

Wellesley Townwide Safe Routes Plan

October 23, 2024

Project# 28469

Chapter 2 – Safe Routes Network

This chapter summarizes the existing network of safe routes for walking and biking in Wellesley and identifies the critical connections that could enhance the network.

PEDESTRIAN NETWORK

This section highlights the existing safe routes for walking in the Town of Wellesley and suggests areas for potential on-road pedestrian network improvements, focusing on key connections and enhanced access to multimodal trip generators.

Existing Safe Routes for Walking

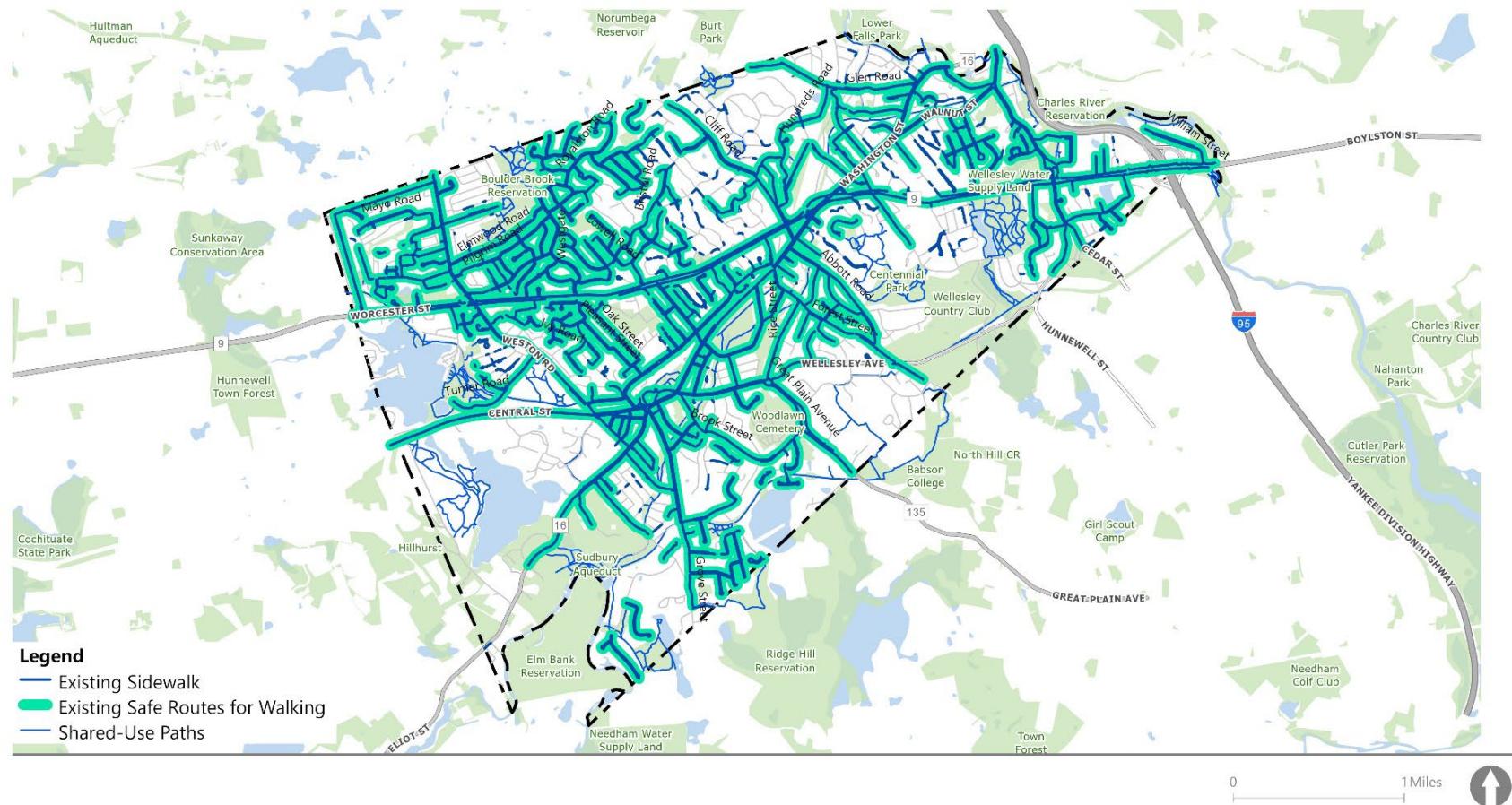
The identified existing safe routes for walking are based on the roadway characteristics outlined in Chapter 1, including functional classification, speed, volume, and sidewalk presence. The existing safe routes for walking are identified based on the following criteria:

- An arterial or collector or local roadway that features a sidewalk on at least one side of the roadway, without any gaps.

It is important to note that routes that are identified as safe for walking under existing conditions can still contain gaps that could be addressed as part of the pedestrian network improvements. The Town of Wellesley recognizes shared use paths as safe routes for walking. **Figure 1** displays the existing safe routes for walking in the Town of Wellesley. Key findings regarding the existing safe routes for walking are as follows:

- Most principal arterials and minor arterials in the Town have a sidewalk on at least one side of the roadway, with the exception of Washington Street between Schaller Street and north of Pond Road.
- Most Major Collectors in the Town have a sidewalk on at least one side of the roadway, with the exception of Wellesley Avenue between Whiting Road and Hunnewell Street and Hunnewell Street between Wellesley Avenue and Oakland Street.
- There are several minor collectors with sidewalks on at least one side of the roadway, including Glen Road, Cliff Road, Forest Street, Grove Street, Linden Street, and Oak Street. There are also several key Minor Collectors that do not have a sidewalk on either side of the roadway, including Dover Road between Ingraham Road and Grove Street, Oakland Street between North of Putney Road and Hunnewell Street, and Standish Road between Worcester Street and Oakland Street.

Figure 1. Existing Safe Routes for Walking



Existing Safe Routes for Walking
Wellesley Townwide Safe Routes Plan



Proposed Locations for Pedestrian Network Improvements

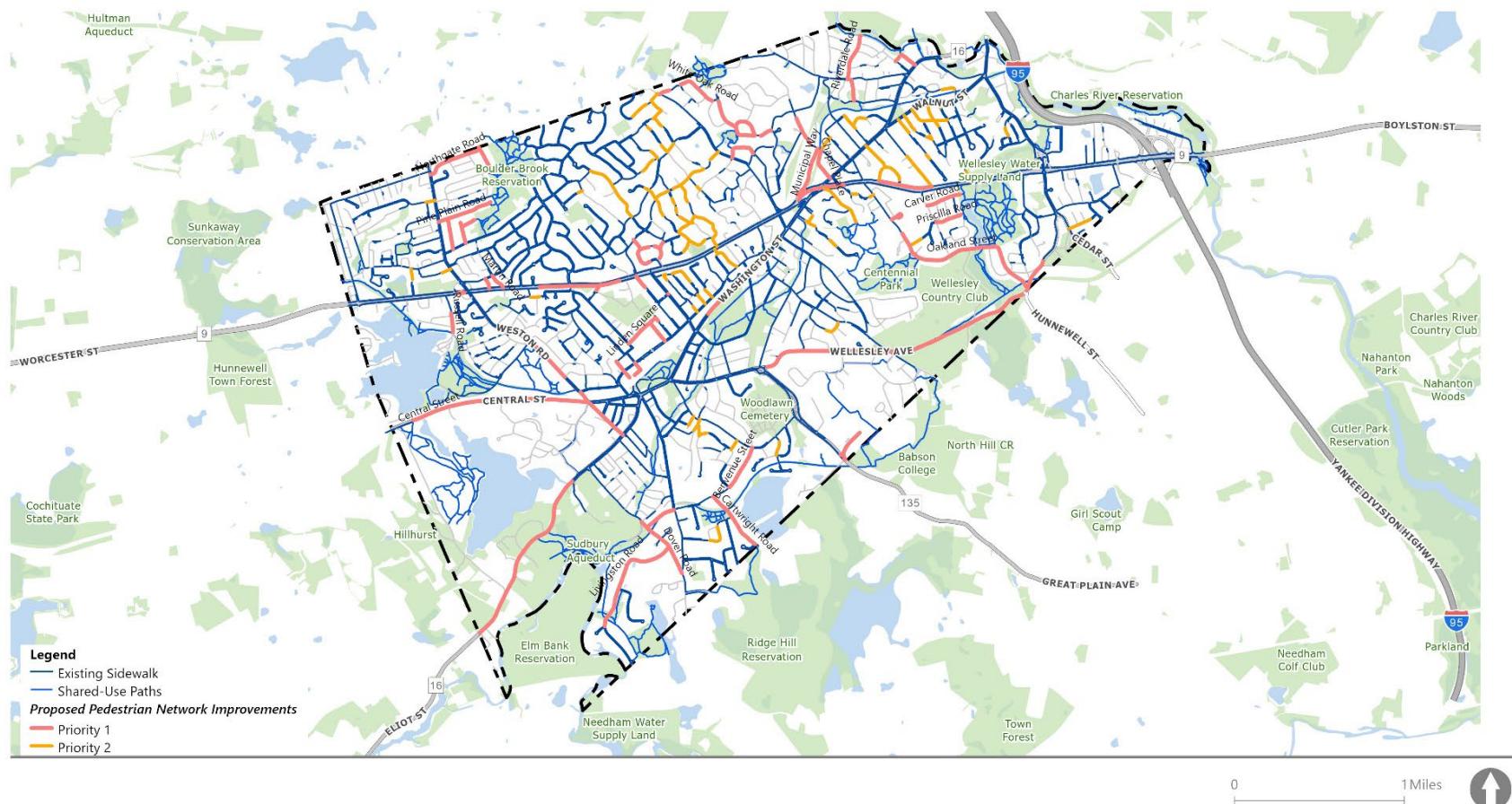
To identify opportunities to enhance pedestrian safety and connectivity in the Town, a systematic approach to prioritizing pedestrian network improvements was employed, which includes a tiered system that categorizes pedestrian network improvements into priority levels:

- **Priority 1:** Existing sidewalk gaps that are located on
 - An arterial or a collector road,
 - A local roadway that connects to multimodal trip generators or shared use path.
- **Priority 2:** Existing sidewalk gaps that are located on
 - Local roadways where filling the gaps would create a continuous sidewalk along the roadway.

This tiered system for prioritizing pedestrian network improvements will help to streamline decision-making and resource allocation by directing investments to the most critical gaps first, ensuring that resources have the maximum potential impact on safety and connectivity. This approach also aids in strategic planning and allows phased implementation of projects, creating a more systematic and effective framework for improving safe walking routes in the Town. **Figure 2** displays the proposed locations for pedestrian network improvements based on the prioritization methodology discussed above. Priority 1 pedestrian network locations include:

- Central Street from Bacon Street to Weston Road
- Washington Street from Rockland Street to east of Kingsbury Street
- Weston Road from Bradley Avenue to Howe Street
- Linden Street to Washington Street
- Wellesley Avenue from Great Plain Avenue to South Town limits
- Worcester Street from Municipal Way to Grantland Road
- Longfellow Road to Bancroft Road
- East of Woodbine Road to west of Francis Road
- Dover Road from Ingraham Road to Grove Street
- Oakland Street from north of Putney Road to Hunnewell Street
- Livingston Road from Dover Road to Winding River Circle
- Northgate Road from Weston Road to Meadowbrook Road
- Pine Plain Road from Weston Road to Boulder Brook Reservation Trail

Figure 2. Proposed Locations for Pedestrian Network Improvements



BICYCLE NETWORK

This section highlights the existing safe routes for biking in the Town of Wellesley and suggests areas for potential bicycle network improvements, focusing on key connections and enhanced access to multimodal trip generators.

Existing Safe Routes for Biking

The identified existing safe routes for biking include:

- Arterials, collectors and local roadways classified as Level of Traffic Stress 2¹
- All existing bike trails or bike routes located on roadways or off-road

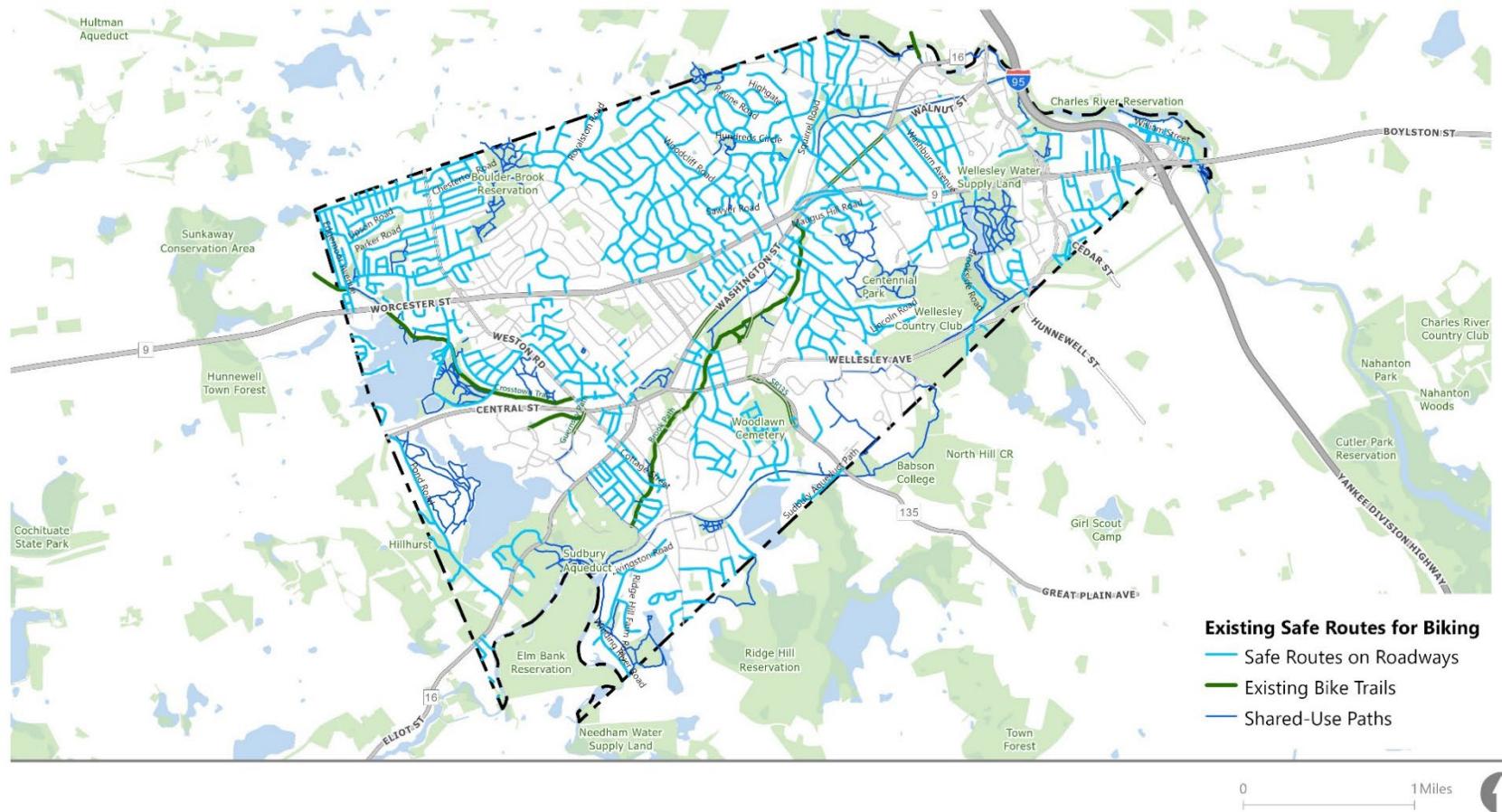
Figure 3 displays the existing safe routes for biking in the Town of Wellesley and **Table 1** outlines the safe routes along with information on functional classification, Level of Traffic Stress (LTS) and connections to other roads, trails and multimodal trip generators.

Table 1. Existing Safe Routes for Biking

Roadway / Trail	Functional Class	Level of Traffic Stress	Key Connections	
			Roadways / Trails	Multimodal Trip Generators
Washington Street between Chapel Place and Longfellow Road	Minor Arterial	4	Worcester Street	Wellesley Community Center, Hills Branch Library, Wellesley Hills Congregational Church
Washington Street between Kingsbury Street and Rice Street	Minor Arterial	4	-	-
SR135/Great Plain Avenue between Wellesley Avenue and Brook Street	Minor Arterial	4	Wellesley Avenue	Woodlawn Cemetery
Oakland Street	Minor Collector	2	Worcester Street, Longfellow Pond Trail	MassBay Community College MWRTA Bus Stop
Hundreds Road	Local	2	Glen Road	Wellesley Farms MBTA Commuter Rail Station
Crosstown Trail	Trail	1	Worcester Street, Weston Road	Bird Island Sanctuary, Pine Point
Brook Path	Trail	1	Wellesley Avenue, Worcester Street, Washington Street	Wellesley Square, Wellesley Hills, Wellesley High School, Hunnewell Field

¹ Level of Traffic Stress is defined in Chapter 1: Existing Conditions Analysis

Figure 3. Existing Safe Routes for Biking



Existing Safe Routes for Biking
Wellesley Townwide Safe Routes Plan



Key findings regarding the existing safe routes for biking are as follows:

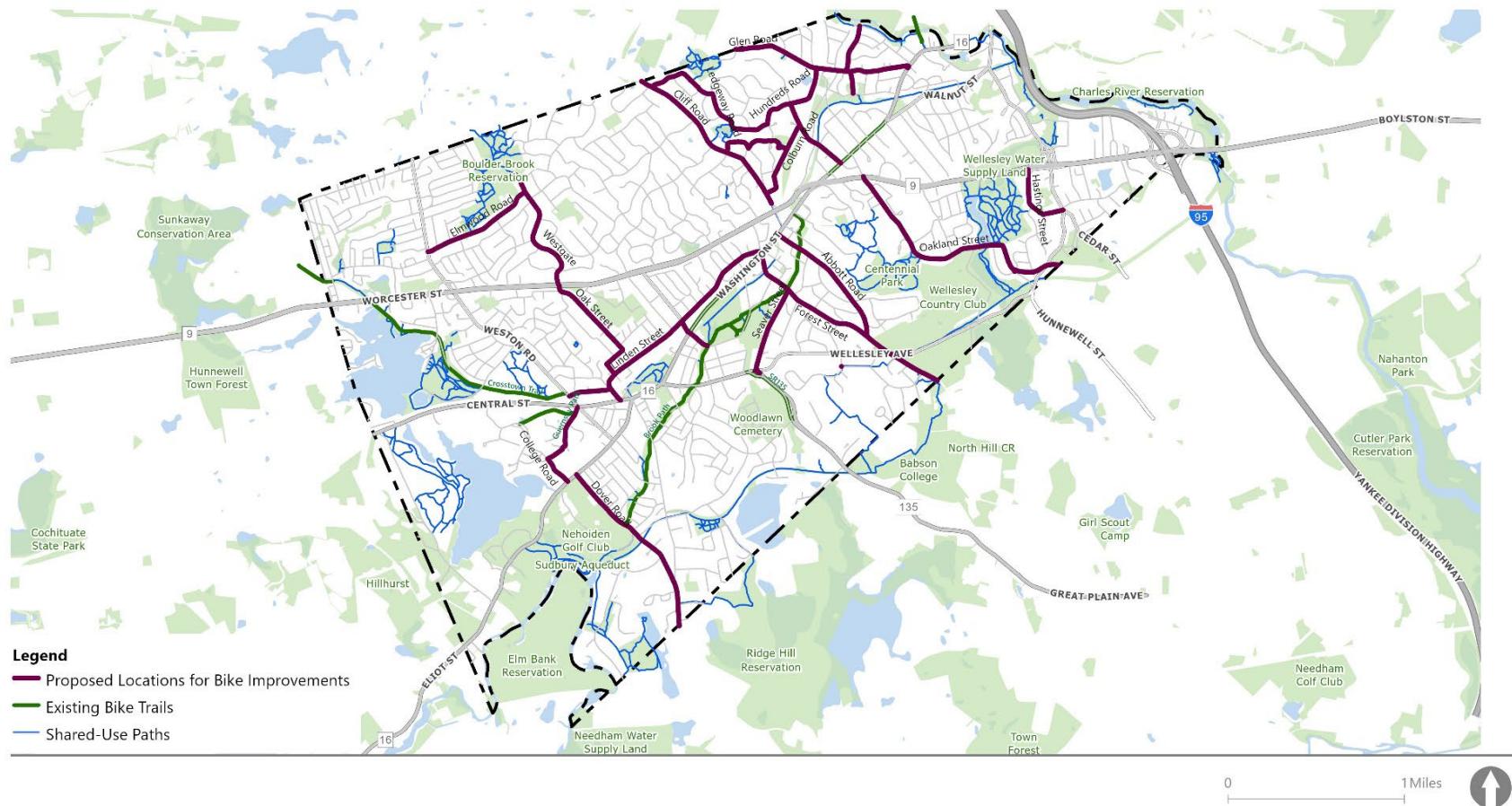
- Many of the local roadways in the Town are Level of Traffic Stress 2 facilities and can be considered existing safe routes for biking for people of most ages and abilities.
- Washington Street, Great Plain Avenue and Oakland Street are the only arterials or collectors in the Town that are existing safe routes for biking.
 - Although Washington Street and Great Plain Avenue are Level of Traffic Stress 4 facilities, there are sections of these roadways with shared lane markings which are comfortable for some bicyclists.
- Brook Path and Crosstown Trails are off-road facilities that connect to multimodal trip generators and serve as alternative routes to Level of Traffic Stress 3 or 4 facilities.
- Multimodal trip generators that are connected through the existing safe routes for biking include Wellesley Square commercial area, Wellesley Hills commercial area, Wellesley Community Center, Hills Branch Library, Wellesley Hills Congregational Church, Woodlawn Cemetery, MassBay Community College MWRTA Bus Stop, Wellesley Farms MBTA Commuter Rail Station, Wellesley High School, Hunnewell Field and Bird Island Sanctuary at Pine Point.

The identification of existing safe routes for biking recognizes the existing network of bike-friendly roads, while highlighting potential areas for improvement in the bicycle network. However, it is important to note that while this Plan focuses on the low-cost, high-impact investments that the Town of Wellesley can make to improve the bicycle network, there are several critical gaps in the network that will require higher-cost treatments to create bicycle facilities that are safe and comfortable for people of all ages and abilities. For many of these roads, such as Worcester Street and Washington Street, coordination with MassDOT will be necessary to redesign these roads as truly multimodal facilities. For others, such as Central Street, Wellesley Avenue, and Great Plains Avenue, the Town will likely need to study and redesign these roadways to create safe spaces for bicycle travel. With that in mind, the following section highlights locations where low-cost, high-impact bicycle network improvements could be made to better connect the existing safe routes for biking with additional multimodal trip generators.

Proposed Locations for Bicycle Network Improvements

This section outlines the proposed locations for bicycle network improvements in the Town of Wellesley. The proposed locations for bicycle network improvements are areas where targeted lower-cost treatments will have a high impact on making biking less stressful (refer Chapter 3 for list of treatments), identified based on the existing infrastructure, surrounding land use, and existing Level of Traffic Stress on the roadway. The proposed locations were identified if the roadway is an arterial, collector, or local road with Level of Traffic Stress 2 or 3 that connects to multimodal trip generators, existing bike trails, or shared-use paths. **Figure 4** shows the proposed locations for bicycle network improvements and **Table 2** delineates these locations along with key roadway characteristic information.

Figure 4. Proposed Locations for Bicycle Network Improvements



Proposed Locations for Bike Improvements
Wellesley Townwide Safe Routes Plan



Table 2. Proposed Locations for Bicycle Network Improvements

Roadway / Trail	Functional Class	Level of Traffic Stress	Key Connections	
			Trails	Multimodal Trip Generators
Abbott Road	Local	2	-	Wellesley Hills Post Office, Wellesley Historical Society
Dover Road, Washington St to Grove St	Minor Collector	3	Sudbury Aqueduct Path	Nehodian Golf Club
Forest Street, Washington St to Town Limits	Minor Collector	3	-	Wellesley Country Club, connects to Brook Path.
Standish Road, Worcester St to Oakland St	Minor Collector	3	-	-
Cliff Road, White Oak Rd to Worcester St	Minor Collector	3	Rockridge Pond Trail	-
Glen Road, Town Limits to Washington St	Minor Collector	3	Charles River Path	Wellesley Farms MBTA Commuter Rail Station
Oak Street, Worcester St to Linden St	Minor Collector	3	-	Sprague School
Elmwood Road, Weston Rd to Westgate	Local	3	-	Bates School, Boulder Brook Reservation Trail
Seaver Street, Wellesley Ave to Forest St	Local	3	-	Wellesley High School
Westgate, Boulder Brook Reservation to Worcester St	Local	3	Boulder Brook Reservation Trail	Bates School
Linden Street, Forest St to Crest Rd	Minor Collector	4	-	Wellesley Square

Several of the corridors in **Table 2** include shorter segments of roadways that would be included in the low-cost, high-impact treatments, including Colburn Road, College Road, Crest Road, Garden Road, Grove Street, Hollis Street, Kingsbury Street, Lanark Road, Ledgeway Road, Rockridge Road, Riverdale Road, Rockland Street, State Street, Westerly Street and White Oak Road.

CROSSINGS

Safe crossings are crucial for creating a complete network of safe routes for walking and biking, particularly in areas identified as higher stress. This section identifies these higher stress crossings in the Town based on the existing infrastructure, land use, connections to multimodal trip generators, and proposed pedestrian and bicycle network improvements identified in previous sections. **Figure 5** describes the methodology used to identify the higher stress crossings in Wellesley.

Figure 5. Methodology to Identify Priority Crossings

Identify Locations

Identify all intersections where at least one roadway is an arterial or collector with sidewalk gaps OR is at the terminus of proposed bicycle network improvements.

Assess Intersection Features Based on Desktop Review

- Assess whether the intersection control is signalized or unsignalized, and if there are pedestrian signals
- Note if there are existing crosswalks
- Note if there are other active transportation infrastructure present, such as pedestrian crossing signs, Rectangular Rapid Flashing Beacons (RRFBs), or bicycle lanes

Prioritize Intersection Improvements

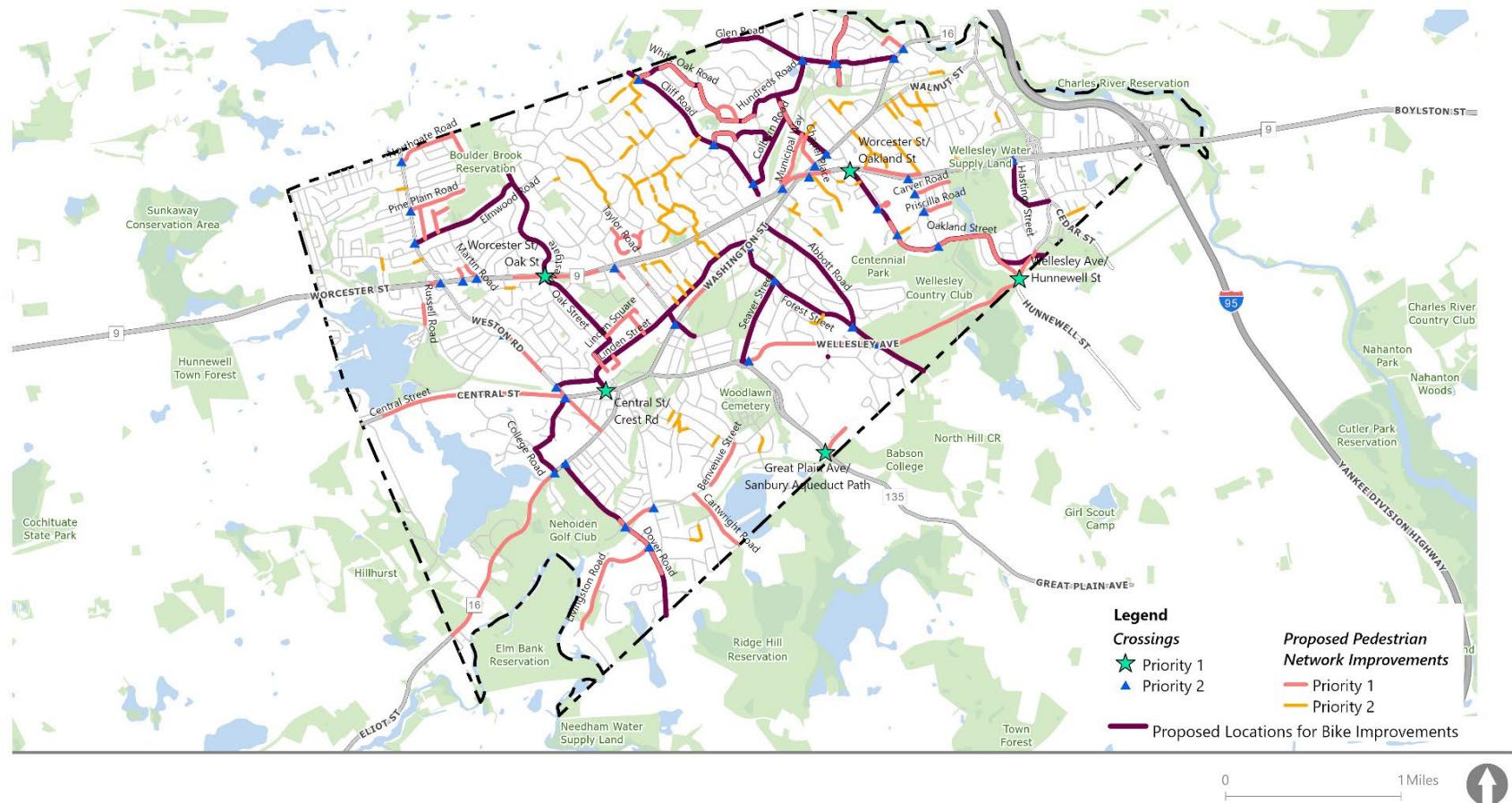
- **Priority 1:** Intersections with at least one arterial or collector roadway that has sidewalk gaps OR is at the terminus of proposed bicycle network improvements AND has no existing crosswalks
- **Priority 2:** Intersections that have existing crosswalks on approaches of major roadways OR where only local roadway approaches have sidewalk gaps.

Figure 6 displays the proposed locations for pedestrian crossing improvements identified in the Town of Wellesley. The crossings identified as Priority 1 are:

- Worcester Street / Oak Street
- Worcester Street / Oakland Street
- Wellesley Avenue / Hunnewell Street
- Central Street / Crest Road
- Great Plain Avenue / Sudbury Aqueduct Path

Four of the five priority 1 intersections in the Town are along the State Routes 9, 16 and 135. The other intersection is on Great Plain Avenue which is a minor arterial.

Figure 6. Proposed Locations for Pedestrian Crossing Improvements



Proposed Locations for Pedestrian Crossing Improvements
Wellesley Townwide Safe Routes Plan

PLANNED PROJECTS

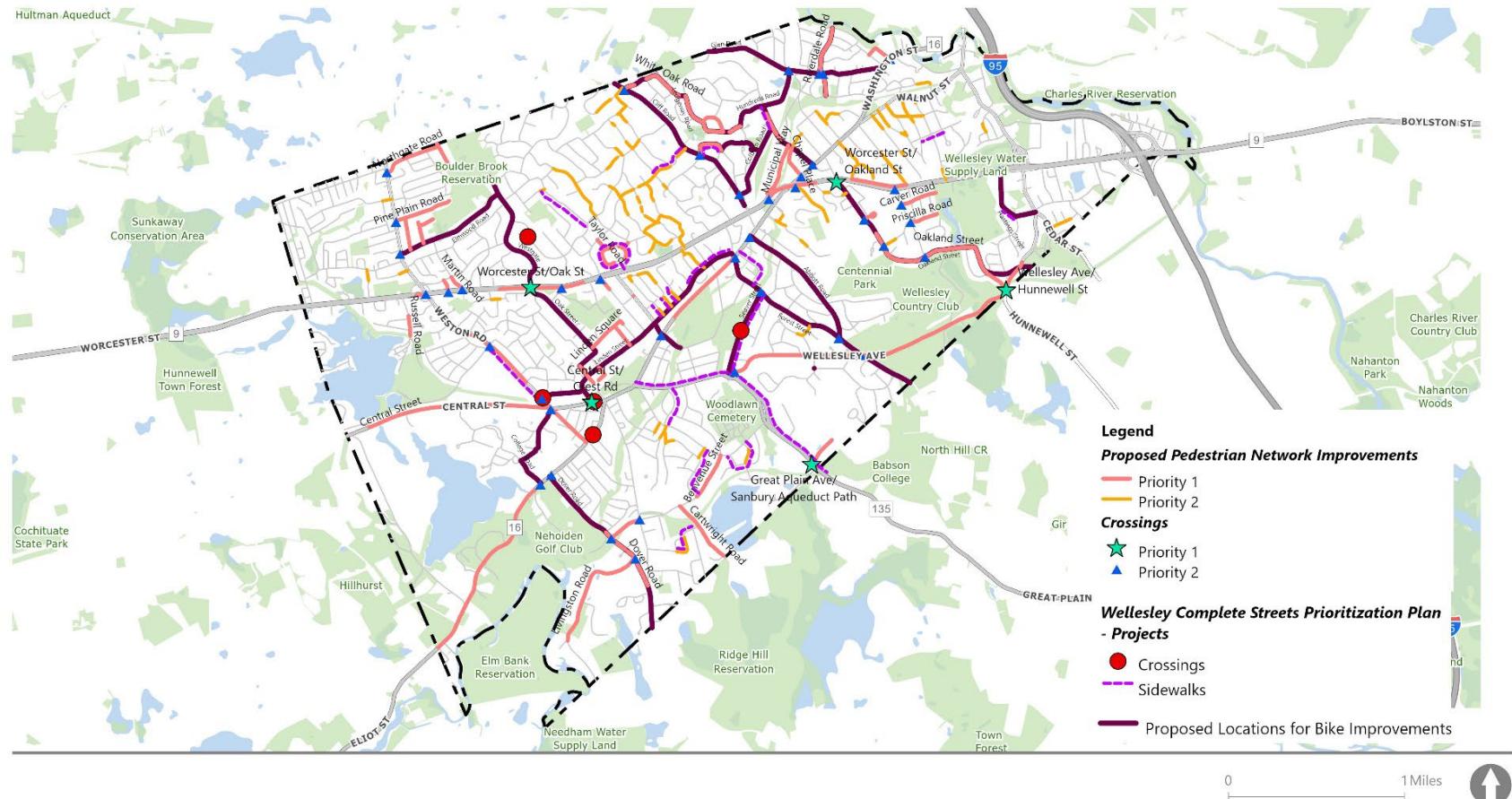
This section outlines the projects included in the Complete Streets Prioritization Plan (CSPP) for the Town of Wellesley and compares them with the planned locations for sidewalk, bicycle, and crossing improvements discussed in earlier sections. The CSPP is a document updated every few years to prioritize projects that are eligible for the MassDOT Complete Streets Funding Program grants, of up to \$500,000. This overlap identification will assist the Town in prioritizing investments that correspond with the available funding sources for active transportation projects. **Figure 7** illustrates the proposed pedestrian and bicycle network and pedestrian crossing improvements offset by the MassDOT's Complete Streets Funding Program Project Prioritization Plan for the Town of Wellesley and **Table 3** provides a description for each CSPP project that overlaps with a location identified as part of the analyses described in previous sections. It is important to note that Wellesley recently submitted a Complete Streets Funding Program grant application for rectangular rapid flashing beacons at Washington St / Denton Rd and on Croton Rd near the Wellesley Farms MBTA.

Table 3. Complete Streets Funding Program – Overlapping Project Locations

Improvement	Description
Woodlawn Avenue Sidewalk	Add sidewalk along easterly side of Woodlawn from Hundreds to Colburn (~750 feet).
Laurel Avenue Sidewalk	Complete sidewalk (~500 feet) along westerly side of Laurel Avenue between Washington Street and Forest Street.
Rockridge Road Sidewalk	Add sidewalk along one side of Rockridge Road between Chestnut and Cliff.
Wall Road Sidewalk	Add a sidewalk on one side of Alba Road, Wall Road and Windemare Road
Alba Road Sidewalk	Road leading north from Linden Street. Roughly 200 feet, 250 feet and 300 feet respectively.
Windemare Road Sidewalk	
Linden Street Sidewalk	Add a sidewalk to second side of Linden Street between Rockland and Upwey (~1650 feet).
Fuller Brook Road Sidewalks	Add sidewalk linking to Fuller Brook Path. Along Fuller Brook from Wildon to Juniper (400 feet). Along Wildon from Brook Street to Fuller Brook (300 feet). Along Juniper from Brook Street to Fuller Brook (300 Feet). One side of road for each.
Kenilworth Road & Kenilworth Circle Sidewalk Gaps	Fill in sidewalk gaps between Lehigh Road and Kenilworth Circle/Kenilworth Road intersection (500 feet).
Audubon Road Sidewalk Gaps	Fill in sidewalk gaps on Audubon Road (one 880' segment, one 600' segment).
Lowell Road Sidewalk Gaps	Complete existing sidewalk along Lowell Road from Edmunds to Cliff (~1300 feet).
Weston Road Shared Use Path	Add shared-use path along westerly side of Weston Road between Turner and Crosstown Path west of Linden intersection, incorporating North 40 parcel land.
Seaver Street Shared Use Path	Widen sidewalk to 10-foot shared use path along Seaver Street between Forest and Wellesley.

Improvement	Description
Linden Street & Weston Road Intersection Safety Improvements	Pedestrian Safety Improvements
Central Street & Crest Road & Railroad Avenue Intersection Redesign	Shorten pedestrian crossing and bring closer to drivers' line of sight.
Washington Street & Denton Road Crosswalk Upgrade	Upgrade to RRFB flashing beacon at crosswalk across Washington.

Figure 7. Town of Wellesley – Complete Streets Prioritization Plan Projects



Complete Streets Funding Program Project Prioritization Plan
Wellesley Townwide Safe Routes Plan

