



CONNECT
Arlington
SUSTAINABLE
TRANSPORTATION PLAN



Executive Summary

June 2021



ACKNOWLEDGEMENTS

The Town of Arlington wishes to thank the following resident volunteers, Town staff, and consultant staff that made this plan possible. Their thoughtful, dedicated work for more than a year—during a pandemic no less—is a testament to their dedication to making Arlington a better place for travel by all modes, now and in the future.

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PART 1: EXECUTIVE SUMMARY

EXECUTIVE SUMMARY

The ability for a community's transportation system to move people and goods effectively, efficiently, and equitably is fundamental to quality of life, economic opportunity, and sustainability. **The Connect Arlington Sustainable Transportation Plan** is a 20-year strategy (2021-2041) to ensure that residents, workers, business owners and visitors are provided a safe, reliable, multimodal transportation network that meets the needs of all people of all ages and abilities.

A highly connected sustainable transportation network is critical to Arlington's future.

Transportation is not just a means to an end. Yes, transportation systems link people to their jobs, goods and services, and educational opportunities essential to their daily lives; but transportation also links people to their friends and family, to recreation, and to the larger community—both within and outside of Arlington's borders. Transportation is critical to the movement of goods—locally, regionally, and nationally—that all people rely on, and increasingly for delivery of household goods directly to people's doorsteps.

Transportation also has a major impact on climate and the natural environment, whether from greenhouse gas emissions from cars, trucks, and buses; from stormwater impacts from large swaths of impervious surfaces including paved roadways, sidewalks, and parking lots; and from heat island impacts from these same surfaces. A truly sustainable transportation plan and implementation strategy must address all of the above in a coordinated fashion to provide both the means for people to move about as they need to and address these environmental impacts on the planet.

CONNECT ARLINGTON VISION AND GOALS

In 20 years, Arlington is a community that offers a transportation network that provides:

- A. **Safe facilities for all users**, no matter how they travel.
- B. **Mobility options that meet the needs for diverse populations** and people of all ages and abilities.
- C. **A pedestrian first, walk-friendly environment.**
- D. **A low-stress bicycle network** connecting people in all areas of Arlington on dedicated, comfortable facilities.
- E. **A transit rich environment** with more local and regional options, improved connections, reduced travel times, and enhanced user comfort for all who live, work, and visit Arlington.
- F. **A system that reduces the climate impacts from travel in Arlington through** sustainable roadway design and incentivizing reduction in drive-alone trips.
- G. **Infrastructure and policies to support the local economy** including efficient movement of goods and services.
- H. **Responsive and transparent transportation decision-making** to address critical safety concerns, keep people informed, and allocated resources effectively.

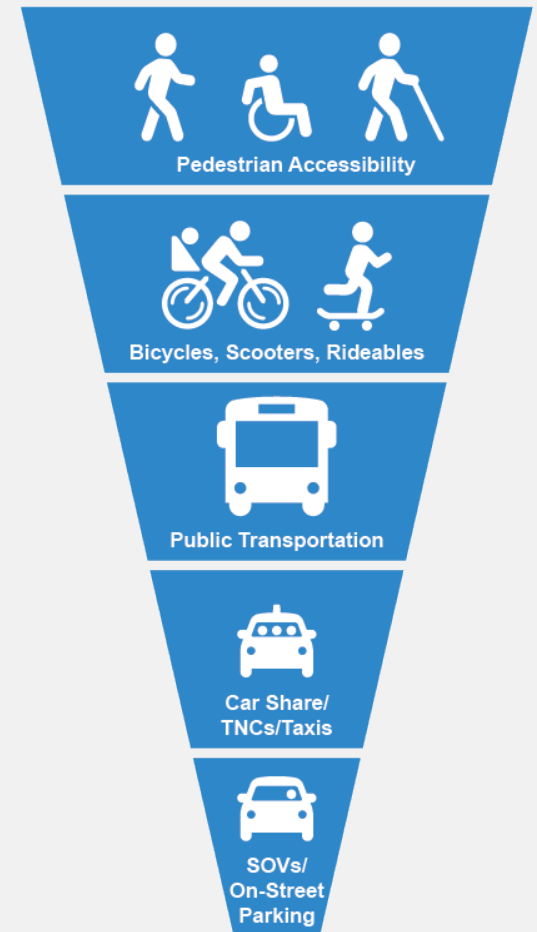
WHAT IS A SUSTAINABLE TRANSPORTATION PLAN?

A sustainable transportation plan provides a comprehensive planning and implementation framework to ensure a community's transportation network provides multiple ways to move around in a manner that is accessible, safe, convenient, and affordable for all users regardless of their age, race, gender, ability, disability, ethnicity or income, throughout different stages of their lives. Essentially, sustainable transportation provides a system of choice that connects people to where they want and need to be in a manner that is equitable, maintainable, fiscally viable and environmentally responsible.

As a sustainable transportation plan, the strategy must address three key elements:

- 1) Providing all people with a safe, well maintained, accessible transportation network of choice—multiple ways to accomplish a trip;
- 2) Managing auto congestion by providing reliable alternatives to the car to ensure people and goods are able to move about with minimal trip delays (and enhance productivity); and
- 3) Minimizing negative transportation impacts on the environment, primarily through the reduction of greenhouse gas emissions (GHGs).

To do so requires a new way of thinking about how people and goods move about town and the region. The more people rely on non-polluting transportation options like walking and bicycling, lower polluting (per capita) options like transit, and incorporate “green” practices like electrification and sustainable infrastructure design, the more our Town will be able to meet the goals set forth in this document. Think of this plan as inverting the pyramid of transportation priorities. Whereas in the past, the car was the priority, followed by transit and then bicycling and walking, this plan aims to put more efficient and low-polluting modes first, as well as high-occupancy, shared and commercial vehicles, and put single-occupancy vehicles (SOVs) lowest on the priority list because they are inefficient, polluting and create greater congestion.



CONNECT ARLINGTON PROCESS

The Connect Arlington transportation plan process began in January 2020. Initial tasks included analyzing and synthesizing existing conditions data about Arlington’s population and workforce, and for all modes of transportation. Based on these findings, the project team identified transportation needs and gaps in Arlington, and developed strategies to address them over a 20-year timeframe.

Public Engagement

Connect Arlington was informed by the concerns, comments and suggestions of Arlington residents, business owners and workers throughout the process. Despite engagement challenges stemming from the COVID-19 pandemic, more than 1,300 Arlingtonians provided feedback on the plan through online surveys, mapping exercises, virtual public forums, and focus group meetings. To ensure diverse voices were heard, outreach strategies included press releases, social media and targeted strategies to different populations including the use of door hangers to encourage participation. Feedback received ensured that the plan and its strategies are not only informed by, but reflect the values, vision, and goals of the community.

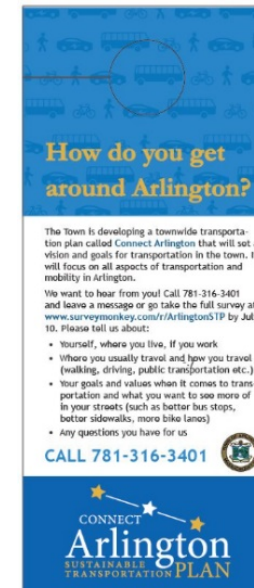
Connect Arlington Sustainable Transportation Plan

Building on the findings from the existing conditions work, and input from the public, the final Connect Arlington Sustainable Transportation Plan was developed to reflect the community’s vision and goals. The final plan is presented in four parts:



- 1) **Connect Arlington Executive Summary**
- 2) **Connect Arlington Strategies & Implementation**
- 3) **Connect Arlington Fact Book**
- 4) **Public Engagement Summary**

The four sections provide an understanding of Arlington’s existing transportation system—its strengths, weaknesses, and deficiencies, how the current system operates, and a roadmap for a more equitable and sustainable multimodal future.




The following pages highlight some key findings from the existing conditions work and an overview of goal strategies. For more information, see the Connect Arlington Strategies section following the **Executive Summary** and the final two sections: **Connect Arlington Fact Book**, and **Public Engagement Summary**.



KEY TRANSPORTATION STATS

 Street Infrastructure				 Active Transportation Infrastructure				
137 Miles <i>of total streets</i>				132 Miles <i>(Estimated)</i> <i>of sidewalks owned and maintained by the town</i>		25 Miles <i>of bicycle and/or multiuse facilities</i>		
74% <i>(101 miles)</i> Public streets Owned and maintained by the Town	15% <i>(21 miles)</i> Private streets Partially maintained by the Town (e.g., plowing) and/or by property owners fronting the roadways (e.g., paving and upkeep)	5% <i>(7 miles)</i> Other facilities Partially owned and maintained by the Town (e.g., cemeteries, pathways in parks)	6% <i>(8 miles)</i> State streets Owned and maintained by the State or maintained in part by the Town (e.g., plowing)	42 miles Streets Without Sidewalks <i>(On either side of street, primarily in hilly areas of town)</i>		8 miles Multiuse Paths <i>(Mostly comprised of the Minuteman Bikeway)</i>	5 miles Bicycle Lanes	12 miles Lane Sharing Network <i>(Informal, but designated routes)</i>

Key Transportation Stats *(continued)*

 Transit				
 11 Bus Routes			 Rail Access <i>Within short walking or biking distance</i>	
6 routes Provide Connections to Alewife Station <i>(Red Line and Bus Connections)</i>	2 routes Service to Harvard Square <i>(Red Line and Bus Connections)</i>	3 routes Connections to Davis Square & Lechmere/East Cambridge <i>(Red and Green Line Connections)</i> Connection to Medford <i>(Orange Line Connection)</i>	Red Line Alewife Station near border with Cambridge	Commuter Rail Within ½-mile of Arlington at West Medford (Lowell Line) and Belmont (Fitchburg Line)

SUMMARY - CONNECT ARLINGTON STRATEGIES

A. Safe Facilities¹ for All Users No Matter How They Travel

There are on average over 550 crashes per year in Arlington involving vehicles, pedestrians, and bicyclists. The Town is committed to doing more to eliminate all severe injuries and fatalities on its streets. Ensuring that people not only feel, but are safe, while getting around is critical.

Strategies:

- **Adopt a Vision Zero policy** to ensure streets are designed in a manner that prioritizes safety for all users, with a goal of eliminating traffic deaths and injuries through a holistic approach to reducing roadway conflicts.
- **Ensure all roadway design projects adhere to the Town's adopted Complete Streets Policy** to ensure that all roadway projects are designed for all users—not just cars.
- **Prioritize investments that improve safety at intersections and along road segments with the greatest pedestrian and bicyclist conflicts** including intersections with oblique angles, poor sight distances and confusing operations.
- **Develop and implement a Neighborhood Traffic Calming Program** to address safety issues and concerns.
- **Develop educational programs that promote safe travel behaviors by ALL users.**
- **Ensure streetscape plantings do not limit visibility.**
- **Develop policies and guidelines that promote the safe use of emerging mobility devices** including e-bikes and other micro-mobility options.
- **Continue to implement initiatives that enhance safety to and from schools and community facilities** including Safe Routes to Schools (SRTS) projects and programs and Arlington's ADA Transition Plan infrastructure improvements.
- **Advance plans to enhance safety and reduce user conflicts** along Mass Ave in Arlington Center.

¹ In this document, "facilities" generally refers to infrastructure that accommodates different types of travel modes. "Pedestrian facilities", for example, may include sidewalks, crosswalks, pedestrian-activated lighting or signals, and other elements of the public and private realm.

B. Mobility Options for All Ages, Capabilities, and Incomes

An integrated transportation network with multiple mobility options must be prioritized to ensure that Arlington's residents, workers and visitors of all ages, capabilities and incomes are able to equitably move to, from, within and through Arlington. Active transportation – i.e., walking and biking – also help improve personal and public health by allowing people to exercise while getting to their destination. Programs such as Safe Routes to Schools that are targeted at children ensure they are receiving recommended levels of exercise as well. To provide mobility options for all will require a comprehensive, coordinated strategy.

Strategies:

- **Continue to implement accessibility improvements throughout Arlington** including sidewalk and access improvements (ramps, ADA parking, van parking) at schools, public buildings, recreation facilities and more.
- **Continue to develop and implement Safe Routes to School (SRTS) projects**—programs and infrastructure improvements—that aim to provide safe transportation networks for children to walk and bike from their homes to their schools.
- **Complete the Minuteman Bikeway Study and implement strategies that increase access to and capacity and safety on the pathway** to ensure that it remains a comfortable active transportation facility for all active transportation users—recreational or commuter—including bicyclists, runners, and walkers.
- **Increase car share availability and membership in Arlington** by working with car share companies to add more cars and by promoting membership.
- **Increase access to bike share throughout Arlington** by promoting the system, providing subsidized memberships (to those who qualify) and adding more stations over time.
- **Expand transit options to Arlington residents and workers through local shared transportation programs and services** to provide enhanced, efficient connectivity to and from neighborhoods not proximate to MBTA services, including through locally funded transit services and partnerships with mobility providers (e.g., micro-transit) and neighboring communities.
- **Pursue higher Bicycle Friendly Community Award status and explore other transportation-related award programs** to help examine current practices and promote the Town's successes.

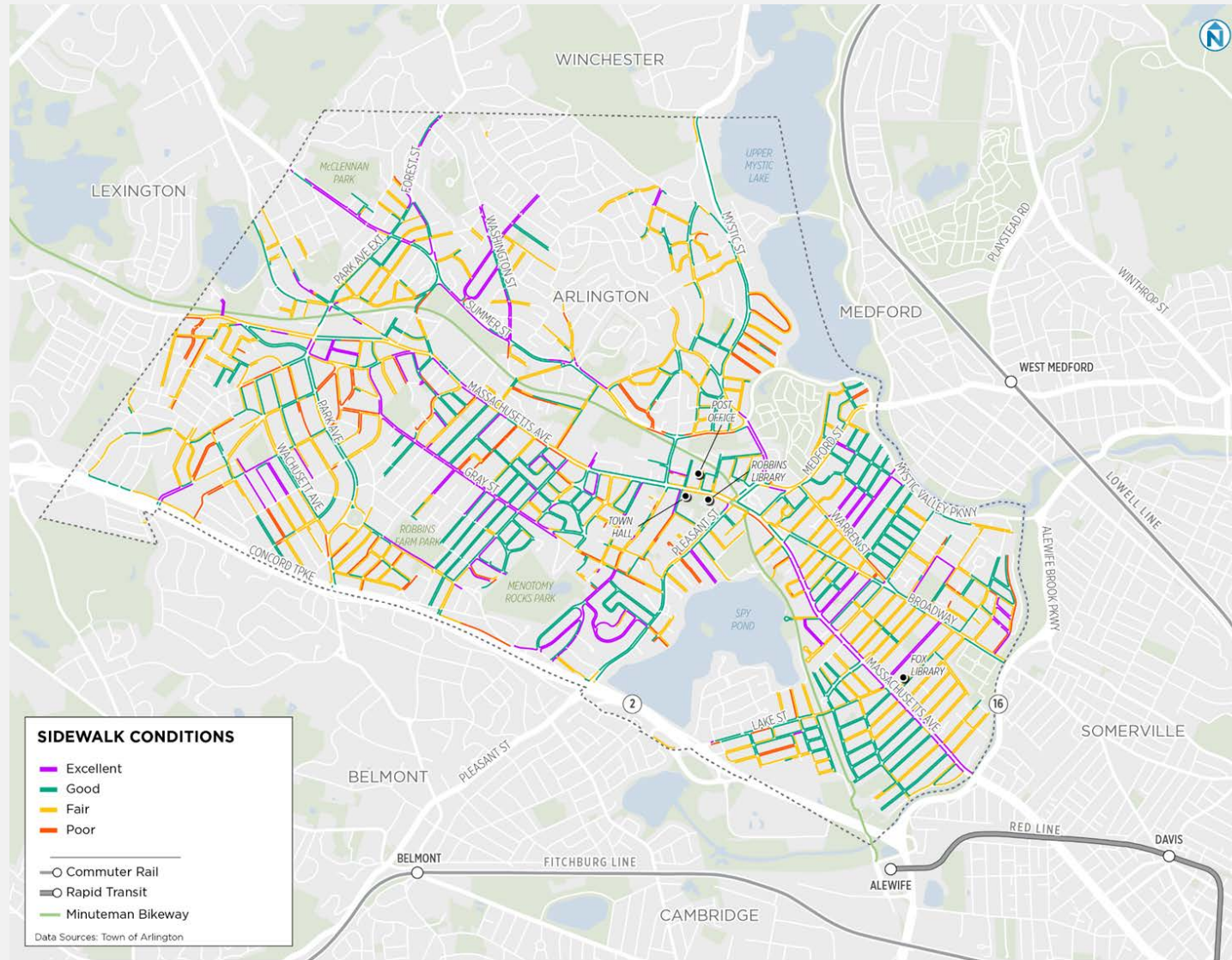
C. A Pedestrian First, Walk-friendly Environment

The most important element of any transportation network is the pedestrian realm. It is the only mode of travel that is a part of every trip, whether the trip is entirely on foot or a component of a car, transit, bicycle or trip by other mode. It is also the most equitable trip type in that the pedestrian realm can be used by all at no charge and is an easy way to exercise and improve health. As such, ensuring that all of Arlington is connected by well-maintained pedestrian infrastructure is paramount.

Strategies:

- **Continue to maintain and upgrade sidewalks for accessibility and communicate planned projects** to ensure all sidewalks throughout Arlington are in good condition, free of tripping hazards, and fully ADA compliant.
- **Create a program and process for prioritizing, funding, and implementing new sidewalk construction** where no sidewalks currently exist in the network.
- **Continue to ensure all pedestrian facilities are fully accessible, ADA-compliant and maintained** to provide equitable access for all, no matter their capabilities.
- **Enhance pedestrian safety through design improvements at intersections and crossings** by reducing pedestrian crossing distances, enhancing visibility, better lighting and warning signals, slowing traffic, and other safety countermeasures.
- **Expand and maintain the existing street tree canopy to improve pedestrian safety and comfort** by providing cooling shade for pedestrians, and through safety strategies to address sidewalk damage caused by tree roots.

SIDEWALK IMPROVEMENT PROGRAM



Proactive planning provides a roadmap to achieve goals in a predictable manner.

Connect Arlington recommends building on the Town's completed sidewalk conditions analysis to develop a comprehensive sidewalk improvement program to implement and allocate funding to ensure the pedestrian network is safe and proactively maintained.

D. A Low-Stress Bicycling Environment

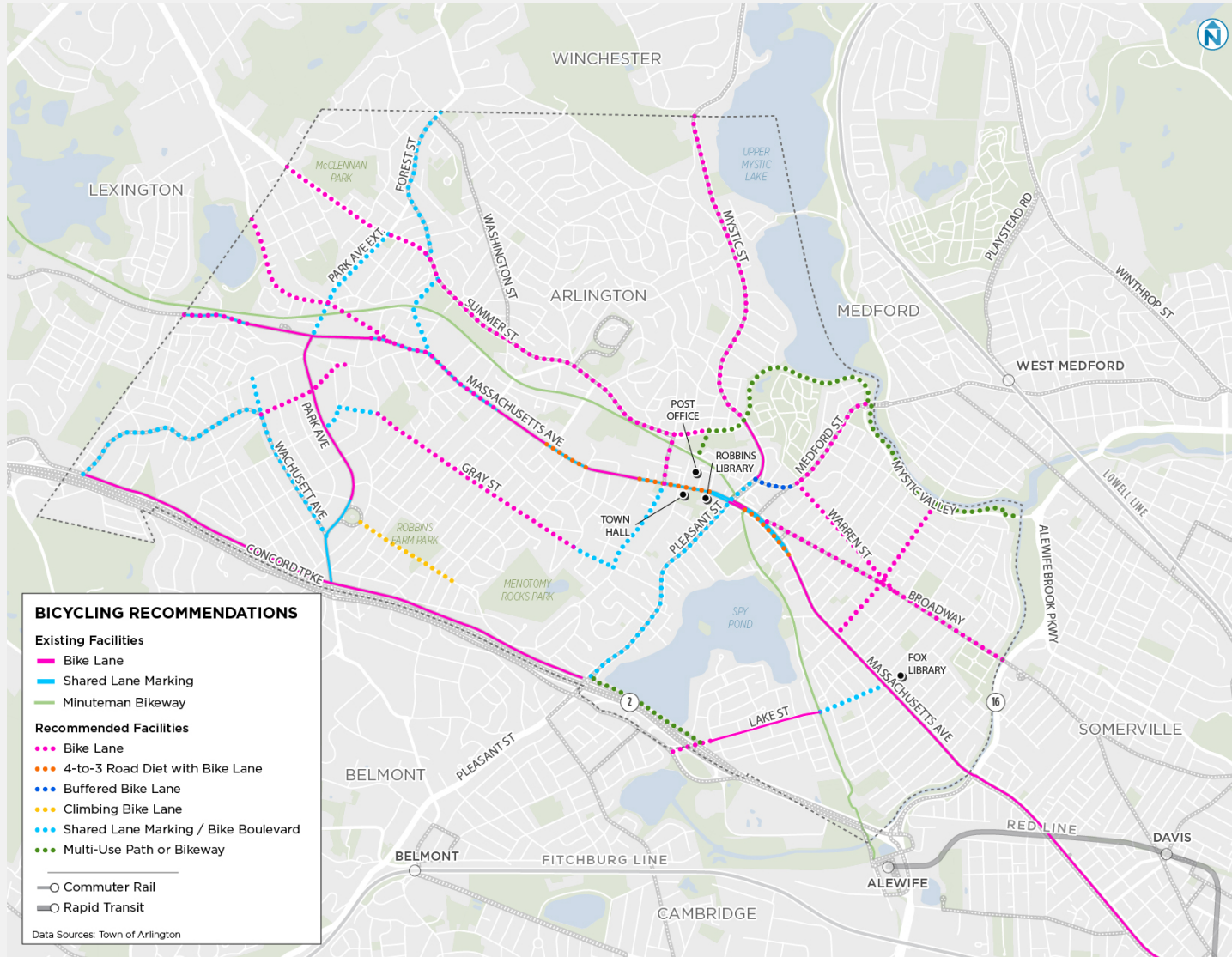
Developing a robust, interconnected network of dedicated bicycle facilities and amenities will make bicycling a safe, comfortable, and practical option—a preferred choice—for more of Arlington’s residents, workers and visitors, no matter their comfort level—from beginner to experienced. More bicycling will also help to reduce greenhouse gas emissions and provide health benefits to users.

While a comprehensive Bike Master Plan should be considered to develop a truly comprehensive strategy, this plan recommends the below initiatives to achieving a low-stress bicycling network.

Strategies:

- **Prioritize new bicycle facilities along corridors currently designated as Arlington’s “lane-sharing network”** including completing the bicycle lane network on all of Mass Ave, and prioritizing projects that connect to existing facilities including schools and other public facilities.
- **Construct a multiuse path from the Minuteman Bikeway at Arlington Center to the Mystic River Path along Summer Street and the Mystic Valley Parkway.**
- **Establish preferred bike routes (“bike boulevards”)** on low-volume streets that provide safer bicycle travel parallel to high traffic roadways - on roadways that connect to neighborhoods and schools.
- **Add or upgrade existing bicycle parking along commercial corridors and at public facilities** to encourage more to choose a bicycle over a car trip because they know their bicycles can be parked easily and locked up safely.
- **Study potential to redesign major intersections and rotaries/roundabouts** to encourage more bicycling by providing improved rider safety and comfort.

RECOMMENDED BICYCLE NETWORK



Map edited 8/5/21 to correct location of proposed bike lane on Bates Rd and River St.

Developing a highly connected network of dedicated, preferably separated, bicycle lanes and facilities is a priority recommendation of Connect Arlington.

Building out a town-wide network would provide safer, more comfortable, and convenient facilities to encourage bicyclists of varying levels of experience and comfort to move around, reducing the need or preference to drive.

E. A Transit-Rich Environment

Arlington residents were clear about their desire for improved transit service throughout the planning process, even during the COVID-19 pandemic where physical distancing requirements resulted in decreases in transit use throughout the region. They recognized that transit could move more people, more effectively and efficiently over long distances than, or in combination with, other modes. Since most transit users get to their transit stop by walking, increasing transit use can also improve public health.

To provide more reliable, faster, and comfortable transit, and encourage ridership, Connect Arlington priorities include:

Strategies:

- **Increase bus frequency on highest ridership bus routes**—e.g., Route 77—to reduce crowding and provide greater comfort.
- **Study potential for and implement bus priority initiatives to reduce transit trip times and achieve (near) Bus Rapid Transit service in Arlington** including through providing more bus priority lanes, queue jumps, transit signal priority (TSP) and intelligent transportation systems (ITS), level boarding platforms and other strategies that expedite bus travel, particularly in locations where congestion significantly increases transit travel time.
- **Enhance the bus stop experience to provide greater rider comfort and increase convenience** by providing more shelters and seating at MBTA stops, more bicycle parking, co-locating bike share stations, investing in technology infrastructure and implementing micro-mobility hubs at bus stops along Mass Ave.
- **Expand local transit options for Arlington residents and workers** to enhance connectivity within Arlington and to and from neighboring towns and cities. Options include funding a local fixed-route service, contracting with a third-party micro-transit service, and/or partnering with neighboring communities to fund fixed-route services that enhance local connectivity.

F. Reduced Climate Impacts from Travel in Arlington

Transportation services and facilities are among the largest contributors to climate change. Reducing car trips, especially drive-alone trips, and implementing sustainable policies and investing in sustainable infrastructure is essential to help reduce climate impacts. To accomplish this goal, Connect Arlington recommends the following:

Strategies:

- **Manage travel demand to reduce single-occupancy vehicle trips and emissions** by promoting mode shift from single-occupancy vehicle trips to alternatives like walking, biking, carpooling and transit use, and through coordinated land use and transportation planning (e.g., mixed-use development near transit and jobs).
- **Implement mobility recommendations included in the Town's Net Zero Action Plan** to reduce greenhouse gas emissions stemming from the transportation network and its users.
 - **Create and implement a plan to expand public electric vehicle charging** at libraries, business districts, public parking and other facilities, both on- and off-street.
 - **Adopt a zero-emission municipal fleet and charging infrastructure plan and policy** that commits to a complete transition to zero emission vehicle purchases by no later than 2030.
 - **Advocate for improved utility rate designs** to facilitate smart electric vehicle charging and accelerate EV adoption.
- **When designing and constructing any transportation facilities, include low impact, "green" design interventions and construction techniques to reduce climate impacts** including those that reduce impermeable surfaces to the greatest extent, reduce heat island impacts, increase water retention on-site, etc.

G. Infrastructure and Policies to Support the Local Economy and Quality of Life

Local businesses rely on all modes of transportation to connect customers to their businesses, workers to their jobs, and to deliver goods and services sold at or sent from their location. Connect Arlington recommends curbside access and parking strategies that support local businesses and improve resident quality of life.

Strategies:

- **Ensure Arlington's roadways and off-street parking are maintained** to support local business activity and resident safety.
- **Consider changes to parking regulations and policies that more effectively manage public on- and off-street parking** including allocating funding to study parking along all of Mass Ave with an emphasis on East Arlington and Arlington Heights.
- **Rethink the curb and design it to support competing users and needs more effectively**, including designating zones for pick-up and drop-off activity, zones for increased service and delivery needs, and repurposing on-street parking areas for other modes including bus and bicycle travel, or recreation (e.g., parklets).

H. Responsive and Transparent Transportation Decision-Making

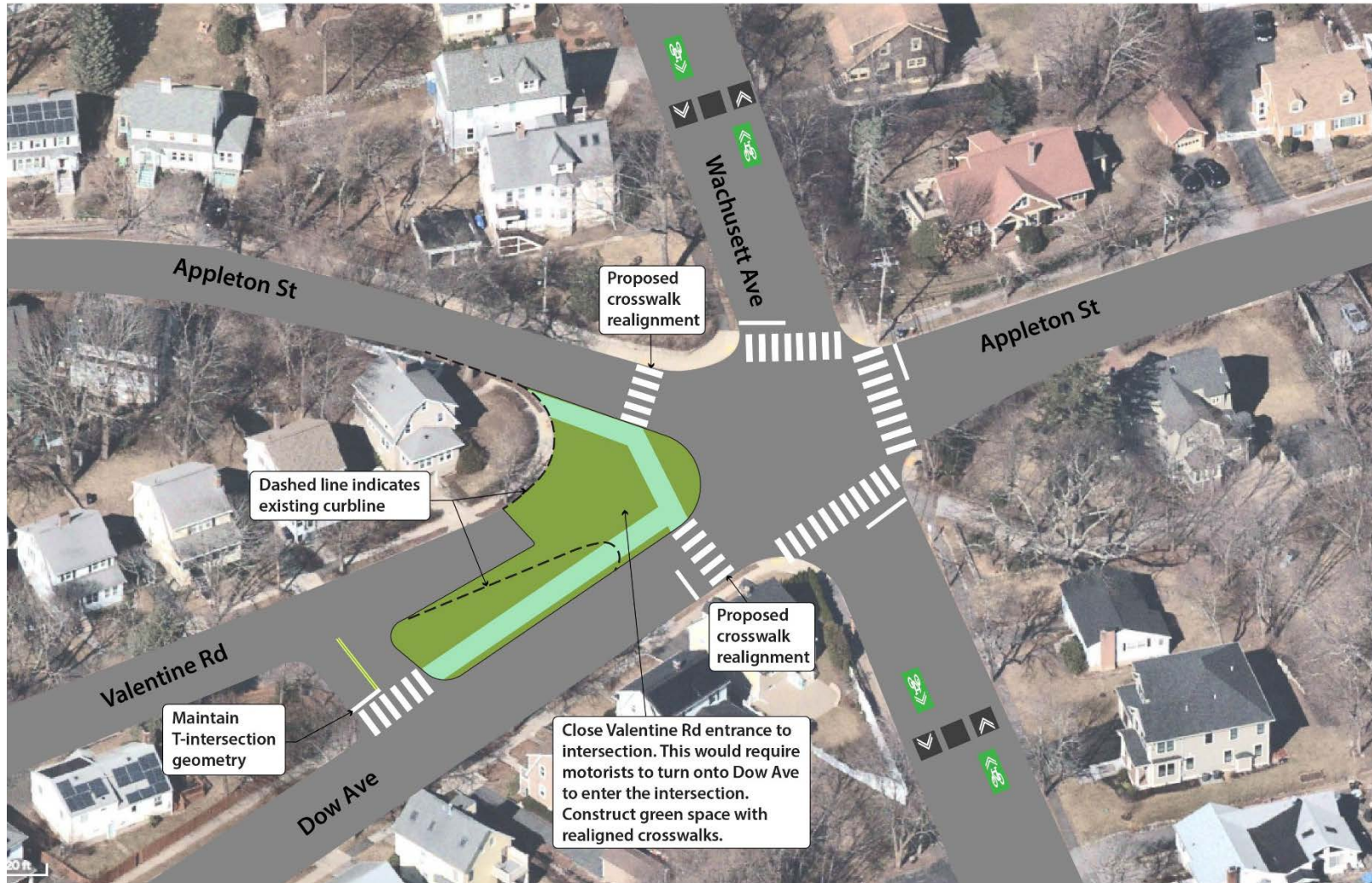
To provide a transportation network for all users and abilities, it is imperative that decision-making at all levels is clearly communicated and transparent. When and why specific programs and projects are prioritized and funded in any given year is essential given the competing needs for dollars available.

Strategies:

- **Create a process for communicating transportation project updates, construction impacts and other service issues proactively**—in advance to residents, workers and visitors makes for a better, less stressful, and safer experience.
- **Develop and regularly update a Local Transportation Improvement Program (LTIP)**, to provide all Town departments and the public with a clear understanding of which transportation initiatives are in the pipeline, where in the process each initiative is, when it is planned for completion, and which funding is available (or potentially available, e.g., grants).
- **Test before you invest by implementing “tactical” infrastructure projects using low-cost, temporary materials** to rapidly address a traffic or safety issue, or to test out alternative street layouts to provide facilities for other modes not currently provided.
- **Analyze and track key data over time** to inform transportation decision making and prioritization.

TEST BEFORE YOU INVEST: TRAFFIC CALMING PROJECTS

Wachusett Avenue - Bike Boulevard - Dow Avenue Inset



NOT TO SCALE