



# Wakefield Bicycle and Pedestrian Master Plan

June 2023



# Acknowledgments

Thank you to the Town of Wakefield for its support throughout the plan. Special thanks to William Renault, Town Engineer, and Erin Kokinda, Community and Economic Development Director. Also, thanks to the Safe Streets Working Group, a volunteer bicycle and pedestrian advocacy organization.

This Plan was developed by the Metropolitan Area Planning Council (MAPC). David Loutzenheiser, Senior Transportation Planner and Jessica Boulanger (formerly of MAPC). Funding was provided by MAPC and the Town of Wakefield.

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## Chapter 1

# Introduction

## About MAPC

The Metropolitan Area Planning Council (MAPC) is the regional planning agency for the 101 cities and towns in greater Boston, with a mission to promote smart growth and regional collaboration.

MetroCommon 2050 is Greater Boston's regional land use and policy plan developed by MAPC and adopted in 2022. Among its many recommendations is to create safe, accessible, and well-connected networks of biking and walking infrastructure. For more information on our long-range plan, visit [metrocommon.mapc.org](https://metrocommon.mapc.org).

## Plan Overview

The Wakefield Bicycle and Pedestrian Plan (the Plan) provides both policy and infrastructure solutions for improving biking, walking, and rolling in the Town of Wakefield. The term rolling has been used throughout this report to include users of wheeled mobility devices.

The goals of this plan are to:

- Encourage a culture where residents and visitors choose to walk, bicycle, and roll to schools, retail, places of employment, and other points of interest. Users should be able to access the mentioned locations safely and conveniently.
- Establish a bicycle and pedestrian network plan connecting local destinations and surrounding communities through safe, comfortable, and convenient routes.
- Institutionalize pedestrian, bicycle, and rolling accommodations locally as part of all roadway projects.
- Reinforce the value of walking, rolling, and biking through initiatives and the installation of supportive infrastructure.
- Pedestrian and bicycle use throughout the Town of Wakefield was examined for this study. MAPC, in collaboration with Town staff, assessed existing

conditions, demographics, key destinations in Wakefield, and gathered community input. The recommendations in this report include a broad set of design “best practices” and related policies, as well as specific bicycle and pedestrian improvements such as exclusive bicycle lanes, widened pedestrian footpaths, enhanced pavement markings, and curb extensions.

## Previous Town Planning Processes

The following planning processes within Wakefield set the stage for the Bicycle and Pedestrian Master Plan. They all highlight the need and desire for safer streets, improved bicycle and pedestrian infrastructure, and a community where residents walk and roll for more of their trips.

### Complete Streets Policy

In 2017, the Town of Wakefield adopted a Complete Streets Prioritization Plan. Using an evaluation matrix, projects were selected and assigned a score to determine priority levels. The vision and purpose statement of the 2017 policy reads, “The Town of Wakefield aims to improve the health of its residents and recognizes that Complete Streets can increase everyday physical activity by enabling additional healthy opportunities, such as walking and biking by its residents and visitors.” The purpose of the policy is to guide decision-makers in consistently planning, designing, and constructing streets to reasonably accommodate current and future users.

### Wakefield Vision 2030

Vision 2030 was a high-level, aspirational community visioning-for-planning initiative. Visioning is a collective process where the community can “imagine the future” and think about how we can shape different parts of Town with different sets of ideas. Led by MAPC, the initiative covered a broad range of topics, from public infrastructure and historic preservation to environmental resiliency and educational opportunities.

### The Vision 2030 Statement:

We envision a Wakefield that:

- Protects and enhances its beautiful natural landscape, neighborhood character, and signature open space assets including Lake Quannapowitt, Crystal Lake, and Breakheart Reservation.

- Welcomes and supports residents in different life stages and is inviting to people of all backgrounds.
- Enhances its neighborhoods with housing options for all and safe walking and biking amenities.
- Improves its business districts with more services, leisure retail, job opportunities, and pedestrian amenities.
- Expands its social, civic, and cultural landscape with more creative placemaking amenities and more festive events.
- Invest in legacy civic projects that enhance our beautiful landscape and foster community gatherings for present-day residents and future generations.
- Reduces car dependency by leveraging its commuter rail access and other creative transportation innovations to support shops and residents.

## Wakefield Master Plan 2033

When this report was being developed, the Town of Wakefield was undergoing a Master Plan process. The Master Plan is a strategic framework that guides the Town's future physical and economic development based on the community's vision and goals. It provides a roadmap of strategies and recommendations for the next 10 years.

The Metropolitan Area Planning Council (MAPC) has been engaged to lead the project. Having led the **Vision 2030** initiative.

## Safe Routes to Schools

Beginning in 2008, Wakefield has participated in the Massachusetts Department of Transportation's Safe Routes to School Program. The Safe Routes to School (SRTS) Program is a free, federally funded program that works to increase safe biking and walking among public school students by using a collaborative, community-focused approach that bridges the gap between health and transportation. SRTS has a public health foundation that utilizes the Six E's to support our student commuters — Education, Encouragement, Engagement, Evaluation, Engineering, and Equity.

**Education:** SRTS offers the tools students need to be smart, safe pedestrians and bicyclists through a combination of DESE-approved pedestrian and bike safety curriculum and Professional Development, school assemblies, workshops, videos, and printed materials. We also have resources available for parents/guardians, educators, and community stakeholders that include webinars, lesson plans, videos, and other materials.

Some Wakefield elementary schools and community events have benefited through pedestrian safety instruction, bike assemblies, bike rodeos and by attending numerous workshops and webinars.

**Encouragement:** SRTS celebrates active transportation for our student commuters. Wakefield has been regular participants in the program's flagship walking biking events, lawn sign contest, and Crossing Guard Appreciation events.

**Engagement:** SRTS works with many stakeholders including the Wakefield Safe Streets Working Group with its SRTS Taskforce, Youth Commission, municipal departments, school administration, Mass in Motion (Dept of Health), and local law enforcement officials to promote safe walking and biking within the local community.

**Evaluation:** Using various qualitative and quantitative evaluation tools, SRTS gathers data to better understand existing environmental conditions and current behaviors regarding walking and biking. These strategies help to track trends over time and can aid in the allocation of resources to improve walking and biking conditions near schools. Wakefield has participated in numerous Family Travel Surveys and Student Route Mapping.

**Engineering:** Changes to the built environment through engineering improvements are a critical component of Safe Routes to School. Best practice opportunities include SRTS infrastructure funding, Arrival Dismissal Observation of school properties and school zones, as well as examining the student's journey from home to school with Walk Audits

**Equity:** Embracing a sustainable approach, Equity is the umbrella under which all other SRTS E's function by providing the needed resources to best benefit the programmatic needs of all students in all schools. Wakefield has employed SRTS multi-language materials, policy, and planning.



## Chapter 2

# Walking Biking & Rolling in Wakefield

## About Wakefield

### Demographics

Wakefield, Massachusetts, is a town in Middlesex County. As of July 1, 2021, the US Census estimated the population in Wakefield to be 27,104. The race and origin of the population in Wakefield is 94% White, 1% Black, 3.6% Hispanic or Latino, 2.6% Asian, and 1.8% of one or more races. The average travel time to work in minutes is estimated to be 33. The average household income is \$103,000, with 5% of residents considered to be living in poverty.

Wakefield is often recognized for Lake Quannapowitt with many pedestrians and cyclists attracted to the location. The lake was named after James Quannapowitt, a member of the Indigenous Pawtucket tribe. Lake Quannapowitt is 3.6 miles in circumference and serves as a local hub for year-round Town events, such as farmer's markets, parades, races, and sporting events.

### Wakefield Community Organizations

Throughout this plan, MAPC collaborated with the Safe Streets Working Group (SSWG) who provided valuable insights and participated in developing this plan.

The Safe Streets Working Group (SSWG) was formed to allow Wakefield residents to contribute their knowledge and visions that facilitate a friendly community for walkers, cyclists, runners, scooters, and rolling. The group meets regularly to increase awareness for bicycle and pedestrian users in Wakefield.

## **Recreational Activities and Lake Experience**

Lake Quannapowitt is the center of recreation and leisure activity in the town. The open space is used for movie nights, community gatherings, races, baseball games, and more throughout the year. The path around the lake is used for exercise by a diverse set of users. Residents and non-residents travel to the lake in the evening to walk, run, roll, skate, bicycle, and walk dogs. Some of the regular activities at the lake include a weekend farmer's market on the West side of Lake Quannapowitt and a food truck on the north side. Baseball games are well-attended throughout the spring and summer months.

## **Transportation**

Wakefield is 10 miles north of Boston at Interstate 93 and I-95/128. The Town is within the MBTA bus service network providing further access to the Orange Line. Within Wakefield there are two commuter rail stations; Greenwood and Wakefield. Both stations are on the Haverhill Line and provide direct access to Boston's North Station. Based on 2020 Census commute data, 73% of workers drove alone, 10% worked at home, 9% used public transit, 5% carpooled, 2% walked, and 1% bicycled to work.

## **Current Walking and Biking Conditions**

Wakefield has the condition to see more demand for biking and walking—a dense population, active commercial corridors, two commuter rail stations, and numerous schools and parks spread across town. While most streets have sidewalks, there are currently no bike lanes in town. A number of locations have recently experienced bicycle and pedestrian crashes, particularly along Main Street and North Avenue, highlighting the need for safer infrastructure.

The following maps provide existing conditions for demographics, transportation, and vulnerable populations within the Town of Wakefield.

Figure 1: Population Density

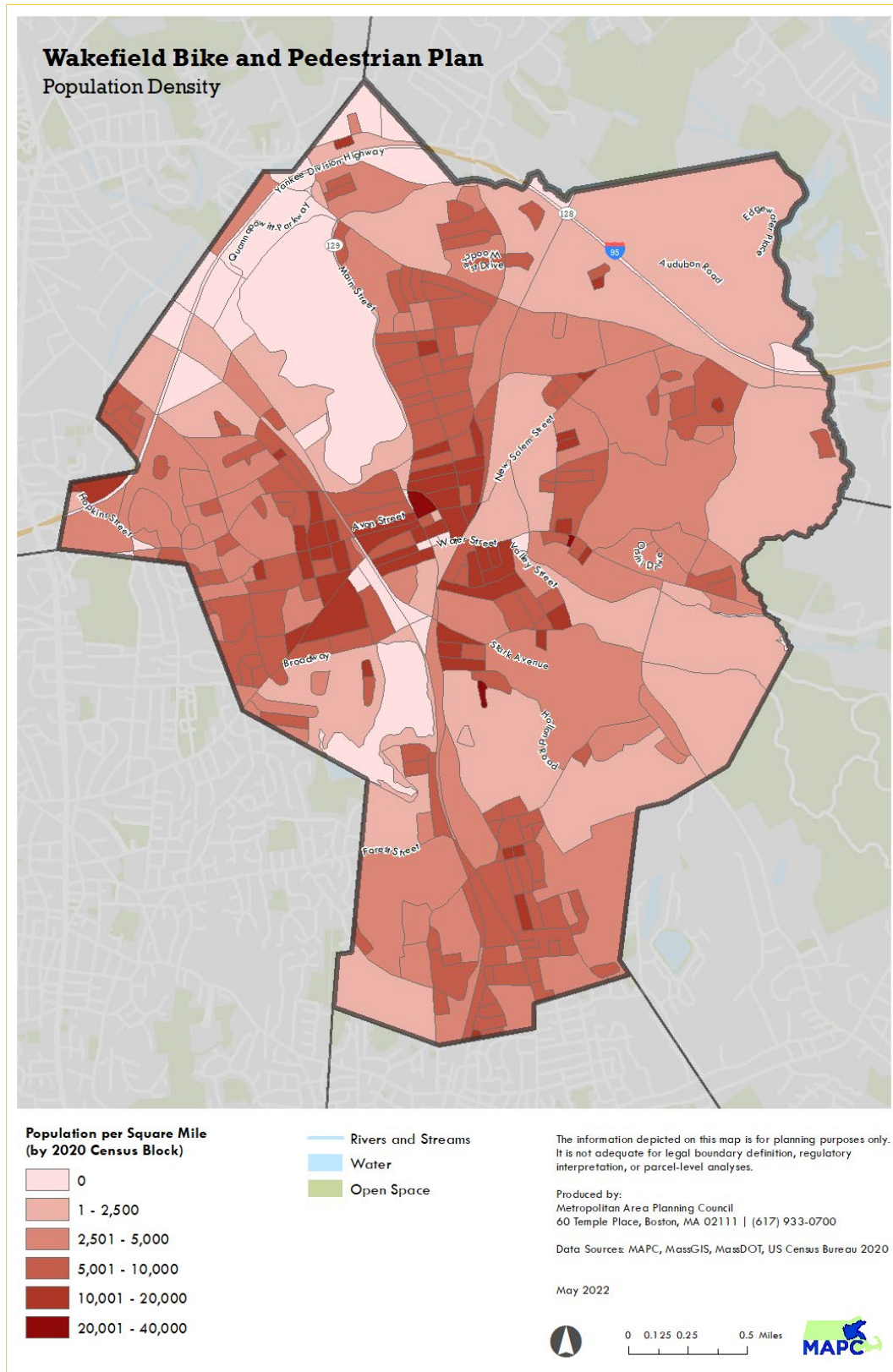


Figure 2: Road Classification

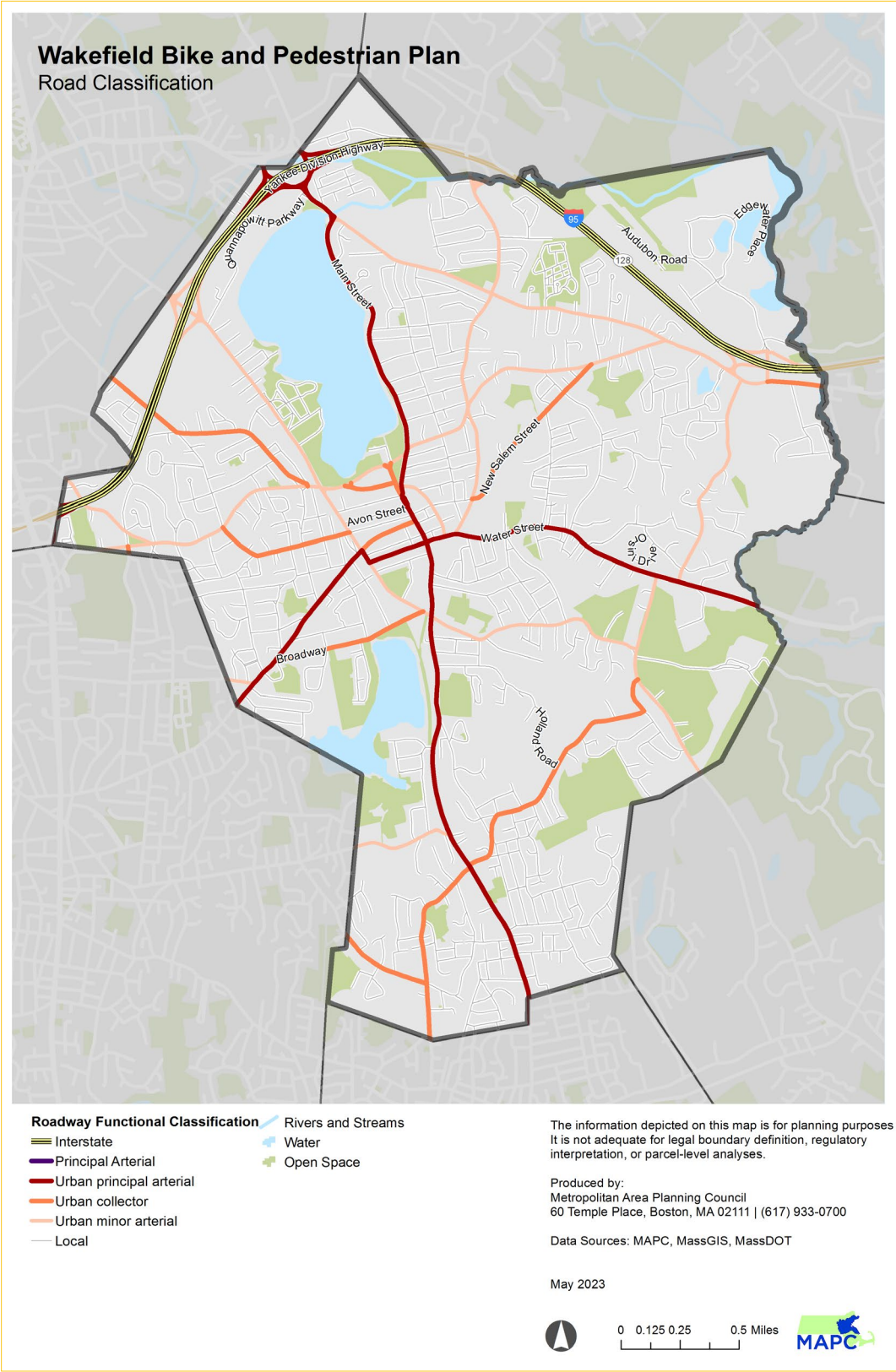




Figure 3: Crashes involving pedestrians or cyclists

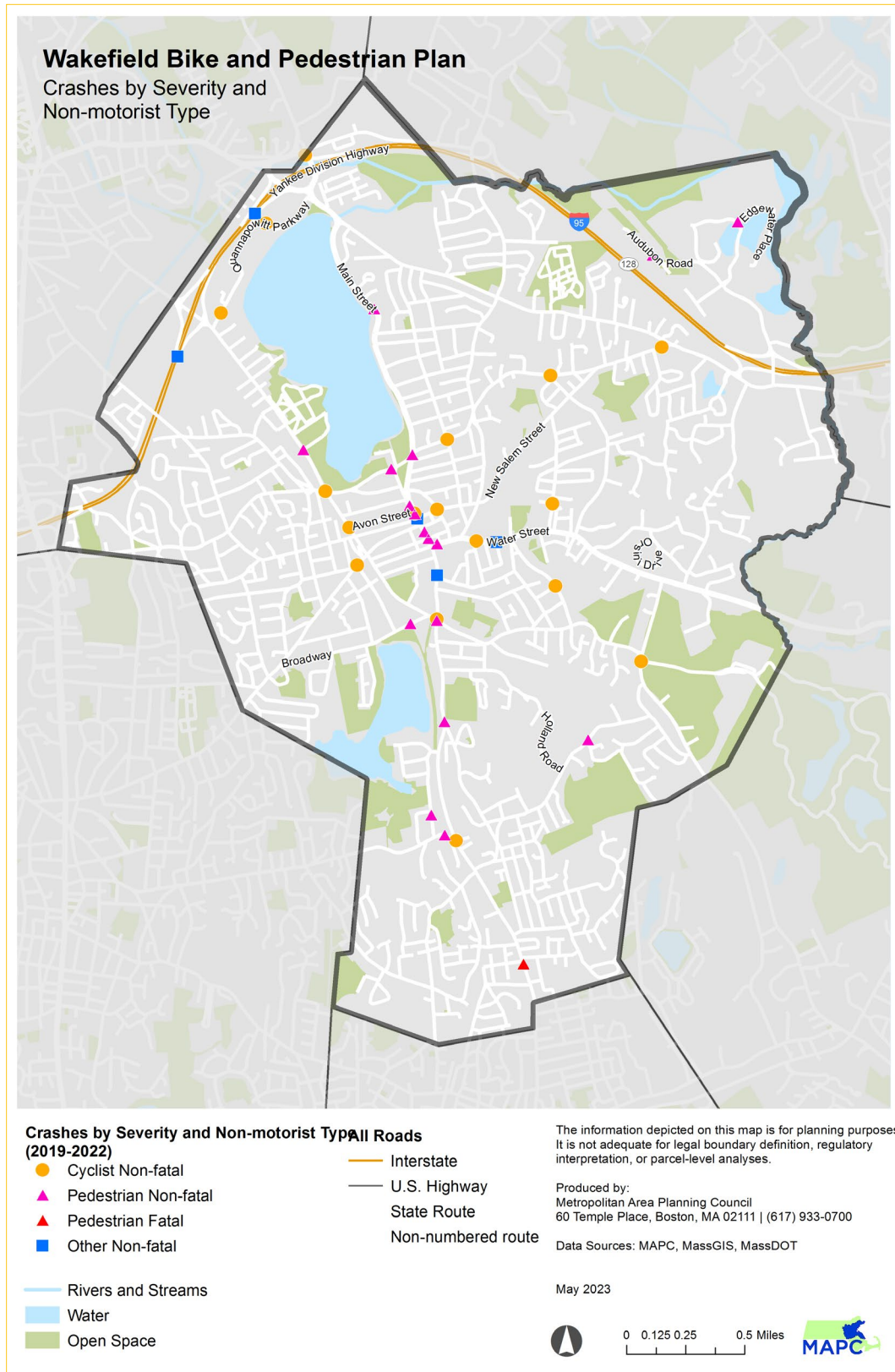


Figure 4: Sidewalk Inventory

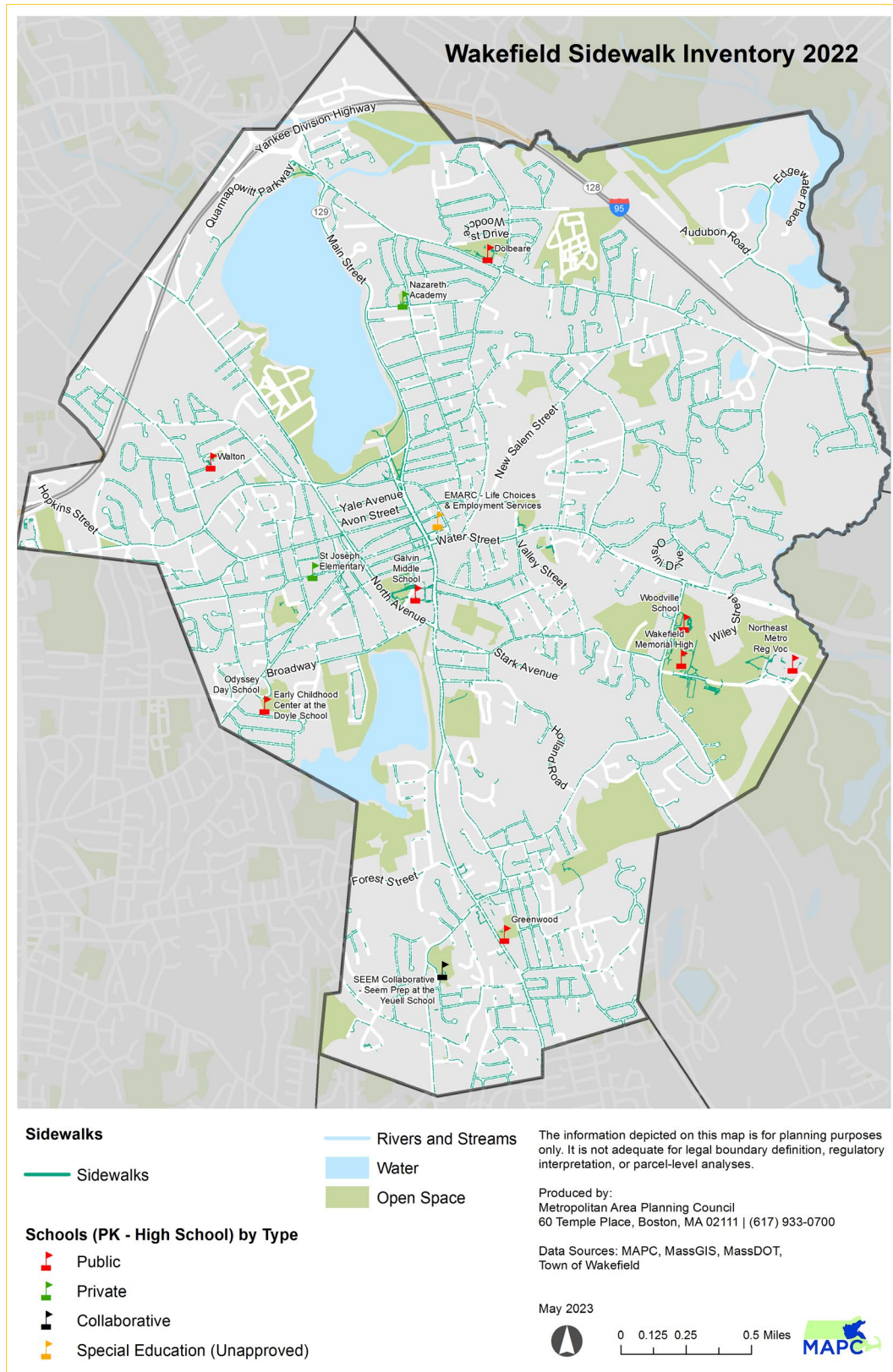
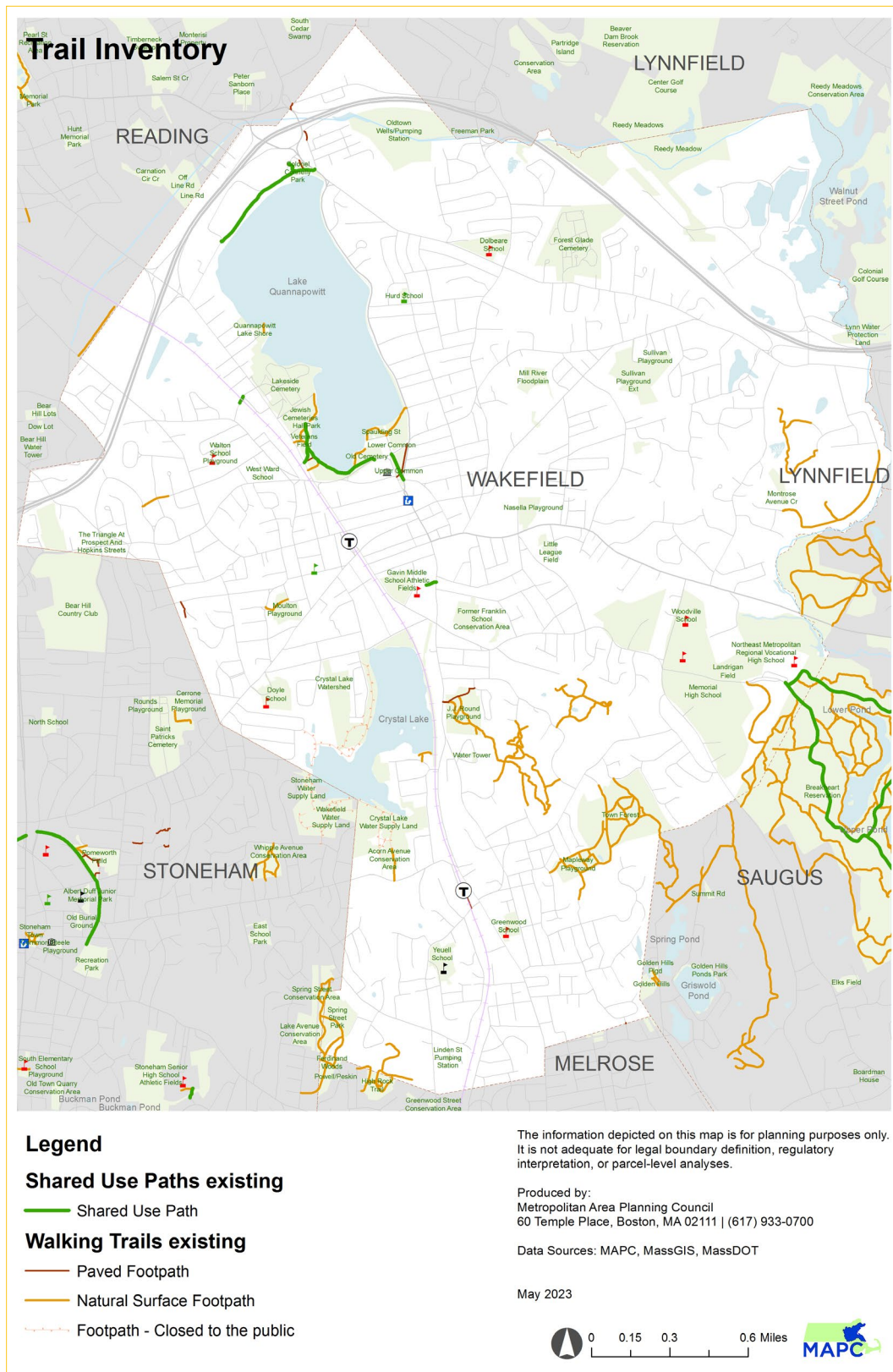




Figure 5: Trail Inventory



## Chapter 3

# Community Engagement

This study included several community engagement techniques including site visits, a survey, and meetings with stakeholders. MAPC staff held public and internal meetings with Town staff and residents, along with multiple walking tours led by local advocates and municipal staff. For all meetings, MAPC invited and welcomed community organizations throughout the planning process including public meetings to solicit feedback.

### Site Visits

To evaluate the existing conditions, MAPC conducted two formal site visits with Town staff and SSWG. The walking tours took place on June 28, 2021, and March 25, 2022. During these site visits, residents and town staff highlighted areas of concern. The site visits served as an opportunity to observe travel behavior, ask questions of key stakeholders, and evaluate current conditions.

### Survey

In the fall of 2021, the project team distributed a bicycle and pedestrian survey to people that live or work in Wakefield. The survey was distributed through the Safe Streets Working Group, Friends of Lake Quannapowitt, newspaper posts, public postings, press releases, and the Town of Wakefield website. The press release appeared in a November 17, 2021, Patch article titled: Do You Enjoy Walking, Biking, Rolling, Or Running Outdoors Town of Wakefield?

The objectives of the survey were to:

1. Establish locations of interest
2. Aggregate areas of concern
3. Classify barriers for pedestrians and cyclist behavior
4. Identify user groups

The fact that members of either the SSWG or FOLQ participated in the distribution of surveys does not necessarily constitute an endorsement by either community organization.



## **Who took the Survey**

The survey recorded a total of 360 complete responses. 85% of people indicated that they reside in Wakefield, while 7% of survey respondents travel to the town for work and shopping. 5% indicated they travel through Wakefield to get to another destination, while 3% of survey respondents travel to Wakefield for some other reason.

## **Concerns for Walking, Biking, and Rolling**

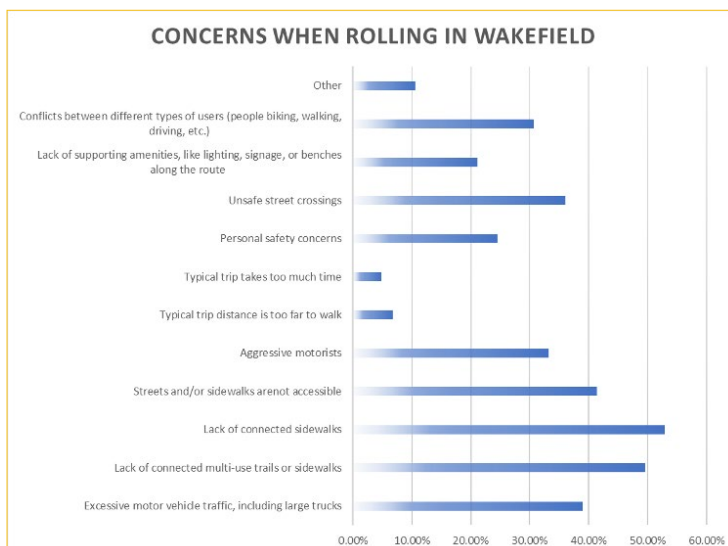
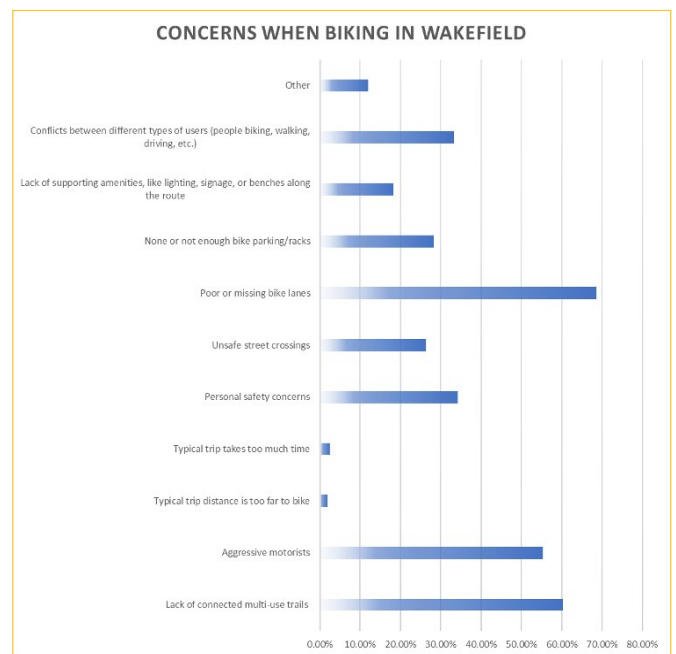
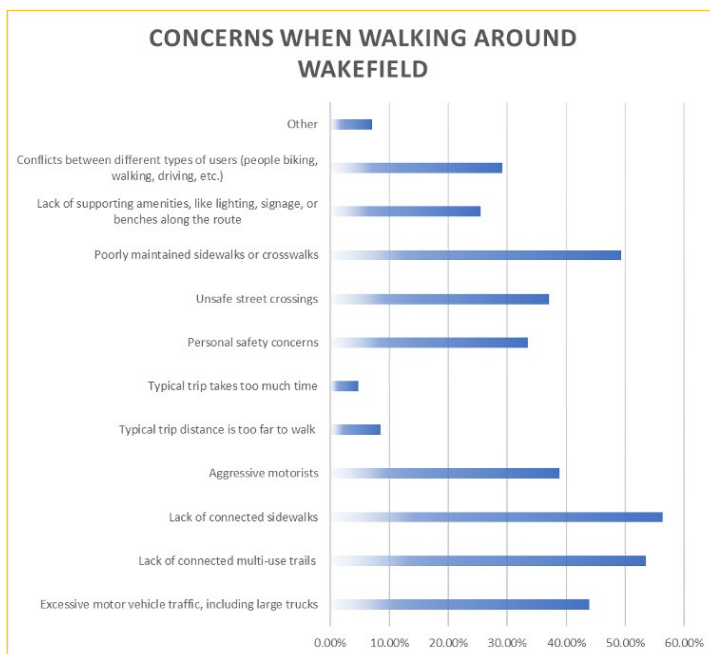
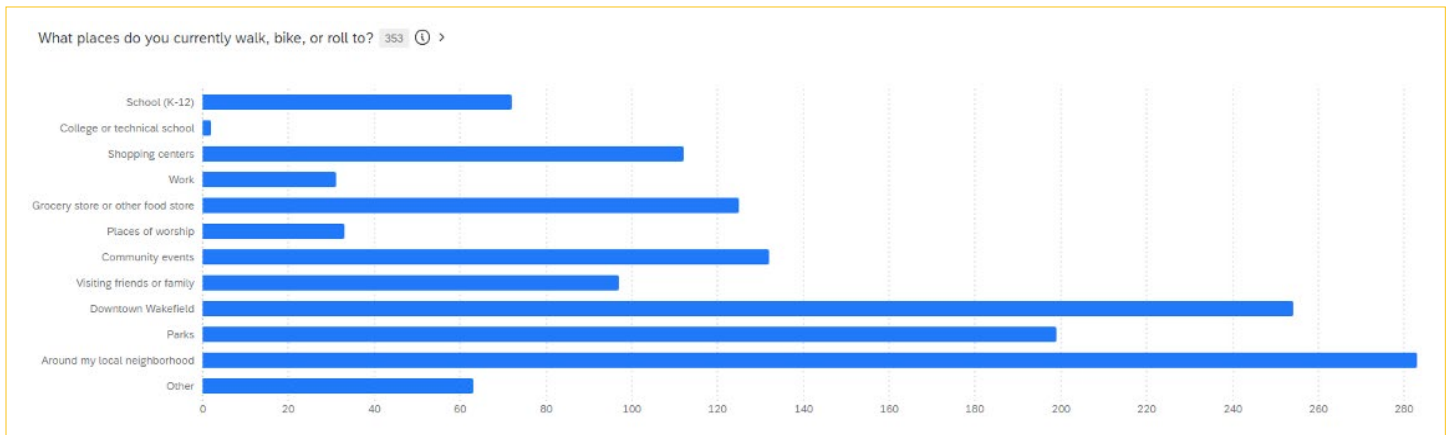
MAPC asked respondents to identify what concerns or barriers they have when walking, biking, and rolling in the Town.

For walking facilities, a lack of connected sidewalks, multiuse trails, and crosswalk and sidewalk maintenance were the greatest concerns or barriers facing pedestrians. Excessive motor vehicle traffic and aggressive motorists were also cited as a concern among survey respondents.

For biking, respondents cited poor or missing bike lanes as the greatest barrier in Wakefield. According to the survey, a lack of multiuse trails and aggressive motorists were the second greatest concerns facing cyclists in Wakefield.

Respondents revealed that sidewalk connectivity was the biggest barrier or concern when rolling in Wakefield. The lack of multi-use trails and inaccessible streets and sidewalks were also selected as the following most significant barriers.

Figure 6: Survey, What places do you currently walk, bike or roll to?



## Top Locations of Concern

The most frequented locations that people access by walking, biking or rolling are the Downtown area, parks, grocery stores, shopping areas, and schools. The following locations were the most frequently identified by survey respondents as needing improvement:

- Crossing Main Street was identified as a challenge, with many intersections along the corridor identified by survey respondents. The North Avenue intersection was consistently mentioned as the most difficult to cross.
- The North Avenue corridor was frequently mentioned as difficult to cross, particularly the Albion Street intersection and the Prospect Street/Church Street intersection.
- Walking conditions around Lake Quannapowitt, particularly the need for wider sidewalks to accommodate heavy foot traffic.
- Greenwood Street and the Myrtle Avenue and Spring Street intersections were identified as unsafe to cross or cycle through.
- Oak Street was mentioned several times for its poor sidewalk condition.
- Lowell Street was highlighted for lack of safe bike accommodation given that it connects to a school and the lake.

For full survey results see **Appendix A, B**.

## Workshops or Public Meetings

MAPC conducted two public meetings in coordination with the Town of Wakefield. The first public meeting took place on December 12, 2021. During this meeting, the project team presented some initial findings and survey results and facilitated breakout groups. During the breakout sessions, residents and other meeting attendees proposed improvements and made suggestions for the plan.

The second public meeting was held on July 14, 2022, where a draft plan was shared for feedback. Following the presentation, attendees were separated into virtual breakout rooms for further discussion. The meeting was an opportunity to speak directly with stakeholders and obtain real-time feedback on the public process.

The third public meeting was held on June 8, 2023, summarizing the final draft of the plan with new updates.

## **Additional Engagement**

In addition to the survey, community engagement was conducted through conversations with residents, frequent observation, and stakeholder meetings. The project team joined the Wakefield Traffic Advisory Board meeting, Safe Streets Working Group meetings, and consulted with the MassDOT Safe Routes to Schools Outreach Coordinator assigned to the Town of Wakefield.



## Chapter 4

# Policy Recommendations

A key goal of this plan is to establish a process and a culture of designing for and including needs of pedestrians and cyclists in all infrastructure projects in Wakefield. This includes projects moving through the phases of design and the selection of new projects for funding. While this plan will not to identify every infrastructure change needed, it does highlight significant projects or corridors to prioritize. This section will focus on design "best practices" and policy-based solutions that can be adopted within the Town of Wakefield.

Roads designed to accommodate all modes of travel including bicyclists and pedestrians, should be "low stress" that is designed and built in a way that encourages use through safety, comfort and connectivity. Low stress bicycle and pedestrian facilities are for the most part separated from vehicle traffic. Low traffic streets can be made low stress without separate facilities.

Encouraging bicycle and pedestrian travel is best accommodated with a complete or continuous network. Missing segments of paths, safe street crossings, sidewalks or other infrastructure, can deter use, and create greater safety concerns.

## Bicycle Accommodations

The most common bicycle accommodations are shared-use paths, bicycle lanes, and shared streets and will be included in specific recommendations in the next chapter.

[The NACTO Urban Bikeway Design Guide](#) provides best practices for design guidelines.

### Shared use paths

Often referred to as mixed use paths or "bike" paths, these are shared with other non-motorized users including walkers, strollers, wheelchair users, dogs, and more.

- Ideal width 10-12 feet wide. 8 feet is acceptable in some cases or in a pinch where constraints exist
- Accessible firm hard packed surface, typically asphalt, concrete, stone dust, or stabilized soil

Figure 7: Shared use path (Wakefield)



## Bicycle Lanes

The striped lanes are for exclusive use by bicyclists and separated from motor vehicle traffic.

- Wakefield has a network of main local roads/arterials that provide opportunities to have them restriped or re-constructed for safe motor vehicle, bicyclists and pedestrian use. In many cases a general purpose travel lane of 11-feet wide is sufficient for motor vehicle use and meets MassDOT design guidelines.
- Conventional bike lanes are separated from traffic by a stripe, and may be adjacent to a curb or parking
  - Width is typically 5 feet wide. However, 4 feet wide may be accommodated next to a curb.
- Protected bicycle lanes have physical separation from motor vehicle traffic. The separation may be via a curb (preferred), flex posts, concrete barriers or parked vehicles.
  - Preferred width is 6–7 feet wide to allow for bicyclists passing each other, and allow for plowing or sweeping by some types of such vehicles.

Figure 8: Example of protected bike lanes (left) and striped lanes (right)



## Shared Streets

Shared Streets are where cyclists and perhaps pedestrians (if no sidewalk) share the space with motor vehicles. This can be useful with the right roadway characteristics and volumes, focusing bike lane and sidewalk improvements on arterial streets. The NACTO [Urban Street Design Guide](#) provides good examples of treatments for a variety of street contexts including commercial and residential shared streets.

Some key attributes of potential shared streets in Wakefield;

- Most suitable on local residential streets
- Generally, less than ~5000 vehicles per day
- No center line
- Traffic calming elements are welcome particularly on through streets that receive excess cut through traffic.

Wakefield currently has no existing bicycle lanes (there are designs for bicycle lane installation on Main Street and North Ave). The Wakefield Rail Trail is partially complete, though not officially open to public use.



Figure 9: Shared street example



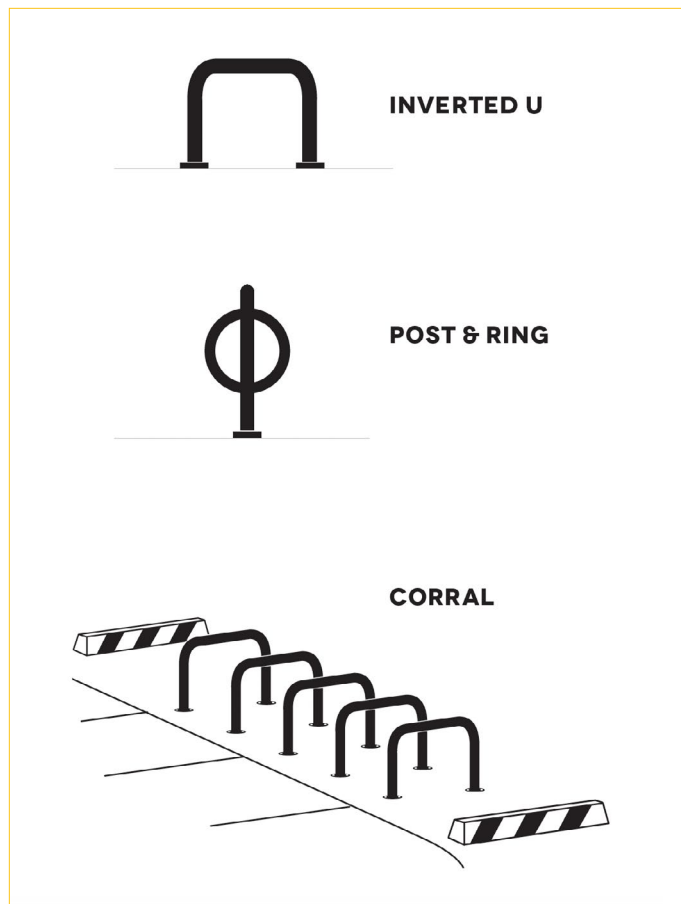
## Bicycle Parking

Bicycle parking is a critical element to accommodating and encouraging biking as transportation and a viable way to replace driving trips. Bicycle parking should be secure, and in convenient locations where people will use them.

All bicycle parking installed should meet general standards for bicycle parking design. The APBP [Essentials of Bicycle Parking](#) is recommended for use in selecting racks, general design guidance, and placement. In general, racks should be designed to support a bicycle at two points of contact, allow for a variety of bicycle sizes, and able to use a strong U-Lock to attach to the rack. The figure below demonstrates good bicycle parking including adequately spaced racks and a shelter.

Inverted U or Post and Ring design bike parking can be installed along streets parallel sidewalks, or in a row parallel to each other (spaced as noted on p. 12 of the Essentials for Bicycle Parking). Preferably in-ground mounted bicycle racks should be utilized over surface mounted racks for enhanced security and tamper resistant qualities. All short-term bicycle parking should be included in business districts, libraries, Town hall, and other civic buildings.

Figure 10: Most popular acceptable bike parking designs (Source APBP)



Bicycle parking is generally categorized by short and long-term parking. Short-term parking is for short trips such as to patronize businesses or parks. Long term parking is categorized by trips to work, transit facilities, or parking at residential buildings. Short-term parking is easily visible and accessible. Long-term parking should be sheltered from the elements and in a secure area such as a locked room or card-accessed facility.

The following are general recommendations for bicycle parking. Note that each inverted U rack holds 2 bicycles if installed correctly. If racks are consistently close to full, then plan on increasing parking to meet demand.

- Require short- and long-term bicycle parking in all new multi-family, business and retail construction.
  - The [City of Cambridge](#) has a robust bicycle parking ordinance that is good to model from and can provide details on specifications.



- Install bicycle parking (or ensure adequate supply) at all key destinations in the town including but not limited to:
  - Schools (based on Safe Routes to Schools Assessment), particularly the Wakefield Memorial High School and Galvin Middle School. Install racks to initially serve 10% of the school population.
  - Downtown and Greenwood commercial districts (recommend 2 racks per block, each side of the street)
  - Library — 8 racks (replace existing non-standard ribbon rack)
  - Grocery stores (Shaw's and Farmland) and larger retail establishments — 6+ racks per big box business
  - Lake Quannapowitt, north and south ends of lake, (6 racks south end, 4 racks north end)
  - Greenwood and Wakefield Commuter Rail stations in collaboration with the MBTA or appropriate owner. (10 racks at each station)
  - Americal Civic Center (Main St)
  - Parks — Recommend 2 racks per park. Lower priority than locations noted above
- Install sheltered bike parking at heavily used locations

Figure 11: Bicycle parking example



# Pedestrian and Rolling Accommodations

When greater numbers of people walk, communities can experience social, economic, health, and environmental benefits. Establishing local guidelines and standards for pedestrian and wheelchair accessible vehicles when projects are proposed is an opportune time to encourage safe design choices to plan population growth and flexibility for future uses.

Accommodations for pedestrians and rolling, to include users of wheeled accessible vehicles include primarily sidewalks separated though adjacent to the roadway and shared-use paths. The core principles to consider when creating a strong pedestrian network for transit include connectivity between transit stops and sidewalks, safe and convenient crossings, and bus stop placement. Pedestrian enhancements may include signalized crossings or raised crossings near commuter rail stations.

Maintenance and review of pedestrian amenities is needed to preserve accessibility and safety including curb ramp transitions, crosswalk markings, sidewalk surfaces, and other roadway markings. The town is making strides to address the inventory and conditions.

The pedestrian network in Wakefield is largely “complete” as most streets have sidewalks. However, a few locations in town have network gaps or limited connectivity, and those areas are highlighted within the plan recommendations. In addition, to crossings improvements such as signs, crossing islands, and lighting can be applied to improve safety at crossing locations.

In addition to providing appropriate enhancements, the following recommendations should be considered:

- An assessment of key destinations with high pedestrian and rolling traffic should be considered when evaluating accommodations
- A review of signal timings and pedestrian intervals
- Install proper walk signage including accurate walk signal timings
- Maintain regular maintenance to crosswalks and other pedestrian striping to improve pavement marking visibility
- Consider rapid flashing beacons at midblock crosswalks
- Reduce crossing distances by installing curb extensions where parallel and angled parking exists.

# Recommended Roadway Cross Sections

Complete streets entail elements as described throughout the plan including sidewalks, bicycle accommodation, safe crosswalks and timings, and speed control. The goal is that eventually all arterial streets as shown in the Functional Classification Map will meet the minimum following criteria based on the right-of-way space available. Repaving projects shall include bicycle lanes where space allows and sidewalk repairs. Significant or full depth reconstruction will provide the opportunity to move curbs for sidewalk level protected bike lanes.

**50 Foot Right-of-Way (or wider)** — Sidewalks on both sides and bicycle lanes. Depending on location-specific context, planted sidewalk buffers or protected bicycle lanes may be chosen. Wider cross sections may include both planted buffers and protected bicycle lanes. A shared use path on one side of the road is another option instead of bike lanes. Parking is also a desired element in business districts, See FIGURES for three examples.

Figure 12: Protected bike lanes

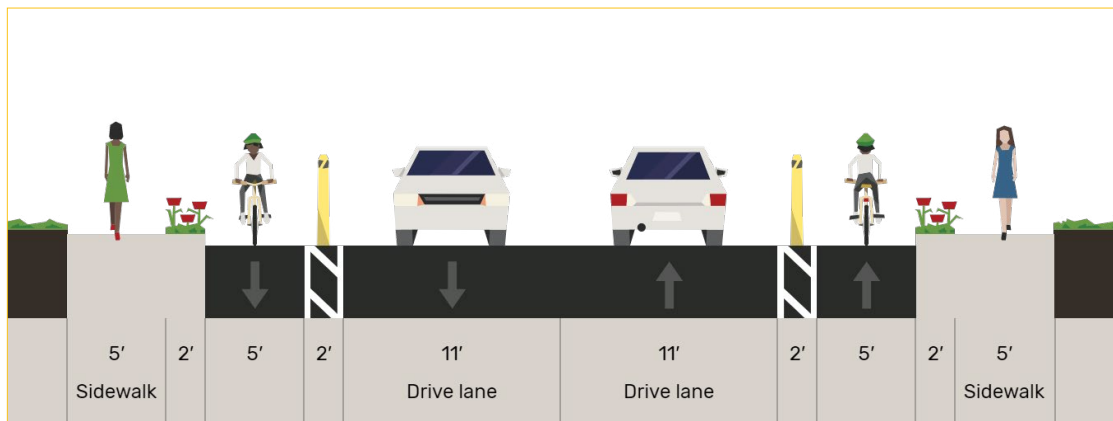


Figure 13: Bike lanes and planted buffer

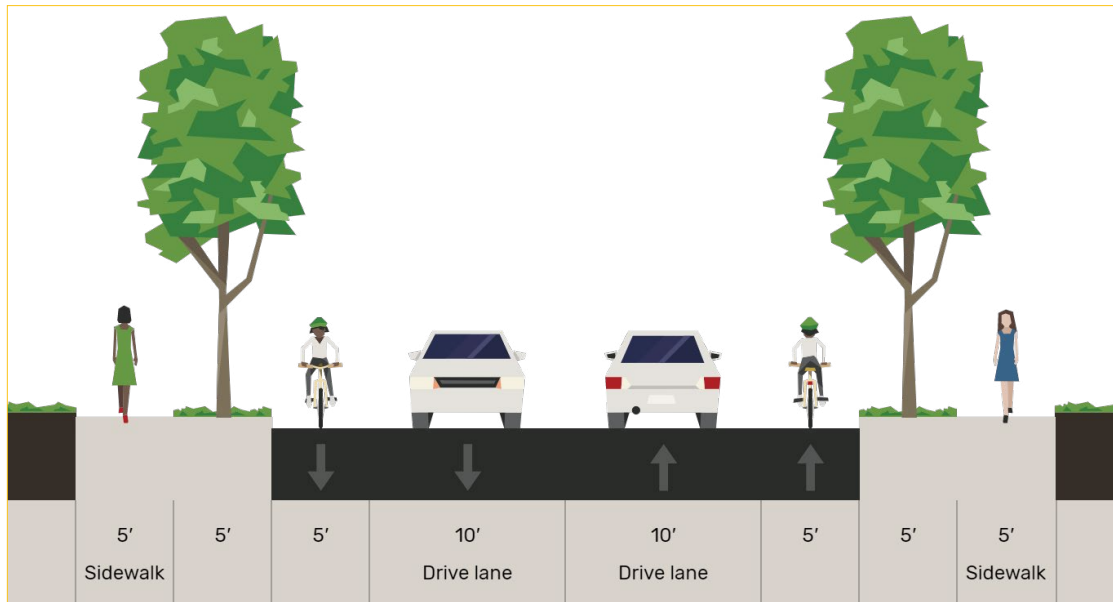
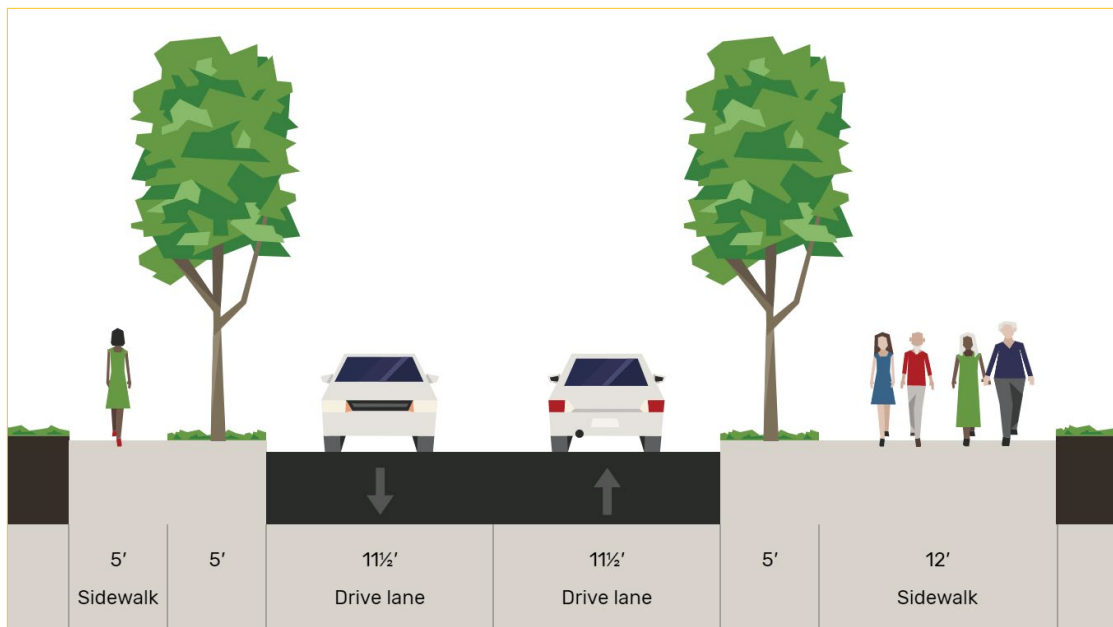


Figure 14: Shared use path one side, sidewalk opposite



**40 Foot Right-of-Way** — Sidewalks on both sides. Curb to curb roadway width of 24' with 11' travel lanes and 1 foot shoulder (shown as a 12 foot lane). Two way bike lanes can not be accommodated in this cross section. A bike lane in one direction (uphill) may be accommodated where desired.

Figure 15: Standard cross section

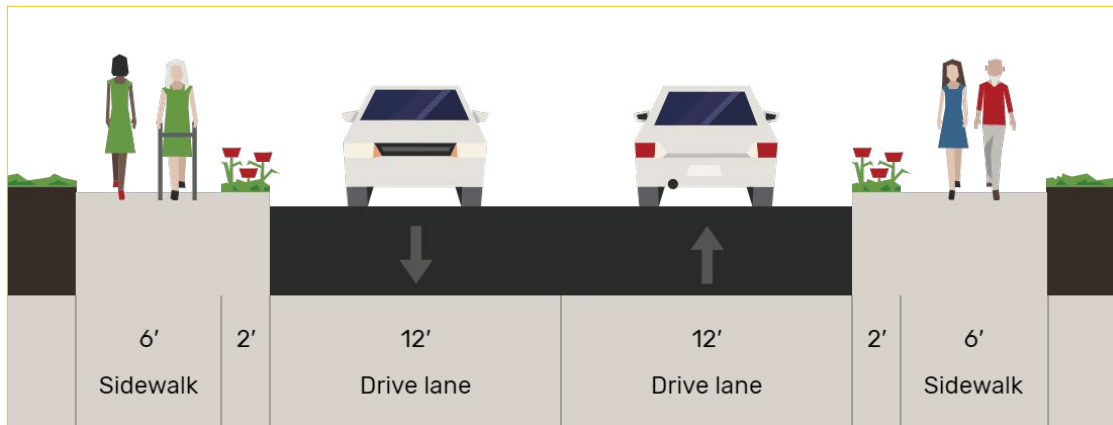
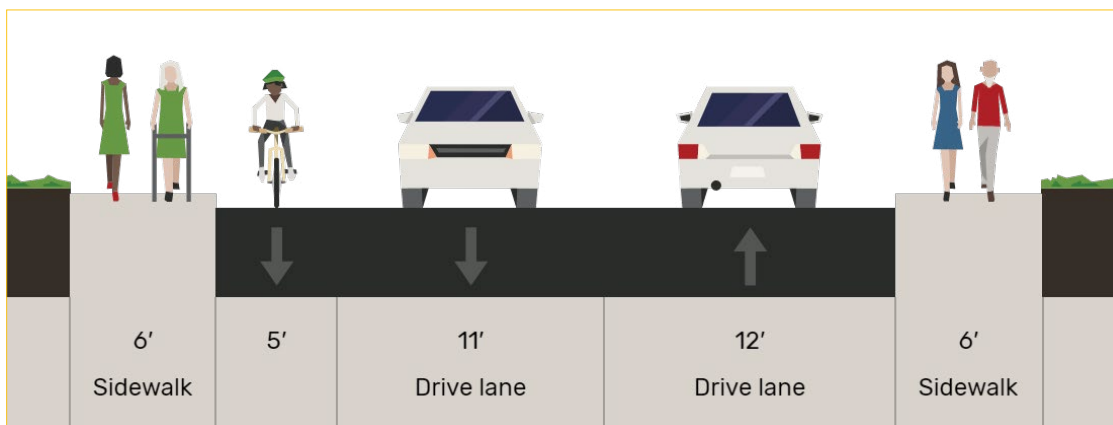


Figure 16: With one way bike lane



**Shared Street** — Bicyclists share the roadway with motor vehicles. In Wakefield, pedestrians for the most part use sidewalks.

The cross sections present a basic template for the above criteria and should be considered a start to a design process for a given street. Site-specific conditions and costs may require variations to the template.

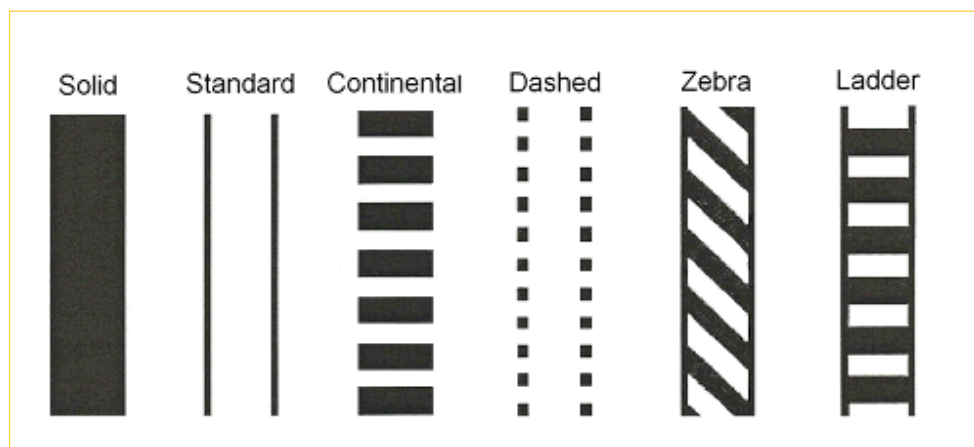


## Crosswalks

Crosswalk maintenance is critical for pedestrian and driver safety. Crosswalks are known symbols to encourage visibility and improve pedestrian behavior. Use ladder-style crosswalks as opposed to parallel lines for optimum visibility at all times and reflectivity at night. Hi visibility crosswalks such as the ladder style have been shown to improve yielding behavior.

Maintenance of crosswalks is reflected in the [FHWA Guide for Maintaining Pedestrian Facilities for Enhanced Safety](#). Particularly Section 5.3, of the FHWA Guide titled, Maintenance of Crosswalks. The maintenance of crosswalks must include the pavement beneath the pavement marking. The material durability and type of crosswalk design are key factors to consider when installing crosswalks. The continental or ladder crosswalk design may be utilized over the standard and dashed design choices. For enhanced visibility, the continental, zebra, and ladder crosswalks should be considered.

Figure 17: Crosswalk designs showing recommended ladder pattern



## Sidewalks

Sidewalks existing on most arterial streets in Wakefield. However, there are a few notable gaps of which are noted in the recommendations. In general, priority should be given to complete the sidewalk network on both sides on all arterial streets.

The Town has provided a newly updated sidewalk inventory as of 2022. The sidewalk inventory is shown in Figure 4.

# Connected Networks

LandLine is MAPC's vision to connect our greenways and trails into a seamless network. The plan has been developed in coordination with the Landline Coalition, a group of transportation planners, engineers, municipal officials, as well as local trail and greenway advocates.

In May 2018, MAPC unveiled the Landline Trail and Greenway Plan connecting 1,400 miles of trails and greenways throughout the Boston Region. In 2021, MAPC released the first Trail and Greenways Rankings report. These rankings compared Metro Boston municipalities based on their trail, bicycle way, and greenway inventories.

In 2022 MassDOT released the Wayfinding Design Guide. The Guide provides prescriptive signage standards for marking and wayfinding Greenways. It's MAPCs goal to eventually sign the entire LandLane Network. This parallels our complete state highway signage. The installation of signage to direct users is key for access encouraging the use of amenities and discovery through walking, biking, and the use of wheelchairs. Accurate and visible wayfinding can also be used to avoid multi-modal conflict points by clearly communicating the use of a space and dedicating space for specific modes.

Within Wakefield, four LandLine Greenways have been proposed. These are the Mystic Highlands with a spur to Stoneham, Lake Quannapowitt, Breakheart Greenway, and the Wakefield/Lynnfield Rail Trail.

## Mystic Highlands Greenway

MAPC is currently working with Wakefield and neighboring cities to connect the [Mystic Highlands Greenway](#). The goal of the Mystic Highlands Greenway is to develop a safe and inviting corridor for walking and biking. The corridor has been structured to connect several town centers, parks, transit, and established regional trail corridors. The municipalities included in this new development are Malden, Melrose, Wakefield, Stoneham, and Reading. MAPC and state Senator Jason Lewis are leading a coalition to scope plan and implement this shared-use path. The new Greenway will connect the Malden River paths, Tri-Community Greenway, Lynn Fells Parkway, Wakefield/Lynnfield Rail Trail, and Lake Quannapowitt.

## Lake Quannapowitt Loop

This Plan aims to improve bicycle and pedestrian access for users of Lake Quannapowitt. A 12 foot wide paved path around the lake could accomplish path continuity, safer access, and separation of modes. The purpose of the 12-foot wide path is to alleviate the conflicts between pedestrians, cyclists, and other modes. A 12-foot wide path should allow for more users to pass and travel around the lake.

The existing path is far too narrow encouraging pedestrians, cyclists, and wheelchair users to move off the paved path to continue travel. This is obvious by the established dirt path that can be found on the narrowest segments of the lake.

Figure 18: Typical path constraints around the lake



## Breakheart Reservation Spur

This proposed greenway extends between downtown Wakefield and Breakheart Reservation, a significant regional park. The greenway also connects the Wakefield Memorial High School and Northeast Metropolitan Regional Vocational High School.

## Wakefield/Lynnfield Rail Trail

The rail trail is a connection to the Border to Boston Trail that will eventually connect into New Hampshire and Maine. Over 50% of the trail is complete. Within Wakefield a portion is complete but not yet open to the public. The first segment of the trail is expected to open in summer 2023.

## Chapter 5

# Project Recommendations

Ultimately the Plan goals and policy recommendations lead to specific project recommendations. This section lays out the recommended projects and relative priority and cost for each project.

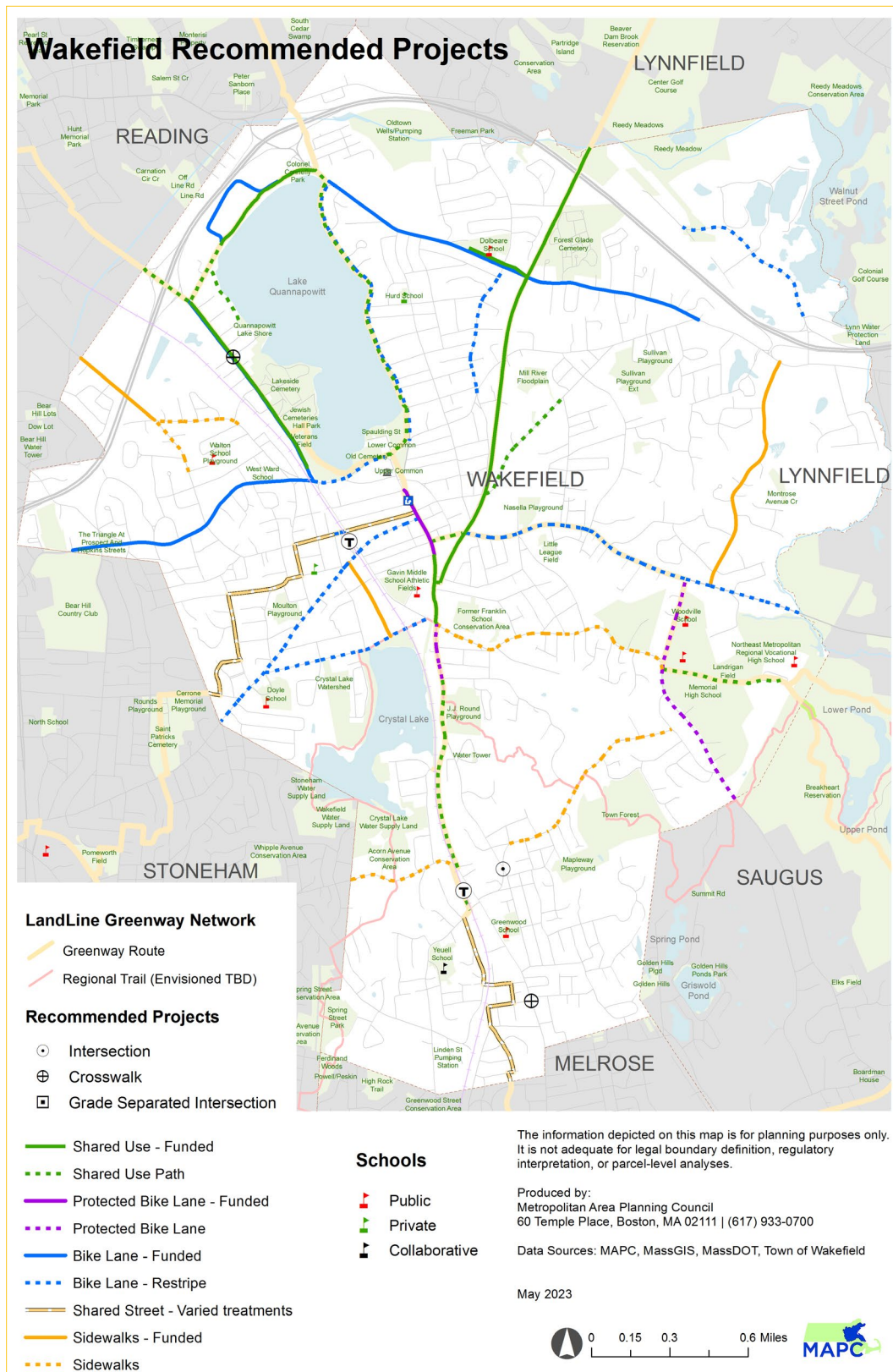
The attached Project Spreadsheet lists in tabular and summary form each project and priority. It also notes whether the project is also a part of the regional LandLine Network. A more detailed text description follows along with suggested cross sections for several of the projects.

Figure 19: Project Spreadsheet

| Street                          | From/To                               | LandLine?        | ROW width | Pave width | Priority | Key Connections                      | Cost     | Project Description  | Design or Construction   |
|---------------------------------|---------------------------------------|------------------|-----------|------------|----------|--------------------------------------|----------|--|--|
| Albion St                       | Main St to North Ave                  | no               | 50'       | 18'        | medium   | downtown, MBTA station               | low      | Bike lane - stripes on left side of one way road                           | Bike lanes - restripe roadway  |
| Albion St                       | North Ave to Stoneham Line            | no               | 32'       | 32'        | medium   | downtown, school                     | low      | Bike lanes - restripe roadway  | Bike lanes - restripe roadway  |
| Audubon Rd                      | Intersection                          | no               | 50'       | 36'        | low      | schools (2)                          | low      | Bike lanes - restripe roadway  | Bike lanes - restripe roadway  |
| Broadway St                     | 93 Ramp to Edgewater Rd               | no               | 50'       | 30'        | low      | lake                                 | high     | Bike lanes and add missing sidewalks                                       | Bike lanes and add missing sidewalks                                       |
| Church St                       | Cemetery path to Spaulding Playground | Lake Q           | 50-65'    | 30-32'     | high     | lake                                 | medium   | Shared use path - widen existing sidewalk                                  | Shared use path - widen existing sidewalk                                  |
| Church St                       | Main St to North Ave                  | no               | 50-65'    | 30-32'     | high     | lake                                 | medium   | Bike lanes - restripe roadway  | Bike lanes - restripe roadway  |
| Elm St                          | Pine Hill Cr to Parker Rd             | no               | 50-65'    | 30-32'     | high     | na                                   | na       | Sidewalks - add new sidewalks where missing                                | ARPA funded  |
| Farm St                         | Saugus line to Water St               | no               | 50-60'    | 38-40'     | high     | schools (3), Breakheart Res          | low/high | Protected bike lanes - flex posts short term, move curbs long term         | ARPA funded  |
| Farm St @ Nahant/Hemlock        | Intersection                          | Breakheart       | 50-60'    | 38-40'     | high     | schools (3), Breakheart Res          | high     | Intersection - reconfigure, evaluate roundabout option                     | Intersection - reconfigure, evaluate roundabout option                     |
| Forest St                       | Main St to Stoneham Line              | no               | 50-60'    | 38-40'     | high     | Greenwood, MBTA station              | medium   | Sidewalks - add new sidewalks where missing                                | Sidewalks - add new sidewalks  |
| Foundry St                      | Albion St to Broadway                 | no               | 50'       | 38'        | high     | downtown, school                     | medium   | Sidewalks - add new sidewalks  | Funded by development in design  |
| Greenway Trail (new)            | Intersection                          | no               | 50'       | 38'        | high     | na                                   | high     | Crosswalks and sidewalks - narrow and reconfigure roadway                  | Funded by development in design  |
| Greenwood Ave                   | Atwood Ave to Greenwood St            | MHG Melrose      | 50'       | 38'        | high     | MBTA station                         | high     | Shared use path on MBTA property   | Shared use path on MBTA property   |
| Hanson St and Main St           | Oak St to Maple Way                   | no               | 50'       | 38'        | medium   | playground, school                   | medium   | Sidewalks - reconstruct and add missing                                    | Sidewalks - reconstruct and add missing                                    |
| Hemlock Rd                      | Intersection                          | no               | 50'       | 38'        | high     | playground, school                   | medium   | Crosswalk and curb extension - add new crossing of Main St                 | Crosswalk and curb extension - add new crossing of Main St                 |
| Lakeside Trail (new)            | Farm St to Breakheart Reservation     | Breakheart       | 50'       | 38'        | high     | na                                   | medium   | Shared use path, adjacent to the roadway - DCR road                        | Shared use path, adjacent to the roadway - DCR road                        |
| Lowell St                       | Quannapowitt Parkway to Linda Ave     | Lake Q           | 50'       | 38'        | high     | high school, regional park           | medium   | Shared use path, through redevelopment and town property                   | Shared use path, through redevelopment and town property                   |
| Lowell St                       | Main St to Salem St                   | Lake Q           | 50'       | 38'        | high     | lake                                 | medium   | Shared use path - widen existing path and narrow roadway                   | Shared use path - widen existing path and narrow roadway                   |
| Lowell St                       | Main St to Salem St                   | Lake Q           | 50'       | 38'        | high     | lake                                 | medium   | Bike lanes and reconstruct sidewalk  | Bike lanes and reconstruct sidewalk  |
| Main St 1                       | Rail trail to the Dolbear School      | no               | 50'       | 38'        | high     | school, lake                         | high     | Protected bike lanes - one way each side or two way one side               | Protected bike lanes - one way each side or two way one side               |
| Main St 2                       | Forest St to Charles St               | MHG Melrose      | 50'       | 38'        | high     | park, MBTA station                   | high     | Shared use path - north side of street, widening sidewalk                  | Shared use path - north side of street, widening sidewalk                  |
| Main St 3                       | Charles St to North Ave               | MHG Melrose      | 50'       | 38'        | high     | school, downtown                     | high     | Shared use path - north side of street, widening sidewalk                  | Shared use path - north side of street, widening sidewalk                  |
| Main St 4                       | North Ave to Water St                 | MHG              | 50'       | 38'        | high     | school, downtown, civic center       | high     | Shared use path - north side of street, widening sidewalk                  | Shared use path - north side of street, widening sidewalk                  |
| Main St 5                       | Water St to Crescent St               | MHG              | 50'       | 38'        | high     | library, town hall, downtown         | high     | Shared use path - north side of street, widening sidewalk                  | Shared use path - north side of street, widening sidewalk                  |
| Montrose St                     | Salem St to Lowell St                 | Lake Q           | 50'       | 38'        | high     | lake                                 | high     | Protected bike lanes - one way each side or two way one side               | Protected bike lanes - one way each side or two way one side               |
| Mystic Highlands Greenway       | Water St to Salem St                  | no               | 50'       | 38'        | high     | lake                                 | high     | Shared use path - widen existing path and narrow roadway                   | Shared use path - widen existing path and narrow roadway                   |
| Mystic Highlands Greenway       | Stoneham line to Main St              | MHG Stoneham     | 50'       | 38'        | high     | regional, connects between Towns     | na       | Sidewalks - reconstruct and add missing                                    | Sidewalks - reconstruct and add missing                                    |
| Nahant St                       | Melrose line to Greenwood St          | MHG Melrose      | 50'       | 38'        | high     | regional, connects between Towns     | low      | Shared Street - wayfinding & sharrows, contr allow bike lane @ MBTA tracks | Shared Street - wayfinding & sharrows, contr allow bike lane @ MBTA tracks |
| New Salem St                    | Main St to Farm St                    | Breakheart       | 50'       | 38'        | high     | schools (3), regional park, downtown | medium   | Sidewalks - add new sidewalks where missing                                | Sidewalks - add new sidewalks where missing                                |
| North Ave                       | Vernon St to Preston St               | no               | 50'       | 38'        | high     | Sullivan Playground/BMX course       | medium   | Shared use path on one side (south side likely)                            | Shared use path on one side (south side likely)                            |
| North Ave                       | Church St to Quannapowitt Parkway     | Lake Q           | 50-80'    | 32-36'     | high     | lake, downtown                       | high     | Narrow roadway, add bike lanes and widen SW to shared use                  | Narrow roadway, add bike lanes and widen SW to shared use                  |
| North Ave at Prospect/Church St | Quannapowitt Pkwy to Reading Line     | MHG Reading      | 48'       | 38'        | high     | Reading                              | medium   | Work with MassDOT to create a shared use path under I-95                   | Work with MassDOT to create a shared use path under I-95                   |
| Oak St                          | Intersection                          | Lake Q           | 48'       | 38'        | high     | na                                   | medium   | Install new signalized crossing and crosswalks                             | Install new signalized crossing and crosswalks                             |
| Parker Rd                       | Green St to Farm St                   | no               | 48'       | 38'        | low      | na                                   | medium   | Sidewalks - reconstruct and add missing                                    | Sidewalks - reconstruct and add missing                                    |
| Prospect St                     | Elm St to Reading Line                | no               | 48'       | 38'        | medium   | school                               | na       | Sidewalks - reconstruct and add missing                                    | Sidewalks - reconstruct and add missing                                    |
| Quannapowitt Parkway            | Davidson Rd to Elm St                 | no               | 50-70'    | 30-40'     | medium   | school                               | na       | Sidewalks - reconstruct to ADA standards                                   | Sidewalks - reconstruct to ADA standards                                   |
| Quannapowitt Parkway            | Lowell St to North Ave                | Lake Q           | 50-70'    | 30-40'     | medium   | school                               | na       | Bike lanes - restripe roadway  | Bike lanes - restripe roadway  |
| Vernon St                       | North Ave to 200                      | Lake Q           | 50-70'    | 30-40'     | medium   | lake                                 | na       | Shared use path - widen path to shared use standards                       | Shared use path - widen path to shared use standards                       |
| Wakefield Rail Trail            | Salem St to Lowell St                 | no               | 50'       | 32'        | medium   | school                               | low      | Shared use path - narrow pathway width                                     | Shared use path - narrow pathway width                                     |
| Water St                        | Water St to Lynnfield Line            | Border to Boston | 50'       | 32'        | medium   | school                               | na       | Bike lanes   | Bike lanes   |
| Water St                        | Saugus line to Vernon St              | Breakheart       | 50'       | 38'        | high     | downtown, regional trail             | low      | Shared use path - continue construction of the rail trail                  | Shared use path - continue construction of the rail trail                  |
| Winn St                         | Vernon St to Main St                  | no               | 50'       | 38'        | medium   | schools, downtown                    | medium   | Shared use path on the north side  | Shared use path on the north side  |
| Winn St                         | Elm St to North Ave                   | no               | 50'       | 38'        | medium   | school, lake                         | medium   | Sidewalks - reconstruct and add missing                                    | Sidewalks - reconstruct and add missing                                    |



Figure 20: Proposed Projects



## Project Priority

Projects are assigned a priority grade of high, medium, or low based on the following criteria. However, this should not preclude implementing lower priority projects sooner if a given roadway has water or sewer work that would involve infrastructure repair.

- High priority projects connect directly to major destinations (schools, library, town hall, Downtown and Greenwood commercial districts, or on the LandLine Greenway Network.
- Medium priority projects may connect to one key destination or in close proximity.
- Low priority projects may provide indirect or lesser connections to key destinations, or of much higher cost. Topographic or right-of-way constraints may also drop the priority.
- Signage at school zones should be uniform across the town. The signage and pavement markings should provide traffic calming benefits in these areas.

## Cost

Projects are assigned a relative cost rating roughly high, medium, or low. A recommended project can have a low- or high-cost, particularly where protected bike lanes are involved. Low-cost versions allow for trial efforts with flex posts or other devices, where as higher cost projects involve more in depth construction.

- High-cost projects likely involve significant roadway reconstruction, such as moving the curb line or drainage or a new shared use path.
- Medium-cost projects include lesser curb extensions, or sidewalk reconstruction.
- Low-cost projects are those limited to repaving and/or restriping and perhaps with traffic calming or flex posts.

# Greenway Corridors

The four proposed greenway corridors connect the downtown, lake, all schools (within ¼ mile), and adjacent communities. Recommendations follow describing each of the greenway corridors.

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## Mystic Highlands Greenway

Within Wakefield, the greenway is divided into four segments that intersect in the downtown area.

- Envision Wakefield —  
Between North Ave and Church St
- Stoneham branch —  
Between Downtown Wakefield and Town of Stoneham to the west
- Melrose Branch —  
Between Downtown Wakefield and the City of Melrose to the south
- Lake Quannapowitt —  
Between Downtown Wakefield and Reading, including circling the Lake

### Envision Wakefield

For a number of years, residents, merchants, and local organizations engaged in the Envision Wakefield Downtown Revitalization initiative, conceptualizing a refreshed and improved downtown streetscape. Preliminary design was prepared by VHB, with input from well over a dozen public meetings.

As part of the Envision Wakefield project, the Town has prepared preliminary designs for this section of Main St. Protected bike lanes and reconstructed sidewalks are included in this project. South of Water St, a shared use path is proposed on the west side, along with a connection to the Wakefield Rail Trail.

**Status** — Currently at 75% design. The shared use path adjacent to the Galvin Middle School is moving forward via STIP funding in FY2026. The downtown section between Church and Richardson is funded on the TIP FY 2028.



Figure 22: Sample cross section of Main St in the downtown



## Stoneham Branch

The Greenway will follow a series of lower traffic residential streets between downtown Wakefield and the rail trail. The corridor aims to minimize steep hills where possible, given the elevated height of Stoneham. Bicyclists will share the relatively low traffic roads in this section with vehicles, and pedestrians on the sidewalks.

Beginning at Main St, the Greenway is proposed to head west via Chestnut, Emerson, Gould, Converse, Jordan, Fox, and Mountain to the Stoneham line.

**Project** — Install wayfinding signs per MassDOT guidelines. Consider traffic calming on selected streets as needed.



Figure 23: Mass Trails Wayfinding Design Guide signage sample



**Status** — Public process to commence after plan adoption

## Melrose Branch

From North Ave south, the Greenway follows Main St to Forest St then to Atwood St. At the end of Atwood St, a shared use path is proposed along the MBTA ROW to Greenwood St. From Greenwood St, the greenway follows low traffic streets; Foundry St, Cooper St, Grove St, Hanson St, Renwick Rd, Morgan Ave, Overlook Rd, and Nowell Rd into Melrose.

**Project** — Between North Ave and Forest, construct a protected bike lane or shared use path (widened sidewalk) along Main St. Evaluate a mix of 1) one way protected bike lanes, 2) two way protected bike lanes on one side and 3) widening the sidewalk to create a share use path on one side. Parking would be retained on one side of the roadway in most areas.

Figure 24: Future greenway location on Main St



**Status** — High priority project as recommended in this plan.

Figure 25: Main Street Cross Section — Shared use path

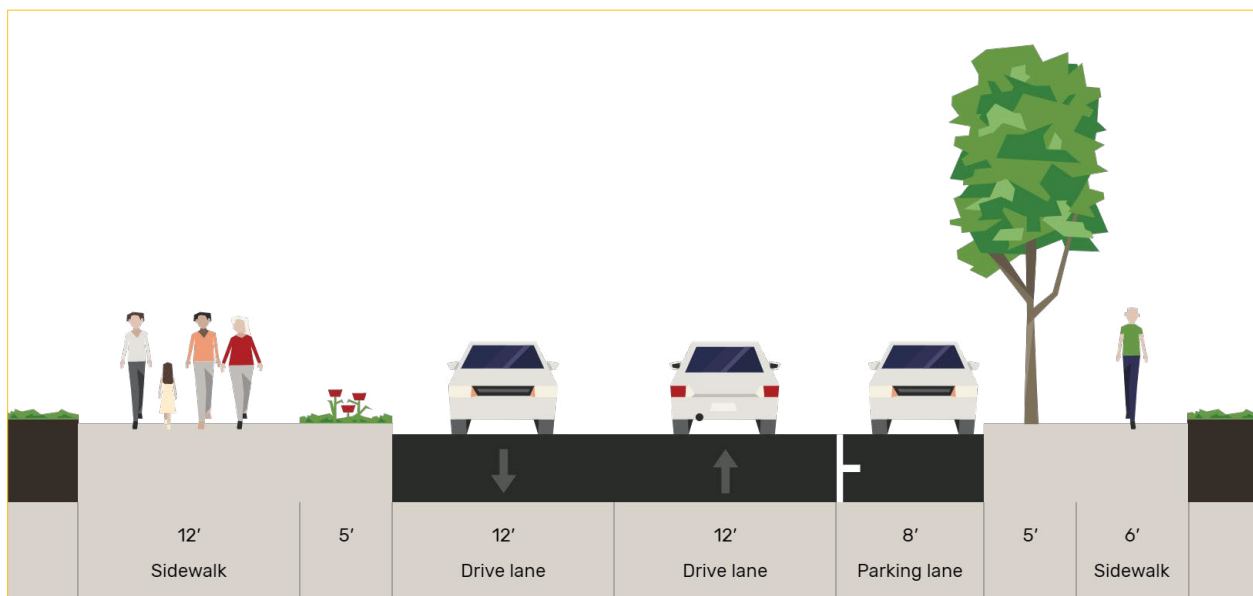
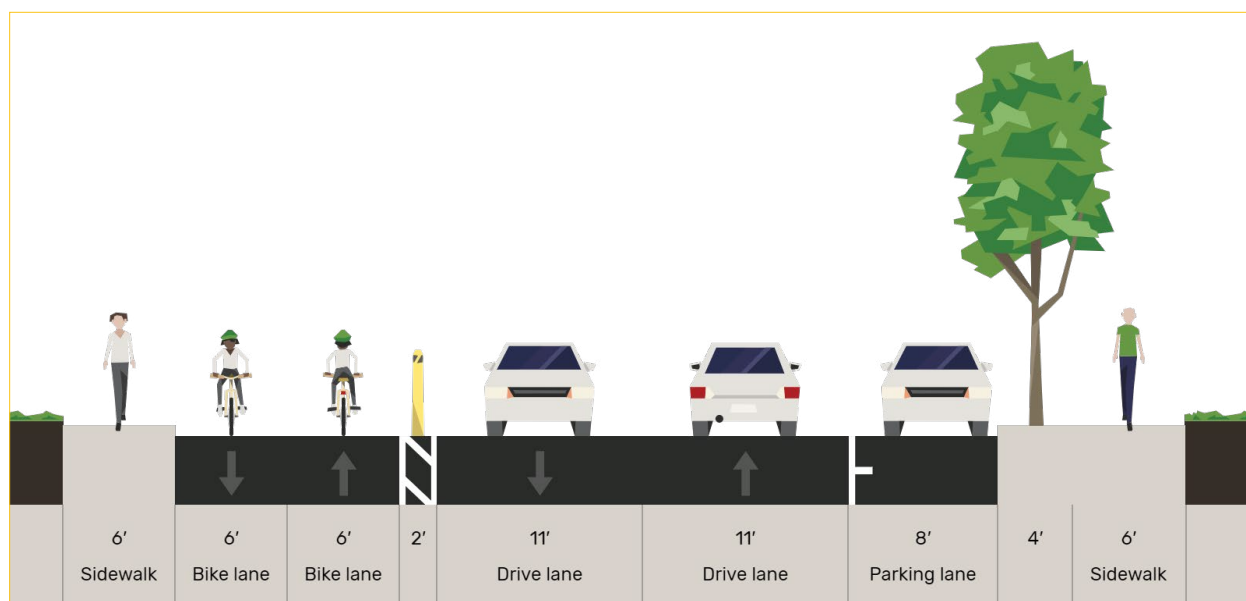


Figure 26: Main St Cross Section — protected bike lanes



## Lake Quannapowitt Loop

The overall goal of the Lake Loop is to construct a 12-foot-wide paved path completely around the lake. This will allow two-way travel with room to pass each other and accommodate the variety of users.

Currently most sections around the lake are extremely narrow. The most limited areas are about five feet wide, with guardrails on both sides.

The narrow path width forces users to move into the street to avoid conflicts with children or walkers. Recreational or leisure walkers are forced to step aside, to allow cyclists the ability to pass them at a faster speed.

There are three objectives related to the improvements around Lake Quannapowitt.

- Create a consistent, shared use path width of 12 feet paved circling the lake.
- Install bicycle parking, benches, improved crosswalks, and other features to improve access to the lake by foot, bike, roll.
- Install wayfinding around Lake Quannapowitt, indicating directions to transit, appropriate routes for cyclists, and highlighting key destinations.

The Lake Quannapowitt Loop project recommendations are divided into the following sections (clockwise from Main St)

- Church St
- North Ave
- North Ave (to Reading)
- Lake Quannapowitt Parkway
- Lowell St
- Main St

## Church Street

Floral Way, Church St to Veterans Field.

**Project** — Pave the shared use path through the cemetery

**Status** — Completed in 2022, through Shared Streets and Spaces grant program

## North Avenue

North Ave runs along the west side of the lake, separated by a cemetery, houses, or business uses.

In 2021, Town of Wakefield was awarded \$2,000,000 under the MassWorks program to fund water system upgrades and multi-modal improvements along North Avenue, Quannapowitt Parkway and Lowell Street adjacent to Lake Quannapowitt. These improvements will support ongoing housing development that advances the goals and aims of the Town's Housing Production Plan.

In addition to the grant funding, developer contributions are being leveraged to fund multi-modal improvements on Quannapowitt Parkway, including intersection improvements at Lowell St. This area includes the Wakefield MBTA Commuter Rail Station and was acknowledged in the Town's Housing Production Plan as an opportunity area for transit-oriented growth. Planning for two developments is currently underway and is expected to generate substantial growth.



Figure 27: North Ave in 2022



**Project** — Narrow the roadway to a minimum width to allow for a northbound bike lane and a widened sidewalk that allows for a shared use path. Also missing sidewalks would need to be added on the west side of North Ave between Quannapowitt Parkway and Church St. At the intersection with Quannapowitt Parkway, complete the sidewalk network and add crosswalks on all four legs.

**Status** — The Town has prepared preliminary designs and held a public meeting for the length of North Ave. The project is going to bid in Spring of 2023 and construction in the summer of 2023.

Figure 28: Proposed North Ave Plan (conceptual)

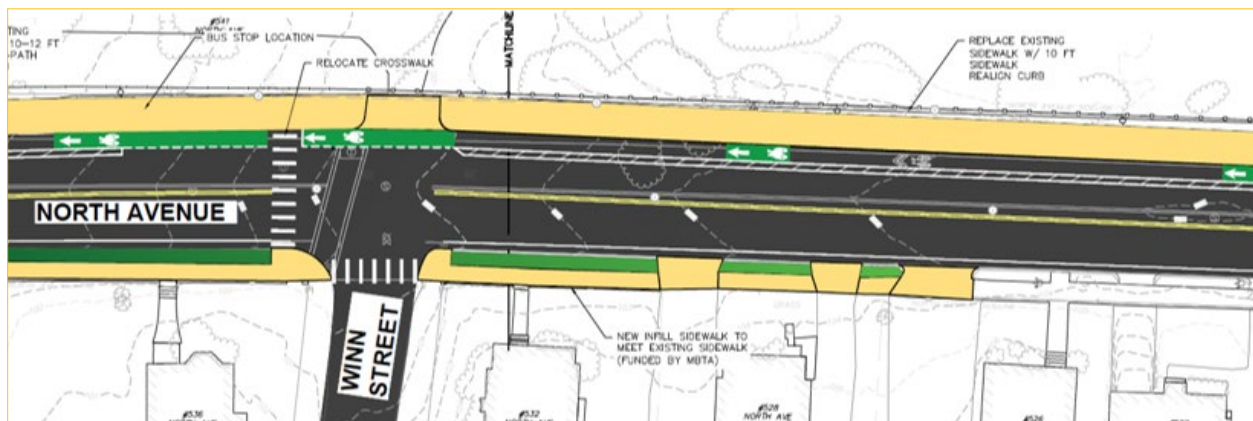
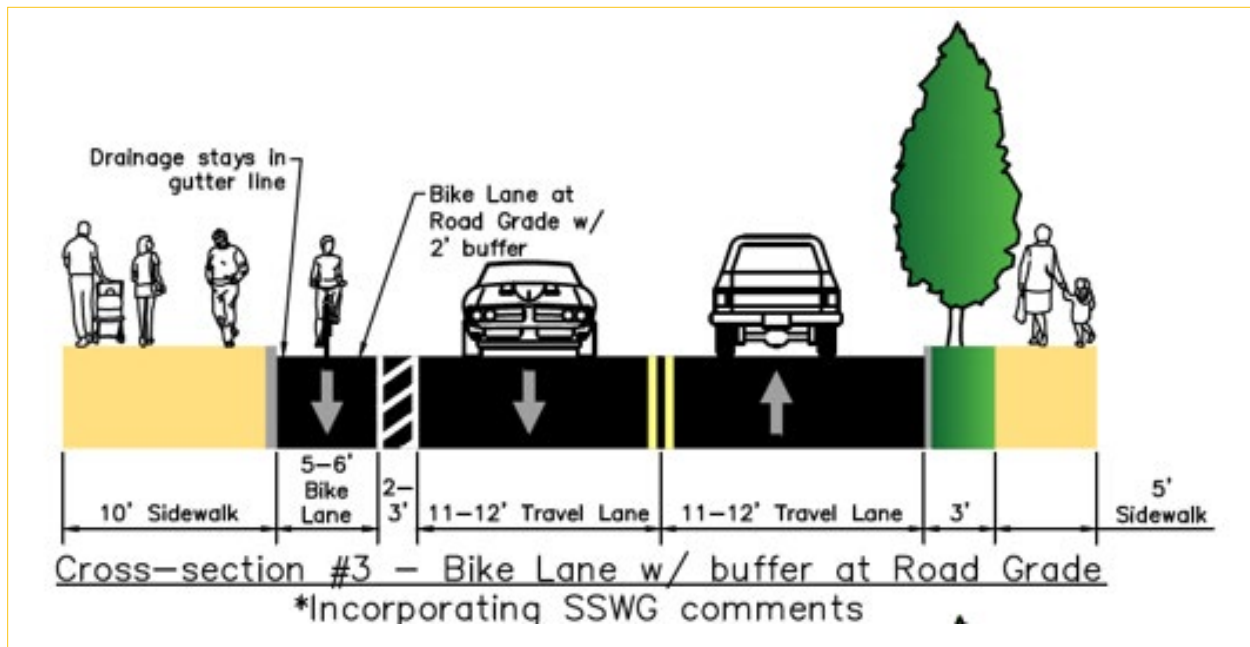


Figure 29: Proposed North Ave cross section



## North Avenue under I-95

The Town of Reading has requested to connect with the Greenway and the Lake. Currently the underpass of I-95 has a cross section of 4 lanes and a narrow 5-foot sidewalk on the west side. There is no space for cyclists. The question is whether the travel lanes can be reduced or narrowed to widen the sidewalk to a shared use path.

**Project** — Wakefield to initiate contact with MassDOT to evaluate and create a shared use path along North Avenue into the Town of Reading under I-95. Evaluate traffic conditions to see whether a travel lane can be removed to allow for a proper shared use path. Location of the path could be on either side of the roadway, pending further design study.

## Quannapowitt Parkway

There are two segments of projects along the Parkway. The east section, subject to a new development and the west section adjacent to the parkway

**200-400 Quannapowitt Parkway Development** — This mixed use multifamily project will provide a new shared use path along the lake along its frontage and a widened path east to Lowell Street.

**Status** — Project is approved and awaiting construction.



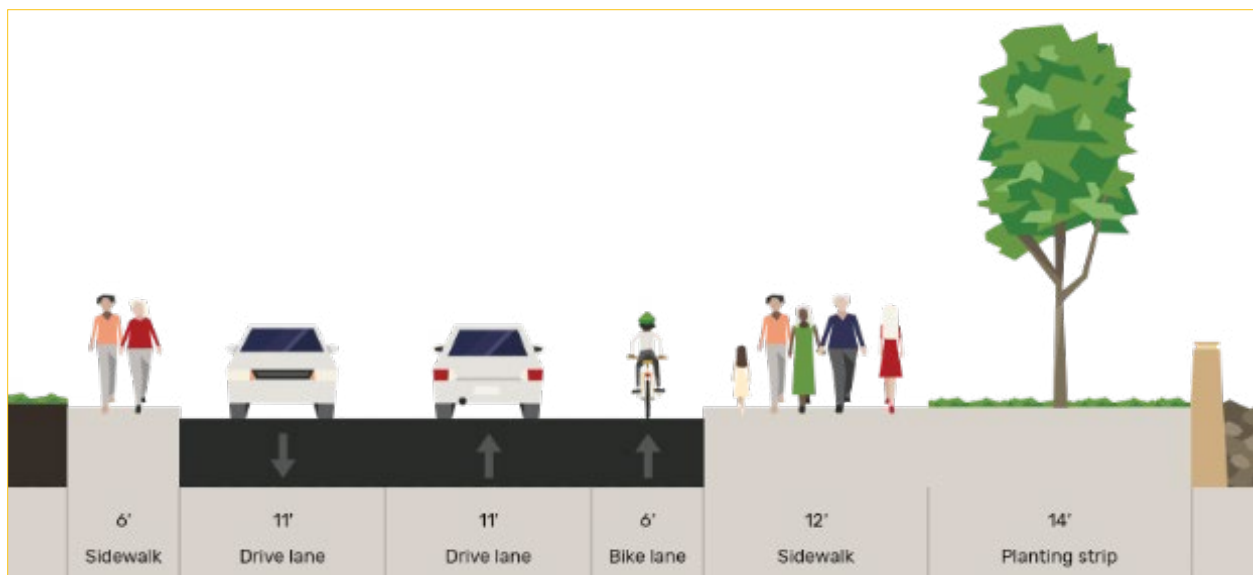
Figure 30: Developer image of reconstructed share use path



**West section to North Ave** — Recommendation to narrow the parkway from 32' to 11' travel lanes, and an eastbound bike lane, and widen the sidewalk to a 12 foot shared use path.

**Status** — The Town is working on a design for this section that will mirror what will be implemented in the new development adjacent

Figure 31: Recommended cross section



## Lowell Street

A short section of Lowell St on the northeast corner of the Lake has a narrow sidewalk and a rather wide roadway cross section of about 45 feet for three lanes of traffic.

**Project** — The crossing distance and demarcation between the Cumberland Farms parking lot and entrance to Main Street could be improved using a new design. The separation between the driveway and road would increase visibility facilitating safer crossings. Reducing to 33–35 feet will gain at least 10 feet for widening the path and landscaping.

- Reduce the pavement width to 33-35 feet to accommodate three 11-foot travel lanes
- Move curb outward to widen the path to 12 feet and landscaped buffer between the path and roadway
- Realign the crosswalks along with a narrowing of the intersection of Lowell St and Main St (north segment).

**Status** — In Concept and Design Now

## Main Street

This section of Main St has a consistent ROW of 60 feet with a pavement width of 32-38 feet. Parking is allowed in some sections, but not all. Parking use is concentrated on the north and south ends of the lake. To provide space for a shared use path and safely accommodate all users, removal of parking is required along the lake. Town would like the bike lane to be used during special events for parking.

### Project

- Narrow the roadway and curbing to 24 feet wide to accommodate a widened shared use path and bicycle lane
- Remove parking along the lake to accommodate a consistent wider path throughout
- Add a protected bicycle lane at the sidewalk level in the southbound direction
- Add missing sidewalks along the east side of Main St.



Figure 32: Main St current cross section

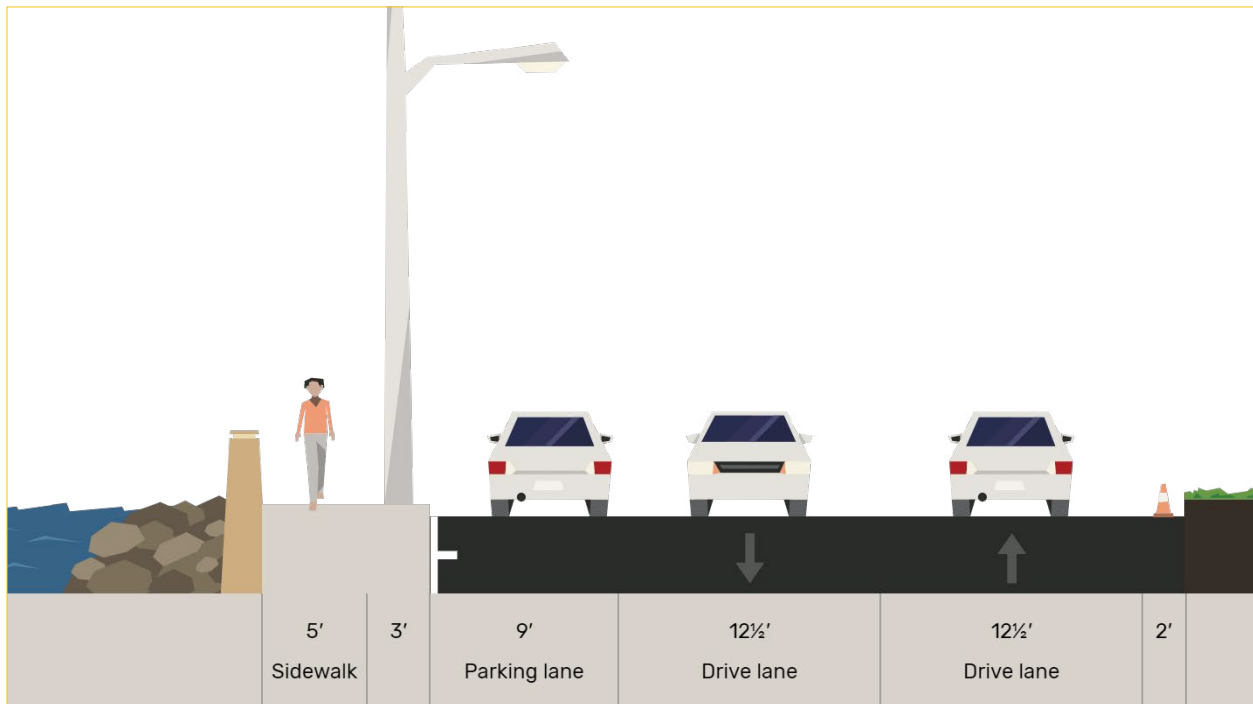
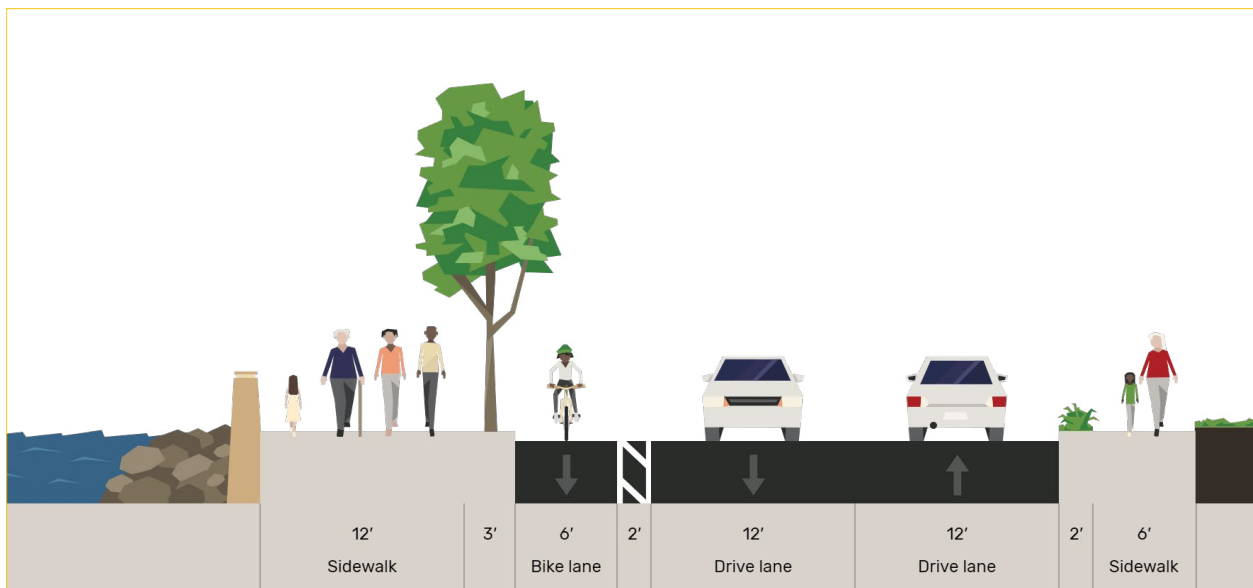


Figure 33: Proposed cross section



## Breakheart Greenway

The proposed Breakheart Greenway provides direct access between downtown Wakefield and DCR's Breakheart Reservation. Importantly, this greenway also provides a direct connection to Wakefield High School, Northeast Metrotech, and Woodville School.

The three sections of this greenway are Water St, Farm St, and Hemlock Rd.

**Project** — Stripe bike lanes on Water St. Construct protected bike lanes on Farm Rd. Construct a shared use path on Hemlock Rd.

## Wakefield Lynnfield Rail Trail

The rail trail will extend from downtown Wakefield at Main St to the Lynnfield line. The southern portion of the trail is complete, except for the crossings. The Town of Wakefield has secured \$200,000 in funding from Mass Trails for the Wakefield Rail Trail. These funds will be used to install the crossings at intersections. The town is also working with the MBTA to finalize an easement agreement to open the constructed portion to the public.

**Status** — It is anticipated that the completed section of trail will be open by the summer of 2023. The construction of the remaining Wakefield sections and the Lynnfield portion are expected to begin in FY26 with funding from the Transportation Improvement Program.

## Arterial and Collector Streets

Recommendations for arterial streets are sorted by type of bicycle accommodation. As noted in the previous section on roadway cross sections, roadways can either accommodate protected bike lanes, painted bike lanes, or no accommodation due to narrow widths.

Roadway widths and cross sections throughout Wakefield do not vary significantly. Arterial streets are largely two-lane roads with minimal shoulders and sidewalks on both sides separated by a 2 to 3-foot grass buffer. Curb to curb widths are largely 30 feet, allowing for the potential for bicycle lanes within the existing width.

## Protected Bicycle Lanes

The following roads have cross sections or right-of-way that have the width for protected bicycle lanes. Protected bicycle lanes provide physical separation from motor vehicle traffic. Short term installations can include flex posts and paint. While a permanent solution involves moving curbs and other roadway construction.

All of the recommended streets for protected bike lanes are a part of the regional LandLine vision, access key destinations, and are therefore high priority projects.

- Main Street in the downtown, currently under design as part of Envision Wakefield
- Main Street between North Avenue and Forest Street. Part of the Mystic Highlands Greenway. Consider short term flex post and paint installation prior to full build. Sections with limited ROW shall consider widening the sidewalk on one side to shared use path width.
- Farm Street between Water Street and the Saugus town line. Serves the high school, Woodville School, and Northeast Metro Tech. Consider short term flex post and paint installation prior to full build.

## Painted Bicycle Lanes

The following roads have cross sections of right-of-way where the existing roadway can be restriped to accommodate bicycle lanes. The typical recommended cross section is a 40-50 foot right-of way with 10 to 11 foot travel lanes, 5-foot bicycle lanes, perhaps a grass buffer, and 5-foot sidewalks. The narrower segment may eliminate the grass buffer.

Bicycle lanes may also be striped at four feet beside the curb in constrained conditions.

The streets listed below are wide enough to support dedicated bicycle lanes.

- Albion Street between North Avenue and the Stoneham town line, restripe existing roadway
- Albion St between Main St and North Ave, stripe single right side bike lane
- Church St between Main and North Ave, restripe existing roadway
- Lowell St between Main St and Salem St
- Prospect Street between North Ave and the Stoneham line, it is recommended that the Town add missing sidewalks to support the dedicated lane.

- Vernon Street between Salem and Lowell Street, restripe for bike lanes, and add sidewalks where missing.
- Water Street East of Rosemary Ave to the Saugus town line. Restripe existing pavement and add missing sidewalks

## Shared Streets and Sidewalk Projects

The following roads are too narrow for bicycle lanes. Upcoming projects should ensure that sidewalks are provided on both sides of the street. Refer to Chapter 2, Figure 10 of this report for a visual representation of the town of Wakefield's sidewalk inventory.

- Elm St, Parker R — ARPA funded project to add sidewalks
- Montrose Street — ARPA funded project to add sidewalks
- Nahant Street — Upcoming rebuild project
- Forest Street — Main St to Stoneham line
- New Salem Street
- Foundry Street

## Intersection Projects

A number of intersection improvement projects have been identified through the Plan process including the survey. The following priority intersection projects are recommended to be implemented.

### Oak Street, Greenwood Street, Green Street

This intersection of multiple roadways is a bit confusing for drivers and pedestrians alike due to excess pavement widths, and lack of clear travel lane designations. As a result, pedestrians crossing the street are less clear of vehicle movements. Crosswalks are wider than necessary due to pavement widths.

**Project** — The project will reconfigure the intersection. Key goals are to significantly improve pedestrian crossings, clarify traffic movements, and remove excess asphalt. No bike lanes will be provided through the project due to lack of width from all approaching roadways. Sharrows will



be considered as part of the project. A new public space may evolve out of the reclaimed roadway space, pending outcomes of the public process.

**Status** — Underway. Preliminary design alternatives have been developed by the town and a public process has been started.

Figure 34: Existing conditions

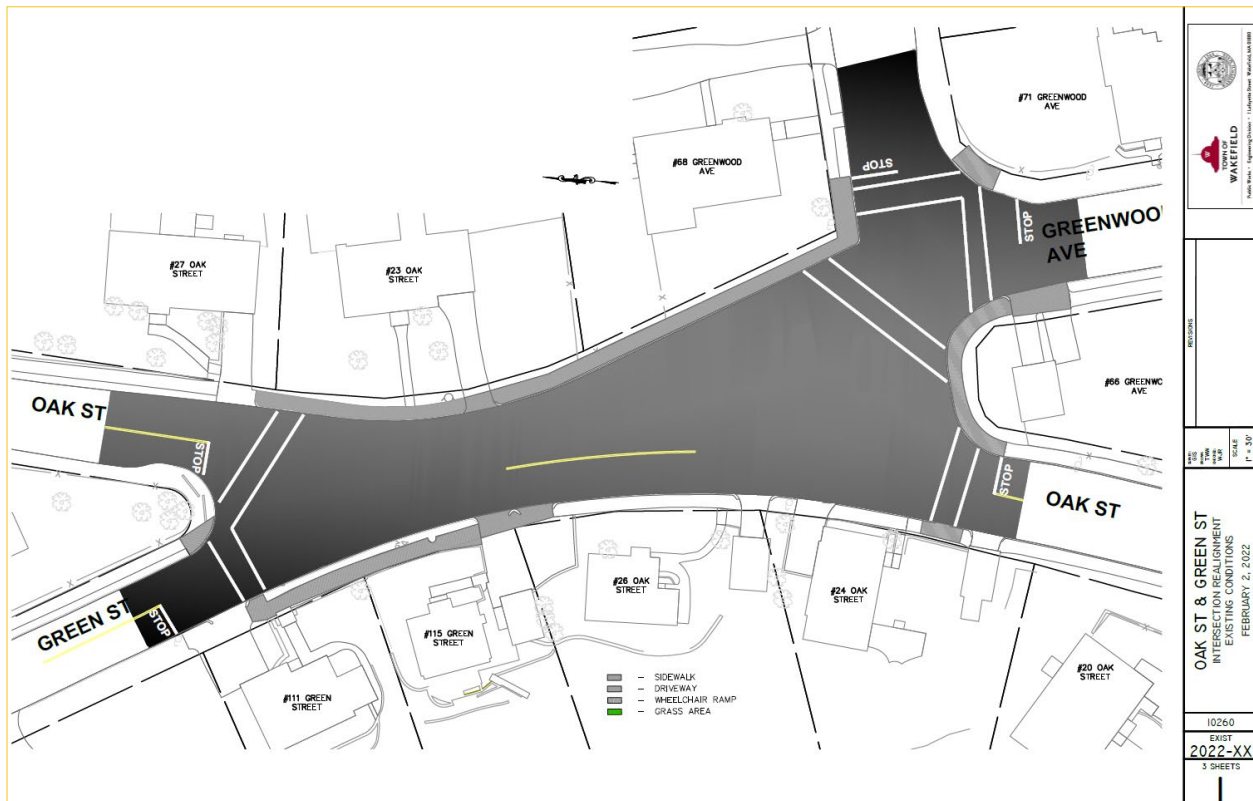


Figure 35: Latest project design



## North Ave @ Prospect Street/Church St

At the time of this report there was some dedicated sidewalk space on North Ave near the Mark A. Delroy Municipal Gas & Light Building. Sidewalk connectivity is recommended near high traffic areas especially locations near transit. Gaps in sidewalks force pedestrians to cross streets seeking refuge or greater comfortable. This location is adjacent to the MBTA Wakefield Commuter Rail station. The weekly Wakefield's Farmers market and local events are held along the North Ave corridor adjacent to west Lake Quannapowitt. This location draws large crowds and is a high travel route through Town.

## Main St @ Hanson St

There are no crosswalks at this intersection. A non-compliant crosswalk across Main St is located at the church ½ block to the north. A pedestrian fatality occurred here in early 2022.

There is a post office and café with indoor and outdoor dining at this intersection. This creates a strong desire line for pedestrians to cross Main Street. There is also a bus stop near the corner of Main Street and a Church, which would likely increase pedestrian foot traffic.

It is recommended that the Town evaluate this intersection area (including Grafton St) to identify a location for a crosswalk and evaluate potential signalization and traffic calming. The crosswalk adjacent to the church should be removed as part of this project.

### **Farm Street @ Hemlock Street**

This priority project is adjacent to Wakefield Memorial High School. The project will reconfigure the intersection into a roundabout with separated bicycle and pedestrian facilities. In addition, bicycle lanes are recommended for installation the length of Farm St. and Hemlock St.

Farm St has space for protected bicycle lanes, which would be beneficial for school access.

### **Lowell Street @ Salem Street**

The project proposes to realign the intersection and add new sidewalks on Lowell St from the intersection to Dexter Lane. The project was identified as a priority through the Traffic Advisory Committee. The Town will be using ARPA funds for this project.

### **Albion Street @ Gould Street**

The Town obtained a \$35,000 developer contribution for the intersection realignment as shown in the Envision Project concept sketches. The project is still in the planning phase and is anticipated to be advanced over the next two years when Foundry Street is paved.

### **Greenwood and Main Street**

Improvement: Installed New Pedestrian curb extensions and traffic signals

Funding Source: Shared Streets and Spaces grant program

**Status** — completed

### **North Ave @ Wolcott St**

Replace crossing signal with a new RFB, new crosswalks and curb ramps where needed. There was a recent pedestrian fatality at this location.

### **Water St @ Vernon St**

Intersection is being upgraded as part of the rail trail project.

### **Crescent St @ Otis St**

A multifamily 40B project was recently approved by the ZBA at this intersection. Leveraged funds will create a new crosswalk with curb extensions and traffic mitigation.



## Chapter 6

# Resources

This chapter contains electronic resources that are available for guidance on pedestrian and bicycle accommodations. In this document MAPC has provided recommendations for improving the bicycle and pedestrian network. In addition to this plan the project team recommends engaging users in the public process to advance future design and implementation locally.

The resources listed include both design tools and funding opportunities.

### Design and Implementation Guides

There are several resources available for implementing bicycle and pedestrian enhancements.

The [National Association of City Transportation Officials](#) design guide is a helpful resource for innovative concepts, the guide provides good visual representations and case studies.

The [MassDOT Municipal Resource Guide for Walkability](#) features strong examples of walkability accommodations for diverse user groups. The MassDOT Separated Bicycle Lane Planning Design & Guide features strategies for managing curb activity within a municipality.

### Potential Funding Sources

At the time of this report, Wakefield is pursuing several funding opportunities. There are sources available at the state and federal levels. Projects may be funded from a variety of programs. Some funding sources are consistent from year to year, and others are available infrequently. Wakefield should be aware of these programs and apply for funding to implement the projects when possible. These fundings include Safe Routes to Schools, MassDOT Shared Streets, WalkBoston Complete Streets, and Mass Trails funding. These funding sources will improve existing conditions and strengthen the existing connections. The [MassDOT Community Transit Grant Program](#) is an annual grant program targeted to meet the needs of seniors and individuals living with disabilities. This program provides municipalities with resources to identify unmet transit needs and prioritize transportation access for vulnerable populations.

Engaging with councils on aging throughout this process is suggested. The Boston Metropolitan Planning Organization [Community Connections Funding Program](#) can be used to support bicycle lanes, transit signal priorities, and other supportive infrastructure. Federally the Bipartisan Infrastructure Law there will be funding available. The second round of American Rescue Plan dollars may be used to continue progress on bicycle and pedestrian projects.

## Conclusion

It should be noted that there has been substantial progress on bicycle and pedestrian goals within the Town of Wakefield. The purpose of this plan is to continue the evaluation and informed professional decision making to improved bicycle and pedestrian accommodations. Planning projects should be approached from the lens of population growth and further sustainability. This analysis and recommendations will serve as a resource for the continued work towards a safer community for walking and biking in the Town of Wakefield.

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\*All images in this report were captured by MAPC Staff unless stated otherwise.