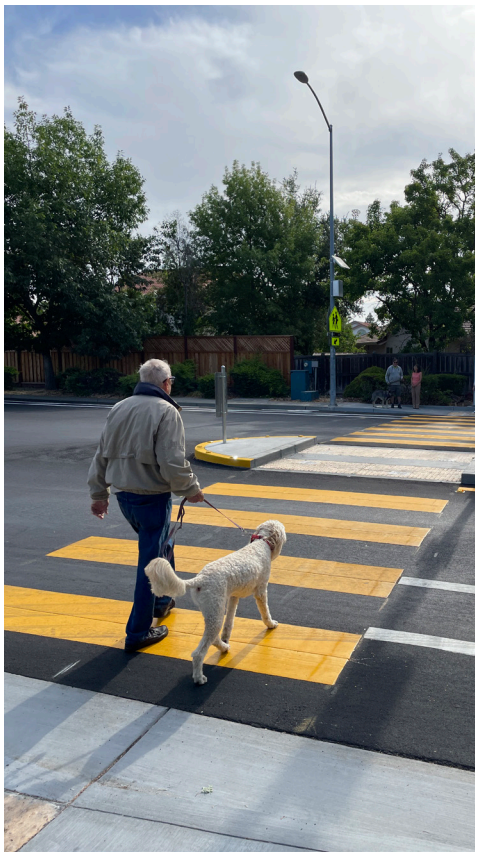
Town of Windsor
CALIFORNIA

Town of Windsor

Active Transportation Plan

Final Adopted Plan







Submitted by

W-Trans

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Introduction and Background

Plan Purpose and Vision

The *Windsor Active Transportation Plan* (ATP) was developed to serve as the Town's strategic framework for walking, bicycling and human-powered transportation. Building on the 2014 *Bicycle and Pedestrian Master Plan* (BPMP), this update reflects recent and anticipated changes in Windsor due to growth, policy shifts, and the initiation of SMART rail service. The ATP establishes a vision for a safer, more connected, and accessible transportation network, emphasizing more protective facility designs to serve residents of all ages and abilities while supporting wider community and environmental goals. It is intended to communicate the Town's active transportation vision to the public, help guide staff in pursuing grant funding for priority projects, and provide clear direction for developers of properties near proposed facility locations. This plan will be updated as needed to account for the completion of priority projects, the needs of incoming development, and changes in the Town's priorities.

Defining Active Transportation in Windsor

Active transportation encompasses human-powered modes such as walking and cycling, as well as wheelchairs and micromobility (e-bikes and scooters), giving it a broader focus than the 2014 BPMP. The Windsor ATP responds to emerging needs—such as improved station-area access for SMART rail and post-COVID shifts in how people travel. It also reflects a national shift in what is recognized as high-quality pedestrian and bicycle infrastructure, including enhanced street crossings and bikeways that offer greater protection from vehicle traffic. By creating safer, lower-stress routes, the ATP supports an inclusive transportation system for people of all ages and abilities.

Relationship to Other Plans

The ATP builds on several of the Town's adopted plans including Windsor's *General Plan*, the countywide *Vision Zero Action Plan*, and the *Class I Trails Study*. It also aligns with regional and state active transportation policies. This coordinated approach ensures that recommended projects and programs support existing policies and contribute to Windsor's broader goals for safety, mobility, and sustainability. A greater emphasis on active modes also helps meet statewide and local climate protection goals, as transportation is a major contributor to climate change.

Plan Development and Community Engagement

The ATP was developed through collaboration between community members, Town staff, and regional partners, ensuring that recommendations reflect local priorities and public input. The previously developed plans which fed into the ATP each included a community engagement component, which was considered along with the outreach conducted through the current planning effort. Residents were invited to participate in the development of the ATP through an online interactive map, two surveys, discussions at staffed ATP display tables at local events, participation in publicly noticed meetings, and public review of the draft ATP document. This process generated feedback that shaped the plan's priorities and recommended actions.

Plan Implementation and Use

The ATP was designed to serve multiple purposes. First, it is intended to clearly articulate the Town's vision for active transportation to Windsor residents, highlighting where improvements and new infrastructure are needed. In addition, it will be a practical and actionable tool for the Town's elected officials and staff to guide near-, mid-,

and long-term active transportation planning and implementation efforts. The Plan will be used to advance key infrastructure projects, prioritize investments, coordinate improvements with incoming development, and support grant applications by providing a comprehensive, approved framework. By providing this structured guidance, the ATP serves as a roadmap for creating a safer, more sustainable, and better-connected active transportation network in Windsor.

Key Recommendations

The ATP includes recommendations for 24.1 miles of new or upgraded on-street bicycle facilities, including 16.8 miles of separated bike lanes or buffered bike lanes. The Plan also recommends 24.3 miles of multi-use paths and 31 enhanced pedestrian crossings. In addition to infrastructure improvements, the ATP includes policy and program recommendations, such as Windsor's continued support for the Safe Routes to School program and law enforcement activities to help create a safer and more comfortable multimodal transportation system for all users.



Plate 1 Windsor residents walk and bike to get to school, work, run errands and for fun

Planning Context

Windsor is located in central Sonoma County, about ten miles north of the City of Santa Rosa. The Town has an area of 6.5 square miles and has become increasingly urbanized over the past 50 years, growing from a small community of 2,000 in 1970 to 13,000 in 1990 to its current population of approximately 26,000. As Windsor has grown, there has been an increased focus on creating a vibrant town center to serve residents and visitors, and the recent opening of the SMART station represents a major milestone for the Town. The Town has also demonstrated a growing commitment to multimodal transportation and reducing greenhouse gas emissions, as indicated in its plans and policies. These efforts mirror policies and actions undertaken at the county, regional, and state levels, where plans to enhance pedestrian and bicycle infrastructure have been adopted. The priorities and projects identified in these documents lay the foundation for this ATP and lend support for the Town's future efforts to secure funding to implement local priority projects. The recommendations from the local, county, and regional documents related to active transportation are briefly summarized below.

Local and Countywide Plans and Policies

Countywide Active Transportation Plan for Sonoma County (2025)

The *Countywide Active Transportation Plan for Sonoma County* was completed in early 2025. It included updates of local plans for the cities of Cloverdale, Cotati, Healdsburg, Rohnert Park, Sebastopol, and Sonoma, as well as unincorporated Sonoma County. While Windsor, Santa Rosa, and Petaluma participated in this process, they each opted to develop their own active transportation plans to more specifically focus on their local needs. The projects identified through this effort include facilities that extend to the Windsor boundary, so coordination between the Town and County will be required to ensure implementation of a seamless active transportation network.

Old Redwood Highway Corridor Enhancement Plan (2022)

The *Old Redwood Highway Corridor Enhancement Plan* includes recommendations focused on developing facilities to provide multimodal transportation options and support economic development opportunities along the 3.6-mile corridor from Starr Road to Shiloh Road. Recommendations include installing sidewalks to create a seamless pedestrian network, upgrading the existing bike lanes by constructing separated bikeways, implementing pedestrian crossing improvements, providing enhanced bike lane striping in conflict zones, enhancing the US 101 undercrossing for pedestrians and bicyclists, and adding transit access improvements.

Windsor Vehicle Miles Traveled (VMT) Policy, 2022

The Town's VMT policy was adopted in response to changes to the California Environmental Quality Act (CEQA) in Senate Bill (SB) 743. Under SB 743, the primary means to evaluate incoming development projects is based on the vehicle miles of travel generated by the new development, which represents a significant departure from the previous CEQA requirements that defined impacts in terms of vehicle delay. Increasing the mode share of active transportation and transit trips is an important strategy for reducing the Town's VMT, and constructing new active transportation infrastructure or implementing non-infrastructure programs are among the options that developers have to reduce the VMT impacts of their projects. This is especially true for projects located within one-half mile of the SMART station.

Windsor Local Road Safety Plan (2021)

The *Town of Windsor Local Road Safety Plan* (LRSP) identified five challenge/emphasis areas as town-wide safety priorities, one of which was improving safety for pedestrians and bicyclists. Pedestrian- and bicyclist-oriented

recommendations include infrastructure improvements as well as programmatic efforts of education and enforcement. Priority infrastructure investments include numerous pedestrian crossing enhancements at uncontrolled crossings and the systemic application of green bike lane striping at intersections and major driveways, which represent potential conflict points for bicyclists.

Sonoma County Vision Zero Action Plan (2021)

The countywide *Sonoma County Vision Zero Action Plan* (VZAP) was prepared by SCTCA in partnership with Sonoma County Health Services and local jurisdictions, including the Town of Windsor, and the Town adopted the VZAP in 2022. The VZAP includes a set of recommendations that focused on achieving six goals:

- Create Safer Speeds;
- Eliminate Impaired Driving;
- Create a Culture of Safety;
- Build and Maintain Safe Streets for All;
- Make Vehicles Safer and Reduce Private Vehicle Use; and
- Improve Data for Effective Decision Making.

In addition, this effort produced a data dashboard to serve as an ongoing resource for reviewing and analyzing collision data as well as tracking the success of efforts to reduce collisions throughout the County.

Windsor 2040 General Plan (2018)

The *Windsor 2040 General Plan* established an overall plan for development as well as a policy direction for the Town across a wide range of issues, including transportation. The General Plan Transportation and Mobility Element emphasized the development of policies, infrastructure, and programs to establish walking and bicycling as more viable transportation modes throughout Windsor. The following goals are particularly relevant for active transportation.

- **Goal M-1: Multimodal Circulation System** – Promote the development of an integrated, multimodal transportation system that balances the circulation and mobility needs of pedestrians, bicyclists, public transit, automobiles, and goods movement.
- **Goal M-2: Complete Streets** – Provide "complete streets" with facilities, and amenities that meet the needs of all users, regardless of their age or ability, or whether they are walking, bicycling, taking transit, or driving.
- **Goal M-3: Streets and Roadways** – Provide an interconnected street network that is accessible and friendly to all modes of travel.
- **Goal M-4: Walkable and Bikeable Community** – Provide a safe, efficient, and accessible bicycle and pedestrian system throughout Town.

These goals were supported by policies intended to encourage increased bicycling among a large cross-section of the population. Policy M-4.1 and Implementation Program M-11 called for updating the Town's bicycle and pedestrian master plan. Among the General Plan's emphases was the implementation of projects such as trails and separated bike lanes to offer users the greatest level of protection from vehicle traffic. Other priorities include eliminating gaps in the local active transportation network, traffic calming to reduce vehicle speeds, supporting public health through the provision of convenient access to opportunities for physical activity, and continuing the development of the Town's trail network to provide town-wide coverage. An important strategy the Town uses to help implement projects is its traffic impact fee, which requires financial contributions from incoming development to cover some of the costs associated with the construction of new infrastructure.

The Town's land use goals and policies are closely related to these efforts to encourage further development of a multimodal transportation system. For example, Policy M-3.2 supports the development of a more interconnected transportation network for all users:

Private Development Street Connections. The Town shall encourage private developments (e.g., office parks, single-family subdivisions apartment complexes, retail centers) to provide internal complete streets that connect to the existing public roadway system and provide a transition to existing and planned transportation facilities. Bicycle and pedestrian connectivity from the private street to the nearest public street(s) shall also be provided.

Town of Windsor Class I Bicycle and Pedestrian Trails Study (2018)

The *Town of Windsor Class I Bicycle and Pedestrian Trails Study* provides guidance on trail improvements and provides recommendations for new trails within Windsor's Town Limits and surrounding areas. The study focused on the development of multi-use paths along creek corridors, especially those that improve connectivity to local destinations. Class I facilities are a Caltrans designation for paved multi-use paths that meet various design criteria.

The project team first completed an inventory of existing trails and reviewed planning documents, including the *Town of Windsor 2040 General Plan*, *Parks and Recreation Master Plan Update 2030*, and the 2014 *Bicycle and Pedestrian Master Plan*. They also collected feedback from the public and stakeholders for future review and analysis. In developing recommendations consideration was given to future land use, neighborhoods, destinations, and a review of current and proposed on-street bike lanes and trails. Design considerations include compliance with Americans with Disabilities Act (ADA) requirements, potential environmental concerns, implementation costs, and other features essential to a community trails network.

Connecting Central Windsor (2018)

The *Connecting Central Windsor* study was undertaken to develop alternatives for improved network connectivity for pedestrians and bicyclists across US 101 to link together the eastern and western parts of the Town, improving access to many of Windsor's most important destinations. A comprehensive review of the alternatives concluded that the Town should continue to work with Caltrans on various project components within the State's right of way and pursue further study of the feasibility and costs of the various options. The potential alternatives included a grade-separated overcrossing, enhancements to the existing pedestrian and bicycle facilities along Old Redwood Highway through the underpass, construction of a new tunnel, and addition of a path to an existing culvert under US 101. Additional improvements were recommended to integrate future crossings into the larger pedestrian and bicycle facilities network.

Windsor Parks and Recreation Master Plan Update 2030 (2017)

The *Windsor Parks & Recreation Master Plan Update 2030* includes recommendations for the development of new recreation facilities and programming, based on existing needs and anticipated growth. Trails to serve pedestrians and bicyclists were identified as an important component of the Town's recreational facilities, particularly along creek corridors. In addition to their recreational value, trails were also considered as an important means of accessing parks, schools, and other local destinations. The need for bicycle parking at such locations was also highlighted. The plan also emphasizes the importance of providing residents of all of Windsor's neighborhoods with access to recreational facilities.

Windsor Bicycle and Pedestrian Master Plan (2014)

The 2014 *Windsor Bicycle and Pedestrian Master Plan* (BPMP) represents the Town's most recently adopted plan that is focused on improving conditions for bicyclists and pedestrians; it was undertaken as part of a countywide planning effort led by the Sonoma County Transportation Authority (which has since been restructured as part of the Sonoma County Transportation and Climate Authorities, or SCTCA). The countywide plan included a set of policies that applied to the ten jurisdictions within Sonoma County as well as locally-focused plans for Windsor, the County's eight incorporated cities, and unincorporated Sonoma County.

The Windsor plan identified key local destinations to be served by an active transportation network, including the downtown, schools, parks, and commercial developments. The plan included an analysis of community travel characteristics, history of pedestrian and bicyclist collisions, an assessment of the existing active transportation network, identification of key gaps and facility needs, and development of project recommendations based on opportunities and constraints. The plan recommendations include 23.8 miles of new Class I, II, and III bicycle facilities; enhancements to 12 street crossings; and construction of sidewalks to eliminate several gaps along Arata Lane, Shiloh Road, and Old Redwood Highway. In addition to specific facility improvements, pedestrian districts were identified, including downtown, portions of Shiloh Road, and the areas surrounding schools, where high volumes of pedestrian traffic would be anticipated. SCTCA is currently working with local agencies to update the 2014 plan, with participation from staff at local agencies, including Windsor.

Windsor Station Area/Downtown Specific Plan (2013)

The *Windsor Station Area/Downtown Specific Plan* focused on the area within one-half mile of the Windsor SMART rail station, which includes Windsor's main commercial area, the Town Green, Windsor High School, and the Windsor Civic Center. SMART's ridership projections indicate that an estimated 51 percent of all trips to and from the station will be made by walking, and approximately 10 percent by biking, so the "first mile/last mile" pedestrian and bicycle facilities were of primary importance.

The Plan goals highlight the need for pedestrian and bicycle infrastructure improvements in the area.

- Improve pedestrian connectivity and walkability within the Planning Area as well as connectivity to the rest of the Town; and foster a street environment that connects pedestrians to transit, housing, employment, and major destinations.

- Improve bicycle connectivity within and beyond the Station Area and foster an accessible and safe street environment for bicyclists.

- Improve east-west connectivity for pedestrians and bicycles, including across the SMART corridor and US 101, increasing access to the Windsor SMART Station and Downtown from residential neighborhoods located west of the station and east of US 101.

The Plan includes enhanced pedestrian crossings, improved pedestrian and bicycle north-south linkages, elimination of sidewalk gaps, establishment of a bicyclist wayfinding system, and provision of bicycle parking throughout the downtown area.

Complete Streets Design Guidelines (2013)

The *Complete Street Design Guidelines* provide the framework for engineers and planners to implement policies and objectives related to multimodal transportation as identified in the General Plan as well as to be consistent with state policy, and better accommodate the needs of bicyclists, pedestrians, transit users, and drivers. The *Design Guidelines* were based on the General Plan's street classifications and their role in providing local access in the Town's transportation network, with consideration for types of land uses. The guidelines established a hierarchy of 12 street types based on factors such as adjacent land uses and traffic characteristics, as well as street characteristics including parking, buffer zones, sidewalks, number of lanes, and travel lane widths. Pedestrian-oriented recommendations include measures to enhance crossings such as the use of refuge islands, curb extensions, enhanced crosswalks, and reduced curb radii. The guidelines include typical cross-sections to illustrate appropriate applications. An update of the *Design Guidelines* is anticipated to be completed in 2026.

Pedestrian Safety Assessment (2012)

The *Pedestrian Safety Assessment* was conducted by the Institute of Transportation Studies at the University of California, Berkeley in 2012 with a goal of improving pedestrian safety and enhancing walkability and accessibility for all pedestrians in Windsor. The report summarizes the Town's pedestrian policies, programs, facilities, and practices by evaluating current practices based on three categories: key strengths, enhancements, and opportunity areas.

An analysis of historical data shows that the rates of reported collisions involving pedestrians were relatively low in Windsor in comparison with other similar-sized California communities. The Town's practices and accomplishments were noted: developing complete street design guidelines, securing funding through the Town's Safe Routes to School Committee, and improving bicycle and pedestrian infrastructure during the years preceding the development of the assessment report. In terms of opportunity areas, the report calls for development of a crosswalk policy for the Town, as well as recommendations for new or expanded programs for traffic calming and pedestrian safety.

State and Regional Plans

Active transportation policies and plans have been greatly enhanced in recent years at the state and regional level, as they have incorporated recent design guidance from the National Association of City Transportation Officials (NACTO) and Caltrans. The following plans were reviewed.

- *Bay Area Bike Plan Update*, , Caltrans District 4, 2025
- *Caltrans D4 Pedestrian Plan*, Caltrans District 4, 2021
- *Plan Bay Area 2050*, Metropolitan Transportation Commission (MTC), 2021
- *Climate Action 2020 and Beyond*, Sonoma County Regional Climate Protection Authority (RCPA), 2016
- *Regional Active Transportation Plan*, MTC, 2023

These plans reflect the growing emphasis on increasing the use of active transportation modes, reducing greenhouse gas emissions, and providing facilities that meet the needs of people of all ages and abilities. Windsor's efforts to advance critical infrastructure projects in recent years is very much in line with regional and state goals, including examples such as improving access to the Windsor SMART station, completing Windsor's portion of the regional SMART multi-use path, enhancing connections across US 101, and improving access to commercial areas along the Old Redwood Highway corridor. The portion of MTC's Regional Active Transportation Network in Windsor highlights these areas, as shown in Plate 2.

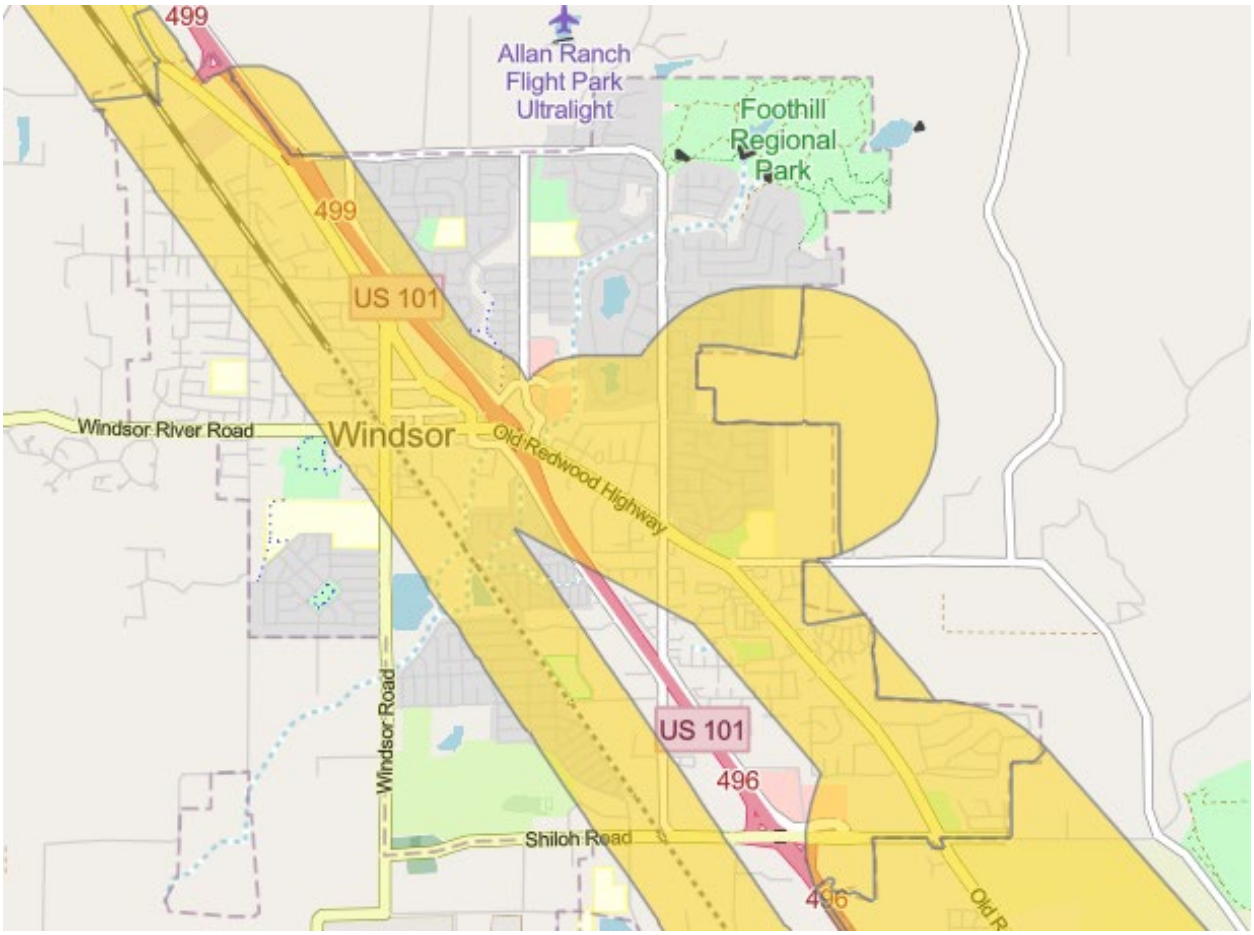


Plate 2 Regional Active Transportation Network corridors in Windsor

One component of Play Bay Area that will support future efforts to expand active transportation in central Windsor is the concept of "mobility hubs". Central Windsor has been identified as a mobility hub by MTC, acknowledging the potential for people to access multiple transportation modes, including rail, bus, and micromobility. MTC is developing resources to support the development of mobility hubs as a strategy for reducing greenhouse gas emissions and vehicle miles traveled by integrating the available transportation modes to provide a more seamless transportation experience. This approach is intended not only for the centers of the Bay Area's major cities but smaller communities such as Windsor. The designation of the mobility hub and the introduction of SMART rail service should enable Windsor to leverage funding to enhance its local active transportation networks to support multimodal transportation.

Walking and Bicycling in Windsor Today

This chapter summarizes current active transportation patterns in Windsor, the incidence of traffic collisions involving pedestrians and bicyclists, the availability of pedestrian and bicycle infrastructure, and key issues and challenges that need to be considered when identifying strategies for increasing walking and bicycling in Windsor.

Community Characteristics and Land Use Context

The Town's active transportation infrastructure reflects the local history and development pattern. Neighborhoods that were historically rural were not designed with sidewalks or other pedestrian infrastructure, while areas that were built more recently and those closer to the center of town include pedestrian amenities that are typical of urban and suburban communities. As the Town has increasingly emphasized active transportation, new infrastructure has been installed, including bicycle infrastructure along many of Windsor's major roadways as well as crosswalks and enhanced intersection crossings. As new developments are proposed and reviewed, the Town requires developers to construct new sidewalks along project frontages wherever missing and to install bicycle facilities wherever identified in adopted Town plans. Relevant plans include the 2014 *Windsor Bicycle and Pedestrian Master Plan*, the *Old Redwood Highway Corridor Enhancement Plan*, and *Class I Trails Study*. Developers may also use the *Complete Streets Design Guidelines* and must comply with all relevant Caltrans and Town design and construction standards. As a result, the connectivity of Windsor's active transportation network has continued to improve over time.



Plate 3 Buffered bike lanes installed as part of a nearby development project provide separation between bicyclists and vehicular traffic on Old Redwood Highway

There are barriers to direct and convenient active transportation trips in Windsor resulting from land development patterns. In particular, many development projects have historically included cul de sacs that result in circuitous trips. As previously noted, the Town's General Plan now encourages a more interconnected network of transportation facilities to provide more direct and convenient connections.

Other barriers include US 101 and the Northwestern Pacific Railroad freight line (now the SMART rail corridor), which were initially developed to connect Windsor to the broader region, but have created impediments to local travel. The Town is bisected by US 101 and the eastern and western parts of Windsor are connected only by Arata Lane, Old Redwood Highway, and Shiloh Road. The SMART railroad tracks run to the west and parallel to US 101, and the only available crossing locations are at Starr Road, the roundabout at the Windsor Road/Windsor River Road intersection, Mitchell Lane, and Shiloh Road. These transportation barriers result in longer, less direct trips for all users, particularly impacting pedestrians and bicyclists. The existing pedestrian and bicycle facilities through the Old Redwood Highway/US 101 interchange in central Windsor are shown in Plate 4 and Plate 5.

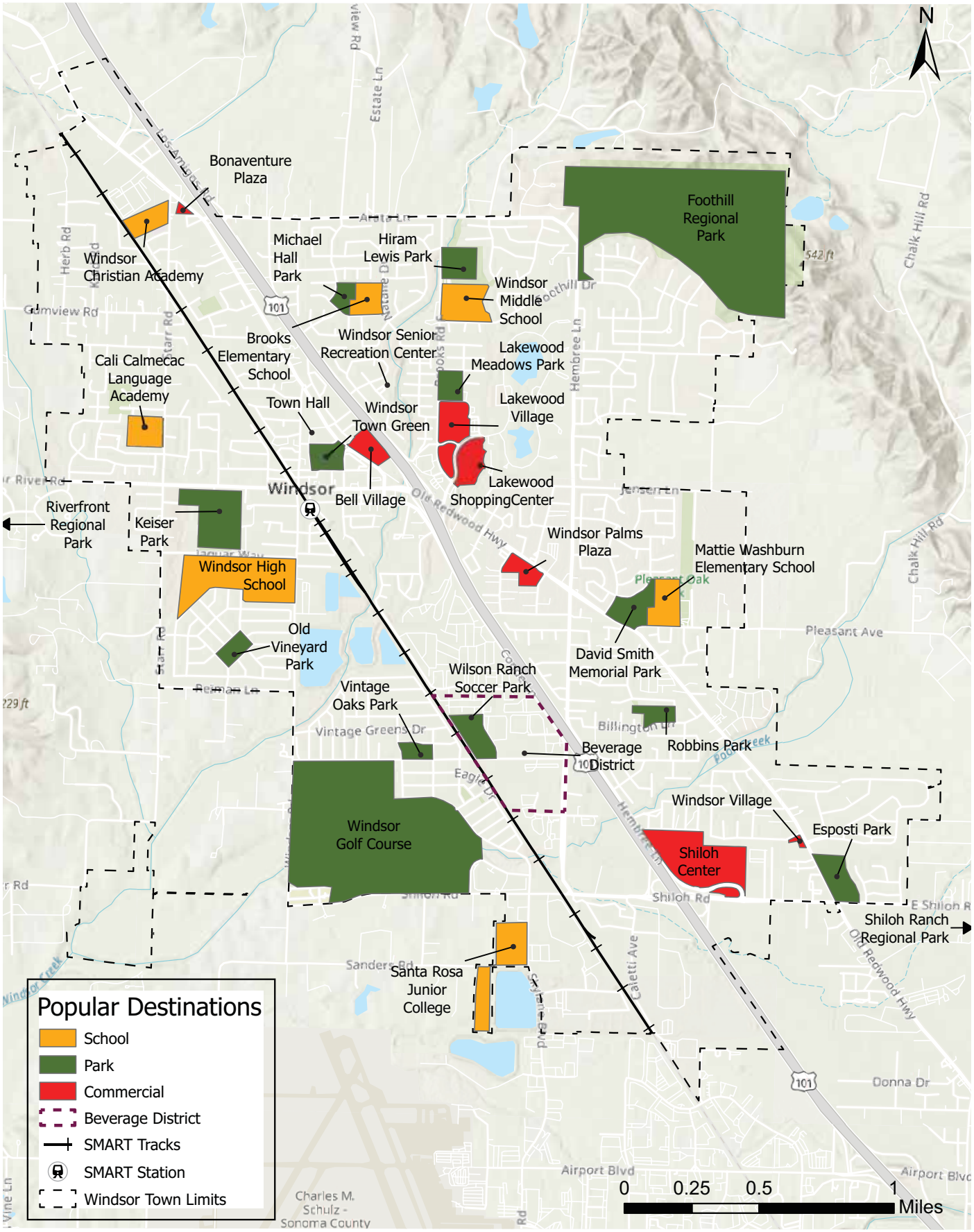


Plate 4 Walkway through the Old Redwood Highway/US 101 Interchange



Plate 5 Bike lanes along Old Redwood Highway place bicyclists in close proximity to heavy traffic volumes

Downtown Windsor includes a mix of land uses, with key destinations including the Town Green and Town Hall. With the initiation of SMART rail service in 2025, the downtown area is now connected to communities throughout Sonoma and Marin counties, including Santa Rosa, Petaluma, Novato, San Rafael, and the southern terminus of the line near the Larkspur ferry terminal. Windsor's downtown is compact and walkable, and the availability of rail service will offer opportunities for people to walk or bicycle to the station to reach destinations throughout Sonoma and Marin Counties. The Station Area/Downtown Specific Plan Area is designated in *Plan Bay Area 2050* as a Priority Development Area (PDA), indicating that this is an area where future growth and development has been prioritized. As this area continues to develop, and with easier access from other communities via rail, the need for improved pedestrian and bicycle facilities to access destinations throughout downtown and the surrounding areas will become even more essential. Major destinations throughout Windsor are shown in Figure 1.



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Windsor Active Transportation Plan

Figure 1 – Major Walking and Bicycling Destinations

Commuting Patterns

Motor vehicles are the primary mode of transportation in Windsor. According to the 2019 American Community Survey, 90.5 percent of employed Windsor residents traveled to work by car, truck, or van, including 77.2 percent who drove alone and 13.3 percent who carpooled. Walking and bicycling to work were primary commute modes for only 1.8 percent and 1.0 percent of employees, respectively. An additional 4.4 percent of employed Windsor residents worked primarily from home. The most recent commute data covered the period 2018-2022, so it was not used due to unusual commute patterns during the COVID-19 pandemic. However, based on countywide data, the share of the labor force working from home nearly doubled from 2019 to 2023, and trends in Windsor are likely similar. With SMART rail service now available in Windsor and the emergence of more flexible work options, commuting patterns in Windsor will continue to evolve in the coming years.

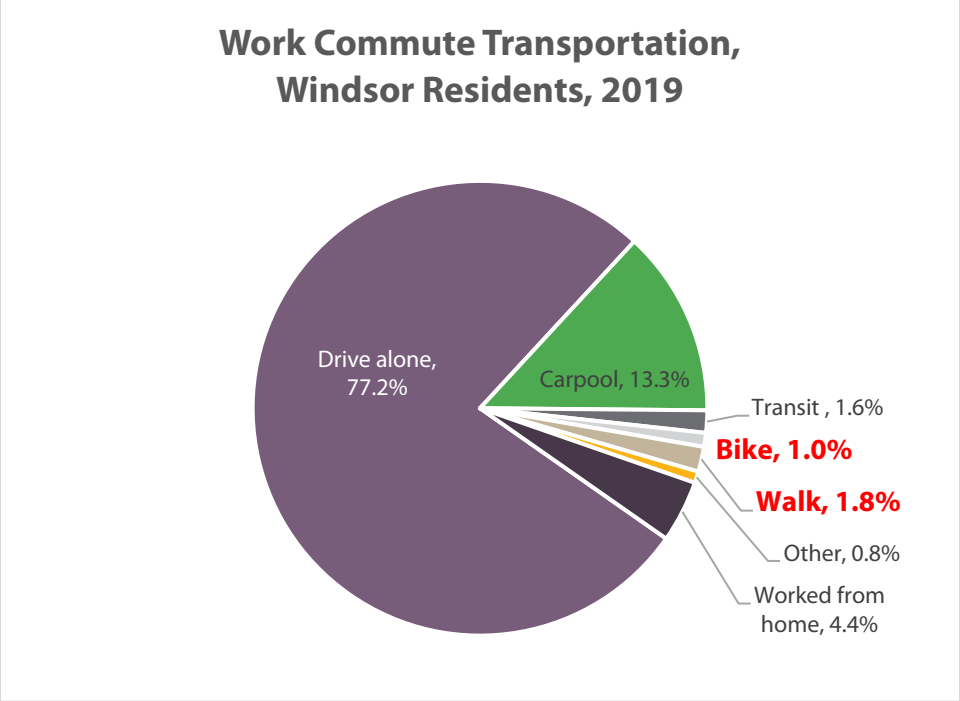


Plate 6 Primary means of transportation to work by Windsor residents (source: American Community Survey, U.S. Census)

Transportation planning typically focuses on addressing commute travel, since that represents the times when peak traffic congestion occurs. As a result, pedestrian and bicycle travel data is most readily available for journey to work trips, providing a limited picture of the overall use of these transportation modes. However, according to the National Household Travel Survey (2017), work commute trips make up only about 17 percent of total trips, while shopping trips make up 18 percent of trips, and another 27 percent of trips are social or recreational. Since trips for shopping or to visit friends are often shorter distance trips, they represent a notable opportunity to shift from vehicle trips to active transportation.

School Trips

School trips present a significant opportunity to increase active transportation trips. While schools may draw students from throughout Windsor, a significant number do live within walking or bicycling distance. With the exception of some high school students, students are not of driving age, but by increasing the number of younger students walking or bicycling to school, vehicle trips by parents can be reduced. Given the traffic congestion near schools at the beginning and end of the school day, reducing the number of vehicle trips to school should improve pedestrian and bicyclist safety.



Plate 7 Student biking on the SMART multi-use path toward Windsor High School



Plate 8 Student crossing Brooks Road South heading toward Windsor Middle School

Since 2013, the countywide Safe Routes to School program has led efforts to promote walking and bicycling to school at Brooks Elementary School, Cali Calmecac Language Academy, and Windsor Middle School. Programs have included promotional activities to encourage students to walk or bike to school and educational workshops to teach safe bicycling techniques. The Safe Routes to School program is primarily funded by the Sonoma County Transportation and Climate Authorities, and the extent of the activities has varied based on available funding.

To track the potential for walking and bicycling trips to school, the Safe Routes to School program has analyzed student addresses and their proximity to the school sites and has also conducted periodic counts at each of the schools. The number of students walking or bicycling to school at three of Windsor's schools was documented in 2023, with 13 to 19 percent of students using these modes on the days the counts were taken. It is noted that these numbers likely vary by time of year due to variations in weather and other factors. This data is summarized in Table 1, and additional information about encouragement and educational activities conducted at each school is included in Appendix A.

Table 1 – Existing Numbers of Students Walking or Bicycling to School

School	Student Enrollment	Students Living within One-half Mile of School	Students Walking*	Students Bicycling*
Brooks Elementary School (Grades 3-5)	453	18%	9%	4%
Cali Calmecac Language Academy (Grades K-8)	1,168	19%	11%	2%
Windsor Middle School (Grades 6-8)	725	12%	11%	8%

* Mattie Washburn Elementary School, Windsor Christian Academy, and Windsor High School do not participate in the Safe Routes to School Program, so data is not available; ** Counts conducted in September 2023, based on average of morning and afternoon counts.

Equity

Bicycling and walking are critical transportation modes for Windsor residents who do not drive or have access to a motor vehicle. Convenient and affordable mobility options are essential for residents to access jobs, shopping, health care, and to meet other basic needs. The Metropolitan Transportation Commission (MTC) identified Equity Priority Communities (EPCs) as part of *Plan Bay Area 2050*, the region's transportation plan. The EPC designation considers numerous variables at the Census tract level, including income, residents' minority status, household vehicle ownership, and the percentage of seniors. While no Census tracts in Windsor have been designated as EPCs, many Windsor residents are reliant on non-vehicle transportation and are impacted by the lack of a comfortable network of pedestrian and bicycle facilities. This includes people who cannot afford a vehicle as well as those who are unable to drive such as many seniors and students. As a result, demand for walking and bicycling infrastructure is expected to be relatively high near affordable housing sites, locations frequented by seniors, and schools. The potential for new pedestrian and bicycle enhancements to better connect students and lower income residents to important destinations was considered in the project prioritization conducted for this Plan.

Existing Facilities

Windsor's street network is used by a wide variety of residents employing a range of transportation modes, including personal vehicles, public transportation, pedestrians, and bicyclists. With US 101 and the SMART rail line acting as barriers to local circulation, the limited crossings must be shared by all transportation users, and there are few alternatives for pedestrians and bicyclists seeking routes with less traffic. Overall, streets in the downtown area are generally well-connected, while neighborhoods outside the center exhibit a more suburban-style pattern, featuring cul-de-sacs with limited access.

As Windsor adapts to its recent and planned growth, a number of visible changes have occurred to improve access and safety on its streets. The Town used roundabouts to manage traffic at intersections, with recent examples including Windsor Road/Windsor River Road, Old Redwood Highway/Market Street, and Old Redwood Highway/Windsor Road, and several other locations have been identified for future roundabouts. Roundabouts have been demonstrated to reduce collisions by 37 percent overall, including a 75 percent reduction in injury collisions, 90 percent reduction in fatal collisions, and 40 percent reduction in pedestrian collisions (Institute for Highway Safety, 2004). Since roundabout designs require drivers to reduce their speeds as they pass through intersections, they provide safety benefits to pedestrians and bicyclists.

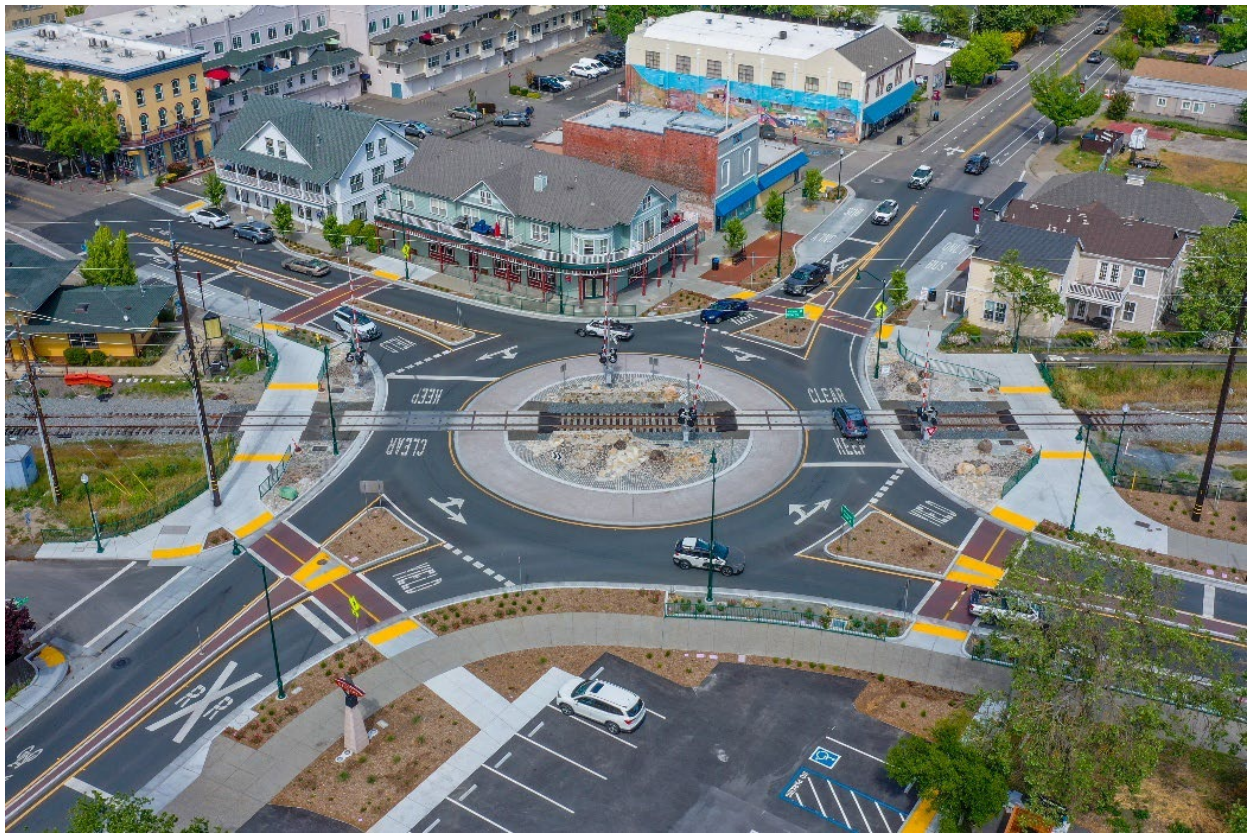


Plate 9 The recently completed roundabout at Windsor Road and Windsor River Road features considerable bicycle and pedestrian safety enhancements.

Notable improvements that have been recently completed or are currently underway in Windsor include the following:

- SMART Multi-Use Path (MUP): In 2008, Sonoma and Marin County voters approved funding for the SMART rail line and an adjacent multi-use path, to be implemented by SMART in partnership with local agencies. Priority has been given to completion of the path alongside active portions of the rail corridor, and the section of the MUP from the SMART station to the Town line was completed in 2025. Path-related improvements include the elimination of a sidewalk gap along Windsor Road near the new SMART parking lot and enhanced crossings for MUP users at Mitchell Lane and Shiloh Road.
- Downtown Pedestrian and Bicycle Crossing of US 101: Pedestrian and bicycle safety improvements are in development along Old Redwood Highway from Conde Lane to 4th Street, including Class I paths to improve access through the US 101 interchange.
- Old Redwood Highway Pavement Preservation Project: As part of a pavement rehabilitation project along the Old Redwood Highway corridor, the Town is upgrading the existing bike lanes to establish buffered bike lanes and separated bike lanes from Lakewood Drive to Pan Abode Court, a 1.4-mile segment.

Windsor's traffic signal system is also being enhanced to improve multimodal transportation along the Town's most congested corridors. There are 23 traffic signals in Windsor, primarily along Old Redwood Highway and Shiloh Road, including at the interchanges with US 101. The Town has been working to upgrade the existing traffic signal system from one that relies on in-ground loop detectors to a "smart" system that uses video detection. Six of Windsor's 23 signals are under Caltrans jurisdiction, and the Town is working with Caltrans to transfer responsibility for ownership, maintenance, and operations of these signals to facilitate this effort. An updated system has the potential to improve bicyclist and pedestrian detection at signals, as well as offering features to improve pedestrian crossing times and crosswalk lighting based on the presence of pedestrians.

Pedestrian Facilities

Central Windsor and recently completed development projects include complete sidewalk networks, providing pedestrian access to most of Windsor's major destinations. However, in many older developments that were constructed when Windsor's character was more rural, sidewalk gaps remain.

Windsor's growth has resulted in higher volumes of vehicle traffic, particularly along major streets. Of particular concern is crosswalks on major streets where traffic is not controlled by stop signs or traffic signals. Thirty such locations with existing crosswalks were identified along arterial and collector streets, which represent the streets with the highest traffic volumes and vehicle speeds, and where pedestrians would be most vulnerable.

The 2014 BPMP identified "pedestrian districts" where walking would be prioritized as a transportation mode. Key areas served by these districts included Central Windsor, encompassing residential and commercial areas on both sides of US 101, the Town Green, SMART station, Windsor High School, and Town Hall. Enhancing pedestrian facilities along Old Redwood Highway through the US 101 interchange was identified as a priority to help reconnect the eastern and western halves of Windsor. Other priority locations for pedestrian improvements were schools, shopping areas, parks, Windsor Community Center, Windsor Senior Center, and the Town's creek trails.

Since the completion of the BPMP in 2014, pedestrian infrastructure has been upgraded throughout the Town to enhance access and safety. This includes the elimination of sidewalk gaps and strategic improvements to pedestrian crossings with features including enhanced striping and signage as well as the addition of rectangular rapid flashing beacons (RRFBs) and curb extensions. Pedestrian crossings have been enhanced at several traffic signals by adding a Leading Pedestrian Interval (LPI), which activates the walk signal before the signal turns green for motorists, enabling pedestrians to enter the intersection first. Part of Windsor's ongoing challenge to improving pedestrian access is to incorporate design features to meet the needs of all users, including people with disabilities. Accessible pedestrian infrastructure requires elements including curb ramps at intersections; detectable warnings at ramps, transit platforms, and other locations; and adequate clearance along sidewalks.

New development projects routinely include these elements, and the Town has developed a transition plan to implement accessibility improvements for existing infrastructure as funding becomes available. Examples of pedestrian infrastructure in Windsor are shown in Plate 10 through Plate 13.



Plate 10 Crossing of Mitchell Lane at the intersection with Trione Circle



Plate 11 Curb extension reduces the distance to cross Natalie Drive at the intersection of Brooks Road South and enhances visibility of pedestrians to drivers as they enter the crosswalk



Plate 12 Enhanced pedestrian crossing across Brooks Rd. South at Natalie Dr., including pedestrian refuge island, RRFBs, and advance yield markings ("shark's teeth").



Plate 13 Enhanced pedestrian crossing across Starr Road near Windsor Christian Academy, including curb extensions, RRFBs, and advance yield markings.

Bicycle Facilities

Windsor features a range of bicycle facilities, including multi-use paths that are completely separated from vehicle traffic as well as facilities that offer varying levels of protection from traffic along roadways. Most of Windsor's

residential streets have relatively low traffic volumes and slow speeds, enabling bicyclists who are comfortable in a mixed traffic environment to share the roadway with vehicles.

Bikeways

Windsor currently includes 23.7 miles of on-street bicycle facilities, and bicycling is permitted along all other streets with the exception of US 101. However, along more heavily traveled collector and arterial streets with higher speed traffic, facilities that provide greater separation and protection for bicyclists from vehicle traffic can serve a broader segment of the population.

Chapter 1000 of the *Highway Design Manual* (HDM), Caltrans, 2020, identifies four categories of bikeways.

- **Class I Multi-Use Path** – a completely separated right-of-way for the exclusive use of bicycles and pedestrians with cross flows of motorized traffic minimized.
- **Class II Bike Lane** – a striped and signed lane for one-way bike travel on a street or highway.
- **Class III Bike Route** – signing only for shared use with motor vehicles within the same travel lane on a street or highway.
- **Class IV Bikeway** – also known as a separated bikeway, a Class IV Bikeway is for the exclusive use of bicycles and includes a separation between the bikeway and the motor vehicle traffic lane. The separation may include, but is not limited to, grade separation, flexible posts, inflexible physical barriers, or on-street parking. This vertical barrier is the primary difference between Class IV and Class IIB facilities.

In 2014, Caltrans endorsed design guidance that could be used in addition to the *Highway Design Manual* (HDM), including the *Urban Bikeway Design Guide* developed by the National Association of City Transportation Officials (NACTO). The Windsor ATP includes facility types identified in the NACTO guide to provide state-of-the-practice designs that can serve the needs of all ages and abilities by providing bicyclists with greater protection from traffic.

- **Buffered Bike Lane** – Buffered bike lanes include a standard Class II bike lane plus a striped buffer between the bike lane and the adjacent motor vehicle travel lane and/or the parking lane. These facilities provide additional separation between bicyclists and vehicle traffic. Buffered bike lanes are designated as Class IIB facilities in the Windsor ATP.
- **Bicycle Boulevard** – Bicycle boulevards are low volume, low speed streets designed to enhance bicyclist safety and convenience and to form part of a low traffic stress network. Referenced in this ATP as Class IIIB facilities, they are considered a subset of bike routes, as bicyclists are required to share the roadway with vehicle traffic. Bicycle boulevards can include a range of design elements, depending on the jurisdiction and context, but they typically include traffic calming features such as speed tables, diverters, chicanes, or traffic circles to maintain slow vehicle speeds. They may also include elements that modify circulation patterns along the corridor to give bicyclists priority, such as barriers that restrict motor vehicle movements while permitting bicyclist access or relocating stops signs from the designated bicycle boulevard onto the cross street to enable bicyclists to more comfortably travel along the route.

Examples of bicycle facilities in and near Windsor are shown Plate 14 through Plate 20.



Plate 14 Class I Multi-Use Path between Eagle Drive and the SMART tracks



Plate 15 Class I Multi-Use Path near Tommy Dorsey Court, includes signage to support safe usage by both pedestrians and bicyclists



Plate 16 Class II bike lanes along Hembree Lane



Plate 17 Dashed green bike lanes to highlight potential vehicle conflicts across US 101 on-ramp on Old Redwood Highway



Plate 18 Class IIB buffered bike lanes along Windsor Road



Plate 19 Class IV separated bike lanes along Brooks Road South



Plate 20 Example of a bicycle boulevard in Santa Rosa featuring a speed table to reduce vehicle speeds and descriptive pavement markings

Figure 2 illustrates Windsor's existing bicycle facilities.

Bicycle Parking

Availability of secure bicycle parking is an important factor in supporting bicycle transportation. Bicycle parking includes a variety of types, ranging from racks to lockers or storage areas with limited access. Bicycle racks are the most commonly available form of bicycle parking. In downtown Windsor, there are nine bike racks along public streets in front of commercial and Town buildings. The majority of Town Green bike racks (22) are located inside the park. Racks are also available at some commercial sites outside central Windsor, including Shiloh Center and Lakewood Center, and at Windsor's public schools.

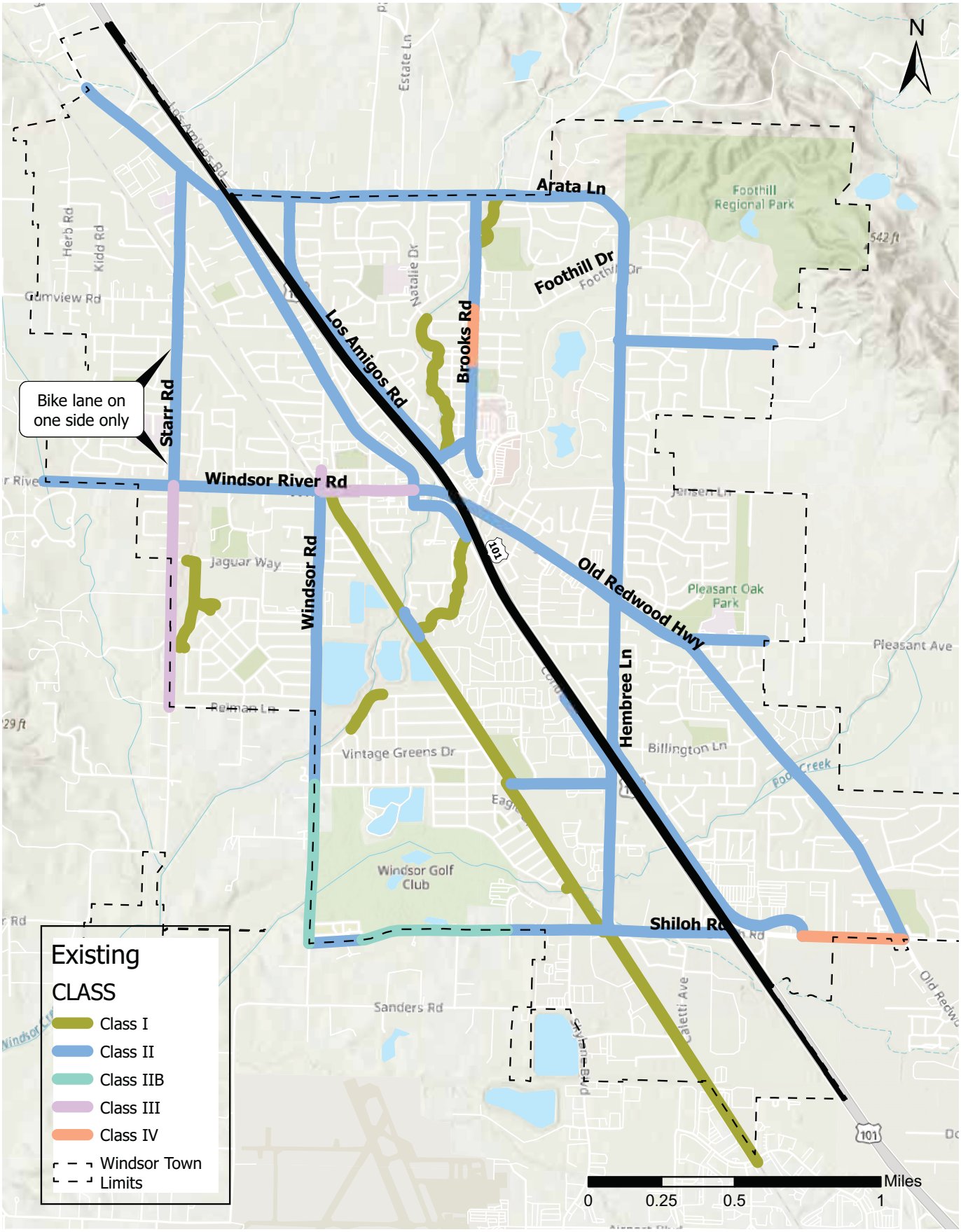
Bicyclists require a range of bicycle parking types. Where parking is needed for only a couple of hours, racks are generally considered adequate, like those shown in Plate 22. However, for commuters bicycling to employment sites or schools, or at residences where people will be at a location for longer periods of time, a locked room or other facility that provides additional protection from inclement weather and from theft is preferred. Chapter 17.30 of Windsor's municipal code includes the required number of short- and long-term bicycle parking spaces for new development projects, with requirements specified for a range of land use types.



Plate 21 Bike racks at Windsor Town Green



Plate 22 Bike lockers at SMART station



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Windsor Active Transportation Plan

Figure 2 – Existing Bicycle Facilities

W-Trans

Chapter 17.30 of the Town's Municipal Code includes bicycle parking requirements for new development, with the number of short-term and long-term spaces specified based on land use. The *Windsor Station Area Plan* includes bicycle parking requirements for new residential and non-residential developments in the Town Center area. Additional information regarding these requirements is provided in Appendix B.

Other Support Facilities

In addition to bicycle parking, other end-of-trip facilities can support bicycling, especially for commuters. Workplaces that provide changing rooms, lockers, and showers enable their workers to commute by bicycle and still dress appropriately for work. While Windsor employers are not currently required to provide such facilities, many jurisdictions either require or encourage incoming development projects to include these amenities to support bicycle commuting.

Transit Facilities

While bicycling and walking are primarily for short distance trips, combining them with transit can offer a convenient option for accessing destinations throughout the Town, other communities in Sonoma County, and throughout the Bay Area. This highlights the importance of improving pedestrian and bicycle access near transit stops, particularly the SMART station, as it offers access to regional services and can potentially serve large numbers of users.

Bus Service

Windsor is currently served by three Sonoma County Transit bus routes. All three routes provide connections to Downtown Windsor, with two routes providing service to other Sonoma County communities and one route providing service within Windsor. SCT buses are equipped with racks that can accommodate two or three bikes. Available services are summarized in Table 2.



Plate 23 SCT bus with bike rack



Plate 24 SCT bus shelter

Table 2 – Sonoma County Transit Bus Routes Serving Windsor		
Route Number	**Corridors and Destinations Served**	**Hours of Operation**
60	Provides service between Santa Rosa and Cloverdale; service in Windsor includes Downtown Windsor, Old Redwood Hwy, Windsor River Rd, and Starr Rd.	Daily service from 6:30 a.m. to 9:30 p.m., frequency approximately one to two hours.
62	Provides service between Windsor, Sonoma County Airport and Santa Rosa; service in Windsor includes Downtown Windsor, Shiloh Rd, and Windsor Rd.	Weekday service from 7:00 a.m. to 8:00 p.m., frequency approximately one to two hours.
66 (Windsor Shuttle)	Provides local service within Windsor; service includes Downtown Windsor, Hembree Ln, Brooks Rd S, Los Amigos Rd, Shiloh Rd, Windsor Rd, and Old Redwood Hwy.	Monday through Saturday, approximately 8:00 a.m. to 5:30 p.m., frequency approximately 60 to 90 minutes. Service is a one-way loop.

Source: www.sctransit.com

Rail Service

The Sonoma Marin Area Rail Transit (SMART) line has offered commuter rail service along the US 101 corridor in Sonoma and Marin counties since 2017, and in 2025 the north end of the line was extended to the Downtown Windsor SMART station. The station is located just north of the Windsor Road/Windsor River Road intersection in Downtown Windsor, within a short walking distance from a wide variety of local businesses, the Town Green, and other destinations.

Pedestrian and bicycle access to the SMART station will be a critical element to building transit ridership for travel between Windsor and other communities along the US 101 corridor. Each train car can accommodate 12 bicycles, with trains typically having two cars, and bicycle parking is available at stations throughout the system. SMART has initiated the Redwood Bikeshare pilot program as a two-year pilot program at selected stations, with an option to extend the program, and there is the potential to add such services in Windsor. SMART has conducted regular ridership surveys, including an assessment of how riders travel to and from the various stations in the system. In August 2025, 16,583 bicycles were counted on SMART trains, representing over 13 percent of all riders. This number likely undercounts bicycle usage to access the system, as it does not include bikeshare users or bicycles parked in lockers or racks at stations.

Staff of SMART and local jurisdictions have been working to implement the planned multi-use path along the entire route throughout Sonoma and Marin Counties. A total of 129,710 path users were counted along the pathway in August 2025, with approximately equal numbers of pedestrians and bicyclists.



Plate 26 Bridge along SMART Multi-Use Path



Plate 27 Pedestrian/bicycle underpass provides protected crossing of SMART near Windsor High School



Plate 25 Entrance to SMART underpass

Programs

The Sonoma Countywide Safe Routes to School (SRTS) program delivers pedestrian and bicycle safety and encouragement activities at elementary and middle schools, including Brooks Elementary School, Cali Calmecac Language Academy, and Windsor Middle School. Activities at each school vary each year in accordance with available funding but have included various activities such as walking school buses, monthly walk and roll to school days, special events such as International Walk and Roll to School Day, pedestrian and bicycle safety education activities, and outreach to engage parents. These activities have been led by SCTCA's Sonoma County Safe Routes to School program, which is currently operated by the Sonoma County Bicycle Coalition. The scope of these activities is developed collaboratively by staff from SCTCA, the Safe Routes to School Program, local jurisdictions, and school districts throughout the county. While the program is overseen by SCTCA, Windsor has provided financial contributions to support these activities.

Collision History

Pedestrians and bicyclists are among the most vulnerable users of Windsor's transportation network. For collisions involving pedestrians and bicyclists, a 10-year analysis period was used, as the sample size over a five-year period is often too small to adequately identify locations of concern. There was a total of 434 injury collisions recorded in Windsor from 2014 to 2023, including 61 (11 percent) involving pedestrians or bicyclists. This included four collisions resulting in a fatality and five resulting in a severe injury, and the four pedestrian fatalities made up two-thirds of all traffic fatalities in Windsor during this period. Of the nine collisions resulting in a fatality or severe injury for pedestrians or bicyclists, eight involved pedestrians, highlighting the vulnerability of these users. It is noted that this data only reflects collisions that were reported to the California Highway Patrol, so the actual number of collisions is likely higher. The data is summarized in Table 3.

Table 3 – Recorded Injury Collisions in Windsor, 2014-2023

Transportation Mode	Fatal Collisions	Severe Injury Collisions	Other Injuries	Complaint of Pain	Total Injury Collisions
Pedestrian	4	4	14	7	29
Bicycle	0	1	21	10	32
All modes	6	30	164	234	434
Pedestrian and bicycle share of total collisions	67%	17%	21%	7%	11%

Source: SCTCA Vision Zero Data Dashboard, 2024

For pedestrians, the top two crash factors were pedestrian right-of-way violations and pedestrian violations, accounting for 15 and 8 collisions respectively, out of the total of 29 pedestrian injury collisions. For bicyclists, improper turning (12), unsafe speed (5), wrong side of road (5) were the top crash factors reported.

Since exposure to vehicle traffic is highest along major roadways, it is not surprising that bicycle and pedestrian injury collisions were largely concentrated along Windsor's major roadways. This includes Old Redwood Highway (ten bicycle collisions and eight pedestrian collisions) and Windsor River Road (four bicycle collisions and two pedestrian collisions). Plate 28 and Plate 29 show bicycle and pedestrian injury collisions that occurred in Windsor from 2014 through 2023, with Plate 28 including all injury collisions and Plate 29 including only those resulting in a fatality or severe injury.

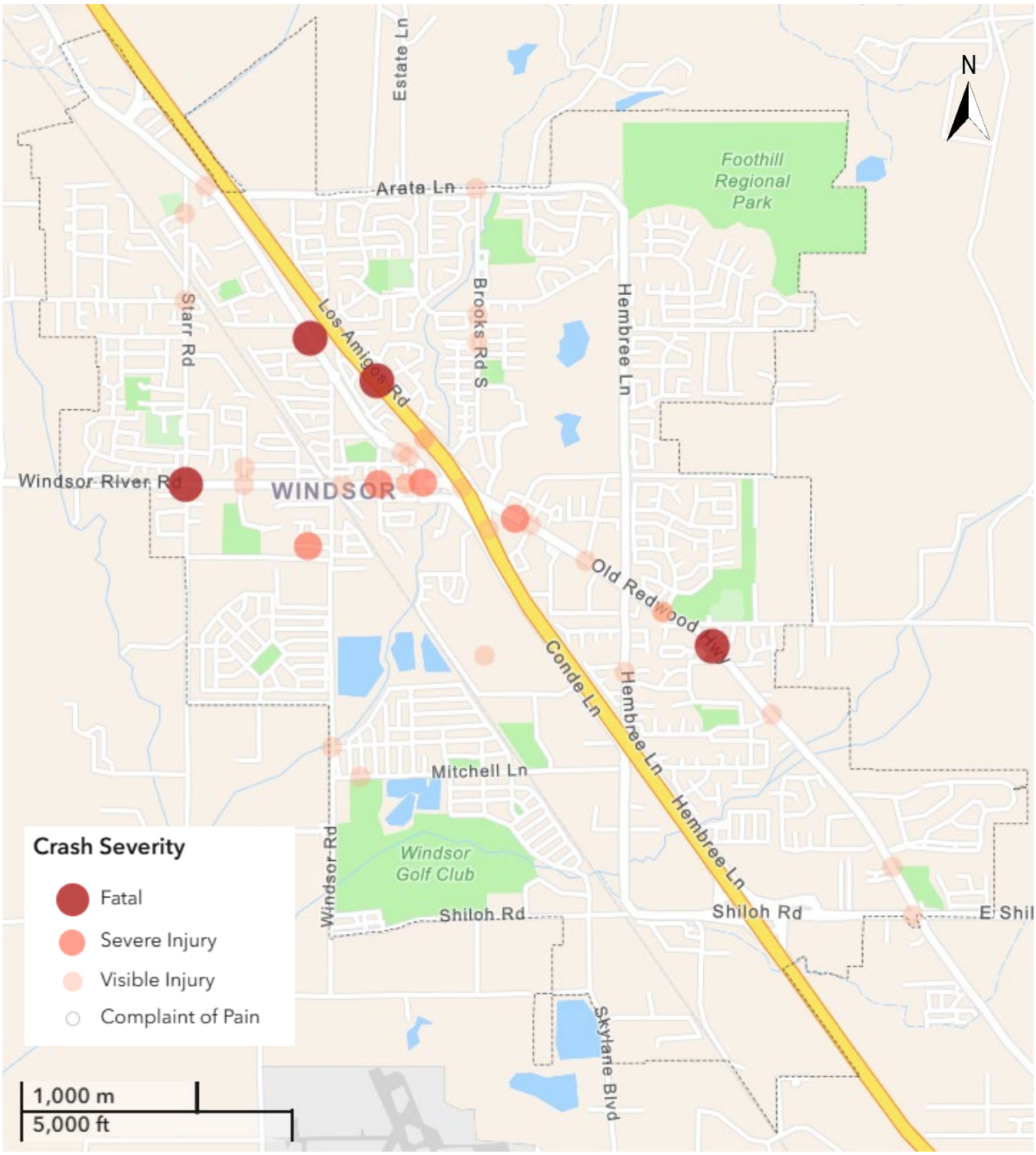


Plate 28 All recorded bike and ped injury collisions from 2014-2023

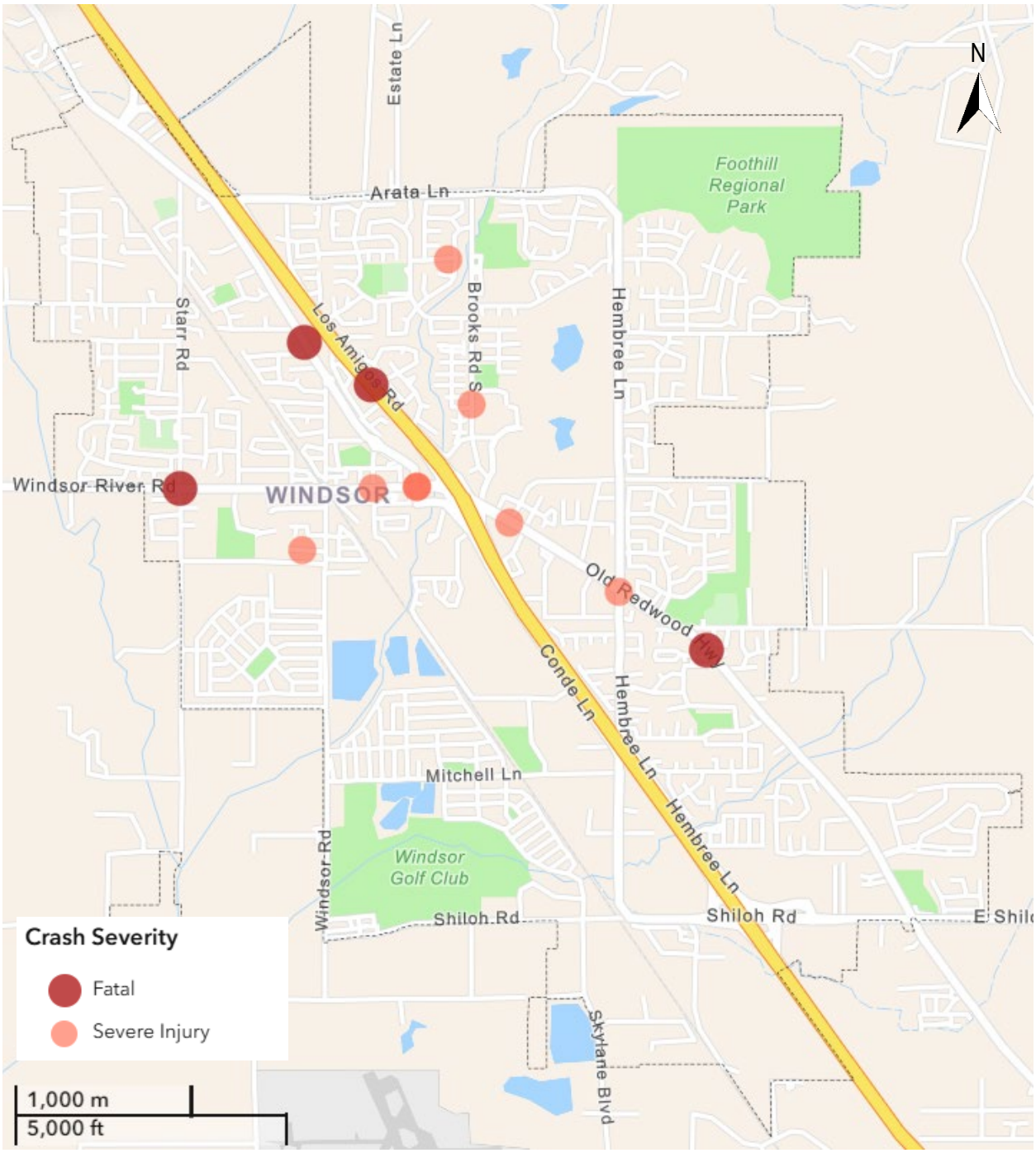


Plate 29 Fatal and severe injury collisions recorded from 2014-2023

Goals and Policies

Emerging topics that reflect the 2040 General Plan as well as countywide and statewide goals include an increased emphasis on serving the needs of residents of all ages and abilities, addressing the needs of disadvantaged communities, and a greater emphasis on safety, in line with the countywide Vision Zero Plan (adopted by the Windsor Town Council).

The following goals were established for the Windsor Active Transportation Plan:

- **Enhance Pedestrian and Bicycle Access:** Develop the Town's infrastructure in a manner that provides safe, convenient access for residents to enable them to walk or bicycle from their homes to activity centers including shopping areas, major employment sites, transit, recreation areas, and schools.
- **Connectivity:** Eliminate gaps in the existing network and address barriers that require pedestrians and bicyclists to use circuitous routes, such as US 101, the SMART rail tracks, and creeks. Partner with other agencies to implement multijurisdictional and regionally significant projects, including the SMART Trail as well improvements at US 101 on/off ramps and projects at the Town/County boundary.
- **Equity:** Ensure that all of Windsor's residents have access to high quality active transportation infrastructure, including disadvantaged neighborhoods where residents are likely to have less access to vehicle transportation.
- **Low-Traffic Stress Bicycle Network:** Develop a Town-wide low traffic stress bicycle network – including multi-use paths (Class I), separated bike lanes (Class IV), and bicycle boulevards – to enable people of all ages and abilities to comfortably travel by bicycle throughout Windsor.
- **Pedestrian Facilities for All Users:** Continue to enhance the Town's pedestrian facilities by eliminating sidewalk gaps and implementing accessibility improvements in accordance with requirements of the Americans with Disabilities Act.
- **Mode Shift:** Increase the share of trips made by walking and bicycling to reduce greenhouse gas emissions, vehicle miles traveled, and traffic congestion.
- **Safety:** Strive to achieve "Vision Zero" by eliminating all traffic-related fatalities and severe injuries.
- **Public Health:** Support improved public health for the Windsor community by providing safe active transportation opportunities through the implementation of priority infrastructure projects.
- **Support Facilities:** Increase the supply of bicycle parking along public streets to encourage bicycling to destinations within Windsor. Encourage or require employers and incoming development to provide bicycle parking as well as facilities such as locker rooms and showers. Expand the existing wayfinding signage in central Windsor to other popular destinations.
- **Programs:** Continue to work with partner agencies to support non-infrastructure programs that promote active transportation, including traffic enforcement, safety education, and encouragement campaigns directed toward students, residents, and employees.

These goals were primarily derived from previously adopted plans, including the Transportation and Mobility Element of the 2040 General Plan, 2014 *Windsor Bicycle and Pedestrian Master Plan*, *Windsor Station Area/Downtown Specific Plan*, *Town of Windsor Local Road Safety Plan*, and *Old Redwood Highway Corridor Enhancement Plan*. General Plan goals and policies related to addressing the needs of pedestrians and bicyclists, providing complete streets, and encouraging mode shift to non-vehicle transportation are provided in Appendix C. The use of these prior documents ensured consistency across the various planning efforts and consideration of the previous public engagement processes.

Community Engagement

Input from local residents, business owners, and other stakeholders was a critical aspect of the development of the ATP. It should be noted that this effort is grounded in previously adopted plans, which themselves were also built on input from the community. The recently conducted outreach efforts help to ensure that as the Town continues to grow and evolve the ATP will continue to reflect local priorities and acknowledge and address recently emerging issues.

The ATP community engagement activities are described below.

Communication Strategy

Local stakeholders were notified about activities related to the ATP via a range of communication channels. This included the Town's web site and social media pages, messaging through stakeholder groups that have their own distribution networks, an email list compiled from individuals who expressed interest in the project and responded to surveys, and flyers posted at key locations throughout Windsor.

Community Workshop and Outreach Events

A virtual workshop was conducted using the Zoom platform. The workshop was attended by 25 participants and featured a presentation by the consultant providing an overview of the scope of the ATP as well as an open-ended discussion of key issues and concerns. The workshop presentation is included in Appendix D. Staffed information tables were also set up at the Windsor Regional Library to solicit additional input from residents. These sessions were scheduled to coincide with a quesadilla class and a Tai Chi class, as these events would guarantee some level of foot traffic at the library. An information table was also set up to collect public comments on the ATP at Windsor's Earth Day celebration.

ATP Website

An ATP web site was established using the Social Pinpoint online engagement platform. The website served as a central information hub for plan-related information and included several components.

- *Surveys:* An initial survey was conducted to solicit comments about priorities for improving pedestrian and bicyclist access and safety. After the list of candidate projects was prepared, a survey was conducted to help gauge community support for the highest ranking projects included in the ATP.
- *Interactive Map:* The map offered respondents the opportunity to provide location-specific comments that staff and the consultant were able to use in the development of the project recommendations.
- *Project Calendar:* A list of upcoming meetings and milestones was provided to enable visitors to monitor the progress of the ATP.
- *Register to Receive Project Updates:* Visitors to the web site were offered the opportunity to sign up for project updates and notification of upcoming events and milestones.

Survey Results

The initial survey generated 20 responses. Key issues of concern that were identified by respondents included missing sidewalks at certain locations and the failure of drivers to yield to pedestrians.

For respondents who indicated that they do not currently bicycle in Windsor, the top two reasons were concerns about safety and the speed of vehicle traffic along local streets. Among respondents with an interest in bicycling,

the top two improvements identified that would encourage them to bicycle more frequently were an increase in the availability of bicycle parking and the addition of facilities that would create greater separation between bicyclists and vehicle traffic, including separated bike lanes (Class IV), bike lanes (Class II) with a striped buffer, and multi-use paths (Class I).

When asked about which streets they would most like to see considered for separated bike lanes, the highest ranked choices were Old Redwood Highway (79 percent) and Shiloh Road (53 percent). The complete survey results are included in Appendix E. An additional survey was conducted to solicit input regarding prioritization of ATP projects. This survey and the results are summarized in the "Project Prioritization" section of this Plan.

Interactive Mapping Results

There were 71 comments provided on the project's interactive map, including responses to those comments. The most heavily cited locations for areas of concern to pedestrian and bicyclists were Starr Road and Old Redwood Highway. The map with the location of the comments is shown in Plate 30, and the complete list of comments is provided in Appendix F.

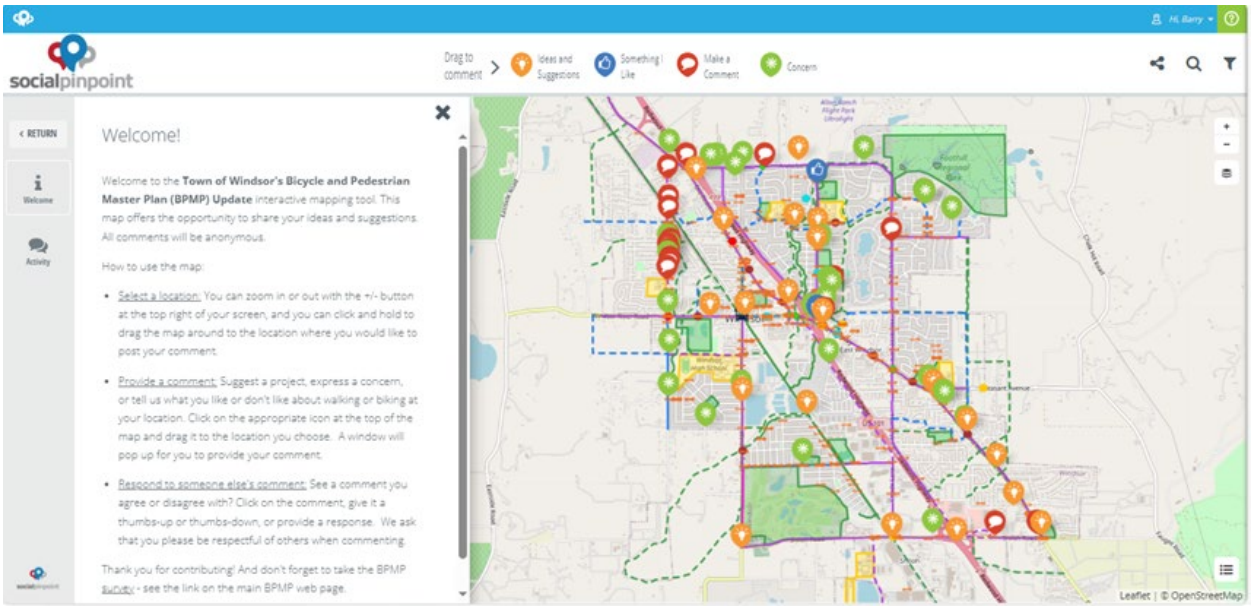


Plate 30 Comments provided on project web site interactive map

Public Review and Presentations

The draft plan was released for public review between March 24 and May 27, 2025 and the Town continued to receive comments that were submitted through October 8, 2025, providing residents with the opportunity to review the draft and offer comments and feedback, which were then incorporated into the final ATP. Notification of the public review period was announced through the Town's social media accounts as well as its *Insider* newsletter. Presentations on the ATP were delivered to the following groups to solicit input from their members as well as the public:

- Bicycle and Pedestrian Advisory Committee (BPAC)
- Parks and Recreation Commission
- Planning Commission
- Town Council

Additional Active Transportation Outreach

In 2023, the Town conducted the *Windsor NEXT Community Transportation Priorities Study* to gauge community sentiment and priorities on a broad range of transportation issues, including active transportation. Key findings from that effort included the following.

- *General bicycle/pedestrian safety:* Over 60 percent of respondents indicated that there are at least some streets in Windsor where they would not feel safe bicycling or walking. Concerns included high speed traffic, lack of bicycle infrastructure, inadequate lighting, and lack of sidewalks.
- *Student pedestrian/bicycle safety:* 53 percent of respondents indicated that they would not feel comfortable allowing their middle-school aged children to walk or bike around Windsor, while 47 percent stated that they would be comfortable with their children walking or biking. Some respondents noted that their level of concern was dependent on the particular route used, with the US 101 interchange identified as one example of challenging conditions.
- *Strategies to reduce vehicle speeds:* Speeding traffic had previously been identified as an important concern of local residents. Given a range of options for reducing vehicle speeds, the highest ranked measures were speed cushions and raised crosswalks, additional bicycle and pedestrian facilities, and radar feedback signs.

Network Analysis and Identification of Projects

Candidate projects for Windsor were identified from previously adopted plans that were reviewed in the Planning Context chapter as well as a review and analysis of the existing network. Projects that have been completed were removed from the candidate project list. The projects were also reviewed and any changes in the vicinity of those projects that could result in changes to the recommendations were considered, such as incoming development projects that might generate additional walking or bicycling trips.

New projects were added to the ATP as the result of supplementary analysis that focused on the Town's current priorities, which are reflected in the ATP goals. These projects emphasize facilities such as on-street bike lanes that offer greater protection from vehicle traffic as well as enhancements for unprotected pedestrian crossings along major streets.

Areas of Emphasis

Low Traffic Stress Bicycle Facilities

Research has shown that most people do not feel comfortable bicycling in a shared space with vehicle traffic. To help understand how people of different skill levels think about bicycling, studies have used a "Four Types of Bicyclists" framework. A national survey of 3,000 respondents conducted in 2016 estimated the percentages of each type of bicyclists as follows:

- *Strong and Fearless* (7 percent) – Very comfortable on non-residential streets without bike lanes;
- *Enthused and Confident* (5 percent) – Very comfortable on non-residential streets with bike lanes;
- *Interested but Concerned* (51 percent) – Interested in bicycling but concerned about sharing the roadway with vehicle traffic; and
- *No Way, No How* (37 percent) – Not interested in bicycling.

To provide bikeways that would be comfortable for most bicyclists, an emphasis of the Windsor ATP was to develop a townwide network of "low traffic stress" bikeways to address the needs of the "interested but concerned" bicyclists, as they represent more than half the population. This includes multi-use paths, which are completely separated from vehicle traffic. It also includes on-street facilities that provide a physical barrier (such as Class IV separated bike lanes) or horizontal separation between bicyclists and vehicles (such as Class IIB buffered bike lanes). Bicycle boulevards can also be considered to be low traffic stress facilities if they provide an environment with low traffic volumes and vehicle speeds. The Federal Highway Administration's *Bikeway Selection Guide* (2019) provides general guidance for the types of on-street facilities to provide based on the characteristics of vehicle traffic. While this guidance is helpful at a general level to develop facilities to enhance access and safety, more detailed analysis is needed to assess other factors such as the frequency of driveways and intersections, presence of transit routes, and connections to different types of bikeways. The guide's recommended approach to facility selection is illustrated in Plate 31.

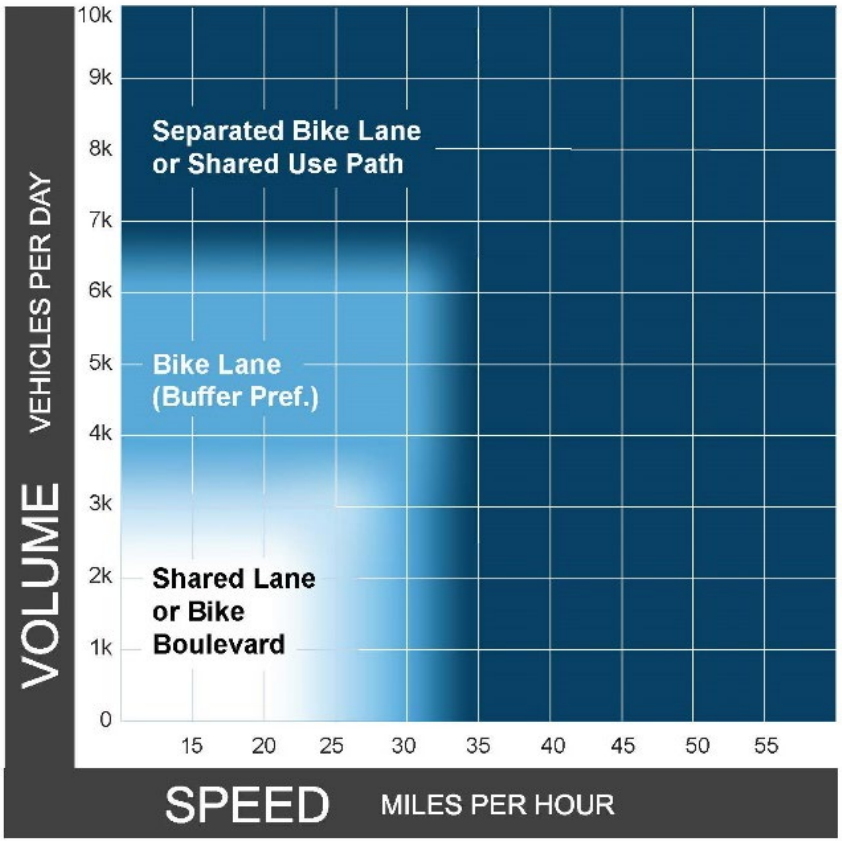


Plate 31 Preferred bikeway type for urban, urban core, suburban and rural town contexts.

Enhanced Pedestrian Crossings

Pedestrian crossings at locations where no traffic signals or stop signs are present are known as uncontrolled crossings. These locations were identified as an area of focus for the ATP since they tend to have a higher collision rate than controlled crossings. A range of enhancements can potentially be added at such locations, including curb extensions or median refuge islands to reduce the pedestrian crossing distance, rectangular rapid flashing beacons (RRFBs) and enhanced signage to raise the awareness of drivers to the presence of pedestrians and encourage yielding by drivers, or a high-intensity activated crosswalk beacon (also known as a HAWK signal) that would require approaching traffic to stop, similar to a traffic signal.

Identification of Candidate Projects

On-Street Bicycle Facilities

A candidate list of streets for separated bike lanes and buffered bike lanes was developed to support the establishment of a low traffic stress network. A preliminary feasibility analysis was then undertaken by field reviewing each of the proposed corridors, documenting the physical conditions at each location, observing traffic patterns, compiling relevant data to identify the preferred treatment for the candidate corridors, and identifying any concerns or challenges with implementing such design treatments. Some of the existing roadways do not currently have designated bicycle facilities, while others represent a potential upgrade of standard bike lanes to increase protection of bicyclists from vehicle traffic and provide greater separation from vehicle traffic. The separated or buffered bike lanes would provide greater comfort to users.

Factors considered in the feasibility analysis included the following.

- Width of the existing roadway
- Number of travel lanes
- Existing and future traffic volumes
- Speed limit
- Presence of on-street parking
- Presence of bus stops
- Other characteristics that could influence traffic operations such as the presence of commercial driveways

Along many streets, travel lanes are currently wider than needed, providing an opportunity for improving bicycling conditions. The roadway could potentially be restriped to add bike lanes or provide buffers for existing bike lanes, while the narrower lane widths encourage reduced vehicle speeds. For some corridors there will be challenging trade-offs to implement bicycle facilities as the addition of bike lanes or buffers would require elimination of on-street parking or removal of a travel lane. In such cases, additional data collection, analysis and community engagement would be needed to determine how to balance these competing priorities.



Plate 32 Crews preparing to install delineators after restriping work on Brooks Road South. Two lanes were narrowed to one for these improvements.

Some corridors provide important bicycle network connectivity but lack sufficient right-of-way to dedicate space specifically for bicyclists. If streets carry relatively low speed traffic and low traffic volumes they could be considered as potential bicycle boulevards, which require bicyclists and vehicle traffic to share the roadway. In contrast to standard bike routes, which typically include only pavement markings and/or signage, bicycle boulevards generally include other elements such as traffic calming or barriers that permit bicyclist access while prohibiting motor vehicle traffic. By reducing the difference in speeds between bicyclists and vehicles or reducing vehicle volumes, bicycle boulevards offer a strategy to minimize vehicle/ bicycle conflicts. Additional analysis and consultation with the community is needed to identify appropriate design treatments along these streets.

The criteria used to select bicycle boulevards and the specific treatments recommended vary between communities. For Windsor, the following criteria were adapted from the *Urban Bikeway Design Guide* published by the National Association of City Transportation Officials (NACTO), 2025, which is one of the design documents that has been endorsed by Caltrans.

- Segment provides access to destinations and/or connects to other segments of the bicycle network
- 85th percentile speed should be 25 mph or less
- Traffic volumes should be less than 3,000 vehicles per day
- Adequate emergency vehicle access and response times should be maintained

Enhanced Pedestrian Crossings

Thirty crossing locations with marked crosswalks and no traffic controls were selected along Windsor's arterial and collector streets for analysis and potential enhancements. Locations with marked crosswalks were selected to target locations where there is a higher pedestrian crossing demand. There were also several locations where marked crosswalks are not currently present that were included based on recommendations from Town staff and comments received from residents that were tracked in the Town's local resident comment log. Relevant data was compiled, including street crossing width, number of lanes, and speed limits. These locations were also reviewed in the field and existing conditions documented, including lane configurations, pavement markings, signage, and the presence of features such as medians, RRFBs, and ramps with detectable warnings (also known as truncated domes) to help guide people with disabilities.

Pedestrian crossing locations were evaluated and recommendations developed using a methodology that was published in *Improving Pedestrian Safety at Unsignalized Intersections*, TCRP Report 112/NCHRP Report 562, Transportation Research Board, 2006. This is generally consistent with the improvements the Town has implemented in recent years, and it is noted that the Town has deployed a standard set of treatments to send consistent messaging to drivers and pedestrians. This standard includes continental crosswalk markings, advance yield markings (also known as "shark's teeth"), and yield to pedestrian signage. Where feasible, curb extensions may also be included. An example of this combination of treatments is shown in Plate 33.



Plate 33 Enhanced pedestrian crossing along Brooks Road South at the intersection of Natalie Drive

Multi-Use Paths

The Class I Trails Study adopted in 2018 was undertaken to conduct a more detailed analysis of the multi-use path projects that were identified in the 2014 BPMP and recommend implementation priorities. The study identified 47 trail segments totaling over 24 miles, with most of the projects located in creek corridors. Since the completion of the trails study, the Town has completed the annexation of the North of Arata area. To help integrate this area into

the fabric of the Town and its active transportation network, new trail projects have been identified and were added to the ATP candidate project list.



Plate 34 Multi-use path near Pool Creek Lane

Sidewalk Gaps

The 2014 BPMP identified key sidewalk gaps in Windsor and noted the importance of providing sidewalks at creek crossings and along the frontages of new land development projects. The remaining sidewalk gaps identified in the BPMP as well as gaps in the recently annexed areas have been identified as ATP projects.





Plate 35 On the left, a sidewalk gap along Windsor Road limits pedestrian access. Above right, the same location after sidewalks were added.

Project Prioritization

Methodology

The Windsor ATP includes a range of project types. To facilitate evaluation of proposed projects, rather than attempt to compare projects of different types they were prioritized within each of the following categories: 1) multi-use paths, 2) on-street bicycle facilities, and 3) pedestrian crossing enhancements. The approach used to evaluate each of these project types is described below.

Multi-Use Paths (Class I)

The Trails Study included a prioritization methodology for proposed projects, which included consideration of the following factors.

- **Stakeholder input:** Public support or opposition to a project. Scoring was based on comments received as part of the Trails Study, input collected through previously developed plans, and comments received by the Town.
- **Constraints:** Ease of implementation, in terms of environmental issues, availability of right-of-way, and potential to secure funding.
- **Opportunities:** Indicates the potential for the Town to take advantage of funding opportunities or to implement in conjunction with planned public improvements or private development projects.
- **Traffic Safety:** Since the recommended facilities were Class I paths, safety was assessed based on the number and characteristics of road crossings as well as the history of collisions in the area.
- **Linkage and Gap Closure:** Projects that provide a link between existing facilities or a connection between neighborhoods and activity centers such as commercial areas, parks, or schools.
- **Use and Demand:** Existing or anticipated number of trail users, based on pedestrian and bicycle counts and an assessment of use associated with nearby land uses, such as schools, parks, and mixed-use developments.

The rankings determined in the Trails Study were retained for the purpose of prioritizing projects in this Plan. The project list was reviewed to identify any projects that have been completed or for which the priority level may have changed as a result of any changes in Town priorities, nearby land uses, or if the project was identified as infeasible for any other reason.

On-Street Bicycle Facilities (Class II, IIB, III, IIIB, IV)

The following criteria were used to evaluate proposed on-street bicycle facilities. This includes new Class II, III, and IV facilities, as well as enhancements of existing facilities, such as redesigning an existing Class II bike lane as a Class IV separated bike lane.

- **Access (5 points):** Project would improve access to key destinations, such as schools, downtown or other commercial areas, SMART station, parks, senior centers. Highest scoring projects are located within one-quarter mile of destinations and serve destinations directly or via other bicycle facilities. Highest scoring projects serve multiple destinations and/or the highest value destinations.
- **Network Connectivity (5 points):** Projects that would complete gaps in the bicycle facilities network. Highest scoring projects provide connections to existing and proposed facilities and expand coverage of the network to parts of Windsor that are not adequately served.
- **Safety (5 points):** Projects that would reduce the traffic stress experienced by users when compared to existing facilities or that are located where there is a demonstrated safety need. A Level of Traffic Stress (LTS) assessment was conducted for the candidate street segments and streets with the highest stress levels or

where there has been a documented collision history were awarded additional points. LTS rates streets on a scale of 1 to 4, with 4 representing the highest stress levels, so streets with LTS 3 were awarded 3 points, streets with LTS 4 were awarded 4 points, and streets with 1 or more bicycle collisions were awarded an additional point.

- **Community Support (2 points):** Project that was identified in previous plans. High priority projects were awarded 2 points, other projects were awarded 1 point.
- **Low Stress Facilities (5 points):** Facilities that would be part of a Town-wide "low stress network" were awarded additional points. Points are awarded only for separated bike lanes (Class IV) or buffered bike lanes (Class IIB). While Class I facilities will be part of the low stress network, they were evaluated separately, as described above. Proposed Class IIB facilities were awarded 4 points, proposed Class IV facilities were awarded 5 points.

Pedestrian Crossing Enhancements

This category includes uncontrolled crossings with marked crosswalks along arterial and collector streets that were evaluated for this plan update, uncontrolled crossings where new marked crosswalks are recommended, and projects identified in previous Town plans.

- **Access (5 points):** Project would improve access to key destinations, such as schools, downtown or other commercial areas, SMART station, parks, senior centers. Highest scoring projects are located within one-quarter mile of destinations and serve destinations directly or via other bicycle facilities. Highest scoring projects serve multiple destinations and/or high value destinations.
- **Safety (5 points):** Project recommendations were based on a review of collision history, existing conditions, and warrant analysis. The highest scoring projects were those where the most intensive interventions were recommended or where a severe pedestrian injury collision or fatality was recorded. Facility recommendations were assigned point as follows:
    a. 3 points: new crosswalk, enhanced signage/striping, curb extensions;
    b. 4 points: rectangular rapid flashing beacon (RRFB); and
    c. 5 points: HAWK and/or pedestrian collision resulting in severe injury or fatality.
- **Community Support (2 points):** Projects identified as high priorities in previous planning efforts that included a public involvement process were awarded 2 points. Other projects identified in plans were awarded 1 point.

Prioritization Survey

After the project scores were tabulated, a survey was prepared to solicit input from stakeholders regarding a select group of high priority projects in the ATP to provide additional guidance to staff and elected officials as they seek to secure funding and implement projects. Given the large number of candidate projects, a focused survey was determined to be the preferred approach, and the top seven on-street bicycle projects and pedestrian crossing enhancements were compiled and presented to the public.

The Social Pinpoint platform was used to implement the survey, and respondents were provided with a brief description of the project and asked to rank each of the projects on a scale of one to five. The survey included a language translation tool to enable non-English speakers to participate. While the survey was primarily conducted online, a hard copy version of the survey was also prepared to enable people unfamiliar with computer technology or for those without access to the internet to participate. Links to the survey were posted on the Town's website and social media sites and were sent to community stakeholders for distribution through additional online networks. In addition, a table was staffed at the Windsor Regional Library on two afternoons that coincided with times of community events (a Tai Chi class and a quesadilla-making workshop).

The online survey was circulated for approximately six weeks. There were approximately 225 responses submitted regarding proposed pedestrian infrastructure projects and 136 responses regarding the bicycle projects.

Responses were weighted to calculate an average score for each project. Respondents were instructed to rate projects on a scale of 1 to 5, assigning a rating of 1 to the highest priority projects and a rating of 5 to the lowest-priority projects; therefore, those with the lowest average score represent the projects preferred by those completing the survey. The survey results are summarized in Table 4 and Table 5, and the complete survey results are provided in Appendix G.

Table 4 – Prioritization Survey for On-Street Bicycle Facilities

Street	Start	End	Facility Type	Rating
Old Redwood Hwy	Lakewood Dr	Shiloh Rd	Class IV	2.03
Shiloh Rd	Hembree Ln	Old Redwood Hwy	Class IV	2.15
Starr Rd	Old Redwood Hwy	Windsor River Rd	Class IIB	2.40
Arata Ln	Old Redwood Hwy	Brooks Rd N	Class IV	2.54
Shiloh Rd	Windsor Rd	Caletti Ave	Class IV	2.63
Hembree Ln	Old Redwood Hwy	Vinecrest Rd	Class IV	2.86
Brooks Rd S	Los Amigos Rd	Foothill Dr	Class IIB	3.02

Table 5 – Prioritization Survey for Pedestrian Crossing Enhancements

Street	Start	Facility Type	Rating
Windsor Rd	High School Driveway Exit	RRFB, pedestrian refuge island	2.06
Old Redwood Hwy	Starr Rd	Protected intersection or roundabout	2.28
Arata Ln	101 NB Ramps	Crosswalk, additional enhancements	2.33
Starr Rd	Buckingham Dr	RRFB, curb extensions	2.49
Starr Rd	Windsor River Rd	Curb extensions, pavement markings	2.57
Old Redwood Hwy	3rd St	RRFB, pedestrian refuge island	2.58
Old Redwood Hwy	Windsor Rd	Potential raised crosswalks	3.20

The highest-rated project was the enhanced pedestrian crossing on Windsor Road at the exit from the Windsor High School driveway, with 69.4 percent expressing support for the project, including 50.7 percent of respondents who ranked it as the highest priority, while an additional 18.7 percent ranked it second. The highest-rated bicycle project was the proposed separated bike lanes along Old Redwood Highway from Lakewood Drive to Shiloh Road, with 67.6 percent indicating support, including 52.9 percent ranking it as the highest priority.

Project Recommendations

The recommended projects were classified as a high or medium priority. It is noted that projects were identified as high priority based on consideration of the value of the project as well as near-term feasibility. Among the medium priority projects, while some are of critical importance to Windsor's active transportation network, it is acknowledged that they might require the reconstruction of a bridge, development of adjacent property, or some other event that may not occur in the foreseeable future. Nevertheless, they were included in the ATP to acknowledge their significance to the community and to ensure that the Town is positioned to take action when the opportunity arises. The detailed project prioritization scores are presented in Appendix H.

Recommended trails, on-street bicycle facilities, and pedestrian projects are summarized below. Existing and proposed trails and on-street bicycle facilities are shown in the map presented as Figure 3. Proposed pedestrian improvements are shown in Figure 4.

Planning-level costs were developed by Town of Windsor staff using unit costs derived from recent project costs and based on experience with similar projects. Additional information regarding these estimates is provided in Appendix I.

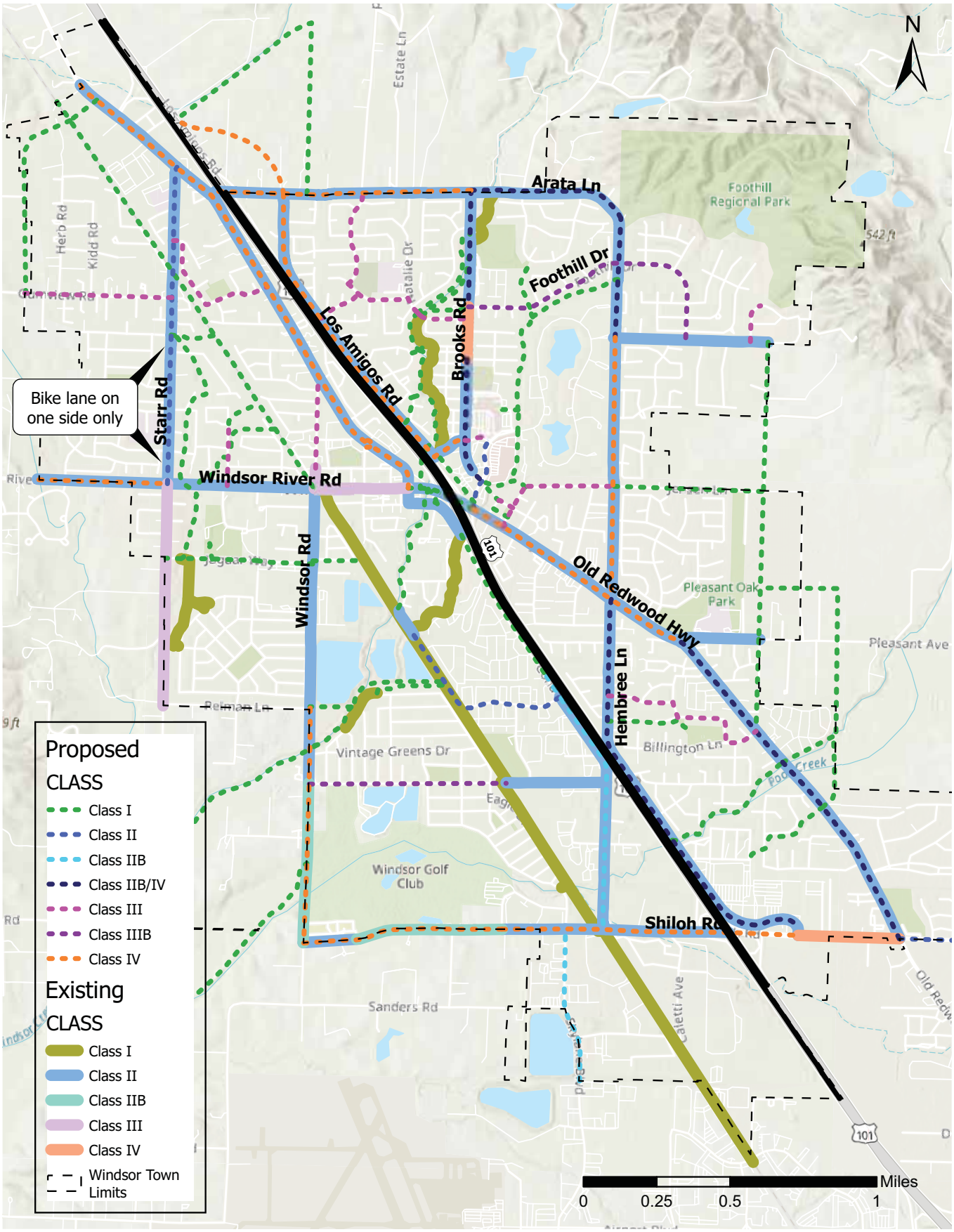
Bicycle Network Summary

Combining the existing and proposed facilities, Windsor's bicycle facility network would nearly triple in size with the completion of all proposed projects. The number of existing and proposed miles of each facility type is summarized in Table 6.

Table 6 – Existing and Planned Bicycle Network

Facility Type	Existing (miles)	Proposed (miles)	Future Network (miles)
Class I	4.4	24.3	28.7
Class II	16.7	1.6	18.3
Class IIB	1.0	3.2	4.2
Class III	1.1	4.0	5.1
Class IIIB	0.0	1.7	1.7
Class IV	0.5	8.1	8.6
Class IIB/IV*	N/A	5.5	5.5
Total	**23.7**	**48.4**	**72.1**

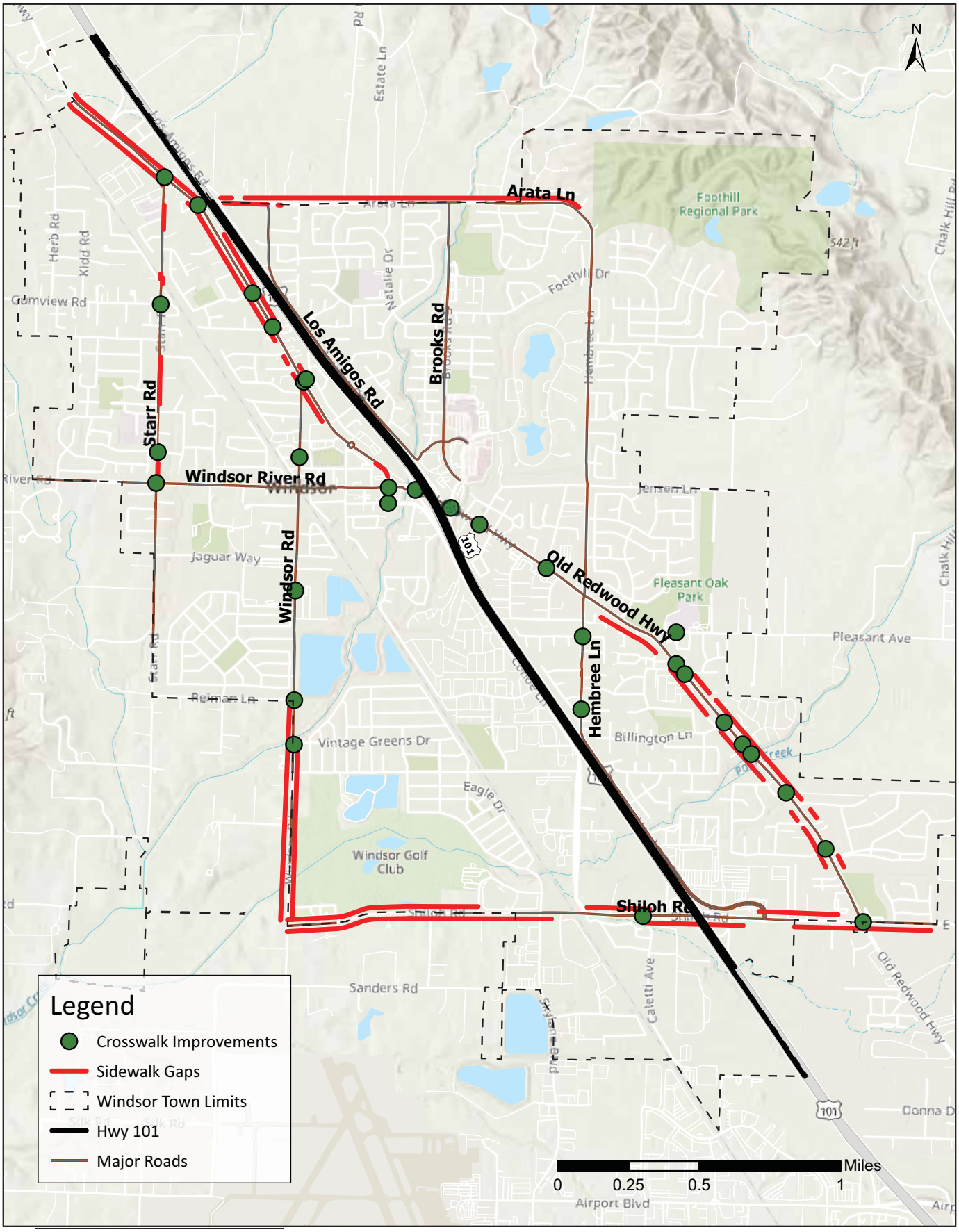
* These facilities were identified as potentially Class IIB or Class IV, further study will be needed



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Windsor Active Transportation Plan

Figure 3 – Existing and Proposed Bicycle Facilities



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Windsor Active Transportation Plan

Figure 4 – Proposed Pedestrian Crossing Enhancements and Sidewalks

Multi-Use Trail (Class I) Projects

The recommended multi-use trail projects are listed in Table 7.

Table 7 – Recommended Trail (Class I) Segments

Project Name	Begin Point	End Point	Segment Number*	Length (miles)	Estimated Cost ($)
High Priority – Near-Term Implementation					
SMART Northwest	Windsor Town Limits	Windsor River Rd	1	2.5	5,570,000
North Starr Creek Trl	Starr Rd	SMART Trl	3A	0.15	330,000
East Starr Creek Trl	Oak Park St	SMART Trl	4A	0.25	560,000
101 Crossing Complex	Los Amigos Rd	Old Redwood Hwy	5	0.7	1,600,000
West Windsor Creek Trl	Brooks Rd S	Lazy Creek Dr	21A	0.38	850,000
Windsor Creek Connector	W Windsor Creek	Brooks Rd	22	0.38	850,000
Windsor Middle School	Elsbree Ln	Foothill Dr	23	0.19	420,000
East Windsor Creek Trl	Foothill Dr	Hembree Ln	24A	0.38	850,000
East Windsor Creek Trl	Lakewood Dr	Foothill Dr	24B	0.47	1,050,000
Franklin Street Bridge	Brooks Rd S	4th St	26	0.06	130,000
Jensen Lane East Connector	Vinecrest Rd	Old Redwood Hwy	29	1.30	2,900,000
Jensen Lane Trl	Hembree Ln	Jensen Ln East Connector	30	0.50	1,110,000
Conde Lane Connector	Old Redwood Hwy	Conde Ln	42	0.11	250,000
South Windsor Creek Trl	Conde Ln	Old Oak Rd	43A	0.17	380,000
South Windsor Creek Trl	Old Oak Rd	SMART Trl (Bell Rd)	43B	0.28	620,000
Jaguar Way Connector	Starr Rd	Windsor Rd	47	0.47	1,050,000
Old Redwood Hwy Greenway	Pleasant Ave	Town Limits	67	1.70	3,790,000
Medium Priority – Mid-Term Implementation					
Gumview Trl	Gumview Rd	Windsor River Rd	2	0.65	1,450,000
North Starr Creek Trl	Starr Rd	Stellar Ln	3B	0.28	620,000
North Starr Creek Trl	Stellar Ln	Windsor River Rd	3C	0.26	580,000
East Starr Creek Trl	Oak Park St	Windsor River Rd	4B	0.21	470,000
Park & Ride Connector	Old Redwood Hwy	SMART Trl	6	0.13	290,000
SMART-Gumview Connector	SMART Trl	Gumview Rd	7	0.70	1,560,000

Table 7 – Recommended Trail (Class I) Segments

Project Name	Begin Point	End Point	Segment Number*	Length (miles)	Estimated Cost ($)
Gumview Creek Trl	Gumview Trl	Starr View Dr	8	0.30	670,000
West Windsor Creek Trl	Lazy Creek Dr	Senior Ctr	21B	0.15	330,000
West Windsor Creek Trl	Senior Center	Los Amigos Rd	21C	0.47	1,050,000
Foxwood Connector	W Windsor Creek Trl	Los Amigos Rd	21D	0.09	200,000
East Windsor Creek Trl	Franklin St Bridge	Lakewood Dr	24C	0.29	650,000
Lakewood-Amigos Trl	Lakewood Dr	Los Amigos Rd	25	0.26	580,000
Pueblo Viejo Park Connector	3rd St	4th St	27	0.60	1,340,000
Arata Lane Connector	Brooks Rd	Foothill Regional Park	28	0.50	1,110,000
Jensen Lane Connector	Vinecrest Rd	Old Redwood Hwy	29	1.30	2,900,000
Lakewood Connector	Jensen Ln	E Windsor Creek	31	0.10	220,000
Trione Connector	Trione Cir	SMART Trl	44	0.25	560,000
WWTP Connector	Windsor Rd	Trione Cir	45	0.28	620,000
South Starr Creek	Keiser Park	Jaguar Wy	46	0.19	420,000
SMART-Windsor Rd Connector	Windsor Rd	SMART Trl	48	0.19	420,000
Windsor-Pool Creek Loop	Windsor Rd	Windsor Rd	49	2.30	5,130,000
Mitchell Lane Connector	Windsor Rd	8th Hole Dr	50	0.44	980,000
Pool Creek Trl	Hembree Ln	Old Redwood Hwy	61	0.44	980,000
Faught Creek Trl	Victory Ln	Old Redwood Hwy	62	0.36	800,000
Robbins Park Connector	Hembree Ln	Robbins Park	64	0.28	620,000
Pool Creek-Jensen Ln Connector	Emmerson St	Old Redwood Hwy	65	0.95	2,120,000
Faught-Pool Creek Connector	Faught Creek	Pool Creek	66	0.28	620,000
Conde Lane Path	Oakfield Ln	Basswood	N/A**	0.56	1,250,000
Sotoyome Creek/Quail Acres Trl	Arata Ln	Los Amigos Rd	N/A**	1.15	1,360,000
Sotoyome Creek Trl	Quail Acres	Los Amigos Rd	N/A**	0.30	1,270,000
Total Class I Projects					**$53,480,000**

Source: *Town of Windsor Class I Bicycle and Pedestrian Trails Study*, 2018; * Segment numbers as identified in Trails Study ** Not included in trails study recommendations.

On-Street Bicycle Facilities (Class II, IIB, III, IIIB, IV)

The on-street bicycle facility projects listed in Table 8 include a preliminary recommendation of the facility type based on characteristics that impact traffic operations, including the available street width, traffic volumes, vehicle speeds, and demand for on-street parking. The proposed facilities will need to be designed in accordance with the update of the Town's complete streets design guidelines, which is anticipated to be completed in 2026.

For high-volume, high-speed roadways, buffered bike lanes (Class IIB) or separated bike lanes (Class IV) are the preferred facility type where sufficient right-of-way is available. While these facilities are similar in width, Class IV facilities include a vertical element such as bollards or curbs. Such barriers can be problematic along streets where there are frequent driveways and intersections. Where on-street parking is permitted, Class IV facilities can be used in a "parking-protected bike lane" configuration in which the bike lane would be located between parked vehicles and the curb and the vertical barriers would not interfere with vehicle movements. For selected projects where additional analysis and community input are required to select the preferred facility type, the facility type is shown in the project list as "Class IIB/IV".

All projects listed below would require additional consultation with area residents as the design proceeds forward, particularly where they include design elements such as the elimination of on-street parking, installation of barriers, and addition of traffic calming measures. In addition, as more detailed design work is undertaken, roadway widening may be required to accommodate the recommended facility.

Table 8 – On-Street Bicycle Facility Improvements

Street	Start	End	Facility Type	Length (miles)	Estimated Cost ($)
High Priority – Short-Term Implementation					
Arata Ln	Old Redwood Hwy	Brooks Rd North	Class IV	0.89	1,230,000
Arata Ln-Hembree Ln	Brooks Rd N	Vinecrest Rd	Class IIB/IV	0.93	1,290,000
Bell Rd	650' south of Grayson Wy	Conde Ln	Class II	1.30	240,000
Brooks Rd S	Arata Ln	Foothill Dr	Class IIB/IV	0.40	550,000
Brooks Rd S	Los Amigos Rd	Lakewood Dr	Class IIB/IV	0.63	870,000
Brooks Rd S	Bond Pl	Los Amigos Rd	Class IIB/IV	0.27	370,000
Conde Ln	Oakfield Ln	Shiloh Rd	Class IIB	1.50	730,000
Foothill Dr*	Brooks Rd S	Vinecrest Rd	Class IIIB	1.00	280,000
Hembree Ln	Old Redwood Hwy	Vinecrest Rd	Class IV	0.91	1,260,000
Hembree Ln	Old Redwood Hwy	Shopping Ctr Entrance	Class IIB/IV	1.21	1,670,000
Lakewood Dr	Old Redwood Hwy	Los Amigos Rd	Class II	0.23	42,400
Los Amigos Rd*	Town Limits	Arata Ln	Class IV	0.50	690,000
Los Amigos Rd	Arata Ln	Brooks Rd S	Class IV	1.21	1,670,000
Old Redwood Hwy*	Lakewood Dr	Shiloh Rd	Class II/IV	2.10	2,900,000
Old Redwood Hwy	Windsor Rd	Northern Town Limit	Class IV	1.29	1,780,000

Table 8 – On-Street Bicycle Facility Improvements					
Street	**Start**	**End**	**Facility Type**	**Length (miles)**	**Estimated Cost ($)**
Shiloh Rd	Hembree Ln	Old Redwood Hwy	Class IV	0.34	470,000
Shiloh Rd	Windsor Rd	Caletti Ave	Class IV	1.25	1,730,000
Shiloh Rd	Caletti Ave	Hembree Ln	Class IV	0.42	580,000
Skylane Blvd	Shiloh Rd	Windsor Town Limits	Class IIB	0.57	280,000
Starr Rd	Old Redwood Hwy	Windsor River Rd	Class IIB	1.08	530,000
Windsor River Rd	Windsor Town Limit	Starr Rd	Class IV	0.44	610,000
Windsor Rd	Reiman Ln	Shiloh Rd	Class IV	0.80	1,110,000
Windsor Rd	Old Redwood Hwy	Windsor River Rd	Class III	0.38	8,100
Medium Priority					
3rd St	Old Redwood Hwy	Jensen Ln	Class III	0.16	3,400
Camelot Dr	Arata Ln	Jane Dr	Class III	0.33	7,000
Cardellia Ln	Los Amigos Rd	Jane Dr	Class III	0.16	3,400
Emmerson St	Pleasant Ave	Jensen Trl/End	Class III	0.15	3,200
Franklin St	4th St	3rd St	Class III	0.05	1,100
Mitchell Ln	Windsor Rd	SMART Trl	Class IIIB	0.67	186,900
Shiloh Rd	Old Redwood Hwy	Windsor Town Limits	Class II	0.07	12,900
Jane Dr	Camelot Dr	Natalie Dr	Class III	0.22	4,700
Jensen Ln	3rd St	End (nr Hembree Ln)	Class III	0.79	16,800
Natalie Dr	Brooks Rd South	Jane Dr	Class III	0.24	5,100
Oak Park St	Windsor River Rd	End	Class III	0.21	4,500
Rio Ruso Dr	Starr Rd	Old Redwood Hwy	Class III	0.49	10,400
Shannon Wy- Cornell St- Billington Wy	Hembree Ln	Old Redwood Hwy	Class III	0.63	13,400
Vinecrest Rd	Vinecrest Cir	Vinecrest Rd	Class III	0.14	3,000
Total On-Street Bicycle Facility Improvements					**$21,166,300**

* Identified in Town of Windsor 2025-2030 Capital Improvement Program

Pedestrian Improvements

The recommended pedestrian crossing enhancements are shown in Table 9.

Table 9 – Pedestrian Crossing Enhancements			
Major Street	**Minor Street**	**Recommended Improvements**	**Estimated Cost ($)**
Conde Ln	Johnson St	Set back existing shark's teeth from crosswalk in NB direction	3,500
Hembree Ln	Bluebird Dr-Creekside Dr	Install RRFB, crosswalk striping, advance yield signs, sharks teeth	80,000
Hembree Ln	Dove Ln-Cornell St	Install RRFB, crosswalk striping, advance yield signs, sharks teeth; improve narrow eastern curb ramp	77,000
Old Redwood Hwy	3rd St	Install high visibility crosswalk, RRFB and pedestrian refuge island	100,000
Old Redwood Hwy	Alden Ln	Upgrade crosswalks to high visibility crosswalks with advance stop bars. Provide leading pedestrian interval.	20,000
Old Redwood Hwy	Arata Ln	Install a new crosswalk on the south leg of the intersection	3,200
Old Redwood Hwy	Billington Ln	Install high visibility crosswalk with RRFB and curb extensions. Connect the east side of ORH and the proposed Class I Trail to Billington Ln and Robbins Park.	120,000
Old Redwood Hwy	Dawn Wy	Install crosswalk with Pedestrian Hybrid Beacon across ORH	100,000
Old Redwood Hwy	Faught Creek Trl	Future	60,000
Old Redwood Hwy	Lakewood Dr	On north, east, and south legs install leading pedestrian interval, high visibility crosswalks with advance stop bars, and bike boxes.	30,000
Old Redwood Hwy	Pool Creek Trl	Future	70,000
Old Redwood Hwy	Rio Ruso Dr	Install crosswalk across Rio Ruso Dr and continue bike lane markings across Rio Ruso Dr using green conflict zone striping.	43,000
Old Redwood Hwy	Shamrock Cir	Install high visibility crosswalk and RRFB	53,000
Old Redwood Hwy	Shiloh Rd	Implement protected intersection with high visibility crosswalks, leading pedestrian interval, and green painted bicycle approaches and conflict markings for all bicycle lanes approaching the intersection. Minimize effective turning radii. Interim: add a bike box on the southbound approach.	270,000
Old Redwood Hwy	Shira St-Viking Ct	Install crosswalk and RRFB on north leg	55,000
Old Redwood Hwy	SB 101 Ramps	Reduce curb radii and install curb extensions. Provide at-grade crosswalk/crossbike from NE to SW corners.	520,000
Old Redwood Hwy	Starr Rd	Protected intersection or roundabout. Install high visibility crosswalks on SE leg across ORH and across Starr. Potential school crossing.	553,000

Table 9 – Pedestrian Crossing Enhancements

Major Street	Minor Street	Recommended Improvements	Estimated Cost ($)
Old Redwood Hwy	Tamara Wy	Install a high visibility crosswalk on north leg, ADA compliant curb ramps, RRFB, and pedestrian refuge.	88,000
Old Redwood Hwy	Thrushwing Ave	Install curb extensions on south and east legs of intersection, install RRFB on south leg (ORH crossing).	260,000
Old Redwood Hwy	Windsor Rd	Evaluate raised crosswalk on Old Redwood Highway approaches	1,000
Old Redwood Hwy (North leg)	Windsor Rd	Upgrade striping to shark's teeth, repaint crossings with continental; add advisory 15 mph signage; evaluate raised crosswalk on ORH approach	1,100
Old Redwood Hwy	Windsor River Rd	Install detectible warning surfaces on curb ramps at northeast and northwest corner	29,000
Pleasant Ave	Brianne Cir	Install RRFB and curb extensions	184,000
Shiloh Rd	Caletti Ave	Pedestrian crossing to be provided as part of redesigned intersection	3,600
Starr Rd	Buckingham Dr	Install RRFB and curb extensions	184,000
Starr Rd	Gumview Rd-Starr Cir	Install curb extensions with RRFB	184,000
Starr Rd	Windsor River Rd	Install advance stop bar, install curb extensions on north/south crosswalks – if feasible, upgrade pedestrian crossing (ADA compliant ramps, refresh pavement/crosswalk markings, etc.)	320,000
Windsor Rd	David Clayton Ln	Install RRFB with shark's teeth	51,000
Windsor Rd	Reiman Ln	Install mini-roundabout (retain existing RRFBs)	310,000
Windsor Rd	Vintage Greens Dr	Add crosswalk to connect to existing bus stop.	170,000
Windsor Rd	Windsor HS	Install high visibility crosswalk, RRFBs, sharks teeth, curb extension on the east leg, and pedestrian refuge island	153,000
Total Pedestrian Crossing Enhancements			**$4,096,400**

Sidewalk projects to eliminate existing gaps were also identified. These projects are listed in Table 10.

Table 10 – Sidewalks

Street	Start	End	Length (miles)	Estimated Cost ($)
Arata Ln (North side)	Los Amigos Rd	Foothill Reg Pk	1.25	1,355,000
Arata Ln (South side)	US 101 NB Off-ramp	Marcella Ln	0.18	195,000

Table 10 – Sidewalks				
Street	**Start**	**End**	**Length (miles)**	**Estimated Cost ($)**
Old Redwood Hwy (Numerous gaps on both sides)	Northern Town Limits	Southern Town Limits	4.12	4,460,000
Start Rd (Multiple Locations)	Old Redwood Hwy	Windsor River Rd	0.38	412,000
Shiloh Rd (Numerous gaps on both sides)	Windsor Rd	Old Redwood Hwy	2.52	2,730,000
Total Sidewalk Projects				**$9,150,000**

Summary of Recommended Facility Costs

The estimated cost of all recommended ATP projects listed in Tables 7, 8, and 9 is summarized in Table 11.

Table 11 – Summary of Estimated Project Costs	
Facility Type	**Estimated Cost ($)**
Class I Trails	53,480,000
Class II (Standard Bike Lanes)	295,300
Class IIB (Buffered Bike Lanes)	1,540,000
Class III (|Bike Route)	84,100
Class IIIB (Bicycle Boulevard)	466,900
Class IV (Separated Bike Lanes)*	18,780,000
Pedestrian Crossing Improvements	4,096,400
Sidewalks	9,150,000
Total	**87,892,400**

***** 5.5 miles of proposed facilities were classified as Class IIB/IV, as additional analysis and community consultation is required to determine the appropriate facility. For cost estimating purposes, a conservative approach was taken, as it was assumed that these facilities would be Class IV facilities, which are typically more expensive.

Program and Policy Recommendations

Engineering projects are only one aspect of creating a more bicycle- and pedestrian-friendly future in Windsor. Non-infrastructure projects and programs play an important role in building a culture that supports active transportation.

- **Education initiatives** are an important contributor to safe active transportation by helping ensure that all users of the street network understand their rights and responsibilities and how to act appropriately in mixed traffic.
- **Encouragement programs** are an important tool to increase bicycling and walking, particularly for trips to school and short local trips.
- **Enforcement** of traffic laws is needed to support safe behaviors by users of all modes of transportation.

Education and Encouragement

SCTCA has funded Safe Routes to Schools programming at schools throughout Sonoma County, including in Windsor. This has included bicycle safety workshops and promotional activities to encourage students to walk or bicycle to school. The Town should continue to partner with SCTCA and the Windsor Unified School District to implement safety workshops and promotional activities at Windsor's schools and to provide financial support for these activities. Trips to school continue to offer tremendous potential for increased bicycling and walking as a significant number of students live less than one mile from school. As priority infrastructure projects are implemented to create more comfortable routes to school, the number of students opting for active transportation is expected to grow over time. To the extent that increased rates of students bicycling and walking to school reduces vehicle traffic in school zones during the morning and afternoon, these efforts have the potential to improve conditions for drivers as well.

Enforcement

Windsor's *Local Road Safety Plan* identified several priority strategies related to enforcement which would either directly or indirectly support the recommendations of this ATP. This includes increasing the number of traffic enforcement officers and implementing targeted speed enforcement, with a focus on school zones as well as other areas of concern identified by residents. Given the role that speed plays in crash severity, efforts to reduce speeding will be a complement to infrastructure improvements and efforts to encourage walking and bicycling.

Policies

Assembly Bill (AB) 43 - Speed Limits

AB 43 went into effect in 2022 and provides local agencies with additional flexibility in setting speed limits to protect vulnerable users in commercial areas and residential neighborhoods. More specifically, speed limits can be reduced after considering safety, the characteristics of nearby land uses, and the presence of pedestrians and bicyclists, particularly groups including children, seniors and people with disabilities. Speed limits can be set to 20 or 25 mph in business activity districts, and speed limits can also be reduced based on land uses that generate high concentrations of bicyclists and pedestrians (such as parks or transit hubs), streets or roadways with designated pedestrian or bicycle facilities, or designation of a high-collision roadway segment as a "Safety Corridor".

Windsor has taken some steps to implement AB 43. Based on updated engineering and traffic surveys and application of the new criteria, the speed limits have been reduced on several streets, including sections of Old

Redwood Highway, Windsor River Road, and Hembree Lane. Further evaluation of selected corridors is needed to develop additional recommendations for speed limit modifications.

Excessive speeds play a significant role in pedestrian and bicycle injury severity. Therefore, while the strategic implementation of reduced speed limits has the potential to enhance safety for all users, it is expected that the application of speed limit reductions will be especially beneficial for pedestrians and bicyclists.

AB 413 – Daylighting Law

AB 413, commonly known as the Daylighting Law, took effect throughout California on January 1, 2025. Intended to improve safety for all users of the roadway, the law prohibits vehicles from stopping, standing, or parking within 20 feet of the approach side of all marked or unmarked crosswalks. If a curb extension is present, the parking prohibition is reduced to 15 feet. This improves sight lines for pedestrians crossing the street as well as approaching drivers and bicyclists, which should provide additional reaction time, resulting in fewer collisions and near-misses. No additional actions are required to implement AB 413, such as installing red curb or posting signs indicating parking restrictions. However, Windsor's Municipal Code (Section 4-5-100) currently only specifies parking restrictions within 20 feet of a "…marked crosswalk or stop sign, traffic signal, or other electronic traffic control." To prevent any potential confusion, the Town should modify this code section to be consistent with state law.

Event Bicycle Parking

Major community special events can often attract a large number of bicyclists that would likely exceed the available bicycle parking capacity in the area. To encourage bicycling to such events, many jurisdictions have adopted requirements for monitored bicycle parking so event attendees can conveniently and securely park their bicycles. It is recommended that the Town amend the Facility Use and Reservation Policy to require event producers to provide monitored bicycle parking. Elements of the policy amendment should include the event size that would trigger the requirement as well as other provisions such as number of spaces required, general location of the parking relative to the event, fee schedule for any Town owned equipment and staffing requirements. Such requirements are typically implemented as part of the special event permit review process.

Micromobility Programs

Micromobility programs such as bikeshare and shared scooter systems have become increasingly common in recent years, often at the countywide or regional level. These programs enable users to rent bicycles or scooters, typically through a membership and/or hourly rental fee. These systems most commonly use electric-powered devices, which requires a program management plan to ensure that the devices remain charged and distributed throughout the service area.



Plate 36 Bikeshare at the Santa Rosa Downtown SMART station

While micromobility systems are not currently an option in Windsor, that may change in the coming years. In 2024, the Redwood Bikeshare pilot program was launched at several locations in Sonoma and Marin counties. In addition to providing additional mobility options for people who do not own a vehicle, micromobility systems often serve as an important "first mile/last mile" transportation option to supplement transit service and enable people to reach a greater range of destinations. Now that SMART has begun providing rail service to and from Windsor, if the pilot bikeshare program is successful, Windsor may be a candidate for future bikeshare service.

Common issues experienced by communities where shared bikes or scooters have been available include maintaining clear space for all users along sidewalks, ensuring that users of micromobility devices understand how to operate them safely, and providing access to these systems for all residents including low-income individuals. Numerous research efforts have been undertaken to better understand how to address such concerns and identify best practices. The Town should continue to monitor the implementation of bikeshare in other nearby communities and around the country to learn about the successful and challenging aspects of the program to learn lessons that may be applicable to Windsor.

Implementation and Funding

Implementation of the *Windsor Active Transportation Plan* will require the Town to be strategic in pursuing key projects and opportunistic in taking advantage of available funding, being aware that funding levels and priorities change from year to year. The Capital Improvement Program (CIP) identifies the Town's capital project priorities for a five-year period and will need to be updated regularly to ensure that it reflects the most current active transportation needs and opportunities. Below is a discussion of key issues for the Town to address to support implementation of the ATP.

Preliminary Analysis, Planning, and Community Engagement

- *Strategically review funding opportunities*: Numerous federal, state, regional and county grant programs are available to fund planning, design, and/or construction of active transportation projects. The Town should continue to monitor funding opportunities to identify the best fit between priority projects and program requirements to identify the best opportunities to successfully compete for such funds. Some projects may be completed in conjunction with incoming development, typically when projects are identified at locations along the project frontage and a clear nexus exists.
- *Preliminary planning, outreach, and design:* Projects that have undergone a feasibility analysis and have been vetted with the community have a greater likelihood of being successfully completed and are more likely to be awarded funding. Once projects that have a strong chance of competing for funding have been identified, the Town should conduct preliminary analysis, develop concept plans, and conduct initial stakeholder outreach to demonstrate its commitment to the community and to funding agencies. The preparation of concept designs is an essential step in seeking funding as reliable cost estimates are needed to ensure that the Town identifies key implementation issues and can secure adequate resources to complete the project.
- *Targeted community engagement:* Community engagement efforts should be carefully tailored based on the characteristics of local stakeholders, including residents, business owners, and key institutions such as schools. Consideration should be given to methods for distributing information, particularly where there may be concentrations of seniors and low-income residents who may not respond to standard outreach techniques.

Quick Build and Demonstration Projects

Some ATP projects can potentially be implemented as "quick-build" projects using low-cost techniques. Quick-build offers an opportunity to test out a proposed design on a temporary basis to evaluate effectiveness, gauge public support, and identify any potential modifications that are needed. Typically, such designs can be implemented quickly and use inexpensive materials such as delineators, planters, modular curbs, and striping, which are commonly used for enhanced pedestrian crossings.



Plate 37 Example of quick build traffic calming measures with bulb outs with delineators at Shadetree Drive and Flametree Circle.

The Town recently partnered with SCTCA to secure funding from a federal Safe Streets and Roads for All grant to implement modular mini-roundabouts and curb extensions to help reduce vehicle speeds and improve conditions for pedestrians and bicyclists near two schools. Such installations typically have a much shorter lifespan than projects using concrete, but enable the Town to implement improvements at more locations and in a shorter timeframe than would otherwise be possible. Plate 19 illustrates an example of a modular mini-roundabout design.



Plate 38 Example of a modular roundabout project

Maintenance

Maintenance of pedestrian and bicycle infrastructure is an important part of ensuring that infrastructure projects are a sound investment and continue to be usable. Examples of factors to consider related to facility maintenance include restriping faded pavement markings, preserving adequate pavement quality, trimming vegetation that may interfere with bike lanes and/or visibility of signage, and ensuring that facilities are clear of debris. Class IV separated bike lanes have unique considerations that the Town will need to address in order to maintain access for bicyclists, as the barriers may preclude standard street sweeping equipment from accessing these facilities. Potential solutions include adopting a design standard that will allow street sweepers to operate in Class IV facilities or securing specialized street sweepers.

In addition, maintenance activities can often provide a cost-effective means for implementing new projects. For example, street resurfacing projects can often be an opportunity to modify or add bike lane striping.

Development Review

The Town routinely requires incoming applicants for development projects to add pedestrian and/or bicycle infrastructure along project frontages, include facilities on the project site, contribute toward the implementation of bike lanes or enhanced pedestrian crossings, construct path segments identified in the ATP along the project frontage, or provide other supportive infrastructure that would respond to the anticipated impacts of the project. These requirements are listed in Title 16 Chapter 2 of the Town of Windsor Municipal Code (Frontage Improvements) and other adopted Town plans, notably the following policies from the General Plan,

- LU-2.3 Provide for Public Facilities and Parks. The Town shall require new residential development to meet local needs for public facilities and parks.

- LU-2.6 Incorporate Trails and Creeks. In the design of new residential development or the planning for a trail segment, homes should front onto "single-loaded" streets that front onto the trails and creeks whenever possible, consistent with the Creekside Development provisions in the Zoning Ordinance.

- M-2.8 Review Transportation Facilities for Development Proposals. The Town shall consider on-site and off-site transportation facility improvements during the review of development proposals to ensure that connected facilities are provided for all modes of transportation.

- M-2.10 Bicycle and Pedestrian Connectivity. The Town shall ensure that commercial and residential development, including affordable housing projects, provides convenient and direct connections to the nearest existing bikeways, pedestrian ways, and public transit facilities.

The Town should continue to use this approach, as it helps address the demand for facilities to accommodate the bicycling and walking trips generated by the new development and enables important parts of the network to be completed.

Interagency Coordination

Several other agencies may be involved in the implementation of particular projects. Key examples include Sonoma County, Caltrans, SMART, Windsor Unified School District, and SCTCA. Depending on their level of involvement, consultation with such partners early in the project development process will be important and may also help secure funding.

Funding Sources

Grant programs fund a wide range of activities, including planning, design, and construction of infrastructure projects as well as programs that support safety education, promotional efforts, or enforcement activities. In recent years, more resources have been made available for active transportation from federal, state, regional, and county agencies. However, programs have different eligibility criteria and emphases, so grant application guidance should be thoroughly reviewed to identify programs that provide the best fit for each project, rather than strictly following the Town's priority list. Program focus areas and eligibility requirements are frequently modified, so it is important to track such program changes.

While the Town would typically be the applicant for grant funding and the lead agency in implementing infrastructure projects within its boundaries, there may be projects for which the chances of securing grants could be improved by developing partnerships. This would particularly be the case for projects in Windsor's outlying areas, for which coordination with Sonoma County would be an important element of the project. Interagency collaboration would ensure that the needs of all stakeholders are addressed, will help ensure that the project supports a seamless transition for users traveling across the Town/County line, and may facilitate addressing design and regulatory issues. In addition, it may help to secure funding as some agencies prioritize multi-agency projects when awarding competitive grants.

Below are descriptions of several programs that may offer promising opportunities to fund active transportation projects in Windsor. In addition, several online resources with more detailed information are provided.

General Grant Funding Resources

- **DOT Discretionary Grants Dashboard:** The US Department of Transportation (US DOT) has created a searchable grants database to help agencies identify the most suitable funding sources for their projects. DOT Discretionary Grants Dashboard | US Department of Transportation
- **Pedestrian and Bicycle Funding Opportunities: U.S. Department of Transportation Highway, Transit, and Safety Funds:** A table summarizing US DOT grants that can potentially be used to fund active transportation projects. Pedestrian and Bicycle Funding Opportunities (dot.gov)
- **California Grants Portal:** A project of the California State Library, this web site includes a searchable database for competitive grant and loan programs offered by California state agencies. Home - California Grants Portal
- **Caltrans:** State Transportation Grants | Caltrans
- **California Transportation Commission (CTC) funding table:** Funding Programs that Fund Active Transportation (ca.gov)
- **Metropolitan Transportation Commission (MTC):** Funding | Metropolitan Transportation Commission (ca.gov)
- **Bay Area Air Quality Management District (BAAQMD):** Funding Sources (baaqmd.gov)
- **Sonoma County Transportation and Climate Authorities (SCTCA):** Funding - Sonoma County Transportation Authority (ca.gov)

Federal Programs

- **Safe Streets and Roads for All (SS4A):** The Safe Streets and Roads for All (SS4A) program funds a range of initiatives to prevent death and serious injury on multimodal roads and streets involving all roadway users. Additional information can be obtained at Safe Streets and Roads for All (SS4A) Grant Program | US Department of Transportation
- **Strengthening Mobility and Revolutionizing Transportation (SMART):** The Strengthening Mobility and Revolutionizing Transportation (SMART) program supports public sector agencies to conduct planning and prototyping demonstration projects focused on advanced smart community technologies and systems. Additional information can be found at Strengthening Mobility and Revolutionizing Transportation (SMART) Grants | US Department of Transportation

- **Rebuilding American Infrastructure with Sustainability and Equity (RAISE):** The Rebuilding American Infrastructure with Sustainability and Equity (or RAISE) program funds capital investments in surface transportation that will have a significant local or regional impact, especially in areas of persistent poverty or historically disadvantaged, overburdened, or underserved communities. For additional information see Rebuilding American Infrastructure with Sustainability and Equity (RAISE) | US Department of Transportation
- **Active Transportation Infrastructure Investment Program (ATIIP):** ATIIP is a new competitive grant program that focuses on building networks of connected bicycle and pedestrian infrastructure improvements, including to better connect trail networks between communities. See Active Transportation Infrastructure Investment Program (ATIIP) | US Department of Transportation for additional information.
- **Reconnecting Communities Pilot Program (RCP):** The Reconnecting Communities Pilot Program (RCP) funds planning and construction to remove, retrofit, or mitigate transportation facilities such as highways and rail lines that create mobility, access, or economic barriers to community connectivity. For additional information see Reconnecting Communities Pilot (RCP) Program | US Department of Transportation.

State of California Programs

- **Highway Safety Improvement Program (HSIP):** Funded by the Federal Highway Administration, HSIP funds are administered by Caltrans. Funding cycles are typically every two years. The majority of funds are directed to projects with high benefit-cost ratios, and such grant awards can be up to $10 million per agency. The most competitive projects typically have a relatively low cost and address conditions that have resulted in fatalities or severe injuries. HSIP also includes grant awards for projects under $350,000 that do not require a benefit-cost ratio, which has generally included enhancements for pedestrian crossings. For additional information see Local Highway Safety Improvement Program (HSIP) | Caltrans.
- **Active Transportation Program (ATP):** The largest source of funding for pedestrian and bicycle projects in California, ATP includes funding awarded through a statewide competition, with a portion of the funds available through metropolitan planning organizations (MPOs), which in the Bay Area is the Metropolitan Transportation Commission (MTC). ATP is highly competitive, with most funding directed toward projects that benefit disadvantaged communities. Under the most recent eligibility criteria, accessing ATP funding for projects in Windsor would be unlikely, but changes in eligibility criteria could result in a different outcome. Additional information is available at Active Transportation Program (ATP) | CTC (ca.gov).
- **Sustainable Transportation Planning Grants:** Funding can be used to support planning activities and conceptual design. Common project types include corridor studies. The program includes $29.5 million to encourage local and regional planning that furthers state goals, including, but not limited to, the goals and best practices cited in the Regional Transportation Plan Guidelines adopted by the California Transportation Commission. See Sustainable Transportation Planning Grants | Caltrans for more information.
- **Urban Greening (California Natural Resources Agency):** The Program supports the development of green infrastructure projects that reduce GHG emissions and provide multiple benefits. Appropriate project would be expected to reduce commute vehicle miles traveled by constructing bicycle paths, bicycle lanes or pedestrian facilities that provide safe routes for travel between residences, workplaces, commercial centers, and schools. More information can be obtained at Urban Greening (ca.gov).
- **Office of Traffic Safety (OTS):** Funding is available for non-infrastructure programs, including media campaigns, law enforcement activities, and other initiatives designed to reduce traffic injuries and fatalities. Details are available at Grants | Office of Traffic Safety (ca.gov).
- **Local Partnership Program (LPP):** This program is open to agencies that collect sales taxes, developer fees or other funds dedicated to transportation, and includes both formula and competitive grants. For additional information see Local Partnership Program | CTC.

Regional Programs

- **One Bay Area Grant (OBAG):** These grants provide a structure for MTC to distribute funds from several federal programs to local agencies in the Bay Area. A portion of the program is overseen by MTC, while some is managed by County Transportation Agencies, which is SCTCA in Sonoma County. OBAG funding has been

made available periodically for transportation projects including active transportation. Project selection criteria may change as the priorities for each iteration of Plan Bay Area evolve. Additional information is available at One Bay Area Grant 3 (OBAG 3) | Metropolitan Transportation Commission (ca.gov).

- **Transportation Development Act (TDA) Article 3:** Derived from a statewide sales tax, two percent of TDA funds are dedicated for bicycle and pedestrian planning and projects. Each jurisdiction receives an allocation based on population, and Sonoma County agencies apply for funds through SCTCA, which verifies project eligibility and submits funding requests to MTC. Funds that are not used in the year allocated are rolled over to future years, and local agencies may also borrow against future TDA Article 3 funding awards. In FY 23-24, Windsor was awarded $34,399 in TDA Article 3 funds. For additional information see Bicycle & Pedestrian Funds (TDA 3) | Metropolitan Transportation Commission (ca.gov).

Sonoma Countywide Programs

- **Measure M:** In 2020, Sonoma County residents approved an extension of the Measure M sales tax measure, from which revenues are used to fund transportation projects through GoSonoma, which includes several programs. Administered by SCTCA, GoSonoma includes the Build Bikeways and Pathways (BBP) and Move Traffic and Improve Safety (MTIS), both of which could fund priority active transportation projects in Windsor. Other GoSonoma programs could also potentially support active transportation, such as the Annual Pothole Fund, as this would enhance the pavement quality along selected project corridors. More information can be found at Go Sonoma Transportation Sales Tax Measure - Sonoma County Transportation Authority (ca.gov).

The above list of funding programs is not a comprehensive one. Programs are continuing to be created and/or evolve, so the Town will need to engage with SCTCA and other agencies to track emerging opportunities.

Study Participants and References

Study Participants

Principal in Charge	Steve Weinberger, PE (Civil, Traffic), PTOE
Transportation Planner	Barry Bergman, AICP
Transportation Engineer	Cameron Nye, PE (Traffic)
Assistant Engineer	William Andrews, EIT
GIS Specialist	Bob Mandel
Graphics	Jessica Bender
Editing/Formatting	Erika Totanes
Quality Control	Dalene J. Whitlock, PE (Civil, Traffic), PTOE

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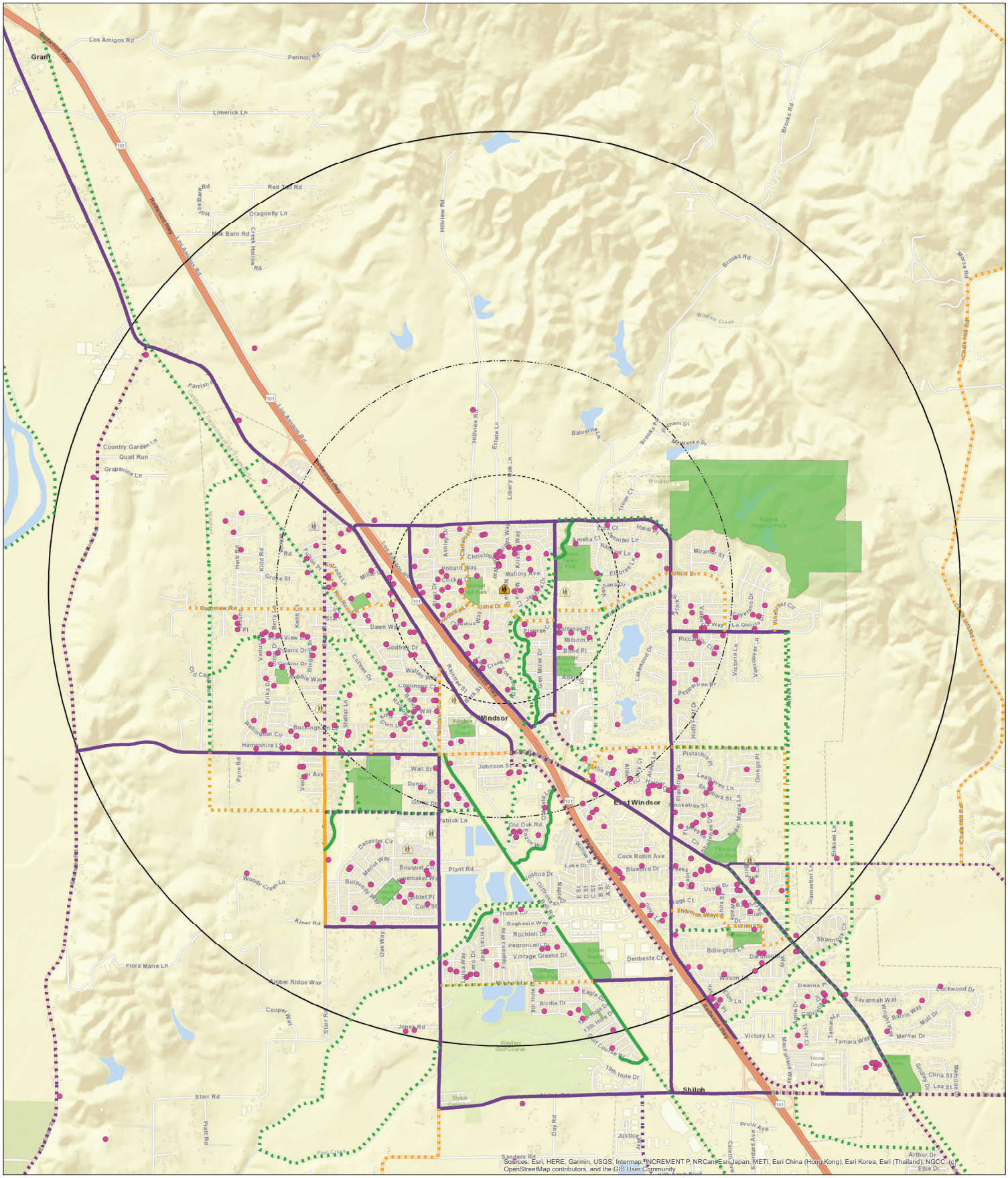
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Appendix A

Safe Routes to School Program Information

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S A F E R O U T E S T O S C H O O L



Brooks Elementary
2023-24 SRTS Study Map

459 Geocoded Students
380 Students live within 2 miles of the school (83%)
199 Students live within 1 mile of the school (43%)
83 Students live within 1/2 mile of the school (18%)
35 Students live within 1/4 mile of the school (8%)

Bike Plan Existing
- Class I
- Class II
- Class III Buffered Bike Lan
- Class III
- Bike Boulevard
- PP
- Trail

Bike Plan Proposed
- Class I
- Class II
- Class 2 Buffered Bike Lane
- Class III
- Bike Boulevard
- Class IV Separated Bikeway

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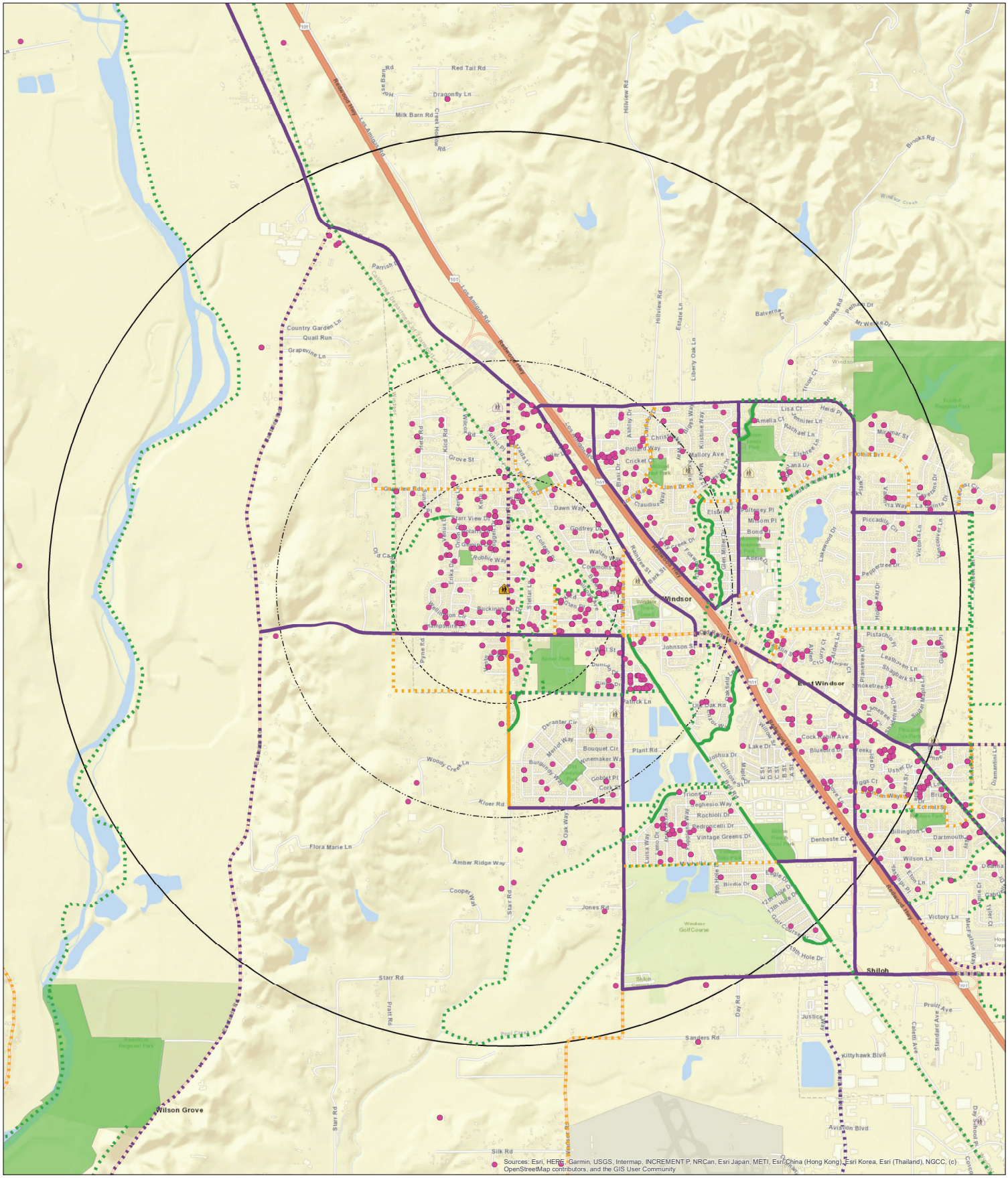


Map Produced by: Sonoma County Bicycle Coalition
750 Mendocino Ave., Suite 6
Santa Rosa, CA 95401
Phone: 545-8163

Author:
Sonoma County Transportation Authority
Projection and Coordinate System Tics:
California State Plane Coordinate System, Zone II, NAD 83, US survey feet, Lambert Conformal Conic. Some data have been re-projected from other coordinate systems and may not reflect actual ground positions.
Document Source and Date:
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Source:
Sonoma County GIS Central, Sonoma County Public Safety Consortium, Sonoma County Transportation Authority, Sebastopol Union School District.

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S A F E R O U T E S T O S C H O O L



Cali Calmécac Language Academy
2023-24 SRTS Study Map

1139 Geocoded Students
760 Students live within 2 miles of the school (67%)
469 Students live within 1 mile of the school (41%)
225 Students live within 1/2 mile of the school (20%)
65 live within 1/4 mile (6%)

Bike Plan Existing
- Class I
- Class II
- Class III Buffered Bike Lan
- Class III
- Bike Boulevard
- PP
- Trail

Bike Plan Proposed
- Class I
- Class II
- Class 2 Buffered Bike Lane
- Class III
- Bike Boulevard
- Class IV Separated Bikeway

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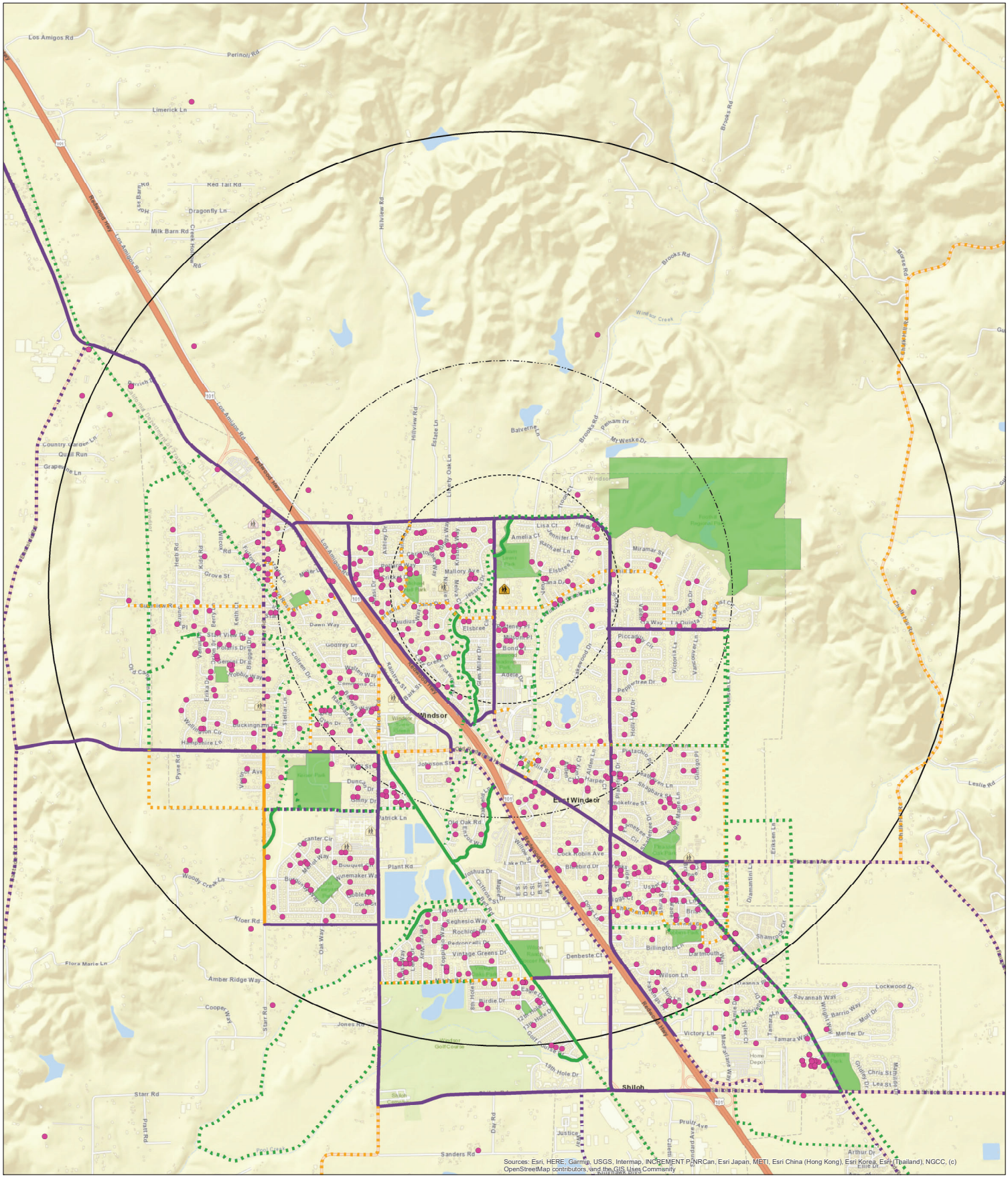


Map Produced by: Sonoma County Bicycle Coalition
750 Mendocino Ave., Suite 6
Santa Rosa, CA 95401
Phone: 545-6153

Author:
Sonoma County Transportation Authority
Projection and Coordinate System Tics:
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Document Source and Date:
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Source:
Sonoma County GIS Central, Sonoma County Public Safety Consortium, Sonoma County Transportation Authority, Sebastopol Union School District.

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S A F E R O U T E S T O S C H O O L



Windsor Middle School
2023-24 SRTS Study Map

733 Geocoded Students (31 did not have an address match)
576 Students live within 2 miles of the school (79%)
250 Students live within 1 mile of the school (34%)
93 Students live within 1/2 mile of the school (13%)
25 Students live within 1/4 mile of the school (3%)

Bike Plan Existing
- Class I
- Class II
- Class III Buffered Bike Lan
- Class III
- Bike Boulevard
- PP
- Trail

Bike Plan Proposed
- Class I
- Class II
- Class 2 Buffered Bike Lane
- Class III
- Bike Boulevard
- Class IV Separated Bikeway

Map Creation Date: Insert Date Here



Map Produced by: Sonoma County Bicycle Coalition
750 Mendocino Ave., Suite 6
Santa Rosa, CA 95401
Phone: 545-5463

Author:
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Projection and Coordinate System Tics:
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Appendix B

Sample Bicycle Parking Requirements

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Table 17.30-01
Parking Requirements by Land Use

Land Use Type	Vehicle Spaces Required	Long-Term Bicycle Spaces	Short-Term Bicycle Spaces
Human Services Uses			
Ambulance Service	1 space per employee, plus 1 space per ambulance parked on site	1 space per 20 employees, minimum of 2 spaces	2 spaces
Child Day Care Facility	1 space per employee, plus 1 space per 10 children	1 space per 20 employees, minimum of 2 spaces	1 space per 20 employees, minimum of 2 spaces
Child Day Care Home	Same as Single-Unit Dwelling standard	No spaces required	No spaces required
Community Care Facility, Large	1 space per 3 beds	0.5 spaces per bedroom, minimum of 2 spaces	0.05 spaces per bedroom, minimum of 2 spaces
Community Care Facility, Small	2 spaces	0.5 spaces per bedroom, minimum of 2 spaces	0.05 spaces per bedroom, minimum of 2 spaces
Emergency Shelter	2 spaces per facility staff, plus 1 space per 6 occupants allowed at the maximum capacity	8 spaces minimum	8 spaces minimum
Funeral and Burial Services, Body Preparation and Crematorium	1 space per 500 sq. ft. of floor area	1 space per 20 employees, minimum of 2 spaces	1 space per 20 employees, minimum of 2 spaces
Funeral and Burial Services, Mortuary and Funeral Home	1 space per 4 seats	1 space per 20 employees, minimum of 2 spaces	Spaces for 2% of maximum attendance
Hospital	1 space per 250 sq. ft. of floor area	1 space per 20 employees or per 70,000 sq. ft., minimum of 2 spaces	1 space per 20,000 sq. ft., minimum of 2 spaces
Low-Barrier Navigation Center	2 spaces per facility staff, plus 1 space per 6 occupants allowed at the maximum capacity	8 spaces minimum	8 spaces minimum
Industrial, Manufacturing, and Processing Uses			
General Manufacturing, Industrial, and Processing Uses	1 space per 1,000 sq. ft. Office space that comprises less than 20% of the gross floor area may be parked at the rate required for general manufacturing, industrial and processing uses. Office space that comprises 20% or more of the total gross floor area shall be calculated separately as provided by this table for "Offices"	1 space per 15,000 sq. ft., minimum of 2 spaces	2 spaces
Recycling Facility	Determined by Conditional Use Permit	1 space per 15,000 sq. ft., minimum of 2 spaces	2 spaces
Research and Development Facility	1 space per 300 sq. ft. of floor area	1 space per 10,000 sq. ft., minimum of 2 spaces	1 space per 20,000 sq. ft., minimum of 2 spaces

Table 17.30-01
Parking Requirements by Land Use

Land Use Type	Vehicle Spaces Required	Long-Term Bicycle Spaces	Short-Term Bicycle Spaces
Storage			
Outdoor	1 space per 3,000 sq. ft. of lot area	No spaces required	No spaces required
Personal storage facilities (mini-storage)	4 spaces per 100 storage units	No spaces required	No spaces required
Warehouses and Storage Facilities	1 space per 2,000 sq. ft. Office space that comprises less than 20% of the gross floor area may be parked at the rate required for warehouse and storage facilities. Office space that comprises 20% or more of the total gross floor area shall be calculated separately as provided by this table for "Offices"	1 space per 15,000 sq. ft., minimum of 2 spaces	2 spaces
Wholesale and Distribution	1 space per 2,000 sq. ft. Office space that comprises less than 20% of the gross floor area may be parked at the rate required for wholesale and distribution. Office space that comprises 20% or more of the total gross floor area shall be calculated separately as provided by this table for "Offices."	1 space per 15,000 sq. ft., minimum of 2 spaces	2 spaces
Recreation, Education, and Public Assembly Uses			
Athletic Club	1 space per 200 sq. ft. of floor area	1 space per 12,000 sq. ft., minimum of 2 spaces	1 space per 2,000 sq. ft., minimum of 2 spaces
Clubs, Lodges, and Private Meeting Halls	1 space per 100 sq. ft. of floor area	1 space per 20 employees, minimum of 2 spaces	Spaces for 2% of maximum attendance
Dance Floors	1 space per 50 sq. ft. of floor area	1 space per 12,000 sq. ft., minimum of 2 spaces	1 space per 2,000 sq. ft., minimum of 2 spaces
Commercial Recreation and Entertainment, Indoor			
Arcades	1 space per 200 sq. ft. of floor area	1 space per 12,000 sq. ft., minimum of 2 spaces	1 space per 2,000 sq. ft., minimum of 2 spaces
Bowling Alley	5 spaces per lane	1 space per 12,000 sq. ft., minimum of 2 spaces	1 per 5,000 sq. ft., minimum of 2 spaces
Pool and Billiard Room	2 spaces per table	1 space per 12,000 sq. ft., minimum of 2 spaces	1 space per 2,000 sq. ft., minimum of 2 spaces
Skating Rink	1 space per 200 sq. ft. of floor area	1 space per 12,000 sq. ft., minimum of 2 spaces	1 space per 2,000 sq. ft., minimum of 2 spaces

Table 17.30-01
Parking Requirements by Land Use

Land Use Type	Vehicle Spaces Required	Long-Term Bicycle Spaces	Short-Term Bicycle Spaces
Swimming Pools (public, private, and commercial)	1 space per 100 sq. ft. of pool area	1 space per 12,000 sq. ft., minimum of 2 spaces	1 space per 5,000 sq. ft., minimum of 2 spaces
Commercial Recreation and Entertainment, Outdoor			
General Outdoor Commercial Uses	Determined by Conditional Use Permit	Determined by Director based on location, nature, and frequency of use	Determined by Director based on location, nature, and frequency of use
Golf Course and Country Club	3 spaces per hole	No spaces required	No spaces required
Golf, Driving Range	1 space per tee	No spaces required	No spaces required
Golf, Miniature Golf Course	2 spaces per hole	1 space per 12,000 sq. ft., minimum of 2 spaces	1 space per 5,000 sq. ft., minimum of 2 spaces
Tennis, Racquetball, Handball, or Other Courts	2 spaces per court, plus 1 space for each 300 sq. ft. of floor area for accessory uses	2 spaces	2 spaces
Library and Museum	1 space per 400 sq. ft. of floor area	1 space per 10 employees, minimum of 2 spaces	1 space per 10,000 sq. ft., minimum of 2 spaces
Places of Assembly	1 space per 4 seats or 1 space for each 100 sq. ft. of floor area, whichever is greater	1 space per 20 employees, minimum of 2 spaces	Spaces for 2% of maximum attendance
Schools (public and private)			
Colleges and universities (including trade, business, and art/music/dancing schools)	1 space for per 3 students	1 space per 10 employees, minimum of 2 spaces	1 space per 20 students, minimum of 2 spaces
Elementary/Junior high	1 space per 8 students	1 space per 10 employees, minimum of 2 spaces	1 space per 20 students, minimum of 2 spaces
High school	1 space per 4 students	1 space per 10 employees, minimum of 2 spaces	1 space per 20 students, minimum of 2 spaces
Kindergarten and nursery schools	1 space per 8 children	1 space per 10 employees, minimum of 2 spaces	1 space per 20 students, minimum of 2 spaces
Studios - Art, Dance, Music, and Photography	1 space per 200 sq. ft. of floor area	1 space per 12,000 sq. ft., minimum of 2 spaces	1 space per 2,000 sq. ft., minimum of 2 spaces
Residential Uses			
Accessory Dwelling Unit	See Chapter 17.82 (Accessory Dwelling Unit (ADU))	No spaces required	No spaces required
Accessory Dwelling Unit, Junior	See Chapter 17.84 (Junior Accessory Dwelling Unit (JADU))	No spaces required	No spaces required
Farm Worker Housing	1 space per 4 persons housed. Parking areas are not required to	No spaces required	No spaces required

Table 17.30-01
Parking Requirements by Land Use

Land Use Type	Vehicle Spaces Required	Long-Term Bicycle Spaces	Short-Term Bicycle Spaces
	be covered or paved. Parking areas shall not be located adjacent to any scenic corridor unless screened from public view by structures, fences, landscaping, or terrain features		
Mobile Homes			
Individual Mobile Home	1 covered space per unit, which may be covered or uncovered	No spaces required	No spaces required
Mobile Home Park	1 space per unit, which may be covered or uncovered	No spaces required	No spaces required
Multi-Unit Dwellings	1 space per studio or one-bedroom unit; 1.75 spaces per two-bedroom unit; 2.5 spaces for each unit with three or more bedrooms, which may be covered or uncovered	0.5 spaces per bedroom, minimum of 2 spaces	0.05 spaces per bedroom, minimum of 2 spaces
Organizational House	1 space per bedroom	0.5 spaces per bedroom, minimum of 2 spaces	0.05 spaces per bedroom, minimum of 2 spaces
Senior Housing	1 space per 2 units	0.5 spaces per bedroom, minimum of 2 spaces	0.05 spaces per bedroom, minimum of 2 spaces
Single Room Occupancy (SRO)	1 space per 3 units	0.5 spaces per bedroom, minimum of 2 spaces	0.05 spaces per bedroom, minimum of 2 spaces
Single-Unit Dwellings	Initial construction shall require 2 covered parking spaces. One covered space may be converted to habitable space for the single-unit dwelling, when a direct connection to common living space (e.g., living room, family room, kitchen, etc.) within the unit is provided, and upon obtaining a building permit. The converted covered space shall be replaced with a space that is covered or uncovered. The uncovered space may be located in the driveway in front of the garage. The new covered space shall comply with the requirements of this Code. Required covered parking may be converted to an accessory dwelling unit in compliance with Chapter 17.82 (Accessory	No spaces required	No spaces required

Table 17.30-01
Parking Requirements by Land Use

Land Use Type	Vehicle Spaces Required	Long-Term Bicycle Spaces	Short-Term Bicycle Spaces
	Dwelling Unit (ADU)) and upon obtaining the appropriate permits.		
Retail, Service, and Office Uses			
Bank and Financial Institution	1 space per 250 sq. ft. of floor area, plus 5 tandem stacking spaces per outdoor teller or teller station	1 space per 12,000 sq. ft., minimum of 2 spaces	1 space per 5,000 sq. ft., minimum of 2 spaces
Bed and Breakfast Inn	1 space per guest room, plus 2 covered for the resident(s)	1 space per 12,000 sq. ft., minimum of 2 spaces	1 space per 5,000 sq. ft., minimum of 2 spaces
Carwash			
Self Service	1 drying space per stall	No spaces required	No spaces required
Full Service	10 spaces, plus 6 spaces per wash lane for queuing and drying area	2 spaces	2 spaces
Automated	1 space per 1,000 sq. ft. of site area, exclusive of vehicle queuing lanes	No spaces required	No spaces required
Equipment Sales and Rental Facility	1 space per 300 sq. ft. of floor area; none required for outdoor storage and rental area provided sufficient area is provided within the yard to accommodate all customer vehicles entirely on-site	1 space per 12,000 sq. ft., minimum of 2 spaces	1 space per 20,000 sq. ft., minimum of 2 spaces
Hotel and Motel	1 space per unit, plus 1 space per 2 employees on largest shift, plus required spaces for accessory uses	1 space per 40 rooms, minimum of 2 spaces	1 space per 80 rooms, minimum of 2 spaces
Kennel, Commercial	1 space per employee, plus 2 spaces	No spaces required	No spaces required
Laundry - Dry Cleaning Pick-Up Facilities and Laundromats	1 space per 400 sq. ft. of floor area	2 spaces	2 spaces
Laundry - Laundries and Dry Cleaning Plants	1 space per 1,000 sq. ft. of floor area	2 spaces	2 spaces
Office, Administrative	1 space per 400 sq. ft. of floor area, with a minimum of 4 spaces	1 space per 10,000 sq. ft. minimum of 2 spaces	1 space per 20,000 sq. ft. minimum of 2 spaces
Office, Medical	1 space per 250 sq. ft. of floor area	1 space per 10,000 sq. ft. minimum of 2 spaces	1 space per 20,000 sq. ft. minimum of 2 spaces
Office, Production	1 space per 400 sq. ft. of floor area, with a minimum of 4 spaces	1 space per 10,000 sq. ft. minimum of 2 spaces	1 space per 20,000 sq. ft. minimum of 2 spaces
Office, Professional	1 space per 400 sq. ft. of floor area, with a minimum of 4 spaces	1 space per10,000 sq. ft. minimum of 2 spaces	1 space per 20,000 sq. ft. minimum of 2 spaces

Table 17.30-01
Parking Requirements by Land Use

Land Use Type	Vehicle Spaces Required	Long-Term Bicycle Spaces	Short-Term Bicycle Spaces
Outdoor Sales and Activities	1 space per 200 sq. ft. of sales area, with a minimum of 4 spaces	2 spaces	2 spaces
Personal Service	2 spaces per employee	1 space per 12,000 sq. ft., minimum of 2 spaces	1 space per 5,000 sq. ft., minimum of 2 spaces
Pet Grooming	1 space per 400 sq. ft. of floor area	2 spaces	2 spaces
Restaurant	1 space per 3 seats	1 space per 12,000 sq. ft., minimum of 2 spaces	1 space per 2,000 sq. ft., minimum of 2 spaces
Retail Sales, Convenience Store	1 space per 250 sq. ft. of floor area, with a minimum of 3 vehicle spaces	1 space per 12,000 sq. ft., minimum of 2 spaces	1 space per 2,000 sq. ft., minimum of 2 spaces
Retail Sales, Furniture and Appliances	1 space per 500 sq. ft. of floor area	1 space per 12,000 sq. ft., minimum of 2 spaces	1 space per 20,000 sq. ft., minimum of 2 spaces
Retail Sales, General	1 space per 300 sq. ft. of floor area	1 space per 12,000 sq. ft., minimum of 2 spaces	1 space per 5,000 sq. ft., minimum of 2 spaces
Retail Sales, Neighborhood Market	1 space per 250 sq. ft. of floor area, a minimum of 3 vehicle spaces	1 space per12,000 sq. ft., minimum of 2 spaces	1 space per 2,000 sq. ft., minimum of 2 spaces
Retail Sales, Nursery and Garden Supply	1 space per 2,000 sq. ft. of site area	2 spaces	2 spaces
Retail Sales, Shopping Center	1 space per 300 sq. ft. of floor area	1 space per 12,000 sq. ft., minimum of 2 spaces	1 space per 5,000 sq. ft., minimum of 2 spaces
Spa Services and Health Spa	2 spaces per employee, with a minimum of 4 spaces	1 space per 12,000 sq. ft., minimum of 2 spaces	1 space per 5,000 sq. ft., minimum of 2 spaces
Veterinary Clinic	1 space per 300 sq. ft. of floor area	1 space per 20 employees or per 70,000 sq. ft., minimum of 2 spaces	1 space per 20,000 sq. ft., minimum of 2 spaces
Vehicle Oriented Uses			
Gas Station	1 space per 300 sq. ft. of floor area	No spaces required	No spaces required
Vehicle Rental Facility	1 space per 500 sq. ft. of floor area or 1 space per 2,000 sq. ft. of outdoor sales area, with a minimum of 4 spaces	1 space per 12,000 sq. ft., minimum of 2 spaces	1 space per 20,000 sq. ft., minimum of 2 spaces
Vehicle Repair and Service	1 space per 400 sq. ft. of floor area	1 space per 12,000 sq. ft., minimum of 2 spaces	1 space per 20,000 sq. ft., minimum of 2 spaces
Vehicle, Recreational Vehicle, and Trailor Sales	1 space per 500 sq. ft. of floor area or 1 space per 2,000 sq. ft. of outdoor sales area, with a minimum of 4 spaces	1 space per 12,000 sq. ft., minimum of 2 spaces	1 space per 20,000 sq. ft., minimum of 2 spaces

Windsor Station Area/Downtown Specific Plan

Vehicle and Bicycle Parking Requirements

TABLE 3-5: PARKING REQUIREMENTS BY LAND USE

Town Center		
	Minimum Off-Street Parking Requirement **First 2,000 square feet of all uses are exempt from all parking requirements.**	
	Automobile with Shared Parking[1]	**Bicycle[2]**
Non-residential Uses	To be determined by analysis using MTC Smart Growth Parking Model or another methodology acceptable to the Town. In no case shall the parking provided be less than half of the number of spaces required by the Town of Windsor Zoning Ordinance for each individual use calculated separately.	One per 5 auto spaces, located conveniently to serve customers, visitors, and employees of the project. A portion of the bicycle parking shall be located within 25 feet of the primary building entrance.
Residential	0.25 spaces per unit required for visitor parking. No separate minimum resident parking standard. Where a Conditional Use Permit is required for the use, the Planning Commission will establish the ultimate parking requirement during the Conditional Use Permit application process. Generally, maximum resident parking shall not exceed two spaces per unit.	Two per 4 residential units, unless separate secured garage space is provided for each unit. The bicycle spaces shall be secure, covered, and located conveniently for residents and visitors.
Other Uses	Refer to Zoning Code	
Compact Residential (CR) and Medium Density Residential (MDR)		
Unit Type	**Automobile Parking[1]**	**Bicycle[2]**
Studios or One-Bedroom Units	1.0 covered space per unit, plus 0.5 spaces per unit required for visitor parking.	Two per 4 residential units, unless separate secured garage space is provided for each unit. The bicycle spaces shall be secure, covered, and located conveniently for residents and visitors.
Units with Two Bedrooms or More	1.5 covered spaces per two-bedroom unit, plus 0.5 spaces per unit required for visitor parking Each additional bedroom (over two) add 0.5 spaces per unit.	

1. *Motorcycle parking can substitute for up to 10 percent of parking requirement.*
2. *No use is required to provide a total of more than 50 bicycle spaces.*

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Appendix C

General Plan Active Transportation Policies

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Goals and Policies Related to Active Transportation from Town of Windsor 2040 General Plan

Goal M-1: Multimodal Circulation System

Promote the development of an integrated, multimodal transportation system that balances the circulation and mobility needs of pedestrians, bicyclists, public transit, automobiles, and goods movement.

Policies

M-1.1 Multimodal Transportation System. The Town shall continue to implement a multimodal transportation system that connects residents to activity centers throughout and near town, such as commercial centers and corridors, employment centers, the SMART train stop, the airport, schools, parks, recreation areas, and other attractions.

M-1.3 Development of Pedestrian, Bicycle, and Transit Facilities. The Town shall encourage the development of facilities and services (e.g., secure long-term bicycle parking, street lights, street furniture and trees, transit stop benches and shelters, and street sweeping of bike lanes) that enable bicycling, walking, and transit to become more widely used modes of transportation and recreation.

M-1.4 Multimodal System Additions. The Town shall require all new development that proposes or is required to construct or extend streets to develop a transportation network that complements and contributes to the town's multimodal system, maximizes connections, and minimizes barriers to connectivity.

Goal M-2: Complete Streets

Provide "complete streets" with facilities, and amenities that meet the needs of all users, regardless of their age or ability, or whether they are walking, bicycling, taking transit, or driving.

Policies

M-2.1 Complete Streets Design Guidelines. The Town shall ensure that the concepts and design standards/guidelines in the adopted Complete Street Design Guidelines are considered during review of new development proposals, when constructing new streets, and when modifying existing corridors in order to ensure accessibility for all.

M-2.2 Complete Street Practices. The Town shall continue to work towards making complete streets a routine part of everyday transportation decision-making.

M-2.3 Safe and Comfortable Streets. The Town shall design streets to enhance Windsor's identity, to be safe and convey a sense of security, and to be comfortable and convenient for all travel modes including motor vehicles, pedestrians, and bicyclists.

M-2.4 Managing Transportation in the Right-of-Way. The Town shall balance the needs of all travel modes when planning transportation improvements, including pedestrian and bicycle trails and pathways.

M-2.5 Complete Street Infrastructure. The Town shall incorporate appropriate complete street infrastructure, including technologies supporting automated vehicle travel as industry standards are developed and facilities supporting increased use of "on-demand" car-sharing and ride- sharing services, into transportation planning, funding, design, approval, and implementation processes and projects.

M-2.6 Complete Street Urban Design Considerations. The Town shall consider the land use and urban design context of adjacent properties in both residential and non-residential districts as well as urban, suburban, and rural areas when designing complete streets.

M-2.7 Complete Street Priority Areas. The Town shall prioritize complete streets improvements (e.g., bicycle, pedestrian, vehicle, and transit facilities) at and along U.S. Highway 101 interchanges, including Shiloh Road, Arata Lane, and Central Windsor.

M-2.8 Review Transportation Facilities for Development Proposals. The Town shall consider on-site and off-site transportation facility improvements during the review of development proposals to ensure that connected facilities are provided for all modes of transportation.

M-2.10 Bicycle and Pedestrian Connectivity. The Town shall ensure that commercial and residential development, including affordable housing projects, provides convenient and direct connections to the nearest existing bikeways, pedestrian ways, and public transit facilities.

M-2.11 American with Disabilities Act. The Town shall continue to implement the Americans with Disabilities Act when designing, constructing, or improving transportation facilities.

Goal M-3: Streets and Roadways

Provide an interconnected street network that is accessible and friendly to all modes of travel.

Policies

M-3.1 Connected Network. The Town shall strive to create a more connected transportation network by eliminating "gaps" in roadways, bikeways, and pedestrian networks; increasing transit access; and removing natural and manmade barriers to accessibility and connectivity.

M-3.2 Private Development Street Connections. The Town shall encourage private developments (e.g., office parks, single-family subdivisions apartment complexes, retail centers) to provide internal complete streets that connect to the existing public roadway system and provide a transition to existing and planned transportation facilities. Bicycle and pedestrian connectivity from the private street to the nearest public street(s) shall also be provided.

M-3.4 Street Design. The Town shall encourage streets to be designed or upgraded in ways that support walkable and bikeable environments and to be consistent with the Town's Complete Street Design Guidelines.

M-3.5 Design Standards. The Town shall implement the design standards for both public and private travel corridors from the Complete Street Design Guidelines and Windsor Station Area/Downtown Specific Plan that address landscaping and tree management, building setbacks, and existing character.

M-3.7 Street Connections in New Developments. The Town shall promote street designs in new developments that provide convenient connections to local destinations and to adjacent neighborhoods. Travel should be dispersed among several streets rather than a few high-volume local streets that divide neighborhoods and discourage walking.

M-3.8 Street Retrofitting for Connectivity. The Town shall encourage the retrofitting of existing streets to be more consistent with the Town's desires for an interconnected street network of complete streets that are pedestrian-oriented. This would include reducing the extent of pavement on residential streets by adding contiguous planting strips.

M-3.9 Pavement Management Program. The Town shall maintain and implement the Pavement Management Program (PMP) which is set to provide the guidance to apply for grant funding through MTC to maintain and rehabilitate the Town's roads.

M-3.10 Pavement Condition Index (PCI). The Town shall continue to provide street maintenance to sustain high Pavement Condition Index (PCI) levels in order to maintain high quality roads.

M-3.12 Traffic Management. The Town shall strive to address traffic operations, including congestion, intersection delays, and travel speeds, while balancing neighborhood livability and safety concerns.

M-3.13 Slowing Residential Traffic. The Town shall "calm", or slow, traffic in residential neighborhoods through application of a variety of techniques that have the effect of slowing through traffic without compromising safety, emergency access, and reasonable flows as presented in the Town's Neighborhood and Traffic Management Calming Program.

M-3.14 Traffic Calming. The Town shall implement traffic calming measures in the downtown and accident-prone hotspot locations, as well as near schools, the library, and other public facilities, as appropriate to improve safety.

M-3.15 Street Tree Placement. To the extent feasible, the Town shall line streets with trees to create a more attractive, comfortable pedestrian environment, while maintaining clear sight lines in order to reduce the risk of accident or injury due to site impediments.

M-3.20 Residential Through-Traffic. The Town shall discourage fast, through- traffic through or across residential neighborhoods.

M-3.21 Emergency Access on Streets. The Town shall work with the Fire District to address street design and the accessibility required for emergency vehicles, with the Town's desire for narrower pedestrian-friendly streets.

M-3.22 Congestion Surrounding Schools. The Town shall actively engage with the Windsor Unified School District (WUSD) to consider school operational practices that would reduce local traffic congestion that is currently experienced throughout the WUSD cluster school system during peak hours. The Town shall encourage a school traffic congestion plan that would reduce congestion caused by school traffic, particularly during student drop-off and pick-up times. The Town shall also work with WUSD in the planning and design of future, proposed schools to provide adequate facilities for site-generated traffic and parking.

M-3.25 Five Land Boulevards. Full build-out of five-lane boulevards will only occur when necessary to maintain acceptable levels of service along the Town's transportation network. In their interim condition prior to full build-out, the full width necessary to accommodate five-lane boulevards shall be dedicated to the Town; however, the fewest number of lanes necessary to maintain acceptable levels of service will be required and any excess right-of-way may be improved with pedestrian facilities, street parking, bicycle lanes, and parklets,

Goal M-4: Walkable and Bikeable Community

Provide a safe, efficient, and accessible bicycle and pedestrian system throughout Town.

Policies

M-4.1 Bicycle and Pedestrian Master Plan. The Town shall regularly update and implement the Windsor Bicycle and Pedestrian Master Plan.

M-4.2 Trail Network. The Town shall expand its network of trails throughout the town, wherever feasible, through public open spaces and easements for recreational enjoyment and for a vehicle-free route to parks, schools, and neighborhoods through walled subdivisions.

M-4.3 Trail Accessibility. The Town shall require trails to be within a short walk of most residents in order to harbor active lifestyles and offer opportunities to appreciate open space.

M-4.4 Pedestrian and Bicycling Gaps. The Town shall encourage closing the gaps in the sidewalk and bicycling network to ensure continuous pedestrian and cycling access within town, particularly the gaps in connection due to the bisecting of U.S. Highway 101.

M-4.5 Bicycle Infrastructure Planning. The Town shall consider the needs of bicyclists of all types (commuters, recreational riders, children, and families) in planning, developing, and maintaining a bikeway network that is safe and convenient.

M-4.6 Bicycle Safety Improvements. The Town shall improve bicycle safety by expanding the use of separated bicycle lanes, green bicycle lanes, and adequate lighting, particularly around schools and in other areas where bicycle safety is a concern.

M-4.7 Bicycle Detection at Intersections. The Town shall require that all signalized intersections include bicycle detection and are properly marked and operational for use by bicyclists.

M-4.8 Bicycle and Pedestrian Interchange Safety. The Town shall require that bicycle and pedestrian connectivity and safety are addressed at the three Highway 101 interchange locations in Town.

M-4.9 Bicycle and Pedestrian Crossing. The Town shall continue to pursue a pedestrian bridge or tunnel crossing at Highway 101 and Old Redwood Highway.

M-4.10 Bicycle and Pedestrian Crossing Safety. The Town shall develop safe and convenient bikeways and pedestrian crossings that reduce conflicts between pedestrians, bicyclists, and motor vehicles on streets, multi-use trails, and sidewalks.

M-4.11 Bicycle Parking. The Town shall continue to require adequate bicycle parking facilities at schools, parks, shopping centers, and places of employment in both commercial and industrial areas.

M-4.12 Temporary Bicycle Parking for Events. The Town shall require that adequate temporary bicycle parking be made available at events and festivals to encourage alternative modes of transportation to and from events, helping to alleviate potential congestion.

M-4.13 Bicycle Signage Infrastructure. The Town shall install wayfinding signage, markers, and stencils on off-street paths, on-street bikeways, local roads, and State Routes to improve way finding for bicyclists, assist emergency personnel, and heighten motorist awareness.

M-4.14 Safe Routes to School. The Town shall continue to coordinate with the School District on implementation of the Safe Routes to School program to ensure a safe pedestrian and bicycling network to and from local educational facilities for all.

M-4.15 SMART Trail. The Town shall work with Sonoma Marin Area Rail Transit on the implementation of the SMART Trail which will extend a multi-use path adjacent to the SMART corridor, connecting bicyclists and pedestrians north and south from the multi-modal transit station into neighboring jurisdictions.

M-4.16 Bicycle and Pedestrian Education. The Town shall continue to provide programs that educate the community about bicycle and pedestrian safety as well as the availability of facilities for and benefits of walking and biking.

Goal M-5: Public Transit

Provide opportunities for a reliable and integrated transit system for Windsor residents, visitors, and employees to circulate about Town and connect to the broader region without reliance on the automobile.

Policies

M-5.1 Transit Oriented Development. The Town shall encourage higher density mixed land uses within walking distances of existing and future transit stops.

M-5.3 Safe Routes to Transit. The Town shall continue to implement a safe routes program that prioritizes pedestrian and bicycle access to transit stops and stations.

M-5.4 Bicycle Accommodations on and near Transit. The Town shall encourage local and regional transit agencies to accommodate bicycle parking at transit stops and bicycle storage on transit vehicles to ensure adequate capacity to meet demand.

M-5.5 Developer Constructed Transit Facilities. The Town shall require developers to construct, when appropriate, transit facilities including drop-off and parking facilities for ride-sharing and car-sharing services, bicycle parking, bus turnouts, shelters, and benches.

Goal M-6: Parking

Provide a comprehensive parking system Townwide that serves the needs of residents and businesses, while supporting alternative modes of transportation.

Policies

M-6.5 Reducing Off-Street Parking in Areas of Critical Width. The Town shall consider removing or restricting existing on-street parking in order to facilitate traffic flow and accommodate bicycle lanes if insufficient width exists otherwise and all other appropriate street modifications are determined to be infeasible. A study shall be performed prior to taking such an action to determine the adequacy of the parking supply that would remain to serve the existing and/or projected demand.

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Appendix D

Workshop Presentation

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WINDSOR BICYCLE AND PEDESTRIAN MASTER PLAN UPDATE

Community Workshop
October 19, 2021

TOWN OF WINDSOR California

W-Trans

1

Workshop Overview

- Project Summary and Background
- Existing Conditions
- Bicycle and Pedestrian Needs
- Design Concepts
- Collecting Public Input
- Q&A

W-Trans

2

Purpose of Plan Update

- Update of 2014 Bicycle and Pedestrian Master Plan
- Incorporate recommendations from more recent related plans
- Focus on "low traffic stress" facilities
- Engage broad range of stakeholders
- Apply newer, more innovative design treatments
- Maintain eligibility for grant funding

W-Trans

3

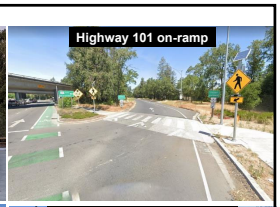


W-Trans TOWN OF WINDSOR

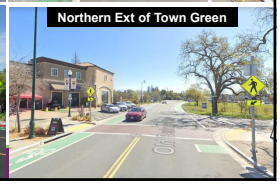
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Recent Projects







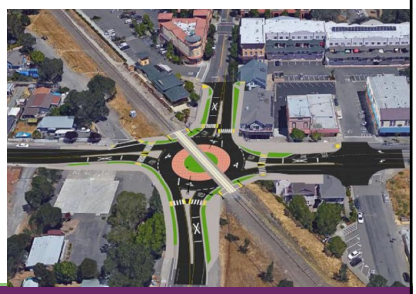


W-Trans

5

Current Project

Windsor River Rd/
Windsor Rd
Roundabout



W-Trans TOWN OF WINDSOR

6

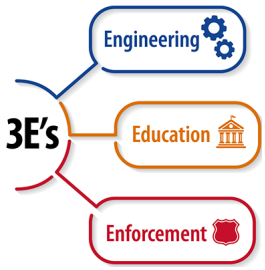
Future Project

US 101 Crossing



7

The "E's" of Road Safety



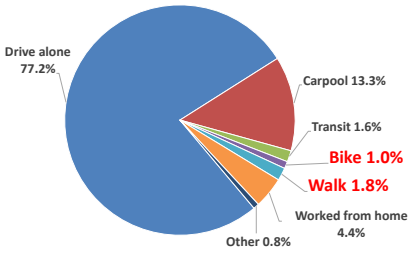
More E's

- Encouragement
- Equity
- Engagement
- Emergency response
- Evaluation

W-Trans

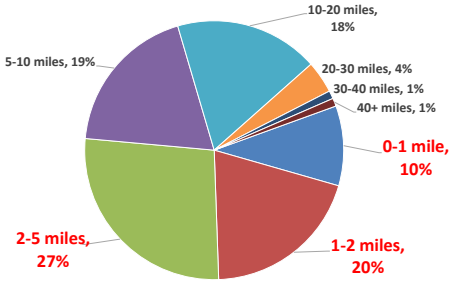
8

Work Commute Transportation, Windsor Residents, 2019



9

Length of Trips Starting in Windsor

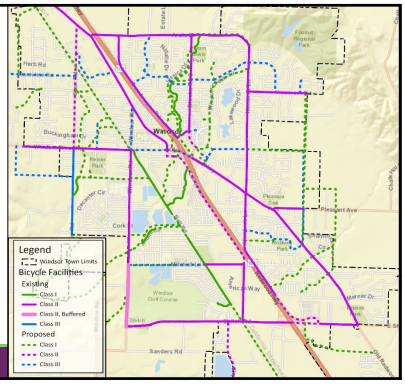


10

Bicycle Facilities Network

11

Existing and Proposed Bicycle Facilities



12



13

Poll Question

What type of bicyclist are you?

1) Strong and Fearless
2) Enthused and Confident
3) Interested but Concerned
4) No Way, No How

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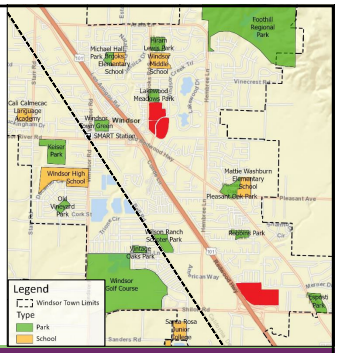
Identifying Priority Bicycle Projects

- Access major destinations
- Network connectivity
- Address safety issues
- Analysis of trade-offs

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Key Destinations

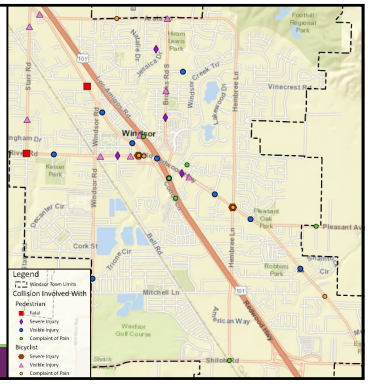
- Town Green
- SMART station
- Schools
- Parks
- Commercial areas
- Large employers



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Safety

- **Pedestrian and bicyclist injury collisions, 2010-2019**
  - 27 collisions involving bicyclists
  - 30 collisions involving pedestrians
- **Fatalities and severe injuries**
  - Pedestrians: 2 fatalities, 4 severe injuries
  - Bicyclists: 2 severe injuries
- **Key corridors:**
  - Windsor River Rd
  - Old Redwood Highway
  - Starr Rd
  - Brooks Rd South



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Opportunities and Constraints

- **Opportunities**
  - Access and safety for all users
  - Land use pattern, trip lengths
  - Street redesign
  - SMART service
  - Evolving engineering practices
  - Green infrastructure/landscaping
- **Constraints**
  - Barriers – US 101, SMART tracks
  - Competing needs – vehicle circulation
  - Available right-of-way
  - On-street parking
  - Cost – construction and maintenance

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Using the Available Roadway Space

Feature	Typical Width
Parking lane	8’
Travel lane	10’-12’
Bike lane	5’-6’
Bike lane buffer	2’-3’
Median island	Minimum 4’

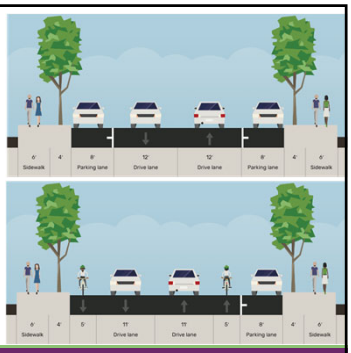
19

Example:
How to design a 40’ wide street?

- Two 12’ travel lanes
- Two 8’ parking lanes

OR

- Two 11’ travel lanes
- Two 5’ bike lanes
- One 8’ parking lane



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Bicycle Improvements

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Bicycle Facilities Toolbox

- **Multi-use path (Class I)**
- **Bike Lane (Class II)**
- **Buffered Bike lane (also Class II)**
- **Bike Route (Class III, shared roadway)**
- **Separated Bike Lanes (Class IV)**
- **Bike signals**

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Multi-Use Path (Class I)

- **Provides separation of users from traffic**
- **Serves pedestrians, bicyclists, and other nonmotorized users**
- **Location may be in corridors such as a roadway, railroad or creek**





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Bike Lane, Buffered Bike Lane (Class II)

- **Provides dedicated right-of-way for bicyclists**
- **Increases visibility of bicyclists to drivers**
- **Striped buffer can provide separation between bicyclists and vehicles**





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Bike Route (Class III)

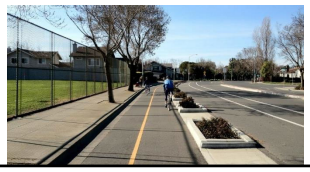
- Typically located on low-volume, slow speed streets and/or to provide connectivity where there are gaps in network
- Encourages drivers to anticipate bicyclists
- Guides positioning of bicyclists when they must "take the lane"




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Separated Bike Lanes (Class IV)

- Includes vertical barrier
- Protection for users from traffic
- Can be 1-way or 2-way
- For bicyclists only


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Green Bike Lane Markings/Crossbike

- Visually narrows roadway, encourages slower speeds
- Dashed striping through conflict zones raises awareness of bicyclists and motorists to potential conflicts
- Crossbike dedicates space for bicyclists at crossings




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Bicycle Parking

- Secure bike parking for day-long use
- Bike racks for shorter term use, design to reduce bike theft
- Provide in public right-of-way and as part of development projects



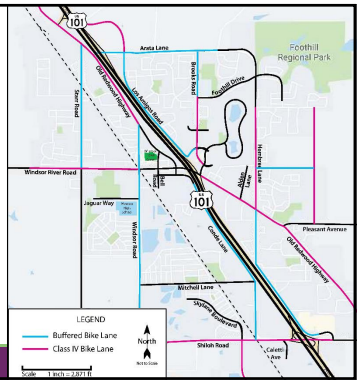


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Emphasis Area:

Buffered Bike Lanes, Cycle Tracks



W-Trans

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Pedestrian Improvements

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Poll Question

What do you find most challenging about being a pedestrian in Windsor?

1) Sidewalk gaps
2) Missing curb ramps at key locations
3) Vehicles don't yield at crossings where there is no traffic signal or stop sign

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Pedestrian Facilities Toolbox

- Curb extensions
- Median refuge island
- Enhanced signing and striping
- Rectangular Rapid Flashing Beacon (RRFB)
- HAWK

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Curb Extensions

- Reduces crossing distance
- Increased visibility for pedestrians, especially children and people in wheelchairs
- Reduces speed of turning vehicles
- Provides space for landscaping, benches, ,bike parking, etc.





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Median Refuge Island

- Reduced crossing distance
- Protection from traffic
- Cross 1 direction of traffic at a time
- Traffic calming effect





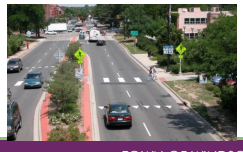


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Enhanced Signing and Striping

- Help drivers anticipate pedestrians
- Advanced yield markings ("shark's teeth") indicate where drivers should stop before crossing
- Can be used in conjunction with other treatments such as RRFBs

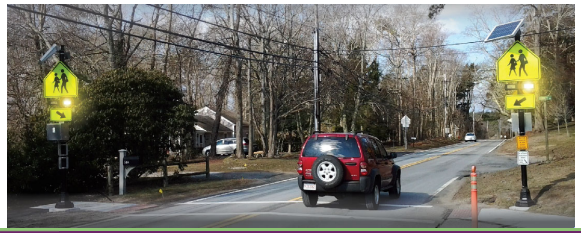




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Rectangular Rapid Flashing Beacon (RRFB)

- Pedestrian-activated
- Increases driver yielding rates



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HAWK Signal

- Stops traffic
- Pedestrian activated
- Unlit when not in use

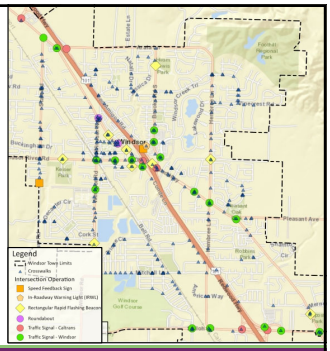


37

Emphasis Area:

Uncontrolled Crossings

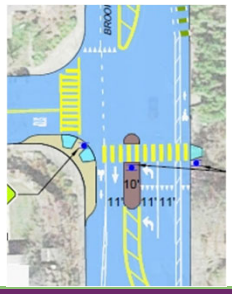
- No signal or stop sign for cross traffic
- Evaluate for pedestrian crossing treatments
  - Collision history
  - Land uses
  - Demand for pedestrian trips
  - Traffic characteristics



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Example: Brooks Rd South/Natalie Drive





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Provide Your Input!

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Project Web Site

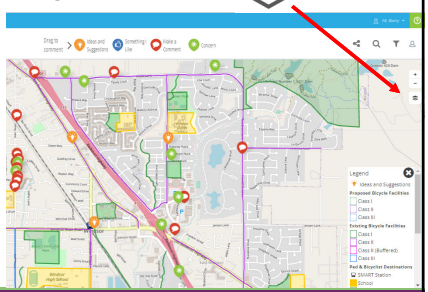
- Interactive web map
- Survey
- Milestones and schedule
- w-trans.mysocialpinpoint.com/Windsor



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Interactive Web Map

- Provide comments
- Turn on and off layers
  - Existing and proposed bike facilities
  - Crosswalks
  - Collisions



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Next Steps and Project Schedule

- Continue to collect comments
- Field evaluations – cycle tracks, uncontrolled crossings
- Draft project list
- Prioritization
- Survey: Public input on prioritized project list
- Draft plan
- Public meetings: BPAC, Parks and Recreation Commission, Council
- Completion: Summer 2022

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Q&A

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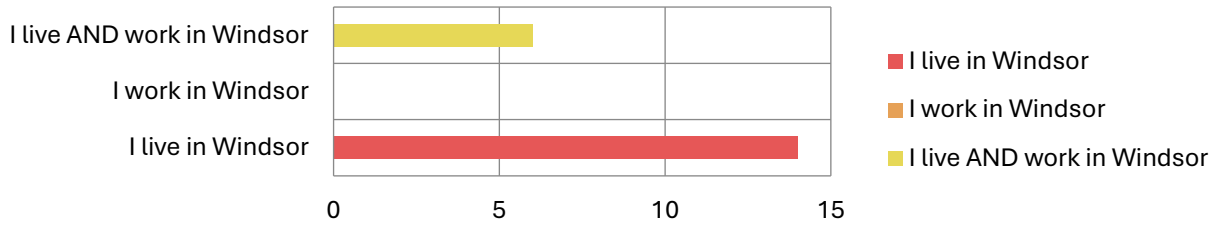
Appendix E

Online Survey Results

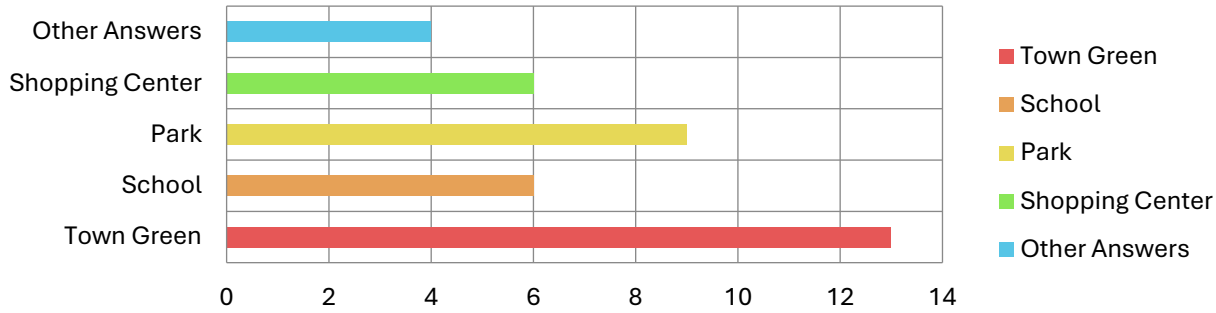
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Windsor Active Transportation Plan – Summary of Online Survey Results

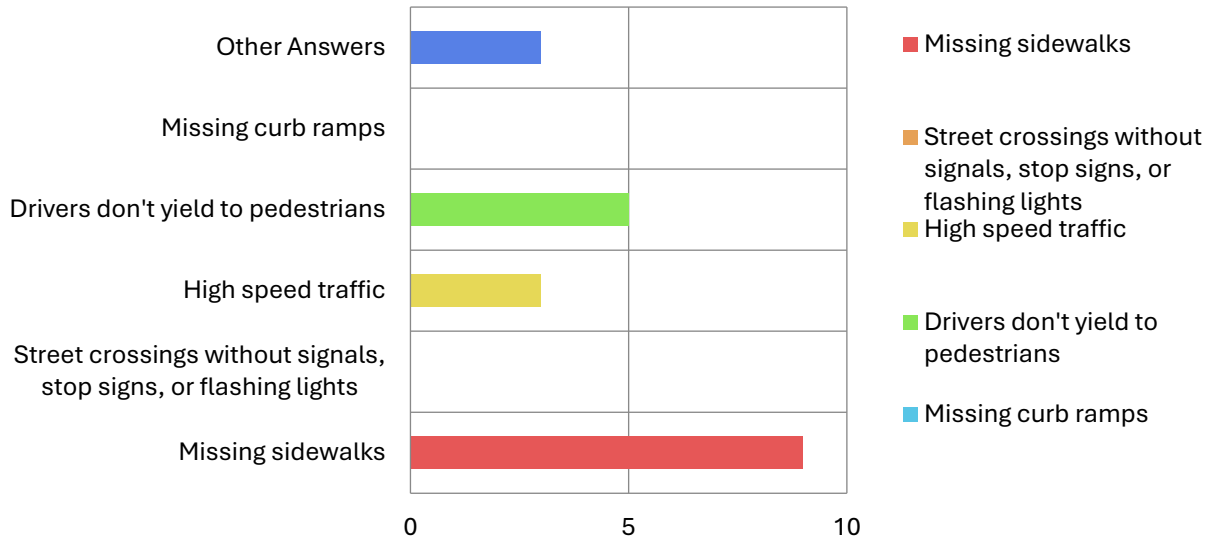
Do you live or work in Windsor?



List up to 3 destinations to which you currently walk:



What do you see as challenges for pedestrians in Windsor?



Are there any specific intersections where you find it challenging to cross the street?

Intersections and Interchanges

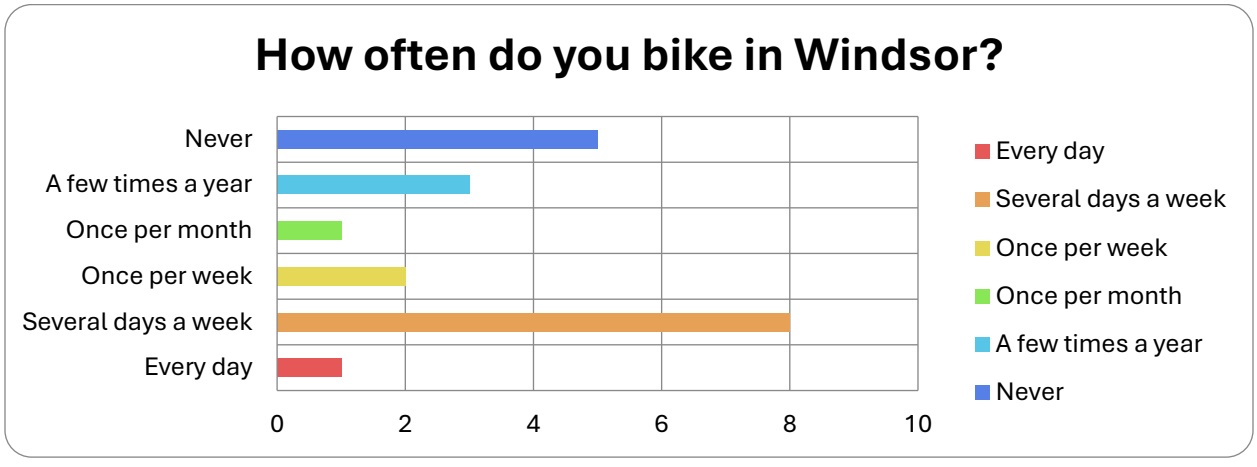
- Lakewood Drive/Brooks Road South
- Lakewood Drive/Los Amigos Road
- Old Redwood Highway/Arata Lane (identified by 2 respondents)
- Old Redwood Highway/Lakewood Drive
- Old Redwood Highway/Starr Road
- Old Redwood Highway/US 101 interchange (identified by 6 respondents)
- Starr Road/Windsor River Road (identified by 2 respondents)

Roadway Segments

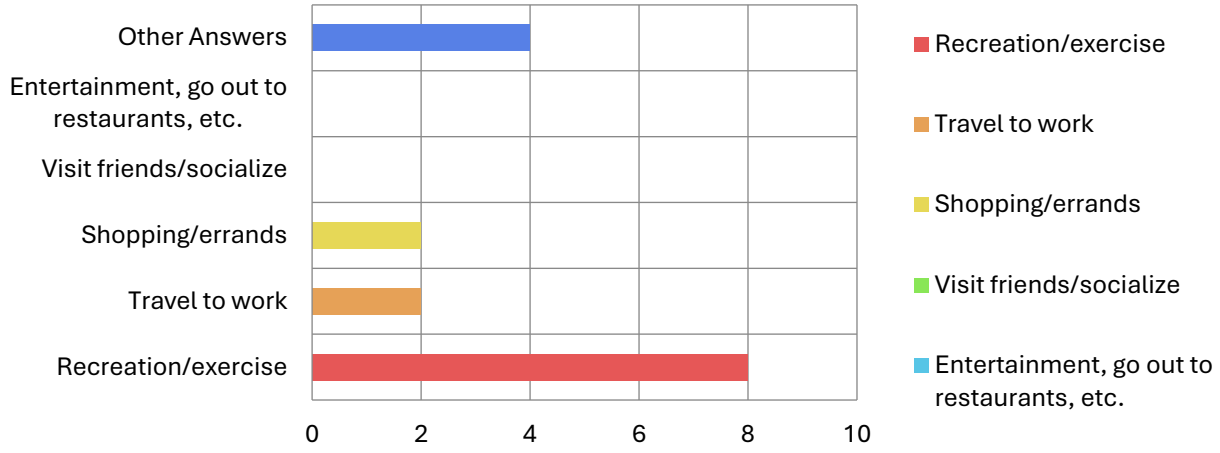
- Bell Road
- Old Redwood Highway
- Starr Road (identified by 3 respondents)
- Starr Road near Cali Calmecac School
- Starr Road going north from Cali Calmecac, between Colleen and Stellaer
- Vinecrest Road
- Windsor River Road

Other

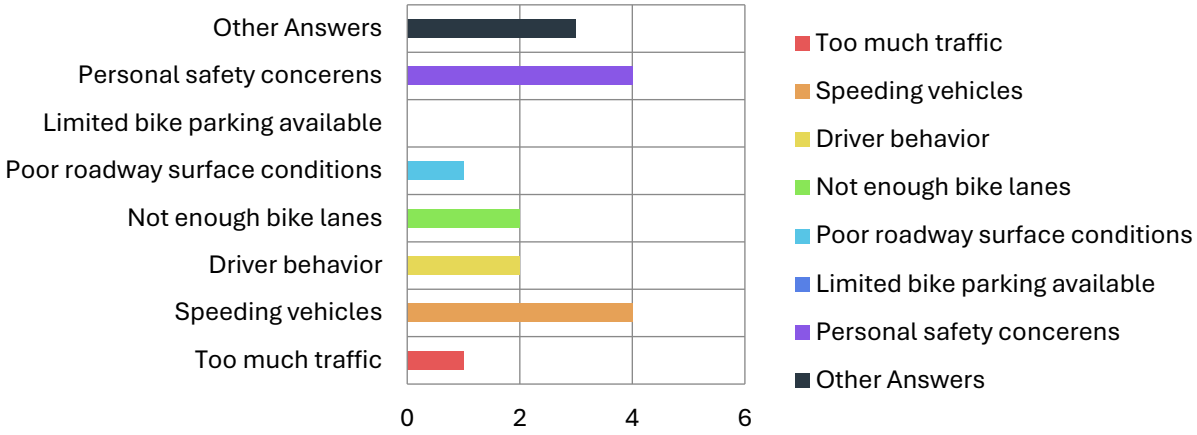
- Near the WalMart/Home Depot



When you bike locally, what is the purpose?



If you don't currently bike in Windsor, why not? (check all that apply)

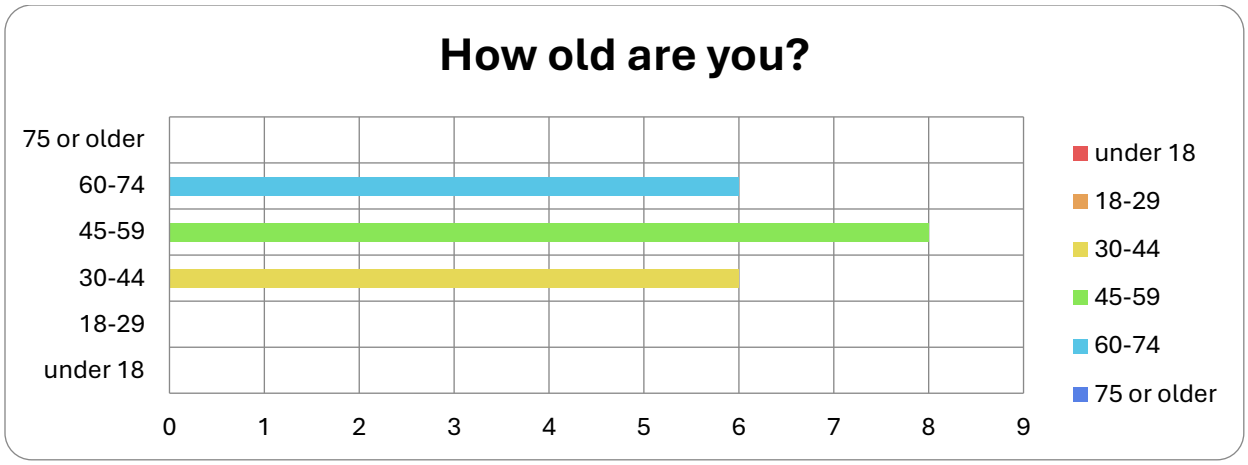


Which of the following would encourage you to bike more often? (rate on a scale of 1 to 5)

	Not at All		Slightly		Neutral		Somewhat Important		Most Important	
more off street paths	2	10%	2	10%	4	20%	4	20%	7	35%
bike lanes with a barrier such as bollards or a raised curb	3	15%	2	10%	3	15%	7	35%	5	25%
bike lanes with a striped buffer to create more space from vehicles	2	10%	2	10%	2	10%	10	50%	3	15%
more bike lanes (striping only, no buffer)	0	0%	0	0%	0	0%	0	0%	0	0%
more bike routes (signs only, bicyclists mix with traffic)	0	0%	0	0%	0	0%	0	0%	0	0%
more bike parking	5	25%	4	20%	7	35%	0	0%	3	15%
not interested in biking	6	30%	2	10%	2	10%	0	0%	1	5%

The Town is planning to evaluate several streets for "separated bike lanes", which have a barrier between bicyclists and traffic. Please select your top 3 choices for separated bike lanes, and indicate any others not on the list.

Street	Responses	
Old Redwood Highway	15	78.9%
Windsor River Road (west of Windsor Road)	6	31.6%
Hembree Lane	3	15.8%
Shiloh Road	10	52.6%
Brooks Road (south of Foothill)	5	26.3%
Skylane Boulevard (south of Shiloh)	3	15.8%
Other Answers	6	31.6%


How old are you?
75 or older
60-74
45-59
30-44
18-29
under 18
0
1
2
3
4
5
6
7
8
9
under 18
18-29
30-44
45-59
60-74
75 or older

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Appendix F

Interactive Map Comments

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Comments Submitted to Online Interactive Map, with

Number of Respondents Indicating that they Agree or Disagree

Comment	Number of Respondents Agreeing	Number of Respondents Disagreeing
Hembree Lane - Hembree has tall fences on both sides. It makes it feel like you are walking or bicycling through a tunnel. Sidewalk on only one side. Two way bike lane should be on the west side of the street and separated from traffic. West side of Hembree in this location has no side streets that intersect Hembree.	2	0
Old Redwood Highway near US 101 - Dangerous and unpleasant to cross the maze of city streets and freeway on ramps to get from one side of 101 to the other for both bicyclists and pedestrians. Crossings need to be separated from vehicle traffic.	9	0
Brooks Road South (near Bond) - Speeding traffic.	2	0
Starr Road (near Springfield Court) - This section of Starr Road is a work day nightmare after delivering my kid to school by bike. The lack of shoulder and the mail boxes that hang into the road make this a dangerous section of road. Let's not wait until someone gets hit before we do something about it.	15	0
Old Redwood Highway/US 101 interchange - We need a safer route for riding bikes for east-west travel past the freeway entrances/exits. Especially for kids. We live on the east side and My son attends 6th grade at Cali Calmecac and I'd love for him to start riding his bike to and from school. This is the most stressful/dangerous part of the route.	6	0
There is an area on the north side of Arata with no sidewalk. It's true, we could walk on the south side of the street but it would also be great to have a sidewalk along the entire north side of Arata.	2	0
All of Starr Road needs proper sidewalks on both sides. Please eminent domain a sliver of each of those properties and give the Town folks a safe place to walk, jog, push strollers, etc.	12	0
Starr Road at Colleen Drive - There needs to be a crosswalk for pedestrians.	6	0
All of Starr Rd. needs bike lanes both ways between Windsor River Rd and Old Redwood Hwy. There are 2 schools along here. These schools need adequate bike lanes and sidewalks. Every other school in WUSD has these except one.	8	0
Along with bike lanes and sidewalks down Starr Road (see other comments) there needs to be bike racks on both sides of the school. Students biking from the north side must cross in front of ALL the school traffic to the bike rack on the south side of the parking lot.	8	0
Complete the bike/pedestrian path along the SMART tracks to the Town Green. This would be a highly used, traffic-free corridor to the Town Green from the neighborhoods north of Starr Rd.	5	0
Old Redwood Highway at Arata Lane - Improve this intersection for bikes, especially turning Left from Old Redwood on to Arata. There is no bike lane and the bike sensor doesn't work. I have to traverse this intersection to get to Foothill Park.	8	0

Comment	Number of Respondents Agreeing	Number of Respondents Disagreeing
Conde Lane near RV park - This small section of Conde seems ideally suited to a bike and pedestrian lane. There are bike lanes and paths on both ends. Traffic here moves quite fast and the shoulders are dangerous. There seems to be a lot of room to add a path. This would make an ideal route for those living in the mobile home parks to get to downtown, especially with the advent of electric bikes.	4	0
Additional sidewalks and bike lanes along Arata and ORH would make biking and walking safer and more enjoyable for residents of north Windsor going to the town green area rather than having to go south and navigate the Lakewood Drive/ORH maze. I'd be much more inclined to bike/walk if dedicated corridors existed.	4	0
Bike lane and sidewalks needs to be completed/extended the entire length of Starr Rd. this is a very busy corridor for school traffic - both vehicle, pedestrian and bike. It should be safe for all	6	0
There should be a complete sidewalk and bike lane to connect the east side to the west side. There are very few ways to cross the 101 (3 to be exact) , they should all be safe ways to walk and bike and connect the side walks and bike lanes.	3	0
Bike lane and sidewalks needs to be completed/extended the entire length of Starr Rd. this is a very busy corridor for school traffic - both vehicle, pedestrian and bike. It should be safe for all	6	0
Sidewalks along all of Old Red from Windsor River Road to Arata, on both sides of the street	3	0
Sidewalks and better bicycle access along Shiloh Road from Old Redwood Highway all the way to Windsor Road. This includes the dangerous 101 overpass (for bicycles and foot) and the lack of bike lane upkeep (street sweeping, gutter cleaning, marking) along the road.	5	0
Pedestrian access to the WalMart shopping center from the South is pretty lousy. Look at the footpaths people have actually made in the dirt that are more direct and easier connections from bus stop to walking on Shiloh. This will need to be addressed soon with the new projects planned along the Shiloh corridor. Please build things that take bikes and pedestrians and wheelchair users in mind in addition to cars. We tend to lean a bit too car-centric in our design.	3	0
Lakewood Drive and Los Amigos Road intersection - This whole area is a disaster for pedestrians and cyclists. From Brooks Road at Lakewood to all the other areas. Try walking from Exchange Bank to Safeway - it's not easy or fun nor does it feel safe. Perhaps some improvements on the public side (bike lanes or markings, pedestrian crossings) and some suggestions for the private property owners to figure out easier ways to walk on their property.	2	0
Brooks Road South near Pulteney Place - Traffic calming measures. This road is a wonderful racetrack - nice and wide and very few visual clues to get us to slow down. Added bonus is the 55+ neighborhood, the park and the schools. Perhaps some green bike lanes or visual markers will help?	2	0
As "North of Arata Project" comes into being in the future, keep in mind the impact on traffic flow on Arata and it's feeder streets. It is already very difficult to turn left onto Arata from Camelot, and will be much more difficult with additional traffic from the "North of Arata Project".	1	0

Comment	Number of Respondents Agreeing	Number of Respondents Disagreeing
Bike path continuation to Town Green SMART stop - can we get it to go through the edge of the water treatment plant (fenced off of course) so we don't have to go around it?	2	0
Old Redwood HIghway near Shira Street - Serious speeding/reckless driving on this portion of Old Red at all hours of the day/night. Some cars going over 90mph. People parked illegally in the no parking section next to Viking Ct. makes it impossible for residents to safely pull out from Viking onto Old Red. Need more traffic enforcement and ticketing of offenders.	0	0
Would like to see a cross walk on south side of the intersection of Pleasant & Old Red, as well as a sidewalk continuing from the quick shop and deli all the way down to Shira Street. Would like to be able to access Shira Street on foot without pushing a stroller in the street because there is no side walk	2	0
We need sidewalks!! Full length of Starr, and also Gumview. My wife and baby go on walks and runs on a daily basis, it can get very dangerous. This is a daily discussion in our house.	4	0
A crosswalk at Shira Street/Old Red to access Robbins Park. Parents with kids have no safe way to cross Old Red without darting through traffic	2	0
Starr Road - For almost 20 years of living here, I have watched kids and parents struggle on bicycles to and from Cali Calmecac. This is not a safe area for kids to walk or bike. I have given feedback many times over the years and it's still not safe. This area needs adequate sidewalks and bike lanes. I don't understand why this hasn't been a major priority since a LOT of kids go to Cali. Thank you.	6	0
Old Redwood Highway north of Billington Lane - No sidewalk and the shoulder of roadway is slanted and hard to traverse. No safe way to cross Old Redwood to get to other side of street that has a sidewalk. Cars speed here. Very unsafe for pedestrians.	3	0
Old Redwood HIghway at Billington Lane - Traffic light with protected crosswalk. A lot of people make a left from Old Redwood onto Billington and risk getting rear ended waiting for a break in oncoming traffic. Cars often going much faster than than the posted speed limit of 40 mph. Also puts pedestrians at risk since there is a lack of sidewalks and crosswalks in this area.	1	0
Old Redwood Highway - Finish paving a sidewalk that can take people from Shira to Pleasant Ave without having to walk in the street and risk getting hit by oncoming traffic	2	0
Old Redwood Highway at Starr Road - There needs to be cross walks at this intersection- specifically for families crossing from Windsor Academy to Estrellas Market and people to cross from Estrellas over to AAA Tires. More than often delivery trucks are parked in the turn lane of Old Red obstructing view - trying to cross to get to mcleas is dangerous.	3	0
Old Redwood Highway between Belfiore and Fulton - Cross walk for families crossing to preschool and Windsor Academy	1	0
Natalie Drive west of Elsbee Circle - Creek trail is used by students and elderly. Cars come around a blind turn and fail to see crossing pedestrians. Stop sign with raised cross walk would make this safer.	0	0

Comment	Number of Respondents Agreeing	Number of Respondents Disagreeing
Old Redwood Highway/Lakewood Drive - Dutch style protected intersection to increase bike and pedestrian safety.	0	0
Riding a bike on Lakewood Drive and Trying to turn onto Brooks Road is scary.	1	0
Brooks Road South at Bond Place - There needs to be a crosswalk here, preferably with a full stop sign for Brooks Road. This is the current path many seniors take to get to the park but there is currently no safe way to cross, not even a crosswalk. A full stop sign for Brooks Road in both directions would be safer for pedestrians AND would help decrease the speed of traffic (currently this stretch of Brooks is like a drag race course).	2	0
Arata Lane near Marcella - Need an adequate bike lane west bound Arata. There are parts with no bike lane causing you to ride in the street.	1	0
Old Redwood Highway south of Arata Lane - Sidewalks are needed on this section of Old Red to Starr Rroad. On multiple occasions I've seen young families walking in all weather including rain taking their children to the preschool on Starr from the apartments and the mobile home park.	1	0
Unsure what can be done but trying to exit Gumview onto Starr is a nightmare on school days in the morning. The traffic is fast and extremely heavy.	1	0
I would like to see street lights at the corner of Windsor Road and Shiloh Road and continue along Shiloh to Conde Lane. Very hard to see at night especially when turning onto Shiloh from Windsor Road.	1	0
La Quinta Drive south of Encinosa Court - Uneven sidewalka	0	0
Foothill Drive near park - Uneven sidewalks	0	0
Foothill Drive near park - Needs crosswalk	0	0
Old Redwood Highway at US 101 NB on-ramp - Raised pedestrian crosswalk for freeway entrance was a nice improvement	1	0
Brooks Road South south of Jessica Drive - Crosswalk with refuge island connecting creek trail and school	0	0
Windsor Road at Winemaker Way - The "Vintana" stone sign here makes it hard for cars exiting Winemaker Way to see pedestrians and bikes, especially for lower cars and for kids on bikes. Removing the vanity sign and replacing it with flowers or low hedges, or even just moving the entire sign back a foot or two, would help.	0	0
The Vintana sign at Reiman Lane and Oak Way makes it very hard for cars turning left off of Oak Way onto Reiman to see bikes or pedestrians without encroaching into the lane. Several children who attend school at Cali and live south of here travel by bicycle here and it can be a dangerous intersection. Remove the sign and if needed replace with lower growing plants and flowers.	0	0
Starr Road at Burgundy Way - Remove the Vintana Sign here and replace with lower growing plants or flowers. Kids on bikes and walkers heading to Cali have to negotiate drivers who cannot see them until they encroach on their lane. The fact that the sign is literally in the middle of the crosswalk, with a curb, should be maddening for wheelchair and sight-impaired pedestrians.	0	0

Comment	Number of Respondents Agreeing	Number of Respondents Disagreeing
There is a great bike path here through Keiser to the high school. Signs that say "Bike Path" or "Biking and Hiking Path" and some stenciling on the pavement may make more people aware that they exist and encourage cycling/walking, especially through to the high school.	0	0
Path through Keiser Park - Attached photo is of a similar path in City of Sonoma.	0	0
Mitchell Lane at 8th Hole Drive - Can we please get a zebra crosswalk here? A lot of children cross at this corner, and there are a lot of cars that don't see the cross walks until they are almost right on it, especially those coming from the west as they are coming over a slight rise in the road, and those coming from the east as there are trees right along the road. A little bit more visibility will help immensely. Speed limit is 30 MPH, and many cars stop too late.	0	0
Shiloh Road at US 101 overcrossing - Bike lanes are not very visible crossing over the freeway on Shiloh Rd. Is not safe area for bikers. I feel that marking with green bike lanes on both sides of Shiloh in this area would help safety matters immensely.	2	0
Most of the time the traffic light on corner of Shiloh Rd and Conde Lane do not change for bikers, only when cars are present in turning lane.	0	0
Starr Road at Colleen Drive - With no adequate sidewalks between here and the school, at a minimum, there needs to be a crosswalk with beacon here to get walkers across the street.	0	0
Old Redwood Highway north of WIndsor River Road - This is supposed to be a "No Entry" point if driving southbound from Old Redwood Highway (ORH) into the gas stations. However, there is not a No Entry sign and the road markings on ORH are non-existent. Cars typically drive through this to enter the Chevron gas station when they should enter by the next entrance. Please add a No Entry sign and improve the road markings	0	0
Four way stop at Los Amigos Rd where it meets Lakewood Dr. Currently, shadows from trees, cars entering and exiting parking lots, and an east/west orientation (sun glare) all contribute to unsafe conditions.	0	0
Need a turn lane (acceleration lane) at Camelot and Arata for those trying to turn left onto Arata. Many Brooks Elementary parents use Camelot and Arata. Pedestrians and bikers are forgotten as people try to turn left on busy Arata.	2	0
Slow down speed on Arata to 35 mph so that drivers can focus more on pedestrians and bikers who are riding or walking on street.	0	0
Shiloh Road near US 101 - Shiloh needs sidewalks and bike lanes on both sides given the multiple projects being approved on Shiloh. There is no pedestrian options and will be very dangerous.	1	0
Old Redwood Highway - You take you life in your hands to walk or bike on the narrow bridges between Tamara and Deanna. Pedestrian and bicycle access is desperately needed.	1	0
Old Redwood HIghway - Sidewalks and decent bike lanes needed desperately from Pleasant Avenue to Shiloh Rd. New decorative street lighting will improve safety in the area. Power and Telecommunications lines should be placed underground to increase fire safety and ambience.	2	0

Comment	Number of Respondents Agreeing	Number of Respondents Disagreeing
Old Redwood Highway - Town maintenance in this part of town (from Pleasant Ave to Thrushwing Ave) is non existent. Trees are not trimmed or properly maintained, leaves are never cleaned up and pile along the fence along with weeds. Lots of foot traffic with people tossing cigarette butts. Huge fire hazard for homeowners that live along this stretch and have a fence on the roadside. More regularly scheduled maintenance and clean up like there is with other areas of town would help reduce fire risk.	0	0
Windsor Road - We need another crosswalk between the WHS Jaguar way one and the flashers at the corner of Vintana/reiman. Especially for cyclists, the long distance between the crosswalks results in crossing unsafely or using the “wrong” directional bike lane.	0	0
Shiloh Road west of Old Redwood Highway - This part of Shiloh is in terrible condition for cyclists and has minimal shoulder. We need bike lanes all the way to overpass.	0	0
Starr Road on west side of Windsor HS - Riding a bike on this part of Starr Rd is very uncomfortable for children as the road is narrow and cars tend to drive fast. Marking bike lanes on both sides of the road will make it clearer to cars that cyclists are entitled to use the road here too and to give them space when passing.	0	0
Windsor River Road and Starr Road - This is a dangerous intersection, as many school children use it to get to Cali, Windsor Christian and the High School. Consider traffic calming and road improvements and crosswalk upgrades, especially since the East-West orientation means sun glare is an issue.	0	0

Appendix G

Prioritization Survey

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Town of Windsor
CALIFORNIA

Windsor Active Transportation Plan (ATP) – Priority Project Survey

Please help us identify the highest priority projects for the Town of Windsor's Active Transportation Plan. The bicycle and pedestrian projects on this list represent the most important projects in the Draft Plan, based on project benefits such as safety, and improving access to important destinations. By participating in this survey you can help us to refine the project list, which will be used to guide staff in seeking project funding.

For each of the bicycle and pedestrian projects below, rate each project on a scale of 1 to 5, where 1 is the highest priority and 5 is the lowest. **Mark your rating with an "X"**.

Bicycle Projects

1. ARATA LANE FROM OLD REDWOOD HIGHWAY TO BROOKS ROAD SOUTH



Existing conditions on Arata Lane

Proposed Project:
Upgrade Existing Class II Bike Lanes to Class IV Separated Bike Lanes

Rate the Proposed Project

On a scale of 1 to 5, please indicate your priority rating for this project (1 = highest priority, 5 = lowest priority).

High | 1 | 2 | 3 | 4 | 5 | Low

2. STARR ROAD FROM OLD REDWOOD HIGHWAY TO WINDSOR RIVER ROAD


Existing conditions on Starr Road

Proposed Project:
Upgrade existing Class II bike lanes to buffered bike lanes.

Rate the Proposed Project

On a scale of 1 to 5, please indicate your priority rating for this project (1 = highest priority, 5 = lowest priority).

High | 1 | 2 | 3 | 4 | 5 | Low

3. BROOKS ROAD SOUTH FROM LOS AMIGOS ROAD TO FOOTHILL DRIVE



Existing conditions on Brooks Road South

Proposed Project:

Upgrade existing Class II bike lanes to buffered bike lanes.

Rate the Proposed Project

On a scale of 1 to 5, please indicate your priority rating for this project (1 = highest priority, 5 = lowest priority).

High 1 2 3 4 5 Low

4. HEMBREE LANE FROM OLD REDWOOD HIGHWAY TO VINECREST ROAD



Existing conditions on Hembree Lane

Proposed Project:

Upgrade existing bike lane (Class II) to separated bike lane (Class IV).

Rate the Proposed Project

On a scale of 1 to 5, please indicate your priority rating for this project (1 = highest priority, 5 = lowest priority).

High 1 2 3 4 5 Low

5. OLD REDWOOD HIGHWAY FROM LAKEWOOD DRIVE TO SHILOH ROAD



Existing conditions on Old Redwood Highway

Proposed Project:

Upgrade existing Class II bike lane to Class IV separated bike lane.

Rate the Proposed Project

On a scale of 1 to 5, please indicate your priority rating for this project (1 = highest priority, 5 = lowest priority).

High 1 2 3 4 5 Low

6. SHILOH ROAD FROM HEMBREE LANE TO OLD REDWOOD HIGHWAY



Existing conditions on Shiloh Road

Proposed Project:
Upgrade existing Class II bike lane to Class IV separated bike lane.

Rate the Proposed Project

On a scale of 1 to 5, please indicate your priority rating for this project (1 = highest priority, 5 = lowest priority).

High 1 2 3 4 5 Low

7. SHILOH ROAD FROM WINDSOR ROAD TO CALETTI AVENUE



Existing conditions on Shiloh Road

Proposed Project:
Upgrade Existing Class II Bike Lane to Class IV Separated Bike Lane

Rate the Proposed Project

On a scale of 1 to 5, please indicate your priority rating for this project (1 = highest priority, 5 = lowest priority).

High 1 2 3 4 5 Low

==========

Pedestrian Projects

1. OLD REDWOOD HIGHWAY/STARR ROAD PEDESTRIAN CROSSING ENHANCEMENTS



Existing conditions on Old Redwood Highway

Proposed Project:

Redesign as "protected intersection" or roundabout. Install high visibility crosswalks on southeast leg across Old Redwood Hwy. and across Starr Rd. (protected intersection includes concrete islands to protect pedestrians and bicyclists from vehicles)

Rate the Proposed Project

On a scale of 1 to 5, please indicate your priority rating for this project (1 = highest priority, 5 = lowest priority).

High 1 2 3 4 5 Low

2. PEDESTRIAN CROSSING OF ARATA LANE AT 101 NORTHBOUND OFF-RAMP



Existing conditions on Arata Lane

Proposed Project:

Add crosswalk and other appropriate enhancements

Rate the Proposed Project

On a scale of 1 to 5, please indicate your priority rating for this project (1 = highest priority, 5 = lowest priority).

High 1 2 3 4 5 Low

3. OLD REDWOOD HIGHWAY / WINDSOR ROAD INTERSECTION



Existing conditions on Old Redwood Highway

Proposed Project:

Evaluate raised crosswalks for pedestrian crossings of Old Redwood Highway

Rate the Proposed Project

On a scale of 1 to 5, please indicate your priority rating for this project (1 = highest priority, 5 = lowest priority).

High 1 2 3 4 5 Low

4. PEDESTRIAN CROSSING OF STARR ROAD AT BUCKINGHAM DRIVE



Existing conditions on Starr Road

Proposed Project:

Add curb extensions and Rectangular Rapid Flashing Beacons (RRFBs)

Rate the Proposed Project

On a scale of 1 to 5, please indicate your priority rating for this project (1 = highest priority, 5 = lowest priority).

High 1 2 3 4 5 Low

5. STARR ROAD / WINDSOR RIVER ROAD INTERSECTION PEDESTRIAN CROSSING ENHANCEMENTS



Existing conditions on Starr Road

Proposed Project:

Install curb extensions on north and south legs of intersection, install advance stop bar before crosswalks, and if feasible upgrade pedestrian crossings (including improving pedestrian ramps).

Rate the Proposed Project

On a scale of 1 to 5, please indicate your priority rating for this project (1 = highest priority, 5 = lowest priority).

High 1 2 3 4 5 Low

6. INTERSECTION OF OLD REDWOOD HIGHWAY AND 3RD STREET



Existing conditions on Old Redwood Highway

Proposed Project:

Add Rectangular Rapid Flashing Beacons (RRFBs) and median refuge island for crossing of Old Redwood Highway.

Rate the Proposed Project

On a scale of 1 to 5, please indicate your priority rating for this project (1 = highest priority, 5 = lowest priority).

High 1 2 3 4 5 Low

7. WINDSOR ROAD / WINDSOR HIGH SCHOOL PEDESTRIAN CROSSING ENHANCEMENTS



Existing conditions on Windsor Road

Proposed Project:

Install crosswalk, with potential enhancements including median refuge island and Rectangular Rapid Flashing Beacons (RRFBs)

Rate the Proposed Project

On a scale of 1 to 5, please indicate your priority rating for this project (1 = highest priority, 5 = lowest priority).

High 1 2 3 4 5 Low

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Appendix H

Project Prioritization Scoring

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On-Street Bicycle Facilities Projects - Prioritization Scoring

Street	Location1	Location2	Existing Facility Type	Proposed Facility	Total Score	Access	Connectivity	Safety	Community Support	Low Stress Facility
ORH	Lakewood Drive	Shiloh Road	Class II	Class IV	20	5	5	5	0	5
Shiloh Road	Hembree Lane	ORH	Class II	Class IV	19	5	5	4	0	5
Shiloh Road	Windsor Road	Caletti Avenue	Class II	Class IV	19	5	5	4	0	5
Arata Lane	ORH	Brooks Road N	Class II	Class IV	18	4	4	5	0	5
Hembree Lane	ORH	Vinecrest Road	Class II	Class IV	18	4	5	4	0	5
Starr Road	ORH	Windsor River Road	Class II (partial)	Class IIB	18	4	5	5	0	4
Brooks Road South	Bond Place	Los Amigos Rd	Class II	Class IIB/IV	18	5	5	4	0	4
Brooks Road South	Los Amigos Road	Lakewood Drive	N/A	Class IIB/IV	17	4	5	4	0	4
Brooks Road South	Arata Lane	Foothill Dr	Class II	Class IIB/IV	17	5	5	3	0	4
ORH	Windsor Road	northern Town limit	Class II	Class IV	17	2	5	5	0	5
Shiloh Road	Caletti Avenue	Hembree Lane	N/A	Class II	16	5	5	4	2	0
Conde Lane	Windsor River Road	Shiloh Road	Class II partial	Class IIB	15	4	4	3	0	4
Hembree Lane	ORH	shopping ctr entrance (nr Shiloh)	Class II	Class IIB/IV	15	4	5	3	0	3
Lakewood Drive	Old Redwood Highway	Lakewood/Foothill Trail	N/A	Class II	15	4	5	4	2	0
Los Amigos Road	Town limit	Arata Lane	N/A	Class IV	15	2	4	4	0	5
Los Amigos Road	Arata Lane	Brooks Road S	Class II	Class IV	15	2	4	4	0	5
Skylane Boulevard	Shiloh Road	Windsor City Limits	N/A	Class IIB	15	3	2	3	3	4
Arata-Hembree	Brooks Road	Vinecrest Road	Class II	Class IIB/IV	14	3	4	3	0	4
Windsor Road	Reiman Lane	Shiloh Road	Class II	Class IV	14	3	2	4	0	5
Windsor Road	Old Redwood Highway	Windsor River Road	N/A	Class III	14	5	5	3	1	0
Windsor River Road	Town limit	Starr Rd	Class II	Class IV	13	2	2	4	0	5
Jaguar Way	Starr Road	Windsor Road	N/A	Class III	11	5	5	0	1	0
Foothill Drive	Brooks Road	Vinecrest Road	N/A	Class IIIB	9	3	5	0	1	0
Bell Road	650' south of Grayson Way	Conde Lane	N/A	Class II	7	3	3	0	1	0
Camelot Drive	Arata Drive	Jane Drive	N/A	Class III	7	3	3	0	1	0
Jensen Lane	3rd Street	End of Jensen Lane	N/A	Class III	7	2	4	0	1	0
Mitchell Lane	Windsor Road	SMART Trail	N/A	Class IIIB	7	2	4	0	1	0
Rio Ruso Drive	Starr Road	Old Redwood Highway	N/A	Class III	7	2	4	0	1	0
Shannon- Carnell- Billington	Hembree Lane	Old Redwood Highway	N/A	Class III	7	2	4	0	1	0
Cardellia Lane	Los Amigos Road	Jane Drive	N/A	Class III	6	2	3	0	1	0
Jane Drive	Camelot Drive	Natalie Drive	N/A	Class III	6	2	3	0	1	0
3rd Street	Jensen Lane	ORH	N/A	Class III	5	1	3	0	1	0
Natalie Drive	Jane Drive	Brooks Road	N/A	Class III	5	1	3	0	1	0
Shiloh Road - East	Windsor Town Limits	Faught Road	N/A	Class II	5	2	2	0	1	0
Pleasant Avenue	Collet Lane	Sonoma County Line	N/A	Class II	5	1	3	0	1	0
Franklin Street	4th Street	3rd Street	N/A	Class III	4	1	2	0	1	0
Oak Park Street	Cul de sac	Windsor River Road	N/A	Class III	4	2	1	0	1	0
Emmerson Street	Pleasant Avenue	Jensen Trail/end of street	N/A	Class III	3	1	1	0	1	0
Vinecrest Road	Vinecrest Circle	Vinecrest Road	N/A	Class III	3	1	1	0	1	0

Pedestrian Crossings Enhancements - Prioritization Scoring

Location1	Location2	Description	Total Score	Access	Safety	Community Support
Starr Rd	Windsor River Rd	Install advance stop bar before crosswalk, install curb extensions on north/south crosswalks - if feasible, upgrade pedestrian crossing (ADA compliant ramps, refresh pavement/crosswalk markings, etc.)	12	5	5	2
Old Redwood Hwy	Bluebird Dr	Install crosswalk on north leg	10	5	4	1
Starr Rd	Buckingham Dr	Install RRFB and curb extensions	9	5	4	0
Old Redwood Hwy	Hwy 101 SB Off-Ramp	Square corners and install curb extensions. Provide at-grade crosswalk/crossbike from NE to SW corners, to connect proposed Class I paths on both sides of Old Redwood Hwy.	9	5	2	2
Old Redwood Hwy	Windsor River Rd	Install detectible warning surfaces on curb ramps - north east and north west corner of intersection	9	5	2	2
Old Redwood Hwy	3rd St	Install high visibility crosswalk with RRFBs and pedestrian refuge	9	2	5	2
Old Redwood Hwy	Windsor Rd	Evaluate a raised crosswalk on Old Redwood Hwy approaches	9	3	4	2
Shiloh Rd	Caletti	Pedestrian crossing enhancements in conjunction with intersection controls	9	4	4	1
Starr Rd	Windsor Christian	Install crosswalk with RRFB, curb extensions, advance yield signs, sharks teeth	8	4	4	0
Pleasant Ave	Brianne Cir	Install RRFBs and curb extensions, due to higher speeds and proximity to school	8	4	4	0
Old Redwood Hwy	Thrushwing Ave	Install RRFBs, add delineators to east side to shorten crossing, sharks teeth	8	4	4	0
Old Redwood Hwy	Thrushwing Ave	Install curb extensions on south and east legs of intersection, install RRFB on south leg. Ensure curb extensions provide clearance for the bike lane and does not impact transit stop.	8	3	4	1
Old Redwood Hwy	Starr Rd	Protected intersection or roundabout. Install high visibility crosswalk on SE leg across Old Redwood Hwy to existing curb ramp. Install high visibility crosswalk across Starr Rd (assess need for school zone crossing).	8	2	4	2
Old Redwood Hwy	Lakewood Dr	On north, east, and south legs (existing crosswalks) install leading pedestrian interval, high visibility crosswalks with advance stop bars, and bike boxes.	8	5	2	1
Old Redwood Hwy	Alden Ln	Upgrade crosswalks to high visibility, with advance stop bars. Provide leading pedestrian interval.	8	5	2	1
Old Redwood Hwy	Dawn Wy	Install crosswalk with HAWK across Old Redwood Hwy.	8	1	5	2
Old Redwood Hwy	Tamara Wy	Install a high visibility crosswalk on north leg to connect pedestrians to shopping and services on west side of Old Redwood Hwy. Install ADA compliant curb ramps, RRFBs, and pedestrian refuge.	8	2	4	2
SMART trail	Shiloh Rd	future trail crossing	8	4	4	0
Old Redwood Hwy	Pool Creek	future trail crossing	8	3	4	1
Old Redwood Hwy	Faught Creek	future trail crossing	8	3	4	1
Conde Ln	Johnson St	Set back existing shark's teeth from crosswalk in northbound direction	7	5	2	0
Old Redwood Hwy	Arata Ln	Install a new crosswalk on the south leg of the intersection	7	4	2	1
Old Redwood Hwy	Billington Ln	Install a high visibility crosswalk with RRFBs and curb extensions. Connect the east side of Old Redwood Hwy and the proposed Class I Trail to Billington Ln and Robbins Park.	7	2	4	1
Old Redwood Hwy	Shiloh Rd	Implement pedestrian and bicycle improvements as part of future intersection redesign.	7	3	2	2
Starr Rd	Gumview Rd-Starr Cir	Install curb extensions with RRFB	6	2	4	0
Los Amigos Rd	Hampton Inn driveway	Add sharks teeth-continental striping and advance yield to pedestrian signs	6	4	2	0
Hembree Ln	Bluebird Dr-Creekside Dr	Install RRFB, crosswalk strping, advance yield signs, shark's teeth	6	2	4	0
Hembree Ln	Dove Ln-Cornell St	Install RRFB, crosswalk striping, advance yield signs, shark's teeth; improve narrow eastern curb ramp	6	2	4	0
Old Redwood Hwy	Shamrock Cir	Install high visibility crosswalk	6	3	2	1
Hembree Ln	Jensen Ln	Extend continental striping to ramps, add yield to ped signs	5	3	2	0
Old Redwood Hwy	Rio Ruso Dr	Install marked crosswalk across Rio Ruso Dr, add green conflict zone bike lane striping across Rio Ruso Dr	5	1	2	2
Windsor Rd	Vintage Greens Dr	Add crosswalk to connect to existing bus stop	4	1	3	0
Old Redwood Hwy (North Leg)	Windsor Rd	Upgrade striping to sharks teeth, change to continental crosswalks, evaluate raised crosswalk on ORH approaches	3	1	2	0
Windsor Rd	Reiman Ln	Install mini-roundabout (retain existing RRFBs)	3	1	2	0

Multi-Use Path Projects - Prioritization Scoring

Source: *Windsor Class I Trails Study,* 2018

Project Number	Trail Name	Segment Beginning	Segment End
High Priority - Short-Term Implementation			
1	SMART Northwest	Windsor Town Limits	Windsor River Rd
3A	North Starr Creek Trail	Starr Rd	SMART Trail
4A	East Starr Creek Trail	Oak Park St	SMART Trail
5	101 Crossing Complex	Los Amigos Rd	Old Redwood Hwy
21A	West Windsor Creek Trail	Brooks Rd S	Lazy Creek Dr
22	Windsor Creek Connector	W Windsor Creek	Brooks Rd
23	Windsor Middle School	Elsbree Ln	Foothill Dr
24A	East Windsor Creek Trail	Foothill Dr	Hembree Ln
24B	East Windsor Creek Trail	Lakewood Dr	Foothill Dr
26	Franklin Street Bridge	Brooks Rd S	4th St
29	Jensen Lane East Connector	Vinecrest Rd	Old Redwood Hwy
30	Jensen Lane Trail	Hembree Ln	Jensen lane East Connector
41A	SMART Southwest	Windsor River Rd	Jaguar Way/Park Cir
41B	SMART Southeast	Windsor River Rd	Mitchell Ln
41C	SMART Shiloh South	Mitchell Ln	Town Limits
42	Conde Lane Connector	Old Redwood Hwy	Conde Ln
43A	South Windsor Creek Trail	Conde Ln	Old Oak Rd
43B	South Windsor Creek Trail	Old Oak Rd	SMART Trail (Bell Road)
47	Jaguar Way Connector	Starr Rd	Windsor Rd
67	Old Redwood Hwy Greenway	Pleasant Ave	Town Limits
Medium Priority - Mid-Term Implementation			
3B	North Starr Creek Trail	Starr Rd	Stellar Ln
3C	North Starr Creek Trail	Stellar Ln	Windsor River Rd
4B	East Starr Creek Trail	Oak Park St	Windsor River Rd
21B	West Windsor Creek Trail	Lazy Creek Dr	Senior Center
21C	West Windsor Creek Trail	Senior Center	Los Amigos Rd
21D	Foxwood Connector	W Windsor Creek Trail	Los Amigos Rd
24C	East Windsor Creek Trail	Franklin Street Bridge	Lakewood Dr
25	Lakewood-Amigos Trail	Lakewood Dr	Los Amigos Rd
27	Pueblo Viejo Park Connector	3rd St	4th St
28	Arata Ln Connector	Brooks Rd N	Foothill Regional Park
29	Jensen Ln Connector	Vinecrest Rd	Old Redwood Hwy
44	Trione Connector	Trione Cir	SMART Trail
45	WWTP Connector	Windsor Rd	Trione Cir
46	South Starr Creek	Keiser Park	Jaguar Wy
48	SMART-Windsor Rd Connector	Windsor Rd	SMART Trail
61	Pool Creek Trail	Hembree Ln	Old Redwood Hwy
62	Faught Creek Trail	Victory Ln	Old Redwood Hwy
64	Robbins Park Connector	Hembree Ln	Robbins Park
Low Priority - Long-Term Implementation			
2	Gumview Trail	Gumview Rd	Windsor River Rd
6	Park & Ride Connector	Old Redwood Hwy	SMART Trail
7	SMART-Gumview Connector	SMART Trail	Gumview Rd
8	Gumview Creek Trail	Gumview Trail	Starr View Dr
31	Lakewood Connector	Jensen Ln	East Windsor Creek
49	Windsor-Pool Creek Loop	Windsor Rd	Windsor Rd
50	Mitchell Lane Connector	Windsor Rd	8th Hole Dr
63	Shiloh Vision	Shiloh Rd	Old Redwood Hwy
65	Pool Creek-Jensen Ln Connector	Emmerson St	Old Redwood Hwy
66	Faught-Pool Creek Connector	Faught Creek	Pool Creek

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Appendix I

Cost Estimates Methodology

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Town of Windsor Active Transportation Plan

Planning-Level Project Cost Estimates

Planning-level project costs were developed by Town of Windsor staff using unit costs from adopted Town and other local plans, as well as engineer's estimates from Town Capital Improvement Program (CIP) projects. All costs were adjusted for inflation and local conditions. These estimates represent the anticipated cost of implementing each improvement as a standalone project and include all typical construction hard costs and soft costs. They include a 30 percent contingency to account for unknown costs that will be more precisely developed during project design.

Actual costs may vary depending on how individual projects are delivered, so they could potentially differ from the standalone estimates. For example, many improvements may be coordinated with Town pavement rehabilitation, utility work, or other CIP projects, which can reduce costs.

The resources to implement projects are anticipated to be derived from numerous sources, including federal, state, regional, and county grants; contributions from developers as part of land development projects; and locally-generated sources.

DRAFT