



# *sanrafael*

*bicycle & pedestrian master plan  
2018 update*



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## Purpose

Connecting San Rafael's **59,000 residents**, **33,000 outside workers**, and **30 neighborhoods** through a continuous bicycle and pedestrian network will take work. But just how much and what type of work can be hard to pin down with changing economic conditions, community priorities, and governmental regulations. This plan aims to document the conditions for bicycling and walking in 2018 and outlines steps needed to improve safety, act on community needs, and improve the mobility options for San Rafael residents, workers, and visitors.

The recommendations contained in this plan (and the rationale leading to those recommendations) are intended to provide San Rafael's City Council a **starting point** for assessing how the dedication of resources to improving bicycling and walking can impact overall community needs and priorities, as documented in the City's *General Plan*.

So, flip on through, and as you go, **consider what a connected San Rafael might mean for you**, your family, your friends, and your neighbors.



# CONTEXT

- ② Background
- ③ Project Timeline
- ④ Goals
- ⑤ Land Use
- ⑥ Survey

**Did you know?** 91% of non-commute bicycle trips and 99% of non-commute walk trips in Marin County would be replaced by a motor vehicle trip if bicycling or walking were not an option. (Nonmotorized Transportation Pilot Program Evaluation Study, 2007)

# Background

The City last updated its [bicycle and pedestrian plan in 2011](#). One objective of that plan was to continue to use the latest design standards supported by the State of California and the federal government. Since adoption of the previous plan, a wealth of new design guidelines expanded our understanding of creating multimodal streets that work for all users:

- [Caltrans Design Information Bulletin 89-01: Class IV Bikeways \(2018\)](#)
- [AASHTO Guide for the Development of Bicycle Facilities \(2017\)](#)
- [NACTO Designing for All Ages and Abilities \(2017\)](#)
- [Blue Cross/Blue Shield Small Town and Rural Design Guide \(2017\)](#)
- [NACTO Urban Street Stormwater Guide \(2017\)](#)
- [FHWA Pedestrian and Bicycle Performance Measures \(2016\)](#)
- [FHWA Separated Bike Lane Planning and Design Guide \(2016\)](#)
- [ABAG San Francisco Bay Trail Design Guidelines and Toolkit \(2016\)](#)
- [NACTO Transit Street Design Guide \(2016\)](#)
- [APBP Essentials of Bike Parking \(2015\)](#)
- [NACTO Urban Bikeway Design Guide \(2014\)](#)
- [Proposed U.S. Accessibility Guidelines for Public Right-of-Way \(2011\)](#)
- [NACTO Urban Street Design Guide \(2013\)](#)

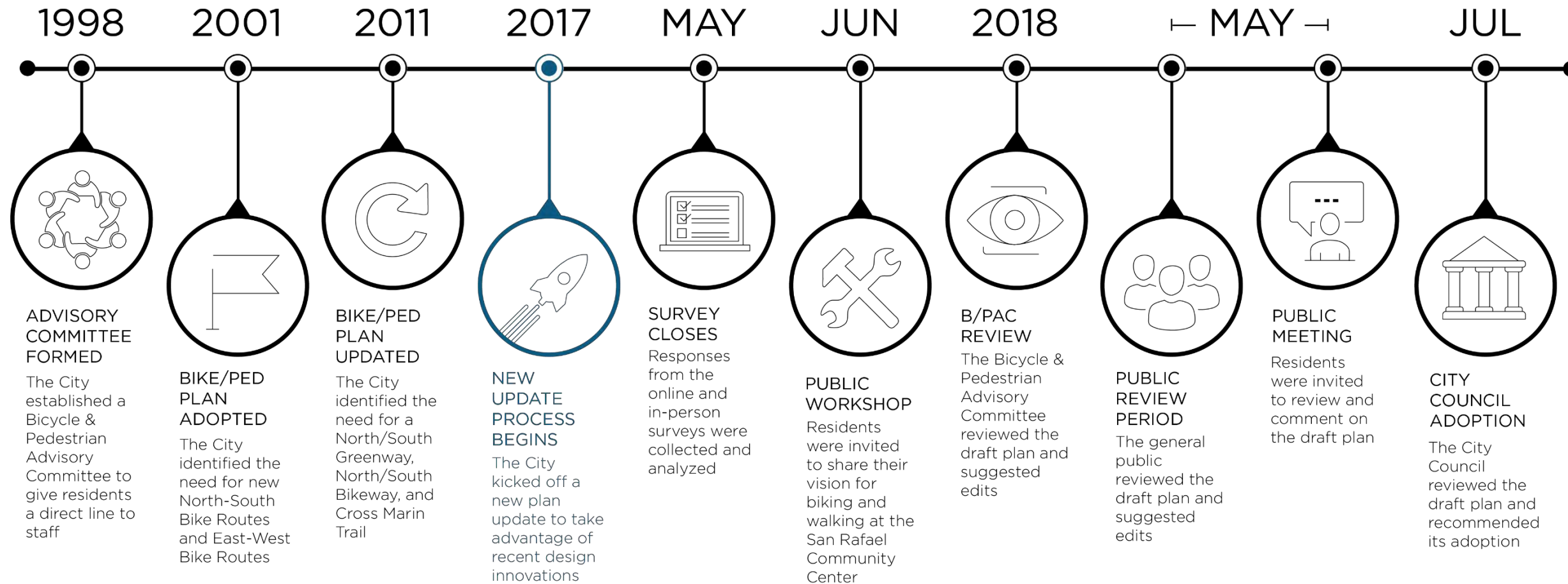
These new guidelines, in combination with a countywide effort to update local and unincorporated area bicycle and pedestrian plans and a series of regional transportation projects that will heavily influence San Rafael, helped prompt this plan update.

This one-year planning process began in 2017 and benefited from the guidance of the City's Bicycle and Pedestrian Advisory Committee (BPAC). Together, with the BPAC, stakeholders, and interested residents, the City has developed a vision for bicycling and walking to help make San Rafael's collection of 30 neighborhoods more bikeable and walkable.





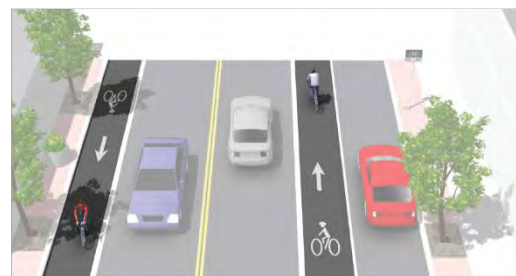
# Project Timeline



## TYPES OF BIKEWAYS



**CLASS I: MULTI-USE PATHS**  
 Off-street facilities exclusively dedicated to use by bicyclists, pedestrians, and other non-motorized travel, such as roller skaters and skateboarders.



**CLASS II: BIKE LANES**  
 Dedicated on-street facilities delineated by a simple painted stripe or with a painted striped buffer between motor vehicles and the bicycle lane.



**CLASS III: BIKE ROUTES**  
 Travel lanes shared between people bicycling and driving that are usually low speed and have little traffic.



**CLASS III+: BIKE BOULEVARD**  
 A Class III Bicycle Route can become a bicycle boulevard if paired with traffic calming infrastructure such as curb extensions, chicanes, and diverters.



**CLASS IV: SEPARATED BIKEWAYS**  
 A new class of bikeway that are typically on-street and physically separated from motor vehicle traffic by a vertical barrier such as a curb, on-street parking, bollards, planters, or stormwater infrastructure. They can provide one-way or two-way travel for bicyclists.



# Goals

1

## Safety

Identify, prioritize, and implement bicycle- and pedestrian-related [safety improvements](#).

2

## Connectivity

Develop bicycle and pedestrian [networks that connect](#) residents and visitors to major activity and shopping centers, existing and planned transit, and schools. Work to [close gaps](#) between existing facilities.

3

## Coordination

Work with other jurisdictions, transit agencies, and stakeholders to implement projects that reflect [changing needs](#) at the local and regional levels, including Complete Street, environmental, and transit projects.

4

## Universal Design

Design and construct facilities that encourage bicycling and walking among people of [all ages and abilities](#), including children, seniors, families, and people with limited mobility. Work to match project designs with the residents they are intended to serve.

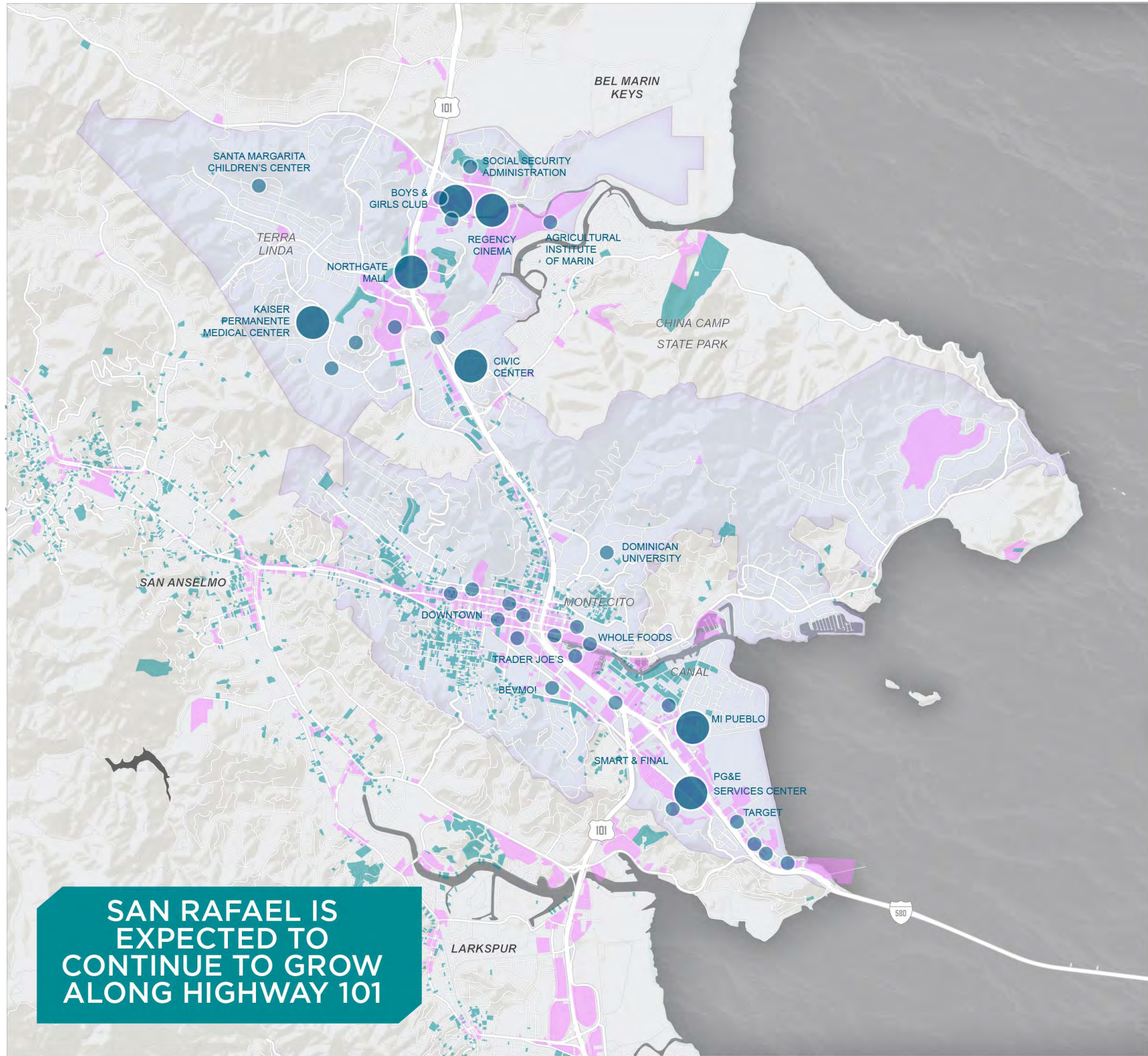
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## Programs

Support bicycling and walking for all ages and abilities by providing [educational and encouragement programs](#).







**SAN RAFAEL IS EXPECTED TO CONTINUE TO GROW ALONG HIGHWAY 101**

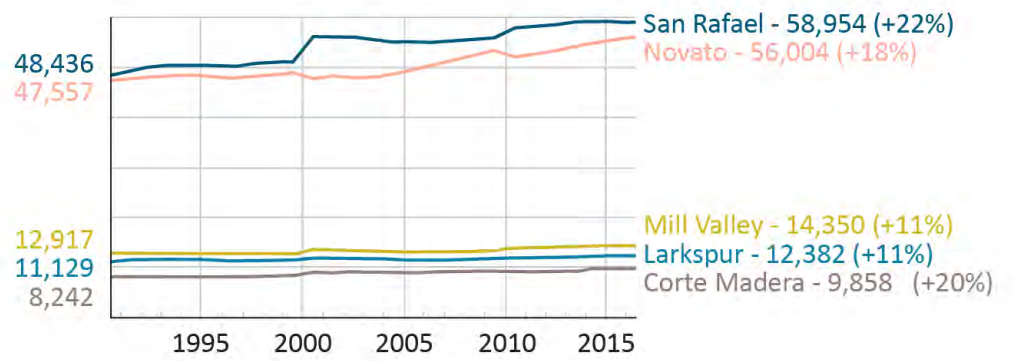
SOURCE: EMPLOYMENT DATA FROM U.S. CENSUS BUREAU'S LEHD DATASET (2015) FOR WORK LOCATION; \*STATE OF CALIFORNIA POPULATION FORECASTS BY COUNTY (2010-2060)

# Land Use

In San Rafael, the most dense **housing** and **commercial** areas are concentrated along the Highway 101 corridor and in downtown. Within *Plan Bay Area 2040*, a long-range regional blueprint to guide land use decisions and investments for the whole Bay Area, the Association of Bay Area Governments (ABAG) and Metropolitan Transportation Commission (MTC) anticipated growth in these areas, and accepted San Rafael's request to designate the area around the San Rafael Transit Center as a "Priority Development Area" for the region. While keeping equity in mind, the BPAC also sees value in concentrating pedestrian, bicycle, and other transportation investments around the land uses that receive the most activity. These locations include the Canal neighborhood, downtown and neighboring Montecito, the Terra Linda neighborhood, and the area around Northgate Mall and Civic Center.

## POPULATION

Marin County grew 25% between 1990 and 2015 but is projected to only grow 4% between 2015 AND 2060\*



**LAND USE**

- Commercial Areas
- High-density Residential Areas
- San Rafael City Limits

**MAJOR EMPLOYMENT CENTERS**

- 250 - 1,000 Employee Work Locations
- > 1,000 Employee Work Locations

N

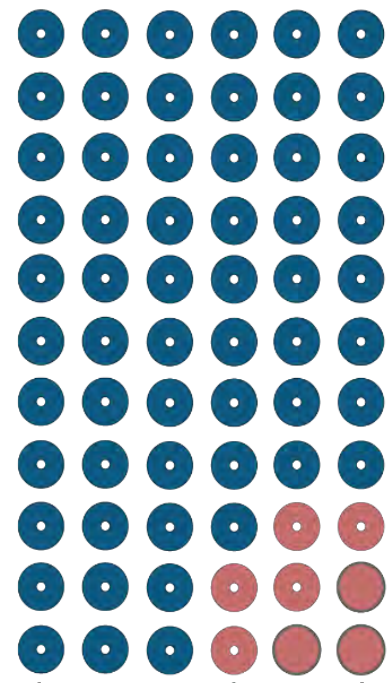


# Survey

A pedestrian and bicyclist preference survey was posted online from February 18th to April 24th, 2017. In addition to the online format, an outreach team administered in-person surveys on March 9th, 2017 at the San Rafael Transit Center and Pickleweed Park. In total, the City collected 537 survey responses, including 44 in-person surveys in English and 22 in Spanish. Currently, respondents see **bicycling** primarily as a recreational tool, with 71% of respondents indicating that parks/trails were among their top bicycling destinations. To make bicycling more accessible for work and school trips, respondents indicated a desire to create new facilities (50%), improve street crossings (37%), and develop a more connected network (24%).

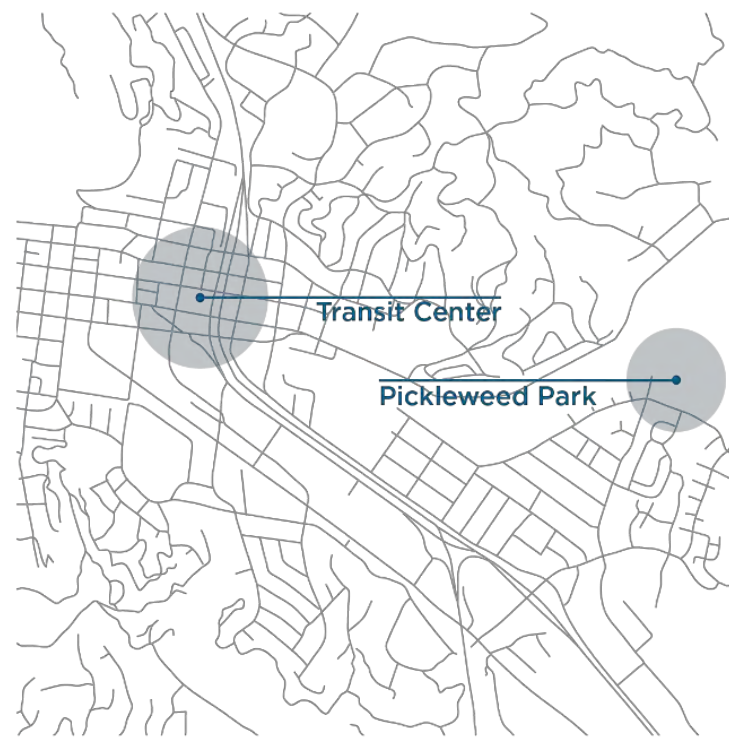
Respondents indicated that **walking** and jogging constitute a large portion of their exercise (49% indicated that at least 40% of their exercise comes from walking or jogging) and that walking was the preferred mode of transportation for trips less than 1 mile. However, less than half of respondents thought that walking conditions in San Rafael were good or excellent (41%), and indicated that the greatest desires are to improve street crossings (37%), to maintain existing facilities (28%), and to create new walkways (21%).

**537** TOTAL RESPONSES

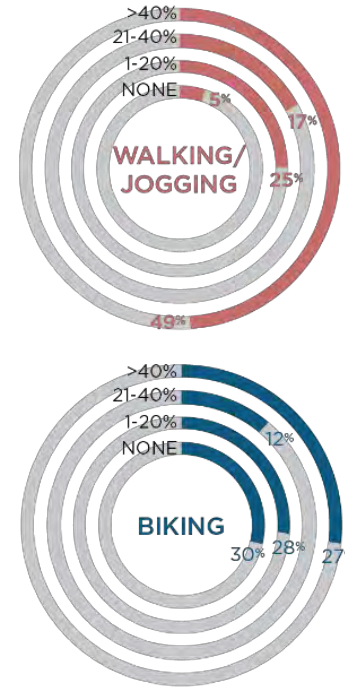


Online In-person Spanish

## IN-PERSON SURVEY LOCATIONS



## TOTAL EXERCISE from

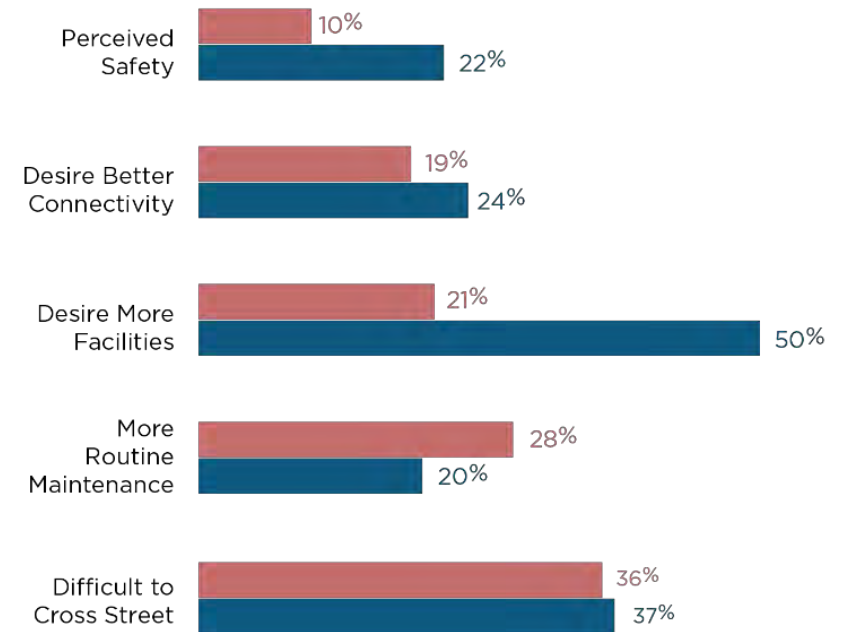


## EXISTING CONDITIONS

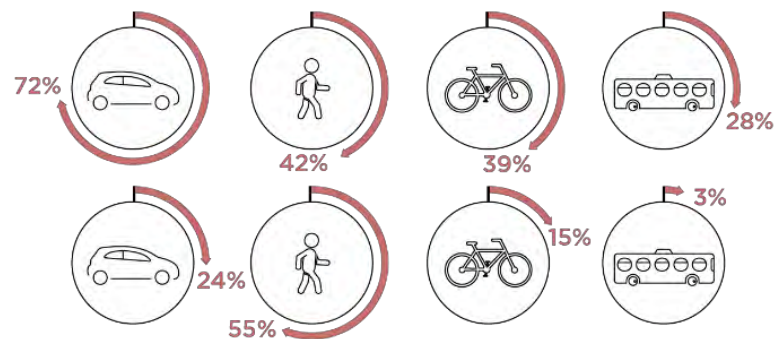
**41%**  
Say Walkways in Good/Excellent Condition

**25%**  
Say Bikeways in Good/Excellent Condition

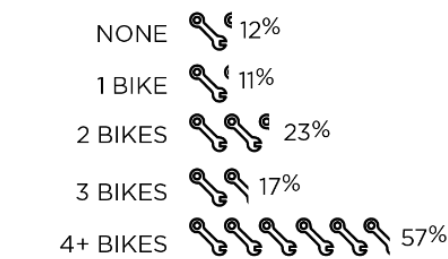
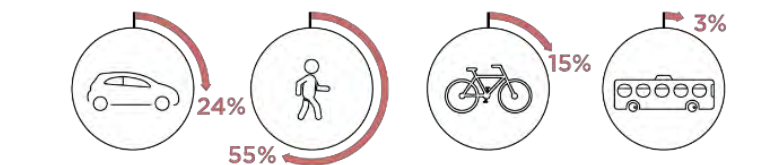
## TOP OBSTACLES to WALKING/BIKING



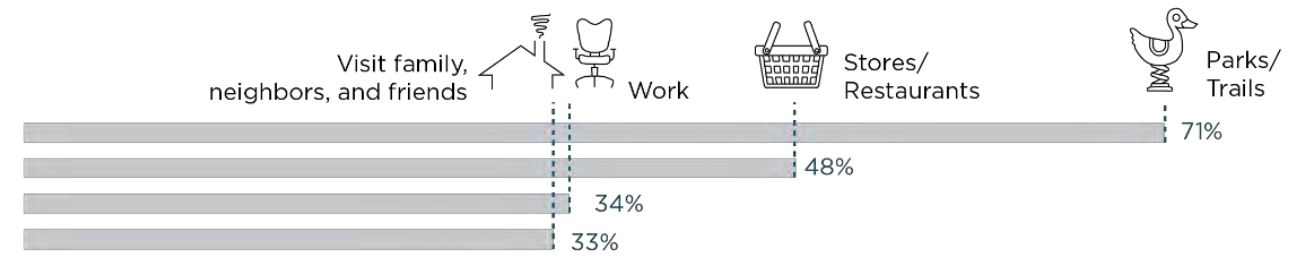
## PRIMARY MODE(S) for all trips



## PRIMARY MODE(S) for trips under 1 mile



## BIKES per HOUSEHOLD



## TOP BIKE DESTINATIONS



# EXISTING

- 8 Bikeways
- 9 Bike Parking
- 11 Wayfinding
- 13 Walkways
- 15 Programs

**Did you know?** The average bicycle trip distance in Marin County is 2.2 miles. (Nonmotorized Transportation Pilot Program Evaluation Study, 2007)



# Existing Bikeways

Online and at a public workshop, residents submitted over 100 comments highlighting existing gaps in the bicycle network, areas of concern, and potential locations for bicycle parking. **Gaps** in the bicycle network exist in the downtown area and at connections to the Transit Center. Locations that residents identified as **areas of concern** include crossings of Highway 101 at Bellam Boulevard, Second Street, and North San Pedro Road. In addition, residents indicated that traveling along Francisco Boulevard East feels particularly uncomfortable and expressed a desire to improve the connection between Montecito Plaza and the Canal neighborhood. Lastly, residents noted that there is a desire for short-term **bike parking** in downtown and secure, long-term parking at the Transit Center.



**RESIDENTS SUBMITTED OVER 100 COMMENTS ABOUT EXISTING BIKEWAYS**

### FEET OF BIKEWAYS PER RESIDENT

San Anselmo	1.6
Sausalito	3.0
Mill Valley	3.2
Fairfax	3.2
Novato	3.4
Tiburon	3.6
<b>San Rafael</b>	<b>3.7</b>
Corte Madera	4.8
Larkspur	5.2 FT

San Rafael has fewer feet of bikeways per resident than Corte Madera or Larkspur but boasts the most miles of **multi-use paths** of any city in Marin County (9.27 miles). Featured bikeways include the **Cal-Park Hill Pathway**, **Puerto Suello Hill Pathway**, and the **San Francisco Bay Trail**.

### EXISTING BIKEWAYS

- Multi-use Path (9.27 mi)
- Bicycle Lane (13.05 mi)
- Bicycle Route (18.05 mi)
- Protected Bikeway (0.37 mi)
- San Rafael City Limits

### PUBLIC COMMENTS

- ⊗ Network gap
- ⚠ Areas of concern
- P Need bike parking



SOURCE: ESRI, CITY OF SAN RAFAEL, TRANSPORTATION AUTHORITY OF MARIN; LAST UPDATED: MARCH 31, 2017; \*COUNTS CONDUCTED AT 4 LOCATIONS (NONMOTORIZED TRANSPORTATION PILOT PROGRAM, 2013)



# Bike Parking

Bicyclists choose to park as close to their destinations as possible and will often choose to lock their bicycles to nearby objects if a rack is not immediately available.

A desire for short-term bicycle parking was reflected in the resident survey and observation of overflow bicycle parking on parking meters, trees, and sign poles. While standard inverted u-racks are present in downtown, additional racks in strategic locations would be desirable.

In interviews of bicyclists at the Transit Center, it appears that the presence of available keyed lockers on Third Street under Highway 101 (pictured top left and bottom left) was not well-known. The keyed lockers allow a bicyclist to securely store his or her bicycle, helmet, and other equipment without the hassle of carrying them on a bus or storing at an end destination in San Rafael.

See [Appendix G](#) for more information.



Keyed bike locker near the Transit Center



Keyed bike lockers near the Transit Center



Parked bicycles near Sol Food on Third Street



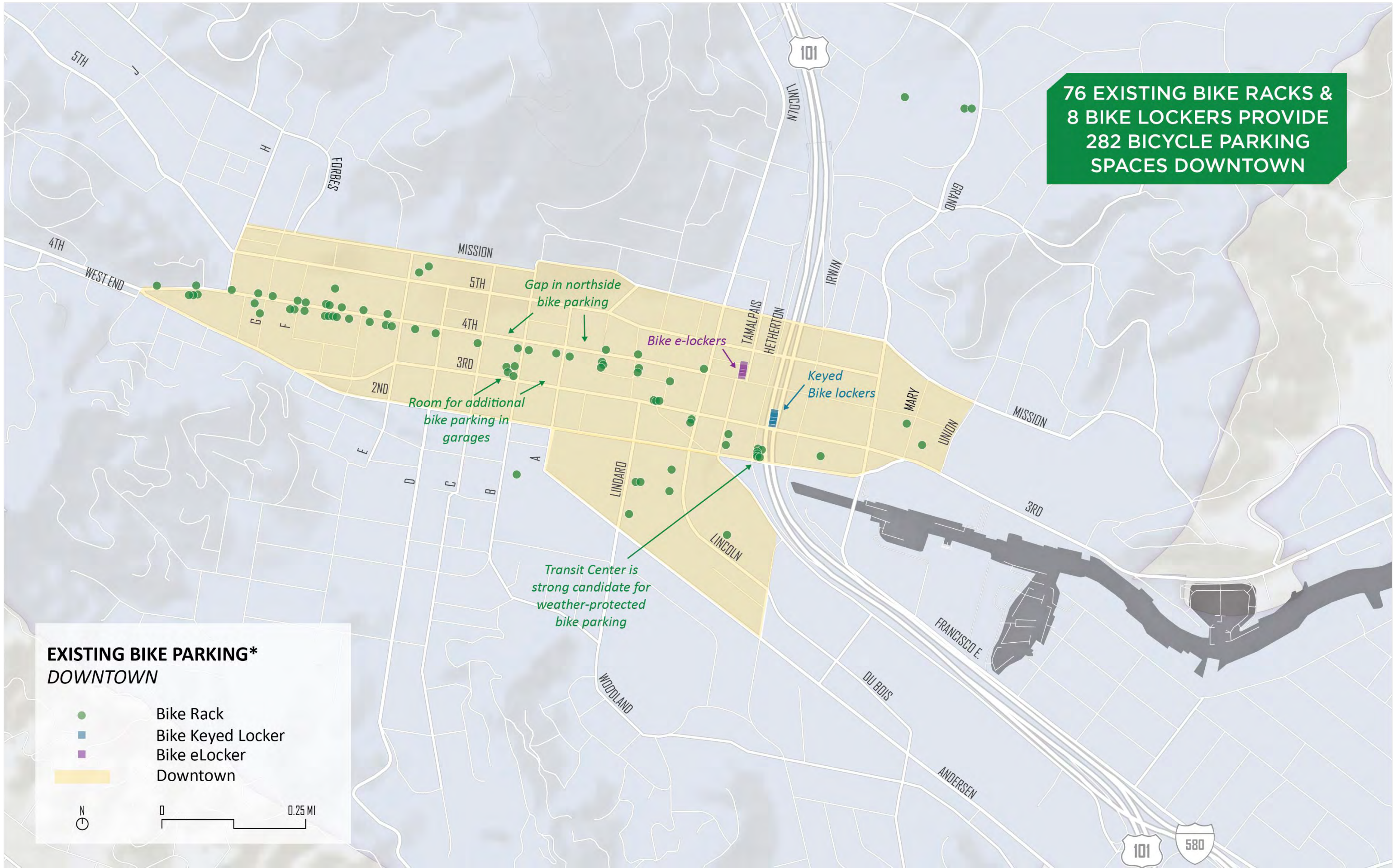
Parked bicycles at the Transit Center



Parked bicycle near Taj of Marin on Fourth



**76 EXISTING BIKE RACKS &  
8 BIKE LOCKERS PROVIDE  
282 BICYCLE PARKING  
SPACES DOWNTOWN**



**EXISTING BIKE PARKING\*  
DOWNTOWN**

- Bike Rack
- Bike Keyed Locker
- Bike eLocker
- Downtown



\*Sources: Downtown Parking/Wayfinding Study: Final Report (2016) and SMART Stations' Bicycle Parking Investment Plan





## Wayfinding

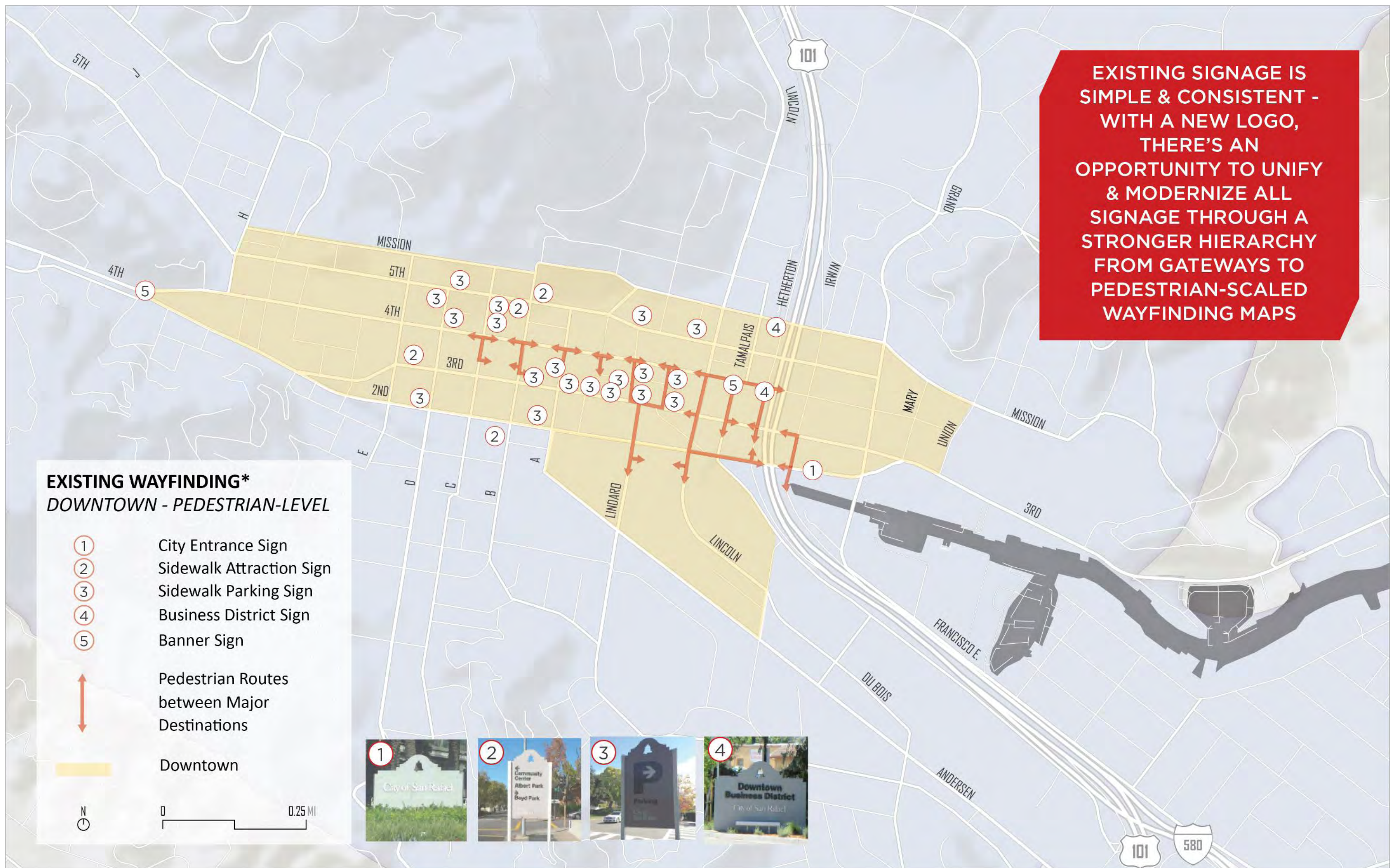
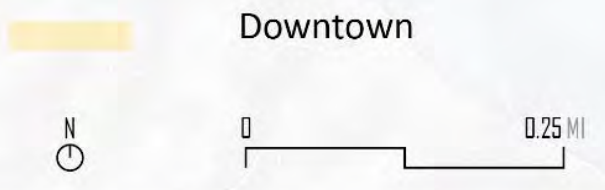
Initiated in 2000, the *Countywide Bicycle Route Guide Signage* project provides a comprehensive system of numbered bicycle route signs to guide bicyclists along the safest and most direct routes between Marin County's cities and towns (center top image). In addition, San Rafael has installed informational kiosks (right), location confirmation signs (left), and pedestrian-focused wayfinding (center bottom).



**EXISTING SIGNAGE IS SIMPLE & CONSISTENT - WITH A NEW LOGO, THERE'S AN OPPORTUNITY TO UNIFY & MODERNIZE ALL SIGNAGE THROUGH A STRONGER HIERARCHY FROM GATEWAYS TO PEDESTRIAN-SCALED WAYFINDING MAPS**

**EXISTING WAYFINDING\***  
**DOWNTOWN - PEDESTRIAN-LEVEL**

- ① City Entrance Sign
- ② Sidewalk Attraction Sign
- ③ Sidewalk Parking Sign
- ④ Business District Sign
- ⑤ Banner Sign
- ↕ Pedestrian Routes between Major Destinations

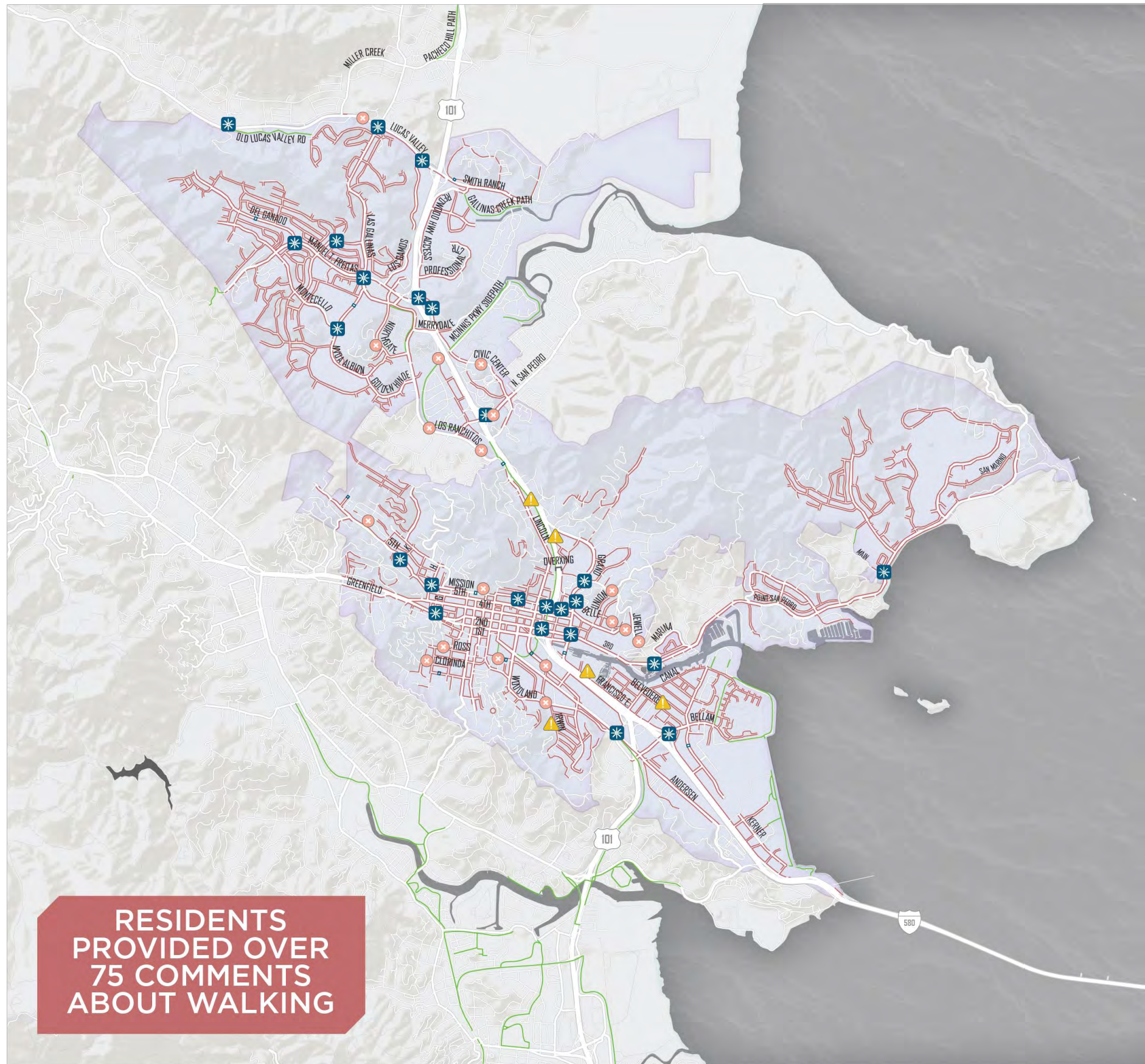


\*Source: Downtown Parking/Wayfinding Study: Final Report (2016)

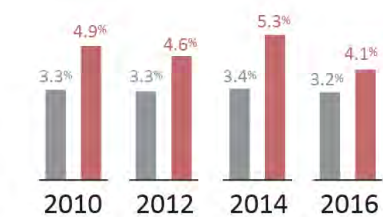


# Existing Walkways

The network of **sidewalks**, **multi-use paths**, and other walkways in San Rafael is well developed. Most areas in the city have sidewalks on at least one side of the street, and most commercial areas have sidewalks on both sides of the street. Through the online survey and in-person workshop, **pedestrian network gaps** and difficult **street crossings** were identified. Difficult street crossings include the area near the Transit Center (Hetherton Street, Irwin Street, Second Street, and Mission Avenue) and along Jewell Street, Lucas Valley Road, Manuel T. Freitas Parkway, and North San Pedro Road.



WALK COMMUTE MODE SHARE (COUNTY v. CITY)



SAFE ROUTES WALK CONDITIONS

**37%**

of people with a family member participating in the **Safe Routes to School** program would rate walking conditions good or excellent.

## EXISTING WALKWAYS

- Sidewalk
- Multi-use Path
- Mid-block Crossing
- San Rafael City Limits

## PUBLIC COMMENTS

- ⊗ Network gap
- ⚠ Area of concern
- ✳ Difficult crossing (i.e., crossing length, pedestrian visibility, signal timing, lack of curb ramps, etc.)



SOURCE: COUNTS CONDUCTED AT 4 LOCATIONS (NONMOTORIZED TRANSPORTATION PILOT PROGRAM, 2013); MODE SHARE DATA (AMERICAN COMMUNITY SURVEY, FIVE-YEAR ESTIMATES)

See [Appendix C](#) for the full list of mapped public comments  
San Rafael Bicycle & Pedestrian Master Plan, 2018 Update





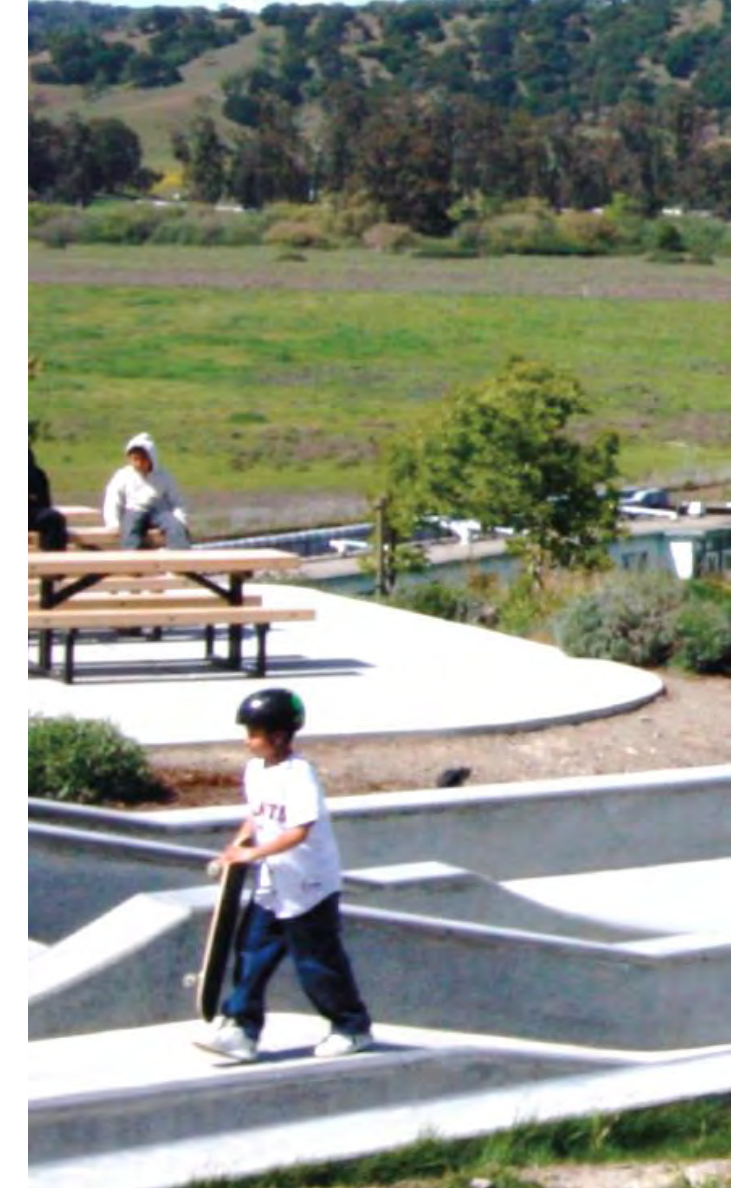
San Francisco Bay Trail at Pickleweed Park



2nd Friday Art Walk on Fourth Street



City Plaza at Rafael Town Center



McInnis Skatepark off Smith Ranch Road

## Featured

In addition to identifying areas of improvement, highlighting exceptional existing places in San Rafael that encourage people to walk, bicycle, and be active can provide a template for future projects.



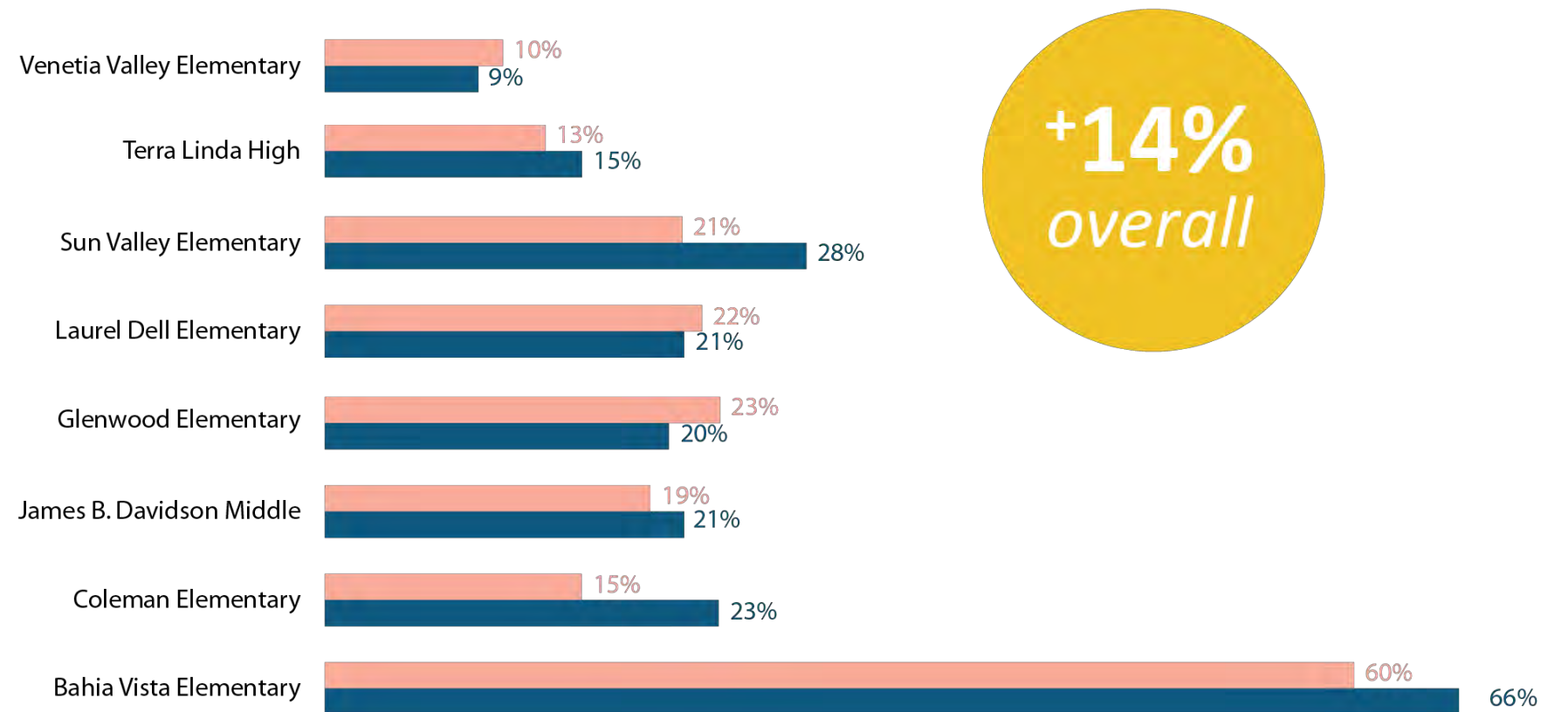
# Programs

Established in 2000, Marin County’s Safe Routes to Schools (SR2S) is an award-winning program designed to reduce congestion around schools, while instilling healthy habits in children and creating a safer and cleaner environment for all. It does this through classroom education, special events, infrastructure improvements, a crossing guard program, and other strategies that aim to increase the number of non-motorized (walk and bicycle) and higher vehicle occupancy (carpool and transit) trips to and from schools. For the 8 schools in San Rafael with available baseline and Fall 2015 hand tally data, the program has successfully seen a 14 percent increase in the number of students traveling to school by bicycling, skateboarding, scootering, or walking (see the most recent [program evaluation](#) and its [appendix](#) for more information).

For adults, the [Marin County Bicycle Coalition](#) (MCBC) offers several courses designed to educate new riders on proper bicycling techniques and experienced riders on how to navigate city traffic. Additionally, MCBC produces a countywide map to help bicyclists navigate the county’s paths and roadways.

‘WalkBikeMarin’, an initiative by the County of Marin to help make Marin healthier, more livable, and more environmentally sustainable by encouraging walking and bicycling as everyday transportation, received a federal grant to start the Nonmotorized Transportation Pilot Program. Of the \$25 million given to the program, [\\$1 million](#) was dedicated to bike repair classes, engineering seminars, travel planning, safety campaigns, riding with youths workshops, health promotion, and other activities.

## ACTIVE MODE SHARE TO SCHOOL (BASELINE v. CURRENT)



### 10

participating San Rafael schools in the Marin County SR2S program

### 13

average number of annual education/encouragement activities per school\*

### 65/100

average SR2S ‘report card’ score for participating schools in San Rafael\*\*

\*See [Appendix E](#) for full list of activities

\*\*Compared to program-wide average of 60/100

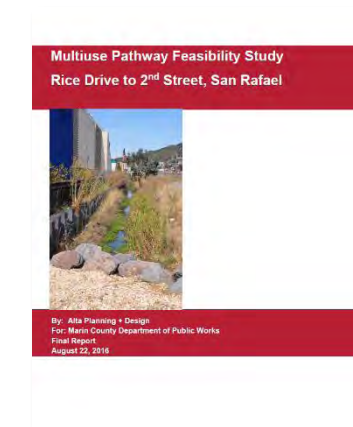
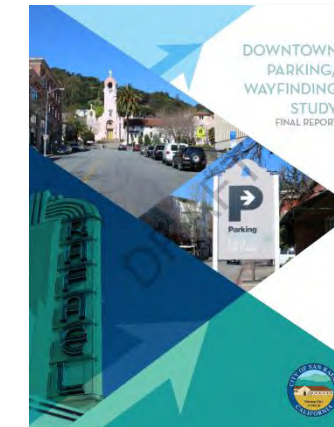
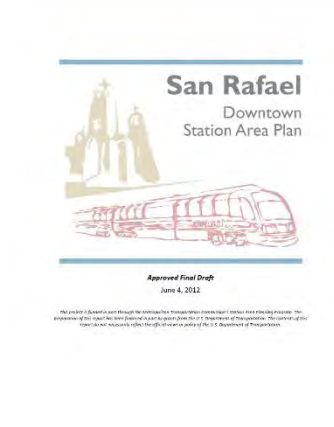
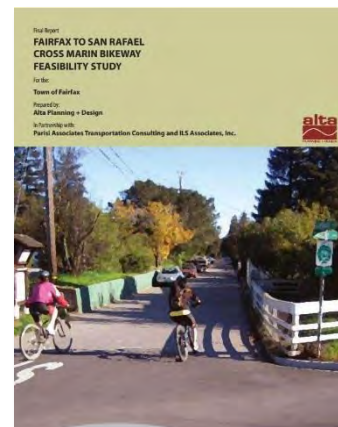
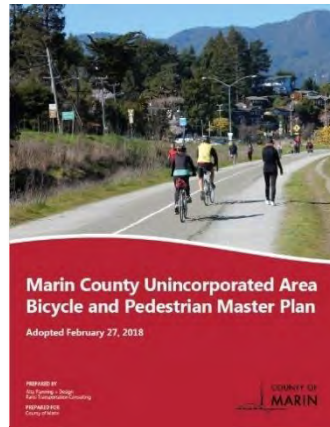


# COORDINATION

- 17 Related Plans
- 18 Previous Plan
- 20 Transit Connections

**Did you know?** 45% of transit riders in Marin County get to their stop by bicycling or walking. (Nonmotorized Transportation Pilot Program Evaluation Study, 2007)





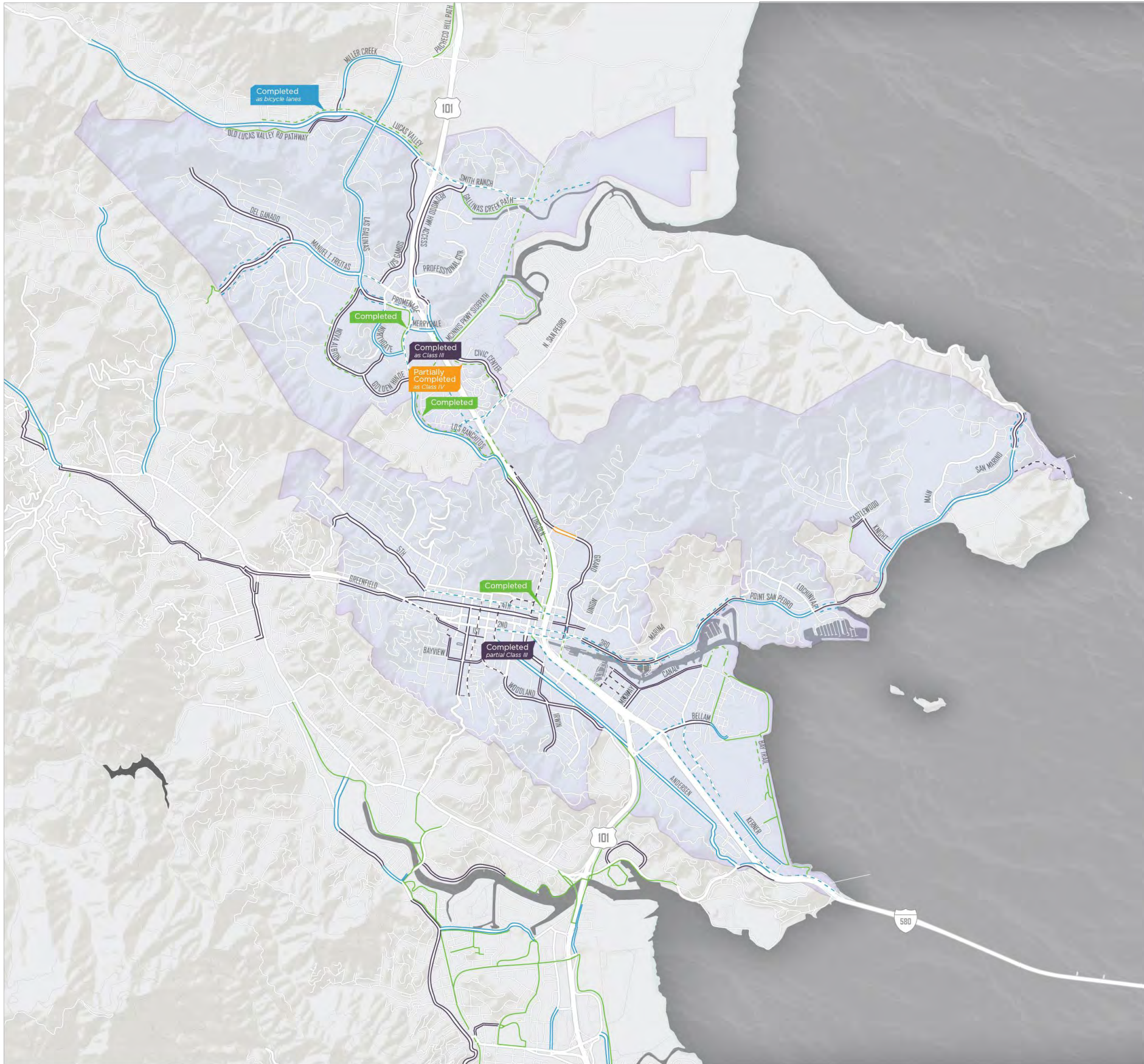
## Related Plans

One major impetus for updating San Rafael's Bicycle and Pedestrian Plan was the need to incorporate the large number of studies completed since 2011. This plan update incorporated these recent reports, as well as recommendations from major studies pre-dating 2011:

- Third and Heatherton Traffic Study (ongoing)
- San Rafael Transit Center Relocation Study (ongoing)
- Ross Bicycle and Pedestrian Plan Update (ongoing)
- Caltrans District 4 Bike Plan (2018)
- Marin County Unincorporated Area Bicycle and Pedestrian Master Plan (2018)
- Larkspur Bicycle and Pedestrian Master Plan (2017)
- SMART Stations' Bicycle Parking Investment Plan (2016)
- San Francisco Bay Trail Design Guidelines and Toolkit (2016)
- San Rafael Downtown Parking/Wayfinding Study (2016)
- Multi-use Pathway Feasibility Study: Rice Drive to Second Street (2016)
- San Anselmo Bicycle and Pedestrian Master Plan (2016)
- Marin Transit 2016-2025 Short-range Transit Plan (2015)
- Nonmotorized Transportation Pilot Program Status Report (2014)
- Marin County Bicycle Share Feasibility Study (2013)
- San Rafael Civic Center Station Area Plan (2013)

- San Rafael Downtown Station Area Plan (2012)
- San Rafael Bicycle and Pedestrian Plan Update (2011)
- Miller Creek Road/ Las Gallinas Avenue Bicycle and Pedestrian Study (2011)
- San Quentin Area Bicycle and Pedestrian Access Study (2011)
- Safe Routes to School San Rafael Task Force Issues List (2011)
- Sun Valley Elementary School Travel Plan (2011)
- Davidson Elementary School Travel Plan (2011)
- Glenwood Elementary School Travel Plan (2011)
- Venetia Valley Elementary School Travel Plan (2011)
- Fairfax to San Rafael Cross Marin Bikeway Feasibility Study (2010)
- Canalfront Conceptual Design Plan (2009)
- Climate Change Action Plan (2009)
- Regional Bicycle Plan for the San Francisco Bay Area (2009)
- Canal Neighborhood Community-based Transportation Plan (2006)
- The San Francisco Bay Trail Gap Analysis Study (2005)
- San Rafael General Plan 2020 (2004 and 10-year status report)
- North San Rafael Vision Promenade Conceptual Plan (2002)
- San Rafael Bicycle and Pedestrian Plan (2001)
- San Francisco Bay Trail Plan (1989)





SOURCE: SAN RAFAEL BICYCLE & PEDESTRIAN PLAN 2011

# Previous Plan

The 2011 update of San Rafael’s Bicycle and Pedestrian Plan called for a series of bicycle and pedestrian projects, including:

- **North/South Greenway** - Combination of Class I multi-use paths and Class II on-street bicycle lanes from the south City limit to the north City limit.
- **North-South Bikeway** - Branches off the North/South Greenway alignment north of Lincoln Avenue to provide Class II on-street bicycle lane and Class III bicycle route connections to the Northgate Mall area and north City limit.
- **Nova Albion School Access** - A Class I multi-use path on Nova Albion Way to connect Vallecito Elementary School and Terra Linda High School.
- **Lucas Valley Road/Smith Ranch Road** - A combination of Class I, II, and III bikeways from the west City limit to McInnis Park.
- **Francisco Boulevard West** - Class I or II bikeway from the Transit Center to a proposed Highway 101 overcrossing.
- **Civic Center Connector** - Class I and Class II bikeways on North San Pedro Road from Los Ranchitos Road to Civic Center Drive and continuing north on Civic Center Drive to the North San Rafael Promenade.

**EXISTING | PREVIOUSLY PROPOSED**

- Multi-use Path (Class I)
- Bicycle Lane (Class II)
- Bicycle Route (Class III)
- Protected Bikeway (Class IV)
- San Rafael City Limits

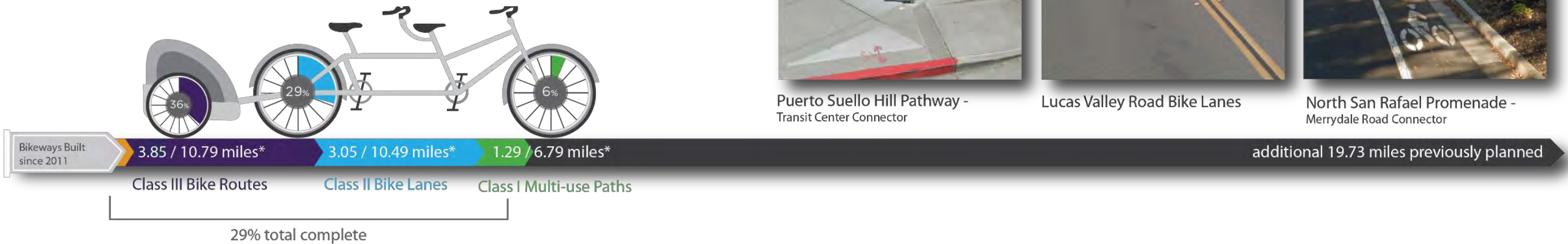




# Progress

2011-2017

Following the adoption of the 2011 *Bicycle and Pedestrian Plan*, the City of San Rafael has made progress towards its goals. The City implemented 26 percent of its proposed bicycle projects (by miles), including 0.43 miles of Class I multi-use paths, 3.05 miles of Class II bicycle lanes, 3.85 miles of Class III bicycle routes, and 0.15 miles of Class IV protected bikeways. In addition, the City has completed a number of grant applications in pursuit of project funding, maintained a dedicated webpage for bicycle- and pedestrian-related projects, and maintained an online system for reporting roadway hazards.



## Featured



Puerto Suello Hill Pathway -  
Transit Center Connector



Lucas Valley Road Bike Lanes



North San Rafael Promenade -  
Merrydale Road Connector

## Completed Policy Actions

✓	Adopt 2011 Bicycle and Pedestrian Plan Update
✓	Retain Bicycle and Pedestrian Advisory Committee
✓	Seek regional, state, and federal funding for projects
✓	Integrate bicycle/pedestrian design considerations in all transport projects
✓	Undertake routine maintenance of bicycle/pedestrian facilities
✓	Support and promote improve bike access to transit facilities

✓	Develop youth education, encouragement, and safety programs
✓	Provide method for reporting roadway hazards
✓	Add bicycle-related information to City website
✓	Use latest design guidelines
✓	Encourage Golden Gate Transit District to use higher capacity racks on buses

\*Some bikeways were implemented as different facility types than as proposed in the 2011 plan  
San Rafael Bicycle & Pedestrian Master Plan, 2018 Update





**MAJOR TRANSIT HUBS ANCHOR THE NORTH-SOUTH & EAST-WEST ROUTES**

SOURCE: GIS DATA (MARIN COUNTY); \*2020 GENERAL PLAN; \*\*NONMOTORIZED TRANSPORTATION PILOT PROGRAM 2011 SUMMARY; \*\*\*GGTH&T DISTRICT SURVEY 2015

# Transit Connections

Combining bicycle and pedestrian trips with transit helps extend the distance San Rafael residents, employees, and visitors can travel without a personal motor vehicle. Transit within San Rafael primarily consists of local and regional bus service from **Marin County Transit District** and **Golden Gate Bridge, Highway, and Transportation District** with connections to surrounding neighborhoods, communities, and counties. All buses are equipped with 2-3 bicycle racks, available on a first-come, first-serve basis. Additional transit services include:

- The **Sonoma Marin Area Rail Transit (SMART)** commute passenger began rail service in August 2017, connecting the downtown San Rafael Station and Civic Center Station to northeast Marin County and Sonoma County. A second phase will extend the rail line to the **Larkspur Ferry Terminal**, ultimately providing Marin County residents transit service to/from San Francisco. The **SMART Path**, a Class I multi-use path running parallel to the rail alignment, will provide San Rafael with a contiguous north-south bicycle and pedestrian route when complete.
- The **Marin Airporter** provides shuttle service to San Francisco International Airport.
- **Whistlestop Wheels** runs on-demand transit service for elderly and disabled riders.

The most heavily used bus routes in San Rafael are in the Canal neighborhood (routes 20 and 35)\*, and creating direct bicycle and pedestrian routes to stops on Canal Street, Bellam Boulevard, Francisco Boulevard East, and the Transit Center will help improve access for these high-frequency users.

## TRANSIT ROUTES

- Bus Routes
- Ferry Route
- SMART Route (existing)
- - - SMART Route (planned)
- San Rafael City Limits

## TRANSIT STOPS

- Bus Stop
- Transit Hub
- Ferry Terminal
- SMART Station



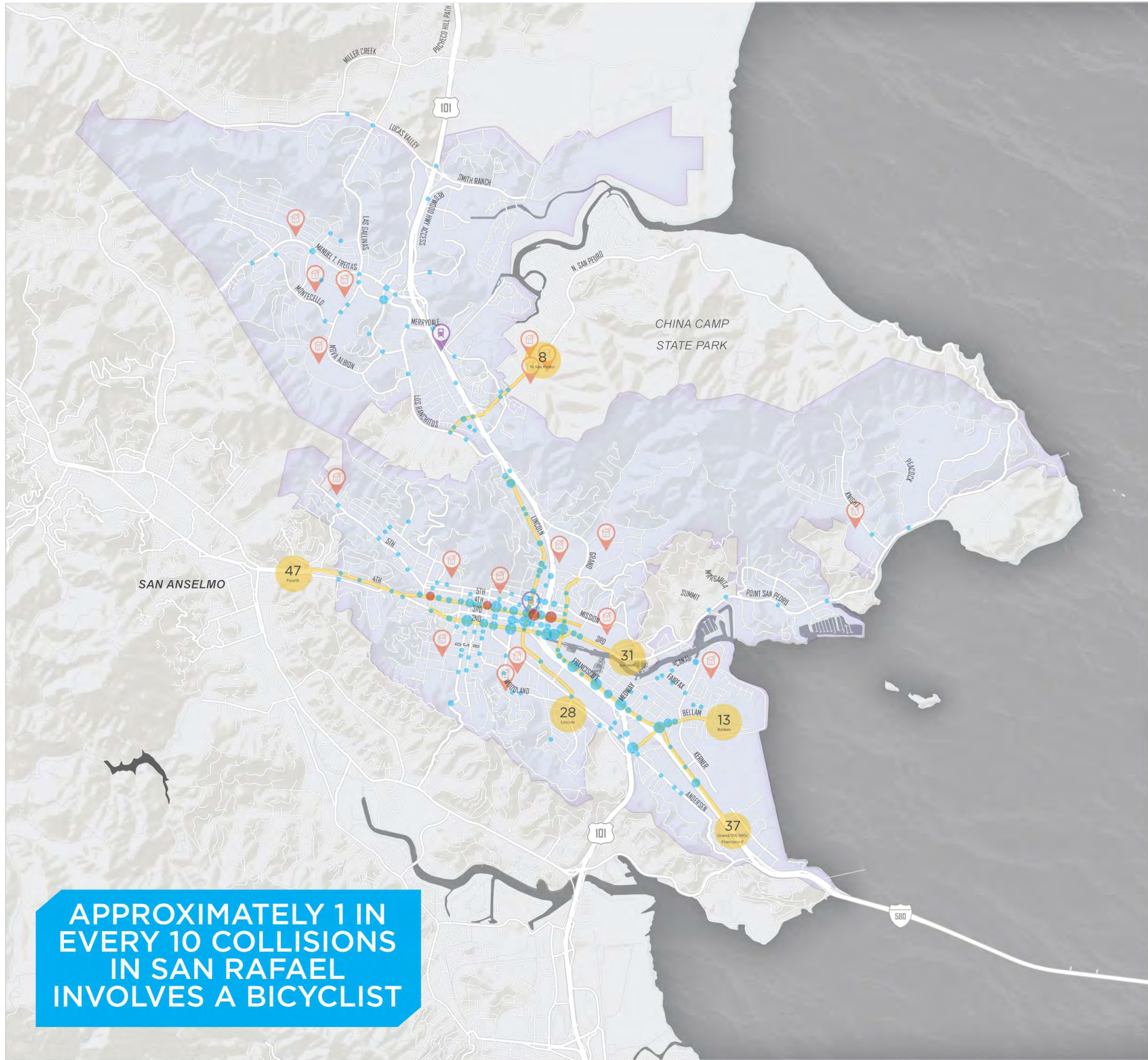


# SAFETY

- 22 Bike Collisions
- 24 Pedestrian Collisions
- 27 Areas of Concern

**Did you know?** The average bicycle trip in Marin County is 51 minutes and the average walk trip is 46 minutes. (Nonmotorized Transportation Pilot Program Evaluation Study, 2007)





**APPROXIMATELY 1 IN EVERY 10 COLLISIONS IN SAN RAFAEL INVOLVES A BICYCLIST**

SOURCE: \*\*SWITRS/TIMS (2014-2016 DATA IS PROVISIONAL AND SUBJECT TO CHANGE; 23 UNMAPPED COLLISIONS)

# Bike Collisions

**High-collision corridors** and intersections were determined through a review of the 239 reported bicycle-involved collisions reported between January 2009 and December 2016. The corridors with the greatest occurrence of bicycle-involved collisions per mile were: Fourth Street (47 collisions), Francisco Boulevard East/Grand Avenue/US 101/Interstate 580 (37 collisions), and Second Street (31 collisions). The individual **intersections** with the most collisions all were on Fourth Street (at G Street, B Street, Hetherton Street, Tamalpais Avenue, and Irwin Street), with 3 bicycle-involved collisions each. Police reports show that there was a fairly even distribution of collisions by age, and approximately 68% of bicyclists involved in collisions were wearing a helmet.

## ANNUAL COLLISIONS (ALL TYPES) AND BIKE-INVOLVED COLLISIONS

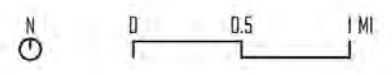


### BIKE-INVOLVED COLLISIONS (2009-2016)\*\*

- 1 Collision
- 2 Collisions
- 3 Collisions
- 4+ Collisions
- High-collision intersection
- High-collision corridors

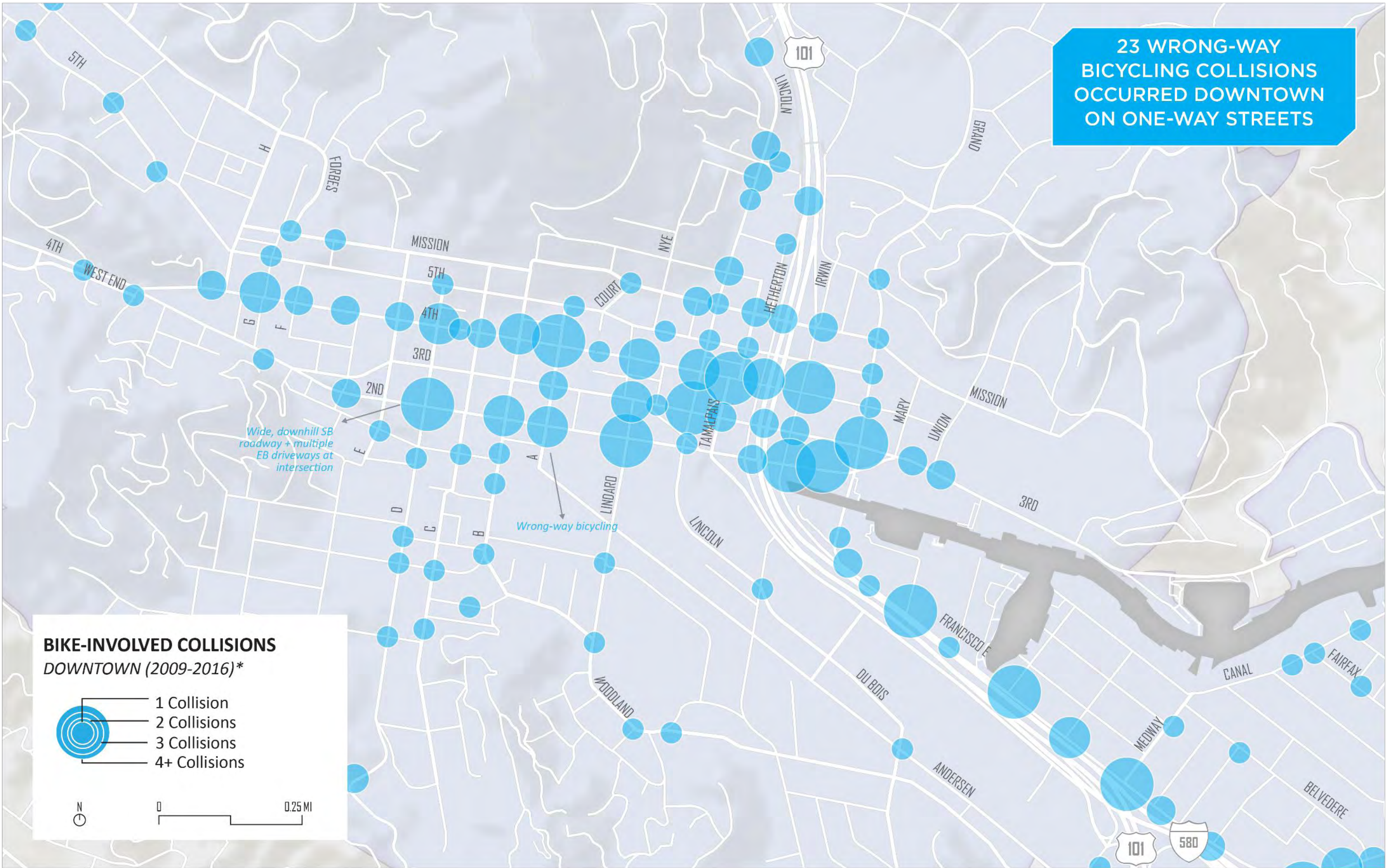
### ACTIVITY GENERATORS

- School
- Transit Hub
- San Rafael City limits









**23 WRONG-WAY BICYCLING COLLISIONS OCCURRED DOWNTOWN ON ONE-WAY STREETS**



**BIKE-INVOLVED COLLISIONS  
DOWNTOWN (2009-2016)\***

-  1 Collision
-  2 Collisions
-  3 Collisions
-  4+ Collisions

N

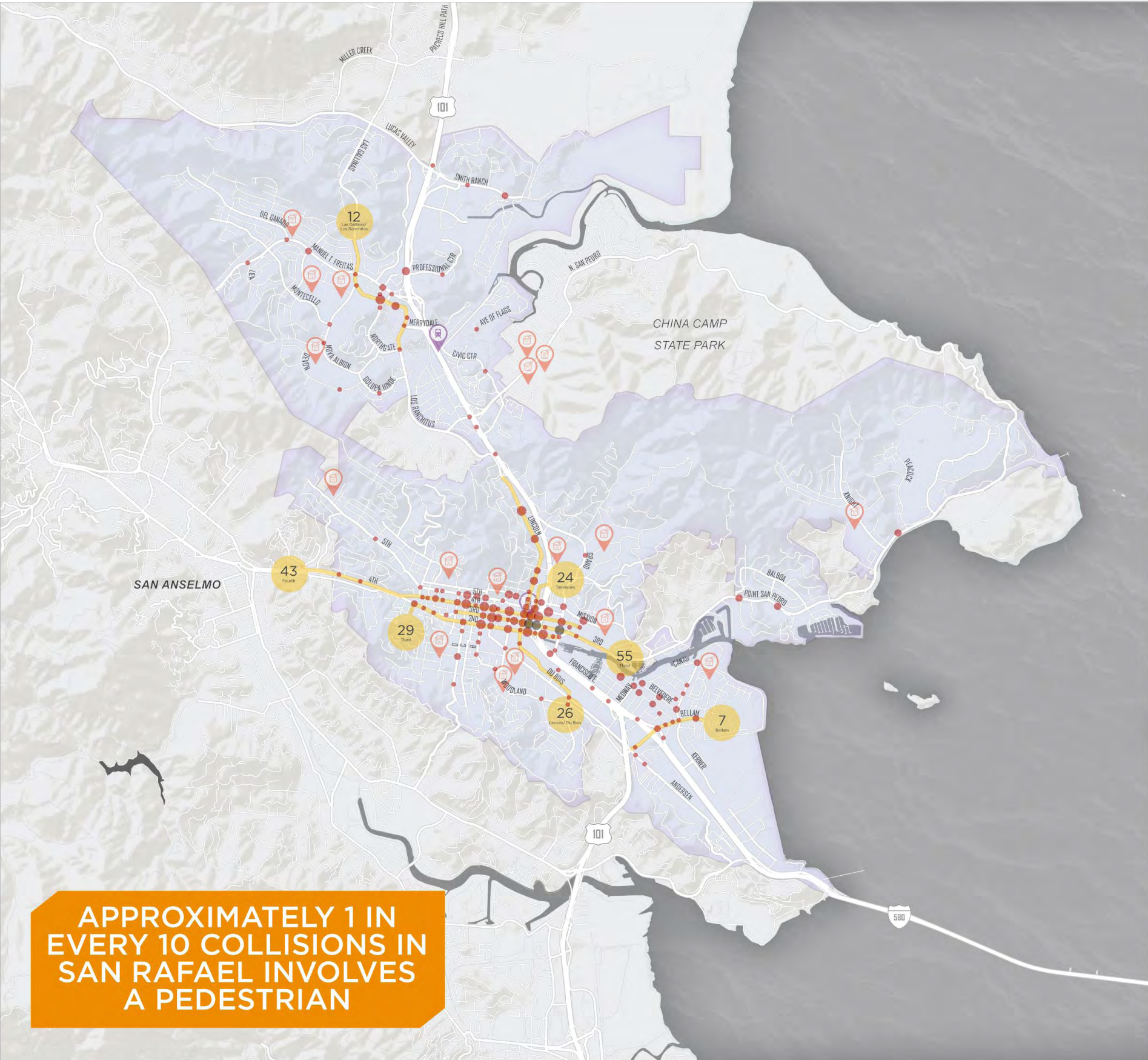
0 0.25 MI

\*SWITRS/TIMS



# Pedestrian Collisions

A review of the 290 reported pedestrian-involved collisions between January 2009 and December 2016 was conducted, and the collisions were mapped to determine corridors and intersections of concerns. The corridors with the greatest occurrence of pedestrian-involved collisions per mile were: Third Street (55 collisions), Fourth Street (43 collisions), Second Street (29 collisions). The individual **intersections** with the most collisions were on Third Street (17 at Hetherton Street, 10 at Tamalpais Avenue, and 8 at Grand Avenue).



**APPROXIMATELY 1 IN EVERY 10 COLLISIONS IN SAN RAFAEL INVOLVES A PEDESTRIAN**

SOURCE: \*\*SWITRS/TIMS (2014-2016 DATA IS PROVISIONAL AND SUBJECT TO CHANGE; 23 UNMAPPED COLLISIONS)

## ANNUAL COLLISIONS (All TYPES) AND PEDESTRIAN-INVOLVED COLLISIONS



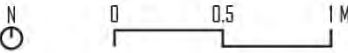
Between 2009 and 2016, there was an average of **313 total collisions** per year and an average of **36 pedestrian-involved collisions** per year.

## PEDESTRIAN-INVOLVED COLLISIONS (2009-2016)\*\*

- 1 Collision
- 2 Collisions
- 3 Collisions
- 4+ Collisions
- High-collision intersection
- High-collision corridors

## ACTIVITY GENERATORS

- 📍 School
- 🚏 Transit Hub
- San Rafael City limits





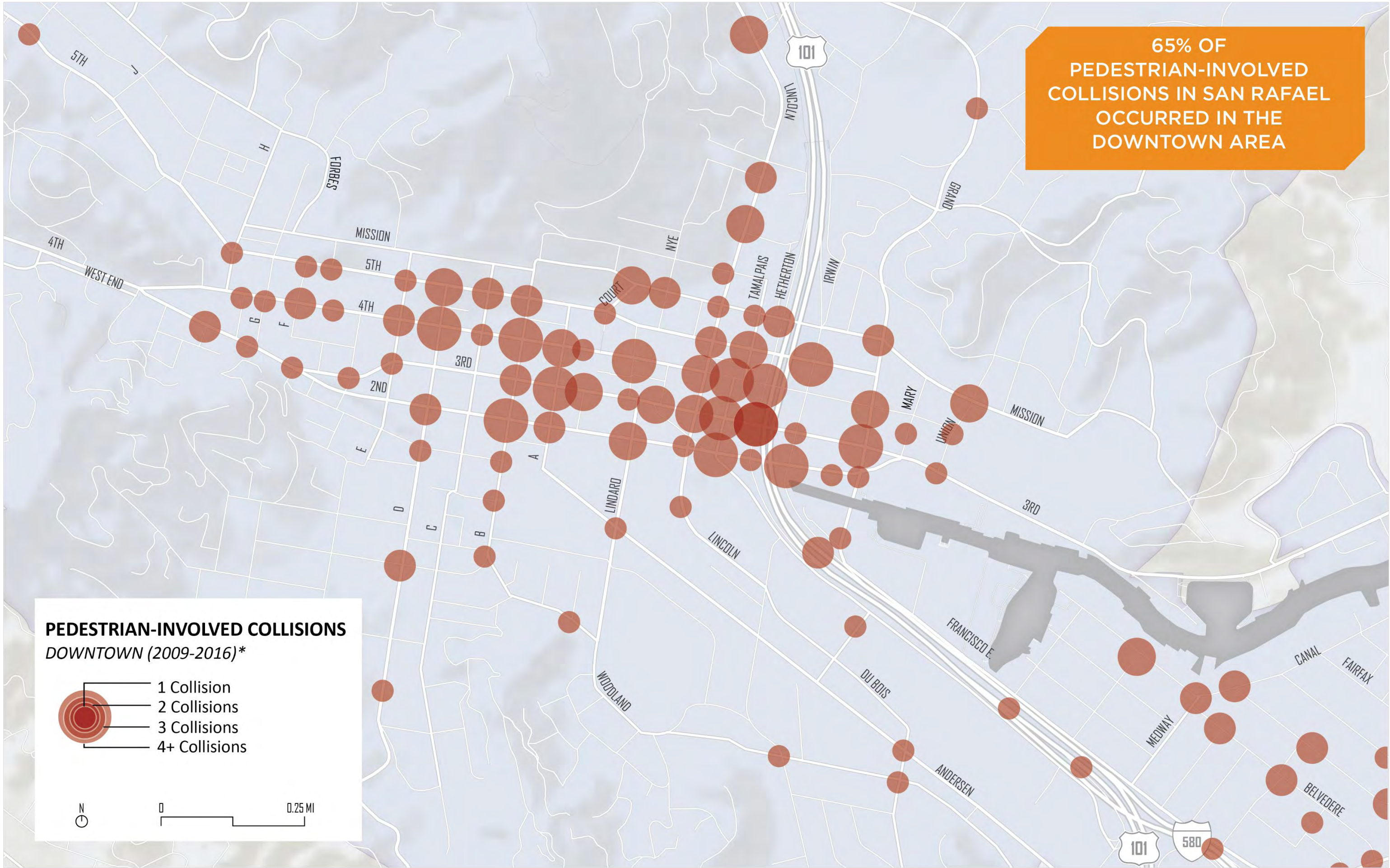
65% OF  
PEDESTRIAN-INVOLVED  
COLLISIONS IN SAN RAFAEL  
OCCURRED IN THE  
DOWNTOWN AREA

**PEDESTRIAN-INVOLVED COLLISIONS  
DOWNTOWN (2009-2016)\***

- 1 Collision
- 2 Collisions
- 3 Collisions
- 4+ Collisions

N

0 0.25 MI



\*SWITRS/TIMS



# Pedestrian Crossing Safety Countermeasures



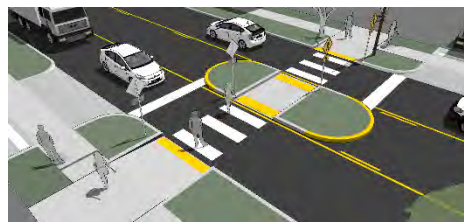
## ADA-compliant Curb Ramp

Allow all users, including people with mobility-assist devices (wheelchairs, canes, and walkers), strollers, and carts, to make the transition from the street to the sidewalk.



## Curb Extension

Help minimize pedestrian exposure to motor vehicles by shortening the street crossing distance and making pedestrians more visible before they commit to crossing.



## Median Refuge Island

Located at the mid-point of a marked crossing to allow pedestrians to cross one direction of traffic at a time.



## Active Warning Beacon

User-activated illuminated devices that are designed to bring attention to pedestrians crossing the street and to increase the probability that motorists yield to pedestrians at marked crosswalks.



## Green Infrastructure

Treats and slows stormwater runoff from roadways, sidewalks, and buildings through bioretention swales, rain gardens, tree box filters and pervious pavements. These strategies help reduce the risk of erosion and flooding which can threaten local creeks and other natural habitats.

# Bicycle Intersection Safety Countermeasures



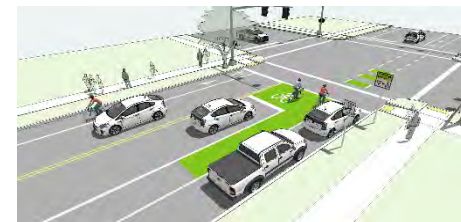
## Skip Striping

Intervals of green pavement markings to call attention to conflict areas between motorists and bicyclists at mixing zones during right-hand turns, through intersections, and near driveways.



## Two-stage Turn Box

Offer bicyclists a safe way to make left turns at signalized intersections by allowing a bicyclist to proceed through the intersection and to wait ahead of perpendicular motor vehicle traffic before proceeding in their intended direction.



## Bike Box

Designated areas at signalized intersections that allows bicyclists to wait in front of queuing motor vehicle traffic during a red light, helping to minimize conflicts between motorists and bicyclists.



## Protected Intersection\*

Maximize bicyclist comfort and motorist yield rates at intersections through various design elements, such as corner safety islands, mountable aprons, two-stage turning boxes, and marked bicycle crossings (“crossbikes”).

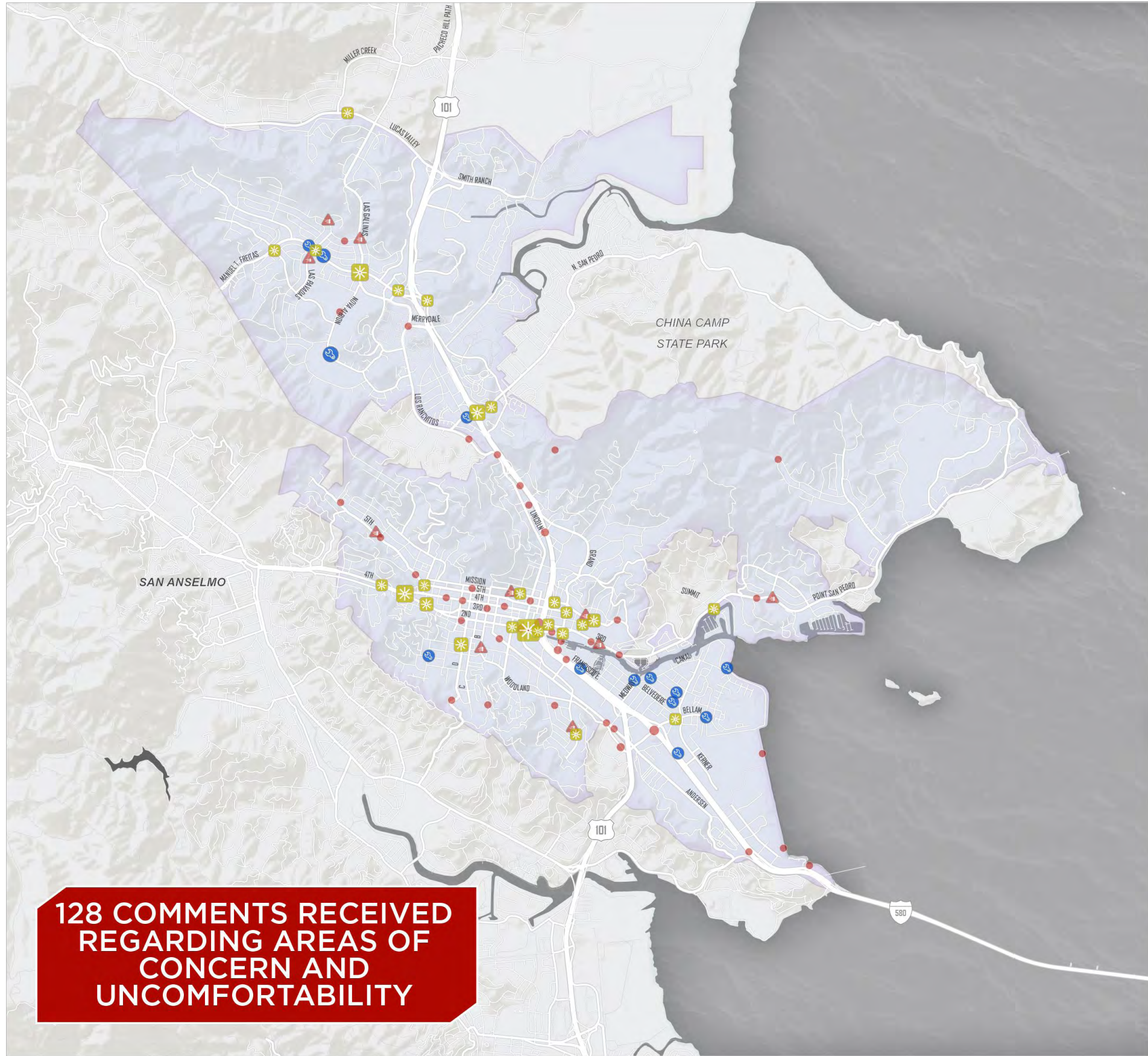


## Protected Bicycle Signal Phase

Help reduce conflicts between bicyclists and motorists at intersections by allowing bicyclists to enter the intersection ahead of motorists (similar to a “pedestrian leading interval”) or at completely different times.

\* Protected intersections are an integral part of a comprehensive bicycle network. While specific intersections are not identified as part of this plan, each intersection will be studied as it is due for upgrades.





# Areas of Concern

Residents identified **areas of concern** through the online engagement tool and at the public workshop. The feedback was helpful in identifying areas people may regularly avoid or facilities that are underutilized. The locations with a concentration of publicly-identified areas of concern that were inconsistent with collision data include:

- Fourth Street at Second Street
- Second Street at Ida Street/G Street
- Manuel T. Freitas Parkway at Las Pavadas Avenue
- North San Pedro Road at Highway 101 undercrossing

### TOP INTERSECTIONS BY NUMBER OF PUBLIC COMMENTS

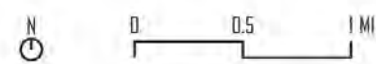
- 1 **Second Street at Francisco Boulevard West**  
(4 comments)
- 2 **North San Pedro Road at Highway 101**  
(4 comments)
- 3 **Manuel T. Freitas Parkway at Las Pavadas Avenue**  
(4 comments)
- 4 **Fourth Street at Second Street**  
(3 comments)
- 5 **Manuel T. Freitas Parkway at Las Gallinas Avenue**  
(3 comments)

### PUBLICLY-IDENTIFIED CONFLICT AREAS

- 1 Comment
- 2 Comments
- 3 Comments
- 4 Comments
- San Rafael City Limit

### CATEGORIZED COMMENTS

- 🔵 Routine maintenance desired
- ⚠️ Areas of concern
- 🟡 Difficult crossing (i.e., crossing length, pedestrian visibility, signal timing, lack of curb ramps, etc.)





# PRIORITIES

- 29 Criteria
- 30 Weighted Score Example
- 31 Priority Areas

**Did you know?** On average, the typical adult in Marin County offsets 0.2 miles of driving per day by bicycling and 0.4 miles by walking.  
(Nonmotorized Transportation Pilot Program Evaluation Study, 2007)











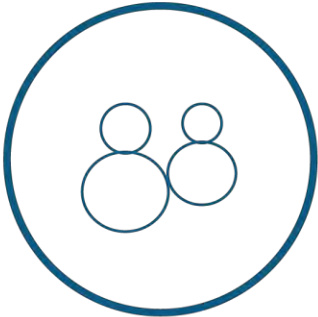
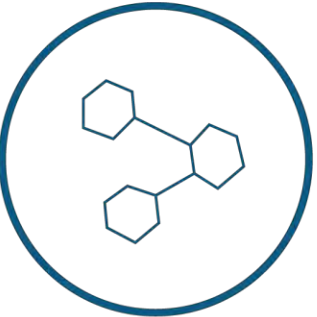
# Criteria

## TOTAL MAX: 100 POINTS

Ten criteria under three categories (**Safety**, **Coordination**, and **Connectivity**) were developed to help prioritize this plan's list of proposed projects. The criteria were selected based on their alignment with the plan's goals, availability of data, and conversations with the Bicycle and Pedestrian Advisory Committee (BPAC).

An online weighting exercise was completed by the BPAC, helping to distinguish the level of **relative importance** among the criteria categories. The weights for the criteria categories were adjusted to a maximum score of 100 points and divided among each of the three categories' individual criteria.

The following pages and section show how this prioritization scheme applies to a sample project, the city as a whole, and to the full list of proposed projects by geographic group. The prioritization rankings are meant to **serve as a starting point** for focusing future implementation efforts, but because projects are often dependent on competitive funding sources, buy-in from adjacent land owners, environmental and feasibility analyses, and other factors, actual implementation may not necessarily follow the rankings.

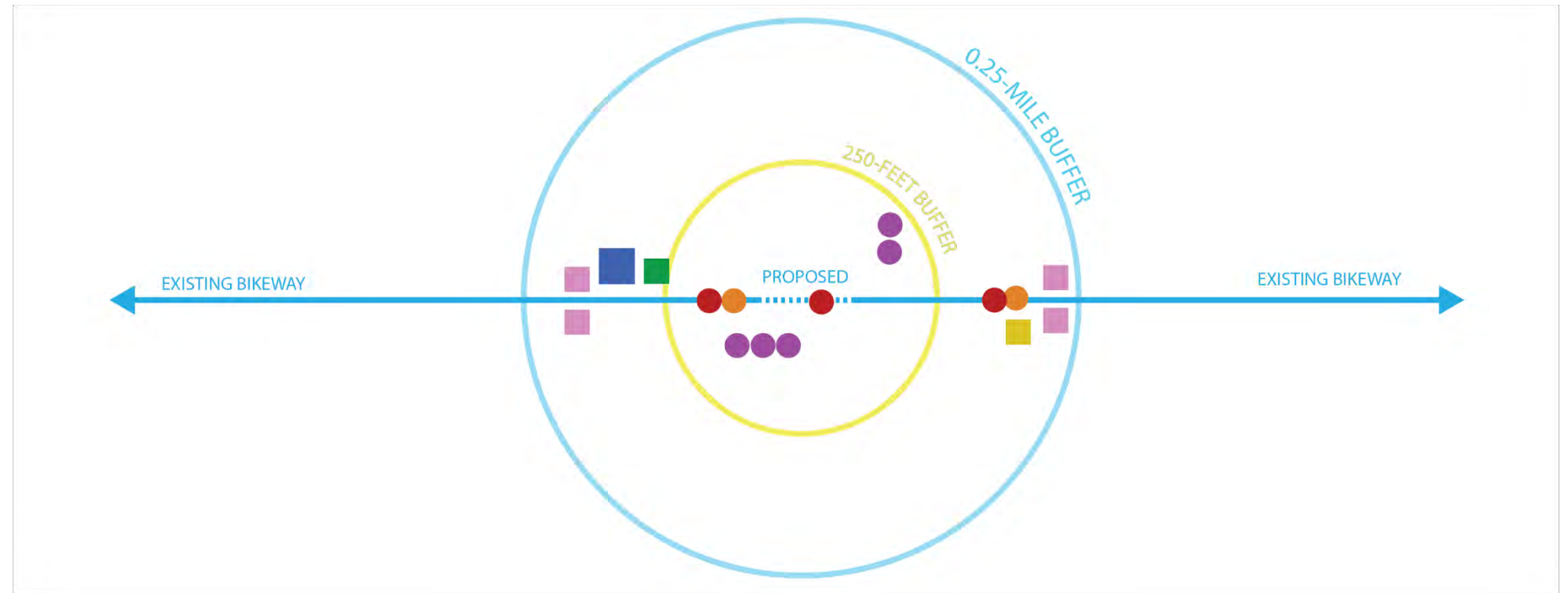
<p><b>COLLISIONS</b></p>  <p><b>MAX: 25 POINTS</b></p> <p>Number of bicycle- and pedestrian-involved collisions within a 250-foot radius of the proposed project.</p>	<p><b>AREAS OF CONCERN</b></p>  <p><b>MAX: 23 POINTS</b></p> <p>Number of publicly-identified locations that feel uncomfortable or that people might avoid within a 250-foot radius of the proposed project.</p>	<p><b>EMPLOYMENT CENTERS</b></p>  <p><b>MAX: 5 POINTS</b></p> <p>Number of part- and full-time employees working within a 0.25-mile radius of the proposed project.</p>	<p><b>CIVIC CENTERS</b></p>  <p><b>MAX: 5 POINTS</b></p> <p>Number of government buildings within a 0.25-mile radius of the proposed project.</p>	<p><b>MEDICAL FACILITIES</b></p>  <p><b>MAX: 5 POINTS</b></p> <p>Number of medical facilities within a 0.25-mile radius of the proposed project.</p>
<p><b>PUBLIC COMMENTS</b></p>  <p><b>MAX: 17 POINTS</b></p> <p>Number of mapped public comments, such as network gaps, received within a 250-foot radius of the proposed project.</p>	<p><b>SCHOOLS</b></p>  <p><b>MAX: 5 POINTS</b></p> <p>Number of elementary, middle, high, and postsecondary schools within a 0.25-mile radius of the proposed project.</p>	<p><b>TRANSIT</b></p>  <p><b>MAX: 5 POINTS</b></p> <p>Number of transit stops within a 0.25-mile radius of the proposed project.</p>	<p><b>POPULATION</b></p>  <p><b>MAX: 5 POINTS</b></p> <p>Number of San Rafael residents living within a 0.25-mile radius of the proposed project.</p>	<p><b>GAP CLOSURE</b></p>  <p><b>MAX: 5 POINTS</b></p> <p>Number of existing Class I and Class II bikeways that the proposed project would connect to.</p>



# Weighted Score Example

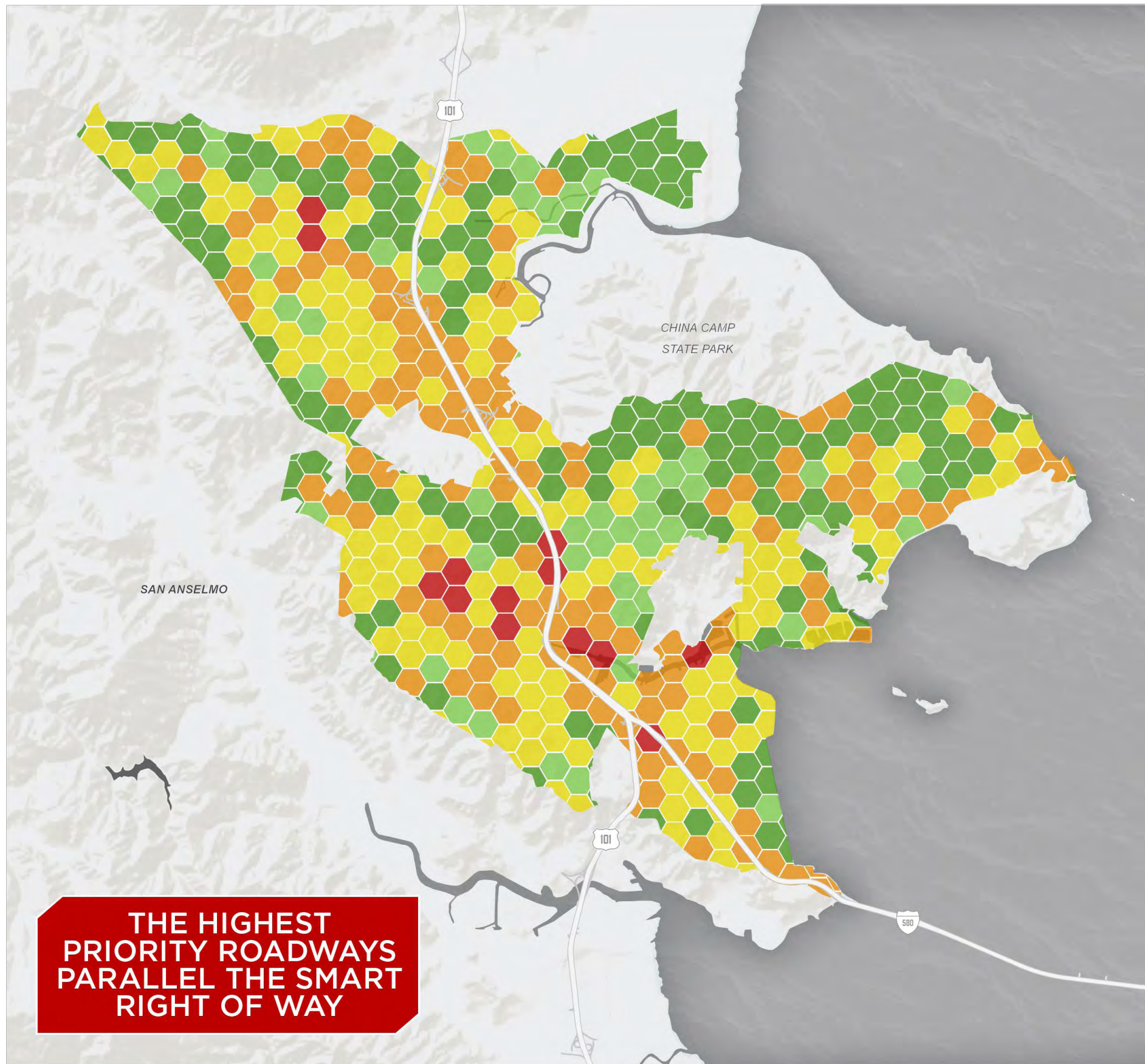
The quickest way to understand how the prioritization process works is to test it on a sample project such as a hypothetical bikeway that could close a gap between 2 existing bikeways. Let's assume within 250 feet of the proposed project there are 2 collisions, 3 areas of concern, and 5 public comments. And let's assume within 0.25 miles of the proposed project there are 300 jobs, 1 civic center, 0 medical facilities, 1 school, 4 transit stops, and 5,000 residents.

Each of the 10 criteria can then be compared to the full list of proposed projects. For example, if there are 2 collisions near the proposed project, that would place it within the 56th percentile among the full project list (that is, 56% of the proposed projects had fewer collisions within 250 feet of their alignments). The percentile rank is then multiplied by the criteria weight. For the hypothetical bikeway, this would be 56% x 25 points, for a score of 14 points. This process is then repeated for each criteria, and the individual criteria scores are summed for a total score out of 100 points. The higher the score, the higher a priority the proposed project would be.



CRITERIA	VALUE	% RANK	WEIGHT	SCORE
COLLISIONS	2 COLLISIONS	56 <sup>th</sup> %	25 POINTS	14 POINTS
AREAS OF CONCERN	3 CONCERNS	85 <sup>th</sup> %	23 POINTS	19 POINTS
PUBLIC COMMENTS	5 COMMENTS	88 <sup>th</sup> %	17 POINTS	15 POINTS
EMPLOYMENT CENTERS	300 JOBS	24 <sup>th</sup> %	5 POINTS	1 POINT
CIVIC CENTERS	1 CIVIC CENTER	37 <sup>th</sup> %	5 POINTS	2 POINTS
MEDICAL FACILITIES	0 MEDICAL FACILITIES	0 <sup>th</sup> %	5 POINTS	0 POINTS
SCHOOLS	1 SCHOOL	65 <sup>th</sup> %	5 POINTS	3 POINTS
TRANSIT	4 TRANSIT STOPS	25 <sup>th</sup> %	5 POINTS	1 POINT
POPULATION	5,000 RESIDENTS	98 <sup>th</sup> %	5 POINTS	5 POINTS
GAP CLOSURE	2 BIKEWAYS	92 <sup>th</sup> %	5 POINTS	5 POINTS
				<b>65/100</b>





# Priority Areas

Applying these criteria (excluding gap closure) to every roadway in San Rafael helps **illuminate the areas** that would be prime locations for project development. The **highest scoring areas** (76+ points) are parallel to the SMART right of way through downtown, along Second Street near Grand Avenue, Francisco Boulevard East near the Grand Avenue Bridge, and various segments along Fourth Street, Third Street, and Second Street. The **second highest scoring areas** (51-75 points) include roadways parallel to the SMART right of way in north San Rafael, Devon Drive, the area near Mark Day School, the west end of Manuel T. Freitas Parkway, various segments along Second Street and Point San Pedro Road, and local roadways in the Canal neighborhood.

## PRIORITIZATION CRITERIA & WEIGHTS

- Bicycle- and Pedestrian-involved Collisions (25 points)
- Publicly-identified Areas of Concern (23 points)
- Other Public Comments Received (17 points)
- Number of Full- and Part-time Jobs (5 points)
- Number of Government Buildings (5 points)
- Number of Medical Facilities (5 points)
- Number of Schools (5 points)
- Number of Transit Stops (5 points)
- Total Population (5 points)
- Gap Closure (excluded from all roadway analysis)

## PRIORITY SCORE (REGARDLESS OF EXISTING FACILITIES)

0-10 Points   11-25 Points   26-50 Points   51-75 Points   76-100 Points



11-25 Points   51-75 Points





# PROPOSED

- 33 Overview
- 34 All Projects
- 35 Projects by Group
- 55 Bike Parking
- 56 Wayfinding

**Did you know?** The average bicycle commute trip in Marin County is 7.3 miles and the average walk commute trip is 0.8 miles. (Nonmotorized Transportation Pilot Program Evaluation Study, 2007)





# Overview

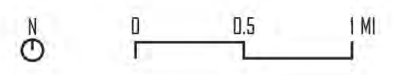
Based on the review of gaps in the existing active transportation network, public comments, related plans, transit connections, collisions, and areas of concern, **124 proposed projects** were identified. Types of proposed projects include walkways/sidewalks, intersections/undercrossings, and bikeways (Class I multi-use paths, Class II on-street bicycle lanes, Class III bicycle routes, Class III+ bicycle boulevards, and Class IV protected bikeways).

Major routes created by the existing and proposed network include:

- **North/South Greenway** - Starting all the way at the Golden Gate Bridge and extending north along the old Northwest Pacific and Sonoma Marin Area Rail Transit rights-of-way to Cloverdale in Sonoma County, the North/South Greenway would create a single, continuous path through San Rafael helping to connect downtown with Civic Center.
- **Northern Bikeway** - A collection of on-street bikeways providing a spur off the North/South Greenway to connect Lucas Valley, Marinwood, and Terra Linda to North San Rafael's commercial area.
- **Cross Marin Bikeway+** - An east-west bikeway that would connect west Marin County, Fairfax, and San Anselmo to downtown San Rafael and views of San Rafael Bay on the way to McNears Beach (extension of *Fairfax to San Rafael Cross Marin Feasibility Study*).
- **Commercial Connector** - A spur off the Cross Marin Bikeway+ that would increase bicycle access to downtown's commercial core.
- **Bridge Connector** - A group of bike and walkways that would connect downtown with the Canal neighborhood and the proposed pathway along the Richmond-San Rafael Bridge.

## PROPOSED PROJECT GROUPS

The proposed projects were divided into **7 geographic groups** to help simplify the list for prioritization: Group A through Group G.



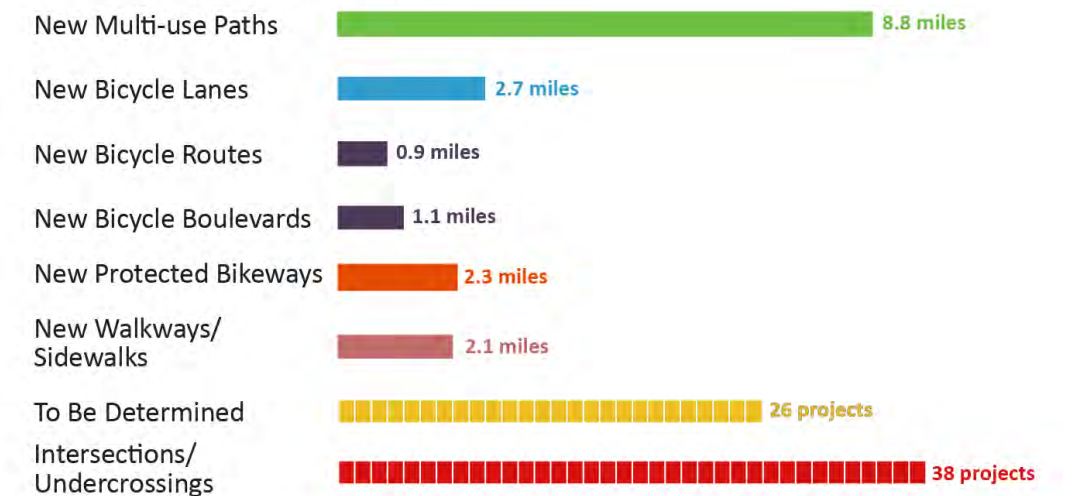


# All Projects

Within each of the **7 geographic groups** falls a series of proposed projects, denoted on the map with the group letter identifier (A through G) and the project number. For example, the first project in “Group A - Civic Center Connections” is a short extension of the existing **Class II on-street bicycle lane** on Las Gallinas Avenue from Cedar Hill Drive/Santiago Way to Lucas Valley Road and is labeled on the map as **A-1**. Because the list of proposed projects are geographically dispersed around the city, a separate map and table for each group are provided on the pages that follow.

For some projects, a proposed bikeway or walkway type is not identified. These “**To Be Determined**” projects require additional study about overall project feasibility, desires of neighboring residents, and potential tradeoffs before stating a preference.

## PROPOSED PROJECTS BY TYPE

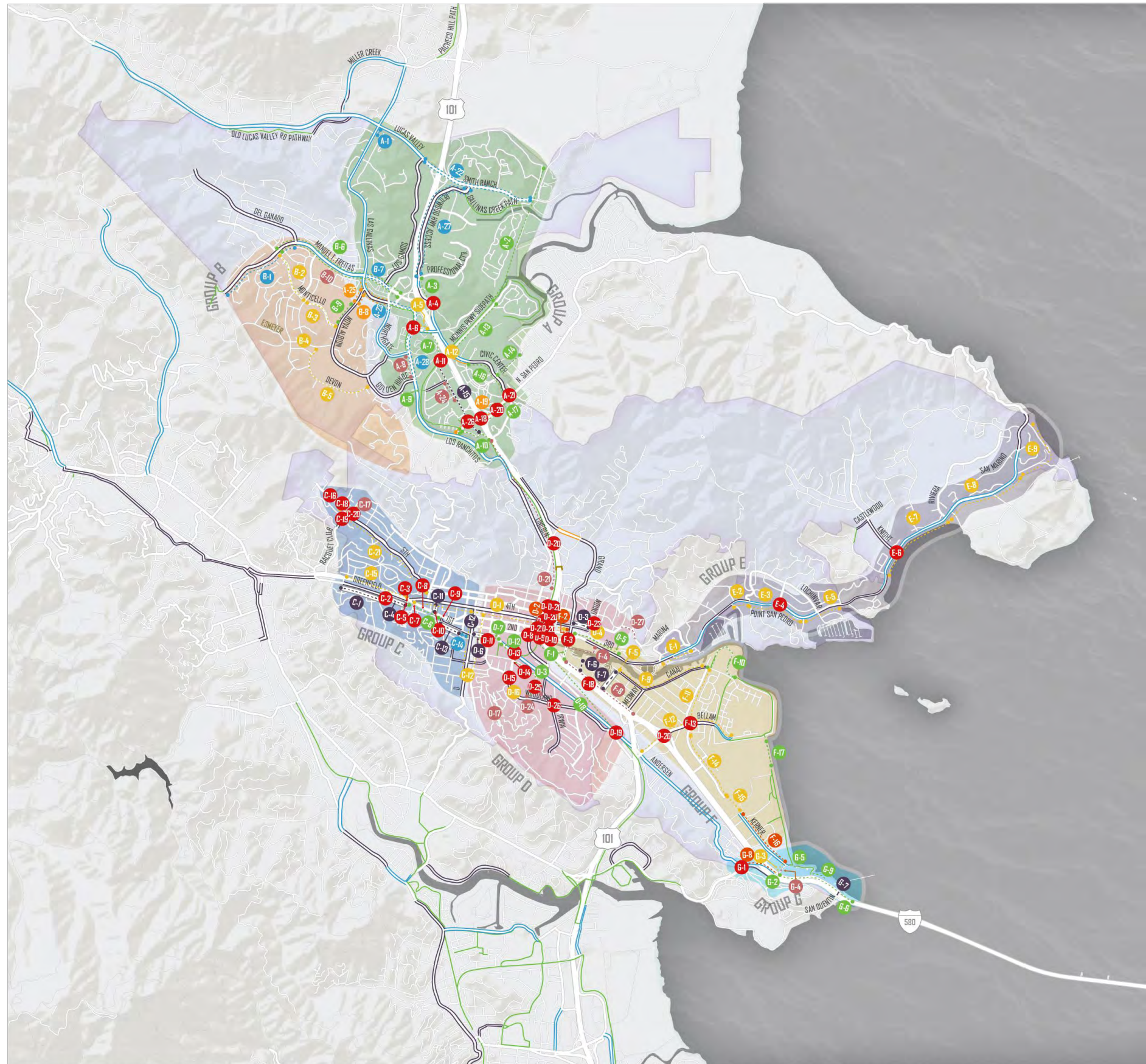


## EXISTING | PROPOSED BIKEWAYS

- Multi-use Path (Class I)
- Bicycle Lane (Class II)
- Bicycle Route (Class III)
- Bicycle Boulevard (Class III+)
- Protected Bikeway (Class IV)

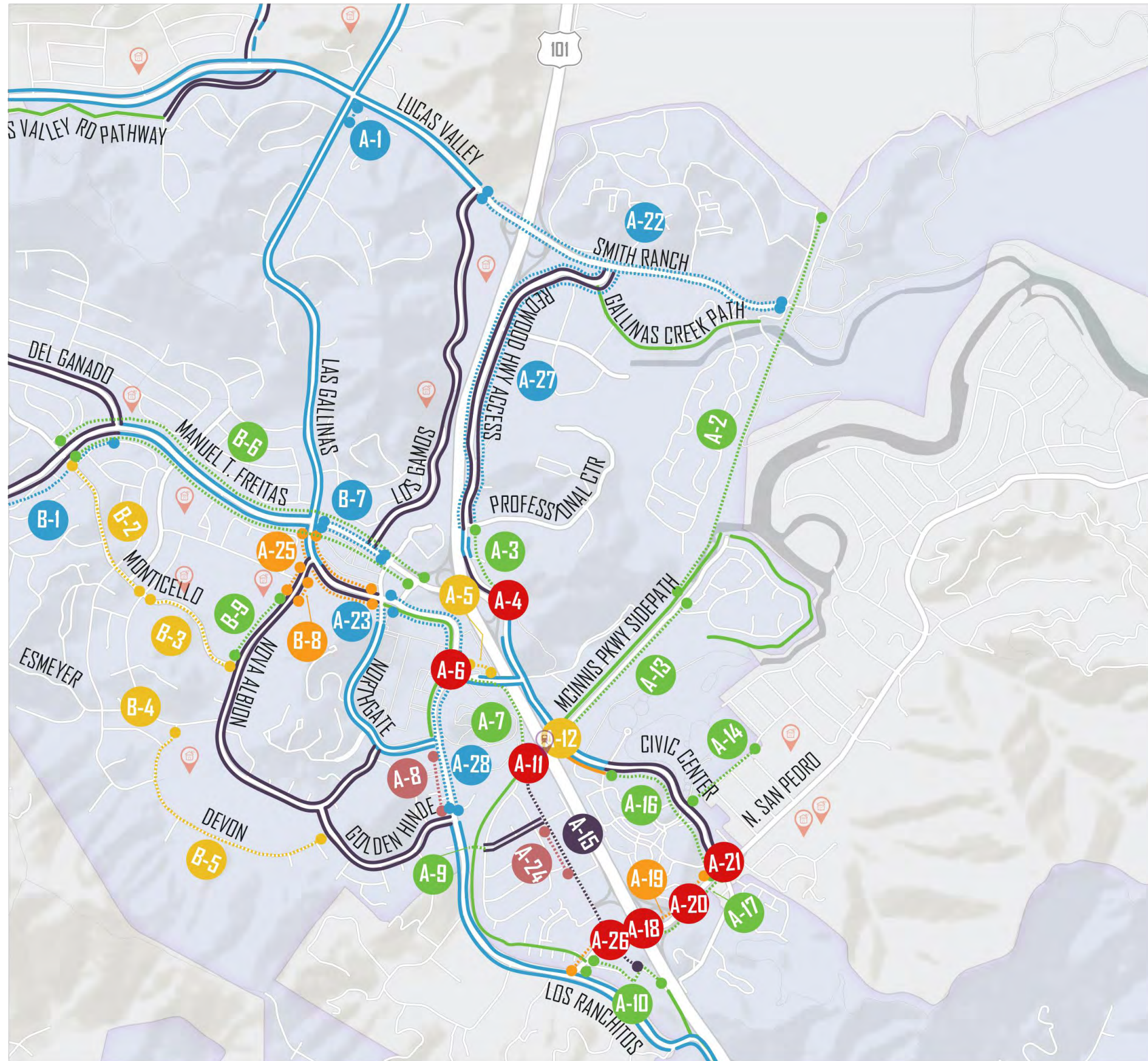
## OTHER PROPOSED PROJECTS

- Walkway/Sidewalk
- To Be Determined
- Intersection/Undercrossing
- Geographic Groups



SOURCE: ESRI, CITY OF SAN RAFAEL, TRANSPORTATION AUTHORITY OF MARIN; LAST UPDATED: MARCH 31, 2017; \*COUNTS CONDUCTED AT 4 LOCATIONS (NONMOTORIZED TRANSPORTATION PILOT PROGRAM, 2013)





# Group A

## CIVIC CENTER CONNECTIONS

Group A encompasses most of northeast San Rafael near the Civic Center SMART Station and Northgate Mall. A total of 28 projects are proposed in Group A, including completion of the northern San Rafael segments of the **SMART Pathway**, an improved bicycle and pedestrian **pathway** along North San Pedro Road between the SMART Pathway and Civic Center Drive, and the extension of bicycle lanes on **Lucas Valley Road/Smith Ranch Road**.

### GROUP A - HIGHEST PRIORITY PROJECTS

- **A-19 North San Pedro Road from Los Ranchitos Road to Civic Center Drive**  
 Study feasibility of a westbound Class IV protected bikeway on North San Pedro Road between Los Ranchitos Road and Civic Center Drive/ San Pablo Avenue.  
*Score: 84/100 | Group A Rank: 1st | Overall Rank: 7th*
- **A-17 North San Pedro Road from Los Ranchitos Road to Civic Center Drive**  
 Pave Class I multi-use path on southside of North San Pedro Road and study safety improvements to reduce conflicts at Highway 101 off-ramp onto eastbound North San Pedro Road.  
*Score: 84/100 | Group A Rank: 2nd | Overall Rank: 8th*
- **A-25 Las Gallinas Avenue from Manuel T. Freitas Parkway to Northgate Drive**  
 Replace existing Class II on-street bicycle lanes and Class III bicycle route with Class IV protected bikeway on Las Gallinas Avenue to close gap in Northern Bikeway.  
*Score: 71/100 | Group A Rank: 3rd | Overall Rank: 19th*

### EXISTING | PROPOSED BIKEWAYS

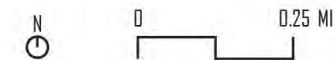
- Multi-use Path (Class I)
- Bicycle Lane (Class II)
- Bicycle Route (Class III)
- Protected Bikeway (Class IV)
- San Rafael City limits

### OTHER PROPOSED PROJECTS

- Walkway/Sidewalk
- To Be Determined
- Intersection/Undercrossing

### ACTIVITY GENERATORS

- School
- Transit Hub





**Proposed Projects, Group A – Civic Center Connections**

ID	CORRIDOR/PRIMARY	BEGIN/AT	END	CLASS/TYPE	MILES	STATUS	NOTES
A-1	Las Gallinas Avenue [Northern Bikeway]	Cedar Hill Drive/ Santiago Way	Lucas Valley Road	II	0.05	Conceptual	<i>Miller Creek Road/ Las Gallinas Avenue Bicycle and Pedestrian Study</i> : Extend existing Class II bicycle lanes from existing Class II bicycle lanes on Lucas Valley Road to the intersection of Las Gallinas Avenue and Cedar Hill Drive/ Santiago Way.
A-2	McInnis Parkway Sidepath [North/South Greenway]	McInnis Parkway north terminus	North City Limit	I	0.98	Designed	<i>SMART Draft Environmental Impact Report (2005)</i> : Provide crossing of South Fork Gallinas Creek and extend McInnis Parkway Sidepath north to North City Limit via SMART Rail right-of-way [part of SF Bay Trail alignment].
A-3	Redwood Highway/ Civic Center Drive	Marin Center Drive	Professional Center Parkway	I	0.37	Conceptual	Create Class I multi-use path on eastside of roadway (modified from proposed Class II bicycle lanes in 2013 <i>Civic Center Station Area Plan</i> ).
A-4	Redwood Highway/ Civic Center Drive	Manuel T. Freitas Parkway/ Highway 101 off-ramp	N/A	Intersection	N/A	Conceptual	Improve bicycle and pedestrian intersection crossing conditions.
A-5	Michael's Parking Lot Pathway	Las Gallinas Avenue	Merrydale Road	To be determined	N/A	Funded	<i>North San Rafael Vision Promenade Conceptual Plan (2002)</i> : Study feasibility of pathway through Michael's parking lot to connect existing Promenade on Las Gallinas Avenue to existing westbound Class II bicycle lanes on Merrydale Road.
A-6	Las Gallinas Avenue	Merrydale Road	N/A	Intersection	N/A	Conceptual	Improve bicycle and pedestrian crossing conditions at the south leg of the Las Gallinas Avenue and Merrydale Road intersection to accommodate proposed Class I multi-use path.
A-7	Merrydale Road	Las Gallinas Avenue	SMART Pathway	I	0.35	Conceptual	<i>SMART Draft Environmental Impact Report (2005)</i> : Develop Class I multi-use path from SMART Pathway near Civic Center SMART Station to Promenade at Las Gallinas Avenue.
A-8	Los Ranchitos Road [Northern Bikeway]	Northgate Drive	Golden Hinde Boulevard	Sidewalk	0.20	Conceptual	<i>Civic Center Station Area Plan (2013)</i> : Create continuous sidewalks on Los Ranchitos Road from Northgate Drive to Golden Hinde Boulevard by gaps in the sidewalk network.
A-9	Walter Place Pathway [Northern Bikeway]	Los Ranchitos Road	Corillo Drive	I	0.06	Active SMART Project	<i>Civic Center Station Area Plan (2013)</i> : Pave pathway to existing SMART rail at-grade crossing.
A-10	Civic Center Station Pathway/Puerto Suello Hill Pathway [North/South Greenway]	North San Pedro Road	South end of Merrydale Road/ Puerto Suello Hill Pathway	I	0.25	Active SMART Project (partial)	<i>SMART Draft Environmental Impact Report (2005)</i> : Extend SMART Pathway from Civic Center SMART Station to existing Puerto Suello Hill Pathway under Highway 101 and along Los Ranchitos Road/ Lincoln Avenue.  Plus, extend existing Puerto Suello Hill Path north of Lincoln Avenue to connect to Merrydale Road and proposed SMART Pathway parallel to Los Ranchitos Road.
A-11	Civic Center Station Pathway [North/South Greenway]	West of Civic Center SMART Station	N/A	Intersection	N/A	Conceptual	<i>Civic Center Station Area Plan (2013)</i> : Study at-grade crossing west Highway 101 near Civic Center SMART Station [part of SF Bay Trail alignment].
A-12	Civic Center SMART Station	N/A	N/A	Bicycle Parking	N/A	Conceptual	<i>SMART Station Bicycle Parking Investment Plan (2016)</i> : Install 20 inverted u-racks and eight e-lockers at the Civic Center SMART Station.



ID	CORRIDOR/PRIMARY	BEGIN/AT	END	CLASS/TYPE	MILES	STATUS	NOTES
A-13	McInnis Parkway Sidepath [North/South Greenway]	Civic Center Drive	Bridgewater Drive	I	0.46	Conceptual	Maintenance: Repave existing McInnis Parkway Sidepath from Civic Center Drive to proposed SMART Pathway extension at Bridgewater Drive [part of SF Bay Trail alignment].
A-14	Madison Avenue	Civic Center Drive	Roosevelt Avenue/ existing Madison Avenue pathway	I	0.20	Conceptual	Create Class I multi-use path on northside of roadway connecting Civic Center Drive, Field of Dogs dog park, and Venetia Valley School.
A-15	Merrydale Road	SMART Pathway	Puerto Suello Hill Pathway	III	0.74	Conceptual	<i>Civic Center Station Area Plan (2013)</i> : Designate Merrydale Road as Class III bicycle route (pavement markings and signage).
A-16	Civic Center Drive	Peter Behr Drive	North San Pedro Road	I	0.45	Partially completed by County	Pave Class I multi-use path in northbound direction [part of SF Bay Trail alignment] or continue existing two-way Class IV protected bikeway from Peter Behr Drive to North San Pedro Road
A-17	North San Pedro Road	Los Ranchitos Road	Civic Center Drive/ San Pablo Avenue	I	0.49	Conceptual	Pave Class I multi-use path on southside of North San Pedro Road (modified from original Class II bicycle lanes and sidewalks proposed in the 2013 <i>Civic Center Station Area Plan</i> ) and study safety improvements to reduce conflicts at Highway 101 off-ramp onto eastbound North San Pedro Road [part of SF Bay Trail alignment].
A-18	North San Pedro Road	Highway 101	N/A	Intersection	N/A	Conceptual	<i>San Rafael Safe Routes to School Task Force</i> and <i>Caltrans District 4 Bike Plan</i> : Improve undercrossing conditions (public art and lighting) [part of SF Bay Trail alignment].
A-19	North San Pedro Road	Los Ranchitos Road	Civic Center Drive/ San Pablo Avenue	IV	0.45	Conceptual	Study feasibility of a westbound Class IV protected bikeway on North San Pedro Road between Los Ranchitos Road and Civic Center Drive/ San Pablo Avenue.
A-20	North San Pedro Road	Highway 101 on-ramp	N/A	Intersection	N/A	Conceptual	<i>San Rafael Safe Routes to School Task Force</i> : Improve bicycle and pedestrian crossing conditions [part of SF Bay Trail alignment].
A-21	North San Pedro Road	Civic Center Drive/ San Pablo Avenue	N/A	Intersection	N/A	Conceptual	<i>San Rafael Safe Routes to School Task Force</i> : Improve bicycle and pedestrian crossing conditions (consider protected intersection) [part of SF Bay Trail alignment].
A-22	Lucas Valley Road/Smith Ranch Road	Los Gamos Drive	Silveira Parkway	II	N/A	Conceptual	Create Class II on-street buffered bicycle lanes connecting existing Lucas Valley Road bicycle lanes and McInnis County Park.
A-23	Northgate Drive [Northern Bikeway]	Las Gallinas Avenue (north)	270 feet south of Las Gallinas Avenue (north)	II	0.05	Conceptual	Close gap in Class II on-street bicycle lanes near northern intersection of Northgate Drive and Las Gallinas Avenue.
A-24	Merrydale Road	Las Gallinas Avenue	Willow Avenue	Sidewalk	0.17	Conceptual	Close gaps in sidewalk: Merrydale Road (west side) between El Prado Avenue and Willow Avenue; Merrydale Road (east side) from 170 feet north of El Prado Avenue to 60 feet south of El Prado Avenue; angled parking with sidewalk on Merrydale Road (west side) between Las Gallinas Avenue and El Prado Avenue.
A-25	Las Gallinas Avenue [Northern Bikeway]	Manuel T. Freitas Parkway	Northgate Drive	IV	0.29	Conceptual	Replace existing Class II on-street bicycle lanes and Class III bicycle route with Class IV protected bikeway on Las Gallinas Avenue to close gap in Northern Bikeway.



ID	CORRIDOR/PRIMARY	BEGIN/AT	END	CLASS/TYPE	MILES	STATUS	NOTES
A-26	North San Pedro Road	Merrydale Road	N/A	Intersection	N/A	Conceptual	Study bicycle and pedestrian improvements at the intersection of North San Pedro Road and Merrydale Road.
A-27	Redwood Highway access road	Smith Ranch Road	Professional Center Parkway	II	0.92	Conceptual	Replace existing Class III bicycle route on the Redwood Highway access road with Class II on-street bicycle lanes from Smith Ranch Road to Professional Center Parkway.
A-28	Las Gallinas Avenue [Northern Bikeway]	Northgate Drive (north)	Golden Hinde Boulevard	II	0.74	Conceptual	Stripe Class II on-street bicycle lanes on Las Gallinas Avenue between Northgate Drive (north) and Golden Hinde Boulevard to serve as a parallel facility to the existing Class I multi-use path.



# Group B

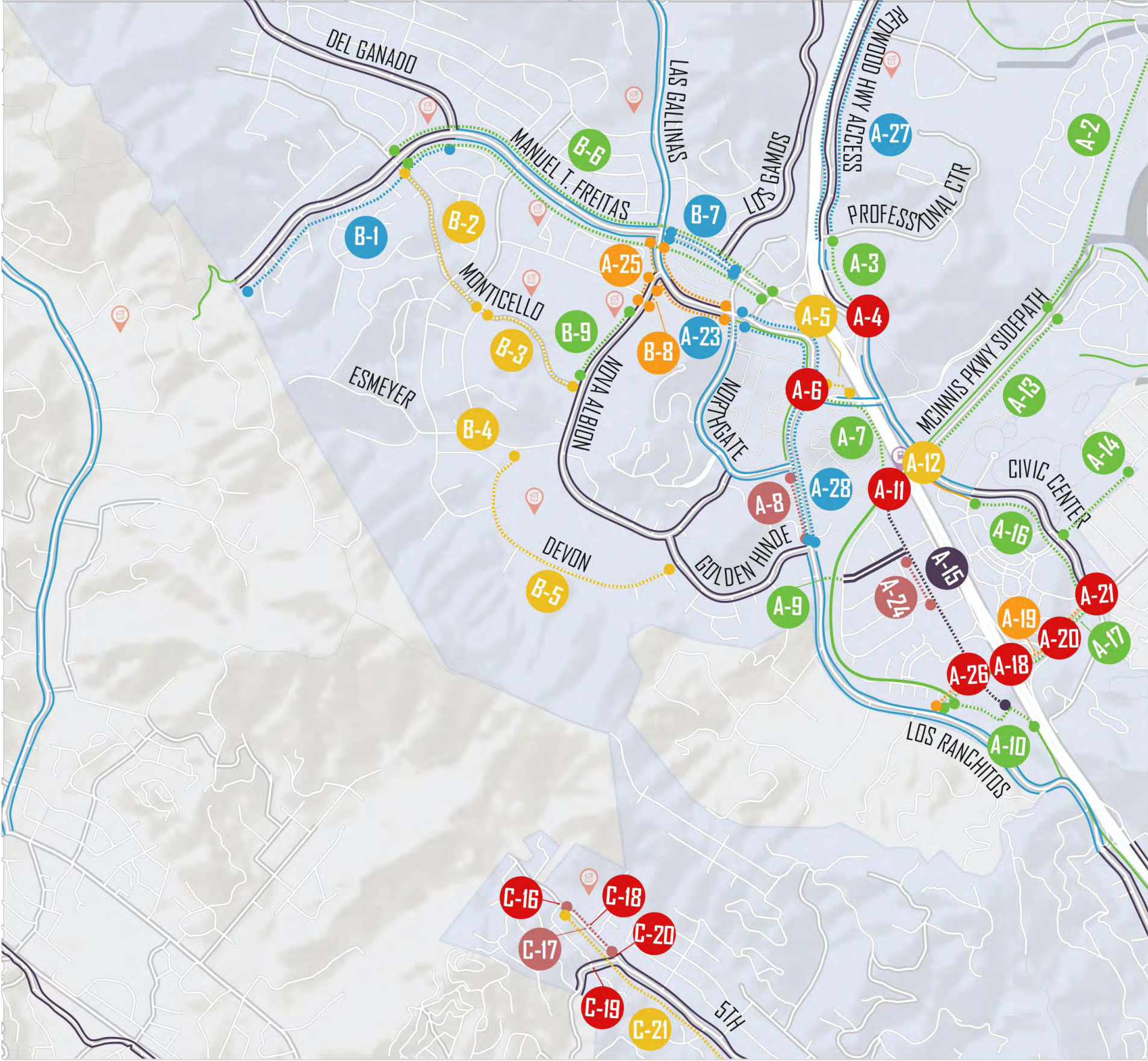
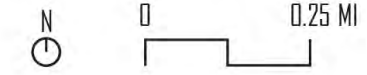
## NORTH SAN RAFAEL SAFE ROUTES TO SCHOOLS CONNECTIONS

Group B encompasses a series of Safe Routes to Schools projects near Mark Day School and Terra Linda High School. A total of 9 projects are proposed in Group B, including a series of **bikeway** improvements on Manuel T. Freitas Parkway, the **study** of traffic calming along Devon Drive, and the **study** of intersection improvements at Trellis Drive and Esmeyer Drive.

### GROUP B - HIGHEST PRIORITY PROJECTS

- B-6** **Manuel T. Freitas Parkway from Montecillo Road to Del Presidio Boulevard**  
 Pave a Class I multi-use path on both sides of Manuel T. Freitas Parkway and/or create continuous bi-directional 6-foot-wide sidewalks.  
*Score: 89/100 | Group B Rank: 1st | Overall Rank: 5th*
- B-7** **Manuel T. Freitas Parkway from Las Gallinas Avenue to Northgate Drive**  
 Extend existing Class II on-street bicycle lanes on Manuel T. Freitas Parkway from Las Gallinas Avenue to Northgate Drive.  
*Score: 62/100 | Group B Rank: 2nd | Overall Rank: 24th*
- B-1** **Manuel T. Freitas Parkway from Mission Path to Del Ganado Road**  
 Narrow travel lanes and stripe buffered bicycle lanes.  
*Score: 61/100 | Group B Rank: 3rd | Overall Rank: 13th*

<b>EXISTING   PROPOSED BIKEWAYS</b>		<b>OTHER PROPOSED PROJECTS</b>	
	Multi-use Path (Class I)		Walkway/Sidewalk
	Bicycle Lane (Class II)		To Be Determined
	Bicycle Route (Class III)		Intersection/Undercrossing
	Protected Bikeway (Class IV)		
	San Rafael City limits	<b>ACTIVITY GENERATORS</b>	
			School
			Transit Hub



See Page 3 for descriptions of facility types and see Appendix H for full list of prioritized projects.  
 San Rafael Bicycle & Pedestrian Master Plan, 2018 Update



**Proposed Projects, Group B – North Safe Routes to School Connections**

ID	CORRIDOR/PRIMARY	BEGIN/AT	END	CLASS/TYPE	MILES	STATUS	NOTES
B-1	Manuel T. Freitas Parkway	Mission Pass Path	Del Ganado Road	II	0.68	Conceptual	Narrow travel lanes and stripe buffered bicycle lanes (modified from Class II on-street bicycle lanes in 2002 <i>North San Rafael Vision Promenade Conceptual Plan</i> ).
B-2	Montecillo Road	Freitas Parkway	Trellis Drive	To be determined	0.45	Conceptual	<i>Safe Routes to School Task Force</i> : Study potential Class III bicycle boulevard on Montecillo Road from Freitas Parkway to Trellis Drive.
B-3	Montecillo Road	Trellis Drive	Nova Albion Way	To be determined	0.35	Conceptual	<i>Safe Routes to School Task Force</i> : Study potential Class I multi-use path on Montecillo Road from Trellis Drive to Nova Albion Way.
B-4	Trellis Drive	Esmeyer Drive	N/A	To be determined	N/A	Conceptual	<i>Safe Routes to School Task Force</i> : Study potential safety improvements for pedestrians crossing Trellis Drive at Esmeyer Drive (and other intersections in Terra Linda neighborhood).
B-5	Devon Drive	Esmeyer Drive	Golden Hinde Boulevard	To be determined	0.73	Conceptual	<i>Safe Routes to School Task Force</i> : Study potential traffic calming on Devon Drive from Esmeyer Drive to Golden Hinde Boulevard.
B-6	Manuel T. Freitas Parkway	Montecillo Road	Del Presidio Boulevard	I	1.08	Conceptual	Pave a Class I multi-use path on both sides of Manuel T. Freitas Parkway and/or create continuous bi-directional 6-foot-wide sidewalks.
B-7	Manuel T. Freitas Parkway	Las Gallinas Avenue	Northgate Drive	II	0.22	Conceptual	Extend existing Class II on-street bicycle lanes on Manuel T. Freitas Parkway from Las Gallinas Avenue to Northgate Drive.
B-8	Nova Albion Way	Las Gallinas Avenue	155 feet south of Arias Street	IV	0.09	Conceptual	Create a Class IV protected bikeway on Nova Albion Way between Las Gallinas Avenue and the Vallecito Elementary School parking lot.
B-9	Nova Albion Way	155 feet south of Arias Street	Montecillo Road	I	0.24	Conceptual	Create a Class I multi-use path on Nova Albion Way between the Vallecito Elementary School parking lot and Montecillo Road.





# Group C

## WEST END CONNECTIONS

Group C encompasses the West End neighborhood and parts of downtown San Rafael. A total of 21 projects are proposed in Group C, including portions of the **Cross Marin Bikeway+** from the west City limit near San Anselmo to downtown and a **study** of a **north-south bikeway** connecting the Gerstle Park neighborhood with downtown.

### GROUP C - HIGHEST PRIORITY PROJECTS

- C-12** **D Street/ C Street from Fourth Street to San Rafael Avenue**  
 Study the feasibility of a Class IV protected bikeway couplets or a Class III+ bicycle boulevard with wayfinding signage and traffic calming elements on D Street and C Street between Downtown and Gerstle Park.  
*Score: 92/100 | Group C Rank: 1st | Overall Rank: 3rd*
- C-21** **Fifth Avenue from River Oaks Road to H Street**  
 Study parking occupancy rates and potential for bikeway connecting Sun Valley Elementary and downtown.  
*Score: 81/100 | Group C Rank: 2nd | Overall Rank: 11th*
- C-6** **Second Street from Fourth Street to Miramar Avenue**  
 Create a Class I multi-use on Second Street between Fourth Street/Marquard Avenue and Miramar Avenue. Build retaining wall on south side of Second Street between Ida Street or G Street to Miramar Avenue to expand existing sidewalk width to accommodate a Class I multi-use path. Alternatively, remove westbound on-street motor vehicle parking on Second Street between Ida Street or G Street to Miramar Avenue, move and re-stripe median, and create a bi-directional Class IV separated bikeway.  
*Score: 80/100 | Group C Rank: 3rd | Overall Rank: 13th*

EXISTING   PROPOSED BIKEWAYS		OTHER PROPOSED PROJECTS	
	Multi-use Path (Class I)		To Be Determined
	Bicycle Lane (Class II)		Intersection/Undercrossing
	Bicycle Route (Class III)		<b>ACTIVITY GENERATORS</b>
	Bicycle Boulevard (Class III+)		School
	Protected Bikeway (Class IV)		
	San Rafael City limits		



See Page 3 for descriptions of facility types and see Appendix H for full list of prioritized projects. San Rafael Bicycle & Pedestrian Master Plan, 2018 Update



**Proposed Projects, Group C – West End Connections**

ID	CORRIDOR/PRIMARY	BEGIN/AT	END	CLASS/TYPE	MILES	STATUS	NOTES
C-1	Greenfield Avenue [Cross Marin Bikeway+]	West City Limit (near Ross Valley Drive)	West End Avenue	III+	0.34	Conceptual	<i>Fairfax to San Rafael Cross Marin Bikeway Feasibility Study:</i> Change existing Class III bicycle route to Class III bicycle boulevard.
C-2	Greenfield Avenue [Cross Marin Bikeway+]	West End Avenue	N/A	Intersection	N/A	Conceptual	<i>Fairfax to San Rafael Cross Marin Bikeway Feasibility Study:</i> Add median to channelize traffic.
C-3	Fourth Street [Cross Marin Bikeway+]	Second Street/ Marquard Avenue	N/A	Intersection	N/A	Conceptual	<i>Fairfax to San Rafael Cross Marin Bikeway Feasibility Study:</i> Study the feasibility of realigning the Fourth Street/ Second Street/ Marquard Avenue intersection to improve pedestrian, bicycle, and motor vehicle access.
C-4	West End Avenue [Cross Marin Bikeway+]	Greenfield Avenue	Marquard Avenue	III+	0.15	Conceptual	<i>Fairfax to San Rafael Cross Marin Bikeway Feasibility Study:</i> Change existing Class III bicycle route to Class III bicycle boulevard. In interim, move eastbound bicycle pavement markings outside of door zone.
C-5	West End Avenue [Cross Marin Bikeway+]	Marquard Avenue	N/A	Intersection	N/A	Conceptual	<i>Fairfax to San Rafael Cross Marin Bikeway Feasibility Study:</i> Add raised crosswalk and potential curb extension to southwest corner.
C-6	Second Street [Cross Marin Bikeway+]	Fourth Street/ Marquard Avenue	Miramar Avenue	I	0.29	Conceptual	<i>Fairfax to San Rafael Cross Marin Bikeway Feasibility Study:</i> Create a Class I multi-use on Second Street between Fourth Street/Marquard Avenue and Miramar Avenue. Build retaining wall on south side of Second Street between Ida Street or G Street to Miramar Avenue to expand existing sidewalk width to accommodate a Class I multi-use path. Alternatively, remove westbound on-street motor vehicle parking on Second Street between Ida Street or G Street to Miramar Avenue, move and re-stripe median, and create a bi-directional Class IV separated bikeway.
C-7	Second Street [Cross Marin Bikeway+]	West Street	N/A	Intersection	N/A	Conceptual	<i>Fairfax to San Rafael Cross Marin Bikeway Feasibility Study:</i> Add raised crosswalk.
C-8	Second Street [Cross Marin Bikeway+]	East Street	N/A	Intersection	N/A	Conceptual	<i>Fairfax to San Rafael Cross Marin Bikeway Feasibility Study:</i> Add raised crosswalk.
C-9	Second Street [Cross Marin Bikeway+]	Miramar Avenue	N/A	Intersection	N/A	Conceptual	<i>Fairfax to San Rafael Cross Marin Bikeway Feasibility Study:</i> Add raised crosswalk and transition to Mahon Creek Pathway.
C-10	Second Street [Cross Marin Bikeway+]	G Street	N/A	Intersection	N/A	Conceptual	Study intersection alterations to facilitate transition from proposed Class III bicycle boulevard on G Street (or Ida Street) to proposed “Cross Marin Bikeway+” on Second Street.
C-11	G Street	Fourth Street/ Marquard Avenue	Second Street	III+	0.08	Conceptual	Create Class III bicycle boulevard connection on G Street (or Ida Street) to proposed “Cross Marin Bikeway+” on Second Street.
C-12	D Street/ C Street	Fourth Street	San Rafael Avenue	To be determined	0.21	Conceptual	Study the feasibility of a Class IV protected bikeway couplets or a Class III+ bicycle boulevard with wayfinding signage and traffic calming elements on D Street and C Street between Downtown and Gerstle Park (modified from route on D Street within <i>Fairfax to San Rafael Cross Marin Bikeway Feasibility Study</i> ).
C-13	Miramar Avenue/ First Street [Cross Marin Bikeway+]	Second Street	E Street	III+	0.20	Conceptual	<i>Fairfax to San Rafael Cross Marin Bikeway Feasibility Study:</i> Change existing Class III bicycle route to Class III bicycle boulevard.
C-14	First Street [Cross Marin Bikeway+]	E Street	D Street	II	0.07	Conceptual	<i>Fairfax to San Rafael Cross Marin Bikeway Feasibility Study:</i> Reverse street from westbound one-way to eastbound one-way and add contraflow bicycle lane. Alternatively, study feasibility of maintaining the current westbound one-way and adding advisory bicycle lanes.



ID	CORRIDOR/PRIMARY	BEGIN/AT	END	CLASS/TYPE	MILES	STATUS	NOTES
C-15	Fourth Street/ Second Street [Cross Marin Bikeway+]	West City Limit (near Ross Valley Drive)	Second Street	To be determined	0.58	Conceptual	Study the feasibility of a Class I multi-use path on Fourth Street between the West City Limit and Second Street as a long-term alternative to proposed Class III bicycle boulevard on Greenfield Avenue/West End Avenue.
C-16	Fifth Avenue	River Oaks Road	N/A	Intersection	N/A	Conceptual	<i>Sun Valley Elementary Travel Plan:</i> Create traffic circle at T-intersection.
C-17	Fifth Avenue	River Oaks Road	Racquet Club Drive	Sidewalk	0.20	Conceptual	<i>Sun Valley Elementary Travel Plan:</i> Upgrade sidewalk on River Oaks Road between Fifth Avenue and Racquet Club Drive.
C-18	Fifth Avenue	Happy Lane	N/A	Intersection	N/A	Conceptual	<i>Sun Valley Elementary Travel Plan:</i> Add curb extensions to northwest, northeast, and southwest corners; add high-visibility crosswalk across Happy Lane; and upgrade sidewalk on Fifth Avenue from Happy Lane to 150 feet west of Happy Lane.
C-19	River Oaks Road	Racquet Club Drive	N/A	Intersection	N/A	Conceptual	<i>Sun Valley Elementary Travel Plan:</i> Add high-visibility crosswalk at intersection of River Oaks Drive and Racquet Club Drive.
C-20	Fifth Avenue	Racquet Club Drive	N/A	Intersection	N/A	Conceptual	<i>Sun Valley Elementary Travel Plan:</i> Bicycle and pedestrian intersection improvements.
C-21	Fifth Avenue	River Oaks Road	H Street	To be determined	1.04	Conceptual	Study parking occupancy rates and potential for bikeway connecting Sun Valley Elementary and downtown.



# Group D

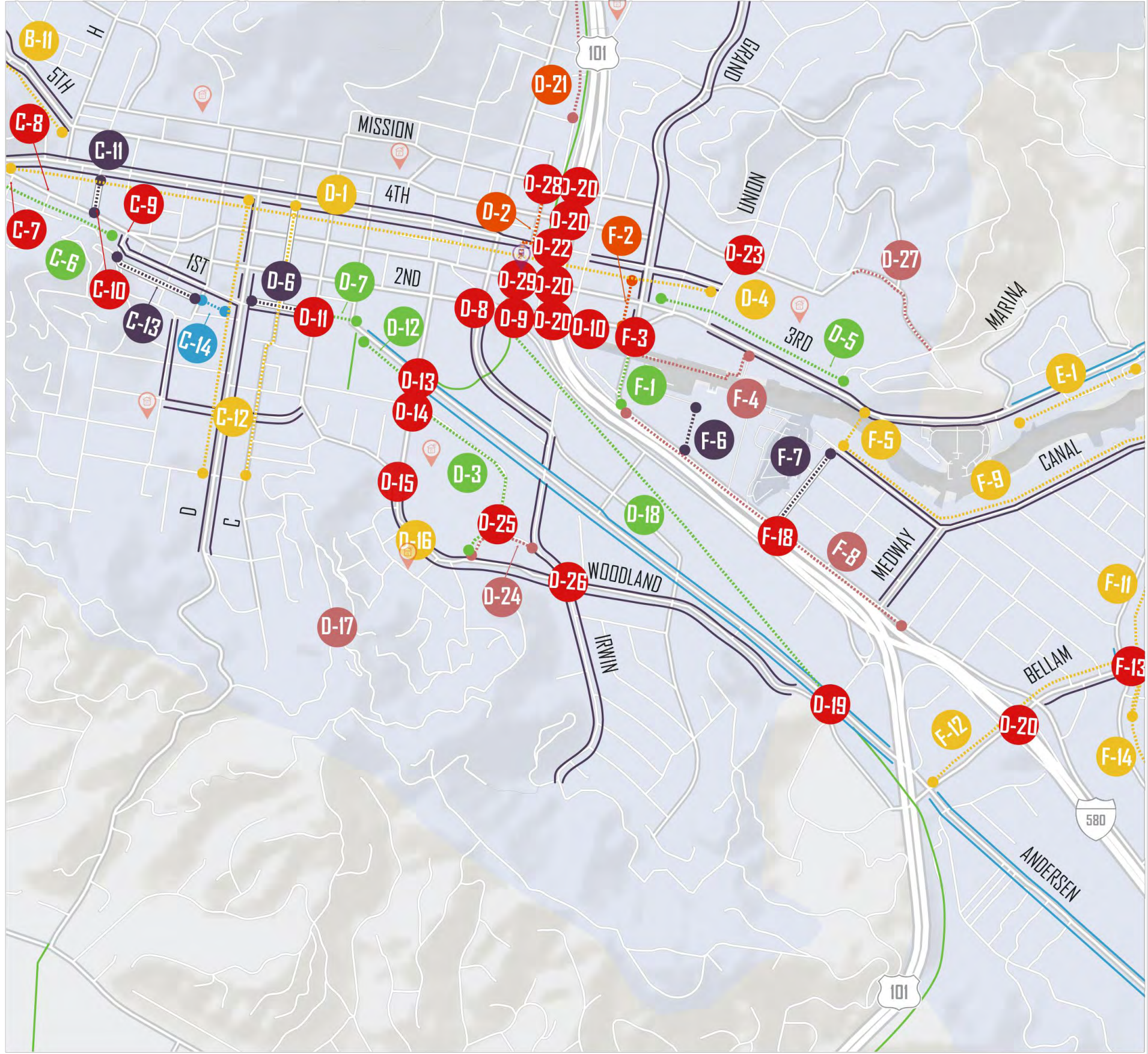
## CENTRAL SAN RAFAEL CONNECTIONS

Group D encompasses most of downtown San Rafael. A total of 29 projects are proposed in Group D, including the continuation of the **Cross Marin Bikeway+** from Group C and bikeway connections to the Transit Center.

### GROUP D - HIGHEST PRIORITY PROJECTS

- D-1 Downtown East-West Connection**  
 Study the feasibility of an east-west bikeway through downtown San Rafael that can comfortably accommodate people of all ages and bicycling ability. If compatible with the preferred alternative resulting from the feasibility study, consider incorporating lighting improvements and a public art component to reinforce the area's recent Cultural District designation.  
*Score: 94/100 | Group D Rank: 1st | Overall Rank: 1st*
- D-20 Highway 101 Undercrossings at Various Locations**  
 Study potential lighting and public art at Highway 101 undercrossings at Third Street, Fourth Street, Fifth Avenue, Mission Avenue, and Linden Lane.  
*Score: 90/100 | Group D Rank: 2nd | Overall Rank: 4th*
- D-2 West Tamalpais Avenue from Second Street to Mission Avenue**  
 Convert West Tamalpais Avenue into a one-way street in the southbound direction; create a Class IV protected bikeway between West Tamalpais and SMART right-of-way; create improved bicycle and pedestrian crossings at intersections and connection to existing Class I multi-use path parallel to Hetherton Street. Alternatively, consider a Class I multi-use path.  
*Score: 86/100 | Group D Rank: 3rd | Overall Rank: 6th*

<b>EXISTING   PROPOSED BIKEWAYS</b>		<b>OTHER PROPOSED PROJECTS</b>	
	Multi-use Path (Class I)		Walkway/Sidewalk
	Bicycle Lane (Class II)		To Be Determined
	Bicycle Route (Class III)		Intersection/Undercrossing
	Bicycle Boulevard (Class III+)	<b>ACTIVITY GENERATORS</b>	
	Protected Bikeway (Class IV)		School
	San Rafael City limits		Transit Hub



See Page 3 for descriptions of facility types and see [Appendix H](#) for full list of prioritized projects.  
 San Rafael Bicycle & Pedestrian Master Plan, 2018 Update



**Proposed Projects, Group D – Central San Rafael Connections**

ID	CORRIDOR/PRIMARY	BEGIN/AT	END	CLASS/TYPE	MILES	STATUS	NOTES
D-1	Downtown East-West Connection [Commercial Connector]	Fourth Street/ Second Street	Union Street	To be determined	1.36	Conceptual	Study the feasibility of an east-west bikeway through downtown San Rafael that can comfortably accommodate people of all ages and bicycling ability. If compatible with the preferred alternative resulting from the feasibility study, consider incorporating lighting improvements and a public art component to reinforce the area's recent Cultural District designation [part of SF Bay Trail alignment and Caltrans District 4 Bike Plan].
D-2	West Tamalpais Avenue [North/South Greenway]	Second Street	Mission Avenue	IV	0.25	Conceptual	Tamalpais Avenue Feasibility Study (ongoing): Convert West Tamalpais Avenue into a one-way street in the southbound direction; create a Class IV protected bikeway between West Tamalpais and SMART right-of-way; create improved bicycle and pedestrian crossings at intersections and connection to existing Class I multi-use path parallel to Hetherton Street. Alternatively, consider a Class I multi-use path [part of SF Bay Trail alignment].
D-3	Davidson Middle School Path (Lindaro Street/ Jordan Street/ Lovell Avenue)	Mahon Creek Path/ Andersen Drive	Woodland Avenue	I	0.49	Conceptual	Study the feasibility of a Class I multi-use path from the current southern terminus of the Mahon Creek Path to James B. Davidson Middle School along Lindaro Street, Jordan Street, and Lovell Avenue.
D-4	Fourth Street	Union Street	San Rafael High School playing field	To be determined	N/A	Conceptual	Canalfront Conceptual Design Plan (2009): Study feasibility of east-west and north-south Class I multi-use paths running through San Rafael High School playing fields and connecting Mission Avenue, Union Street, and Third Street. (Note: Ongoing discussions with San Rafael School District, Safe Routes to Schools, City, and interested members of the public; see San Rafael High School Facilities Master Plan Draft Environmental Impact Report for more information).
D-5	Third Street [Cross Marin Bikeway+]	Grand Avenue	East City Limit (near Embarcadero Way)	I	0.44	Conceptual	Create Class I multi-use path along Third Street [part of SF Bay Trail alignment].
D-6	First Street [Cross Marin Bikeway+]	D Street	B Street	III+	0.14	Conceptual	Fairfax to San Rafael Cross Marin Bikeway Feasibility Study: Upgrade existing Class III bicycle route to Class III bicycle boulevard.
D-7	Albert Park Path Connection [Cross Marin Bikeway+]	First Street	Albert Park Path	I	0.07	Conceptual	Fairfax to San Rafael Cross Marin Bikeway Feasibility Study: Create Class I multi-use path along the south side of the Safeway property and the north side of the San Rafael Community Center property that connects to the existing Albert Park Path with a transition to the existing Class II bicycle lanes on Andersen Drive.
D-8	Second Street	Highway 101 undercrossing	N/A	Undercrossing	N/A	Conceptual	Study potential pedestrian improvements for Highway 101 undercrossing on Second Street, including walkway, lighting, and public art.
D-9	Second Street	Highway 101 on-ramp	N/A	Intersection	N/A	Conceptual	Study pedestrian crossing improvements on Second Street at the Highway 101 on-ramp [part of SF Bay Trail alignment].
D-10	Second Street	Highway 101 off-ramp	N/A	Intersection	N/A	Conceptual	Study pedestrian crossing improvements on Second Street at the Highway 101 off-ramp [part of SF Bay Trail alignment].

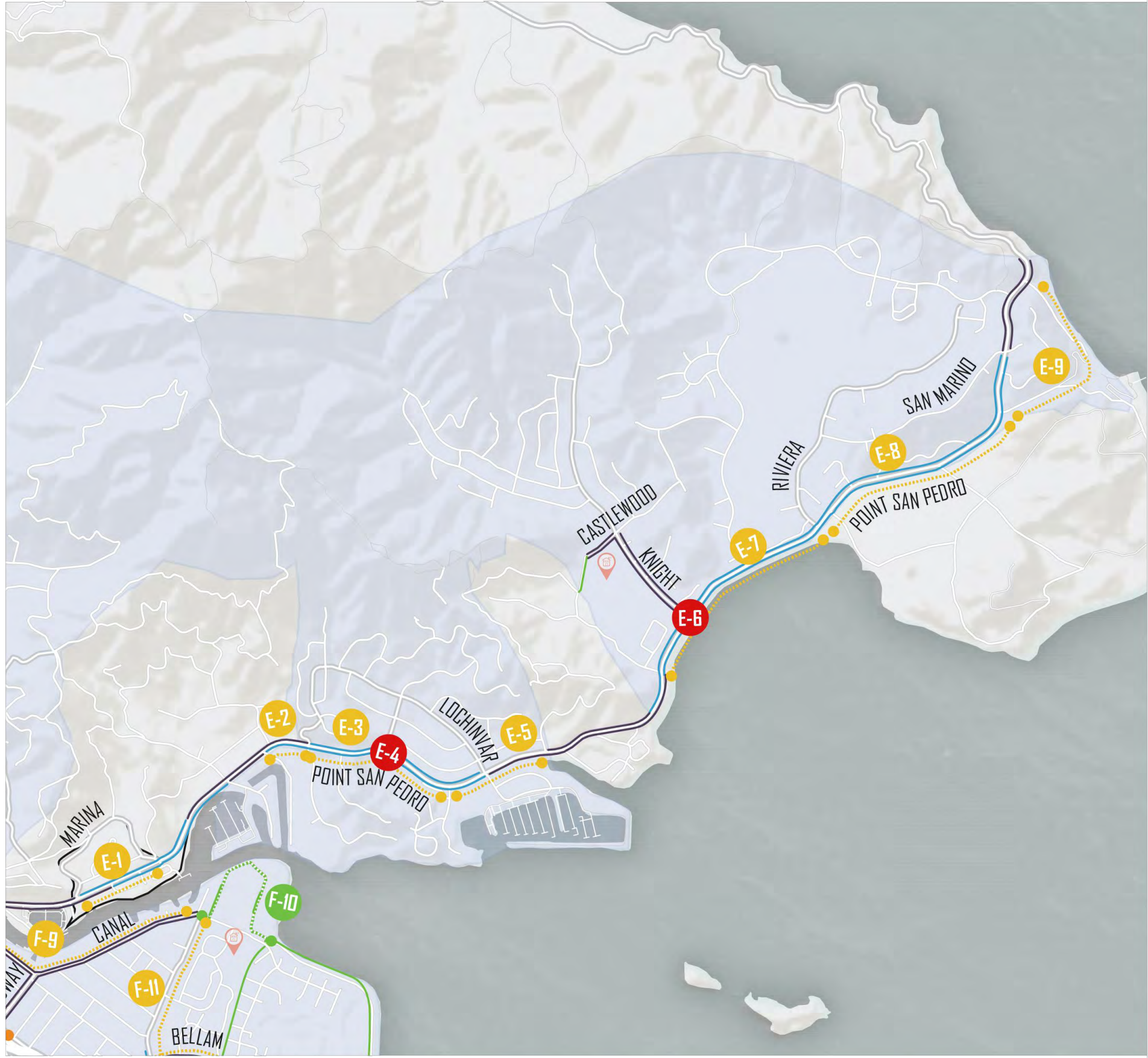


ID	CORRIDOR/PRIMARY	BEGIN/AT	END	CLASS/TYPE	MILES	STATUS	NOTES
D-11	First Street [Cross Marin Bikeway+]	B Street	N/A	Intersection	N/A	Conceptual	Study bicycle and pedestrian intersection treatments to improve transition from proposed Class III bicycle boulevard on First Street to proposed Class I multi-use path (Albert Park Path Connection).
D-12	Andersen Drive	Albert Park Path	Mahon Creek Connector	I	0.15	Conceptual	<i>Fairfax to San Rafael Cross Marin Bikeway Feasibility Study</i> : Extend Class I multi-use path along Andersen Drive from Albert Park Path to Mahon Creek Connector. May require the removal of on-street motor vehicle parking on the south side of Andersen Drive, the relocation of trees and/or utility poles, and the relocation of existing center median and turn lanes.
D-13	Andersen Drive	Lindaro Street	N/A	Intersection	N/A	Conceptual	<i>Fairfax to San Rafael Cross Marin Bikeway Feasibility Study</i> : Create diagonal path through intersection to connect the Mahon Creek Connector to the Albert Park Path; create bicycle- and pedestrian-specific traffic signal phasing; improve transition between path and roadway.
D-14	Lindaro Street	Jordan Street	N/A	Intersection	N/A	Conceptual	<i>Davidson Middle School Travel Plan</i> : Add high-visibility crosswalks.
D-15	Lindaro Street	Woodland Avenue	N/A	Intersection	N/A	Conceptual	<i>Davidson Middle School Travel Plan</i> : Add curb extensions and consider removing crosswalk across north leg of intersection.
D-16	Woodland Avenue	Seibel Street	N/A	To be determined	N/A	Conceptual	<i>Safe Routes to School Task Force</i> : Study potential advanced warning/ flashing beacons on Woodland Avenue at Seibel Street.
D-17	Southern Heights Boulevard	150 feet north of Meyers Road	N/A	Walkway	0.03	Funded	Replace existing Southern Heights Bridge and add 4-foot sidewalk.
D-18	Francisco Boulevard West	Second Street	Andersen Drive	I	1.03	Partially funded	<i>SMART Draft Environmental Impact Report (2005)</i> : Extend SMART Pathway from Downtown San Rafael SMART Station to existing Cal Park Hill Pathway [part of SF Bay Trail alignment].
D-19	Andersen Drive [North/South Greenway]	Francisco Boulevard West	N/A	Intersection	N/A	Active SMART Project	<i>SMART Final Environmental Impact Report (2006)</i> : Realign Andersen Drive for at-grade rail crossing [part of SF Bay Trail alignment].
D-20	Highway 101 undercrossings		N/A	To be determined	N/A	Conceptual	<i>Canalfront Conceptual Design Plan (2009)</i> : Study potential lighting and public art at Highway 101 undercrossings at Third Street, Fourth Street, Fifth Avenue, Mission Avenue, and Linden Lane.
D-21	Puerto Suello Hill Pathway [North/South Greenway]	Pacheco Street	Merrydale Road	Walkway	N/A	Conceptual	Implement lighting improvements along the Puerto Suello Hill Pathway.
D-22	Fourth Street [North/South Greenway, Commercial Connector]	Hetherton Street	N/A	Intersection	N/A	Conceptual	Study bicycle and pedestrian intersection treatments to improve crossing.
D-23	Mission Avenue	Union Street	N/A	Intersection	N/A	Conceptual	Stripe high-visibility crosswalks at intersection of Mission Avenue and Union Street.



ID	CORRIDOR/PRIMARY	BEGIN/AT	END	CLASS/TYPE	MILES	STATUS	NOTES
D-24	Lovell Avenue	Woodland Avenue (west)	Irwin Street	Walkway	0.15	Conceptual	Construct sidewalk and curb ramps on north side of Lovell Avenue between Woodland Avenue and Anova Center for Education; refresh double yellow center line on Lovell Avenue between Woodland Avenue (west) and Jordan Street; update school warning "Assembly D" signage; extend red curb on Jordan Street in northbound and southbound directions to 22 feet north of Lovell Avenue.
D-25	Lovell Avenue	Jordan Street	N/A	Intersection	N/A	Conceptual	Reconfigure intersection to shorten crossing distance and improve sight lines.
D-26	Lovell Avenue	Irwin Street	N/A	Intersection	N/A	Conceptual	Install crosswalk, curb ramps, and school warning "Assembly D" signage.
D-27	Mission Avenue	Belle Avenue	Embarcadero Way	Sidewalk	0.25	Conceptual	Construct new sidewalk near San Rafael High School on Mission Avenue between Belle Avenue and Embarcadero Way.
D-28	Mission Avenue	Hetherton Street	N/A	Intersection	N/A	Conceptual	Study bicycle and pedestrian intersection treatments to improve crossing.
D-29	Third Street	Hetherton Street	N/A	Intersection	N/A	Conceptual	<i>Third Street and Hetherton Street Traffic Study (2018)</i> : Eliminate the left-turn pocket from Third Street onto Hetherton Street and add a leading pedestrian interval; funding available to implement changes.





# Group E

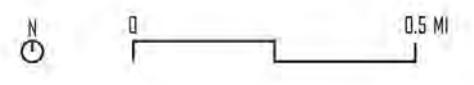
## POINT SAN PEDRO IMPROVEMENTS

Group E follows Point San Pedro Road from San Rafael High School to the east City limit. A total of 9 projects are proposed in Group E, filling in gaps and **creating greater separation** between people bicycling and people driving along Point San Pedro Road.

### GROUP E - HIGHEST PRIORITY

- E-9 **Point San Pedro Road from Balboa Avenue/ Bay Way to San Pedro Cove**  
 Study feasibility of eastbound Class IV grade-separated bikeway and northbound Class I multi-use path.  
*Score: 44/100 | Group E Rank: 1st | Overall Rank: 51st*
- E-8 **Point San Pedro Road from Main Drive to Riviera Drive**  
 Study feasibility of Class IV grade-separated bikeway in eastbound and westbound direction.  
*Score: 36/100 | Group E Rank: 2nd | Overall Rank: 61st*
- E-7 **Point San Pedro Road from Marina Boulevard to Montecito Road**  
 Study feasibility of Class IV grade-separated bikeway in eastbound and westbound directions.  
*Score: 24/100 | Group E Rank: 3rd | Overall Rank: 85th*

<b>EXISTING   PROPOSED BIKEWAYS</b>		<b>OTHER PROPOSED PROJECTS</b>	
	Multi-use Path (Class I)		To Be Determined
	Bicycle Lane (Class II)		Intersection/Undercrossing
	Bicycle Route (Class III)	<b>ACTIVITY GENERATORS</b>	
	Protected Bikeway (Class IV)		School
	San Rafael City limits		



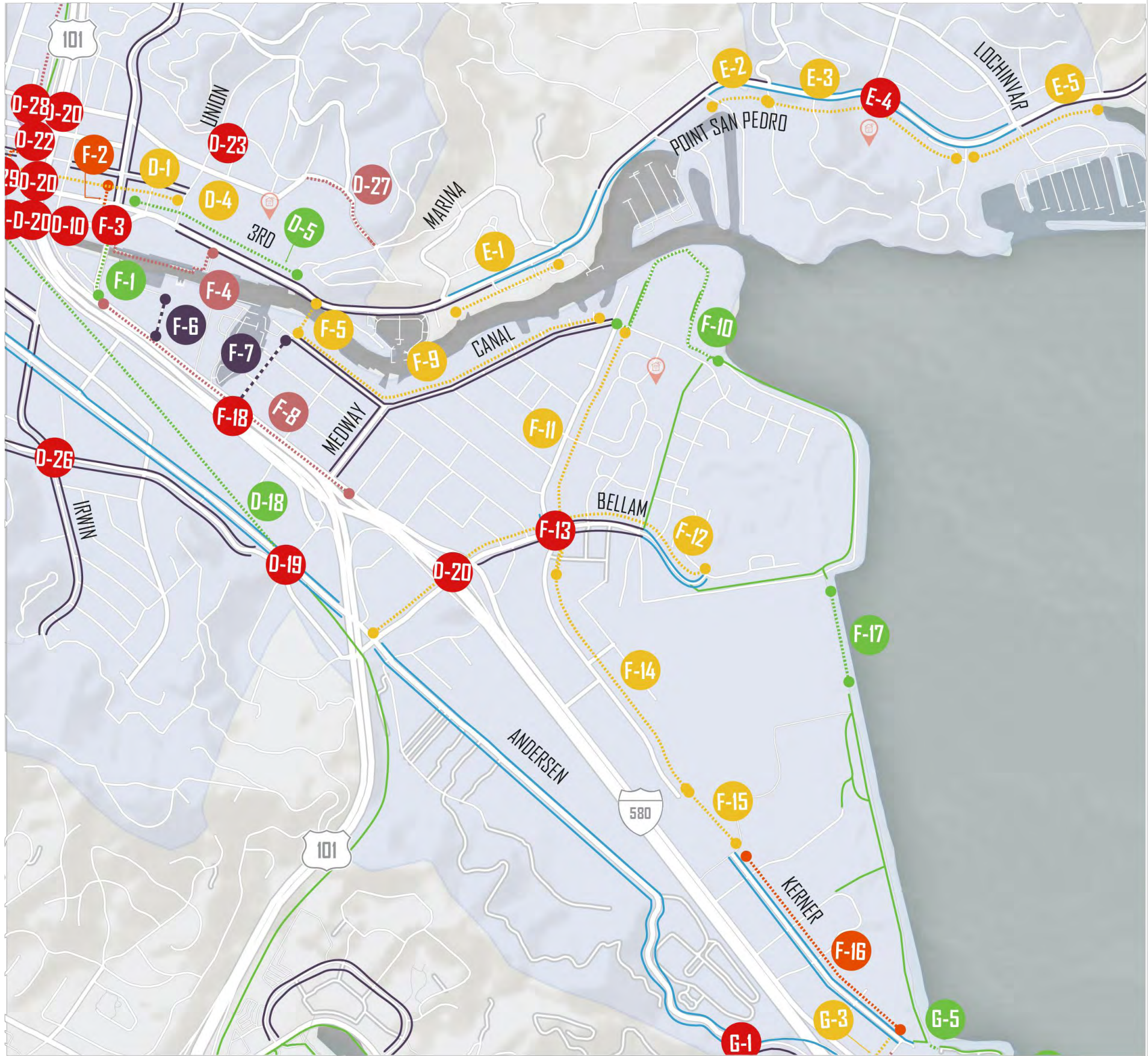
See Page 3 for descriptions of facility types and see [Appendix H](#) for full list of prioritized projects.  
 San Rafael Bicycle & Pedestrian Master Plan, 2018 Update



**Proposed Projects, Group E – Point San Pedro Improvements**

ID	CORRIDOR/PRIMARY	BEGIN/AT	END	CLASS/TYPE	MILES	STATUS	NOTES
E-1	Point San Pedro Road [Cross Marin Bikeway+]	Marina Boulevard	Montecito Road	To be determined	0.25	Conceptual	<i>The San Francisco Bay Trail Project: Gap Analysis Study (2005): Study feasibility of Class IV grade-separated bikeway in eastbound and westbound directions [part of SF Bay Trail alignment].</i>
E-2	Point San Pedro Road [Cross Marin Bikeway+]	Sea Way	Balboa Avenue/ Bay Way	To be determined	0.14	Conceptual	<i>The San Francisco Bay Trail Project: Gap Analysis Study (2005): Study feasibility of Class IV grade-separated bikeway in eastbound and westbound directions [part of SF Bay Trail alignment].</i>
E-3	Point San Pedro Road [Cross Marin Bikeway+]	Balboa Avenue/ Bay Way	San Pedro Cove	To be determined	0.45	Conceptual	<i>The San Francisco Bay Trail Project: Gap Analysis Study (2005): Study feasibility of eastbound Class IV grade-separated bikeway and northbound Class I multi-use path [part of SF Bay Trail alignment].</i>
E-4	Point San Pedro Road [Cross Marin Bikeway+]	Manderly Road	N/A	Intersection	N/A	Conceptual	<i>San Rafael Safe Routes to School Task Force: Improve bicycle and pedestrian crossing conditions [part of SF Bay Trail alignment].</i>
E-5	Point San Pedro Road [Cross Marin Bikeway+]	San Pedro Cove	Bayview Drive	To be determined	0.30	Conceptual	<i>The San Francisco Bay Trail Project: Gap Analysis Study (2005): Study feasibility of Class I multi-use path in eastbound and westbound directions [part of SF Bay Trail alignment].</i>
E-6	Point San Pedro Road [Cross Marin Bikeway+]	Knight Drive	N/A	Intersection	N/A	Conceptual	<i>Glenwood Elementary School Travel Plan: Improve bicycle and pedestrian crossing conditions with pedestrian-activated flashing beacon; potential turning radii reduction and/or bulbouts to reduce pedestrian crossing distance; and potential median refuge island [part of SF Bay Trail alignment].</i>
E-7	Point San Pedro Road [Cross Marin Bikeway+]	Main Drive	Riviera Drive	To be determined	0.65	Conceptual	<i>The San Francisco Bay Trail Project: Gap Analysis Study (2005): Study feasibility of Class IV grade-separated bikeway in eastbound and westbound directions [part of SF Bay Trail alignment].</i>
E-8	Point San Pedro Road [Cross Marin Bikeway+]	Riviera Drive	Cantera Way	To be determined	0.65	Conceptual	<i>The San Francisco Bay Trail Project: Gap Analysis Study (2005): Study feasibility of eastbound Class I multi-use path and westbound Class IV grade-separated bikeway [part of SF Bay Trail alignment].</i>
E-9	Cantera Way [Cross Marin Bikeway+]	Point San Pedro Road	North San Pedro Road	To be determined	0.61	Conceptual	<i>The San Francisco Bay Trail Project: Gap Analysis Study (2005): Study feasibility of Class I multi-use path along Cantera Way and through McNears Beach County Park [part of SF Bay Trail alignment].</i>





# Group F

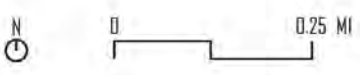
## CANAL CONNECTIONS

Group F encompasses the Canal neighborhood. A total of 19 projects are proposed in Group F, including gap closures of the **San Francisco Bay Trail**, an improved connection **under I-580**, and **connections** to downtown San Rafael.

### GROUP F - HIGHEST PRIORITY PROJECTS

- F-12 Bellam Boulevard from Andersen Drive to Baypoint Drive**  
 Study feasibility of Class IV protected bicycle facilities on Bellam Boulevard and Baypoint Village Drive corridor connecting to the San Francisco Bay Trail. Between Andersen Drive and Francisco Boulevard East, study potential for northside bikeway and widened sidewalk in conjunction with potential redevelopment Marin Square. Project is consistent with the proposed Highway 101 – I-580 flyover improvements in development by Caltrans and funded through Regional Measure 3.  
*Score: 93/100 | Group F Rank: 1st | Overall Rank: 2nd*
- F-8 Francisco Boulevard East from Grand Avenue to Vivian Street**  
 8-foot-wide sidewalk, lighting, landscaping, and drainage improvements.  
*Score: 82/100 | Group F Rank: 2nd | Overall Rank: 10th*
- F-2 Grand Avenue from Fourth Street to Second Street**  
 Study feasibility of Class IV two-way protection northbound bikeway connecting proposed Grand Avenue Bridge and proposed East-West downtown bikeway, plus bicycle intersection treatments (i.e. bike boxes).  
*Score: 80/100 | Group F Rank: 3rd | Overall Rank: 12th*

<b>EXISTING   PROPOSED BIKEWAYS</b>		<b>OTHER PROPOSED PROJECTS</b>	
	Multi-use Path (Class I)		Walkway/Sidewalk To Be Determined
	Bicycle Lane (Class II)		Intersection/Undercrossing
	Bicycle Route (Class III)		
	Bicycle Boulevard (Class III+)		<b>ACTIVITY GENERATORS</b>
	Protected Bikeway (Class IV)		School
	San Rafael City limits		Transit Hub



See Page 3 for descriptions of facility types and see [Appendix H](#) for full list of prioritized projects.  
 San Rafael Bicycle & Pedestrian Master Plan, 2018 Update



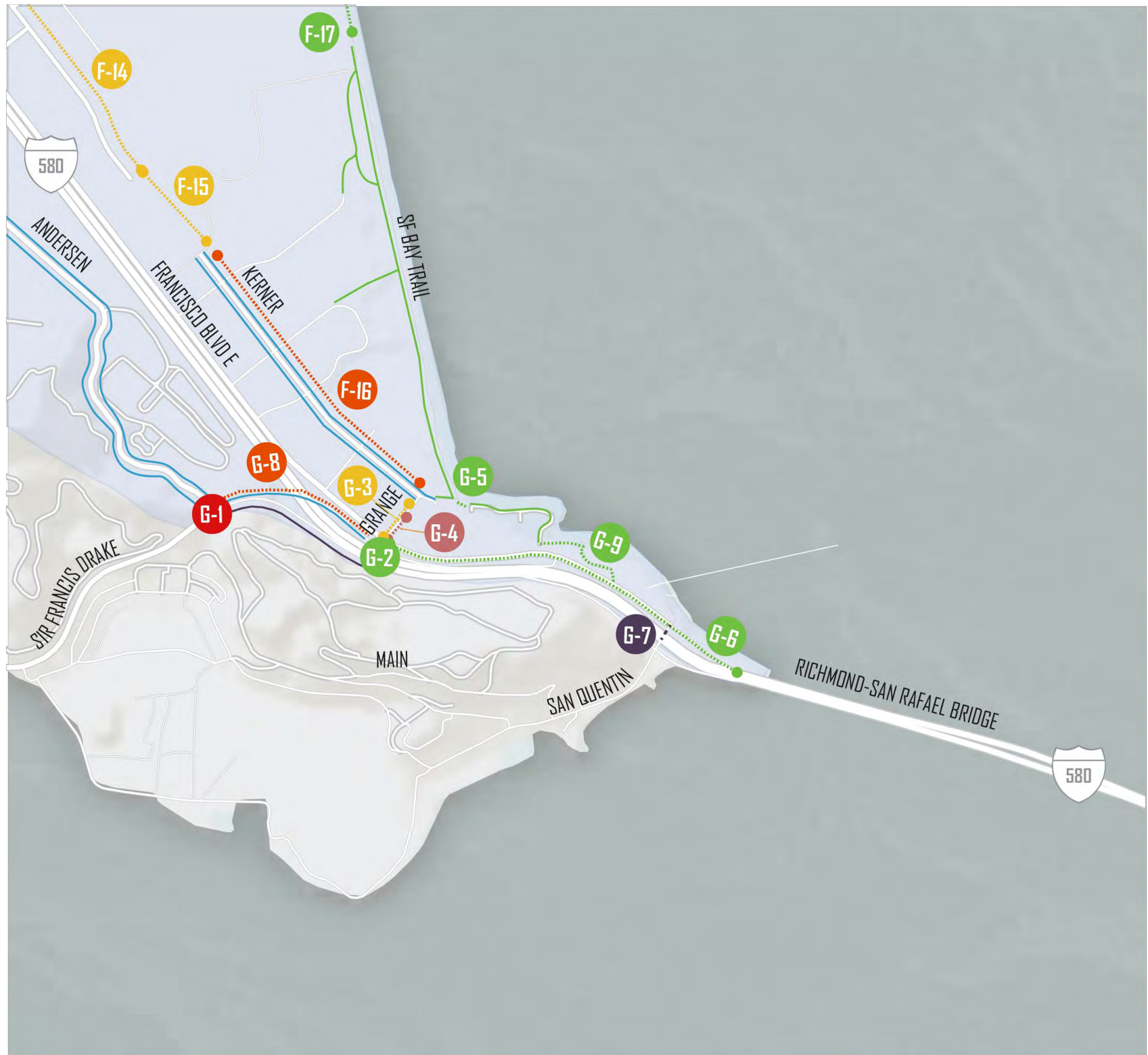
**Proposed Project, Group F – Canal Connections**

ID	CORRIDOR/PRIMARY	BEGIN/AT	END	CLASS/TYPE	MILES	STATUS	NOTES
F-1	Grand Avenue [Bridge Connector]	Francisco Boulevard East	Second Street	I	0.13	Funded	<i>Grand Avenue Improvement Project:</i> Bicycle and pedestrian bridge crossing San Rafael Canal (150 feet by 12 feet) and Class I path connecting Second Street to Francisco Boulevard East [part of SF Bay Trail alignment].
F-2	Grand Avenue [Bridge Connector]	Fourth Street	Second Street	IV	0.11	Conceptual	Study feasibility of Class IV two-way protection northbound bikeway connecting proposed Grand Avenue Bridge and proposed East-West downtown bikeway, plus bicycle intersection treatments (i.e. bike boxes) [part of SF Bay Trail alignment].
F-3	Second Street [Bridge Connector]	Grand Avenue	N/A	Intersection	N/A	Funded	<i>Grand Avenue Improvement Project:</i> Land acquisition, intersection and driveway reconfiguration, and sidewalk improvements, including curbs [part of SF Bay Trail alignment].
F-4	Montecito Plaza Waterfront Trail	Grand Avenue	Third Street	Walkway	0.28	Funded	<i>Montecito Plaza Waterfront Trail Improvements:</i> Pedestrian pathway and landscaping improvements to Montecito Plaza Waterfront Trail south of Montecito Plaza Shopping Center (also called Canal Paseo in Downtown San Rafael Station Area Plan) [part of SF Bay Trail alignment].
F-5	Canal Crossing	Mouth of Yacht Club harbor	Third Street	To be determined	0.06	Conceptual	<i>Canalfront Conceptual Design Plan (2009):</i> Study potential bicycle and pedestrian bridge over San Rafael Canal [part of SF Bay Trail alignment].
F-6	Yacht Club Drive	Francisco Boulevard East	Yacht Club Drive north terminus/ Beach Park	III	0.10	Conceptual	<i>Canalfront Conceptual Design Plan (2009):</i> Study improved bicycle access from Canal neighborhood to Beach Park via Class III bicycle route and addition of short-term bicycle parking at Beach Park; alternative route: Class I multi-use path from Grand Avenue to north terminus of Yacht Club Drive.
F-7	Harbor Street [Bridge Connector]	Francisco Boulevard East	Canal Street	III+	0.18	Conceptual	<i>San Rafael Bicycle and Pedestrian Plan (2011):</i> Create Class III bicycle boulevard on Harbor Street, incorporating bicycle pavement markings, wayfinding signage, and traffic calming elements [part of SF Bay Trail].
F-8	Francisco Boulevard East [Bridge Connector]	Grand Avenue	Vivian Street	Walkway	0.69	Designed	<i>Francisco Boulevard East Sidewalk Widening Project:</i> 8-foot-wide sidewalk, lighting, landscaping, and drainage improvements [part of SF Bay Trail alignment].
F-9	Canal Street [Bridge Connector]	Harbor Street	Pickleweed Community Center entrance	To be determined	0.80	Conceptual	Study upgrade of existing Class III bicycle route to Class III bicycle boulevard, Class II bicycle lanes (as noted in the <i>Canalfront Conceptual Design Plan</i> ), or advisory bicycle lanes [part of SF Bay Trail alignment].



ID	CORRIDOR/PRIMARY	BEGIN/AT	END	CLASS/TYPE	MILES	STATUS	NOTES
F-10	Canal Street	Sorrento Way	Schoen Park (east end)	I	0.37	Conceptual	<i>The San Francisco Bay Trail Project: Gap Analysis Study (2005):</i> Part 1 - Close gap between Class III bicycle route on Canal Street at Sorrento Way and existing Class I multi-use path at entrance to Pickleweed Park (Note: Project has environmental considerations). Part 2 - Pave existing unpaved segments of Class I multi-use Path in Pickleweed Park from northwest corner of playing field to northeast corner of playing field. Part 3 - Close gap between existing Class I multi-use path in SE corner of playing field of Pickleweed Park and the existing Class I multi-use path terminus on east end of Schoen Park [ <i>part of SF Bay Trail alignment</i> ].
F-11	Bahia Place Creek Pathway [Bridge Connector]	Canal Street	3230 Kerner Boulevard (Marin County Mental Health Services)	To be determined	0.56	Conceptual	Study feasibility of paving creek pathway parallel to Bahia Place as alternative to Kerner Boulevard bicycle and pedestrian improvements proposed in the <i>Nonmotorized Transportation Pilot Program Recommendations and Process Report (2007)</i> .
F-12	Bellam Boulevard/Baypoint Village Drive	Andersen Drive	Baypoint Drive	To be determined	0.78	Conceptual	<i>Canalfront Conceptual Design Plan (2009):</i> Study feasibility of Class IV protected bicycle facilities on Bellam Boulevard and Baypoint Village Drive corridor connecting to the San Francisco Bay Trail. Between Andersen Drive and Francisco Boulevard East, study potential for northside bikeway and widened sidewalk in conjunction with potential redevelopment Marin Square [ <i>part of SF Bay Trail alignment and Caltrans District 4 Bike Plan</i> ]. Project is consistent with the proposed Highway 101 – I-580 flyover improvements in development by Caltrans and funded through Regional Measure 3.
F-13	Bellam Boulevard [Bridge Connector]	Kerner Boulevard	N/A	Intersection	N/A	Conceptual	<i>Canalfront Conceptual Design Plan (2009):</i> Improve pedestrian conditions [ <i>part of SF Bay Trail alignment</i> ].
F-14	Kerner Boulevard [Bridge Connector]	Bellam Boulevard	Kerner Boulevard south terminus (south of Irene Street)	To be determined	0.60	Conceptual	Study feasibility of Class IV parking-protected bikeway, Class II bicycle lanes (as proposed in the 2011 <i>San Rafael Bicycle and Pedestrian Plan</i> ) or Class III bicycle route on southern segment of Kerner Boulevard as alternative to Francisco Boulevard East Class II bicycle lanes.
F-15	Kerner Boulevard Pathway [Bridge Connector]	Kerner Boulevard southern terminus (south of Irene Street)	Kerner Boulevard north terminus (north of Shoreline Parkway)	To be determined	0.20	Conceptual	Study feasibility of Class I multi-use path closing gap between segments of Kerner Boulevard as alternative to Francisco Boulevard East Class II bicycle lanes.
F-16	Kerner Boulevard [Bridge Connector]	270 feet north of Shoreline Parkway	Grange Avenue	IV	0.52	Conceptual	Study feasibility of Class IV protected bikeway on Kerner Boulevard from terminus of roadway in north (270 feet north of Shoreline Parkway) to Grange Avenue as alternative route to Francisco Boulevard East; alternative: study feasibility of Class II buffered bicycle lanes.
F-17	San Francisco Bay Trail	San Francisco Bay Trail south terminus (south of Baypoint Drive)	San Francisco Bay Trail north terminus (north of Target)	I	0.30	Conceptual	<i>The San Francisco Bay Trail Project: Gap Analysis Study (2005):</i> Close gap in existing Class I multi-use pathway [ <i>part of SF Bay Trail alignment</i> ].
F-18	Francisco Boulevard West	Canal Neighborhood	N/A	Pedestrian Overcrossing	N/A	Conceptual	Study the feasibility of a pedestrian overcrossing over Highway 101 to connect the Canal neighborhood with Francisco Boulevard West.
F-19	Canal Neighborhood	N/A	N/A	Bicycle Parking	N/A	Conceptual	Install bicycle parking in the Canal neighborhood (potential locations: Country Bowl, near apartment complexes, Mi Pueblo, Pickleweed Park, Medway Road, Marin County Health Services, and along Baypoint Village Drive).





# Group G

## EAST BAY CONNECTIONS

Group G encompasses the southern tip of San Rafael near the Richmond-San Rafael Bridge. A total of 9 projects are proposed in Group G, helping to connect the bridge to **existing bikeways** on Kerner Boulevard and segments of the **San Francisco Bay Trail** along the waterfront.

### GROUP G - HIGHEST PRIORITY

- G-6** **Francisco Boulevard East from the Richmond-San Rafael Bridge to Grange Avenue**  
 Connect funded bi-directional bicycle and pedestrian path on upper deck of Richmond-San Rafael Bridge to San Francisco Bay Trail segments in San Rafael.  
*Score: 38/100 | Group G Rank: 1st | Overall Rank: 59th*
- G-8** **Sir Francis Drake Flyover from Andersen Drive to Shoreline Park**  
 Install a concrete barrier between the travel lane and existing Class II on-street bicycle lane.  
*Score: 27/100 | Group G Rank: 2nd | Overall Rank: 77th*
- G-2** **I-580 Connector from I-580 on-ramp to Francisco Boulevard East**  
 Pave informal pathway and create transition between existing Class II bicycle lanes on the I-580 on-ramp and Francisco Boulevard East.  
*Score: 20/100 | Group G Rank: 2nd | Overall Rank: 92nd*

EXISTING   PROPOSED BIKEWAYS	OTHER PROPOSED PROJECTS
Multi-use Path (Class I)	Walkway/Sidewalk
Bicycle Lane (Class II)	To Be Determined
Bicycle Route (Class III)	Intersection/Undercrossing
Protected Bikeway (Class IV)	
San Rafael City limits	



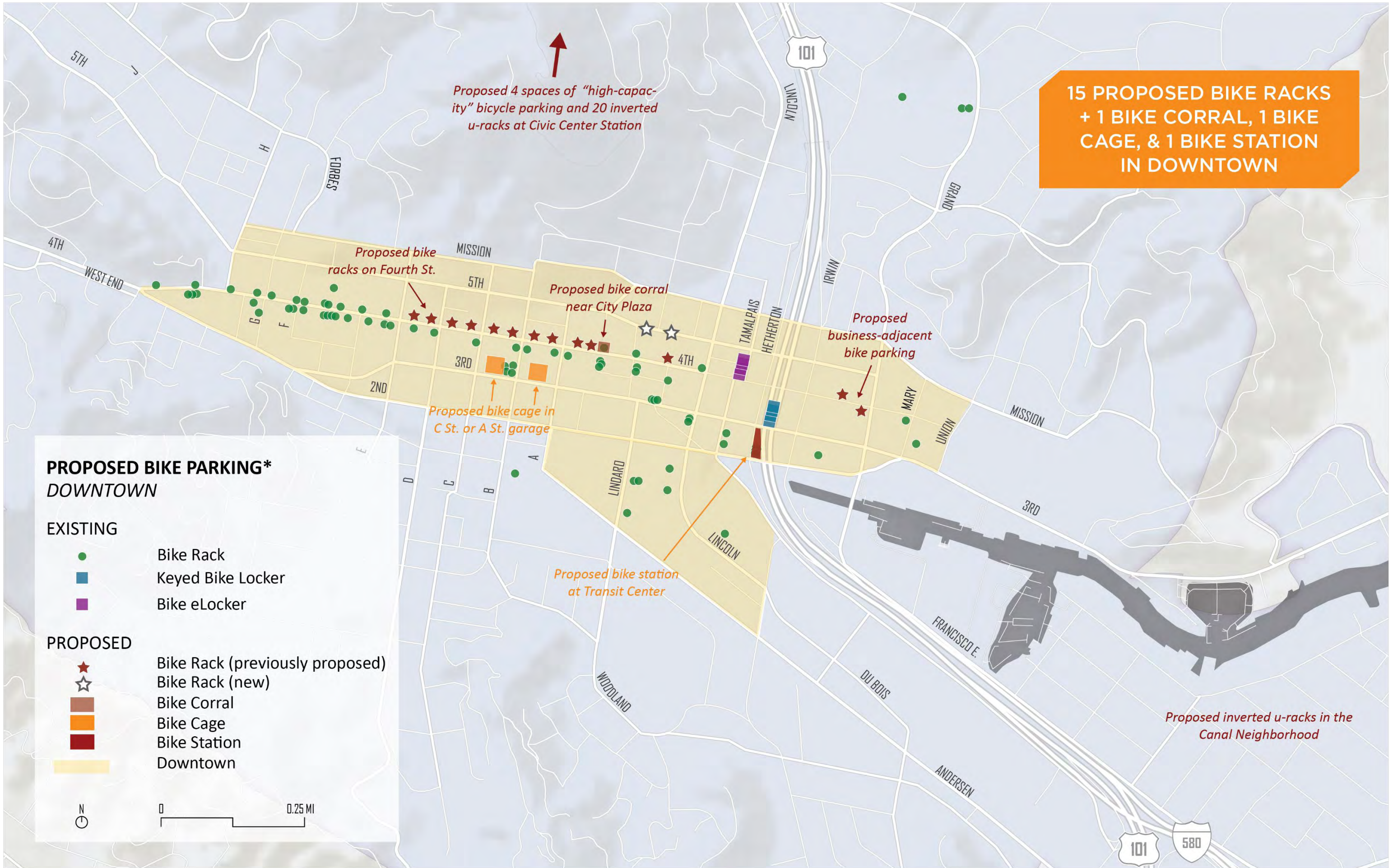
See Page 3 for descriptions of facility types and see [Appendix H](#) for full list of prioritized projects.  
 San Rafael Bicycle & Pedestrian Master Plan, 2018 Update



**Proposed Project, Group G – East Bay Connections**

ID	CORRIDOR/PRIMARY	BEGIN/AT	END	CLASS/TYPE	MILES	STATUS	NOTES
G-1	Sir Francis Drake Boulevard [Bridge Connector]	Andersen Drive	N/A	Intersection	N/A	Preliminary Design	<i>San Quentin Area Bicycle and Pedestrian Study (2011)</i> : Bicycle and pedestrian intersection improvements.
G-2	I-580 Connector [Bridge Connector]	I-580 on-ramp	Francisco Boulevard East	I	0.01	Active Caltrans Project	<i>San Quentin Area Bicycle and Pedestrian Study (2011)</i> : Pave informal pathway and create transition between existing Class II bicycle lanes on the I-580 on-ramp and Francisco Boulevard East.
G-3	Grange Avenue [Bridge Connector]	Francisco Boulevard East	Kerner Boulevard	To be determined	0.09	Conceptual	Study feasibility of Class IV protected bikeway or Class II buffered bicycle lanes between proposed Bay Trail connection and proposed Kerner Boulevard bikeway; previous proposed project from <i>San Quentin Area Bicycle and Pedestrian Study (2011)</i> included designating Grange Avenue as Class III bicycle route (pavement markings and signage).
G-4	Grange Avenue [Bridge Connector]	Francisco Boulevard East	230 feet from Piombo Place	Walkway	0.04	Conceptual	<i>San Quentin Area Bicycle and Pedestrian Study (2011)</i> : Close westbound sidewalk gap.
G-5	San Francisco Bay Trail	San Francisco Bay Trail south terminus (east of Piombo Place)	San Francisco Bay Trail north terminus (north of EAH Housing parking lot)	I	0.02	Conceptual	<i>The San Francisco Bay Trail Project: Gap Analysis Study (2005)</i> : Close gap in existing Class I multi-use pathway [part of the SF Bay Trail Alignment].
G-6	Francisco Boulevard East [Bridge Connector]	South City Limit/ Richmond-San Rafael Bridge	Grange Avenue	I	0.50	Active Caltrans Project	<i>Richmond-San Rafael Bridge Access Improvements</i> : Connect funded bi-directional bicycle and pedestrian path on upper deck of Richmond-San Rafael Bridge to San Francisco Bay Trail segments in San Rafael [part of SF Bay Trail alignment].
G-7	San Quentin Terrace [Bridge Connector]	West City Limit/ Main Street	Francisco Boulevard East	III	0.01	Active Caltrans Project	<i>San Quentin Area Bicycle and Pedestrian Study (2011)</i> : Designate Main Street as Class III bicycle route.
G-8	Sir Francis Drake Flyover	Sir Francis Drake Boulevard/ Andersen Drive	Shoreline Park	IV	0.56	Active Caltrans Project	Install a concrete barrier between the travel lane and existing Class II on-street bicycle lane.
G-9	San Francisco Bay Trail	Marin Rod & Gun Club	Shoreline Park	I	0.09	Conceptual	<i>The San Francisco Bay Trail Project: Gap Analysis Study (2005)</i> : Close gap in existing Class I multi-use pathway [part of the SF Bay Trail Alignment].





**15 PROPOSED BIKE RACKS  
+ 1 BIKE CORRAL, 1 BIKE  
CAGE, & 1 BIKE STATION  
IN DOWNTOWN**

**PROPOSED BIKE PARKING\*  
DOWNTOWN**

**EXISTING**

- Bike Rack
- Keyed Bike Locker
- Bike eLocker

**PROPOSED**

- ★ Bike Rack (previously proposed)
- ☆ Bike Rack (new)
- Bike Corral
- Bike Cage
- Bike Station
- Downtown



See Appendix I for more information; \*Downtown Parking/Wayfinding Study (2016)



**WAYFINDING OBJECTIVES:**

- HELP VISITORS NAVIGATE TO DESTINATIONS, NEIGHBORHOODS, & BUSINESS DISTRICTS
- REINFORCE CITY'S "BRAND" & COMMITMENT TO TOURISM

**PROPOSED WAYFINDING\***  
DOWNTOWN - PEDESTRIAN-LEVEL

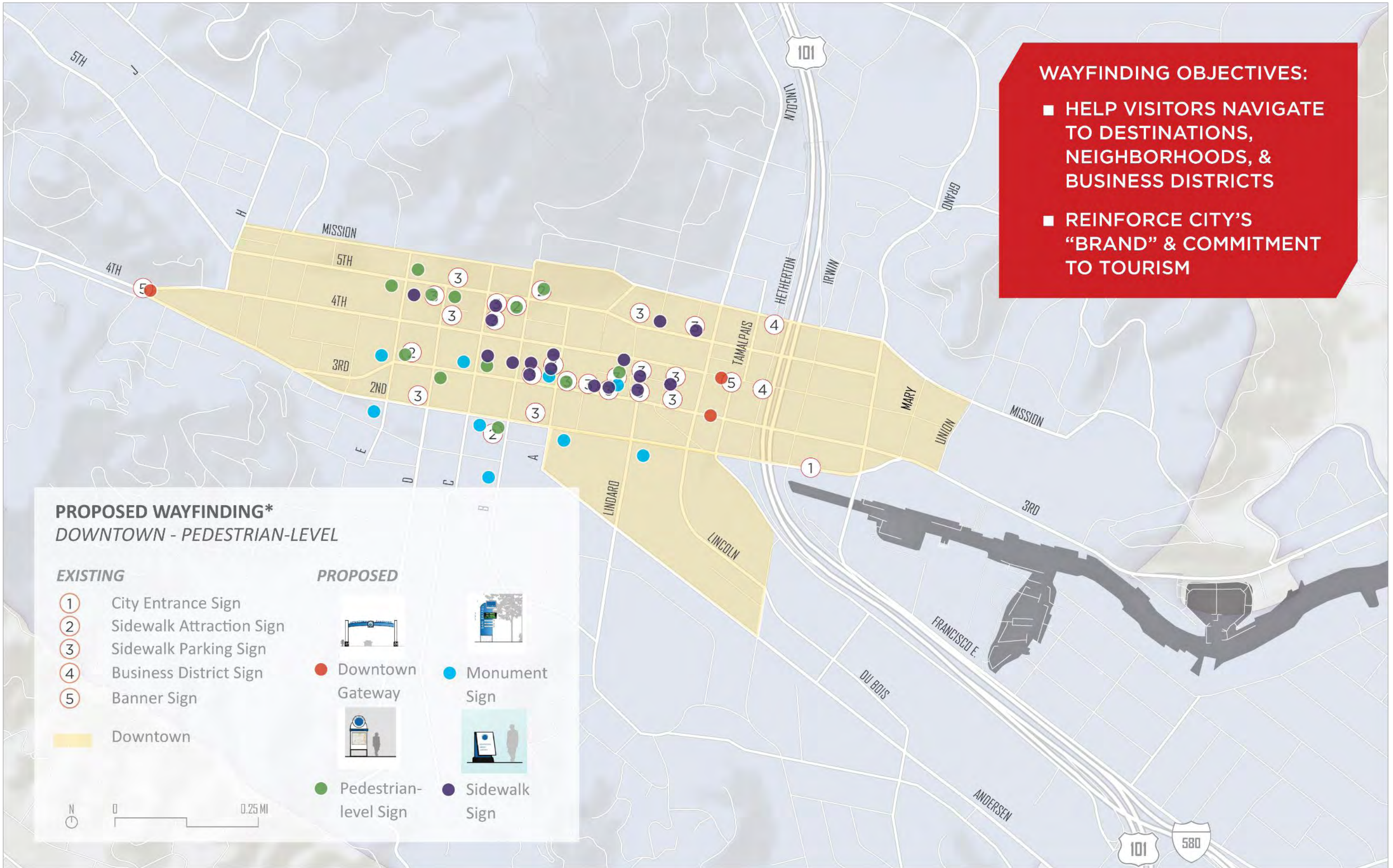
**EXISTING**

- ① City Entrance Sign
- ② Sidewalk Attraction Sign
- ③ Sidewalk Parking Sign
- ④ Business District Sign
- ⑤ Banner Sign

■ Downtown

**PROPOSED**

- Downtown Gateway
- Monument Sign
- Pedestrian-level Sign
- Sidewalk Sign



\*Downtown Parking/Wayfinding Study (2016)



# NEXT STEPS

- 58 Funding Sources
- 59 Pilot Projects
- 60 Tracking Progress

**Did you know?** 13% of Marin County residents said they were somewhat satisfied or very satisfied with the opportunities for bicycling in their community. (Nonmotorized Transportation Pilot Program Evaluation Study, 2007)

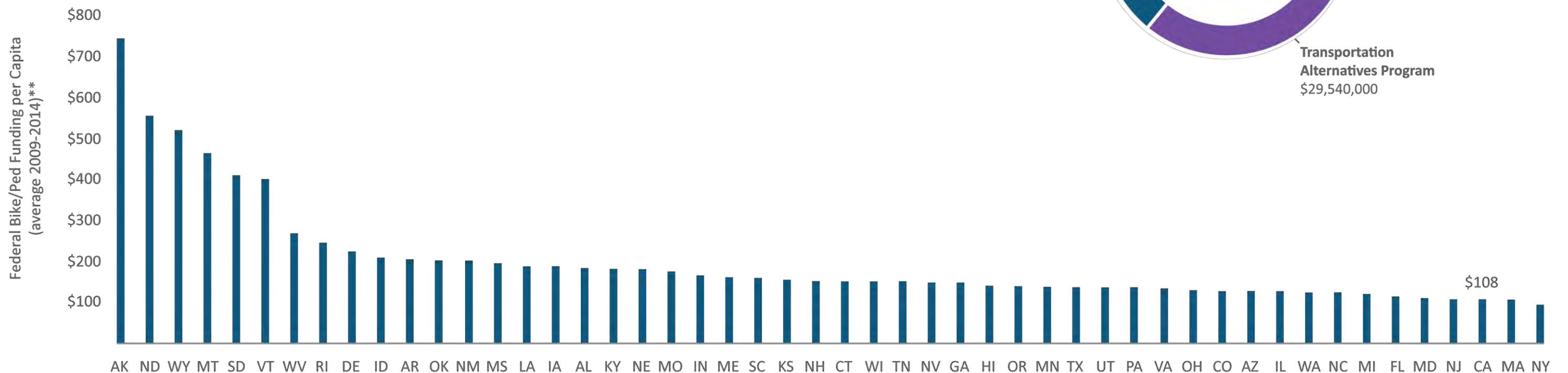
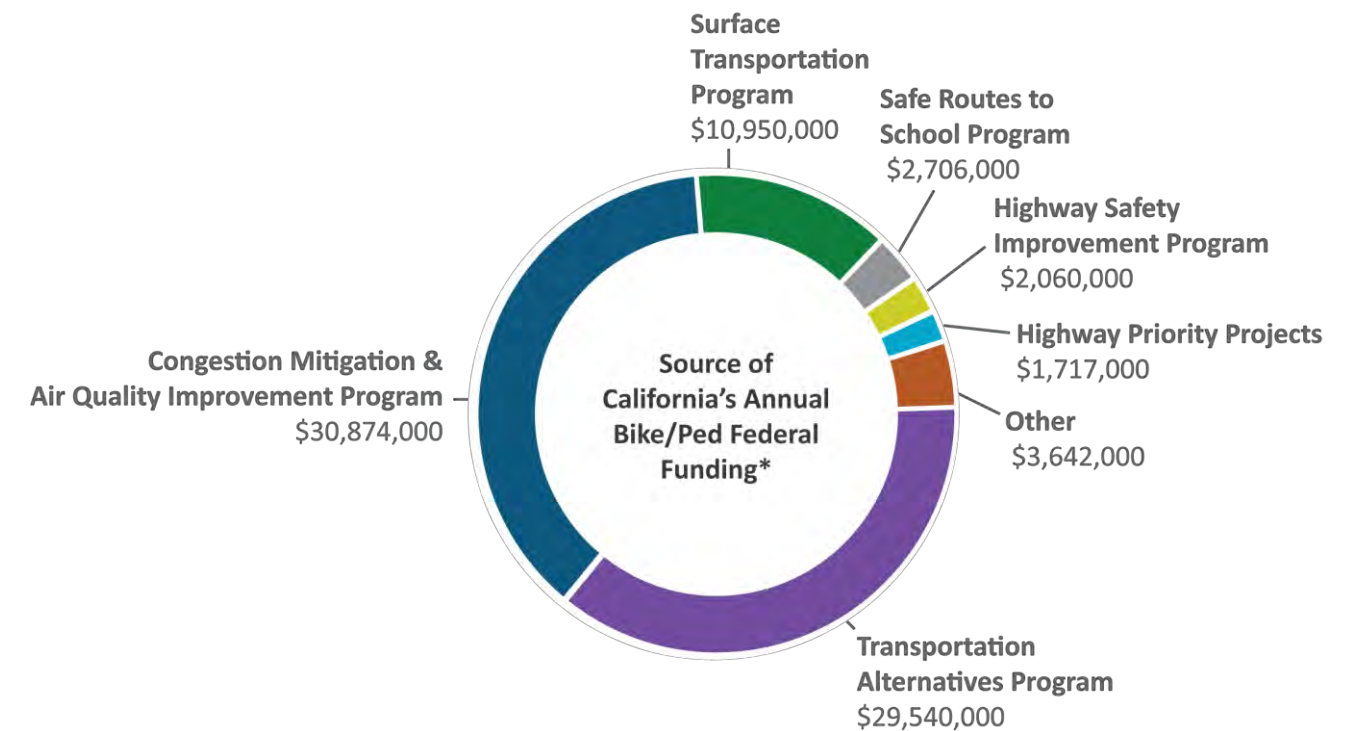


# Funding Sources

Funding for bicycle and pedestrian projects in California is competitive. The state receives the most federal funding out of any state in the country (approximately \$4 billion per year between 2009 and 2014) but ranks 48th out of all 50 states in per capita bicycle and pedestrian federal funding. The majority of federal funding for bicycle and pedestrian projects and programs in California comes from the Congestion Mitigation & Air Quality Improvement Program (38 percent) and the Transportation Alternatives Program (36 percent).

A sizable portion of state and regional funding for bicycle and pedestrian projects and programs come from the Active Transportation Program (ATP). To date, ATP has completed three funding cycles (2014, 2015, 2017) and a fourth cycle is anticipated in 2018. The City of San Rafael's Grand Avenue Bicycle and Pedestrian Bridge Project is funded partially through ATP.

For a list of available federal, state, regional, and local funding sources for bicycle and pedestrian projects, see [Appendix I](#).



\*Bicycling and Walking in the U.S. – Benchmarking Project (2016) \*\*Ibid; American Community Survey (5-year estimates)  
San Rafael Bicycle & Pedestrian Master Plan, 2018 Update



# Pilot Projects

To test the feasibility of new bicycle and pedestrian infrastructure, cities around the country have implemented pilot projects. These short-term projects allow for a city to introduce new concepts to the public, test multiple design alternatives at a single location to see which would work best, and to adjust the design on the fly to respond to feedback from the public and emergency services. Pilot projects can come in many forms, but the underlying similarities are a focus on low-cost, reversible design and materials, volunteer help and wide public engagement, and data collection on the project's effectiveness.

## Stages of a Pilot Project\*



- 1 day – 1 month
- Can be led by anyone
- Low-cost and borrowed materials
- High flexibility and easily removable

- 1 month – 1 year
- City leadership needed
- Low-cost but semi-durable materials
- Adjustable and ultimately removable
- Data collection needed

- 1 year – 5 years
- City leadership needed
- Moderate cost, durable materials
- Adjustable but feels permanent
- Data collection needed

- 5+ years
- City leadership needed
- Higher cost, permanent materials
- Permanent and not easily adjustable
- Long-term performance tracking preferred

## Project Examples

**Pilot Mid-block Crossing**  
Coalinga, CA



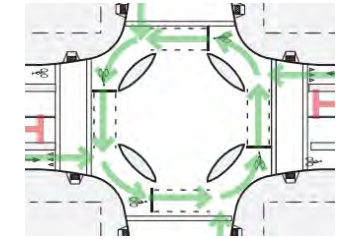
**Greenway for a Day**  
Palo Alto, CA



**Pop-up Cycletrack**  
Morgan Hill, CA



**Temporary Protected Intersection**  
Minneapolis, MN

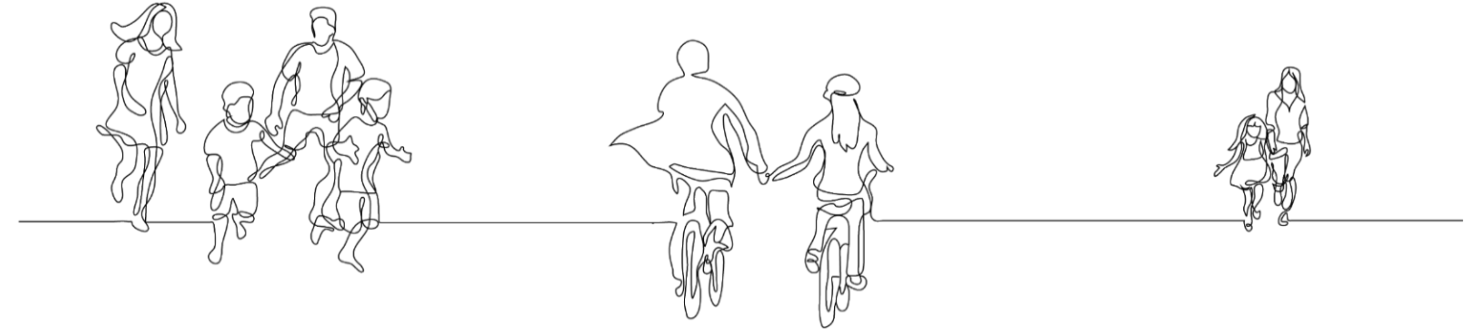


\*Based on PeopleForBikes' "Quick Builds for Better Streets" and The Street Plans Collaborative "Iterative Project Delivery"  
San Rafael Bicycle & Pedestrian Master Plan, 2018 Update



# Tracking Progress

Tracking progress towards the plan’s goals is crucial to the overall plan’s success. While goals define broad desired outcomes, tactics and objectives help define a preferred approach and the measurable steps needed to achieve them. The bi-annual format listed below is intended to coincide with bi-annual progress reports detailing the status of each strategy over the next ten years. See [Appendix J](#) for a list of the objectives in the previous plan update.



Goal	Strategies	Status Milestones				
		2020	2022	2024	2026	2028
<b>Safety</b> – Identify, prioritize, and implement bicycle- and pedestrian-related safety improvements.	1) Reduce bicycle- and pedestrian-involved collisions and eliminate all bicycle- and pedestrian-involved severe injuries and fatalities	Adopt “Vision Zero” policy of eliminating all bicycle- and pedestrian-involved severe injuries and fatalities; establish historic baseline for comparison	Reduce overall bicycle- and pedestrian-involved collisions by 10% from baseline; reduce bicycle- and pedestrian-involved severe injuries and fatalities by 20% from baseline	Reduce overall bicycle- and pedestrian-involved collisions by 20% from baseline; reduce bicycle- and pedestrian-involved severe injuries and fatalities by 40% from baseline	Reduce overall bicycle- and pedestrian-involved collisions by 30% baseline; reduce bicycle- and pedestrian-involved severe injuries and fatalities by 60% from baseline	Reduce overall bicycle- and pedestrian-involved collisions by 40% from baseline; reduce bicycle- and pedestrian-involved severe injuries and fatalities by 80% from baseline
	2) Actively identify locations with potential safety concerns based on roadway geometry and implement proven safety countermeasures to address concerns	Review and integrate findings from Marin County’s systemic safety study				
	3) Update citywide e-bike/electronic-assist bicycle policy	Review existing citywide e-bike/electronic-assist bicycle policy; review national best practices; recommend changes to citywide parking policy			N/A	N/A
	4) Develop citywide curbside management policy	N/A	Review existing curbside management policy; review national best practices; recommend changes to citywide curbside management policy			N/A
	5) Update citywide bicycle and pedestrian safety policies	Review citywide distracted driving policy; review national best practices; recommend changes to citywide policy	Review citywide sidewalk bicycling policy; review national best practices; recommend changes to citywide policy	Review citywide ‘Idaho stop/dead red’ policy; review national best practices; recommend changes to citywide policy	N/A	N/A



Goal	Strategies	Status Milestones				
		2020	2022	2024	2026	2028
<b>Connectivity</b> – Develop bicycle and pedestrian networks that connect residents and visitors to major activity and shopping centers, existing and planned transit, and schools. Work to close gaps between existing facilities.	1) Implement the proposed bicycle and pathway network	Complete 5% of proposed “major routes”, including interim connections to Richmond-San Rafael Bridge	Complete 15% of proposed “major routes”; complete 5% of proposed secondary projects	Complete 25% of proposed “major routes”; complete 10% of proposed secondary projects	Complete 35% of proposed “major routes”; complete 15% of proposed secondary projects	Complete 45% of proposed “major routes”; complete 20% of proposed secondary projects
	2) Implement proposed crossing, lighting, traffic calming, and pedestrian projects	Review and adjust downtown pedestrian signal timing; implement 2 pedestrian safety projects	Implement 2 additional pedestrian safety projects; implement interim Highway 101 undercrossing measures	Implement 2 additional pedestrian safety projects	Implement 2 additional pedestrian safety projects	Implement 2 additional pedestrian safety projects
	3) Conduct project feasibility studies for potential project implementation	Begin feasibility study of downtown “Commercial Connector”; complete study of uncontrolled crosswalks (ongoing)	Complete feasibility study of downtown “Commercial Connector”; Begin feasibility study of Bellam Boulevard	Complete feasibility study of Bellam Boulevard; begin feasibility study of Kerner Boulevard/Bahia Place Creek Pathway	Complete feasibility study of Kerner Boulevard/Bahia Place Creek Pathway; begin feasibility study of Montecillo Road	Complete feasibility study of Montecillo Road; begin feasibility study of Pt. San Pedro Road
	4) Implement demonstration and pilot projects	Complete demonstration project of Class IV protected bikeway; begin pilot project of Richmond-San Rafael bridge connection, including kick-off event	Begin pilot project of Class IV protected bikeway; complete pilot project of Richmond-San Rafael bridge; complete demonstration project of protected intersection	Complete pilot project of Class IV protected bikeway; begin pilot project of protected intersection	Complete pilot project of protected intersection; complete demonstration project of protected bicycle signal phasing	Begin pilot project of protected bicycle signal phasing
	5) Implement proposed bicycle parking	Complete feasibility study of bicycle parking at SMART stations, including review of utilization at Transit Center; create citywide inventory of bicycle parking facilities; implement 25% of proposed short-term bicycle parking in downtown; establish online bicycle parking request system	Implement interim long-term bicycle parking strategies at SMART stations; implement 50% of proposed short-term bicycle parking in downtown; update citywide inventory of bicycle parking facilities	Evaluate effectiveness of interim long-term bicycle parking at SMART stations; implement 75% of proposed short-term bicycle parking in downtown; update citywide inventory of bicycle parking facilities	Implement permanent long-term bicycle parking strategy at SMART stations; implement 100% of proposed short-term bicycle parking in downtown; update citywide inventory of bicycle parking facilities	Conduct downtown bicycle parking utilization study; review online bicycle parking requests and integrate into plan update
	6) Update citywide parking policy	Review existing citywide motor vehicle and bicycle parking policy; review national best practices; recommend changes to citywide parking policy			N/A	N/A
	7) Implement and maintain bicycle and pedestrian wayfinding	Implement proposed pedestrian-level signage (12 signs)	Implement proposed monument signage (9 signs); inventory bicycle wayfinding signage	Implement proposed sidewalk signage (17 signs)	Implement downtown gateway signage (3 signs)	Update inventory of bicycle wayfinding signage



Goal	Strategies	Status Milestones				
		2020	2022	2024	2026	2028
<b>Coordination –</b> Work with other jurisdictions, transit agencies, and stakeholders to implement projects that reflect changing needs at the local and regional levels, including Complete Street, environmental, and transit projects.	1) Conduct regular progress reports and updates of plan	Develop progress report format; complete 2-year progress report documenting status of all plan objectives; present report to City Council	Complete 4-year progress report documenting status of all plan objectives; present report to City Council	Complete 6-year progress report documenting status of all plan objectives; present report to City Council	Complete 8-year progress report documenting status of all plan objectives; present report to City Council	Complete full update of plan; update plan goals, strategies, and objectives
	2) Support the Bicycle and Pedestrian Advisory Committee (BPAC)	Dedicate staff time to attending all BPAC meetings; provide meeting space for the BPAC; solicit feedback from the BPAC on planned and proposed bicycle and pedestrian projects, programs, and policies in a timely manner ahead of implementation; and maintain database of BPAC meeting agendas and notes on the City’s website				
	3) Maintain bicycle- and pedestrian-related webpages on the City’s website	Continue to document all ongoing bicycle- and pedestrian-related projects on the City website, including the posting bi-annual progress reports and collecting a database of reported bicycle- and pedestrian-related issues through the online “Report an Issue” feature for inclusion within the bi-annual progress reports				
	4) Support the Transportation Authority of Marin (TAM) in implementation of a bikeshare program	Adopt policy to require data sharing from all bikeshare providers; support implementation of bikeshare program’s Phase 1 (Bellam, Downtown, and Transit Center)	Evaluate bikeshare program effectiveness; support implementation of bikeshare program’s Phase 2 (Pickleweed Park, Fourth Street, Dominican University, Civic Center, Civic Center SMART Station, Northgate Shopping Center)	Complete bi-annual evaluations of bikeshare program’s effectiveness; support implementation of bikeshare program’s Phase 3 (Kaiser campus, Redwood Highway Business Park, Marinwood Community)		



Goal	Strategies	Status Milestones				
		2020	2022	2024	2026	2028
<b>Universal Design</b> – Design and construct facilities that encourage bicycling and walking among people of all ages and abilities, including children, seniors, families, and people with limited mobility. Work to match project designs with the residents they are intended to serve.	1) Maintain bicycle and pedestrian facilities	Undertake routine maintenance of bicycle and pedestrian facilities, such as sweeping and restriping bikeways, trimming vegetation, and resurfacing pathways and sidewalks				
	2) Track residents’ and visitors’ perceptions of the existing bicycle network	N/A	Develop bicycle user satisfaction survey instrument; collect baseline survey responses	N/A	Collect second round of bicycle user satisfaction survey responses	N/A
	3) Use the latest best practices and design guidelines and seek to make improvements to existing bicycle and pedestrian facilities with improved bicycle detection at signalized intersections and enhanced treatments at street crossings.	Continue to construct bicycle and pedestrian facilities according to the most up-to-date local, state, and national best practices and design guidelines				

Goal	Strategies	Status Milestones				
		2020	2022	2024	2026	2028
<b>Programs</b> – Support bicycling and walking for all ages and abilities by providing educational and encouragement programs.	1) Create and maintain database of bicycle and pedestrian counts	Develop citywide bicycle and pedestrian data collection plan (including temporary and permanent counters); coordinate with regional data collection efforts by TAM and MTC; establish baseline counts; make count data publicly accessible	Continue to conduct bicycle and pedestrian counts; increase usage 5% over baseline counts; increase commute bicycle and pedestrian mode share by 0.25% over baseline	Continue to conduct bicycle and pedestrian counts; increase usage 10% over baseline counts; increase commute bicycle and pedestrian mode share by 0.50% over baseline	Continue to conduct bicycle and pedestrian counts; increase usage 15% over baseline counts; increase commute bicycle and pedestrian mode share by 0.75% over baseline	Continue to conduct bicycle and pedestrian counts; increase usage 20% over baseline counts; increase commute bicycle and pedestrian mode share by 1.00% over baseline
	2) Support Safe Routes to Schools (SR2S) programming and task forces	Maintain or increase school participation; increase average SR2S “report card” score of participating schools to 70 out of 100	Maintain or increase school participation; increase average SR2S “report card” score of participating schools to 75 out of 100	Maintain or increase school participation; increase average SR2S “report card” score of participating schools to 80 out of 100	Maintain or increase school participation; increase average SR2S “report card” score of participating schools to 82 out of 100	Maintain or increase school participation; increase average SR2S “report card” score of participating schools to 84 out of 100
	3) Pursue regional, state, and federal funding for bicycle and pedestrian projects, programs, and policy support	Track funding dedicated to bicycle and pedestrian projects, bicycle and pedestrian-related project components, and staff dedicated to bicycle and pedestrian projects and related coordination				
	4) Conduct targeted enforcement to encourage compliance with traffic safety laws	Complete quarterly multimodal enforcement and encouragement at collision hot spots	Complete monthly multimodal enforcement and encouragement at collision hot spots		Complete bi-weekly multimodal enforcement and encouragement at collision hot spots	