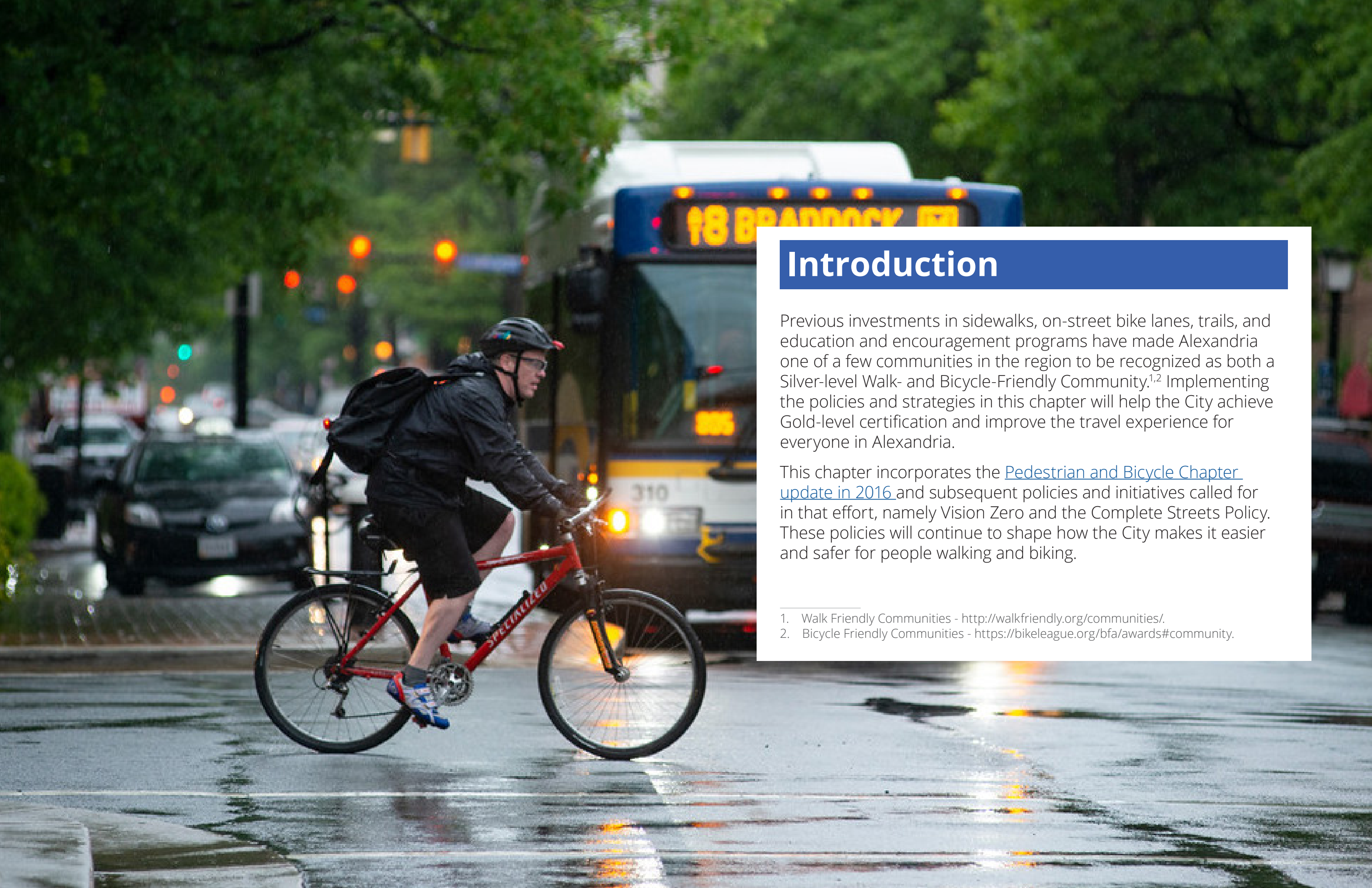




## Pedestrian and Bicycle

*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.<sup>1,2</sup> 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.<sup>3</sup>



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%.<sup>4</sup>

**Walking is the third most used travel mode on a typical weekday** after personal car use and travel by Metrorail.<sup>5</sup> **“Safe and comfortable places to walk and bike”** was one of the top four priorities cited during public engagement in fall 2019.<sup>6</sup>

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.<sup>7</sup>

**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 2020<sup>8</sup>

10

bicycle-involved crashes in 2020<sup>8</sup>

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.

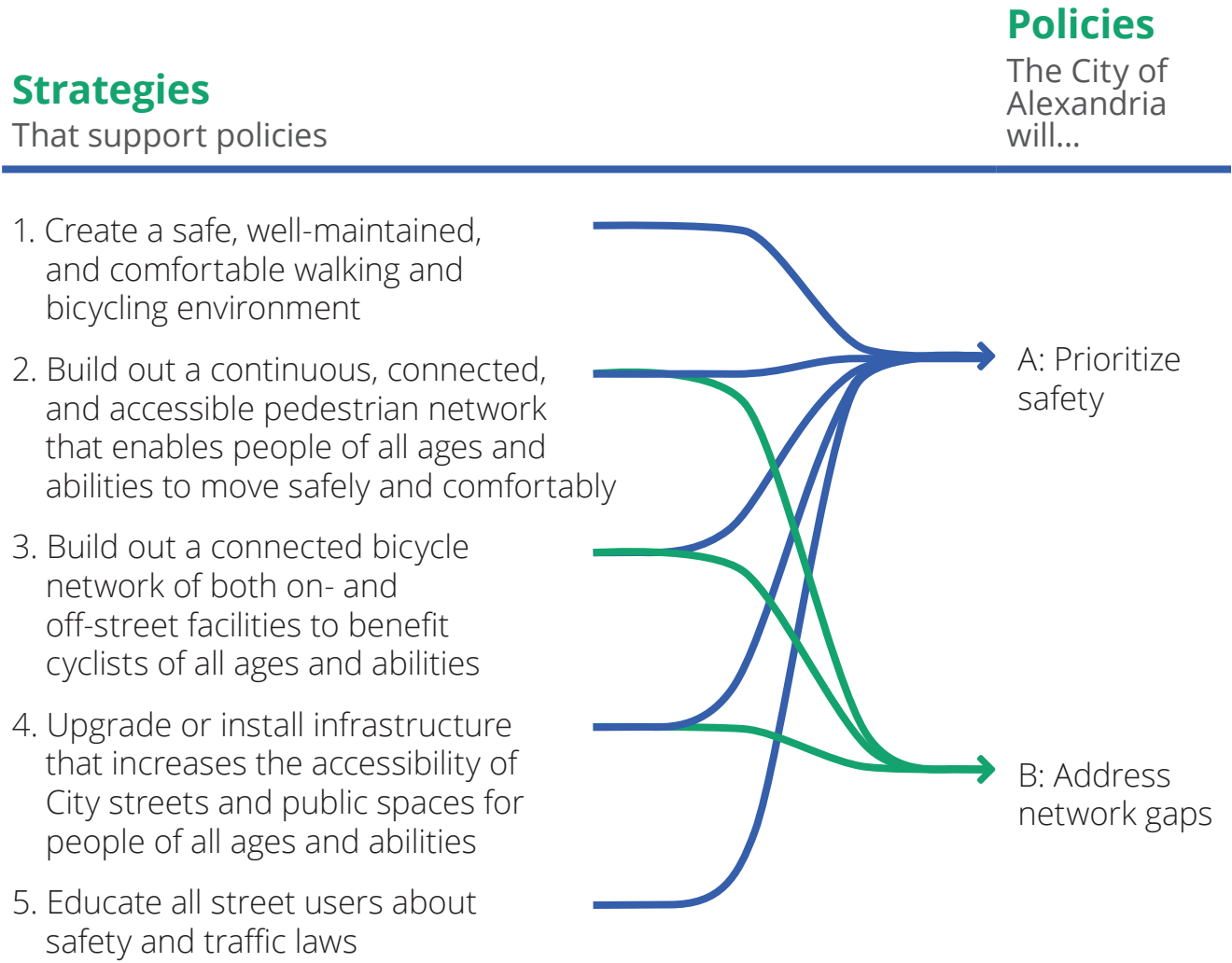
The City will focus on crashes involving vulnerable street users, including those who walk and bike, as a means of achieving Vision Zero.



## 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.<sup>9</sup>

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.<sup>10</sup>

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 to 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

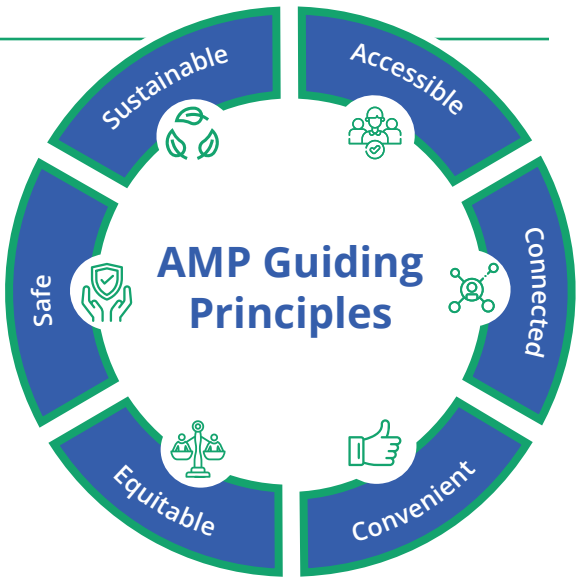
- Prioritize Low-Carbon Mobility Options
- Reduce Vehicle Miles Traveled (VMT)

#### 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

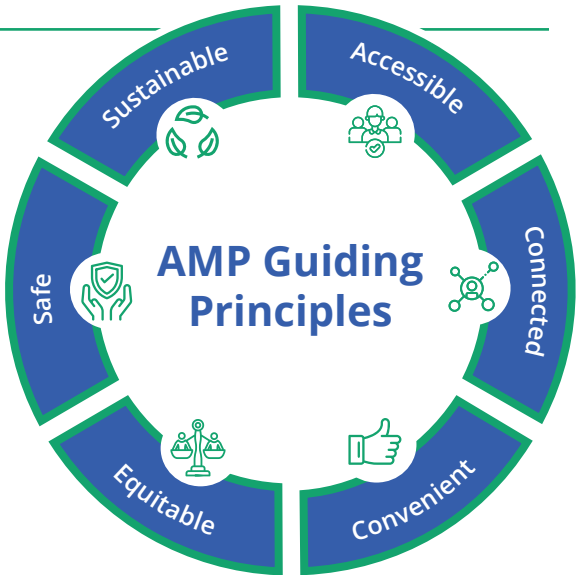
- Prioritize Low-Carbon Mobility Options
- Reduce Vehicle Miles Traveled (VMT)

### 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.**<sup>11</sup>

## Advancing City Plans and Goals

### Environmental Action Plan 2040

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

### Vision Zero Action Plan

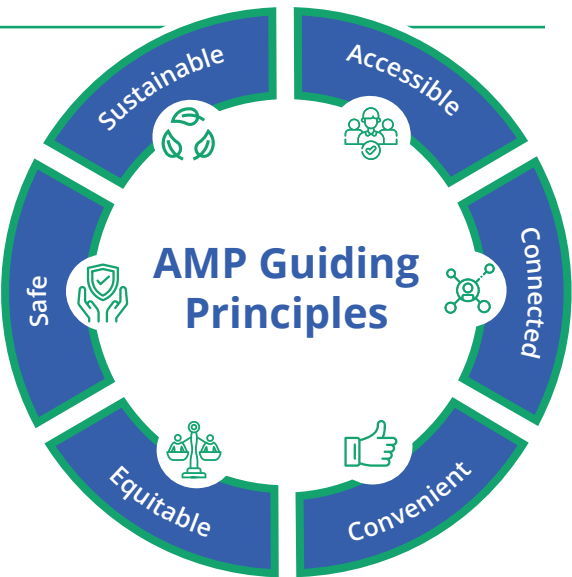
- Build Safe Streets for Everyone

### 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.<sup>12</sup> 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

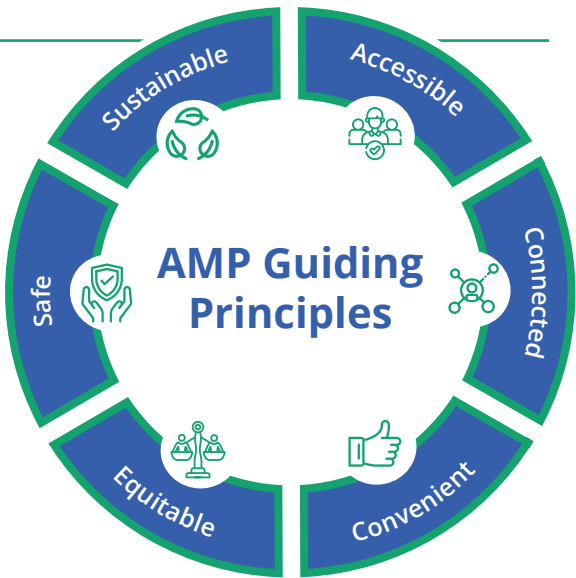
- Safe Walking, Biking, and Driving

### 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.<sup>13</sup>

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.

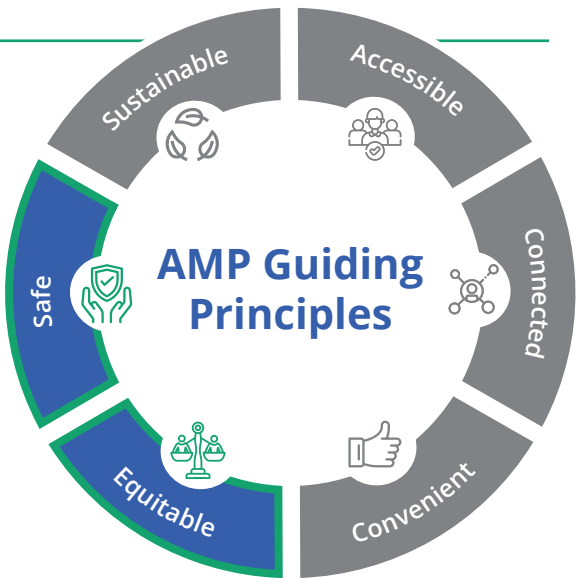
## Advancing City Plans and Goals

### 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](#).

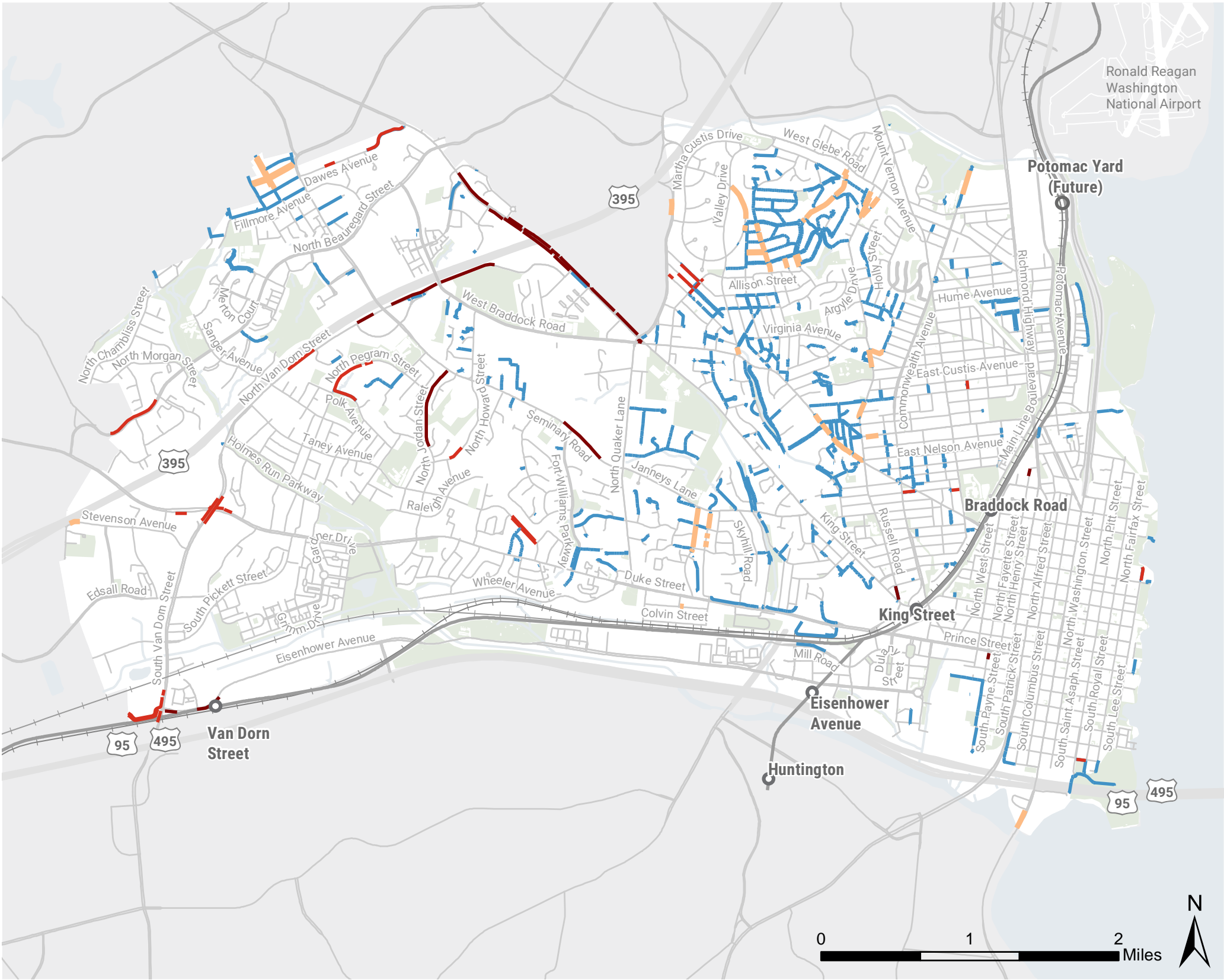
The City will continue to pursue funding from grants and through the City’s budget process and implement pedestrian and bicycle projects through routine street resurfacing, as part of larger capital investments, and in coordination with developers and redevelopment. Therefore, the order of the projects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







Pedestrian Priority Projects



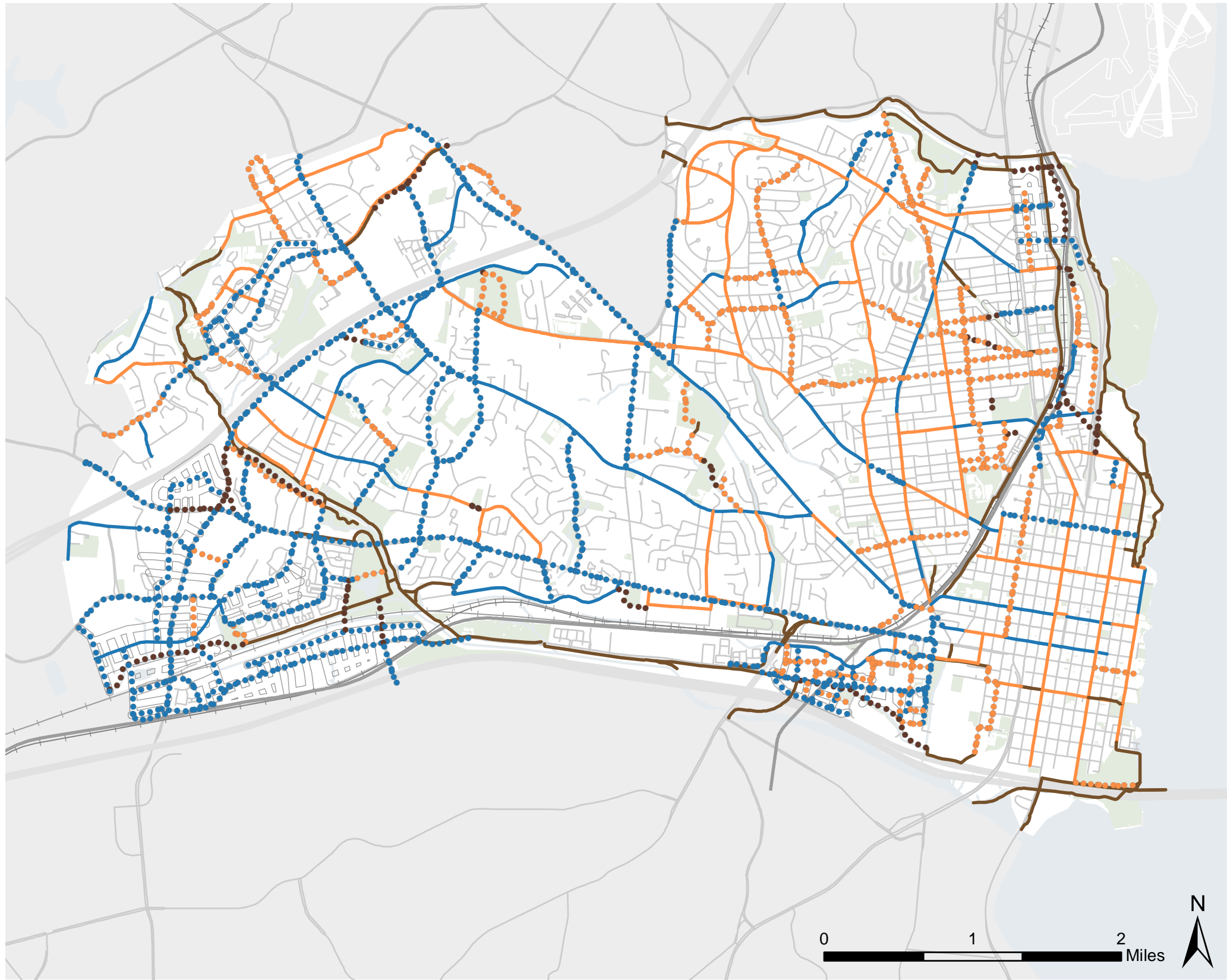
- Tier 1 Priority Sidewalk Gap
- Tier 2 Priority Sidewalk Gap
- Tier 3 Priority Sidewalk Gap
- Tier 4 Priority Sidewalk Gap

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](#).