by 2027)	Long-Term (by 2030)	Continual	
Streets																
5	Consider the use of speed cameras and other automated tools to improve safety	✔	✔	✔				✔	✔		ALL Alexandria Resolution City Strategic Plan Vision Zero Action Plan	• Consider speed cameras in school zones, enabled in 2020	• If data demonstrates a safety benefit with the use of automated enforcement tools, explore legislative measures to expand the City's ability to place speed cameras in areas where they can most improve safety	• Partner with the Alexandria Police Department to enforce traffic laws to protect vulnerable street users and promote equity	• Number of fatal and serious crashes	
6	Maintain a state of good repair for our streets using a proactive, data-driven, and equitable approach			✔	✔				✔		ALL Alexandria Resolution City Strategic Plan Vision Zero Action Plan			• Seek to maintain our transportation assets to achieve a state of good repair in a cost-effective and minimally disruptive manner by coordinating utility work, fiber installation, and other street improvements when possible • Use state and federal required methodologies based on pavement and bridge condition to ensure continued funding and equitable distribution of resources • When local funding is available for additional service requests, ensure they are distributed evenly throughout the city	• Average Pavement Condition Rating (Pavement Condition Index)	
Pedestrian and Bicycle																
1	Create a safe, well-maintained, and comfortable walking and bicycling environment	✔		N/A	✔	✔	✔	✔	✔	✔	Age Friendly Plan For A Livable Community Environmental Action Plan 2040 Vision Zero Action Plan Complete Streets Policy and Design Guidelines	• Improve signage and wayfinding for people biking and walking		• Invest in ongoing maintenance and repair of the pedestrian and bicycle network • Conduct construction inspections, address priority lighting deficiencies, and ensure timely snow plowing to ensure infrastructure is accessible at all times • Prioritize safe access to transit, schools, senior centers, recreation centers, and improvements at high-crash locations	• Number of pedestrian- and bicycle-involved crashes • Percent of people walking or biking to work (mode share) • Annual number of bikeshare trips • Positive rating of ease of walking • Positive rating of ease of travel by bicycle • Number of repaired curb ramps per year	

Strategy Number	Strategy	Related Policies			Guiding Principles						Related Plan(s)	Implementation Actions				Related Metric(s)
		A	B	C	Accessible	Connected	Convenient	Equitable	Safe	Sustainable		Short-Term (by 2024)	Medium-Term (by 2027)	Long-Term (by 2030)	Continual	
Pedestrian and Bicycle																
2	Build out a continuous, connected, and accessible pedestrian network that enables people of all ages and abilities to move safely and comfortably	✓	✓	N/A	✓	✓	✓	✓	✓	✓	Age Friendly Plan For A Livable Community Environmental Action Plan 2040 Vision Zero Action Plan Complete Streets Policy and Design Guidelines				<ul style="list-style-type: none">• Make existing sidewalks and intersections safer and more comfortable, with a focus on high-crash locations per the Vision Zero Action Plan• Continue addressing priority sidewalks to ensure sidewalks are present on both sides of all major streets and on at least one side of all other streets• Reduce conflicts between modes by implementing treatments consistent with national best practices that are context appropriate, including increasing the number and quality of off-street connections and intersection improvements• Improve off-street pedestrian access through neighborhoods, new developments, and across major barriers such as freeways or rail corridors	<ul style="list-style-type: none">• Linear feet of new sidewalk installed per year (Citywide and in Equity Emphasis Areas)• Miles of bike facilities (on-street and paved off-street trails) installed per year (Citywide and in Equity Emphasis Areas)• Positive rating of ease of walking• Number of repaired curb ramps per year• Number of accessible pedestrian signals installed per year
3	Build out a connected bicycle network of both on- and off-street facilities and shared mobility devices to benefit riders of all ages and abilities	✓	✓	N/A	✓	✓	✓	✓	✓	✓	Environmental Action Plan 2040 Vision Zero Action Plan Age Friendly Plan For A Livable Community Complete Streets Policy and Design Guidelines	<ul style="list-style-type: none">• Expand bikeshare and availability of parking for bikes and micromobility devices such as shared/electric bikes and scooters• Study building upon the planned network of bicycle routes to develop a citywide network of low-stress bicycle routes that are appealing to adults and children who are interested in riding but concerned about safety			<ul style="list-style-type: none">• Integrate the off-street trail system with the on-street bicycle network by providing wayfinding and well-designed transitions at trail access points• Build out the planned bicycle network with both on- and off-street facilities to provide safe connections within and between neighborhoods and to key destinations	<ul style="list-style-type: none">• Miles of bike facilities (on-street and paved off-street trails) installed per year (Citywide and in Equity Emphasis Areas)• Positive rating of ease of travel by bicycle• Annual number of bikeshare trips• Shared mobility trips to and from equity areas (as defined by the Dockless Mobility Program)

Strategy Number	Strategy	Related Policies			Guiding Principles						Related Plan(s)	Implementation Actions				Related Metric(s)
		A	B	C	Accessible	Connected	Convenient	Equitable	Safe	Sustainable		Short-Term (by 2024)	Medium-Term (by 2027)	Long-Term (by 2030)	Continual	
Pedestrian and Bicycle																
4	Upgrade or install infrastructure that increases the accessibility of City streets and public spaces for people of all ages and abilities			N/A							Age Friendly Plan For A Livable Community Complete Streets Policy and Design Guidelines Vision Zero Action Plan	<ul style="list-style-type: none">• Install appropriate street lighting for those walking and bicycling, with consideration to areas with more people of color or low income residents	<ul style="list-style-type: none">• When repaving streets, upgrade corners and crosswalks with accessible, directional ramps that meet, to the maximum extent possible, current ADA standards• Upgrade or install new audible pedestrian signal push buttons at existing and new pedestrian signals to enhance access and safety for persons with disabilities• Address tripping hazards on sidewalks and pedestrian areas as quickly as possible through routine maintenance projects and in response to service requests• Prioritize safe and accessible access to transit stops, schools, and parks	<ul style="list-style-type: none">• Linear feet of new sidewalk installed per year (Citywide and in Equity Emphasis Areas)• Miles of bike facilities (on-street and paved off-street trails) installed per year (Citywide and in Equity Emphasis Areas)• Positive rating of ease of walking• Positive rating of ease of travel by bicycle• Number of repaired curb ramps per year• Number of accessible pedestrian signals installed per year		
5	Educate all street users about safety and traffic laws			N/A							Vision Zero Action Plan Complete Streets Policy and Design Guidelines	<ul style="list-style-type: none">• Initiate targeted outreach that aims to increase adult and youth knowledge of safe walking, biking, and driving behaviors and traffic laws related to pedestrian, bicycle, and scooter travel	<ul style="list-style-type: none">• Educate public and private sector design professionals, city groups, and the public who are involved with Alexandria's transportation system on Complete Streets principles and design• Pursue partnerships to expand the reach of education, outreach, and promotional efforts with GO Alex, the Alexandria Policy Department, Alexandria City Public Schools, MWCOG's Street Smart Safety Campaign, local advocacy groups, and others	<ul style="list-style-type: none">• Number of pedestrian- and bicycle- involved crashes		

Strategy Number	Strategy	Related Policies			Guiding Principles						Related Plan(s)	Implementation Actions				Related Metric(s)
		A	B	C	Accessible	Connected	Convenient	Equitable	Safe	Sustainable		Short-Term (by 2024)	Medium-Term (by 2027)	Long-Term (by 2030)	Continual	
Supporting Travel Options																
1	Use information, programs, and encouragement to make it easier for residents and workers to choose options other than driving alone										Environmental Action Plan 2040 City Strategic Plan	<ul style="list-style-type: none">Identify an expanded set of community influencers (such as religious leaders, school principals, and athletic organizations), in addition to employers and residential property managers, to help encourage alternatives to driving aloneUpdate the Transportation Management Plan program so new developments can better reduce and track congestion	<ul style="list-style-type: none">Develop a travel training and commuter assistance program to provide hands-on experience on taking a new (to you) way of traveling		<ul style="list-style-type: none">Expand use of real-time information to promote travel choices	<ul style="list-style-type: none">Percent of people taking non-single occupancy vehicles to work (mode share)Number of community influencers involved with GO Alex
2	Use the Potomac River to expand transportation options										Environmental Action Plan 2040	<ul style="list-style-type: none">Partner with other jurisdictions, agencies, and private partners to determine the best ways to utilize the Potomac River as a transportation option			<ul style="list-style-type: none">Explore and evaluate new water transportation routes and services for commute and trips, errands, or entertainmentIdentify opportunities to integrate with other modes of transportation	<ul style="list-style-type: none">Percent of people taking non-single occupancy vehicles to work (mode share)
3	Create mobility hubs										Environmental Action Plan 2040 Smart Mobility Framework Plan		<ul style="list-style-type: none">Identify optimal locations for mobility hubs in strategic locations around the city. These mobility hubs will differ in size and scope based on location type and may incorporate elements to improve navigation for all users of the site through wayfinding and other featuresIncorporate charging infrastructure for carshare vehicles, personal vehicles, and micromobility devices (electric bikes, scooters, etc.)		<ul style="list-style-type: none">Focus on traditionally underserved communities and strategic locations to address first- and last-mile travel needs citywide	<ul style="list-style-type: none">Percent of people taking non-single occupancy vehicles to work (mode share)

Strategy Number	Strategy	Related Policies			Guiding Principles						Related Plan(s)	Implementation Actions				Related Metric(s)
		A	B	C	Accessible	Connected	Convenient	Equitable	Safe	Sustainable		Short-Term (by 2024)	Medium-Term (by 2027)	Long-Term (by 2030)	Continual	
Supporting Travel Options																
4	Pursue regional approaches to reduce traffic and congestion, particularly during peak times	✓	✓	✓		✓	✓				Environmental Action Plan 2040 City Strategic Plan	• Coordinate with neighboring jurisdictions and regional entities to explore unifying local TDM programs into a more comprehensive regional effort		• Advocate for policies that will reduce congestion, such as telework incentives or a regional congestion pricing program • Continue to support regional transportation initiatives, including Commuter Connections, and targeted TDM initiatives of a regional scale, such as the Northern Virginia Regional Multi-Modal Mobility Program (R3MP)	• Weekday person hours of delay • Transit travel times on Duke Street, Van Dorn Street, and upper King Street	
Curb Space and Parking																
1	Implement a prioritization framework for making changes to curb space	✓	✓	✓	✓		✓	✓	✓		Environmental Action Plan 2040 Complete Streets Policy and Design Guidelines Age Friendly For A Livable Community Housing Master Plan	• Implement a framework to prioritize parking, loading, drop-off, bike lanes, and mobility hubs, among other uses, when making curbside changes		• Work with the community and the Traffic and Parking Board to apply the framework when a new use is considered on a street	• Number of curb space changes informed by the CurbSpace Prioritization Framework introduced to the Traffic and Parking Board • Positive rating of ease of public parking • Positive rating of parking of availability of parking near my home • Positive rating of availability of on-street and garage parking near shopping	
2	Consider pricing, regulation, data, and communications to manage parking availability	✓	✓	✓		✓	✓			✓	Environmental Action Plan 2040	• Consider technology to collect and disseminate more and better data on parking availability and usage • Improve signage and availability of real-time information via technology to guide users to off-street parking, pick-ups, drop-offs, and loading to free up on-street curb space whenever reasonable and practicable	• Consider coordinated pricing strategies to encourage more efficient and equitable use of on- and off-street parking spaces	• Improve the perception of safety in garages through improved communications, wifi connections, and cellular service	• Positive rating of ease of public parking • Positive rating of availability of parking near my home (Excellent/Good) • Positive rating of parking availability of on-street and garage parking near shopping (Excellent/ Good)	

Strategy Number	Strategy	Related Policies			Guiding Principles						Related Plan(s)	Implementation Actions				Related Metric(s)
		A	B	C	Accessible	Connected	Convenient	Equitable	Safe	Sustainable		Short-Term (by 2024)	Medium-Term (by 2027)	Long-Term (by 2030)	Continual	
Curb Space and Parking																
3	Reconsider parking requirements in new developments	✓	✓			✓		✓		✓	Housing Master Plan Environmental Action Plan 2040 City Strategic Plan	<ul style="list-style-type: none">• Build upon recent efforts to right-size parking for residential and commercial development, recognizing that increased parking leads to increased traffic• Review shared parking section of the zoning and ordinance to identify opportunities to make shared parking more viable. For example, a bank that closes at 5:00 PM and a restaurant that opens at 5:00 PM may be able to share parking facilities		<ul style="list-style-type: none">• Leverage the ability of new data sources to regularly evaluate parking uses and trends• Increase the percentage of parking spaces in new developments that can support electric vehicle charging	<ul style="list-style-type: none">• Positive rating of ease of public parking• Positive rating of availability of parking near my home• Positive rating of availability of on-street and garage parking near shopping	
4	Promote electric vehicle charging opportunities	✓					✓	✓		✓	Environmental Action Plan 2040 Electric Vehicle Charging Infrastructure Readiness Strategy	<ul style="list-style-type: none">• Establish electric vehicle (EV) installation checklists for different uses• Deveop a policy for providing public charging infastrucutre in public spaces		<ul style="list-style-type: none">• Coordinate between parties interested in charging stations	<ul style="list-style-type: none">• Number of publicly accessible level 2 or higher electric vehicle charging plugs per population	

Appendix II

Monitoring, Reporting, and Key Performance Indicators

Measuring Progress

The Alexandria Mobility Plan (AMP) seeks to expand access to transportation choices, make it easier for people to get around by all modes, reduce single-occupancy vehicle travel, eliminate traffic fatalities and injuries, and more. **The City will track progress of the AMP through two means – overarching key performance indicators (KPIs) that are tied to the plan’s guiding principles, and metrics for each chapter that are chapter-specific with targets established where applicable.** Many chapter-specific metrics are related to and will feed into the plan-level KPIs.



Key Performance Indicators

While City actions can help move the needle on the KPIs, it is important to recognize that other external factors may influence them as well. By tracking the KPIs, the City can take the pulse on how residents, visitors, and workers are experiencing mobility and potentially adjust areas of focus accordingly throughout the life of this plan.

Each guiding principle is associated with just one or two KPIs to understand mobility in Alexandria at the highest levels. To holistically track outcomes that address the equitable guiding principle, all KPIs are given an “equity lens” to measure progress in a way that is consistent with the City’s ALL Alexandria resolution and ensures equitable outcomes for all Alexandrians, especially neighborhoods and populations that have been historically underserved. **Measuring progress toward achieving the guiding principles allows the City to track how transportation projects and initiatives improve and expand choices—and more choices can lead to improved quality of life and other benefits beyond transportation.**

There are many data challenges associated with measuring these high-level outcomes, so some KPIs may not be the ideal measure for a certain guiding principle. However, these were selected in consultation with City staff, subject matter experts, and the Alexandria Mobility Plan Advisory Committee (AMPAC) to be reflective of measures other plans are targeting and because they provide useful information on the outcomes this plan aims to achieve. As additional data and tools become available, the City may be able to track the guiding principles more effectively.

For each KPI, baseline information is provided which represents the most recent data available. The City commits to updating this information regularly following plan adoption, at least every three years, and publishing resulting data in a transparent manner on the City website.

Guiding Principles

KPIs are tied to the guiding principles of the AMP and are used to measure plan-level progress toward achieving City goals and targets through the AMP.



Accessible

Alexandria will work to make its transportation network easily accessible for users of all ages and abilities.



Connected

Alexandria's transportation system will take you where you want to go seamlessly by leveraging technology and integrating transportation and land use.



Convenient

Alexandria will provide a transportation system with high-quality mobility options that are reliable, frequent, proximate, and comfortable.



Equitable

Alexandria acknowledges that there are disparities in neighborhoods and populations in the city that have been historically underserved. Alexandria will be targeted, inclusive, and intentional in addressing gaps in mobility options available, their quality, and safety.



Safe

Alexandria will eliminate all traffic deaths and serious injuries by 2028.



Sustainable

Alexandria will prioritize low-carbon mobility options and reduce automobile dependency.

Accessible and Connected Definitions

The Accessible and Connected indicators are measured using “proximity to alternatives to driving” to understand the choices available. Useful alternatives to driving generally need to be nearby, frequent, and safe. Each component of this measure - transit access, pedestrian access, and bicycle access - have different measurements based on the characteristics of the particular mode.

Transit

Areas of Alexandria that are in close proximity to high-frequency transit service:

- **Proximity to Bus** - Areas within $\frac{1}{4}$ of a mile of a bus stop with midday bus frequencies of every 15 minutes or better.
- **Proximity to Rail** - Areas within $\frac{1}{4}$ of a mile of a Metrorail station with midday train frequencies of every 15 minutes or better.

Pedestrian

Areas of Alexandria that have no gaps in sidewalk coverage:

- **Proximity to Sidewalks** - Areas that are not within 330 feet ($\frac{1}{16}$ of a mile or about one city block) of a sidewalk gap (have sidewalks on both sides).

Bicycle

Areas of Alexandria that are in close proximity to on-street bicycle lanes and off-street paved trails:

- **Proximity to Bicycle Lanes** - Areas within $\frac{1}{8}$ of a mile of an on-street bicycle lane.
- **Proximity to Paved Trails** - Areas within $\frac{1}{8}$ of a mile of an off-street paved trail.

Accessible

Alexandria will work to make its transportation network easily accessible for users of all ages and abilities

In the context of the AMP, “Access” refers to the proximity of residents to alternatives to driving, which include high-frequency bus or rail service, bike lanes and trails, and connected sidewalks as defined on the previous page. Recognizing that everyone has access to a street to drive on, the City is measuring access this way to understand what choices people have close by.

Equity Lens:

- Percent of residents (low-income residents, people of color, seniors, and people with disabilities) in close proximity to alternatives to driving

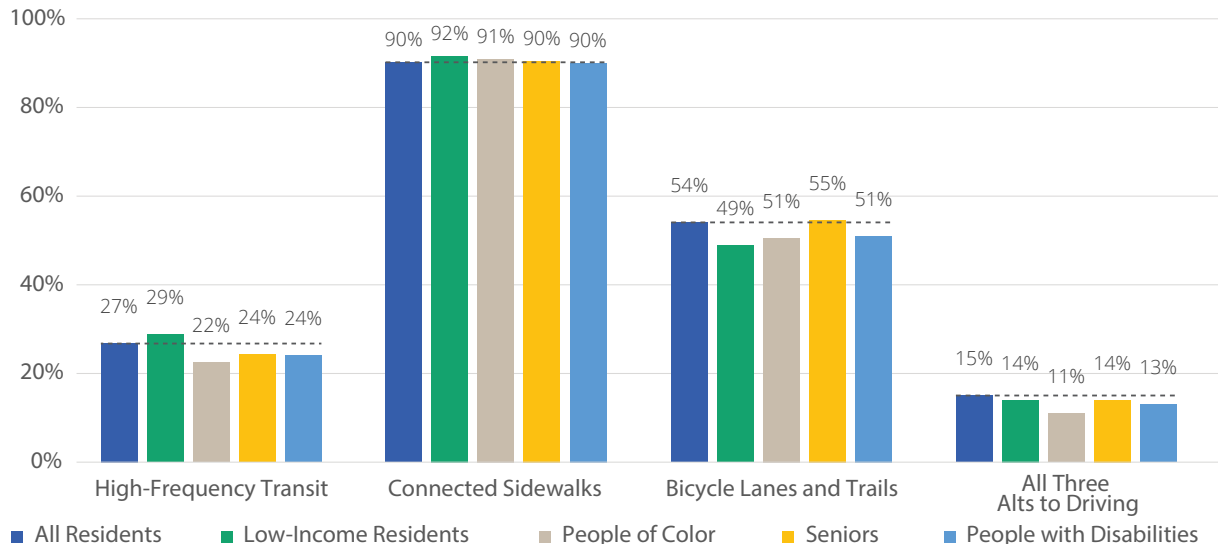
Key Performance Indicator:

- Percent of residents in close proximity to alternatives to driving

Why measure “Proximity to Alternatives to Driving?”

Driving is a popular way to make many trips in Alexandria, and this will likely continue. A priority of the AMP is to give people choices. Every home has access to a street, but there are still many Alexandrians without nearby sidewalks, bike lanes and trails, or frequent transit, meaning they do not have the convenient choice to walk, bike, or take transit. Having choices benefits everyone, from cleaner air, healthier lifestyles, and less congestion. Having choices means that when gas prices rise or if there is a transit shutdown, people can still get around safely and conveniently.

This is what we call “Close Proximity to Alternatives” and this is why the following sections use it as an important metric: it measures high-quality, practical choices.

Baseline Information:**Percent of Residents within Close Proximity of Alternatives to Driving**

The City's investments in transit, such as the new Potomac Yard Metrorail station and implementation of the Alexandria Transit Vision Plan, will significantly increase the percentage of Alexandria residents in close proximity to high-frequency transit in the future. When implemented, the Transit Vision Plan will increase the percentage of all residents in close proximity to high-frequency transit from 27% to 83%.

Sources:

Baseline Transit Network (Midday): City data, 2021 (prior to Alexandria Transit Vision Plan implementation)

Baseline Pedestrian Network: City data, 2021

Baseline Bicycle Network: City data, 2021

All Residents: Total population counts from the 2017 American Community Survey (ACS) by Block Group.

Low-Income Residents: Total households identified in the 2017 ACS as being in poverty according to Federally defined poverty standards.

People of Color: Count of 2017 ACS estimates of people identifying as non-white.

Seniors: Count of 2017 ACS estimate of people over 65.

People with Disabilities: Count of 2017 ACS estimates

Connected

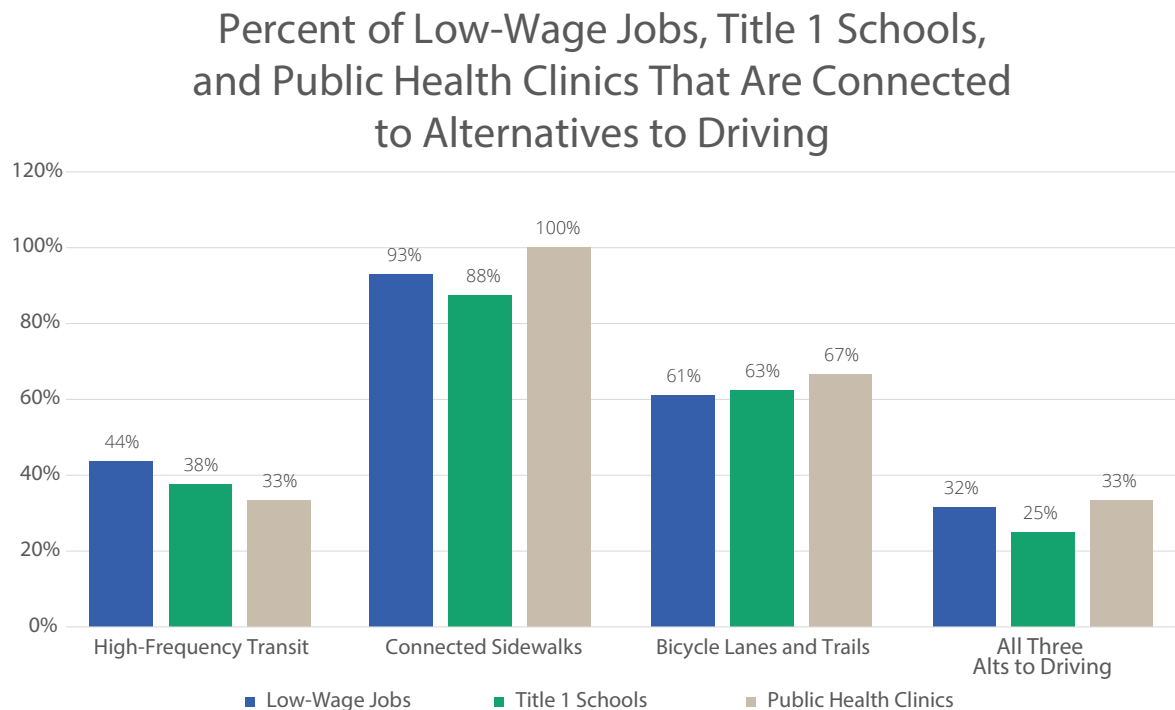
Alexandria’s transportation system will take you where you want to go seamlessly by leveraging technology and integrating transportation and land use

“Destinations” are broadly defined as employment, opportunities, or services critical to quality of life and include jobs, schools, parks and recreation centers, grocery stores, and healthcare facilities. Alternatives to driving include high-frequency bus or rail service, bike lanes and trails, and connected sidewalks.

Equity Lens:

- Percent of low-wage jobs, Title 1 schools, and public health clinics that are connected to alternatives to driving

Baseline Information:

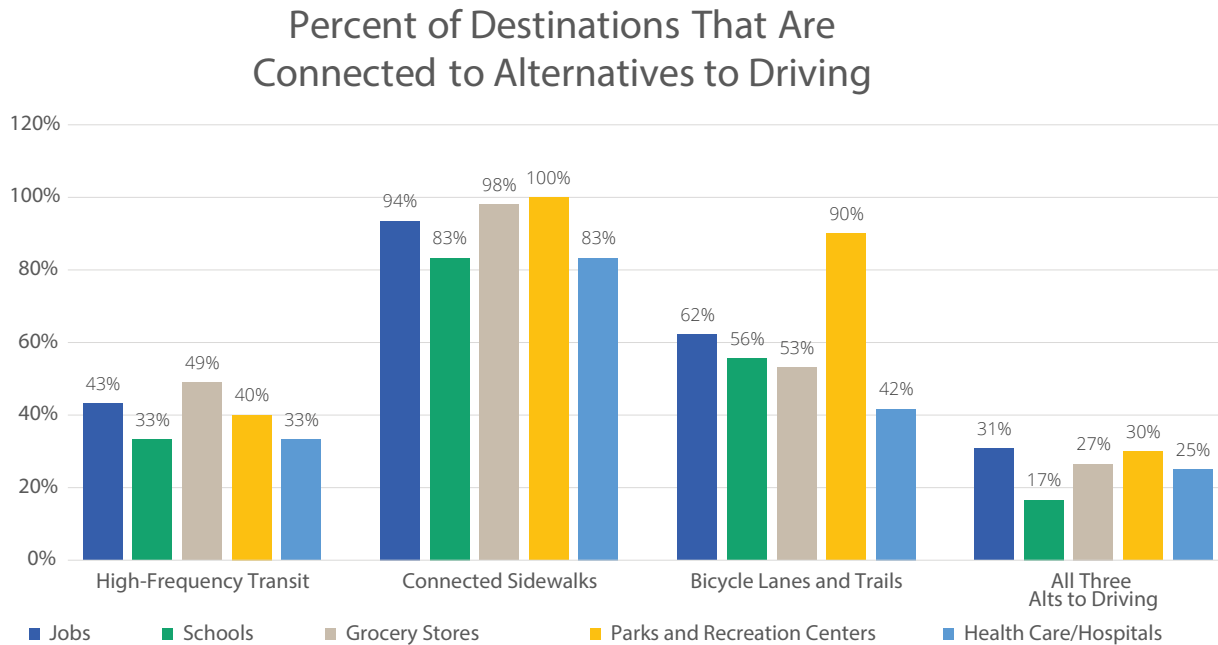


Sources:
Low-Wage Jobs: Count of Jobs in each Census Block Group paying less than \$1,250 per month from the ACS Longitudinal Employer-Household Dynamics (LEHD) “OnTheMap” tool.
Title 1 Schools: Alexandria City Public Schools; data from the National Center for Education Statistics.
Public Health Centers: Clinic locations within the City of Alexandria taken from [OpenStreetmap](#). (Search query: “amenity”=“clinic” and “healthcare”=“clinic”).

Key Performance Indicator:

- Percent of destinations that are connected to alternatives to driving

Baseline Information:



Sources:

Jobs: Count of jobs in each Census Block Group taken from the 2017 ACS Longitudinal Employer-Household Dynamics (LEHD) "OnTheMap" tool.

Schools: Alexandria City Public Schools; data from the National Center for Education Statistics.

Grocery Stores: Grocery locations within Alexandria City Boundary, City of Alexandria, December 2020.

Parks and Recreation Centers: Parks and Recreation Locations with the Alexandria City Boundary, City of Alexandria, December 2020.

Health Care / Hospitals: Medical Facilities within Alexandria City Boundary, City of Alexandria, December 2020 (Facility types include Urgent Care, Health Care Facilities, and Hospitals).

Convenient

Alexandria will provide a transportation system with high-quality mobility options that are reliable, frequent, proximate, and comfortable.

Every year, Alexandrians can share feedback on their experiences with living in the city and factors that shape their quality of life, including transportation, via the Resident Survey. This helps City leadership know more about residents' expectations for the City government and how well government is performing for the community. The City will also be tracking this via specific metrics within the Transit, Smart Mobility, Streets, Curb Space and Parking, and Pedestrian and Bicycle chapters.

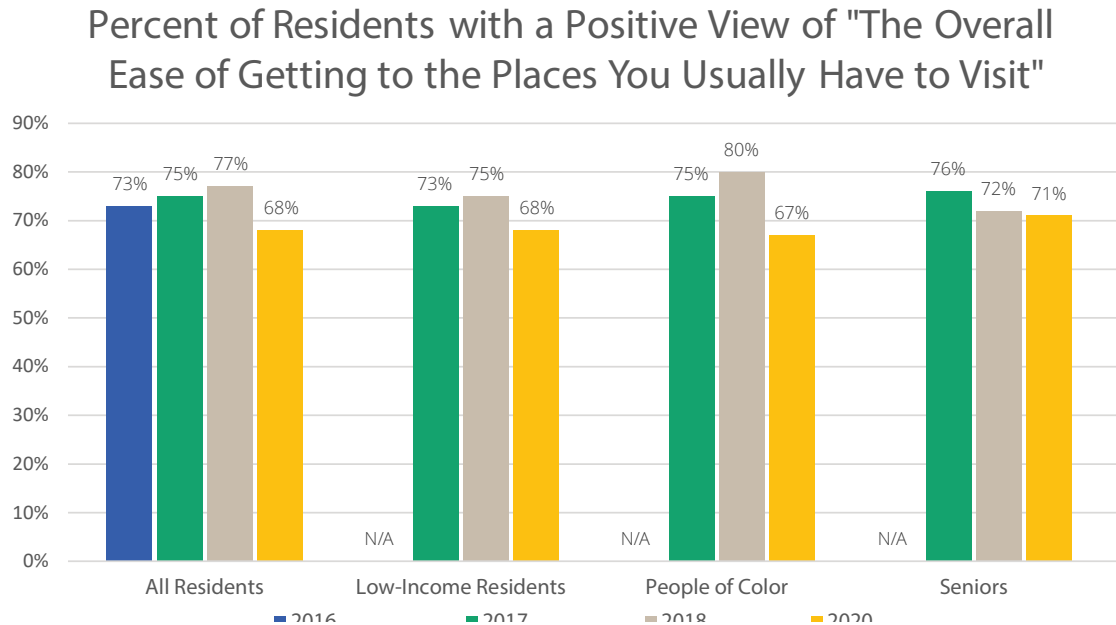
Equity Lens:

- Percent of residents (low-income residents, people of color, and senior residents) who say it is easy to get around.
 - **In 2018 and 2020, there was no statistically significant difference in responses between high income and low income individuals or between white and non-white individuals for overall ease of getting to the places they usually have to visit.**

Key Performance Indicator:

- Percent of residents who say it is easy to get around

Baseline Information:



Note: 2016 data by income, race/ethnicity, and age was not available.

Sources:

Alexandria Resident Survey

Low-Income Residents: Survey respondents with an annual household income Less than \$50,000.

People of Color: Survey respondents that identify as non-white.

Seniors: Survey respondents over 55.

Equitable

Alexandria acknowledges that there are disparities in neighborhoods and populations in the City that have been historically underserved. Alexandria will be targeted, inclusive, and intentional in addressing gaps in mobility options available, their quality, and safety.

Key Performance Indicator:

- All guiding principles will be measured for the city as a whole and with an equity lens that examines how specific communities of greater need are faring with regards to the specific outcomes that this plan seeks to achieve.
 - **Accessible:** Percent of residents (low-income residents, people of color, seniors, and people with disabilities) in close proximity to alternatives to driving.
 - **Connected:** Percent of low-wage jobs, Title 1 schools, and public health clinics that are connected to alternatives to driving.
 - **Convenient:** Percent of residents (low-income residents, people of color, and senior residents) who say it is easy to get around.
 - **Safe:** Number of crashes, fatalities, and serious injuries within Equity Emphasis Areas.
 - **Sustainable:** Percent of residents (low-income residents, people of color, seniors, and people with disabilities) in close proximity to alternatives to driving.

Safe

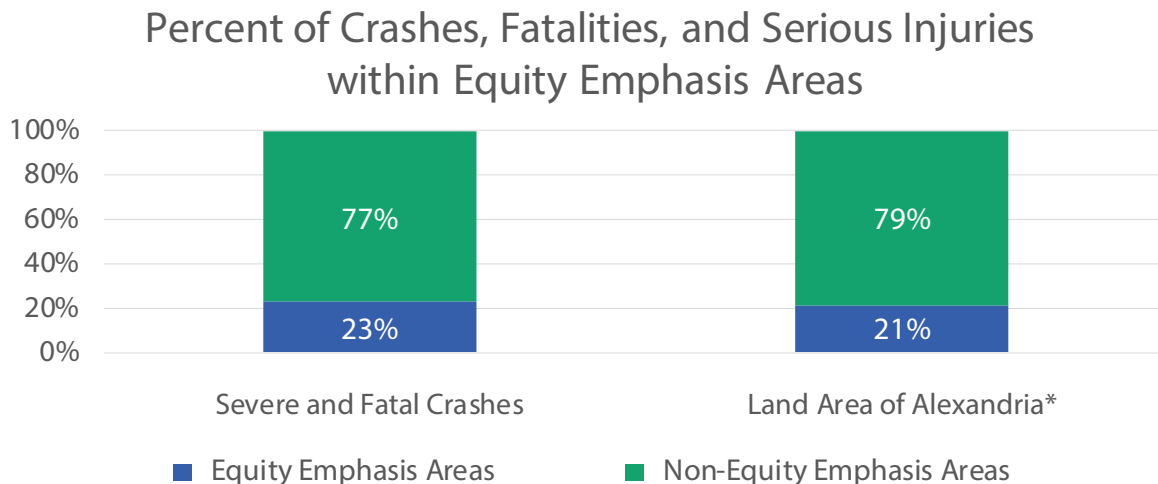
Alexandria will eliminate all traffic deaths and serious injuries by 2028.

Through its Vision Zero Action Plan, Alexandria established a goal of zero traffic deaths and serious injuries by 2028. The City recognizes that traffic deaths and serious injuries are preventable through proper engineering, enforcement, evaluation, and education. The [Vision Zero performance dashboard](#) tracks how well the City is performing as part of the overall performance dashboard system.

Equity Lens:

- Number of crashes, fatalities, and serious injuries within Equity Emphasis Areas

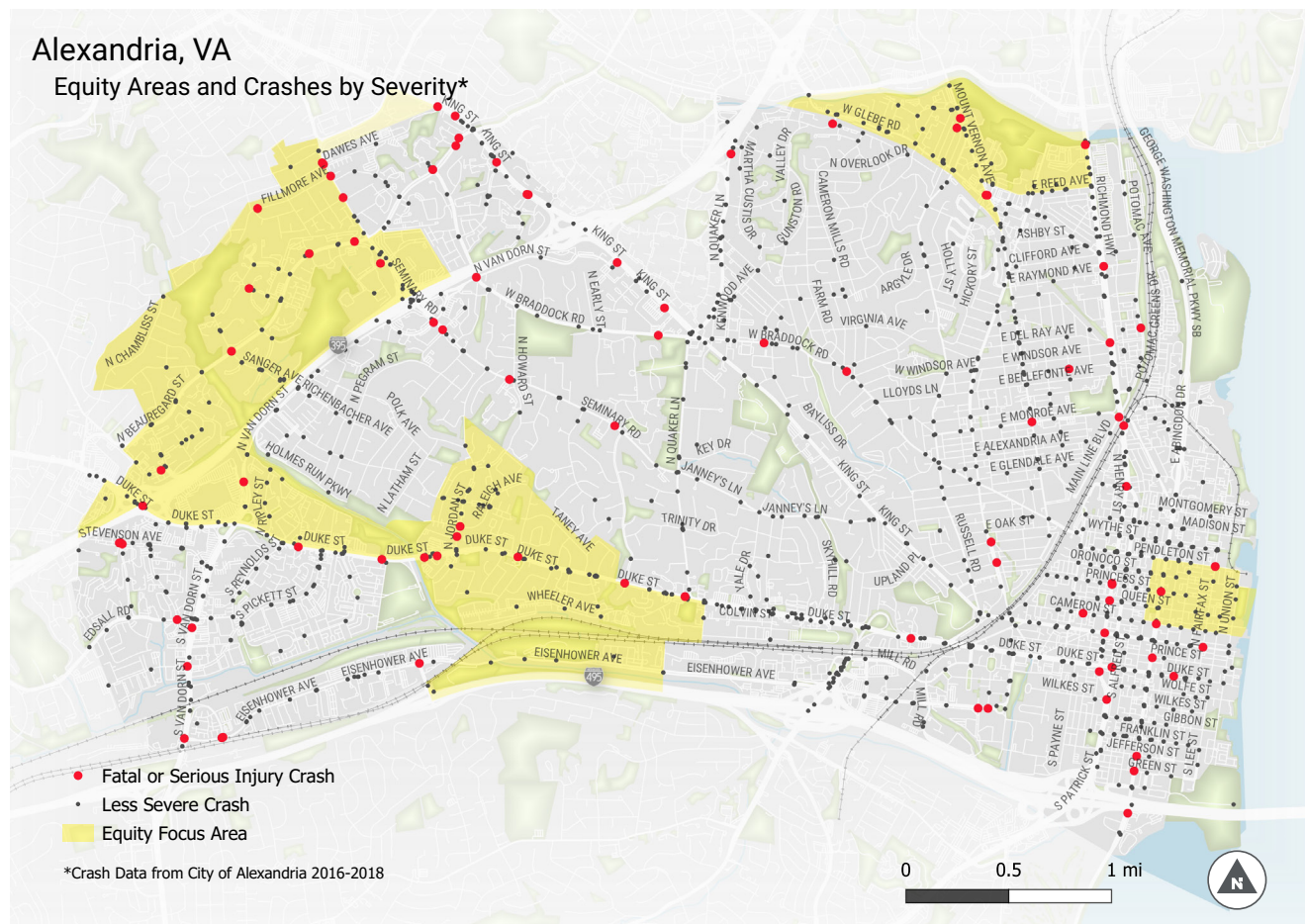
Baseline Information:



*For the equity lens of the Safe KPI, the City is measuring against land area of Equity Emphasis Areas, as demographic information is not typically documented in crash reports. The Metropolitan Washington Council of Governments (MWCOG) established Equity Emphasis Areas in Alexandria, which make up 21 percent of the city's total land area. The percentage of all severe and fatal crashes in Alexandria that occur within these Equity Emphasis Areas, however, is slightly overrepresented at 23 percent. It is important to consider land area to ensure that communities of greater need do not experience disproportionate effects of traffic crashes compared to other areas of the city.

Safe (continued)

Equity Emphasis Areas and Crashes by Severity



Equity Emphasis Areas were developed by the Metropolitan Washington Council of Governments (MWCOG) using tract-level Census data to identify communities that have significant concentrations of low-income and/or minority populations. This is what we call “Close Proximity to Alternatives” and this is why the following sections use it as an important metric: it measures high-quality, practical choices.

Sources:

Equity Emphasis Areas: Metropolitan Washington Council of Governments (MWCOG). Includes areas with concentrations of low-income and minority households.

Crashes: 2016-2019 crash locations, City of Alexandria, Virginia Department of Transportation

City Strategic Plan Key Indicators: Transportation, City of Alexandria.

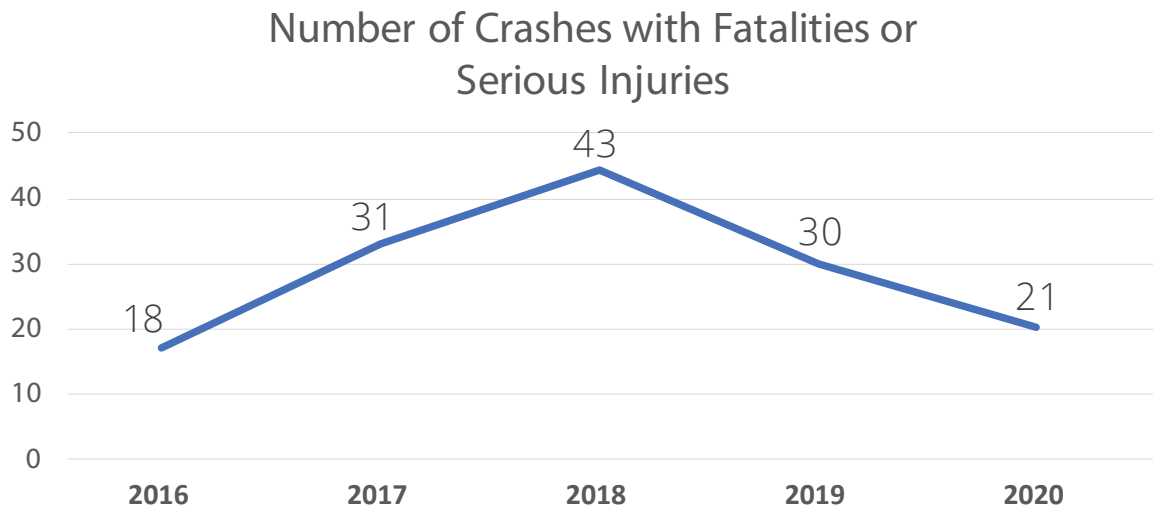
Vision Zero Performance Dashboard, City of Alexandria.

Key Performance Indicator:

- Number of crashes, fatalities, and serious injuries

This KPI is consistent with the City Strategic Plan and Vision Zero initiative, which aims to achieve zero severe injuries and fatalities from crashes.

Baseline Information:



Sustainable

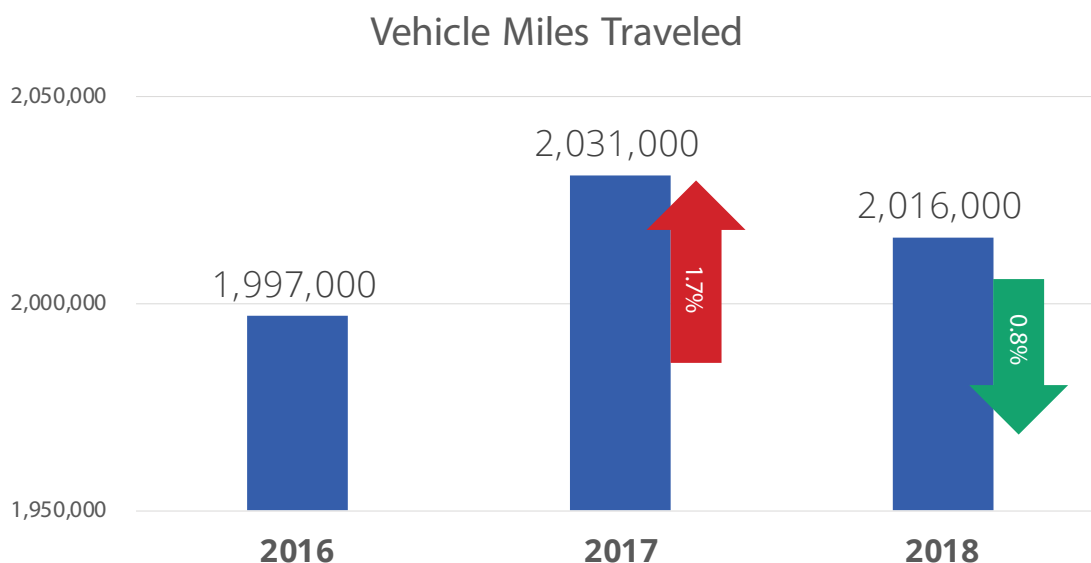
Alexandria will prioritize low-carbon mobility options and reduce automobile dependency.

Through its Environmental Action Plan, Alexandria recognized that transportation is a leading contributor to greenhouse gas emissions that adversely affect the natural environment and established goals and targets to reduce these effects.

Key Performance Indicator:

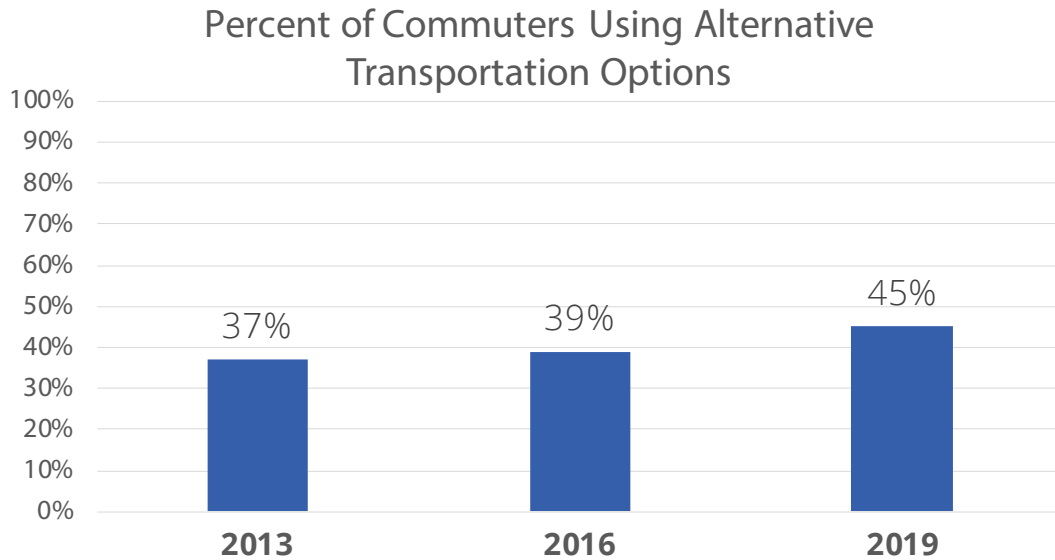
- Vehicle miles traveled
- Percent of commuters using alternative transportation options

Baseline Information:



Source: Weekday Vehicle Miles Traveled (VMT), National Capital Region Transportation Planning Board

Alternative transportation options include riding the bus, Metrorail, and biking. This KPI is consistent with the City Strategic Plan, which set a target of 40% of commuters using alternative transportation modes by 2022. Data is reported every three years by fiscal year (July-June), and comes from the Metropolitan Washington Council of Government's (MWCOC) State of the Commute Survey.

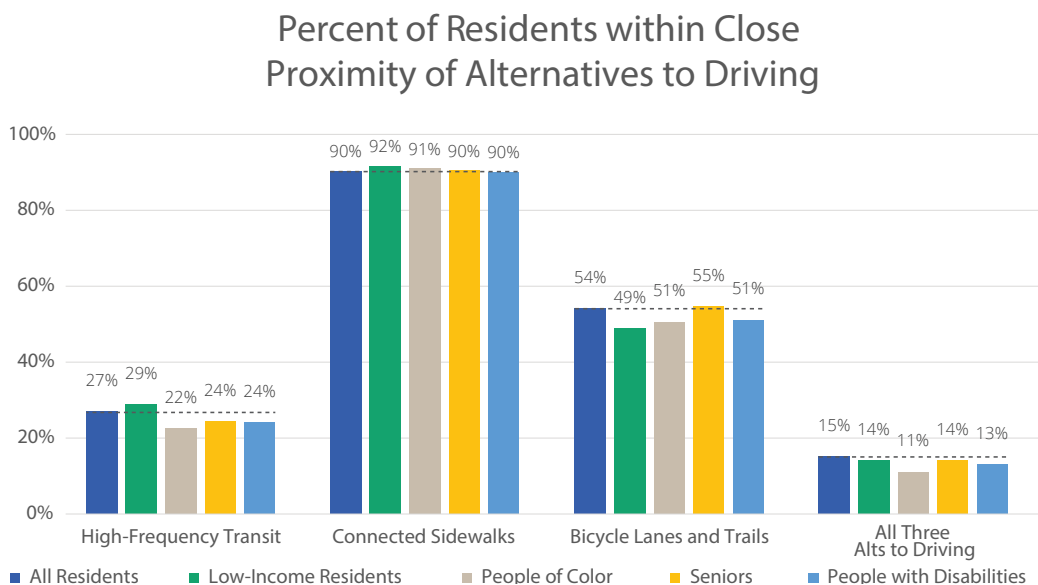


Source: City Strategic Plan Key Indicators: Transportation (via MWCOC State of the Commute Survey)

Equity Lens:

- Percent of residents (low-income residents, people of color, seniors, and people with disabilities) in close proximity to alternatives to driving

Baseline Information:



Source: See "Accessible" KPI in previous section

The City will continue to investigate better data sources for tracking the Sustainability indicator through an equity lens. Until a better data source becomes available, the City will refer to the Accessible indicator to improve access to multiple transportation choices for all population groups.

Chapter Metrics

The plan's metrics are tied to each specific plan chapter and are more focused on individual topics or modes of transportation. These metrics will be regularly measured to track how the plan's policies and strategies are improving transportation in the city. Many chapter-specific metrics are related to and will feed into the plan-level KPIs. Targets have also been established where applicable to promote accountability, many of which are identified in other City plans or planning efforts.

Metric	Directionality
Transit	
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	↑
Smart Mobility	
Number of intersections with smart signal technology	↑
Percent of intersections with smart signal technology in Equity Emphasis Areas	↑
Positive rating of traffic flow on major streets (Resident Survey*)	↑
Transit travel times on Duke Street, Van Dorn Street, and upper King Street	↓
Streets	
Number of fatal and serious crashes	↓
Average Pavement Condition Rating (Pavement Condition Index)	↑
Percent of Transportation Management Plans evaluated that meet mode split targets	↑

Metric

Directionality

Pedestrian and Bicycle

Number of pedestrian- and bicycle-involved crashes



Percentage of people walking or biking to work (mode share)



Linear feet of new sidewalk installed per year (Citywide and in Equity Emphasis Areas)



Miles of bike facilities (on-street and paved off-street trails) installed per year (Citywide and in Equity Emphasis Areas)



Positive rating of ease of walking (Resident Survey*)



Positive rating of ease of travel by bicycle (Resident Survey*)



Number of repaired curb ramps per year



Number of accessible pedestrian signals installed per year



Annual number of bikeshare trips



Number of accessible pedestrian signals



Shared mobility trips to and from equity areas (as defined by the Dockless Mobility Program)



Increase



Decrease



Maintain

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

Metric	Directionality
Supporting Travel Options	
Number of community influencers involved with GO Alex	↑
Percent of people taking non-single occupancy vehicles to work (mode share)	↑
Weekday person hours of delay	↓
Curb Space and Parking	
Number of curb space changes informed by the CurbSpace Prioritization Framework introduced to the Traffic and Parking Board	↑
Positive rating of ease of public parking (Resident Survey*)	↑
Positive rating of availability of parking near my home	↑
Positive rating of availability of on-street and garage parking near shopping	↑
Number of publicly accessible level 2 or higher electric vehicle charging plugs per population	↑

↑ Increase ↓ Decrease — Maintain

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



Metric	Equity Lens	Connection to KPI	Related Plan	Source	Related Strategies	Directionality	Baseline	Targets (if applicable)		
								2024	2027	2030
Transit										
Percent of residents within ¼ mile of 15 minute or better service (All residents and low-income, people of color, and senior residents)		✔	Transit Vision Plan	City data, Census Data	1, 6	<div>↑</div> <div>Increase</div>	All Residents: 27% (2019) Low-Income Residents: 29% (2019) People of Color: 22% (2019) Senior Residents: 24% (2019) People with Disabilities: 24% (2019)	60% 65% 65% 50% 50%	70% 75% 75% 60% 60%	85% 90% 90% 75% 75%
Percent of people taking transit to work (mode share)		✔	Environmental Action Plan 2040	MWCOG 2017-2018 Regional Travel Survey Update	1, 3	<div>↑</div> <div>Increase</div>	Bus: 6.9% (2017-2018) Rail: 32.3% (2017-2018)	7% 25%	9% 30%	12% 31%
Positive rating of ease of travel by public transportation	✔	✔		Resident Survey	1, 2, 3, 5, 6, 7	<div>↑</div> <div>Increase</div>	All Residents: 61% (2020) / 64% (2018) Low-Income Residents: 68% (2020) People of Color: 60% (2020) Seniors: 70% (2020)			
Percent of bus stops with shelters				City data	4	<div>↑</div> <div>Increase</div>	13% (2020)	20%	25%	30%
Percent of bus stops that are accessible for persons with disabilities	✔					<div>↑</div> <div>Increase</div>	Baseline and targets to be developed by 2022	20%	25%	30%

Metric	Equity Lens	Connection to KPI	Related Plan	Source	Related Strategies	Directionality	Baseline	Targets (if applicable)		
								2024	2027	2030
Smart Mobility										
Number of intersections with smart signal technology			Smart Mobility Framework Plan	City inventory data	1, 2, 3, 4	<div><div></div><div>Increase</div></div>	Transit Signal Priority: 28 Emergency Vehicle Preemption: 11 Activated Adaptive Signals: 0	50 TBD 40	TBD TBD 100	TBD TBD 100
Percent of intersections with smart signal technology in Equity Emphasis Areas	<div><div></div><div></div></div>			City inventory data, Equity Emphasis Area data	1, 2, 3, 4	<div><div></div><div>Increase</div></div>	Number of All Signals in Equity Emphasis Areas: 57 out of 368 (15%) Equity Emphasis Areas by % of City Land Area: 21% Transit Signal Priority: 7 out of 28 (25%) Emergency Vehicle Preemption: 4 out of 11 (36%) Activated Adaptive Signals: 0 out of 0	30% TBD 40%	TBD TBD TBD	TBD TBD TBD
Positive rating of traffic flow on major streets	<div><div></div><div></div></div>			Resident Survey	1, 3	<div><div></div><div>Increase</div></div>	All Residents: 34% (2020) Low-Income Residents: 41% (2020) People of Color: 38% (2020) Seniors: 36% (2020)			
Transit travel times on Duke Street, Van Dorn Street, and upper King Street				StreetLight Data	1,3	<div><div></div><div>Decrease</div></div>	Baseline and targets to be developed by 2022 after introduction of the New DASH Network	TBD	TBD	TBD

Metric	Equity Lens	Connection to KPI	Related Plan	Source	Related Strategies	Directionality	Baseline	Targets (if applicable)		
								2024	2027	2030
Streets										
Number of fatal and serious crashes	📉	📈		Virginia Traffic Records Electronic Data System (TREDS)	1,4, 5	↓ Decrease	30 (2019)			0 (2028)
Average Pavement Condition Rating (Pavement Condition Index)				Alexandria Performance Dashboard: City Strategic Plan Transportation Theme Key Indicator Dashboard	2, 3, 6	↑ Increase	55 out of 100 (fair) (2019)		71 out of 100 (satisfactory)	
Percent of Transportation Management Plans evaluated that meet mode split targets				City data	2	↑ Increase	N/A (Mode split targets not yet established) Baseline to be developed		Determine method for measuring by 2024	

Metric	Equity Lens	Connection to KPI	Related Plan	Source	Related Strategies	Directionality	Baseline	Targets (if applicable)		
								2024	2027	2030
Pedestrian and Bicycle										
Number of pedestrian- and bicycle-involved crashes		☑	Strategic Plan Vision Zero	Virginia Traffic Records Electronic Data System (TREDS)	1, 5	↓ Decrease	Pedestrian-involved crashes: 54 (2020) Bicycle-involved crashes: 15 (2020)			
Percentage of people walking or biking to work (mode share)		☑	Environmental Action Plan 2040	MWCOG 2017-2018 Regional Travel Survey Update	1	↑ Increase	Walking Mode Share: 5.0% (2017-2018) Biking Mode Share: 3.8% (2017-2018)	5.5% 4.5%	6.0% 5.0%	6.5% 5.5%
Linear feet of new sidewalk installed per year (Citywide and in Equity Emphasis Areas)				City inventory data	2, 4	▬ Maintain	Linear feet of new sidewalk installed per year: 2,250 linear feet (Average between 2016 and 2020) Equity Emphasis Areas by % of City Land Area: 21%	2,250 linear feet per year (60% in Equity Emphasis Areas)		
Miles of bike facilities (on-street and paved off-street trails) installed per year (Citywide and in Equity Emphasis Areas)			Environmental Action Plan 2040	City inventory data	3, 4	▬ Maintain	On-Street Facilities (Existing): 38.2 lane miles (2021) Off-Street Trails (Existing): 22.8 miles (2021) Equity Emphasis Areas by % of City Land Area: 21%	3 miles per year (60% in Equity Emphasis Areas)		
Positive rating of ease of walking	☑			Resident Survey	1, 2, 4	↑ Increase	All Residents: 77% (2020) Low-Income Residents: 64% (2020) People of Color: 74% (2020) Seniors: 76% (2020)			
Positive rating of ease of travel by bicycle	☑			Resident Survey	1, 3, 4	↑ Increase	All Residents: 64% (2020) Low-Income Residents: 50% (2020) People of Color: 60% (2020) Seniors: 59% (2020)			
Number of repaired curb ramps per year				City inventory data	1,2,4	▬ Maintain	300 (Fiscal Year 2021)	300 per year		
Number of accessible pedestrian signals installed per year				City inventory data	1,2,4	▬ Maintain	Baseline to be developed	8 per year		
Annual number of bikeshare trips				Data from mircromobility providers, City data, Census data	1	↑ Increase	77,000 (2019) 54,000 (2020)	80,000	90,000	100,000
Shared mobility trips to and from equity areas (as defined by the Dockless Mobility Program)				City inventory data	1, 3, 4	↑ Increase	Baseline to be developed	By 2022, develop targets for 2024, 2027, 2030		
Number of designated parking areas for bicycles, e-bikes, and scooters citywide and in equity areas (as defined by the Dockless Mobility Program)				City inventory data	1, 3, 4	↑ Increase	Baseline to be developed			

Metric	Equity Lens	Connection to KPI	Related Plan	Source	Related Strategies	Directionality	Baseline	Targets (if applicable)		
								2024	2027	2030
Supporting Travel Options										
Number of community influencers involved with GO Alex				Data accumulated as partnerships formed	1	<div><div></div><div>Increase</div></div>	Employers: 133 (Fiscal Year 2020) Other community influencers: N/A	150	180	200
Percent of people taking non-single occupancy vehicles to work (mode share)		<div><div></div><div></div></div>	Environmental Action Plan 2040	MWCOG 2017-2018 Regional Travel Survey Update	1	<div><div></div><div>Increase</div></div>	54% (2018)	52%	60.5%	66%
Weekday person hours of delay				Regional Integrated Transportation Information System (RITIS)	2, 3	<div><div></div><div>Decrease</div></div>	4,720 hours (2019) * * To be calibrated to include transit by 2022 after introduction of the New DASH Network	4,696 hours (-0.5%)	4,673 hours (-0.5%)	4,650 hours (-0.5%)

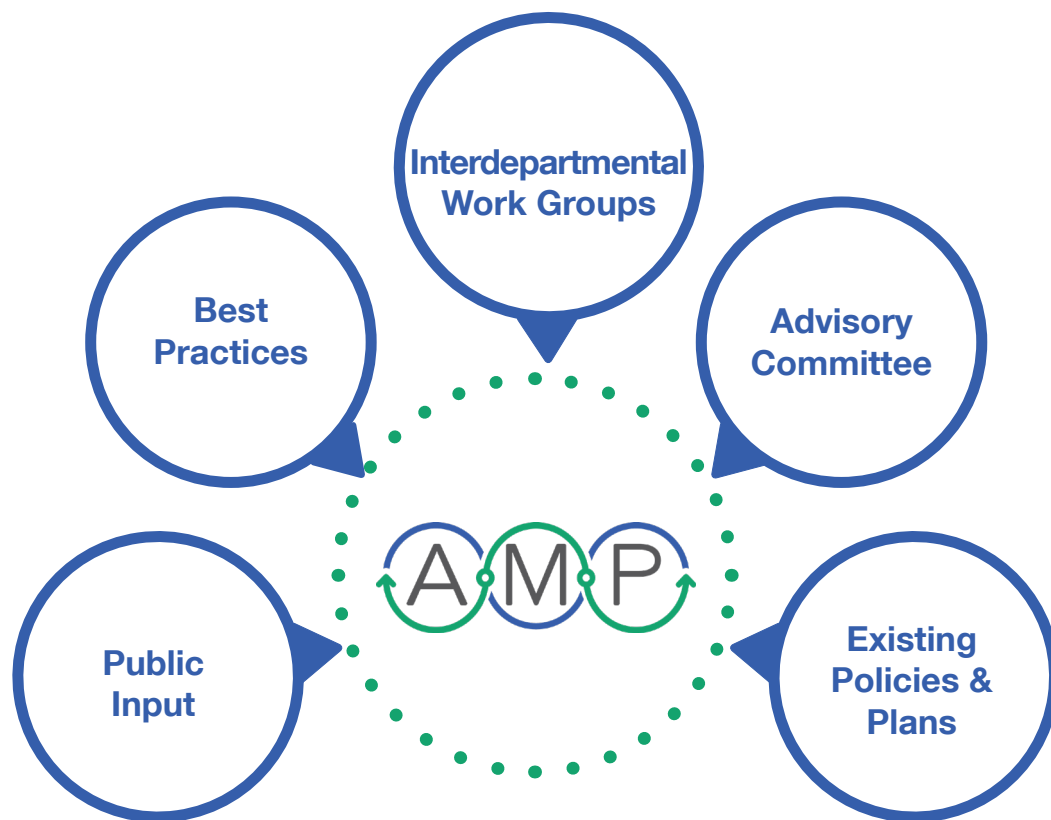
Metric	Equity Lens	Connection to KPI	Related Plan	Source	Related Strategies	Directionality	Baseline	Targets (if applicable)		
								2024	2027	2030
Curb Space and Parking										
Number of curb space changes informed by the CurbSpace Prioritization Framework introduced to the Traffic and Parking Board			City inventory data	1, 3		<div>↑ Increase</div>	N/A			
Positive rating of ease of public parking	☑		Resident Survey	1, 2, 4		<div>↑ Increase</div>	All Residents: 31% (2020) / 38% (2018) Low-Income Residents: 38% (2020) People of Color: 31% (2020) Seniors: 24% (2020)			
Positive rating of availability of parking near my home			Resident Survey	1, 2, 4		<div>↑ Increase</div>	All Residents: 58% (2020) Low-Income Residents: 45% (2020) People of Color: 52% (2020) Seniors: 57% (2020)			
Positive rating of availability of on-street and garage parking near shopping			Resident Survey	1, 2, 4		<div>↑ Increase</div>	All Residents: 52% Low-Income Residents: 48% People of Color: 52% Seniors: 45%			
Number of publicly accessible level 2 or higher electric vehicle charging plugs per population			City inventory data	4		<div>↑ Increase</div>	3.8 plugs per 10,000 people	7 plugs per 10,000 people	12.8 plugs per 10,000 people	23.5 plugs per 10,000 people

Appendix III-A

Civic Engagement Process Summary

Public and Stakeholder Engagement

Developing a vision for mobility could not occur without an intentional and inclusive public process—one with a continuous and thoughtful approach to engaging the community and empowering stakeholders. A key principle of the AMP is an understanding of local dynamics, gained through a process of collaboration with and consensus of the community. Through this, the AMP is reflective of the local knowledge and lived experiences of Alexandrians, as well as the issues that they face now and expect to face in the future.



▼ Pop-up events in late 2019 identified a range of community priorities and also helped spark conversation about major community needs.



The planning process included tens of thousands of engagements, many of whom attended meetings, listened to presentations, participated in surveys, or submitted comments.



These key engagement events yielded incredibly insightful public input that was critical in shaping the direction and content of this plan as well as important considerations for staff in plan implementation. The plan was shaped through a compilation of public input, information on trends and best practices, Interdepartmental Work Group and Advisory Committee discussions, and targets, goals, and policies from other City plans.



Key Engagement Activities

The following sections provide a high-level overview of the AMP engagement activities. More information on the participants and feedback received for these activities can be found in **Appendix III-B: Civic Engagement Findings Summary**.

In-person engagement occurred often and early in the planning process and resulted in quality feedback that informed the development of the AMP. Early in-person engagement also provided a strong baseline of information as the COVID-19 pandemic forced a shift to virtual engagement in early 2020 throughout the rest of the AMP process.

Visioning Process

The planning process began in June of 2019 and focused on the development of a vision and guiding principles for mobility in Alexandria that shaped the development and priorities of the AMP.

In order to develop the vision and guiding principles, the AMP Team launched a feedback form that received **over 800 responses**. This visioning survey encouraged aspirational planning ideas while recognizing the importance of prioritization. In doing so, the feedback form asked the following questions:

- What are three words that come to mind when you think about your ideal vision for mobility in Alexandria?
- What are the most important factors in how you choose to get around on a normal day?
- What are the most important opportunities for the future of mobility in Alexandria?
- What are the biggest challenges to the future of mobility in Alexandria?
- When developing a transportation strategy for Alexandria, we should focus most on...
- What things do you think Alexandria should invest in the most?

Answers and key words from the visioning feedback form informed the development and finalization of the AMP vision and guiding principles, with **safety, convenience, accessibility, and choice** emerging as major desires from the community.

In the summer 2019 visioning survey, we asked Alexandrians "What are three words that come to mind when you think about your ideal vision for mobility in Alexandria?"



In October 2019, the AMP team held an Innovation Forum focused on how innovative travel options and technology will influence Alexandria in the context of the development of the AMP. The forum consisted of an open house-format with informational boards and an “Ideas Wall,” an overview presentation by City staff, interactive polling of attendees, and a panel discussion featuring local and national mobility experts. The event was **attended in-person by 50 Alexandrians** and **nearly 250 watched the event recording** via Facebook. The “Ideas Wall” prompted participants to think about the definition of innovation, how it should be applied to the Alexandria Mobility Plan, and ideas from other cities that Alexandria should explore. The ideas that emerged at the Innovation Forum were later tested in focus group meetings and draft plan strategies in advance of the draft and final AMP release.



Community Champion Meetings

The AMP Team hosted meetings with community champions to further solidify the direction of the planning process and partake in discussions with community leaders representing various organizations or constituencies. These meetings were held at various local businesses throughout Alexandria and featured informal, roundtable-like group discussions. Community champions also helped to disseminate information to their constituents throughout the planning process.

The community champion meetings helped inform the City's strategy for engaging and hearing from hard-to-reach populations, in addition to better understanding the unique needs of low-income residents and people of color in Alexandria. Some of the key themes expressed were connections to jobs and opportunities, connections between transportation and affordable housing, and safe and reliable transit.



Stakeholder Group Meetings

City staff also met with several local and regional stakeholder groups throughout the planning process to inform them of AMP effort. Meeting attendees included the Alexandria Federation of Civic Associations, the Alexandria Chamber of Commerce, the Eisenhower Partnership, the City of Alexandria's Bi-Weekly COVID-19 Community Response Group, and more.

Interdepartmental Coordination Meetings

Three interdepartmental coordination meetings were held at key milestones during the AMP process, including scoping, strategy development, and performance measures development, in addition to ad-hoc smaller coordination meetings on more specific topics. The following departments were involved:

- Department of Planning and Zoning
- Alexandria Police Department
- Alexandria Fire Department
- Department of Community and Human Services
- Alexandria City Public Schools
- Department of Information Technology Services
- Department of Recreation, Parks and Cultural Activities,
- Department of Transportation and Environmental Services

City staff from these departments were also given the opportunity to review and provide feedback on the draft AMP document. These meetings provided an opportunity for staff to share relevant initiatives and policies, helping to ensure that efforts are coordinated across City departments.

Advisory Committee Meetings

The Alexandria Mobility Plan Advisory Committee (AMPAC) provided continuous input to City staff throughout the AMP process. AMPAC membership included representation from the Transportation Commission as well as the Alexandria Chamber of Commerce, the Federation of Civic Associations, the Alexandria Commission on Persons with Disabilities, and the West End Business Association. Among other focuses, the AMPAC was provided with summaries of public and stakeholder feedback and worked collaboratively to ensure the AMP process was responsive and adapted to community feedback and needs.

The AMPAC met nine times throughout the course of the plan development process, with emphasis on the following topics:

- June 2019 – Visioning
- August 2019 – Vision and Guiding Principles
- October 2019 – Innovation Forum and Plan Organization
- December 2019 – Draft Key Performance Indicators
- January 2020 – Strategy Development (Streets and Supporting Travel Options)
- March 2020 – Strategy Development (Transit and Curb Space and Parking)
- November 2020 – Strategies and Plan Development
- December 2020 – Plan Development
- January 2021 – Preparation for Draft Plan Release

Priority Pyramid Activity

A 'Mobility Priorities' activity was promoted in November and December 2019 via pop-up events, stakeholder meetings, as well as online. The activity prompted Alexandrians to select from a collection of 'building blocks' that represented components of the transportation system such as traffic management, pedestrian and bicyclist safety, and transit, and rank them in order of personal importance. The activity sought to replicate the real-world choices that must be made in transportation decision-making given constraints such as space, funding, and time. The identification of priorities, as well as the discussions and feedback that emerged from the activity, shaped the major themes of the AMP and helped to identify strategies that would address the top priorities of the community.

Nearly 700 priority pyramids were completed both in-person at pop-up events and in a digital version available online. These activities identified a range of community priorities and also helped spark conversation about major community needs.

Mobility Priorities

Below are the 'building blocks' of a transportation system that provides choice, convenience, and reliability. Unfortunately, we can't have everything we want – there's not enough space, money, or time. What things do you think Alexandria should invest in the most?



Attractive and Active Streets – Utilizing streets as public spaces to serve different functions—providing places to gather and to program activities.



Curbside Management – Allocating space to balance the needs of and limit conflicts between parked cars, delivery trucks, Uber/Lyft, taxis, bicycles, buses, and cars.



Reliable and Efficient Transit Service – Providing convenient, affordable, and reliable bus service throughout the day and on all days of the week. Improving access to rail stations and regional bus stops.



Incentives and Information – Make it easier and more attractive to choose alternatives to driving alone.



Mobility on Demand – Supporting shared mobility (e.g., Capital bikeshare, Zipcar, Uber/Lyft) with policies and infrastructure.



Parking – Increasing the physical inventory of on-street parking to taking action to manage the existing space better.



Safe and Comfortable Places to Walk and Bike – Allowing you to comfortably walk and bike everywhere in the city and improve accessibility for persons with disabilities.



Maintaining our Infrastructure – Keeping streetlights and traffic signals working, filling potholes, reaving streets, maintaining sidewalks, removing snow, and replacing aging bus fleet.



Traffic Management – Using technology to make travel in Alexandria safer and more efficient to get around.



Please choose your top six building block stickers and place them on your sheet in order of importance, from most important (top) to least important (bottom). Three of the themes will not be represented in the final pyramid.

My Priorities



most important

more important

important

Email address _____ (optional)

What is your home zip code? _____ (optional)

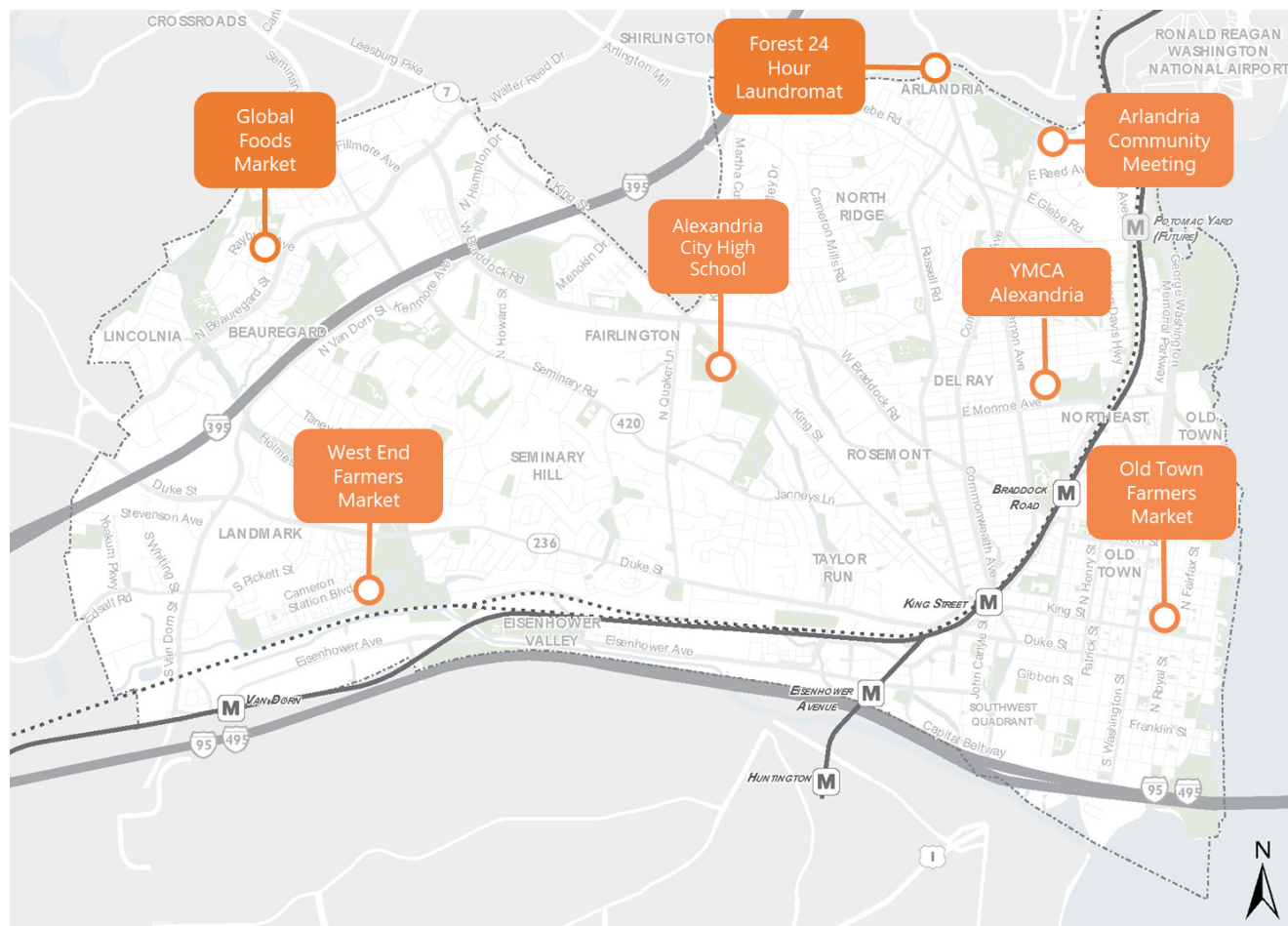
ALXmobility



Pop-Up Events

The AMP team held seven pop-up events in November and December 2019. These events yielded **over 450 unique interactions and conversations** with Alexandrians from across the city. Pop-ups were an effective tool for outreach because it enabled more residents and visitors to participate in the planning process who might not otherwise engage. It is important to hold events and meet people where they are in the city to get a more representative understanding of community sentiments, as opposed to requiring people to take time out of their schedules to attend a formal public meeting that may not be happening in their home neighborhood.

Pop-ups were held at the below locations across Alexandria.



Focus Groups

Two rounds of focus group meetings collected community-generated ideas from an engaged audience to inform eventual AMP policies and strategies. The ideas collected were considered in the context of other inputs (such as City staff insights and best practices) and against the AMP vision and guiding principles. These focus groups helped test potential draft strategies in smaller group settings, enabling the City to refine ideas before taking them to the broader public. The ideas heard in the focus group meetings were collected, reviewed, crafted into draft strategies, and shared with the broader community at citywide engagement events for consideration for inclusion in the plan.

Round 1

The first round of focus groups significantly influenced the **Streets** and **Supporting Travel Options** chapters of the AMP. **Six focus group meetings** were held in February 2020 and included **72 total participants**.

Three additional focus groups with **43 total participants** were held digitally in March 2020 to enhance participation and accessibility to the planning process.

Round 2

The second round of focus groups sought to gain input for the development of the **Transit** and **Curb Space and Parking** chapters of the AMP. Three focus group meetings were held in April and May 2020 and included **14 total participants** in **three geographically-based groups**. Due to the continuing effects of the COVID-19 pandemic, all Round 2 focus group meetings were held digitally.

Virtual Town Hall

A live, virtual town hall event was hosted in October 2020 to present and discuss draft strategies for each plan chapter. The event included an overview presentation followed by a question and answer session. While the overview presentation only included a select subset of draft strategies per chapter, a full document of all draft strategies was made available online for public review along with a recording of the presentation. An online feedback form also was launched at this meeting, which was used to collect public input on support for draft strategies in advance of the draft plan release.

Based on public feedback on the draft strategies, the City sought to strengthen well-received and popular strategies, simplify language for strategies that were not well understood, and refine or eliminate strategies that were understood but unpopular and not tied to parallel City goals, policies, or plans.

More information on process, participants, feedback received, outcomes, and detailed summaries of each of these activities can be found in **Appendix III-B: Civic Engagement Findings Summary**.

Draft Plan Release Public Comment Period

Feedback Form

A public feedback form was launched in conjunction with the release of the draft plan in Spring of 2021. The form was open for approximately one month and available on both mobile and computer platforms in English and Spanish. The development of the plan considered all public input to date received through numerous activities, as noted above. The draft plan feedback form solicited input about which strategies and guiding principles are the most important to the public, which strategies the public wants to see implemented first, if the public's vision is captured in the plan, and how to make the plan successful. With approximately **545 responses**, including **hundreds of open-ended comments**, the public provided insightful and thoughtful feedback on the draft plan.

The public feedback was reviewed, summarized, and shared with Department heads, City leaders, and the public via the City's website. The feedback informed how the plan was finalized. Many project-specific comments will help inform project implementation in the future.

More information about specific questions, responses, and themes can be found in **Appendix III-B: Civic Engagement Findings Summary**.

Generally, **most respondents (72 percent felt that the draft plan addressed at least some of their priorities).** Many open-ended responses indicated a desire for improvements that were already included in the draft plan, such as a focus on traffic management or pedestrian and bicycle facilities. Based on this interpretation of the feedback, no major overhaul of the document appeared necessary. The following list highlights the more substantive adjustments that staff made to the plan. These changes largely respond to specific feedback that was received from multiple parties that help align the plan better with the City's Strategic Plan and other related efforts, provide greater clarity, and ensure the City delivers an actionable, comprehensive plan:

- Stronger emphasis on traffic management strategies (Smart Mobility chapter)
- Recognition of autonomous vehicles as a potential disrupter to ensure that Alexandria will be prepared from a policy perspective (Smart Mobility chapter)
- New strategy focused on maintaining our roadways proactively and equitably (Streets chapter)
- Inclusion of adopted pedestrian and bicycle network from the the Pedestrian and Bicycle Chapter update in 2016
- New strategy to promote electric vehicle usage based on recommendations in the recent Council-adopted Alexandria Electric Vehicle Charging Infrastructure Readiness Strategy (Parking and Curb Space chapter)
- Adjustments to metrics:
 - Greater clarity and consistency with City Strategic Plan
 - Additional metrics related to accessibility for persons with disabilities
 - Addition of baseline information (existing conditions) and stronger connections to metrics and already-established targets from other City plans
- Addition of Implementation Appendix to track plan progress and develop timelines for reporting

These edits to the plan document were communicated via email to all feedback form respondents who requested to receive updates, as well as the Alexandria Mobility Plan Advisory Committee (AMPAC) and chairpersons of all boards and commissions met with during the draft plan release and comment period. These interested parties were given an opportunity to weigh in further, but no concerns or additional plan edits were received.

Promotional Events and Board/Commission Presentations

The draft plan was released on March 31, 2021 and included a month-long public comment period. The availability of the draft plan was announced and promoted via City eNews and email blasts, weekly social media posts on City platforms, English and Spanish posters on DASH buses, and in-person pop-up events.



City staff also attended several board and commission meetings to present an overview of the draft plan, including the Transportation Commission, Commission on Aging, Commission on Persons with Disabilities, Environmental Policy Commission, and Traffic and Parking Board. An additional presentation was given to the Eco-City Academy.

Five pop-up events were held to promote availability of the draft plan and invite community members to review and provide comments. In light of the ongoing COVID-19 pandemic, these pop-up events were held outdoors in a low-touch, Centers for Disease Control (CDC)-compliant manner at the following locations:

- Global Foods: April 17, 2021
- West End Farmers Market: April 25, 2021
- Southern Towers: April 29, 2021
- Potomac Yard Vaccine event: April 28, 2021
- George Washington Middle School Vaccine event: May 1, 2021



Appendix III-B: Civic Engagement Findings Summary

October 2021

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- II. Innovation Forum Summary
- III. Community Champion Meetings Summary
- IV. Pop-Up Events Summary
- V. Focus Groups Round 1 Summary
- VI. Focus Groups Round 2 Summary
- VII. Draft Strategies Feedback Summary
- VIII. Draft Plan Release Feedback Summary

Visioning Summary

August 2019

AMP Visioning Survey



Engagement via the HQ Platform

Survey Period

July 25th, 2019– August 20th , 2019

Total Number of Responses

866 Responses



Alexandria Mobility Plan (AMP)



The existing 2008 Transportation Master Plan set the stage for transportation improvements over the last decade and ongoing major initiatives. The AMP will serve as a policy-oriented, strategic update to the Transportation Master Plan. The AMP team is working with the public to update the vision and goals, objectives, and priority strategies to help guide City staff and policy makers on important decisions related to transportation over the next 5 to 10 years. This effort is part of an ongoing process - the AMP will continue to be updated periodically going forward.

This site will provide many opportunities for engagement throughout the planning effort. Explore the tabs to participate.

Download this [fact sheet](#) for more information about the planning process. For inquiries or feedback related to the AMP, please contact MobilityPlan@alexandriava.gov.

The City of Alexandria is committed to compliance with the Americans with Disabilities Act, as amended. To request a reasonable accommodation, e-mail geralyn.taylor@alexandriava.gov or call 703.746.4084, Virginia Relay 711.

TAKE THE SURVEY

SHARE A PHOTO

DROP A PIN ON OUR MAP

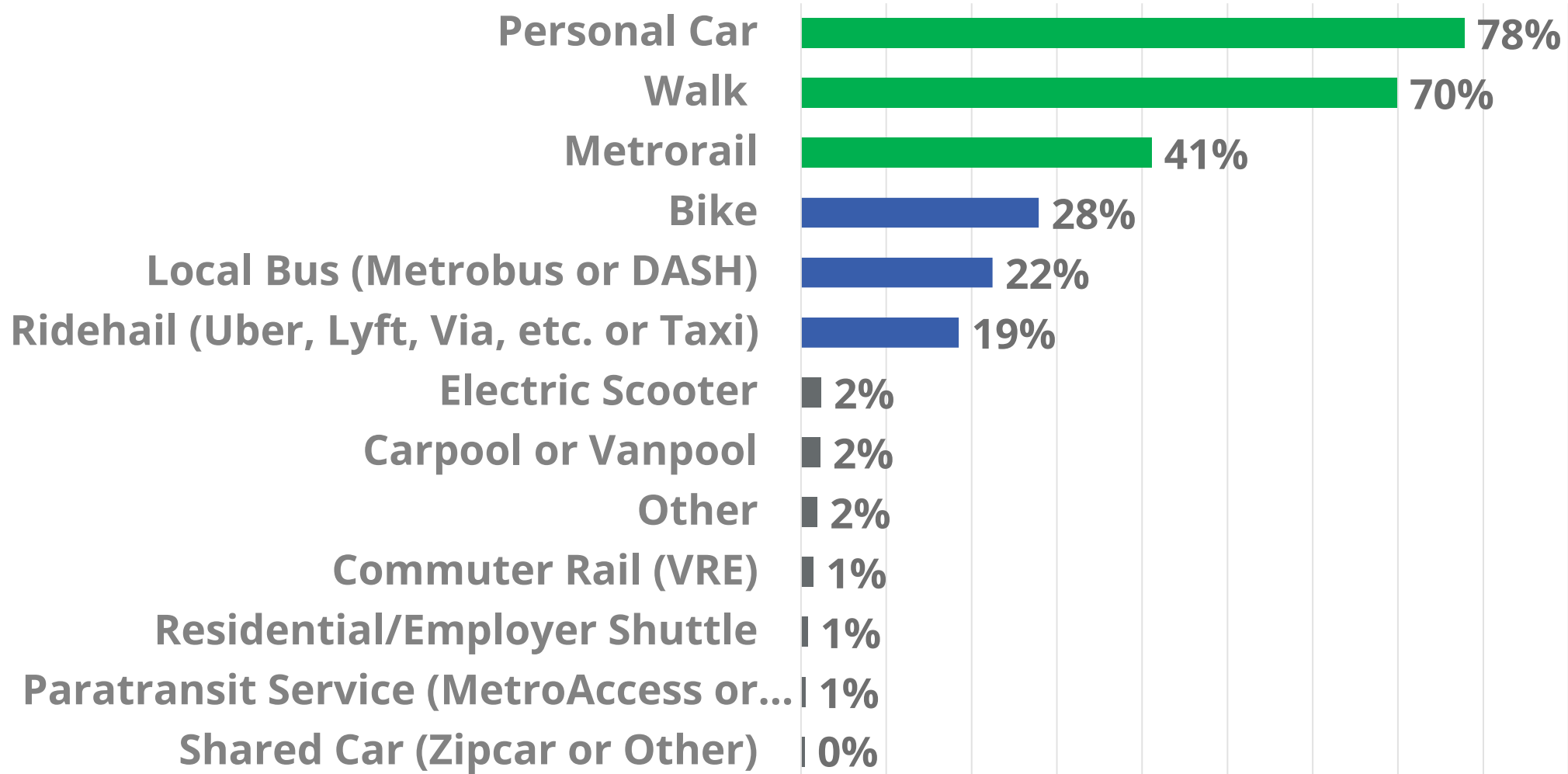
Alexandria Mobility Plan Visioning Survey



Visioning

The strategic update to the existing Transportation Master Plan is called the Mobility Plan purposefully. When people hear transportation, they tend to think about infrastructure – roads, trains, sidewalk, etc. Mobility is more people centric – it's about having access to transportation that meets your needs and gets you where you need to go.

2. Select the ways you most frequently travel



2. Select the ways you most frequently travel

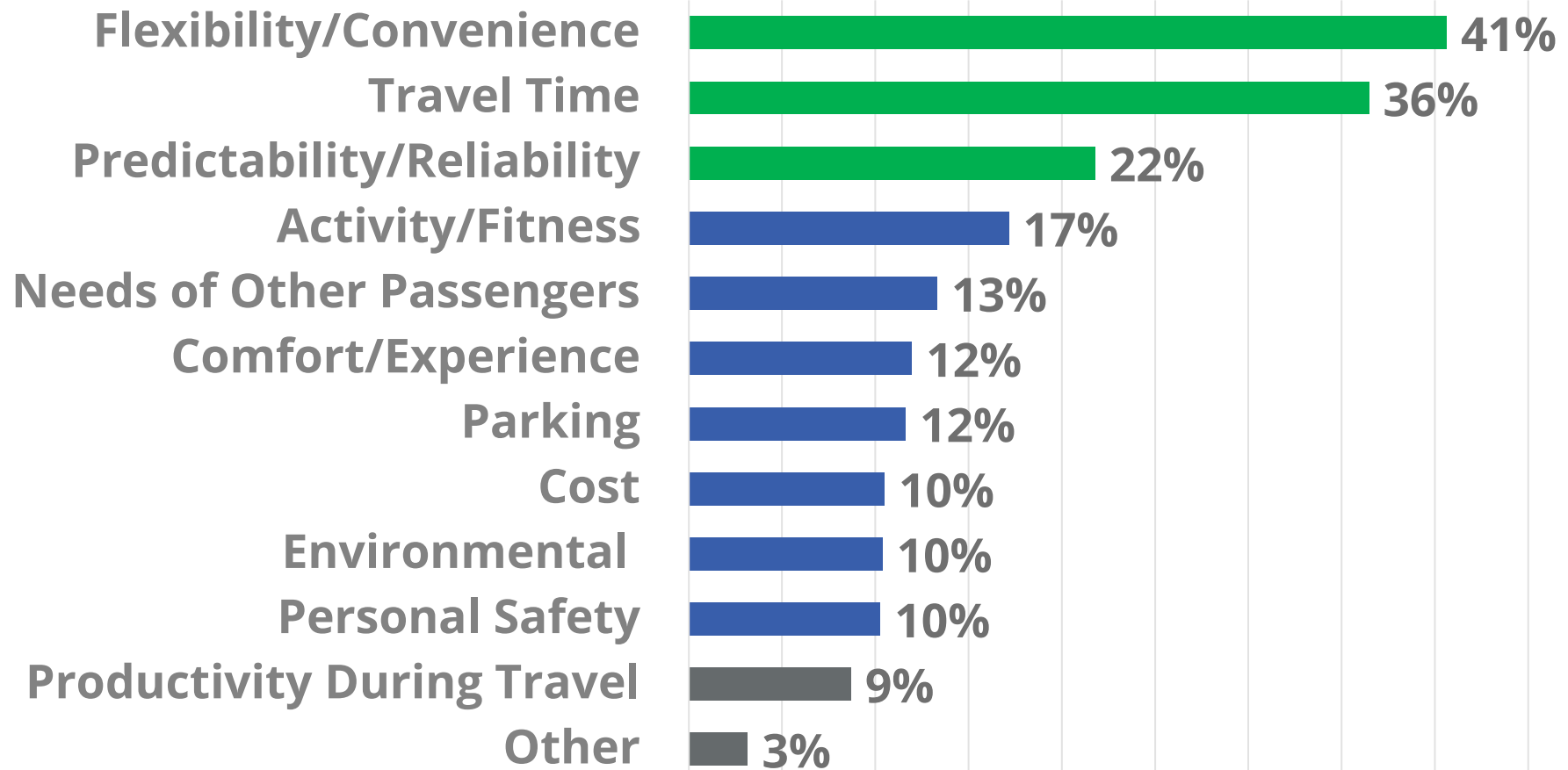


“Other” Responses Included:

- Motorcycle
- Motorized Scooter
- Regular Rental Car
- Water Taxi
- Work Vehicle



3. What are the most important factors in how you choose to get around on a normal day?



3. What are the most important factors in how you choose to get around on a normal day?

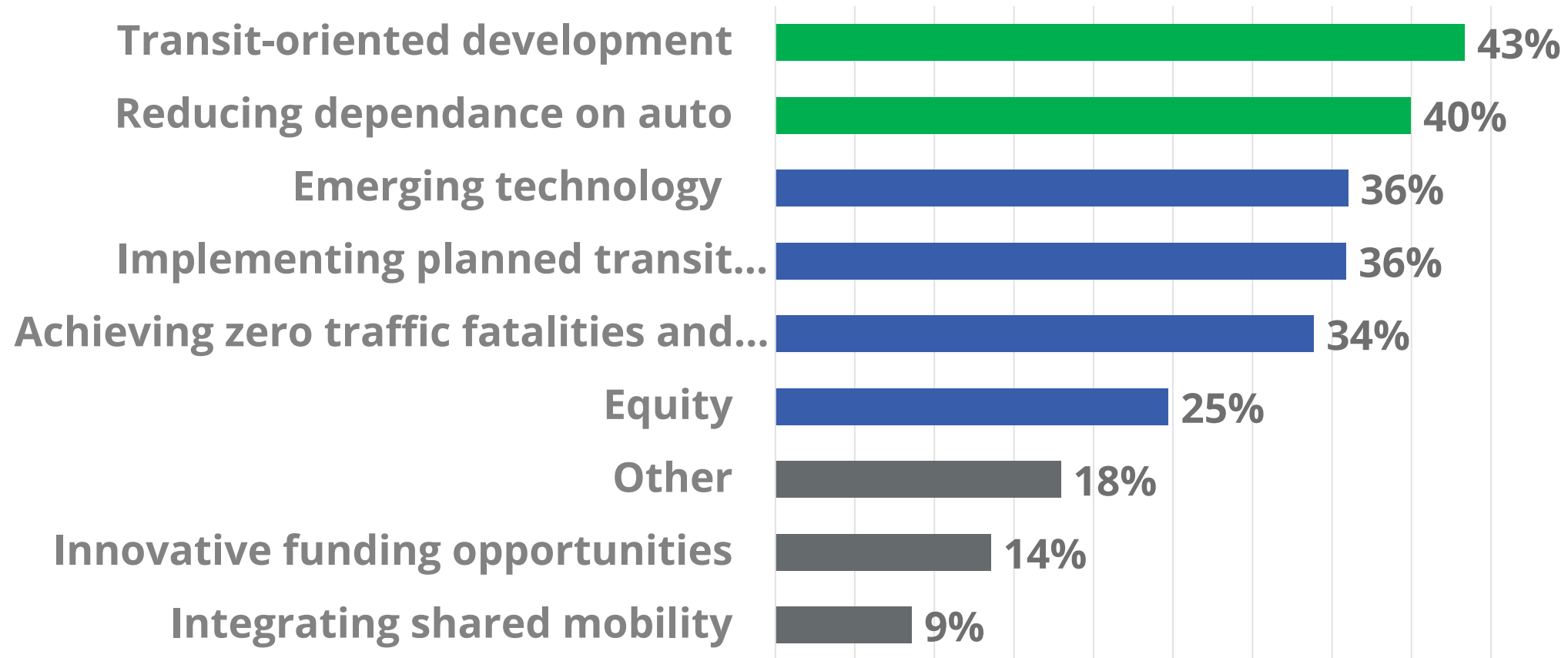


“Other” Responses Included:

- Weather
- Destination
- Physical Health
- Cargo capacity for groceries, dry goods, etc.
- Employment Needs



4. What are the most important opportunities for the future of mobility in Alexandria?

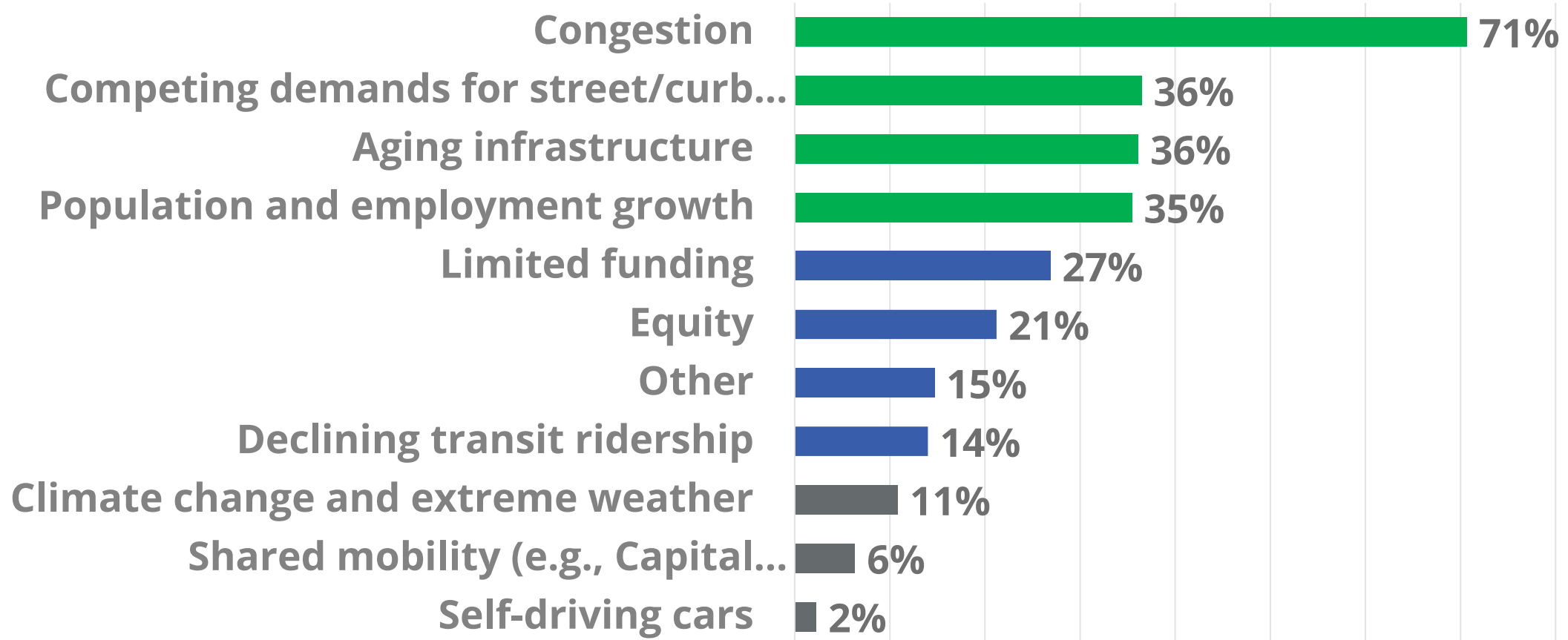


4. What are the most important opportunities for the future of mobility in Alexandria?

“Other” Responses Included:

- Addressing bottlenecks
- Better parking choices/Adequate parking
- Enforcement of traffic laws
- Improved public transportation
- Ability for residents to travel within neighborhoods
- Convenience of personal vehicle
- Reduce congestion/Better flow
- Connected bike lanes

5. What are the biggest challenges to the future of mobility in Alexandria?



5. What are the biggest challenges to the future of mobility in Alexandria?

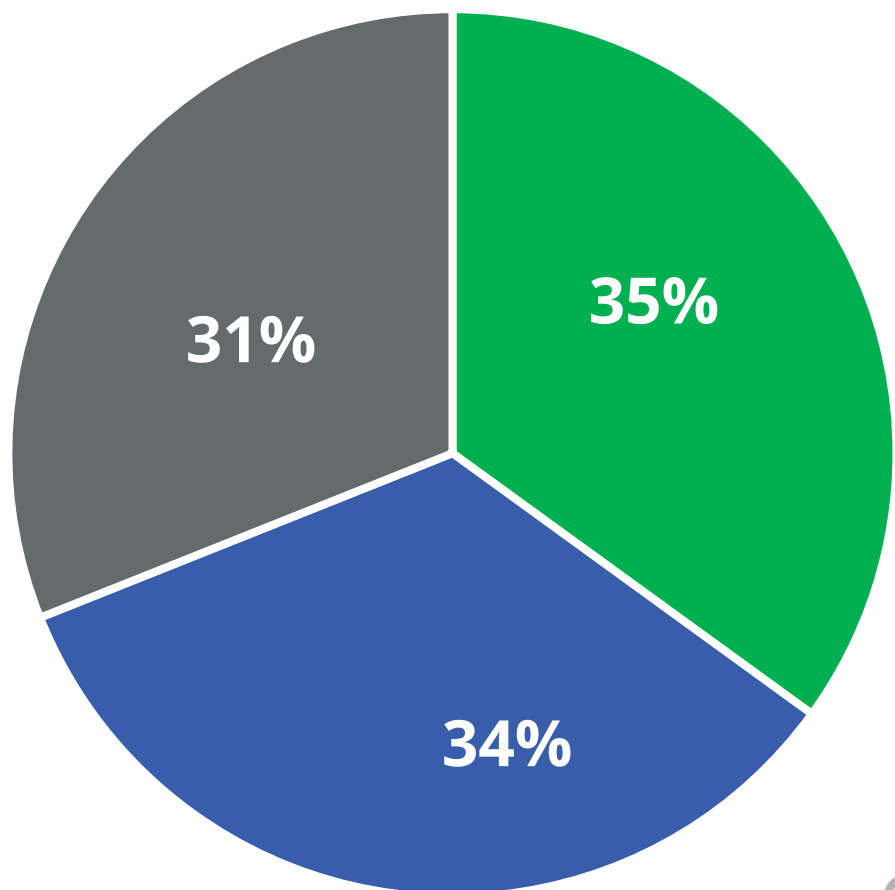


“Other” Responses Included:

- Scooters
- Poor Metro performance
- Road Diets/Reducing the number of lanes
- Equity of transportation for all of City (families, seniors, etc.)
- Commitment to pedestrian/cyclist safety
- Changing mindset of residents to be less car-centric
- Cut-Through traffic in neighborhoods
- Aging Population
- Lack of enforcement

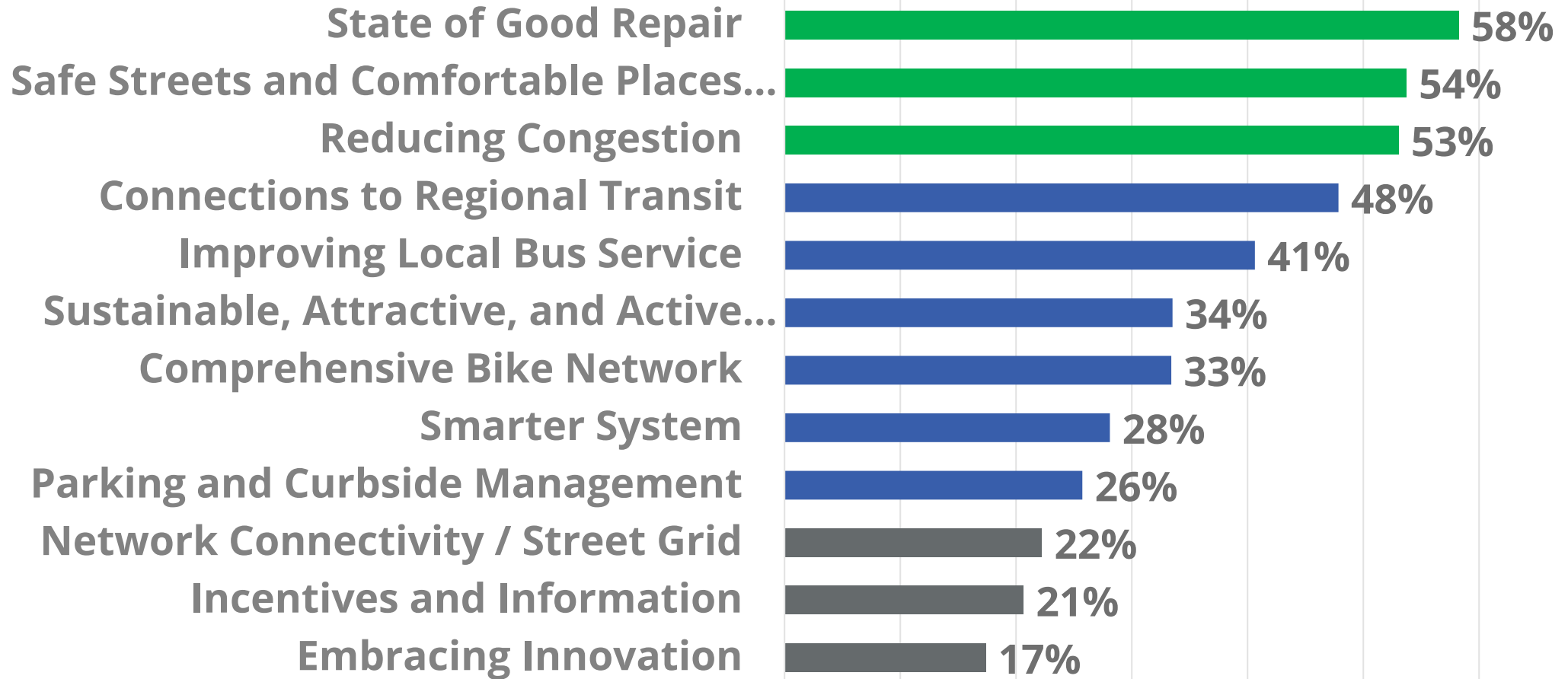


6. When developing a transportation strategy for Alexandria, we should focus most on:



- Reducing impacts of regional traffic on City streets (travel through Alexandria)
- Improving regional connections (travel to or from Alexandria)
- Improving local travel options (travel within Alexandria)

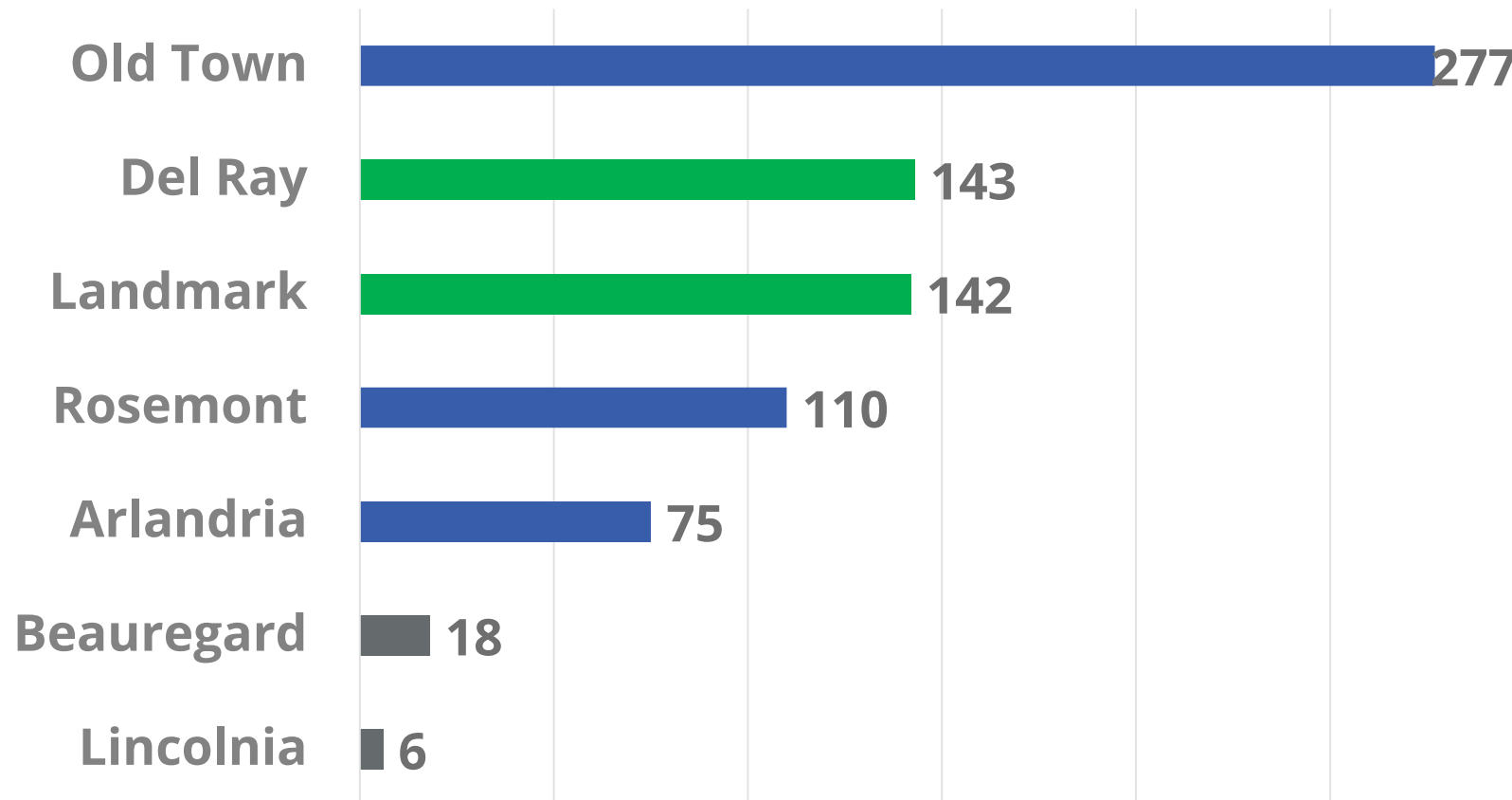
7. What things do you think Alexandria should invest in the most?



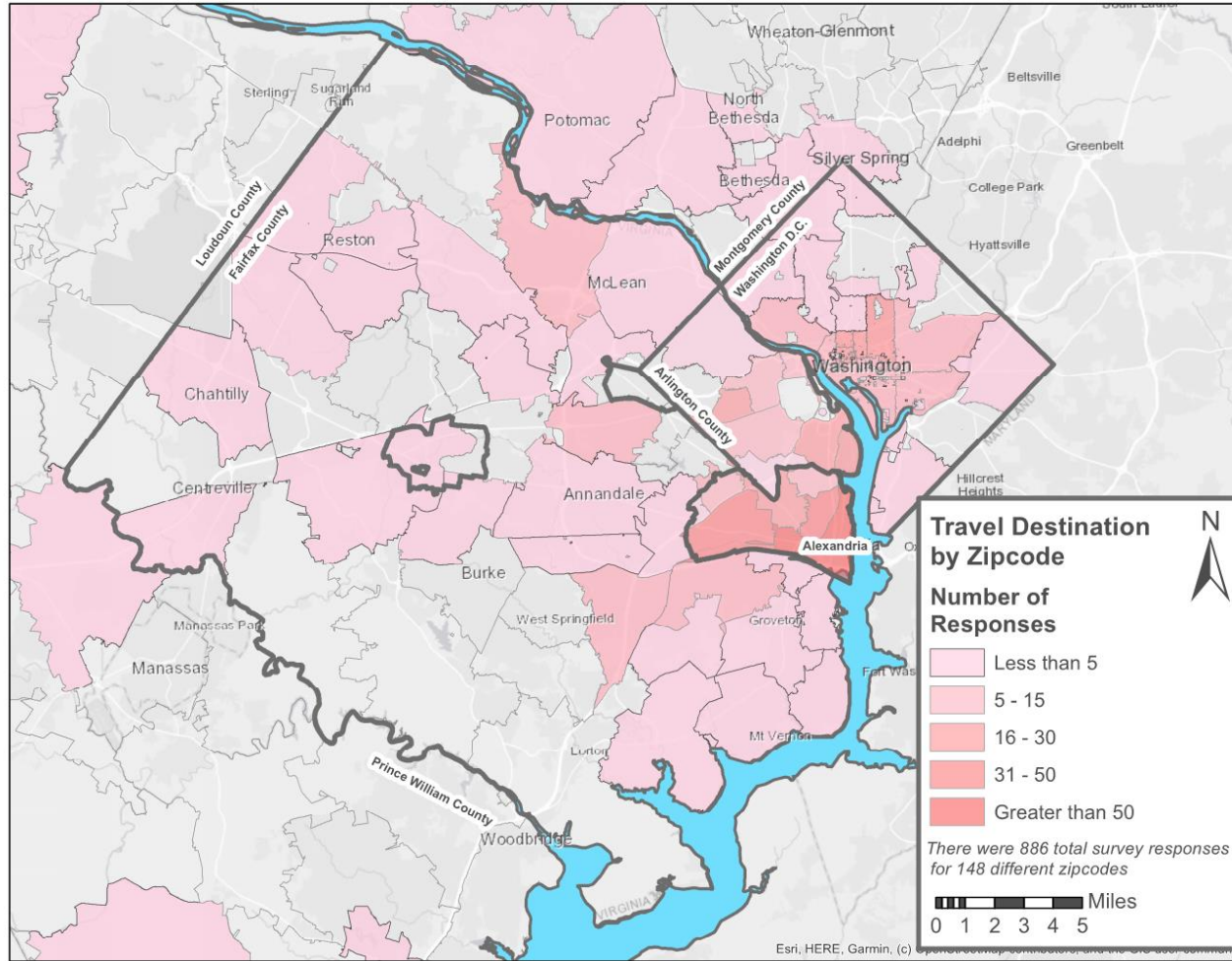


8. What is your home zip code?

Alexandria Responses



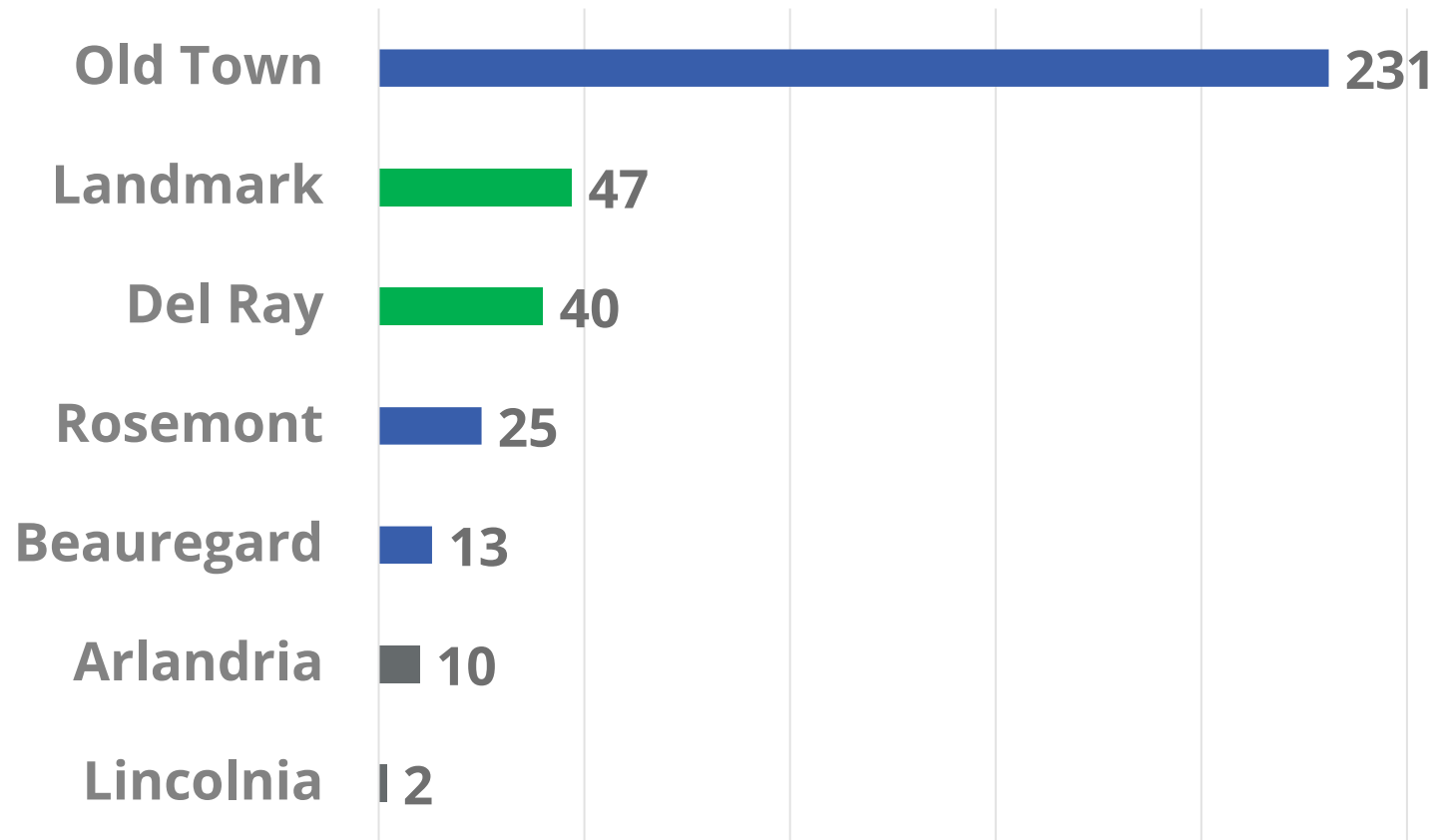
9. What is the zip code of your work, school, or most frequent travel destination?



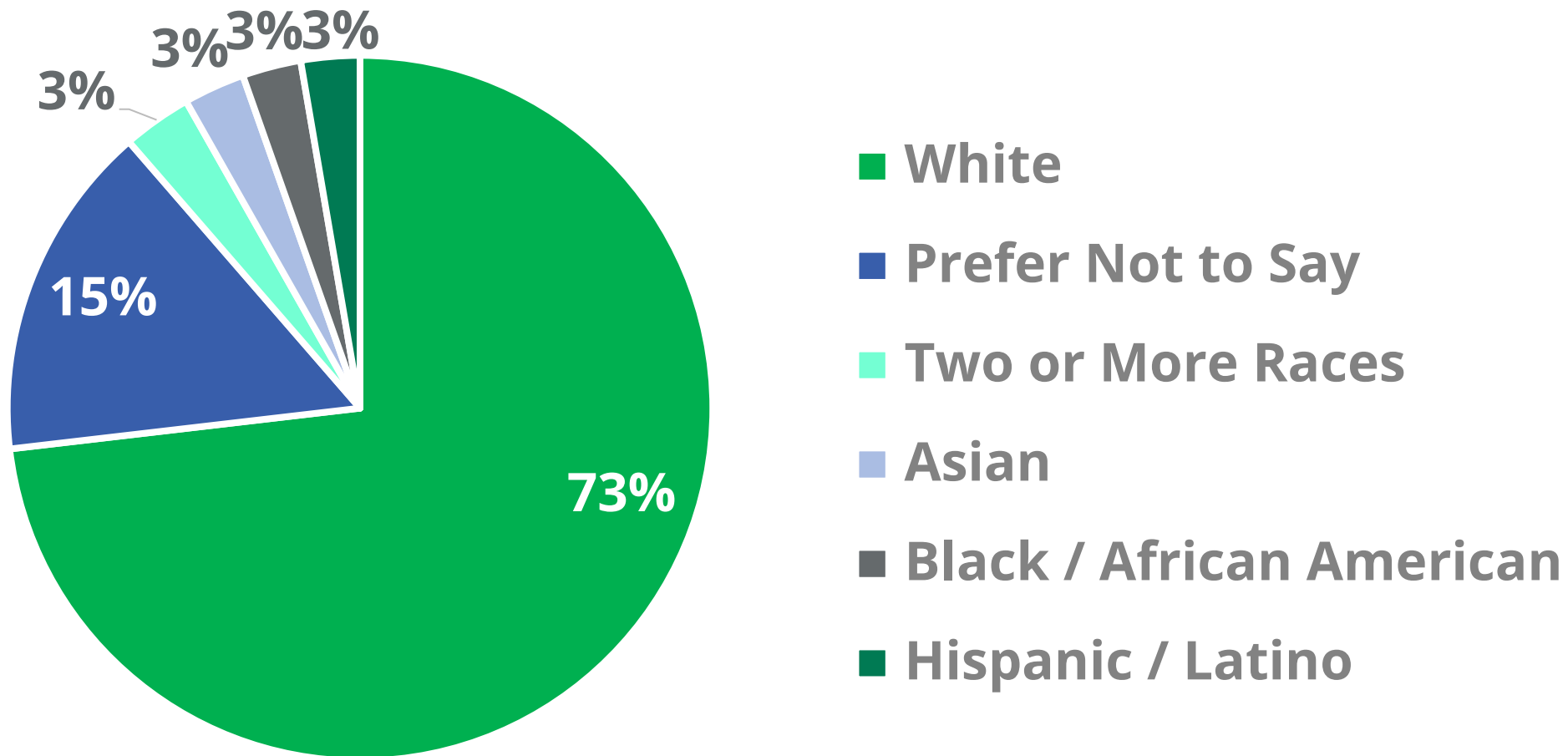
9. What is the zip code of your work, school, or most frequent travel destination?



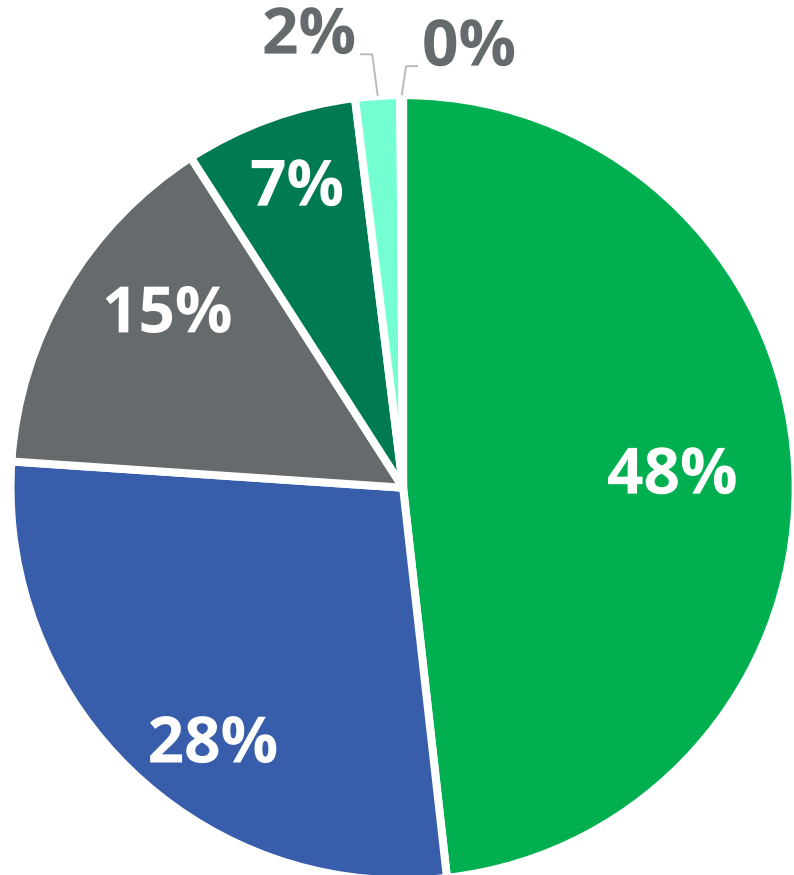
Alexandria Responses



10. Select the racial or ethnic group with which you identify



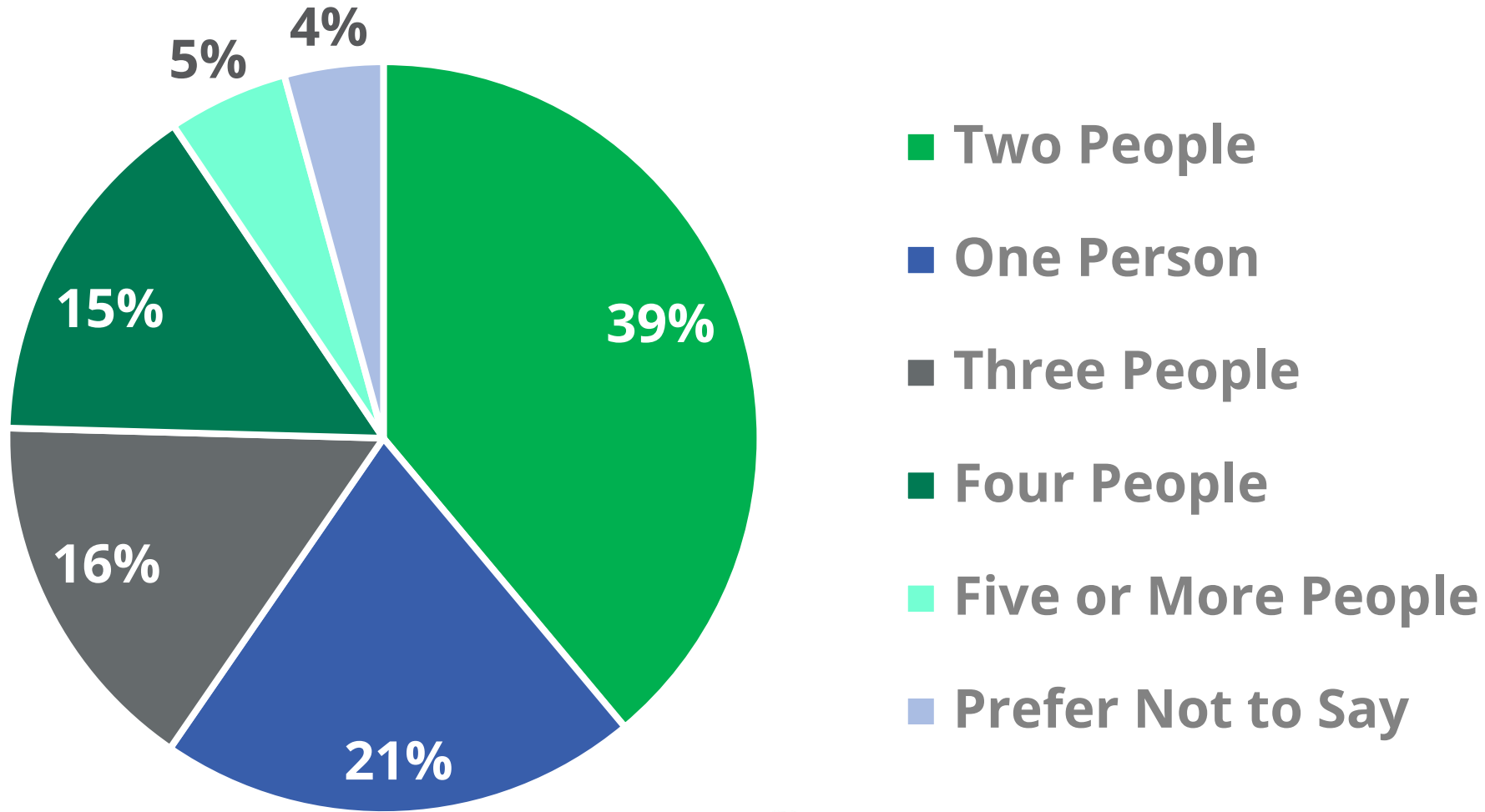
11. Indicate your age group



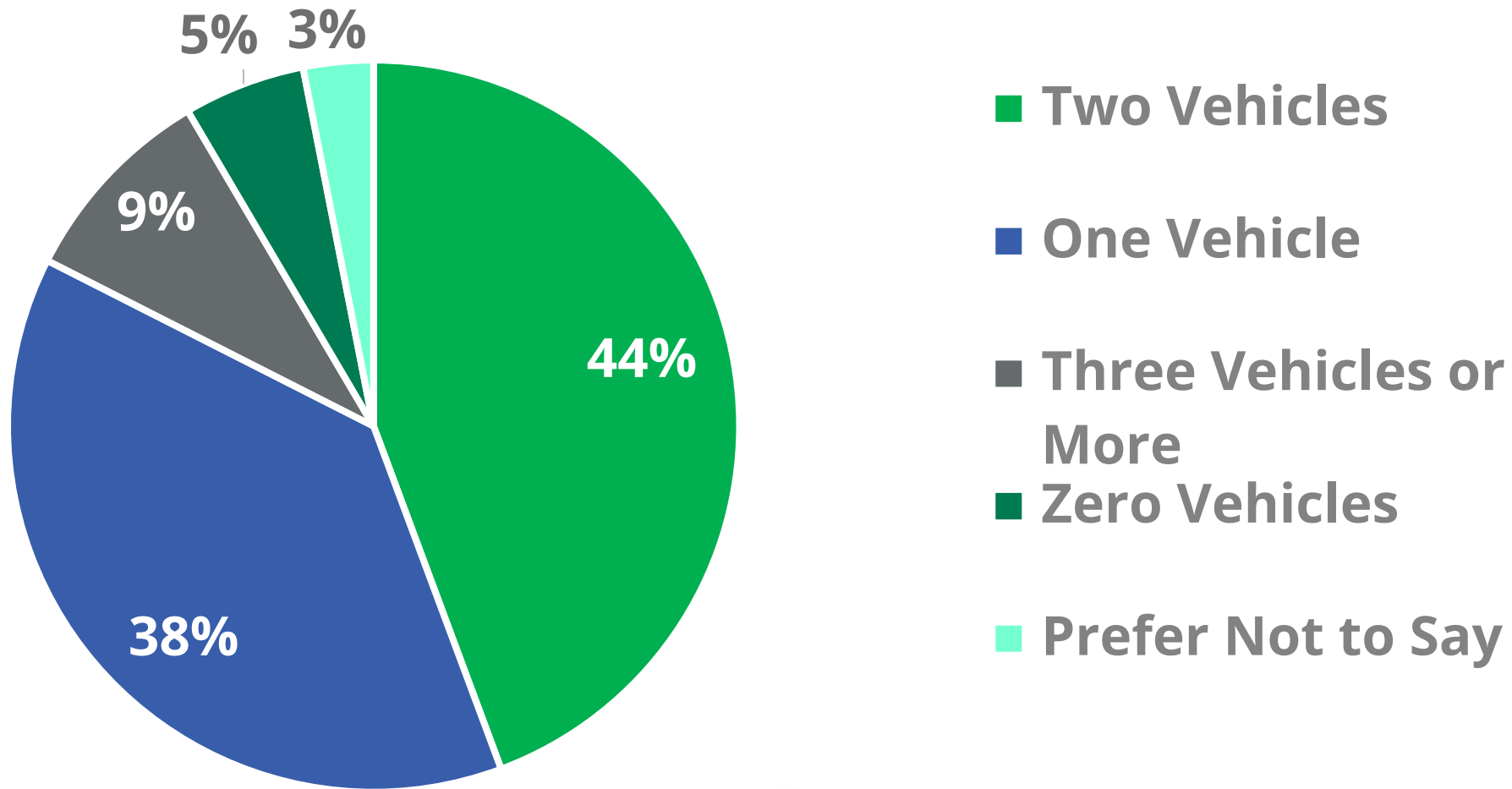
- 40-65 Years Old
- 26-39 Years Old
- Over 65 Years Old
- Prefer Not to Say
- 18-25 Years Old
- Under 17 Years Old



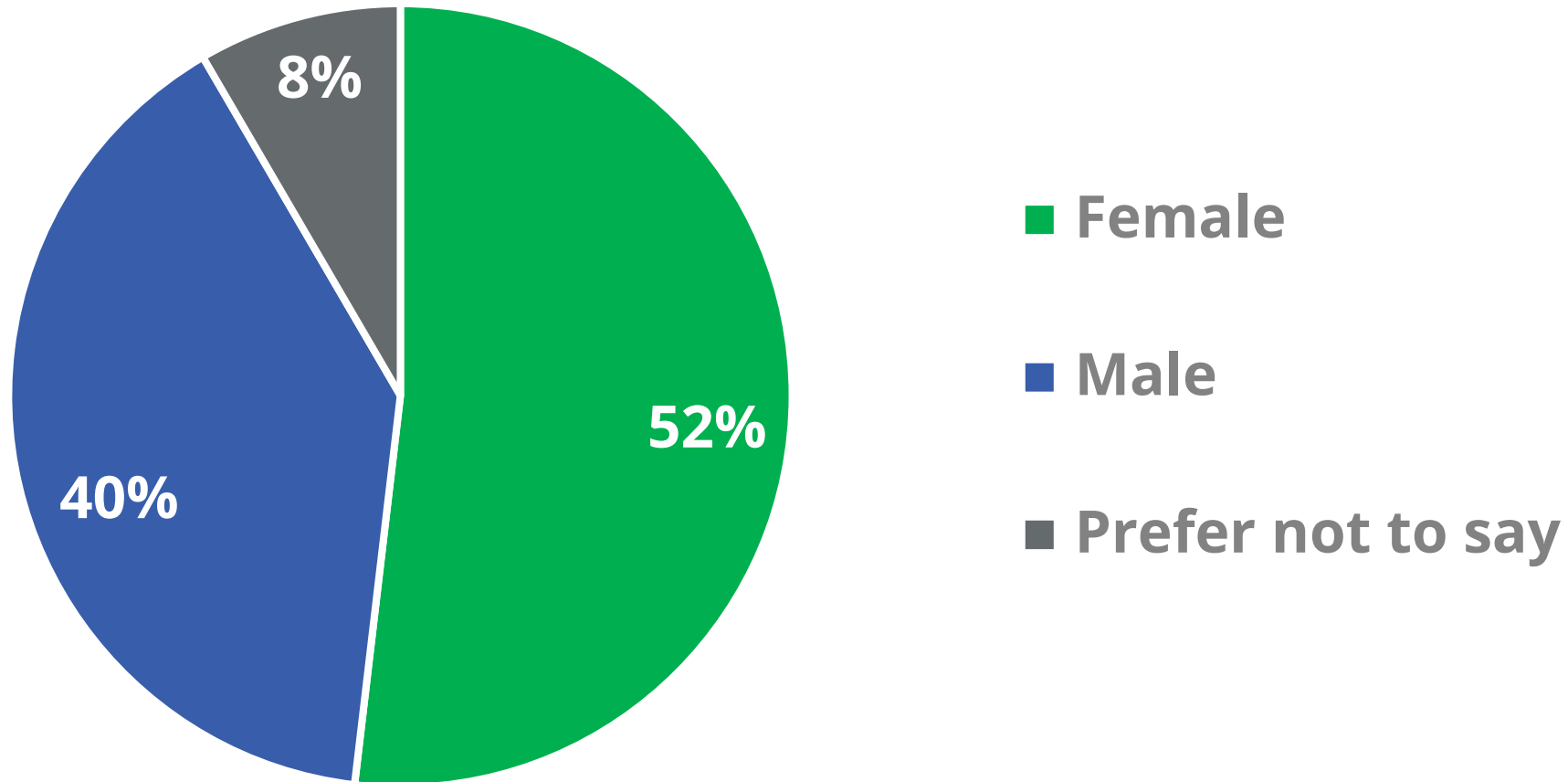
12. How many people live in your household?



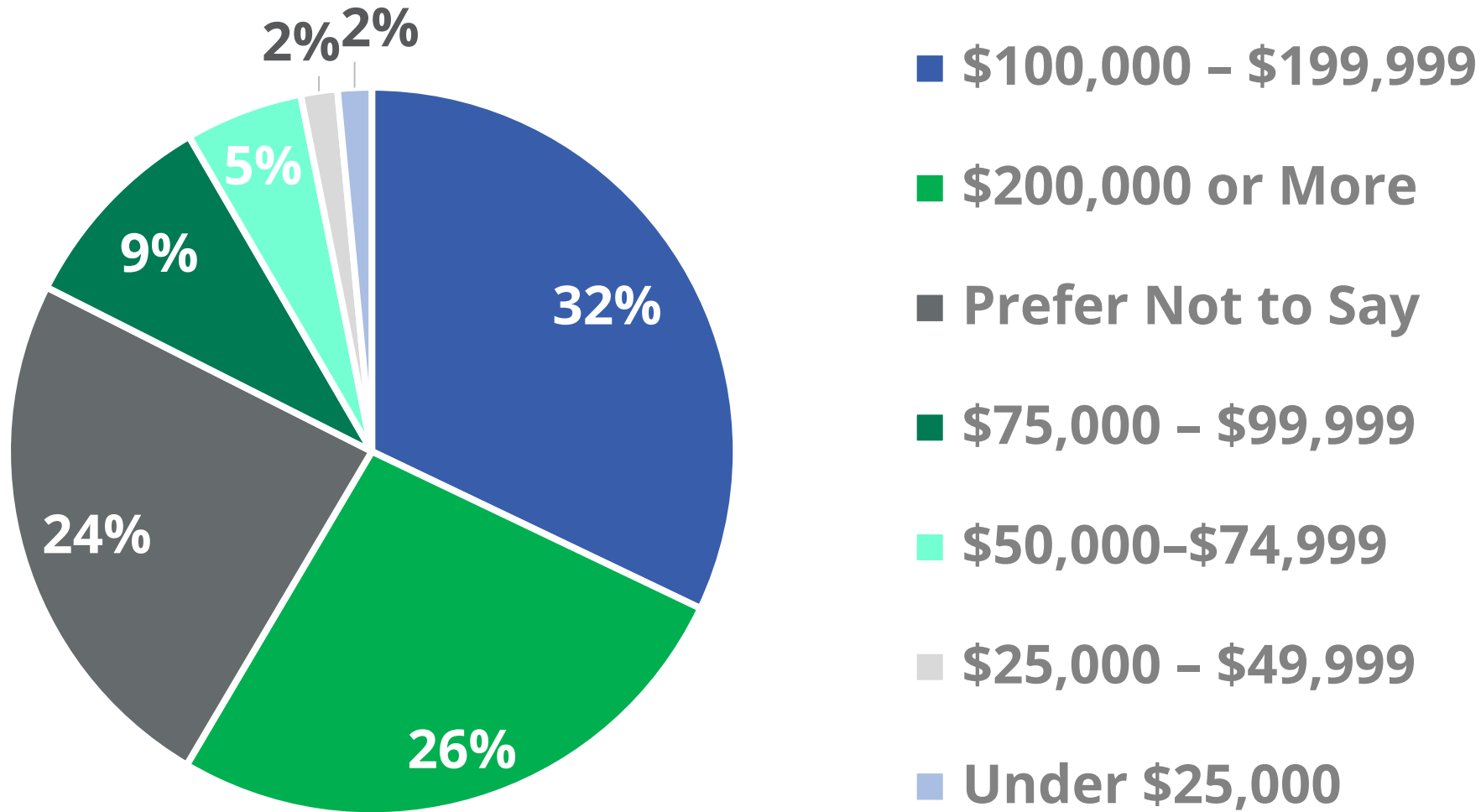
13. How many vehicles are available to people in your household?



14. I identify my gender as:



15. Indicate your annual household income:



Innovation Forum Summary

October 2019

Idea Wall Summary

How do you define Innovation?

- Disruption of the Status Quo
- Increased Sustainability and Safety
- Utilization of Simple Technology for Creative Solutions

How should we apply innovation to the Alexandria Mobility Plan Vision?

- Reliable Travel Information Technology
 - Improve Transit
 - Control Flow of Vehicle Traffic
- Equitable Multimodal Solutions
 - Car Sharing
 - Broader Bus Schedules
 - Bike Lanes
 - Legislation and Plans for Scooter Implementation
- Decreased Congestion and Cut-through Traffic
 - Vision Zero

Idea Wall Summary



What innovative Transportation Solutions have you seen in Alexandria or elsewhere?

- Increased Electric Vehicles and Bikes
 - Netherlands, Hong Kong, Singapore
- Pedestrian and Bike Solutions
 - Boston ,MA, Seattle, WA, Reykjavik, Iceland, Netherlands
- Transit Payment via Smart Phones
 - Vancouver ,BC, Seattle ,WA
- Speed Management and Congestion Pricing

Other Thoughts or Ideas?

- Prioritize Pedestrian and Bike Lanes and Trails
- Ensure Protection of Privacy during Data Collection
- Pros and Cons to Scooters





Community Champion Meetings Summary

November 2019



Community Champion Meetings

- 6 meetings
- 10 community champions
- Organization coverage
 - ✓ Alexandria Housing Development Corporation
 - ✓ Carpenter Shelter
 - ✓ Alexandria Interfaith Association
 - ✓ Home for America (Brent Place)
 - ✓ Rebuilding Together
 - ✓ Hopkins House (Helen Day Preschool)
 - ✓ Alive!
 - ✓ Volunteer Alexandria
 - ✓ Tenants and Workers United
 - ✓ Community Lodgings

Comment Themes

- **Accessible, reliable**, and **safe transit** is a priority for many residents
- **Buses** provide crucial connections to **employment**
- The combination of **affordable housing** and **transportation** is key
- Provided insight into the best ways to **communicate** information and get **feedback** from residents

Pop-Up Events Summary

November and December 2019

AMP Pop-Up Events



- 7 pop-ups
- 468 interactions
- Citywide coverage
 - ✓ Old Town
 - ✓ West End
 - ✓ Arlandria (x2)
 - ✓ Del Ray
 - ✓ Taylor Run
 - ✓ Alexandria West



Old Town Farmers Market



Sunday November 9, 2019

- 61 Priority Activities completed
- 18 additional conversations



West End Farmers Market



Sunday November 17, 2019

- 75 interactions (72 English/3 Spanish)
- 52 Priority Activities completed
- 52 fact sheets handed out



Arlandria Community Meeting



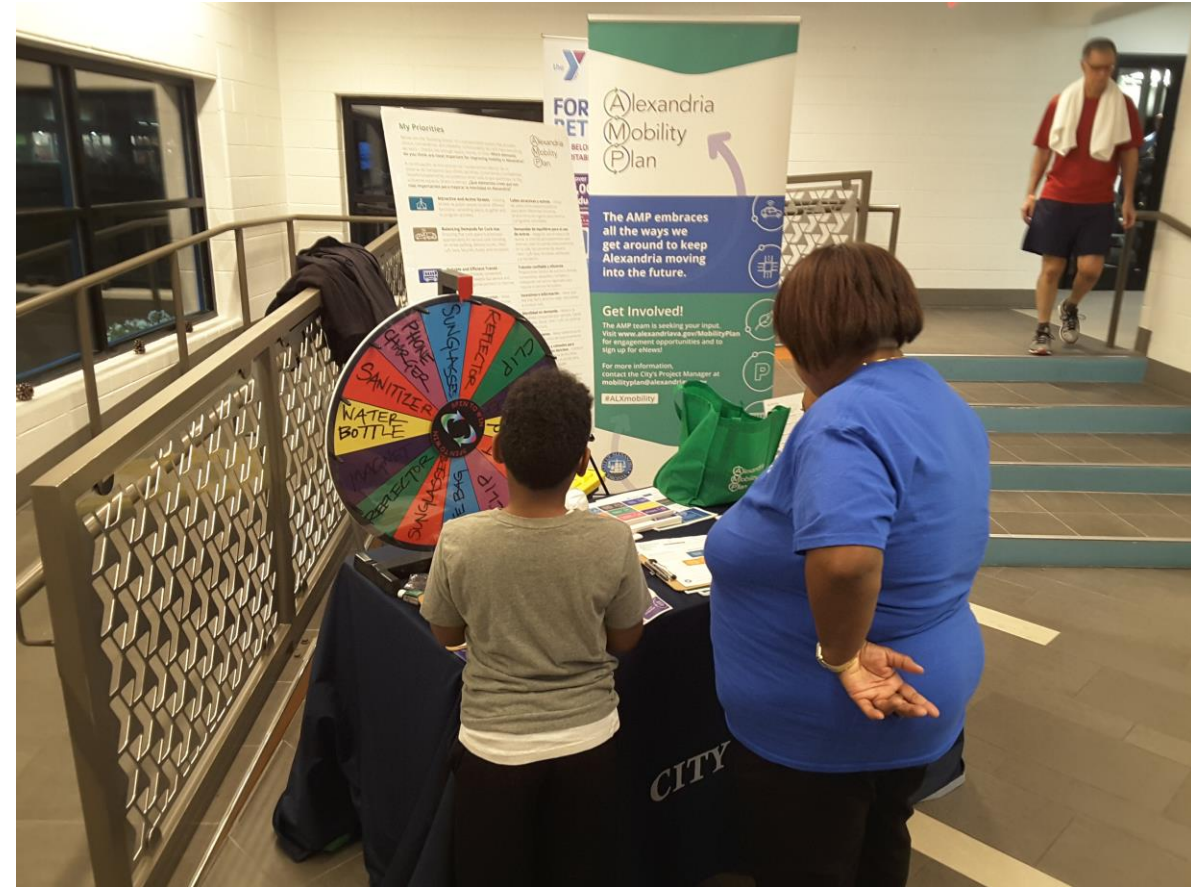
Thursday November 21, 2019

- 50 interactions (30 English/20 Spanish)
- 33 Priority Activities completed (22 English/11 Spanish)
- 39 fact sheets handed out
- 14 postcards handed out



Tuesday December 3, 2019

- 113 interactions (111 English/2 Spanish)
- 85 Priority Activities completed
- 66 fact sheets handed out
- 119 postcards handed out

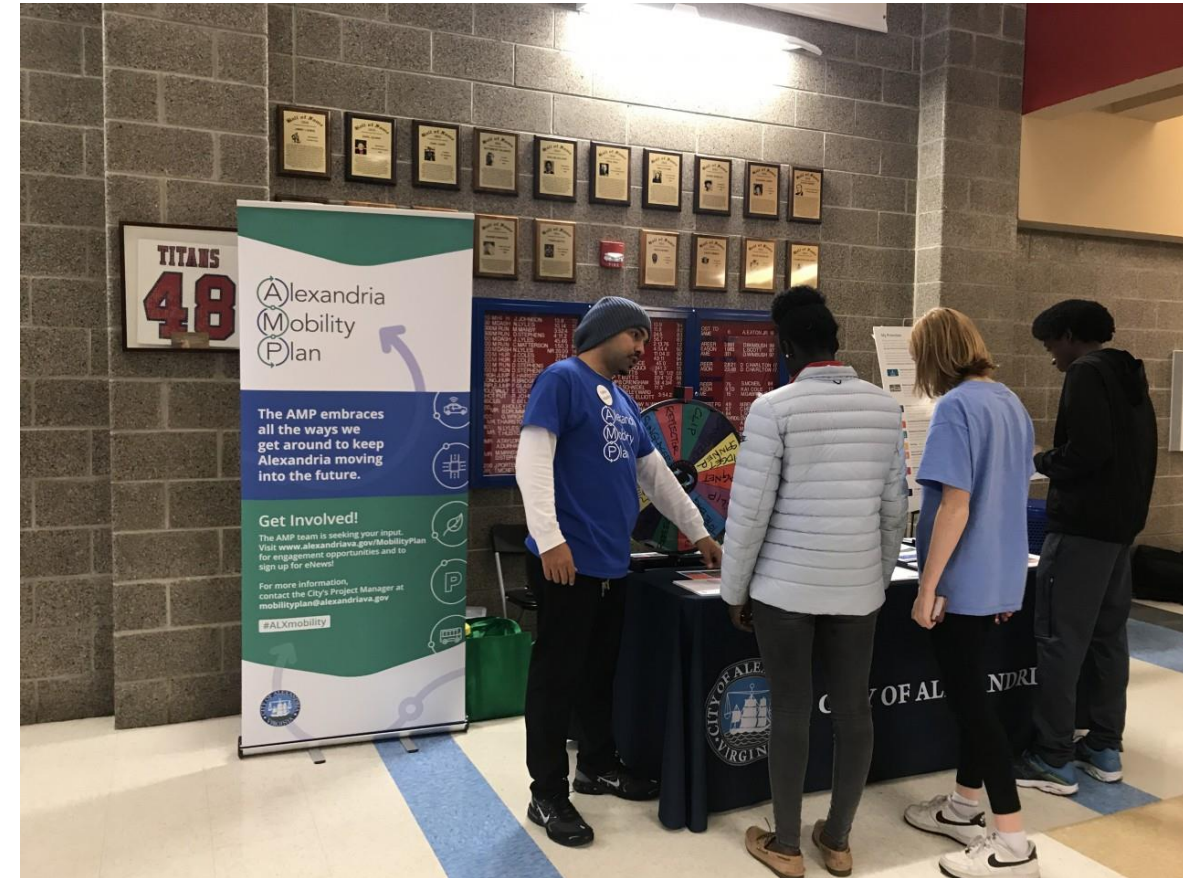


Alexandria City High School



Friday December 6, 2019

- Boy's Basketball Game Event
- 75 interactions (71 English/4 Spanish)
- 48 Priority Activities completed (45 students/3 adults)
- 16 fact sheets handed out (14 English/2 Spanish)
- 44 postcards handed out



Global Foods Market



Sunday December 8, 2019

- 114 interactions
(57 English/32 Spanish/25 Amharic)
- 36 Priority Activities completed
(20 English/16 Spanish)
- 46 fact sheets handed out
(18 English/13 Spanish/15 Amharic)
- 86 postcards handed out



Forest 24 Hour Laundromat

Sunday December 8, 2019

- 75 interactions (13 English/62 Spanish)
- 27 Priority Activities completed (4 English/23 Spanish)
- 44 fact sheets handed out (5 English/39 Spanish)
- 58 postcards handed out



Priority Activity



Mobility Priorities

Below are the "building blocks" of a transportation system that provides choice, convenience, and reliability. Unfortunately, we can't have everything we want – there's not enough space, money, or time. **What things do you think Alexandria should invest in the most?**



Attractive and Active Streets – Utilizing streets as public spaces to serve different functions—providing places to gather and to program activities.



Curbside Management – Allocating space to balance the needs of and limit conflicts between parked cars, delivery trucks, Uber/Lyft, taxis, bicycles, buses, and cars.



Reliable and Efficient Transit Service – Providing convenient, affordable, and reliable bus service throughout the day and on all days of the week. Improving access to rail stations and regional bus stops.



Incentives and Information – Make it easier and more attractive to choose alternatives to driving alone.



Mobility on Demand – Supporting shared mobility (e.g., Capital bikeshare, Zipcar, Uber/Lyft) with policies and infrastructure.



Parking – Increasing the physical inventory of on-street parking to taking action to manage the existing space better.



Safe and Comfortable Places to Walk and Bike – Allowing you to comfortably walk and bike everywhere in the city and improve accessibility for persons with disabilities.



Maintaining our Infrastructure – Keeping streetlights and traffic signals working, filling potholes, repaving streets, maintaining sidewalks, removing snow, and replacing aging bus fleet.



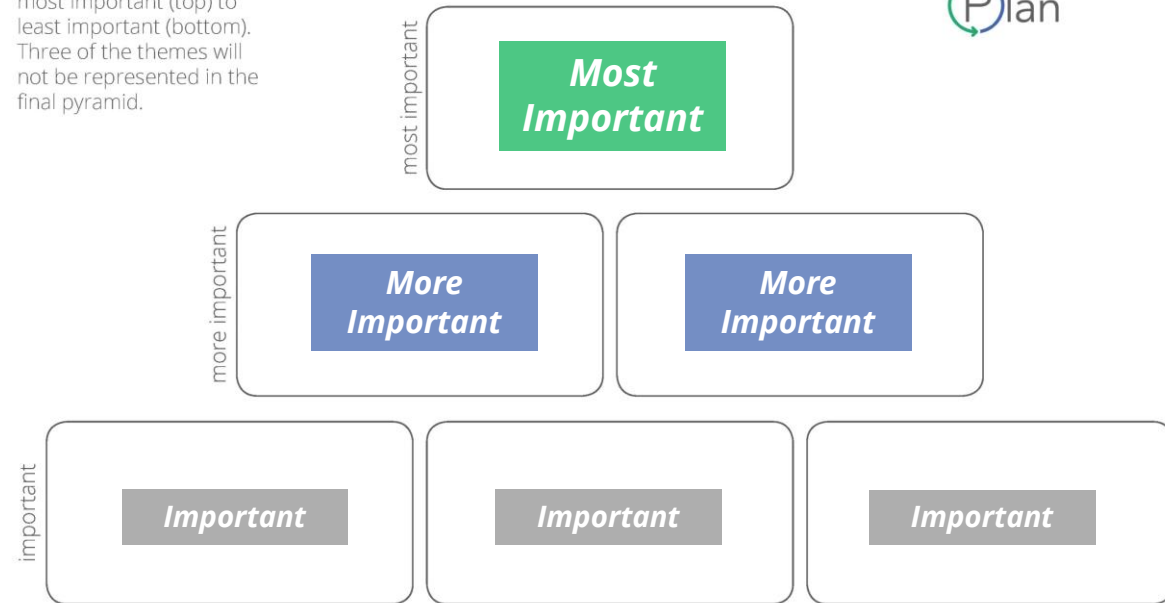
Traffic Management – Using technology to make travel in Alexandria safer and more efficient to get around.



Please choose your **top six building block stickers and place them on your sheet** in order of importance, from most important (top) to least important (bottom). Three of the themes will not be represented in the final pyramid.



My Priorities



Email address _____ (optional)

What is your home zip code? _____ (optional)

ALXmobility



Priority Activity

- **690** activities completed
 - 342 completed ***in person*** at pop-up meetings
 - 348 completed ***online*** as of December 19, 2019

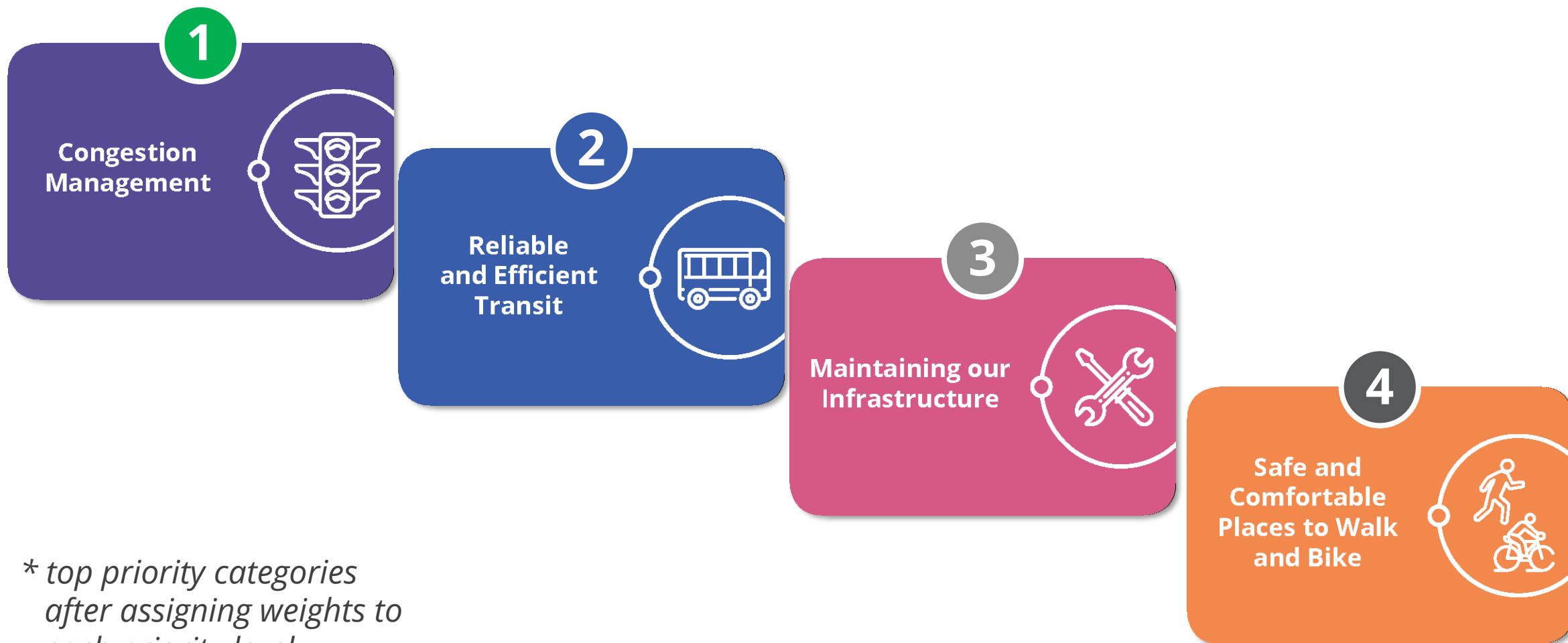
Key Takeaways



- Equal competing values between **multimodal transportation** and **traffic/maintenance**
- Linked priorities
 - Of those that chose “**Safe and Comfortable Places to Walk and Bike**” as their *most important* priority:
 - “**Reliable and Efficient Transit**” was the most frequently chosen priority in their *more important* row. The inverse is also true.
 - Of those that chose “**Congestion Management**” as their *most important* priority:
 - “**Maintaining our Infrastructure**” was the most frequently chosen priority in their *more important* row. The inverse is also true.



Top Priorities (Weighted)



** top priority categories
after assigning weights to
each priority level*

In Person Priorities (Weighted)

1

Safe and
Comfortable
Places to Walk
and Bike



2

Reliable
and Efficient
Transit



3

Congestion
Management



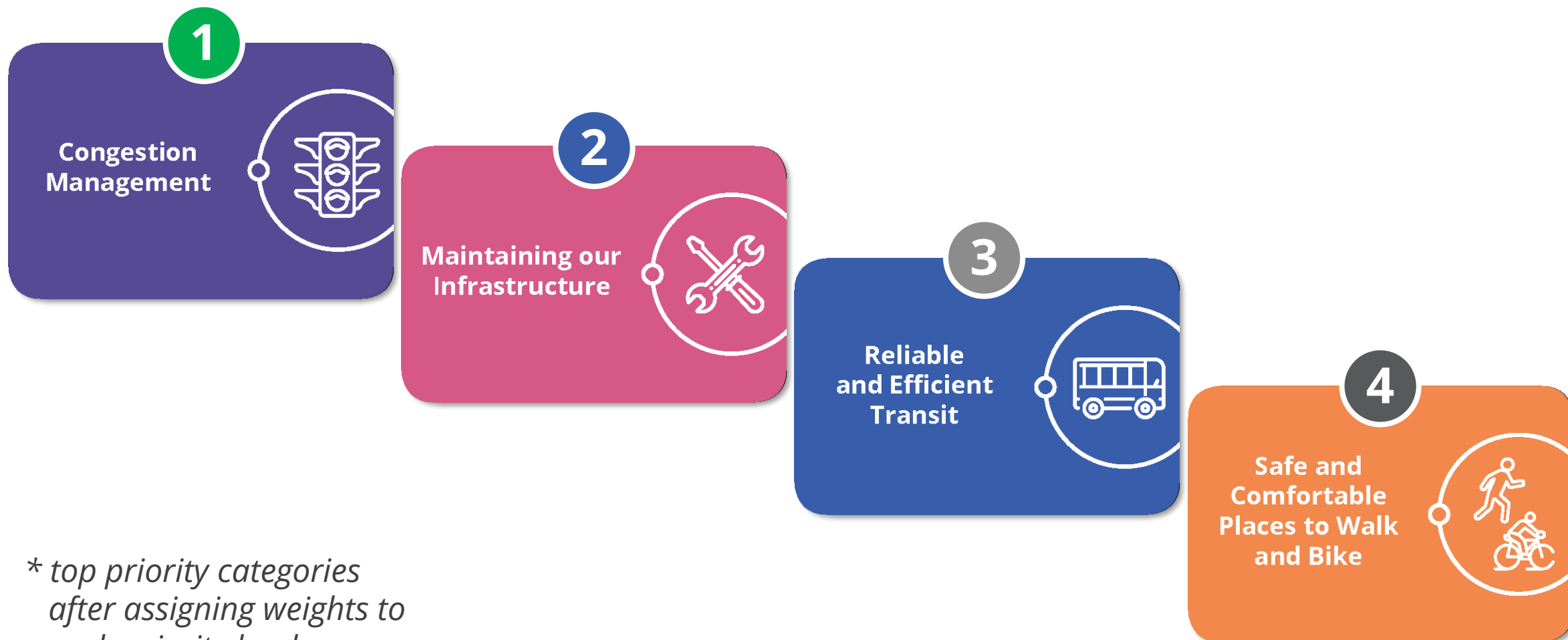
4

Maintaining our
Infrastructure



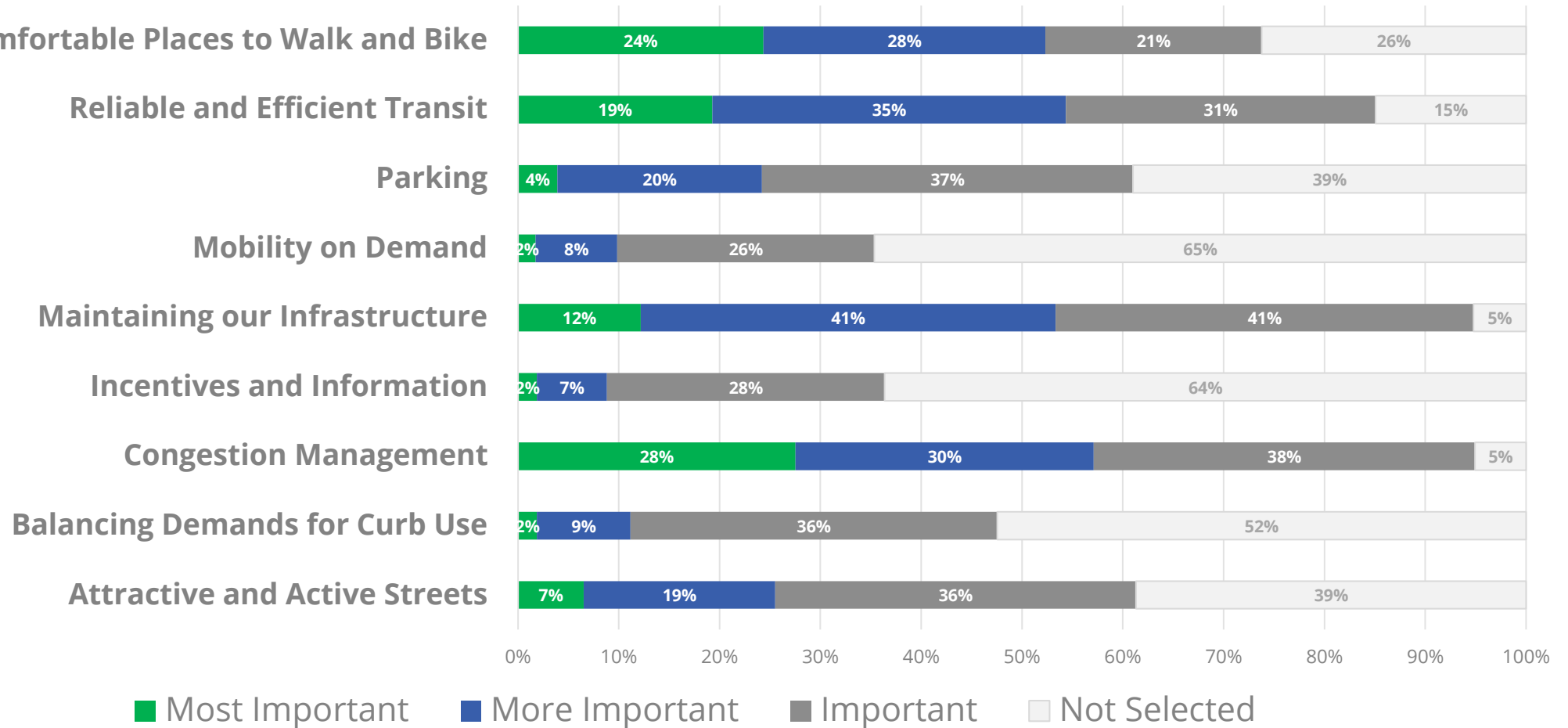
** top priority categories
after assigning weights to
each priority level*

Online Priorities (Weighted)

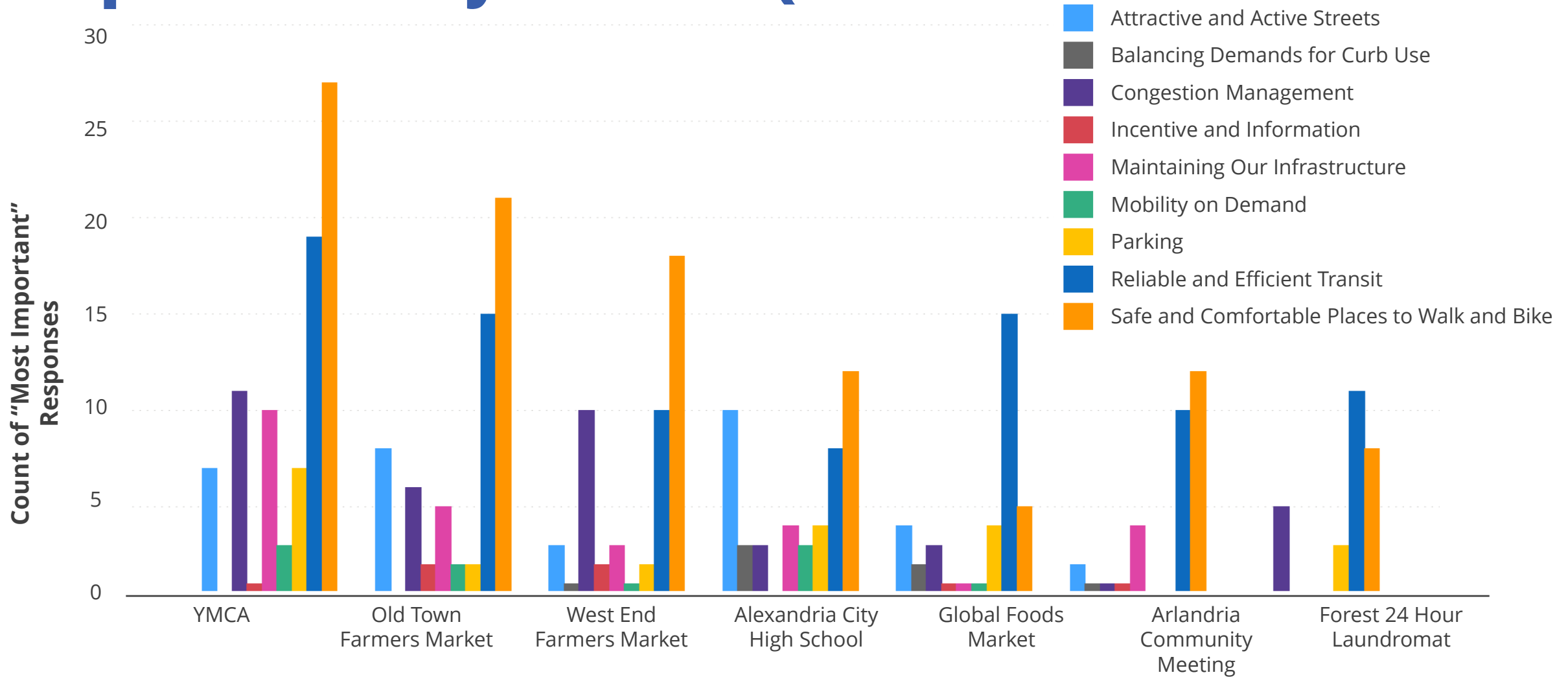


** top priority categories
after assigning weights to
each priority level*

Priorities by Category (all submissions)



Top Priorities by Location (In Person)



Top Most Important Priority by Location



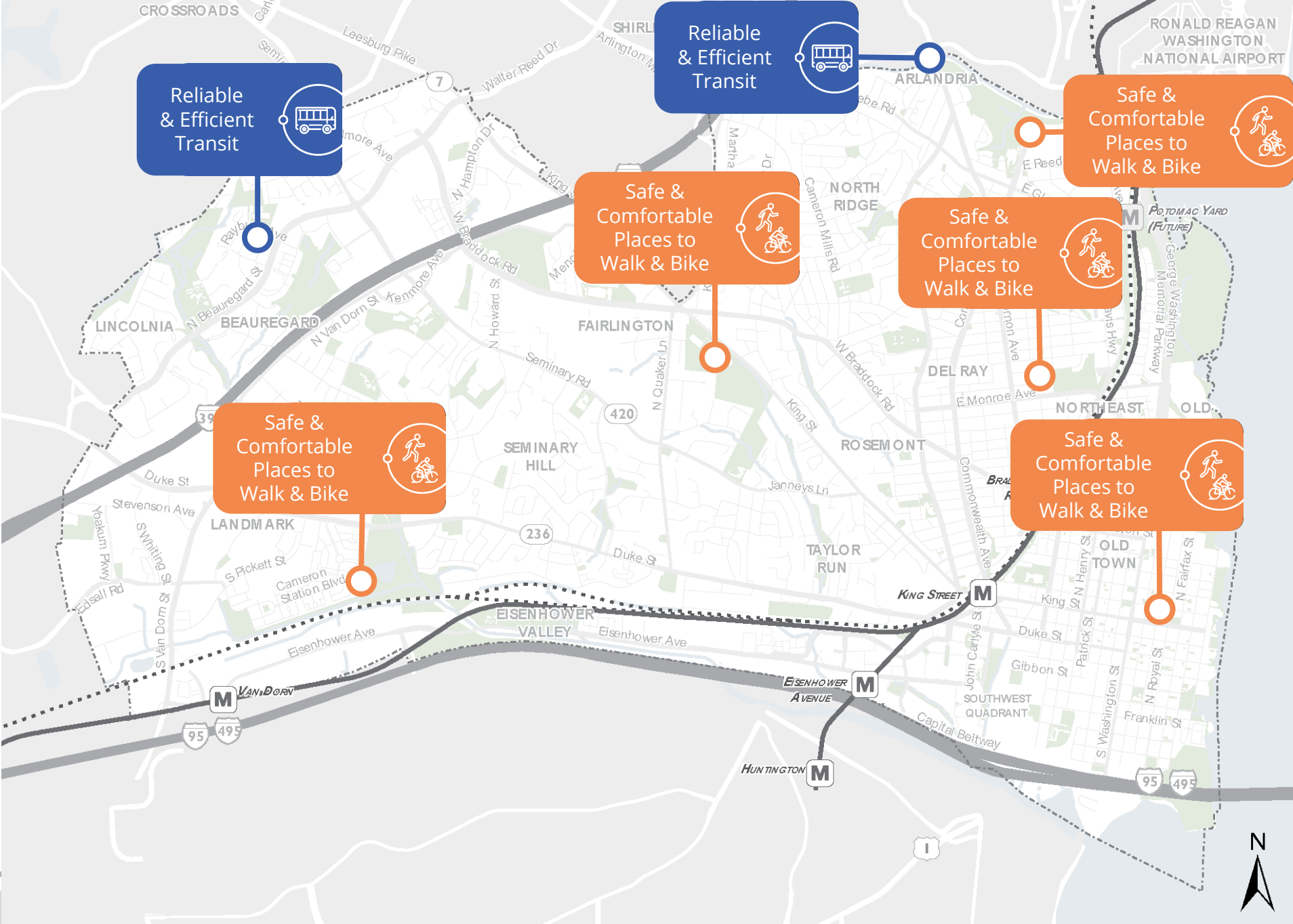
Top Priorities	West End Farmers Market	YMCA	Old Town Farmers Market	Alexandria City High School	Arlandria Community Meeting	Global Foods Market	Forest 24 Hour Laundromat	Online
FIRST Most Important	Safe & Comfortable Places to Walk & Bike					Reliable & Efficient Transit		Congestion Management
SECOND Most Important	Reliable & Efficient Transit					Safe & Comfortable Places to Walk & Bike		Maintaining Our Infrastructure
THIRD Most Important	Congestion Management	Attractive & Active Streets			Maintaining Our Infrastructure	Attractive & Active Streets / Parking	Congestion Management	Safe & Comfortable Places to Walk & Bike



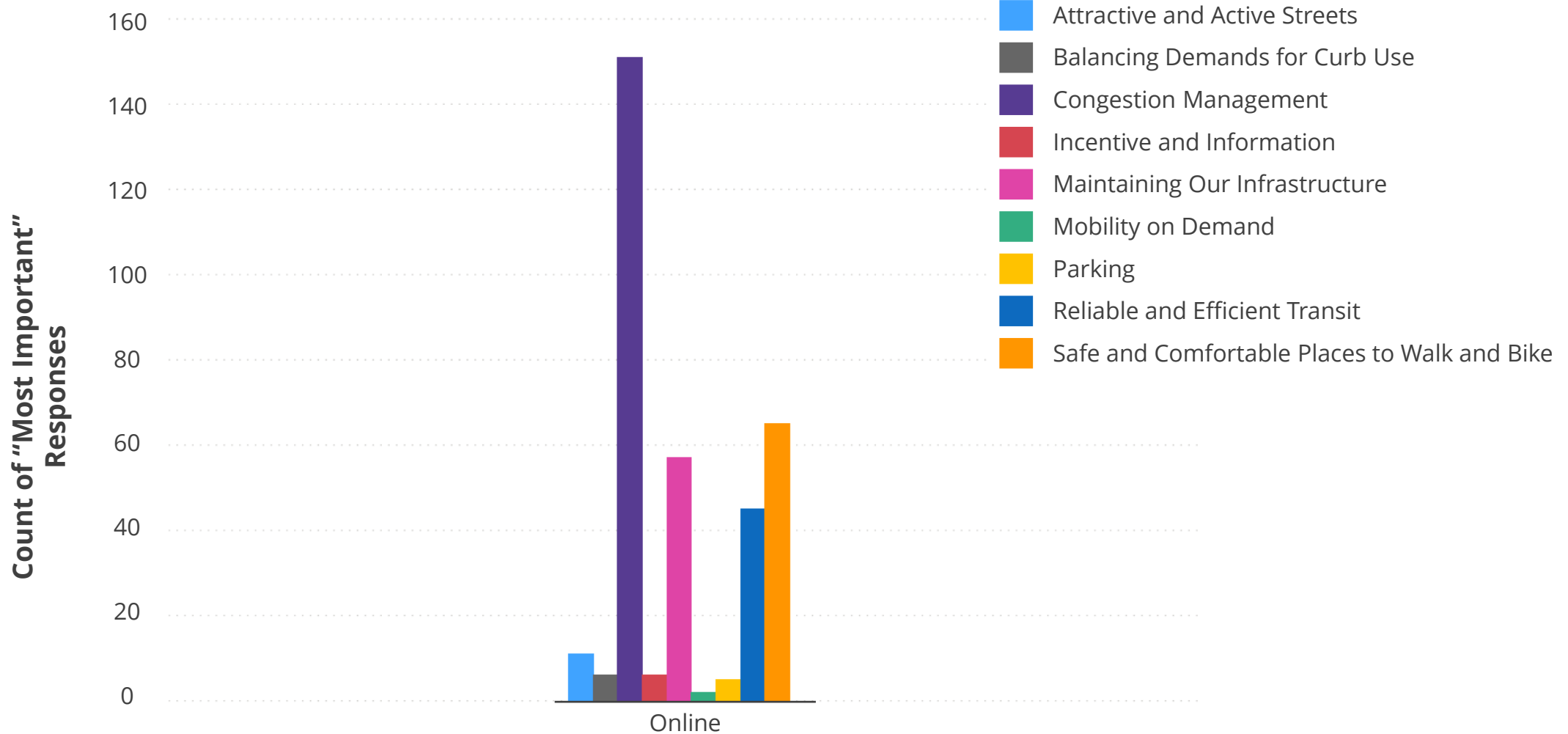
Top Most Important Priority by Location

Online:

Congestion Management



Top Priorities (Online)



Top Comments by Location (In-Person)



Old Town Farmers Market

- Old Town area revolves around walking
- Transit service at later hours

West End Farmers Market

- The need to keep Alexandria a walking community
- Several requests for more bike lanes/mention of bike lanes ending abruptly
- Congestion has been getting worse

Arlandria Community Meeting

- The city does a lot of talking about walking, but “does not do much to support walking”
- Importance of public transit in this community
- Complaints of slow-moving buses

YMCA

- Safety and walkability are strong values in this community
- Concerns about infrastructure failure
- Metrorail access



Top Comments by Location (In-Person)



Alexandria City High School

- Concerns about bus routes and frequency
- Equitable design
- More street lights

Global Foods

- More transit access

24 Hour Laundromat

- Crime and safety concerns on the streets – need for more street lights
- Free parking
- Bus service improvement during non-peak hours
- Fix potholes



Top Comments (Online)

Online

- Congestion concerns – often centered around Seminary Road
- Environmental and sustainability concerns
- Better transit around Alexandria

Focus Groups Round 1 Summary

January 2020

Overview of Content

- Overview and Context of Focus Groups
- Factors Influencing Travel Choices by Groups
- Takeaways from Group Discussions by Topic Area
 - Mobility Options
 - Streets
- Round 1 Lessons Learned

Focus Group Purpose

- Community-generated ideas from a diverse audience
- Ideas will be considered in context of other inputs and against the AMP Vision and Guiding Principles
- Recognition that these are a way to have an in-depth discussion, but may not be fully representative of the community
- A subset will be shared in upcoming citywide community engagement events to get broader feedback

Discussion Topics

- Round 1: Streets and Mobility Options (*Completed February/March 2020*)
- Round 2: Transit and Parking and Curbside Management (*Spring 2020*)



**What
mobility
strategies
will most
impact your
life for the
better?**

AMP Focus Groups – Round 1



January 2020

- AMPAC Meeting

February/March 2020

- In-Person meetings grouped by stage of life
 - 6 Meetings
 - ✓ 9 group discussions
 - ✓ 72 in-person total participants
- Online Discussion
 - 3 Online Groups
 - 43 Online Participants



AMP Advisory Committee (AMPAC)



- Reviewed preliminary material and participated in focus group discussion
- Provided feedback in preparation for outreach to community
- Key Takeaways
 - Importance of regional coordination
 - Ensure that equity is considered in decision making (i.e. paving schedule)
 - Improving the appeal of transit for professionals
 - Consider more than just the peak hour congestion
 - Weave best practices into the plan document chapters
 - Metro access is major concern for West End communities
 - How do we address trip chaining and different needs for each trip?
 - Need to incorporate concerns from the driver perspective that may not be vocal on the AMPAC



Preview of Major Themes

- Each age group had slightly different mobility considerations, but many **broader themes were largely consistent**
- Widespread concerns about **safety** and **congestion**
- Diverging approaches to addressing **cut-through traffic**
- Importance of **regional coordination**
- Consideration of **equity** and **disparate needs** in different parts of the City
- Need for **better transit**
- Importance of **networks**: bike, bus, auto
- Lack of **awareness** of existing tools and processes

Factors Influencing Travel Choices by Group

Participants were asked what factors influenced their travel choices to jumpstart the conversation, help us understand varying mobility needs and priorities, and get a basic understanding of personal mobility in each group

Factors Influencing Travel Choices

Ages 56-74



Factors Influencing Travel Choices

Ages 41-55

- Destinations vary throughout region, need car
- Buses take too long and not a convenient option

Ages 18-40

- Chose to live near Metro
- Drive due to lengthy transit travel time and reliability of car
- Availability of car sharing/ridesharing and micro-transit options



Factors Influencing Travel Choices

Alexandria City High School, Leadership Class - Ages 16-18

- Strong desire for license for independence
- Drive and carpool to school with classmates
- DASH bus primarily when free
- Scooters when available, but can get costly



Factors Influencing Travel Choices (online)

Persons with Disabilities or Limited Mobility

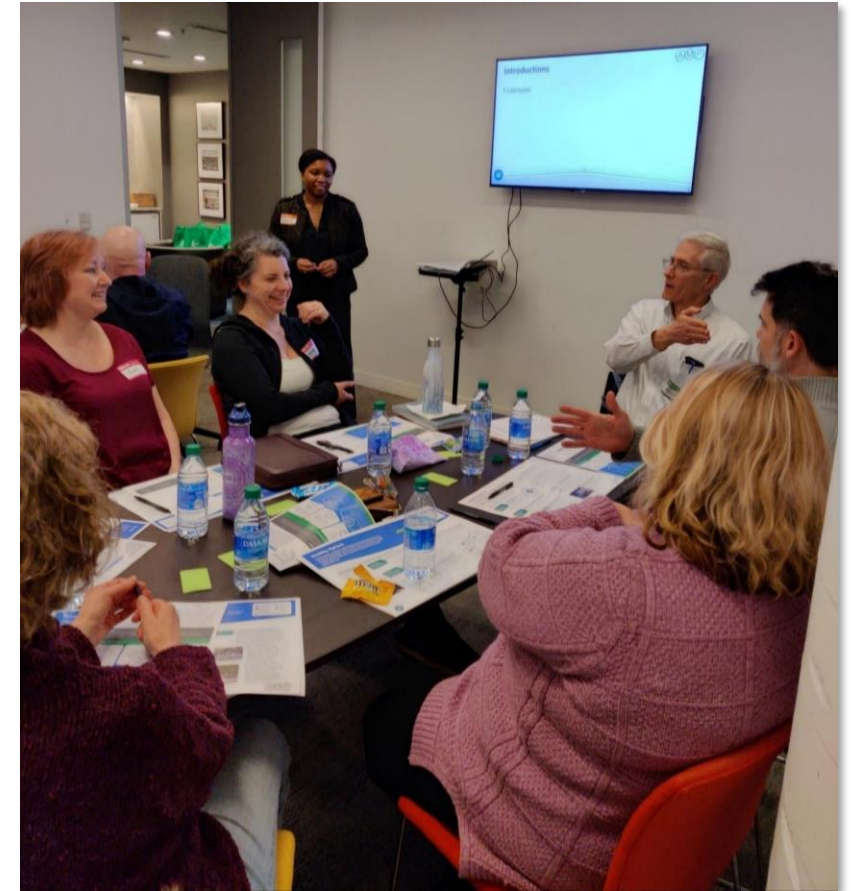
- Choices based on weather, distance
- Safety concerns when walking - Related to infrastructure (i.e. brick sidewalks)

Working Parents

- Safe bike routes and bike amenities at destination
- Carrying packages or kids – More likely to drive
- Walking/Metro - Avoid driving during peak hours
- Safety while traveling with younger kids

Community Champions / Business Community - Factors For Individuals They Serve

- Proximity to metro and availability of bus service
- Ownership or access to personal vehicle
- Rideshare used late at night when transit is less frequent



Factors Influencing Travel Choices

Alexandria City High School, Liberty Promise (In Spanish) - Ages 18-25

- Overcrowding on school bus makes DASH an appealing choice
- Traffic congestion impacts transit reliability
- Limited access to personal vehicle
- Credit card payment option limits bikeshare usage - Desire alternative payment options



Takeaways From Group Discussions

Mobility Options: Summary of Themes Discussed by Group

Overview of Discussion			
	Generally Support	Opinions on Both Sides	Generally Did Not Support
Major Topic of Discussion			
Moderate Topic of Discussion			
Limited Discussion			

Alexandria City High School - Leadership Class	Alexandria City High School - Liberty Promise	Ages 20-40	Working Parents	Ages 40+	Ages 40+	55+ and Persons with Disabilities	55+ and Persons with Disabilities	Business Community / Community Champions	West End Coalition
21 participants*	6 participants	16 participants	13 participants	13 participants*	12 participants*	9 participants	9 participants	7 participants	15 participants
2/21/2020	3/13/2020	2-Week Duration	2-Week Duration	2/10/2020	2/13/2020	2/4/2020	2/12/2020	2-Week Duration	3/7/2020
In-Person	In-Person	Online	Online	In-Person	In-Person	In-Person	In-Person	Online	In-Person

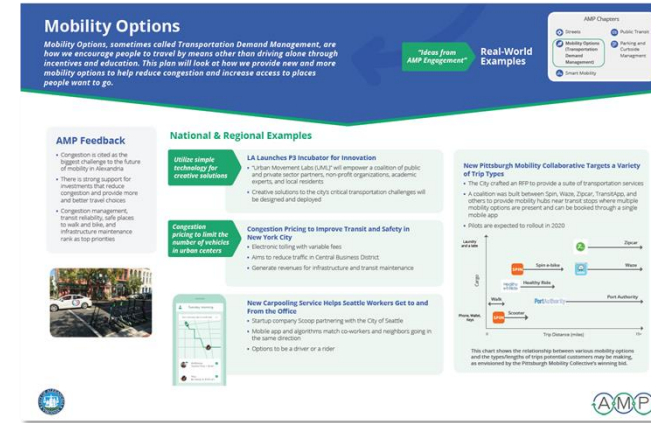
Reoccurring Themes										
Support for More/Better Travel Choices										
Importance of Public Transit										
Dockless Mobility										
Awareness of Travel Tools and Options										
More Technology and Incentives										

*Participants were divided into two smaller groups.

Mobility Options – Major Takeaways



- **Awareness of GO Alex** was generally low; participants more aware of WMATA Smart Benefits. (All groups)
- Integrated apps or signs with **real-time information** gives users confidence in using alternative modes. (All Ages); Apps with **incentives** generated tremendous interest among high school students. (Ages 16-18)
- Varying opinions on **dockless scooters** and how the City should manage through policy such as incentives, more designated corrals, geofencing. (All groups)



- **Reliable buses** that are coordinated would generate more interest in alternatives to driving alone (All groups)
- Some interest in encouraging greater utilization of **carpooling**, but not often used (18+)



Mobility Options - Strategies Discussed



- Installation of "transit screens" or other real-time information
- On-demand transit for persons with disabilities / seniors
- Zero-fare transit pilot
- Ferry service expansion
- Dockless program improvements
- Local app showing mobility options with local incentives
- Regional partnerships to manage transportation demand
- Encouraging or creating telework opportunities
- Mobility hubs to enable seamless use of multiple modes
- Pilot A/V demonstration for designated route



Streets: Summary of Themes Discussed by Group

Overview of Discussion			
	Generally Support	Opinions on Both Sides	Generally Did Not Support
Major Topic of Discussion			
Moderate Topic of Discussion			
Limited Discussion			

Alexandria City High School - Leadership Class	Alexandria City High School - Liberty Promise	Ages 20-40	Working Parents	Ages 40+	Ages 40+	55+ and Persons with Disabilities	55+ and Persons with Disabilities	Business Community / Community Champions	West End Coalition
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2/21/2020	3/13/2020	2-Week Duration	2-Week Duration	2/10/2020	2/13/2020	2/4/2020	2/12/2020	2-Week Duration	3/7/2020
In-Person	In-Person	Online	Online	In-Person	In-Person	In-Person	In-Person	Online	In-Person

Reoccurring Themes										
Congestion										
Cut-Through Traffic										
Safety Concerns										
Bicycle Network Continuity										
Street Design to Address Safety / Cut-Through										
Coordination of Maintenance Schedules										

*Participants were divided into two smaller groups.

Streets – Major Takeaways

- Robust discussion around the **aggressive driving culture** (speeding, running red lights, not yielding to pedestrians) leading to pedestrian safety concerns. Need for enhanced **enforcement** and greater use of **physical safety improvements** to address safety concerns and motorists not obeying law (All groups)
- Traffic calming and **local cut-through traffic** were a major topics of discussion. Suggested strategies varied from passive measures to reduce speeds to more direct measures to prevent cut-through. Some concerns about inconvenience to locals (Ages 41+)
- **Support for prioritizing routes/streets by mode** to help set expectations and ensure there are complete networks (Ages 41+)



Streets - Strategies Discussed

- "Low Cost, Tactical Urbanism Solutions / Flexibility(Signs, Pavement Markings, etc.)"
- Local Resident Permit Program
- Turn Restrictions
- Education / Culture of Safety / Signage
- Enhanced Enforcement
- Evaluate Speed Limit with Street Design
- Leading Pedestrian Intervals and RRFBs
- Stop Signs / Stop Bars Placed Further Back from Crosswalks
- Pedestrian-Scale Street Lighting
- Prioritize Different Modes on Different Streets
- Smart or Coordinated Traffic Signals
- Dedicated Bus Lanes / Transit Priority to Ease Congestion
- Green Streets / Green Infrastructure / Low-Impact Design
- Coordinated Roadway Maintenance Schedules

Lessons Learned & Next Steps

Lessons Learned from Round 1 Focus Groups



In-Person Discussions:

- Participants appreciated background presentation and majority of time focused on smaller group discussions
- Positive feedback on facilitation and opportunity for everyone to participate
- All participants were respectful and felt as if their opinions were heard
- Positive feedback on the approach; Helpful having city staff speak to city-initiatives and highlight programs in response to specific questions



Lessons Learned from Round 1 Focus Groups



Online Focus Groups:

- Participants generally liked the flexibility to participate as their schedule allowed; Facilitator-prompted questions/responses were appreciated
- Challenging to get some users to re-engage after initial visit to platform
- Designated times for more “chat-like” discussions was suggested; Consider a window of time or “office-hours” to encourage more participation at set time

Overall

- Challenging balancing demographics across the focus groups



Focus Groups Round 2 Summary

March 2020

Focus Groups: Round 2



March 2020

- AMP Advisory Committee Online Discussions

April-May 2020

- Online Discussions
 - 3 groups **based on geography (East/Central/West)**
 - 14 active participants (45 participants invited)



AlexEngage alexandriava.gov

Search

Danielle-Facilitator ▾

[Home](#) » [AMP East Alexandria Focus Group](#)

AMP East Alexandria Focus Group



Welcome to the **East Alexandria** focus group for the Alexandria Mobility Plan! We thank you for offering to participate in these important discussions.

The objective of this second round of focus groups is to get specific ideas and suggestions for strategies that the City should pursue related to **Public Transit** and **Parking & Curbside Management**. *Previous focus group meetings on other topics (Mobility Options and Streets) were held in February 2020.*

Please reference the **AMP Fact Sheet**, linked in the Document Library on the right side of this page, for additional overall aspects of the project.

Before beginning participation in our discussion forums, please take a few minutes to review the **Overview Presentation**, linked in the Document Library on the right side of this page. This presentation provides important information on the AMP plan, schedule, and vision, as well as the ground rules for these online focus group discussions.

The ground rules for discussion are simple and include the following:

- Treat each other with respect
- Listen and comment as an ally, not an adversary. Everyone should feel comfortable expressing their opinion regardless of differences
- Ask for clarification, don't assume you know what someone means
- Do not characterize other people's views in or outside a group's meetings

Documents

- [AMP Fact Sheet \(304 KB\) \(pdf\)](#)
- [Overview Presentation - Round 2 Focus Groups \(2.16 MB\) \(pdf\)](#)
- [Public Transit - Example Strategies \(3.68 MB\) \(pdf\)](#)
- [Parking and Curbside Management - Example Strategies \(691 KB\) \(pdf\)](#)



AMP Advisory Committee (AMPAC)



- Reviewed preliminary material and participated in focus group discussion platform
- Provided feedback in preparation for outreach to community
- Key Takeaways
 - Ensure that **equity** is considered in decision making
 - Improve parking garage **signage via technology**
 - A **mobile application for parking** may not be a “game changer”
 - Prioritize strategies based on **sustainability**
 - Need for more **short-term parking spaces** in commercial districts
 - **Fewer – but better – bus stops** may attract transit riders
 - Consider **occasional transit users** (i.e. pedestrians and cyclists that shift to transit during severe weather)
 - Consider **Toronto’s King Street Transit Pilot** as an example of how to implement bus priority



Focus Group Discussions: Preview of Major Themes

Each geographic group had slightly different mobility considerations, but many broader themes were largely consistent

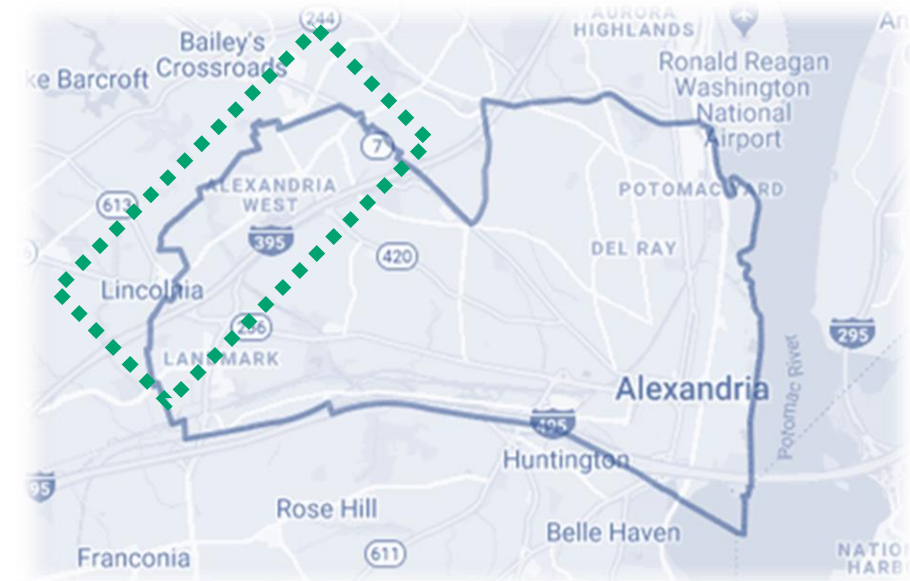
- Widespread concerns about **safety, transit reliability, and parking availability**
- Diverging suggestions to address **transit improvements**
- Importance of **transit frequency** and **reliability**
- Need for **safe walking routes** to transit, **first- and last-mile** solutions, and **real-time information**
- No clear preference of **parking payment** methods (app vs. meter)
- Lack of interest in **parking value pricing** or **reservation systems**

Difference in Opinion by Geographic Group

Public Transit – West Alexandria



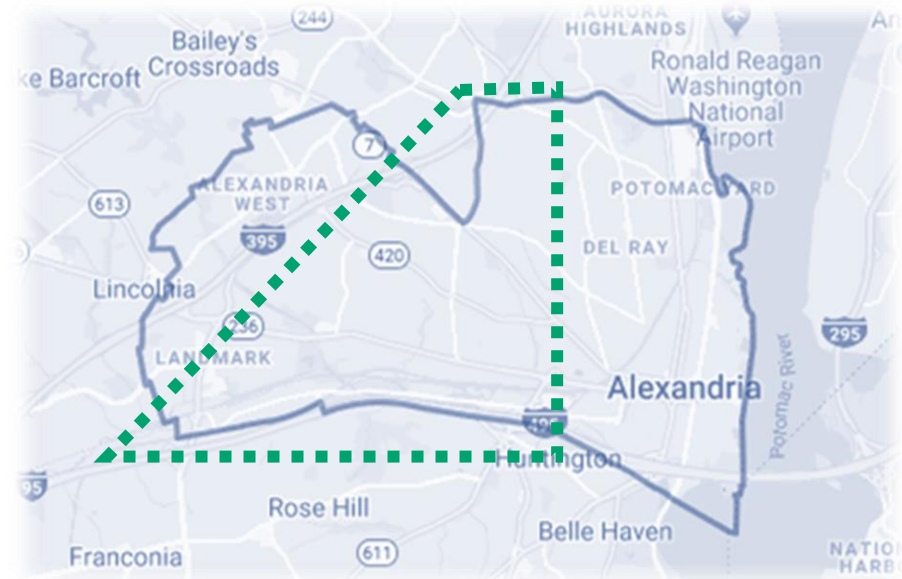
- Lack of sidewalks and crosswalks at bus stops create **safety hazards**
- **Infrequency of service** does not make opting for transit easy, timely, or convenient
- Most **opt to drive** due to time that transit takes, multiple stops, destinations being outside of Alexandria, or carrying a load (i.e. shopping bags)
- **Lack of support for bus priority** on streets – concern that such treatments would negatively impact vehicle operations



Public Transit – Central Alexandria



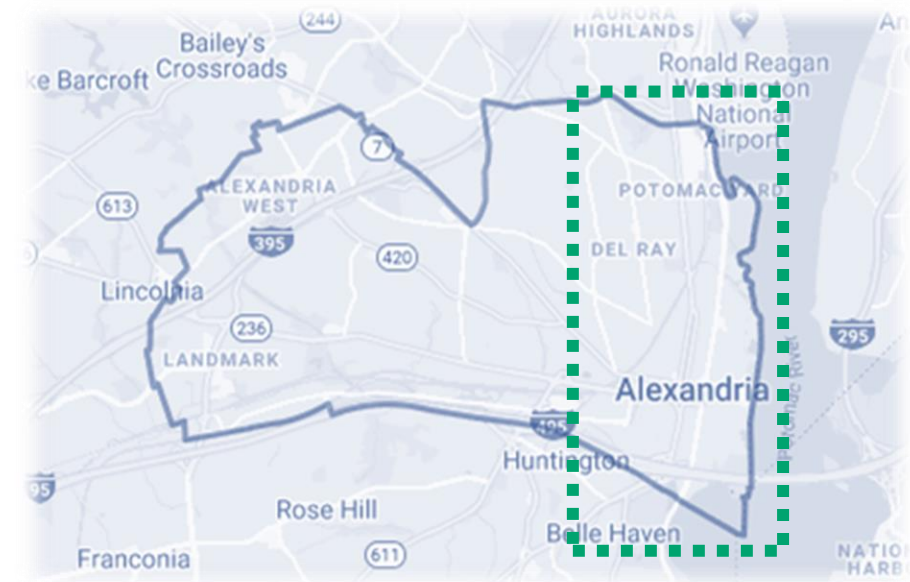
- Mixed opinions on **Vision Zero / Complete Streets improvements** (i.e. Seminary Road) that make bus stops more safe, accessible, and easier to get to and from
- **Infrequency of service** during off-peak hours and weekends presents a challenge
- Concern for recent **reductions in bus service** (North Ridge)
- Support for the **Transit Vision Plan** recommendations



Public Transit – East Alexandria



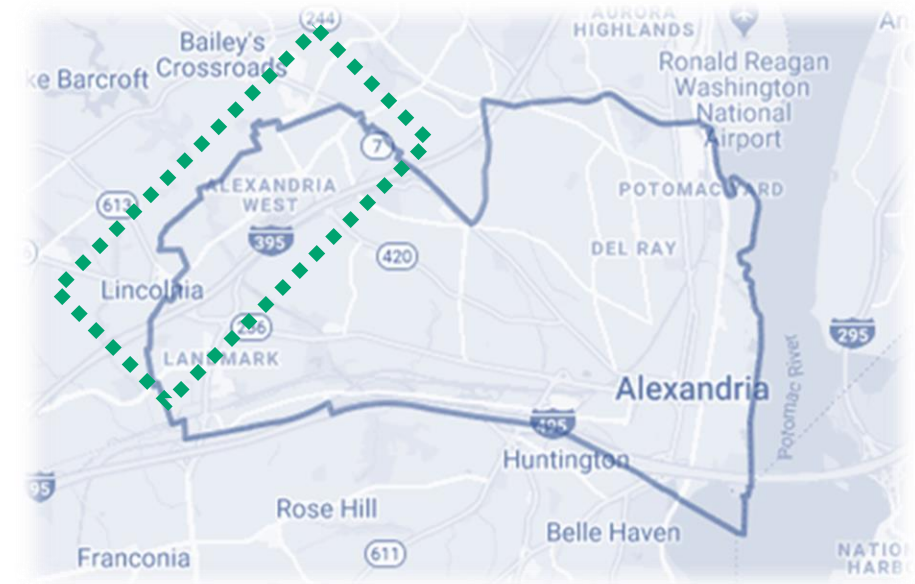
- General support for bus priority on streets
- Support for Vision Zero / Complete Streets improvements (i.e. Leading Pedestrian Intervals) that make bus stops more safe, accessible, and easier to get to and from
- Support for micromobility devices (shared bikes and scooters) for first-/last-mile trips
- Support for Water Taxi service
- Desire for the transit system to be less commuter-focused



Parking & Curbside Management – West Alexandria



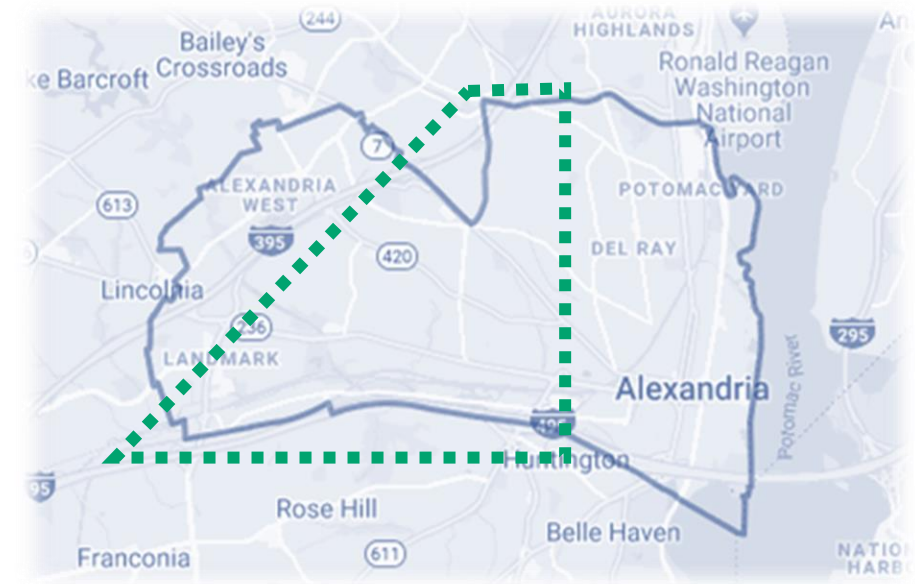
- Parking availability is **not perceived as an issue** in this area
- **Garage parking** is generally preferred to street parking
- General support for **curbside management**
- General opposition to the idea of **shared parking** on a citywide scale



Parking & Curbside Management – Central Alexandria

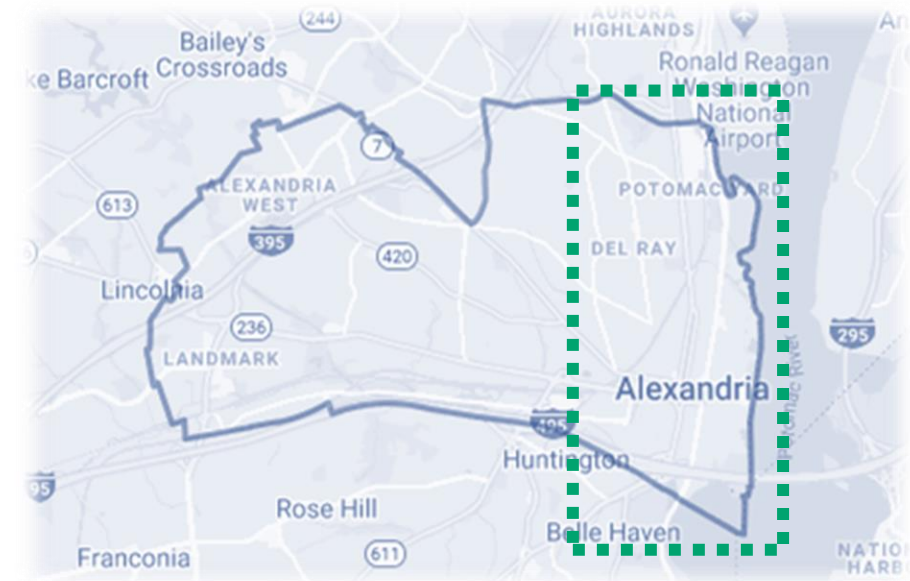


- Some participants **opt for transit, bike, or rideshare** when parking is expected to be limited/difficult at their destination
- **Bike parking:** difficult to find in many areas
- **Garage parking** is generally preferred to on-street parking



Parking & Curbside Management – East Alexandria

- **Parking availability is a prominent issue**
- Concern that employees and visitors/tourists put a **strain on on-street parking** for residents
 - Support for **incentivizing garage use** for non-residents
- **On-street parking** is generally preferred to garage parking by residents
 - Support for more **residential-only on-street parking**
- Support for **allocating curbspace** based on land use



Themes, Major Takeaways, and Ideas

Public Transit – Themes & Major Takeaways

- Bus stop improvements (i.e. **shelters, seating, lighting**) would improve the transit experience and **attract new riders**
- Integrated **apps and/or signs with real-time information** are in high demand and would give users confidence in opting for transit
- The perceived **lack of on-time performance** of transit deters choice riders
- Less service and shorter spans of service during **off-peak hours and weekends** limits use of transit
- Support for **mobile/app-based ticketing platform**
- Transit trips that require **transfers are a deterrent** for choice riders
- Varying opinions on first- and last-mile solutions like **dockless scooters** and how the City should manage them
- Concern for effects of **bus stop balancing** on disabled and elderly passengers

Ideas Discussed

Better/wider **sidewalks and crosswalks** at or near bus stops

Enhanced bus farebox abilities

- *Ability to activate SmartTrip card reloads*
- *Acceptance of contactless credit/debit cards*

Peak-hour **bus lanes** and **electric bus rapid transit**

More **off-sidewalk parking for bikes/scooters** near transit stops

Parking & Curbside Management – Themes and Major Takeaways

- Preferences for payment methods vary (**mobile/app-based payments vs. traditional parking meters**)
- Little-to-no interest in **shared parking, parking reservation systems, or parking value pricing**
- Support for **real-time** information
- New approaches such as **curbside management** are perceived as less necessary/applicable in western areas – greater interest shown in eastern areas
- Availability of **parking is more strained in eastern areas of city**
- General interest in alternatives to driving and parking, but **opting for transit can be a challenge**



Concern for **freight/delivery issues and enforcement**

Ideas Discussed

Priority curbspace for **wheelchair parking/loading**

More **bicycle, moped, and motorcycle** parking

Old Town as an appropriate geography for **curbspace prioritization**

- *Pick-up/drop-off and delivery/loading zones*
- *Expanded pedestrian space and street trees/landscaping*

Real-time garage parking availability information

Lessons Learned

Lessons Learned



- Participants generally liked the organization of information and flexibility to participate as their schedule allowed
- Facilitator-prompted questions/responses were appreciated
- Challenging to get some users to re-engage after initial visit to platform
- Greater activity during designated “open forum” times where facilitators were on-hand to provide real-time responses and follow-up questions

18 days ago

Alert moderator

I don't have a realistic transit option for my daily commute, so I need to drive. However, during evenings and weekends, the lack of regular transit options decreases appeal. Buses into DC don't run on weekends. Metro trains come only every 20-30 minutes on weekends and usually involve track work. On top of that, it takes time and planning to get to the station. The lack of connectivity and time it takes to overcome it, isn't worth it. When I do take metro, I always use their website to check for the arrival/departure times of trains. That's helpful because the posted schedules are pretty useless.

Reply

Do you agree? 1

Hide reply (1) ^

14 days ago

Alert moderator

I agree with [redacted] that a bus from Alexandria into DC especially on the weekends would be very useful. During last summer when the Blue and Yellow lines both weren't usable the altered 11Y bus was an incredible boon. In the summer the water Taxi is a nice option. I also strongly agree that evening and weekend are a very weak point. I think that we should be looking to have a "transit system" not a "commuter system"

Reply

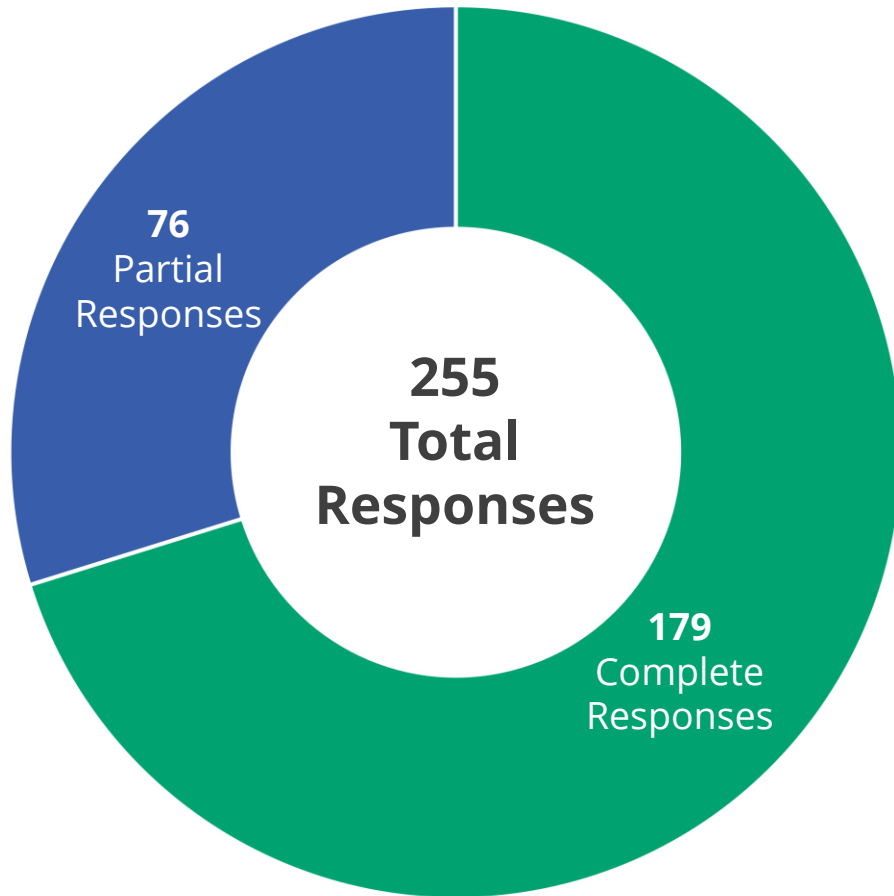
Do you agree?



Draft Strategies Feedback Form Summary

November 2020

Feedback Form Response Rates



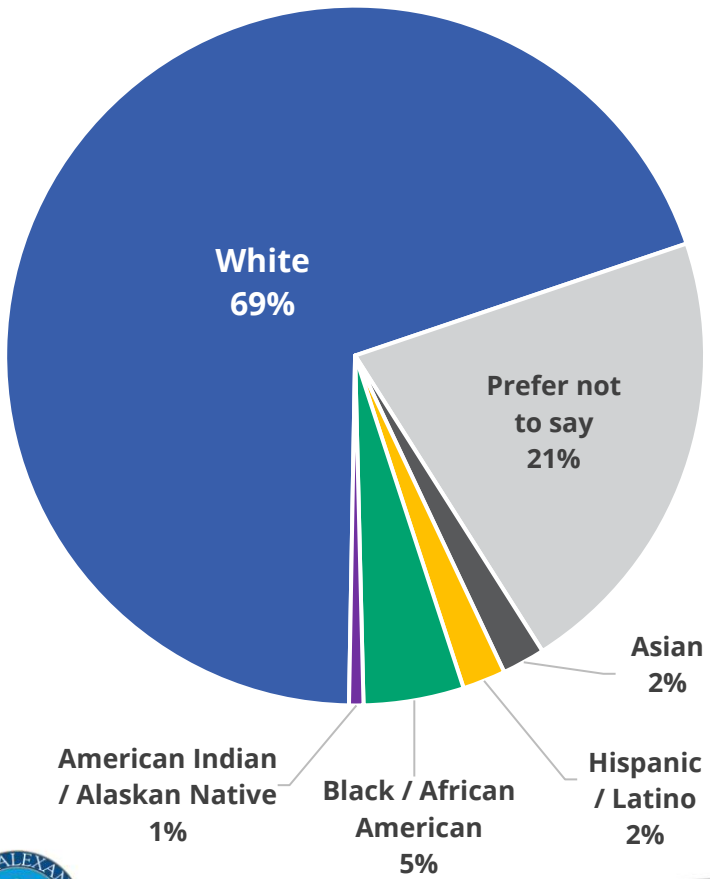
- The feedback form was shared on the Alexandria Mobility Plan website and announced during the Virtual Town Hall on October 15, 2020.
- The feedback form was open between **October 15 and November 9, 2020**
- **76** respondents filled out the first page of the survey and did not provide any opinions through the rest of the form
- **179** respondents and their responses were included in the following observations



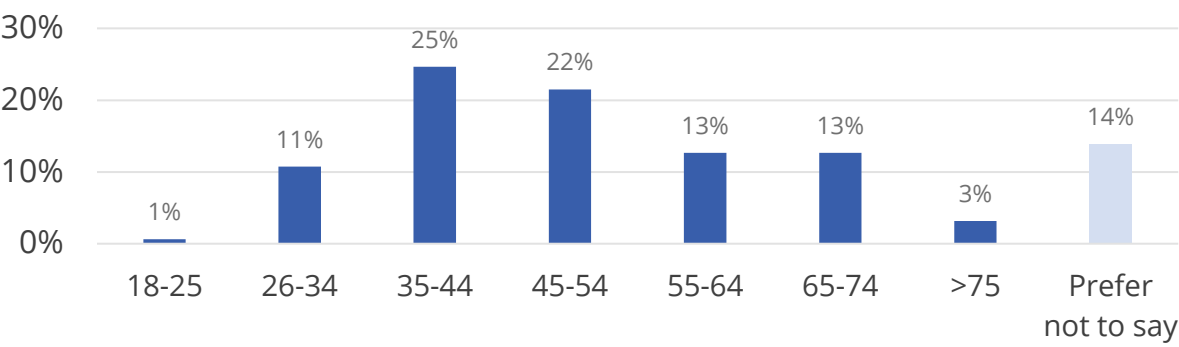
Demographic Distribution of Participants



Race

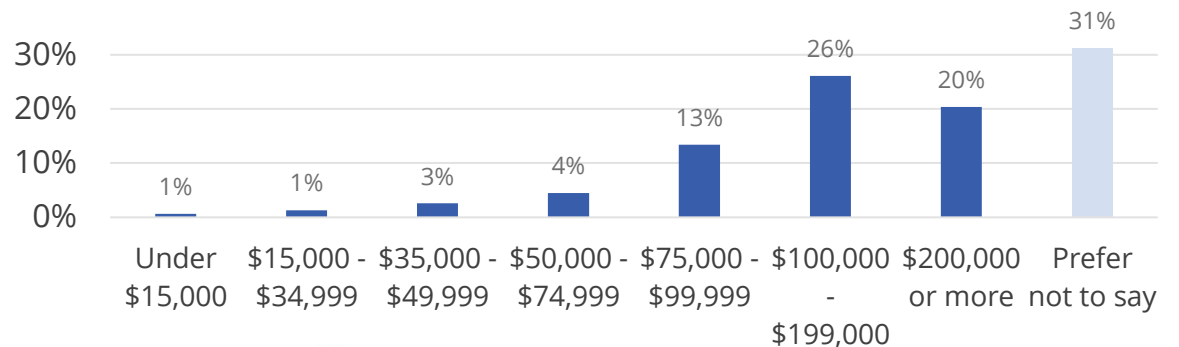


Age



Demographic questions were optional. Information displayed here only reflects participants who chose to report this information.

Annual Income



Origins and Destinations



Home Locations

- 17 unique zip codes from 178 respondents
- Most frequent zip codes: **22314** (Eastern Alexandria) and **22304** (Western Alexandria)

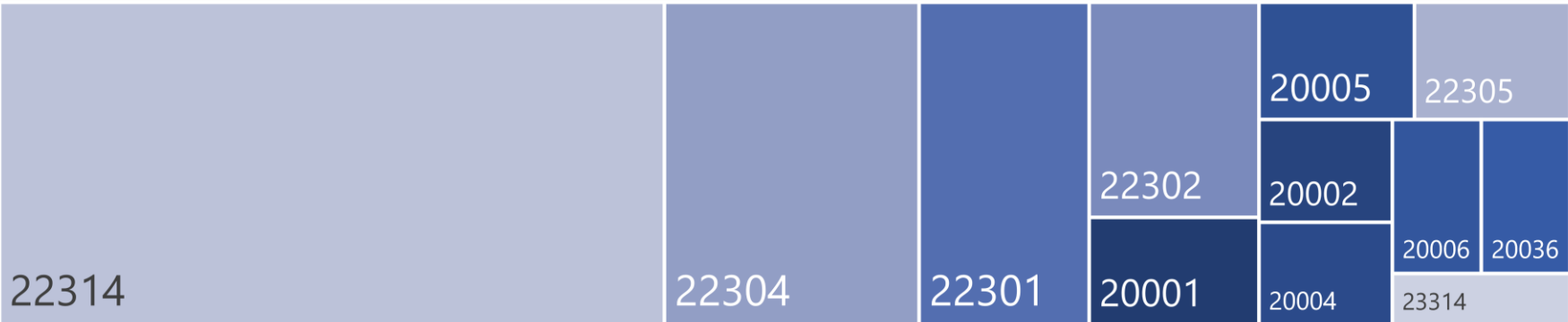
Top Residence Zip Codes



Most Frequent Travel Destination

- 44 unique zip codes from 178 respondents
- The most destination: **22314** (Eastern Alexandria)

Top Work, School, or Most Frequent Travel Destination



Overarching Themes

- Reduce **vehicular congestion**
- Improve **safety** and **connections** for vulnerable street users
- Questions about **how COVID-19 will impact future travel** trends
- Curb space should consider **rideshare** and **delivery** uses
- Mobility options must consider the **practicality** for all residents
- Mixed opinions on **autonomous vehicle** considerations
- **Reasonably placed** and **priced** parking

"I strongly support smart signal technology to relieve motor vehicle congestion. I do not favor smart technology that causes a stoppage on major streets."

"Build a more connected and unified community in Alexandria for pedestrians and bicyclists."

"Enforce and stop cut-through traffic."

"I prioritize flexibility in schedule, safety, and travel time."

"Our built infrastructure must be designed to manage congestion by making transit and micro mobility solutions safe, reliable, and fast."

"It is simply not practical to expect us to give up our cars and handle grocery shopping, doctor visits, errands and other activities on public transit, bikes and scooters."

"Priorities should be directed to making the bus, bikes, and walking a more appealing choice than getting into any type of car."

Draft Strategies: Feedback by Chapter

Draft Strategies

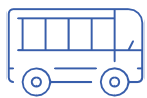
Feedback by Chapter

For each plan chapter, participants were asked to share their **level of support** for draft strategies along the below scale:

	Strongly Support	Support	Neutral	Do Not Support	Do Not Understand
Strategy	<input checked="" type="checkbox"/>				
Strategy		<input checked="" type="checkbox"/>			
Strategy			<input checked="" type="checkbox"/>		
Strategy					<input checked="" type="checkbox"/>
Strategy	<input checked="" type="checkbox"/>				

Participants were also asked to:

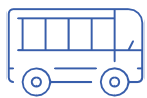
- Provide comments on strategies they did not support or did not understand
- Share new strategy ideas for consideration in the plan



Transit

Draft Strategies

- **T1.** Implement the City's Priority Transitway Corridors and Alexandria Transit Vision (ATV)
- **T2.** Identify speed and reliability improvements on congested and transit-rich corridors.
- **T3.** Enhance the rider experience at bus stops.
- **T4.** Evaluate fare policy and next generation payment options.
- **T5.** Evaluate micro-transit solutions to complement traditional DASH service as a means to expand ridership.
- **T6.** Create a more resilient and customer-oriented bus fleet.
- **T7.** Prepare for future rail (VRE/MARC) expanded service.
- **T8.** Evaluate and streamline paratransit program for increasing needs.



Transit

Summary of Feedback

Strong support for:

- Identify speed and reliability improvements on congested and transit-rich corridors (T2)

Difference of opinion on:

- Implement the City's Priority Transitway Corridors and Alexandria Transit Vision (ATV) (T1)
- Evaluate micro-transit solutions to complement traditional DASH service as a means to expand ridership (T5)

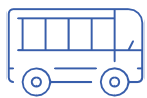
A greater number of respondents **did not understand** strategy (T8) to streamline the **paratransit** program

"Improve weather protection and visibility at bus stops."

"Maximize dedicated transit"

"Improve safety and convenience of walking and biking to transit as a means to expand ridership."

"Microtransit can compete with traditional bus and rail transit and risks taking away its riders, which might induce service cuts."



Transit

New Ideas or Suggestions

- Implement **all-door boarding** on DASH buses permanently
- Work with adjacent property owners where there is insufficient City-owned right-of-way to provide space for **passenger amenities**
- **New VRE commuter rail station** at Potomac Yard (Innovation Campus)
- **Integrate transit passes** with other mobility options like Capital Bikeshare
- Move towards **free public transit for all**
- Aim for a **more accessible bus and rail** system to compliment paratransit

“Requiring smart phones and/or transit cards limits access for low-income and out-of-town riders.”



Smart Mobility

Draft Strategies

- **SM1.** Upgrade capabilities of the Traffic Management Center (TMC) to more effectively manage congestion and traffic incidents in real-time.
- **SM2.** Expand implementation of smart signal technology to enable detection and real-time signal adjustments based on travel conditions.
- **SM3.** Strategically invest in partnerships to expand City data, technology, and communications capabilities.
- **SM4.** Develop protocols and policies to accommodate autonomous vehicles and ensure that their adoption will support City goals.



Smart Mobility

Summary of Feedback

Strong support for:

- Upgrade capabilities of the Traffic Management Center (TMC) to more effectively manage congestion and traffic incidents in real-time (SM1)
- Expand implementation of smart signal technology to enable detection and real-time signal adjustments based on travel conditions (SM2)

Difference of opinion on:

- Develop protocols and policies to accommodate autonomous vehicles and ensure that their adoption will support City goals (SM4)

"Autonomous vehicle policy should not be a priority at this point."

"I do not support public funding of autonomous vehicle infrastructure. More funding and priorities should be directed to making the bus, bikes, and walking a more appealing choice."

"Autonomous vehicles make me nervous, so I am glad Alexandria is starting to prepare for what that might look like."

"Upgrading our system to accommodate new technologies will be key to future success."



Smart Mobility

New Ideas or Suggestions

- Data collection and use that prioritizes **privacy** and **safe uses** for residents
- Explore and develop **partnerships with other jurisdictions** and partake in **research-based pilot** or demonstration programs administered by the U.S. Department of Transportation
- Use Intelligent Transportation Systems (ITS) to address **real-time needs**

"The city should encourage private/public partnerships."

"Update mapping apps (i.e. Google Maps) to better reflect traffic changes or improvements."

An icon representing a street, consisting of two parallel vertical lines with small rectangular blocks between them, suggesting a road layout.

Streets

Draft Strategies

- **S1.** Implement a criteria-based traffic mitigation program that helps better manage congestion and traffic on local streets.
- **S2.** Maximize effectiveness of multimodal transportation impact studies for new developments.
- **S3.** Work with regional, state, and private sector partners to develop tools to keep traffic on highways and reduce regional cut-through traffic.
- **S4.** Update the City's Street Design Guidelines to incorporate current design practices.
- **S5.** Ensure planning initiatives that require enforcement promote more equitable outcomes.



Streets

Summary of Feedback

Strong support for:

- Work with regional, state, and private sector partners to develop tools to keep traffic on highways and reduce regional cut-through traffic (S3)

Difference of opinion on:

- Update the City Street Design Guidelines to incorporate current design practices (S4)

A greater number of respondents **did not understand** details or the how the strategies are actionable.

"Unclear what sorts of mitigation are actually feasible for the City to implement."

"Maximize the use of traffic cameras where currently allowed. Alexandria has schools all over the city, which enables us to put speed cameras all over the city (they are now legal in school zones)."

"Expedite vehicular traffic on major arteries during peak times to reduce commute times for our residents, reduce congestion, enable residents living on congested streets to get to their homes more quickly, and reduce neighborhood traffic."

"Reach out to companies like Waze to prevent using neighborhood streets as routes to avoid traffic."





Streets

New Ideas or Suggestions

- Commit to **annual goals for closing sidewalk gaps**
- Consider '**slow streets**' and '**open streets**' to **discourage regional traffic** on local streets
- Accelerate implementation of **safety initiatives** on local streets
- Consider **reversible lanes** during peak hours on certain arteries
- Greater consideration for **motorists, roadway capacity**, and **vehicular access** in street design

"While other safety-related policies and plans exist, the absence of an overarching safety strategy in the AMP Streets chapter is a major omission that should be addressed."

"Note the relation between Transit chapter strategies and Streets chapter strategies (i.e. transit priority on streets for congestion reduction and mobility improvements)."

"We need more roads, wider roads, and more parking near Metro."





Supporting Travel Options

Draft Strategies

- **01.** Expand programs to identify community influencers to help the City encourage alternatives to driving alone.
- **02.** Develop a framework for pilots that can be used for testing new modes, infrastructure, or initiatives.
- **03.** Expand use of real-time information in public and private spaces to raise awareness and improve confidence in different mobility options.
- **04.** Develop travel training program to provide hands on experience on taking a new (to you) way of traveling.
- **05.** Support first/last mile travel needs through implementation of mobility hubs.
- **06.** Utilize our waterways as a resource to expand transportation options.
- **07.** Improve Transportation Management Plan (TMP) Program by requiring data and incorporating flexibility.
- **08.** Evaluate benefits and efficiencies of a future regional program to manage congestion.





Supporting Travel Options

Summary of Feedback

Strong support for:

- Utilize our waterways as a resource to expand transportation options (O6)

Difference of opinion on:

- Expand use of real-time information in public and private spaces to raise awareness and improve confidence in different mobility options (O1)
- Develop travel training program to provide hands on experience on taking a new (to you) way of traveling. (O4)

In comparison to other chapters, the general level of support is lower for the Supporting Travel Options chapter.

"The Potomac River is the single most underutilized transportation resource in the region - it could be an excellent way to alleviate congestion."

"Strongly support waterway transit options, but will such options require subsidies to be viable?"

"What metrics would be used to determine the program's efficacy?"



Supporting Travel Options

New Ideas or Suggestions

- Consider **incentives for electric bicycles**
- Consider a **parking cash-out** option for employees that do not want or need parking benefits

"Different neighborhoods need different options."

"Acknowledge the differences between different areas of the city when determining feasibility of travel options such as scooters."



Curb Space and Parking

Draft Strategies

- **P1.** Establish priorities for curb uses based on adjacent land uses and City goals.
- **P2.** Leverage pricing policy, data, and communications to better manage on and off-street parking spaces.
- **P3.** Reconsider standards for parking requirements in new developments.



Curb Space and Parking

Summary of Feedback

General support for all strategies:

- Establish priorities for curb uses based on adjacent land uses and City goals (P1)
- Leverage pricing policy, data, and communications to better manage on and off-street parking spaces (P2)
- Reconsider standards for parking requirements in new developments (P3)

"Any efforts to reduce parking must be combined with a better infrastructure for car-less living."

"Require residential parking permits in the entire city and charge market rate for them. On-street parking is far too cheap for residents today, which encourages excess car ownership and use."



Curb Space and Parking

New Ideas or Suggestions

- Plan for the increasing use of **rideshare** and **delivery services** (i.e. Amazon)
- Reconsider or eliminate **parking minimums** for new development
- Plan for **electric vehicle charging**

Additional feedback related to parking was mixed. While most respondents supported strategies to address parking, open-ended comments included varied sentiments, ranging from **support for elimination of parking requirements** to calls for **increased parking supply citywide**.

"I do like the on-street tables for restaurants on blocks where expeditious travel is not demanded and parking options are available nearby."

"Encourage drivers to use parking garages when available."

"Reconsidering parking minimums should mean eliminating them (developers should add parking if they think there is demand, it should not be required)."

"Make sure all new developments have more than adequate parking."



Curb Space Framework

Priorities

Priority:	Residential	Main Streets	Office and Commercial	Warehouse and Industrial
1	Support for City Plan Priorities			
2	Access for People	Access for People	Access for People	Access for Goods
3	Parking	Access for Goods	Access for Goods	Access for People
4	Access for Goods	Activation	Parking	Parking
5	Activation	Parking	Activation	Activation

Participants were presented with the City’s draft Curb Space Framework – it suggests which uses of curb space should be given priority within various land uses contexts.

The following slides show how respondents recommended a new priority order for each land use.

Support for City Plan Priorities	Safety improvements, bus lanes, bike lanes, stormwater management that are specifically included in City plans	Parking	Metered parking, Residential Permit Program, EV Charging, bike parking, scooter corrals
Access for Goods	Loading zones, deliveries, food pick-up/drop-off	Activation	Parklets, in-street dining, public art
Access for People	Bus stops, pick-up/drop-off, bikeshare stations		





Curb Space Framework

Summary of Feedback

Lower Rank ← → Higher Rank

Residential

Item	Overall Rank	Rank Distribution
Access for People	1	
Parking	2	
Access for Goods	3	
Activation	4	
Support for City Plan Priorities	5	

*Access for People and **Parking** were frequently top-ranked for residential curbspace.*

Main Streets

Access for People	1	
Access for Goods	2	
Parking	3	
Activation	4	
Support for City Plan Priorities	5	

*Access for People, Access for Goods, and **Parking** were frequently top-ranked for main street curbspace.*





Curb Space Framework

Summary of Feedback

Lower Rank ← → Higher Rank

Office and Commercial

Item	Overall Rank	Rank Distribution
Access for People	1	
Access for Goods	2	
Parking	3	
Support for City Plan Priorities	4	
Activation	5	

Access for People was frequently top-ranked for office/commercial curbspace.

Warehouse and Industrial

Access for Goods	1	
Access for People	2	
Support for City Plan Priorities	3	
Parking	4	
Activation	5	

Access for People and **Support for City Plan Priorities** were frequently top-ranked for warehouse/industrial curbspace.





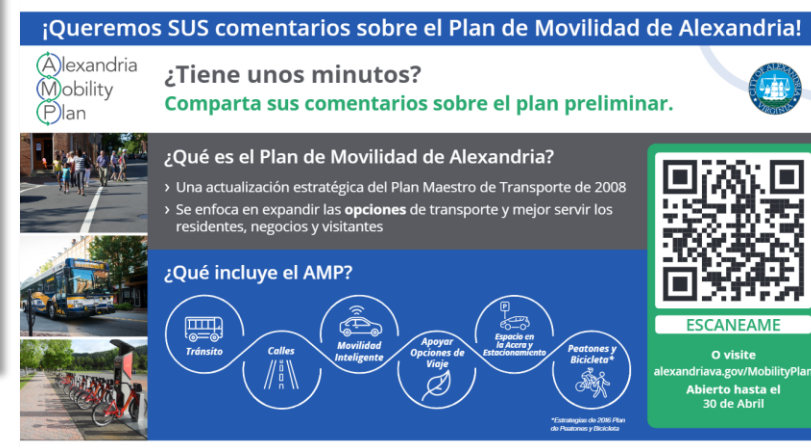
Draft Plan Release Feedback Summary

May 2021



Draft Plan Release – Outreach Efforts

- **City eNews** and **email blasts**
- Weekly **social media posts** on City and T&ES platforms
- **Posters on DASH buses** and via **Peachjar campaign** (English and Spanish)
- CDC compliant, low-touch in-person **pop-up events**
- Meetings with **boards and commissions**
- Hearing at **Transportation Commission**
- **Feedback form** in English and Spanish (545 respondents)



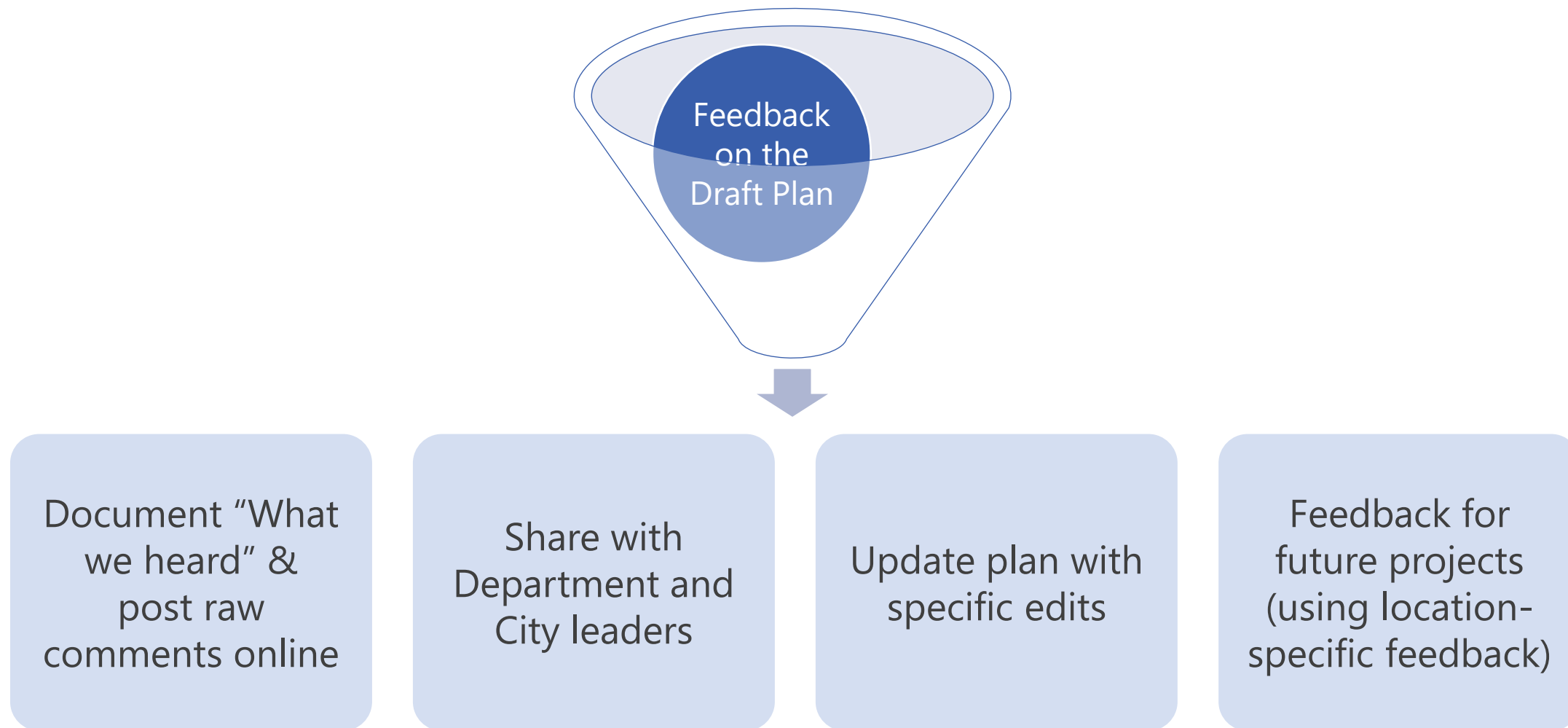
Draft Plan Release – Outreach Efforts

Bilingual Pop-Up Events

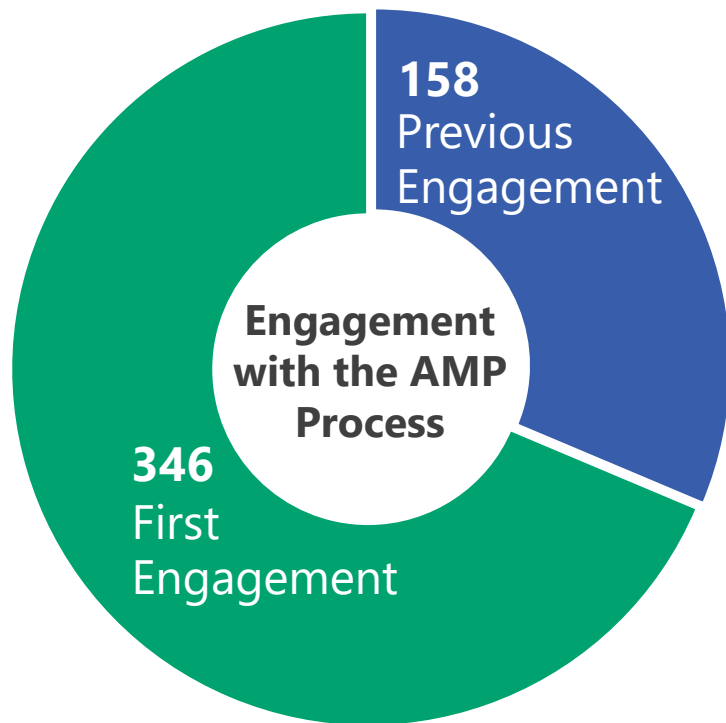
- **Global Foods:** April 17th – 411 flyers distributed
- **West End Farmers Market:** April 25th – 112 flyers distributed
- **Southern Towers:** April 29th – 138 flyers distributed
- **Potomac Yard Vaccine event:** April 28th – 712 flyers distributed



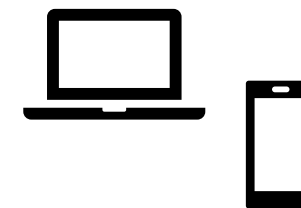
How Plan Feedback will be Used



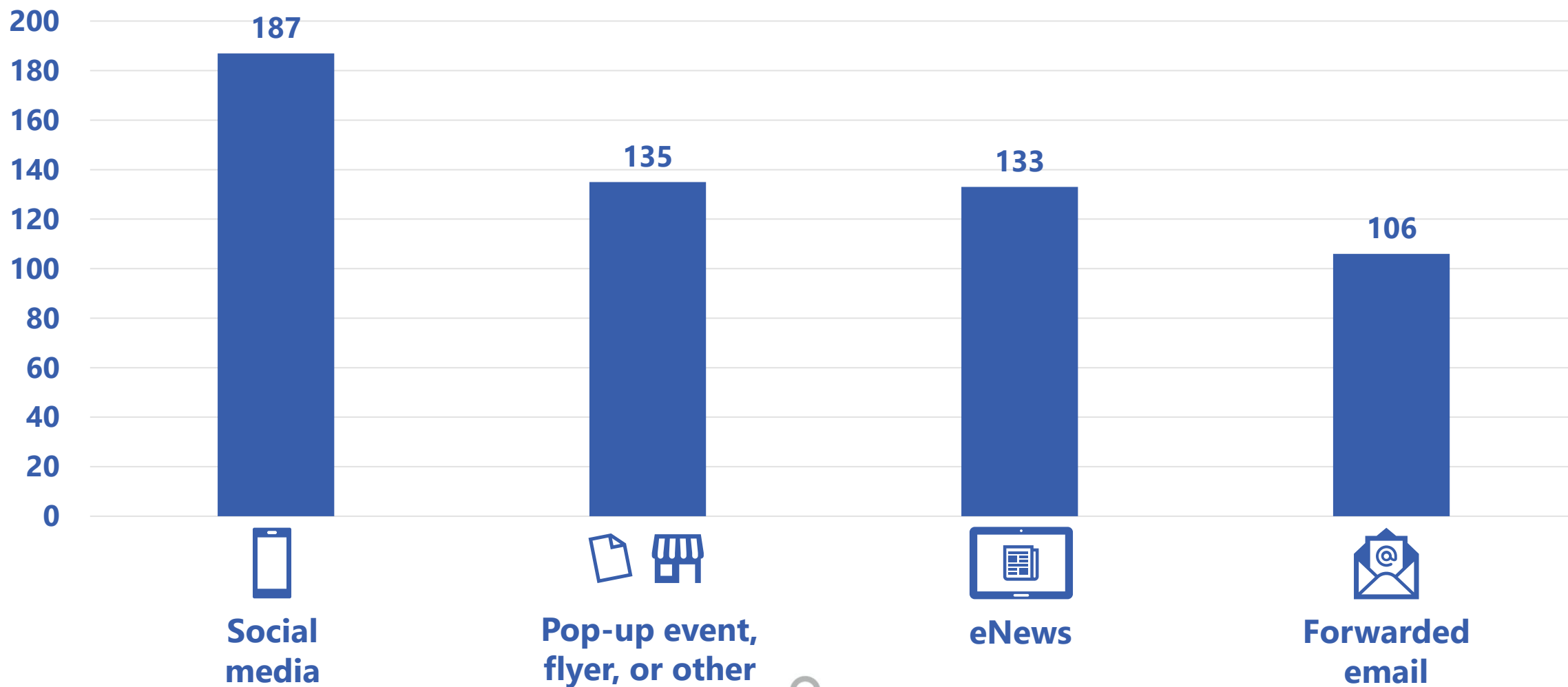
Feedback Form Quick Facts



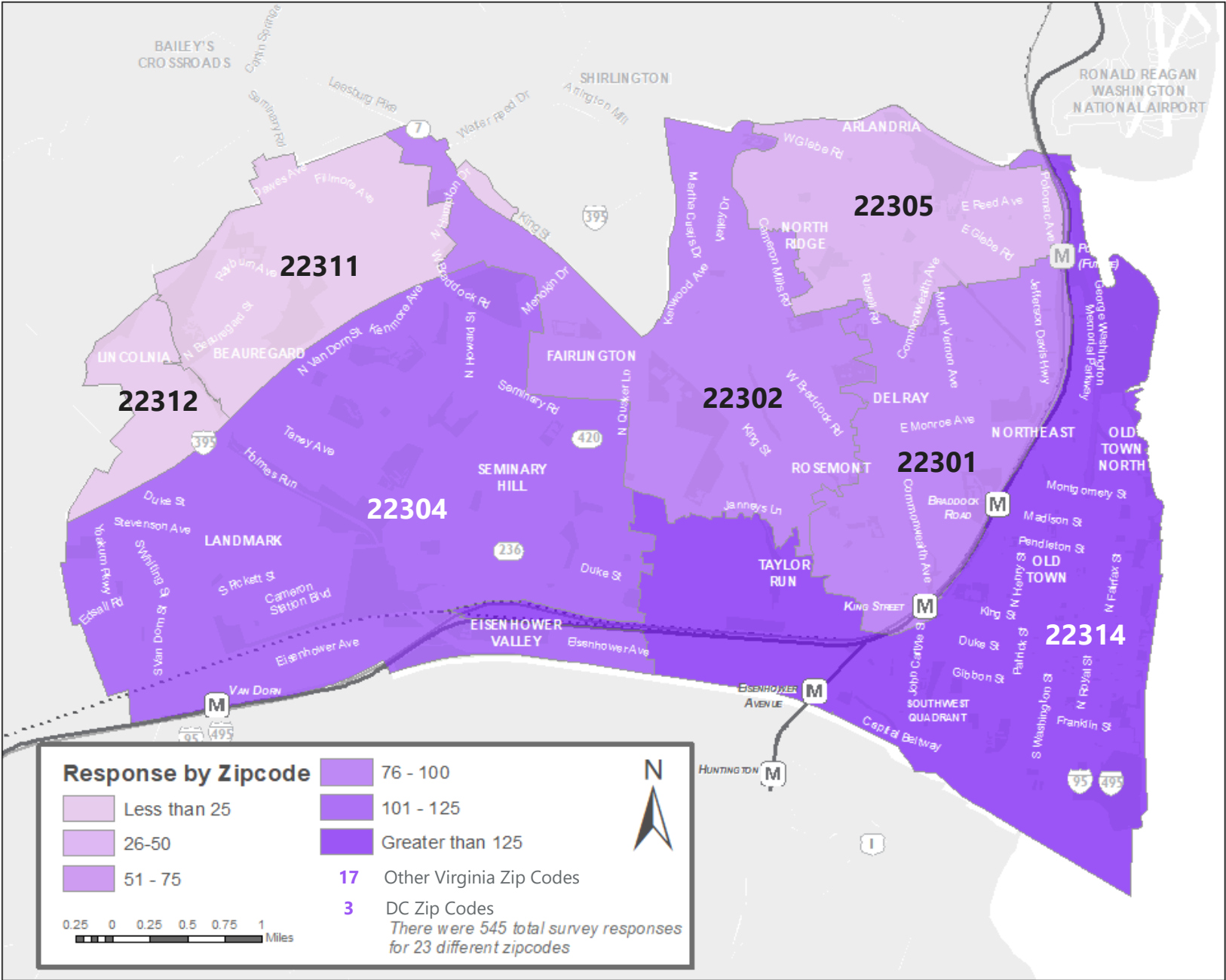
- The feedback form was open between **March 31, 2021** and **May 2, 2021**
- The feedback form was available on both mobile and computer platforms
- **545** respondents completed the feedback form



How did you hear about AMP?

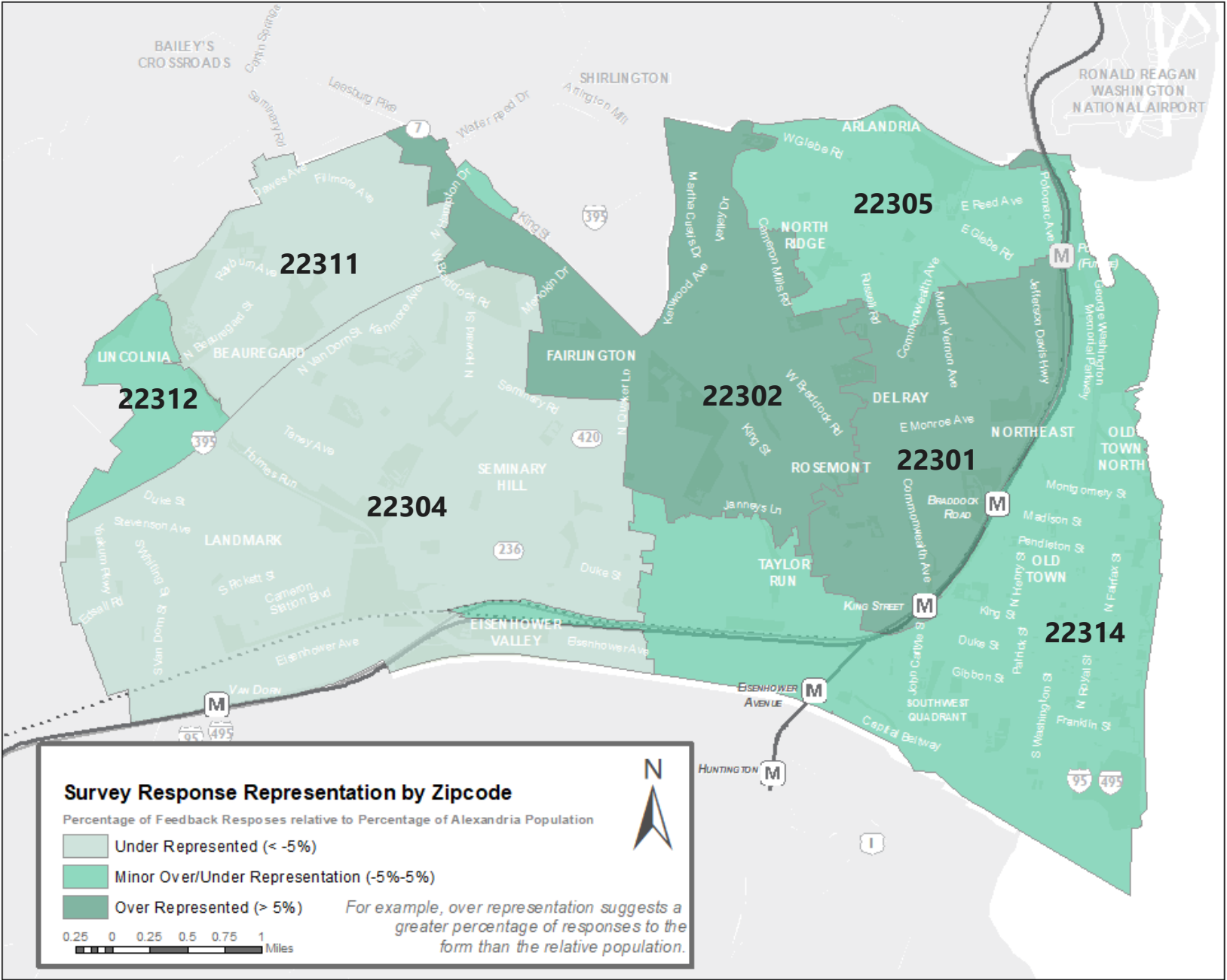


Responses by Zip Code

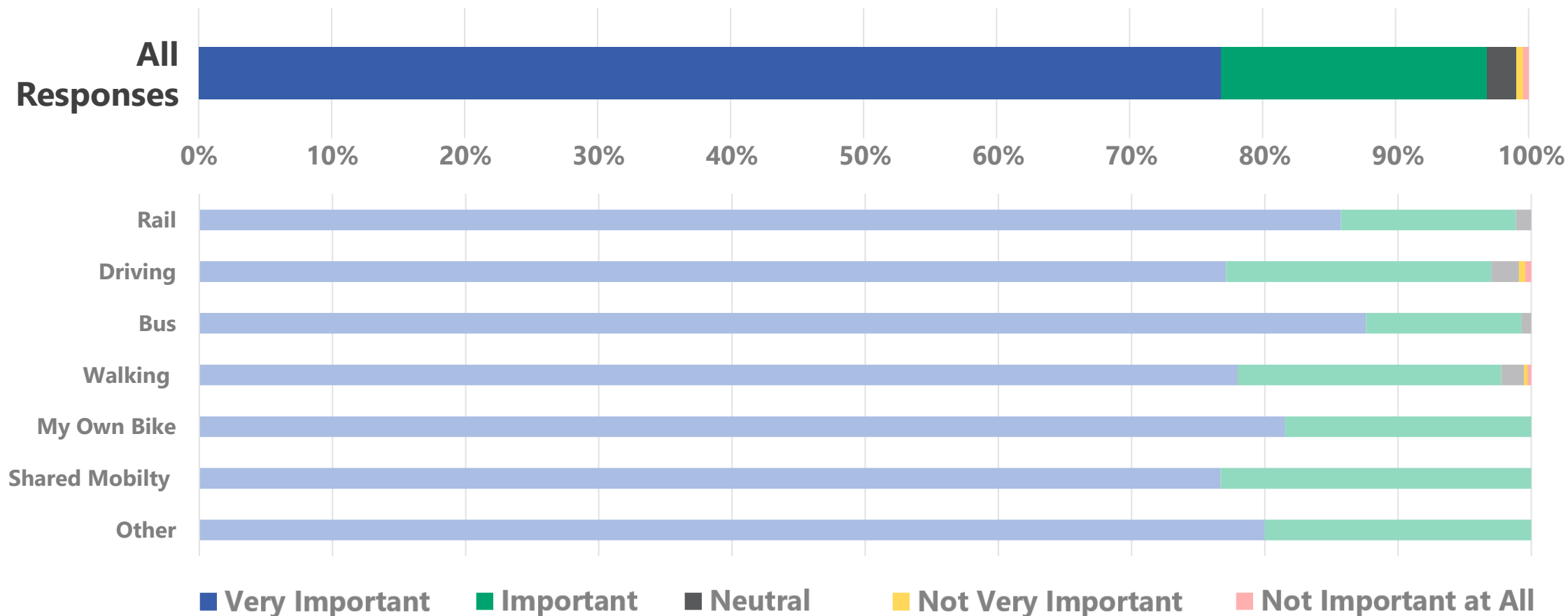


Representation by Zip Code

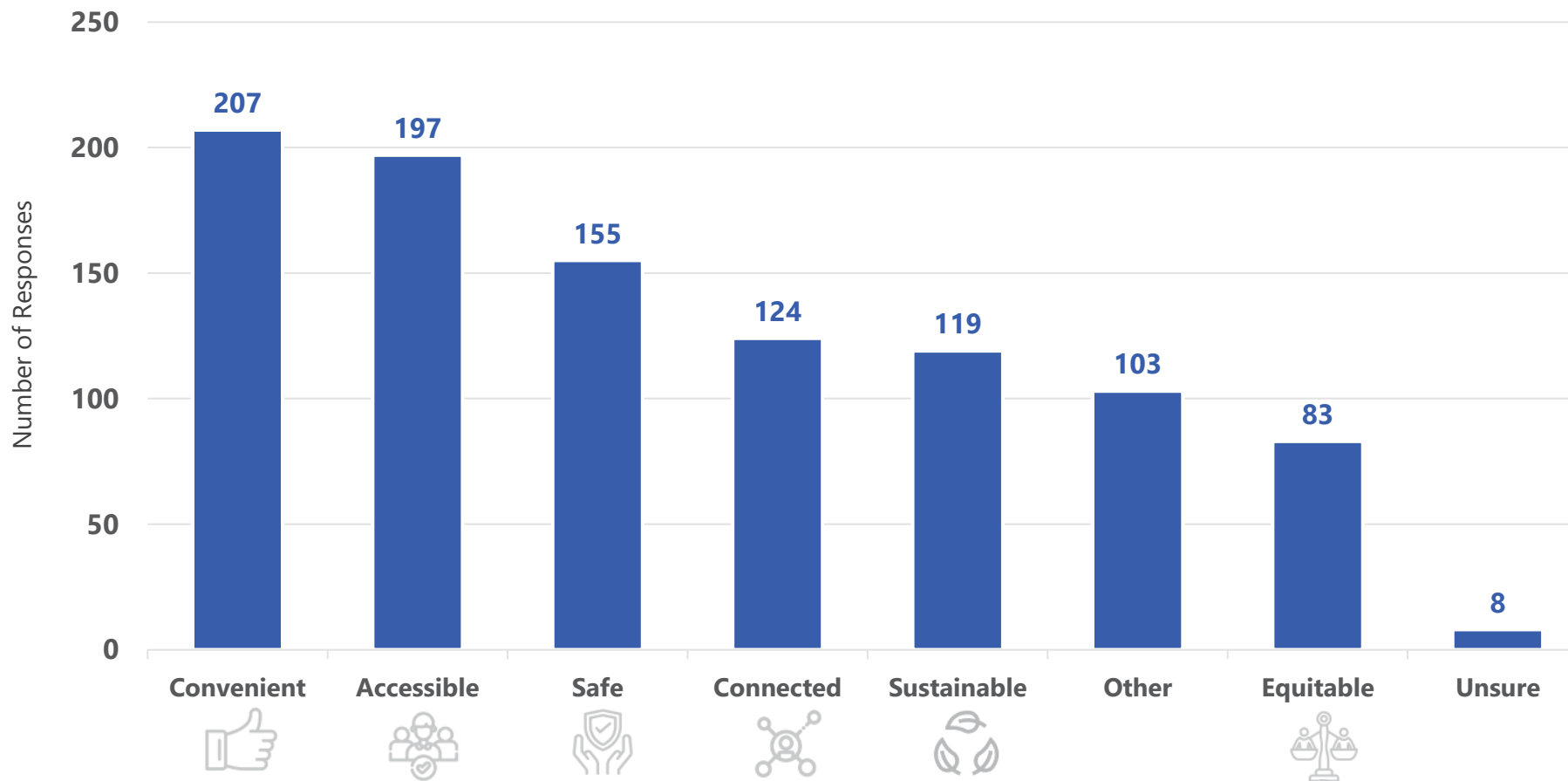
Zip Code	Population	Feedback Received	Delta
22301	9%	15%	6%
22302	11%	18%	7%
22304	30%	22%	-8%
22305	9%	8%	-1%
22311	10%	2%	-8%
22312	4%	1%	-3%
22314	27%	28%	1%



How important do you think transportation is to quality of life in Alexandria?



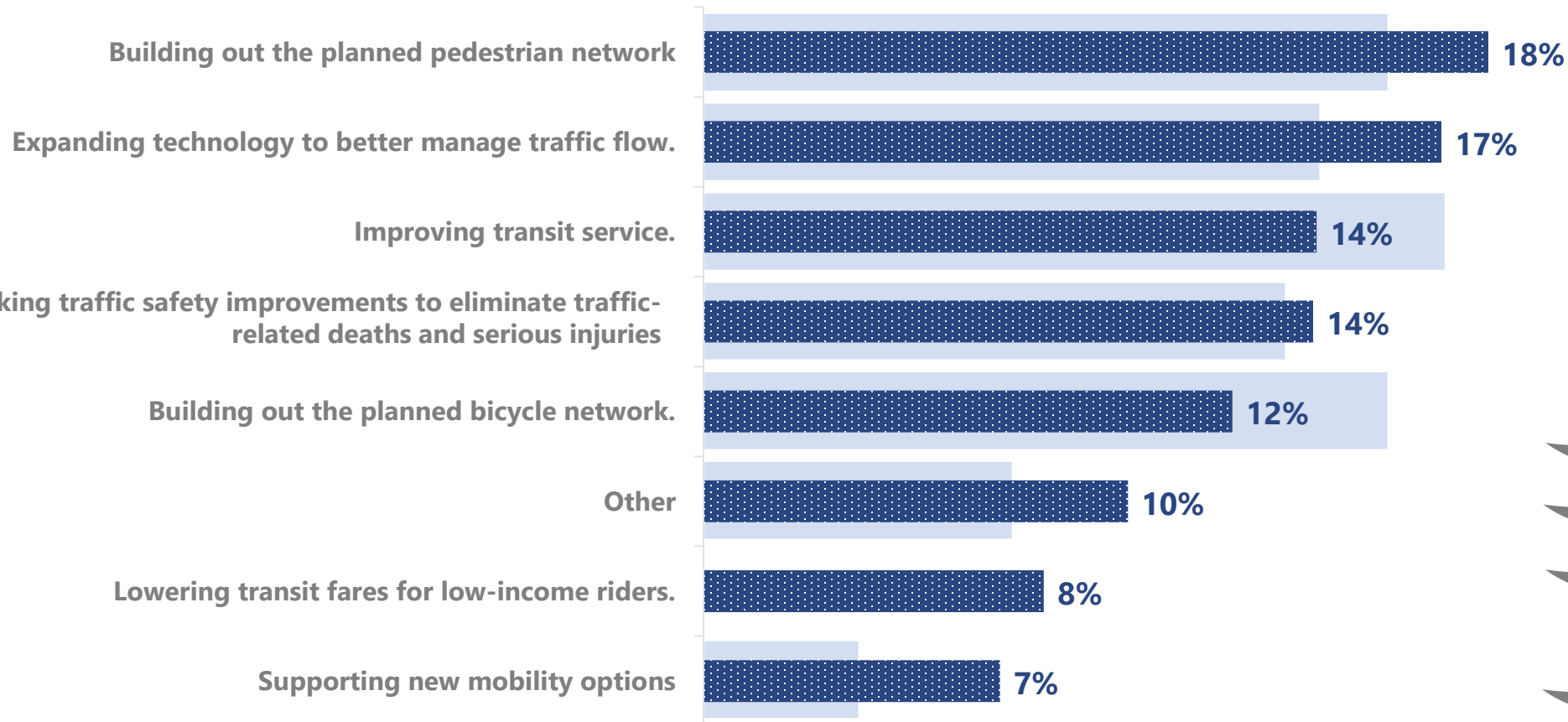
Each policy or strategy seeks to achieve one or more of ACCESS outcomes for Alexandria. Which of these are most important to you? (Select up to 2)



All AMP guiding principles received support through the feedback form, with **Convenient and Accessible** most frequently ranked as “most important.”

What would you like to see completed first?

(Select up to 3)



Fall Engagement Feedback

Spring Engagement Feedback

**Prompts for both forms are not synonymous. Fall Data shown where applicable.*

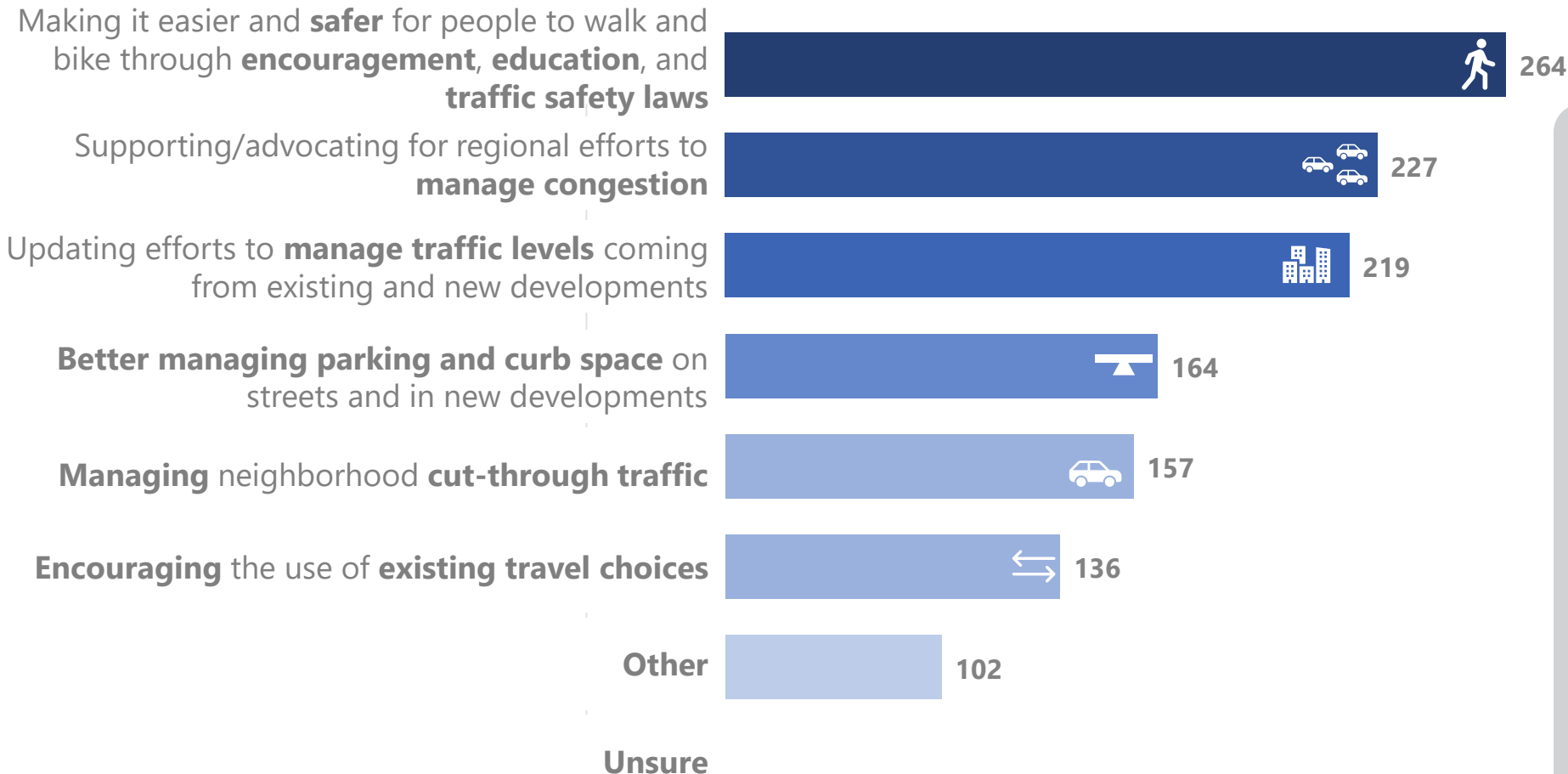
"Other" suggestions include:

- ➔ Making **driving** more efficient
- ➔ Alleviating **congestion**
- ➔ Requesting to **not remove travel lanes** for bike or bus priority lanes
- ➔ **Pedestrian improvements**
- ➔ More **multimodal choices**



Which of the following are most important to you?

(Select up to 3)

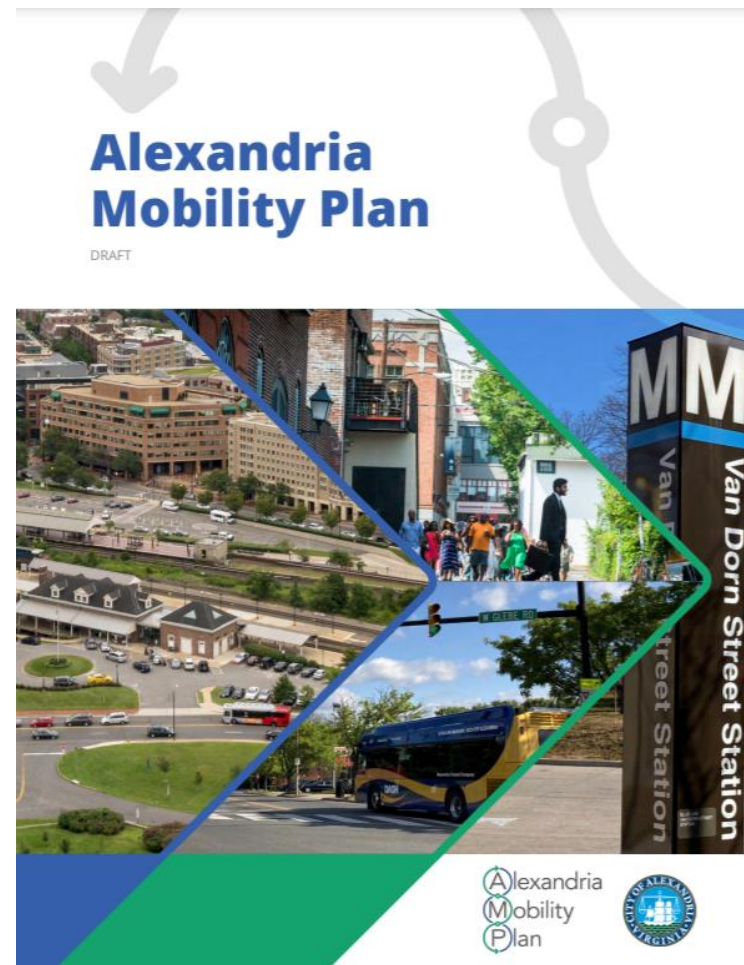
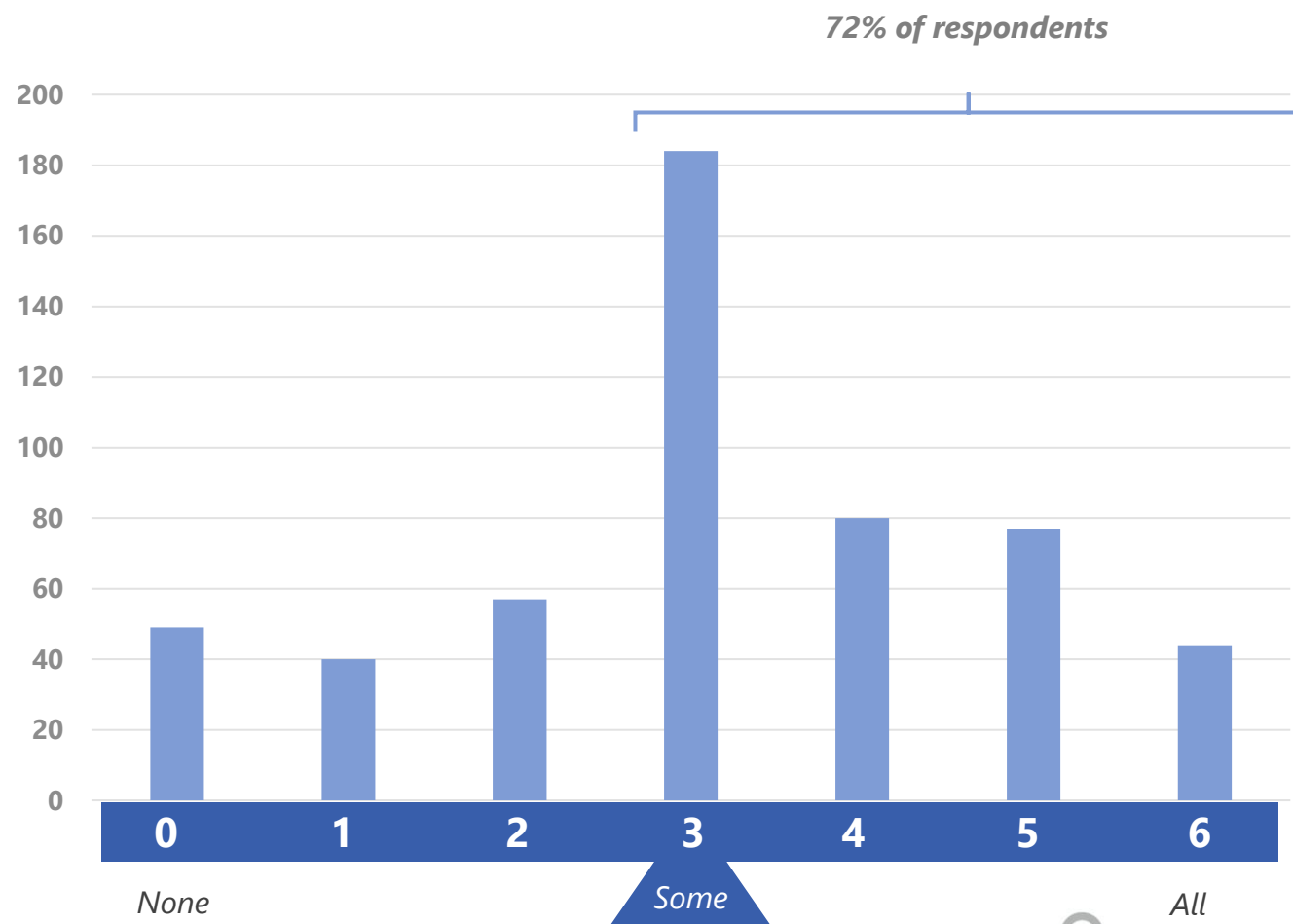


"Other" suggestions include:

- Increase **parking availability**
- Update zoning rules and development permits for **parking and bike/ped infrastructure**
- **Multimodal infrastructure**
- **Transit improvements** (express bus, non-fixed route busses, 11Y)
- **Environmentally** conscious solutions
- **State of good repair**
- Getting to and from **employment** centers
- Encourage **teleworking**
- **Travel training** resources for transit throughout the region

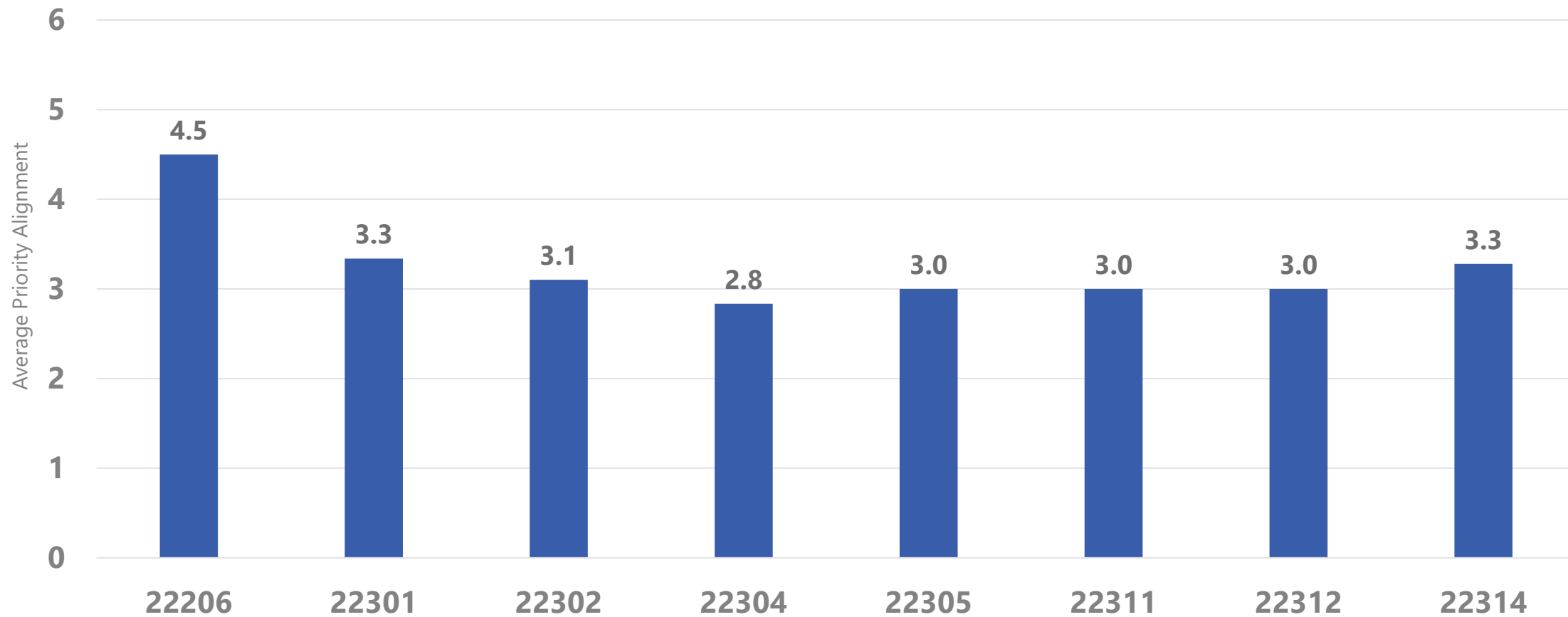


To what extent do the topics mentioned in this feedback form or in your review of the AMP reflect your priorities?



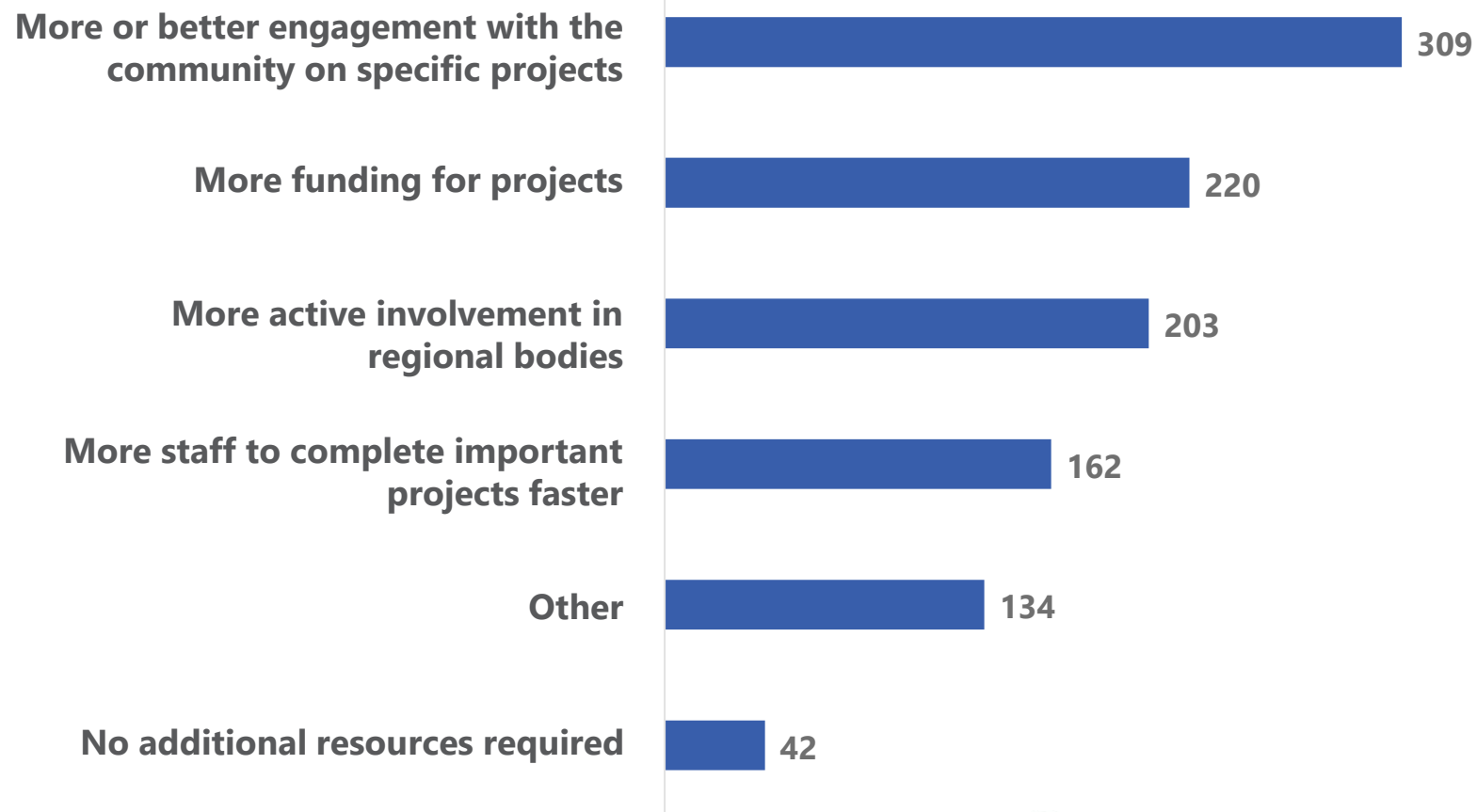
Priority Alignment and Zip Code

(Average by Zip Code)



What would make the AMP more successful?

(select all that apply)



"Other" suggestions include:

➔ **Balanced** and **equitable outreach** to civic associations and neighborhoods

➔ **Engagement** prior to decision-making

➔ **Education** on how to get involved and leverage items in the AMP

➔ Show **cost-benefit** of mode choices

➔ Develop **multidisciplinary implementation teams** with citizens, experts, and teens

➔ **Transparency**



Board/Commission/Verbal Feedback

- Generally positive feedback
- Commission on Aging: Pedestrian safety focus
- Commission on Persons with Disabilities: Desire for better metrics
- Environmental Policy Commission: General support – particularly expanding GoAlex, implementing DASH New Network, integrating new mobility devices
- Traffic and Parking Board: General support
- Eco-City Citizens Academy: Lots of questions; General support

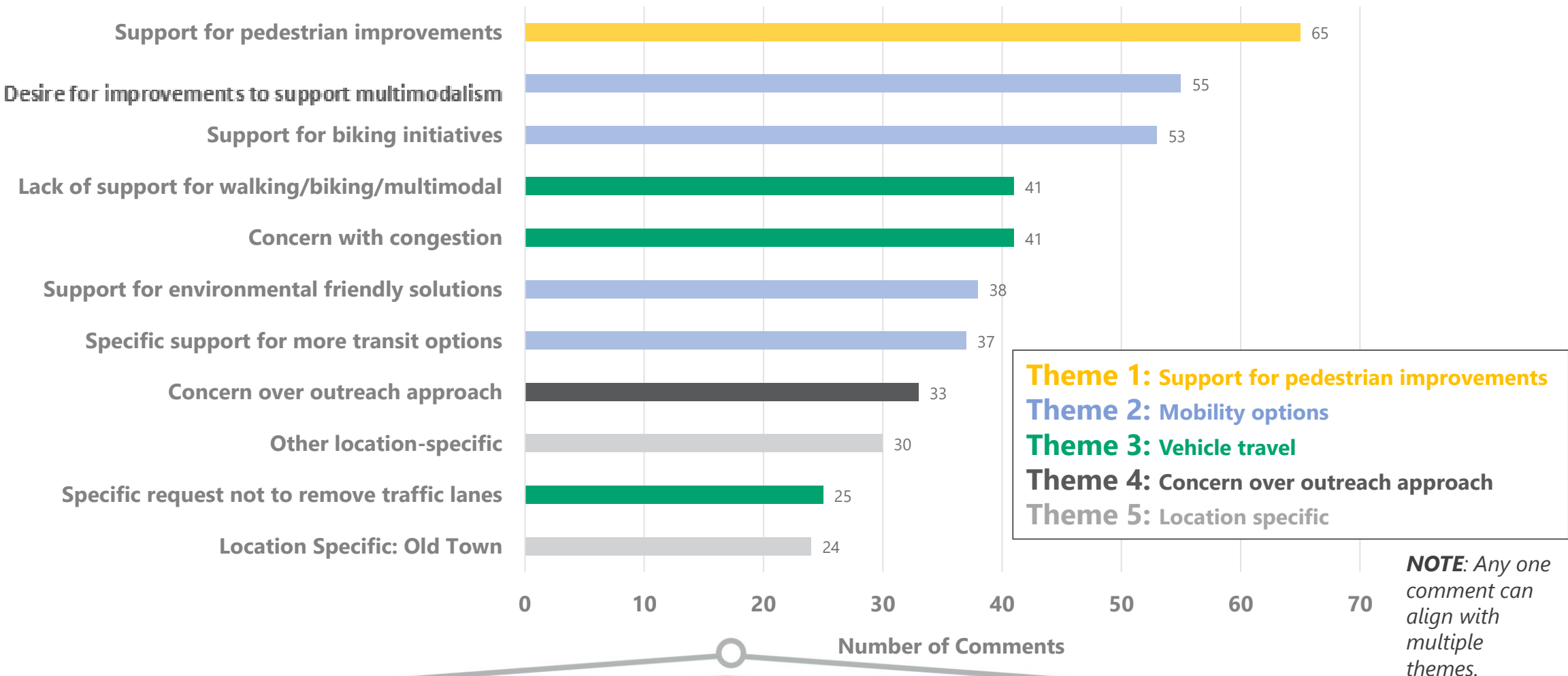
Transportation Commission Hearing & Discussion

- Generally positive feedback
- Reconsider certain metrics
- Be more careful with language
- Include implementation matrix
- Include more detail on monitoring and updating the plan (including ped/bike chapter)
- Include bike/ped maps
- Specific plan edits

Staff is continuing to review feedback and will determine best approach for updating the plan to respond to more specific feedback

Comment Topics – Open Ended Responses (270/545)

Top 10



Open-Response Themes from Feedback Form



Theme 1: Support for pedestrian improvements

- Provide wider and well-maintained sidewalks, safer pedestrian crossings, and infrastructure to enhance safety
- Provide and maintain infrastructure to support travel for all, including young and elderly
- Create enjoyable spaces for pedestrians to increase business, quality of life, and sustainability
- Calls for specific sidewalk widening or connections

Addressing the Theme:

- *Theme is supported by many current AMP strategies*
- *Can prioritize pedestrian improvements in implementation*



Open-Response Themes from Feedback Form



Theme 2: Desire for improvements to support multi-modalism

- Desire to choose any mode of travel depending on purpose and destination including a vehicle
- Emphasize safe and efficient spaces for various types of mobility along or off the roadway (priority lanes, trails, etc.)
- Push for better options that support full range of environmentally friendly transportation solutions (EV's, electric buses, walking, biking and many more)

Addressing the Theme:

- *Theme is foundational to the plan*

Potential Plan Update

- *Add a strategy related to EV charger build out*



Open-Response Themes from Feedback Form



Theme 3: Make traveling via car easier and more convenient

- Reducing congestion and cut-through traffic
- Requests to not remove travel lanes, and in some cases add lanes
- Better and smarter signal timing
- Continuously evaluate bike/bus/vehicle routes to assure the greatest efficiency on each route and avoid unused priority lanes
- Increase residential parking and requiring parking with new developments

Addressing the Theme:

- *Theme is supported by several current AMP strategies and policies*

Potential Plan Updates

- *Expanding Smart Mobility chapter to include specific focus on congestion management*
- *Revisit wording of strategies to ensure those who drive are included*



Open-Response Themes from Feedback Form



Theme 4: Concern with Outreach Approach

- Desire to see greater engagement with civic groups and neighborhoods
- Support for a plan that prioritizes feedback and needs of Alexandrians
- Concern that feedback form questions limited opportunities to share input
- Wish to see higher levels of input from historically underrepresented groups

Addressing the Theme:

- *City will continue to engage with civic groups and neighborhoods to strive for equitable outreach and feedback*
- *As projects move forward there will be additional opportunities for outreach*

