Part A

ACTIVE TRANSPORTATION PROGRAM - CYCLE 2

Application Form for Part A

Parts B & C must be completed using a separate document

PROJECT unique APPLICATION NO.: 05-Santa Cruz County Regional Transportation Commission-1

Auto populated

Total ATP Funds Requested: $ 320 (in 1000s)

Auto populated

Important: Applicants must follow the CTC Guidelines and Chapter 22 of the Local Assistance Program Guidelines, and include attachments and signatures as required in those documents. Ineligible project elements may result in a lower score/ranking or a lower level of ATP funding. Incomplete applications may be disqualified.

Applicants are expected to use the corresponding "step-by-step" Application Instructions and Guidance to complete the application (3 Parts):

Part A: General Project Information
Part B: Narrative Questions
Part C: Application Attachments

Application Part A: General Project Information

Implementing Agency: This agency must enter into a Master Agreement with Caltrans and will be financially and contractually responsible for the delivery of the project within all pertinent Federal and State funding requirements, including being responsible and accountable for the use and expenditure of program funds. This agency is responsible for the accuracy of the technical information provided in the application and is required to sign the application.

IMPLEMENTING AGENCY'S NAME:

Santa Cruz County Regional Transportation Commission

IMPLEMENTING AGENCY'S ADDRESS	CITY		ZIP CODE
1523 Pacific Avenue	Santa Cruz	CA	95060-3911

IMPLEMENTING AGENCY'S CONTACT PERSON: Kim Shultz

CONTACT PERSON'S TITLE: Senior Transportation Planner

CONTACT PERSON'S PHONE NUMBER: (831) 460-3200

CONTACT PERSON'S EMAIL ADDRESS : kshultz@sccrtc.org

Project Partnering Agency: Entities that are unable to apply for Active Transportation Program funds or that are unable to enter into a Master Agreement with the State must partner with an eligible applicant that can implement the project. **In addition, entities that are unfamiliar with the requirements to administer a Federal-Aid Highway Program project may partner with an eligible applicant that can implement the project.**

If another entity (Partnering Agency) agrees to assume responsibility for the ongoing operations and maintenance of the facility, documentation of the agreement (e.g., letter of intent) must be submitted with the project application, and a copy of the Memorandum of Understanding or Interagency Agreement between the parties must be submitted with the first request for allocation. For these projects, the Project Partnering Agency's information shall be provided below.

(The Grant Writer's or Preparer's information should not be provided)

PROJECT PARTNERING AGENCY'S NAME:

NA

PROJECT PARTNERING AGENCY'S ADDRESS	CITY		ZIP CODE
		CA	

PROJECT PARTNERING AGENCY'S CONTACT PERSON:

CONTACT PERSON'S TITLE:

CONTACT PERSON'S PHONE NUMBER:

CONTACT PERSON'S EMAIL ADDRESS :

MASTER AGREEMENTS (MAs):

Does the Implementing Agency currently have a MA with Caltrans?	☒ Yes ☐ No
Implementing Agency's Federal Caltrans MS number	05-6149
Implementing Agency's State Caltrans MS number	74A0141

* Implementing Agencies that do not currently have a MA with Caltrans, must be able to meet the requirements and enter into an MA with Caltrans prior to funds allocation. The MA approval process can take 6 to 12 months to complete and there is no guarantee the agency will meet the requirements necessary for the State to enter into a MA with the agency. Delays could also result in a failure to meeting the CTC Allocation timeline requirements and the loss of ATP funding.

PROJECT NAME: (To be used in the CTC project list)

Santa Cruz Countywide Bicycle Route Signage Project

Application Number: 1 **out of** 1 **Applications**

PROJECT DESCRIPTION: (Max of 250 Characters)

The project will install approximately 875 directional signs to promote preferred cycling routes and motorist's awareness of shared roadway, evaluate the project's effectiveness in increasing bicycle use and safety, and public outreach.

PROJECT LOCATION: (Max of 250 Characters)

The Countywide Bicycle Route Signage Project spans the entire county with the majority of the 102 miles of preferred neighborhood, local, and regional bicycle routes serving the urbanized areas of the county.

Will any infrastructure-improvements permanently or temporarily encroach on the State right-of-way? ☐ Yes ☒ No

If yes, see the application instructions for more details on the required coordination and documentation.

Project Coordinates: (latitude/longitude in decimal format) Lat. 36.978403 /long. -122.020840

Congressional District(s):	18	20					
State Senate District(s):	17			**State Assembly District(s):**	29	30	
Caltrans District(s):	05						
County:	Santa Cruz County						
MPO:	AMBAG						
RTPA:	SCRTPA						
MPO UZA Population:	Small Urban (Pop =or<200,000 but > than 5,000)						

ADDITONAL PROJECT GENERAL DETAILS: (Must be consistent with Part B of Application)

ESTIMATION OF ACTIVE TRANSPORTATION USERS

Existing Counts:	**Pedestrians**	100,635	**Bicyclists**	30,191
One Year Projection:	**Pedestrians**	100,892	**Bicyclists**	35,639
Five Year Projection:	**Pedestrians**	101,918	**Bicyclists**	36,917

BICYCLE AND/OR PEDESTRIAIN INFRASTRUCTURE (Check all that apply)

Bicycle:	**Class I**	☒	**Class II**	☒	**Class III**	☒	**Other** Directional Signage
Pedestrian:			**Sidewalk**	☐	**Crossing**	☐	**Other**
Multiuse Trails/Paths:			**Meets "Class I" Design Standards**			☒	**Other**

DISADVANTAGED COMMUNITIES

Project contributes toward the Disadvantaged Communities funding requirement: the project must clearly demonstrate a direct, meaningful, and assured benefit to a community that meets any of the following criteria: ☒ Yes ☐ No

If yes, which criterion does the project meet in regards to the Disadvantaged Community (mark all that apply):

Household Income	☒ Yes	☐ No	**CalEnvioScreen**	☐ Yes	☐ No
Student Meals	☒ Yes	☐ No	**Local Criteria**	☒ Yes	☐ No

Is the majority of the project physically located within the limits of a Disadvantaged Community: ☐ Yes ☒ No

CORPS

Does the agency intend to utilize the Corps: ☐ Yes ☒ No

PROJECT TYPE (Check only one: I, NI or I/NI)

Infrastructure (I) ☐ **OR Non-Infrastructure (NI)** ☐ **OR Combination (N/NI)** ☒

"Plan" applications to show as NI only

Development of a Plan in a Disadvantaged Community: ☐ Yes ☒ No

If Yes, check all Plan types that apply**:**

☐ **Bicycle Plan**

☐ **Pedestrian Plan**

☐ **Safe Routes to School Plan**

☐ **Active Transportation Plan**

Indicate any of the following plans that your agency currently has: (Check all that apply)

Bicycle Plan ☒ Pedestrian Plan ☐ Safe Routes to School Plan ☐ Active Transportation Plan ☐

PROJECT SUB-TYPE (check all Project Sub-Types that apply)**:**

☒ **Bicycle Transportation** **% of Project** 100.0 % (ped + bike must = 100%)

☐ **Pedestrian Transportation** **% of Project** _____ %

☐ **Safe Routes to School** *(Also fill out Bicycle and Pedestrian Sub-Type information above)*

How many schools does the project impact/serve: _____

If the project involves more than one school: 1) Insert "Multiple Schools" in the School Name, School Address, and distance from school; 2) Fill in the student information based on the total project; and 3) Include an attachment to the application which clearly summarizes the following school information and the school official signature and person to contact for each school.

School name: _____

School address: _____

District name: _____

District address: _____

Co.-Dist.-School Code: _____

School type (K-8 or 9-12 or Both) ☐ Project improvements maximum distance from school _____ mile

Total student enrollment: _____

% of students that currently walk or bike to school% _____ %

Approx. # of students living along route proposed for improvement: _____

Percentage of students eligible for free or reduced meal programs ** _____ %

**Refer to the California Department of Education website: http://www.cde.ca.gov/ds/sh/cw/filesafdc.asp

A map must be attached to the application which clearly shows the limits of: 1) the student enrollment area, 2) the students considered to be along the walking route being improved, 3) the project improvements.

☐ **Trails (Multi-use and Recreational):** *(Also fill out Bicycle and Pedestrian Sub-Type information above)*

Trails Projects constructing multi-purpose trails and are generally eligible in the Active Transportation Program. If the applicant believes all or part of their project meets the federal requirements of the Recreational Trails Program they are encouraged to seek a determination from the California Department of Parks and Recreation on the eligibility of their project to complete for this funding. This is optional but recommended because some trails projects may compete well under this funding program.

For all trails projects:

Do you feel a portion of your project is eligible for federal Recreational Trail funding? ☐ Yes ☒ No

If yes, estimate the total projects costs that are eligible for the Recreational Trail funding: _____

If yes, estimate the % of the total project costs that serve "transportation" uses? _____ %

Applicants intending to pursue "Recreational Trails Program funding" **must submit** the required information to the California Department of Parks and Recreation prior to the ATP application submissions deadline. (See the Application Instructions for details)

PROJECT STATUS and EXPECTED DELIVERY SCHEDULE

Applicants need to enter **either** the date the milestone was completed (for all milestones already complete prior to submitting the application) **or** the date the applicant anticipates completing the milestone. Applicants should enter "N/A" for all CTC Allocations that will not be requested as part of the project. Per CTC Guidelines, all project applications must be submitted with the expectation of receiving partially federally funded and therefore the schedule below must account for the extra time needed for federal project delivery requirements and approvals. *See the application instructions for more details.*

The agency is responsible for meeting all CTC delivery requirements or their ATP funding will be forfeited.
For projects consisting of entirely non-infrastructure elements are not required to complete all standard infrastructure project milestones listed below. Non-infrastructure projects only have to provide dates for the milestones identified with a " * " and can provide "N/A" for the rest.

MILESTONE:	DATE COMPLETED	OR	EXPECTED DATE
CTC - PA&ED Allocation:			7-15-16
* CEQA Environmental Clearance:			8-15-16
* NEPA Environmental Clearance:			9-1-16
CTC - PS&E Allocation:			10-15-16
CTC - Right of Way Allocation:			N/A
* Right of Way Clearance & Permits:			N/A
Final/Stamped PS&E package:			3-15-17
*** CTC - Construction Allocation:**			5-1-17
* Construction Complete:			10-30-17
* Submittal of "Final Report"			3-1-18

PROJECT FUNDING (in 1000s)

Per CTC Guidelines, Local Matching funds are not required for any ATP projects, but Local Leveraging funds are strongly encouraged.

See the Application instructions for more details and requirements relating to ATP funding.

ATP funds being requested for this application/project by project delivery phase:

ATP funds for PA&D:	$3	
ATP funds for PS&E:	$42	
ATP funds for Right of Way:	$0	
ATP funds for Construction:	$255	
ATP funds for Non-Infrastructure:	$20	*(All NI funding is allocated in a project's Construction Phase)*

Total ATP funds being requested for this application/project: $320

Local funds leveraging or matching the ATP funds: $50

For local funding to be considered Leveraging/Matching it must be for ATP eligible activities and costs.
Per CTC Guidelines, Local Matching funds are not required for any ATP projects, but Local Leveraging funds are strongly encouraged. See the Application instructions for more details and requirements relating to ATP funding.

Additional Local funds that are `non-participating' for ATP: $0

These are local funds required for the overall project, but not for ATP eligible activities and costs. They are not considered leverage/match.

TOTAL PROJECT FUNDS: $370

ATP - FUNDING TYPE REQUESTED:

Per the CTC Guidelines, All ATP projects must be eligible to receive federal funding. Most ATP projects will receive federal funding, however some projects may be granted State only funding (SOF) for all or part of the project.

Do you believe your project warrants receiving state-only funding? ☒ Yes ☐ No

If "Yes", provide a brief explanation. (Max of 250 characters) Applicants requesting SOF must also attach an "Exhibit 22-f"

This is a comparably small value project and unique aspect of project delivery (signage in several locations potentially with local agency for, as compared to construction at a specific location) it does not fit easily into the federal-aid process.

ATP PROJECT PROGRAMMING REQUEST (PPR): In addition to the project funding information provided in Part A of the application, all applicants must complete the ATP Project Programming Request form and include it as Attachment B. More information and guidance on the completion and submittal of this form is located in the Application Instructions Document under Part C - Attachment B.

Part B

ACTIVE TRANSPORTATION PROGRAM - CYCLE 2

Part B: Narrative Questions

(Application Screening/Scoring)

Project unique application No.:

05-SANTA CRUZ COUNTY REGIONAL TRANSPORTATION COMMISSION-1

Implementing Agency's Name:

SANTA CRUZ COUNTY REGIONAL TRANSPORTATION COMMISSION

Important:

- *Applicants must ensure all data in Part B of the application is fully consistent with Part A and C.*
- *Applicants must follow all instructions and guidance to have a chance at receiving full points for the narrative question and to avoid flaws in the application which could result in disqualification.*

Table of Contents

Screening Criteria **Page: 2**
Narrative Question #1 **Page: 4**
Narrative Question #2 **Page: 7**
Narrative Question #3 **Page: 11**
Narrative Question #4 **Page: 14**
Narrative Question #5 **Page: 16**
Narrative Question #6 **Page: 19**
Narrative Question #7 **Page: 21**
Narrative Question #8 **Page: 22**
Narrative Question #9 **Page: 23**

Part B: Narrative Questions
Detailed Instructions for: Screening Criteria

The following Screening Criteria are requirements for applications to be considered for ATP funding. Failure to demonstrate a project meets these criteria will result is the disqualification of the application.

1. Demonstrated fiscal needs of the applicant:

As an aspiring self-help county constrained discretionary funds are largely directed towards operation and maintenance needs of local and regional facilities. The SCCRTC programmed $100,000 in 2009 for development of the Santa Cruz County Bicycle Route Signage Program. Staff has been working on this project over the years with local jurisdictions, and stakeholders to create an implementation plan that was adopted by the SCCRTC in May 2015. The SCCRTC programmed $50,000 in the FY 2015 budget with the intent of leveraging these local matching funds to an ATP grant given the regions constrained funding sources. Development of the preferred program in an incremental manner, as funding allows, has been shown to not be as effective as implementing a comprehensive countywide system.

2. Consistency with Regional Plan.

The Countwide Route Signage Program is included in the 2014 Regional Transportation Plan (RTP) adopted in June 2014. The Santa Cruz Regional Transportation Commission (SCCRTC) includes a sustainability framework using the Sustainable Transportation Analysis and Rating System (STARS) to identify system goals and policies, and evaluate projects and programs for inclusion in the constrained list of RTP projects. The Countywide Bicycle Route Signage Program (Signage Program) was found to advance RTP goals, including: Goal 1, “Improve people’s access to jobs, schools, health care and other needs in ways that improve health,

reduce pollution, and retain money in the local economy"; and, Goal 2, "Reduce transportation related fatalities and injuries for all transportation modes." A performance indicator within the 2014 RTP identified as the Multimodal Network Quality measure indicated the Signage Program would achieve the goal of "improving multimodal level of service for walk and bicycle trips to and within key destinations."

Part B: Narrative Questions
Detailed Instructions for: Question #1

QUESTION #1

POTENTIAL FOR INCREASED WALKING AND BICYCLING, ESPECIALLY AMONG STUDENTS, INCLUDING THE IDENTIFICATION OF WALKING AND BICYCLING ROUTES TO AND FROM SCHOOLS, TRANSIT FACILITIES, COMMUNITY CENTERS, EMPLOYMENT CENTERS, AND OTHER DESTINATIONS; AND INCLUDING INCREASING AND IMPROVING CONNECTIVITY AND MOBILITY OF NON-MOTORIZED USERS. ***(0-30 POINTS)***

A. Describe the following:

-Current and projected types and numbers/rates of users. (12 points max.)

The Bicycle Route Signage Program will increase bicycling by residents and visitors by providing information about route options and distances, directing bicyclists to the most direct and safe routes to common destinations, and increasing visibility of bicyclists. Commuters, youth/students, and recreational users traveling to employment centers, schools, commercial areas, parks, and other destinations will benefit from this project. There are 47 schools within one quarter mile of the bike signage routes. Bike signage is especially helpful to new bicyclists. The total number of all bike trips are expected to increase by 18% or 5448 new bike trips one year after project completion. The existing number of bike trips in Santa Cruz County is 30,191 bike trips per day based on data from the California Household Community Survey data for Santa Cruz County (3.3% of ALL trips assuming a county population of 271,804 and an average number of total trips per person per day of 3.37). This increase in trips translates to an increase in bicycle mode share from 3.3% to 3.9% after the bike signage project is implemented. For additional details see Attachment I-1.

In addition, there will likely be additional bike trips from visitors to Santa Cruz County as they will benefit greatly from clear signage of bike routes due to less familiarity to the area. Pedestrian trips will also likely increase as walkers will also gain benefit from signage showing direction and distances to popular destinations.

For the non-infrastructure part of the project, public outreach will be conducted to inform the community of the signage project. Emphasis will be on informing the community of the many existing bicycle facilities that are available throughout Santa Cruz County and on education of motorist and bicyclists on sharing the road. Bicycle counts will be conducted before and after sign installation and public outreach in order to assess the number of new bicyclists resulting from this project. Bicycle

counts consist of counting the number of people on bicycles passing a given spot at a point in time and determining the changes over time.

B. Describe how the project links or connects, or encourages use of existing routes (for non-infrastructure applications) to transportation-related and community identified destinations where an increase in active transportation modes can be realized, including but not limited to: schools, school facilities, transit facilities, community, social service or medical centers, employment centers, high density or affordable housing, regional, State or national trail system, recreational and visitor destinations or other community identified destinations via: (12 points max.)

a. creation of new routes

b. removal of barrier to mobility

c. closure of gaps

d. other improvements to routes

e. educates or encourages use of existing routes

Bicycle signage promotes awareness of existing bicycle routes that people may not have known before. Signage is a mechanism for making the existing routes more effective to users. If wayfinding is difficult, individuals may be less willing to explore new places when traveling by bicycle. If wayfinding is easy, individuals will travel by bicycle with confidence. Two common barriers to bicycling can be discomfort with navigation and concern about perceived distance. The Bicycle Route Signage Program will dispel common misperceptions about route options and distance while increasing users' comfort and accessibility to common destinations, thereby reducing barriers to selecting bicycling as desired. Signage helps bicyclists take routes that minimize the gaps in the network.

Bicyclists consider numerous factors when they select a route and mode including access to desired destination, comfort and convenience. Encouraging the use of existing routes and connecting community identified destinations is the foundation of the Bicycle Route Signage Program.[1] Since level of use is highly dependent on the quality of the facility, the Bicycle Route Signage Program improves the quality of the facilities for bicycle riders by: identifying facilities with "low stress factors" and route directness; enhancing awareness of bicycling along routes; and, providing essential information about the location and distance of common destinations.

Common destinations to be included are: schools, commercial centers, community centers, employment centers, universities and colleges, transit centers, parks, visitor

[1] National Research Council. "National Cooperative Highway Research Program, Report 616: Multimodal Level of Service Analysis for Urban Streets," Transportation Research Board of the National Academies (2008).http://prj.kittelson.com/hcm/v4/docs/NCHRP%20Report%20616.pdf.

services and attractions, and paved trail networks. Selected common destinations will reflect input from stakeholder groups and the public, as well as the results of the preference survey which identified the destinations most frequently traveled to by survey respondents. [2] The Bicycle Route Signage Program will also improve connections to state designated Pacific Coast Bicycle Route, the California Coastal Trail, and multi-county Monterey Bay Sanctuary Scenic Trail Network (MBSST).

C. Referencing the answers to A and B above, describe how the proposed project represents one of the Implementing Agencies (and/or project Partnering Agency's) highest unfunded non-motorized active transportation priorities. (6 points max.)

The bicycle signage program is very much in line with the goals, policies and performance measures defined in the 2014 Santa Cruz County Regional Transportation Plan for transportation projects in Santa Cruz County. RTC priorities include 1) improve people's ability to meet most of their needs without having to drive, 2) improve the convenience and quality of trips especially for walk, bicycle, transit, freight and carpool/vanpool and 3) improve health by increasing the percentage of trips made using active transportation options including bicycling, walking and transit, and 4) improve transportation safety especially for the most vulnerable users. The Bicycle Signage Program will be essential for advancing these performance measures.

[2] "Barriers to Alternative Modes – RTP Public Input Survey," SCCRTC (August 2012). http://sccrtc.org/wp-content/uploads/2010/12/RTP-SurveyResults-201208.pdf

Part B: Narrative Questions

Detailed Instructions for: Question #2

QUESTION #2

POTENTIAL FOR REDUCING THE NUMBER AND/OR RATE OF PEDESTRIAN AND BICYCLIST FATALITIES AND INJURIES, INCLUDING THE IDENTIFICATION OF SAFETY HAZARDS FOR PEDESTRIANS AND BICYCLISTS. ***(0-25 POINTS)***

A. Describe the plan/program influence area or project location's history of collisions resulting in fatalities and injuries to non-motorized users and the source(s) of data used (e.g. collision reports, community observation, surveys, audits). (10 points max.)

Over the last 5 years of available collisions data (2008-2012) there have been 7 fatalities, 891 injuries and 99 property damage only bicycle related collisions in Santa Cruz County as determined from the SWITRS database.[3] The majority of these collisions have occurred in the urban areas of the county. See Attachment I-2 for additional details including maps of the location of the bicycle injury and fatal collisions over the 2008-2012 time period.

B. Describe how the project/program/plan will remedy (one or more) potential safety hazards that contribute to pedestrian and/or bicyclist injuries or fatalities; including but not limited to the following possible areas: (15 points max.)

Bicycle programs and plans across the nation identify bicycle signage programs as an important strategy for improving safety. The Bicycle Route Signage Program will assist bicyclists in avoiding collisions by choosing routes where the opportunities for bicycle and motor vehicle conflicts is lower. The Bicycle Route Signage Program expects to reduce injury and fatal collisions by 20 collisions per year and could be expected to reduce a greater number of collisions over time as awareness of bicycling, bicycle routes and safe practices increase. [4] [5] [6]

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[3] Statewide Integrated Traffic Records Ssytem (SWITRS), http://iswitrs.chp.ca.gov/Reports/jsp/userLogin.jsp

[4] **Attachment I-2 :County-wide Bicycle Signage Program Bicycle Collision Reduction Calculations, Assumptions, and Supporting Research**

[5] "Reducing collisions involving bicycles: Description of Strategies," Implementing the AASHTO Strategic Highway Safety Plan, accessed May 2014, http://safety.transportation.org/htmlguides/bicycles/description_of_strat.htm#strategy_a3

[6] Kay Teschke, M. Anne Harris, Conor C. O. Reynolds, Meghan Winters, Shelina Babul, Mary Chipman, Michael D. Cusimano, Jeff R. Brubacher, Garth Hunte, Steven M. Friedman, Melody Monro, Hui Shen, Lee Vernich, and Peter A. Cripton. Route Infrastructure and the Risk of Injuries to Bicyclists: A Case-Crossover Study. American Journal of Public Health: December 2012, Vol. 102, No. 12, pp. 2336-2343. doi: 10.2105/AJPH.2012.300762

Taking the appropriate and preferred route is an important part of being safe. While bicyclists, particularly new bicyclists or those unfamiliar with the network, may be tempted to take the same roads as a motorist, this may increase the likelihood of bicycle and motor vehicle conflicts. The Bicycle Route Signage Program expects to be successful in redirecting bicyclists to alternative routes that are currently using routes less appropriate for bicycles, such as Mission Street/Highway 1 in the city of Santa Cruz where two fatalities occurred in two consecutive years.

Selected and clearly marked bicycle routes provided through this program will also encourage safe behavior on the part of bicyclist and motorists by increasing awareness about all vehicles using the roadway and by drawing attention to where bicyclists should be located in the roadway.

Perceived safety will also be considered when selecting preferred bicycle routes. The actual and perceived safety of any bicycle facility can vary widely based on various “stress factors”. These include separation from adjacent traffic, traffic speed, facility width, and intersection conditions. [7] Perceived safety concerns, even along a short segment of a longer route, can become a deterrent from riding bicycles. [8] A Bicycle Route Signage Program aims to overcome perceived safety concerns by providing directions to routes with fewer “stress factors”. Neighborhood routes, as opposed to commuter routes, will be selected to direct bicyclists to routes with lower “stress factors” while still providing important linkages between common destinations. Commuter routes will place greater emphasis on route directness, while also considering “stress factors”.

In Santa Cruz County, the Bicycle Route Signage Program has been identified as a cost-effective strategy by adding value to existing investments and increasing productivity of infrastructure already in place while supporting equitable distribution of the safety benefits

[7] “Low-Stress Bicycle Riding and Network Connectivity,” Mineta Transportation Institute, (May 2012). http://transweb.sjsu.edu/PDFs/research/1005-low-stress-bicycling-network-connectivity.pdf
[8] “SFMTA Bicycle Strategy,” San Francisco Municipal Transportation Agency, (April 2013). http://www.sfmta.com/sites/default/files/projects/BicycleStrategyFinal-accessible.pdf

geographically and across transportation disadvantaged populations due to income, age, race, disability or limited English proficiency. Furthermore, the Bicycle Route Signage Program has been prioritized for its ability to achieve multiple goals simultaneously, including improving safety, access, and mode share goals, and avoiding hazards identified by the public.[9]

- Reduces speed or volume of motor vehicles in the proximity of non-motorized users. Bicycle Route Signage Program will cue motorists that they are driving along a bikeway and should use caution.

- Improves sight distance and visibility between motorized and non-motorized users. Bicycle Route Signage Program will increase visibility of cyclists along routes by increasing awareness of bicyclists along preferred routes.

- Eliminates potential conflict points between motorized and non-motorized users, including creating physical separation between motorized and non-motorized users.
Bicycle route signage will reduce conflict points by educating motorists that bicyclists are on the road and redirecting bicyclists off high traffic volume and high traffic speed routes.

- Improves compliance with local traffic laws for both motorized and non-motorized users. Bicycle Route Signage Program will reduce the number of bicycle riders riding on facilities where bicycles are not allowed or where they can only ride if traveling against traffic by guiding bicyclists to preferred routes.

- **Addresses inadequate traffic control devices. NA**

- Eliminates or reduces behaviors that lead to collisions involving non-motorized users. Bicycle Route Signage Program will reduce the potential for motor vehicle and bicycle conflicts by guiding bicyclist to selected bicycle routes and assisting motorist in anticipating the presence of bicyclists.

- Addresses inadequate or unsafe traffic control devices, bicycle facilities, trails, crosswalks and/or sidewalks. Bicycle Route Signage Program will reduce bicyclists' usage of inadequate bicycle facilities by directing bicycles to routes that are more appropriate for bicyclists.

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[9] "Bicycle Hazard Report," Santa Cruz Regional Transportation Commission, accessed May 2014. http://www.sccrtc.org/services/hazard-reports/

The public outreach that is proposed as part of the non-infrastructure portion of this project will educate the public on preferred bicycle routes throughout the county and reinforce safe bicycling behaviors. Counts and collision data will be analyzed to assess ability of the project to reduce the number of bicycle related collisions.

Part B: Narrative Questions
Detailed Instructions for: Question #3

QUESTION #3
PUBLIC PARTICIPATION and PLANNING *(0-15 POINTS)*

Describe the community based public participation process that culminated in the project/program proposal or will be utilized as part of the development of a plan.

A. Who: Describe who was engaged in the identification and development of this project/program/plan (for plans: who will be engaged). (5 points max)

The SCCRTC's Bicycle Advisory Committee has been pivotal in development of the Bicycle Route Signage Program since its initiation in 2009. The Advisory Committee is composed of 11 members representing each of the 5 County Supervisorial Districts, each of the 4 cities, the Bike to Work program and the Community Traffic Safety Coalition. Over the years, input from the Advisory Committee has been received on program goals, bicycle routes, and program promotion. Evidence of the community's engagement in the planning process is reflected by the following actions:

- award of funding through a competitive process to initiate the planning effort in 2009**;**
- prioritization and championship by a Commissioner representing a portion of the county with large population size;
- prioritization by local transportation advocacy organizations;
- inclusion in all five local jurisdiction's Bicycle Plans in Santa Cruz County;[10]

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10. Including City of Santa Cruz, City of Capitola, City of Watsonville, City of Scotts Valley, and the County of Santa Cruz

- review of the Preliminary Draft Implementation Plan by the Bicycle Advisory Committee and the RTC;

- consultation with local public works departments as to roles and responsibilities and selection of best routes;
- consultation and review of the Final Draft Implementation Plan by the Bicycle Advisory committee;
- RTC's adoption of the 2015 Bicycle Route Signage Program Implementation Plan, approval to pursue Cycle 2 ATP grant funding in May 2015, and commitment of matching funds.

A list of public meetings is included in Attachment I-3A-*Public Participation*

B. How: Describe how stakeholders were engaged (or will be for a plan). (4 points max)

Stakeholders were engaged in all phases of development of the plan, including public meetings where the project was initially conceptualization, surveying of similar projects elsewhere that were preferred for local implementation, input into sign type and selection of proposed routes. Stakeholders included numerous advocacy agencies, non-profit partners, Bicycle Advisory Committee members and members of the local public works departments. Specifically, the Cities of Scotts Valley, Capitola, Santa Cruz and Watsonville, as well as the County of Santa Cruz reviewed proposed routes and sign types and provided feedback. Similar review was conducted by representatives from the Santa Cruz County Cycling Club, Friends of the Rail and Trail, Ecology Action, the Community Traffic Safety Coalition, the Bike to Work organization, and Bike Santa Cruz County. Additionally, SCCRTC's current Chair/County Supervisor championed the project, prioritized initial funding and shepherded its evolution. Stakeholders were engaged in multiple small group meetings over the plan development process, as well as committee meetings, and public meetings of the RTC.

C. What: Describe the feedback received during the stakeholder engagement process and describe how the public participation and planning process has improved the project's overall effectiveness at meeting the purpose and goals of the ATP. (5 points max)

The most significant and critical feedback received from stakeholders and local agency partners included fine tuning of the proposed routes, suggested ways to identify the routes on various media platforms (using QR codes, apps and online maps), signage type, and integration of signs into the existing landscape. Improving the usability and route choice is crucial to directing cyclists to the preferred travel ways and maximizing comfort and a low stress experience.

Additionally, the value of using unique signs vs MUTCD approved signs was extensively debated and eventually agreed upon using the MUTCD designated signage. Also considered and agreed upon was the value of using route numbering vs route name identification of routes.

Feedback improved the project's overall effectiveness in that it created a more usable and well-integrated way-finding system, thereby achieving the ATP goal of encouraging active transportation modes, increasing safety and public health, and creating an atmosphere where bicycling as a convenient and pervasive mode choice.

Public participation was conducted through publically noticed Regional Transportation Commission meetings, meetings of the Bicycle Advisory Committee and outreach at public events such as Bike to Work Day where more than 14,000 visit breakfast sites in reward and support of bike commuting.

D. Describe how stakeholders will continue to be engaged in the implementation of the project/program/plan. (1 points max)

Stakeholders will continue to be involved in implementation of the project through on-the-ground assessment of the appropriateness of sign placement and any additional signs needed to fill gaps. Stakeholders are key participants in project success and will thus also utilize their membership bases and communities to promote the project,

solicit feedback and make recommendations for additional routes that may be considered in the future.

Part B: Narrative Questions
Detailed Instructions for: Question #4

QUESTION #4
IMPROVED PUBLIC HEALTH *(0-10 points*)

- **NOTE: Applicants applying for the disadvantaged community set aside must respond to the below questions with health data specific to the disadvantaged communities. Failure to do so will result in lost points.**

A. **Describe the health status of the targeted users of the project/program/plan. (3 points max)**

Santa Cruz County has improved in the areas of health outcomes, quality of life, clinical care, and social & economic factors between 2013 and 2014 based on California's Health Rankings Report. Among the various indicators, Santa Cruz County's best scores were in health behaviors and clinical care, scoring sixth best out of 57 in 2014. However, the county's health outcomes, length of life, quality of life, health factors, health behaviors, and social & economic factors have worsened between 2010 and 2014.

Thirty one percent of Latino survey respondents in a Santa Cruz County survey indicated that their health overall health was "fair" or "poor" and obesity rates in children are increasing at a staggering pace.[11] Children make up 20 percent of the population affected by asthma in Santa Cruz County.[12] The City of Watsonville is home to nearly 80 percent of the Latino population and has a higher percentage of children under the age of 18 than any other cities within the county.[13]

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11. "Santa Cruz County Community Assessment Report ," Applied Survey Research. 2014.
12. "Estimated Prevalence and Incidence of Lung Disease," American Lung Association, (May 2014). http://www.lung.org/finding-cures/our-research/trend-reports/estimated-prevalence.pdf
13. US Census 2009-2013 5-year American Community Survey

B. Describe how you expect your project/proposal/plan to enhance public health. (7 points max.)

The Bicycle Route Signage Program will increase bicycle ridership resulting in increases in physical activity, reduction of motor vehicle emissions and reduction of air toxins. The program will particularly improve public health in Santa Cruz County in areas with concentrations of minorities and youth, which are at higher risk for obesity, physical inactivity, asthma, and poor health. Implementing the program will help residents achieve the Center for Disease Control's recommended physical activity levels by riding 3 miles per day/5 days a week at 10 miles/per/hour, burning over 800 calories/per/week and reducing weight by approximately 10 pounds per year. Those achievements will reduce over 1.5 million pounds of airborne toxins annually per new bicycle rider.

Citations for the above statements can be found in Attachment I-4B-Public Health.

Part B: Narrative Questions
Detailed Instructions for: Question #5

QUESTION #5
BENEFIT TO DISADVANTAGED COMMUNITIES *(0-10 points)*

A. **Identification of disadvantaged communities: (0 points – SCREENING ONLY)**

Option 1: Median household income, by census tract for the community(ies) benefited by the project:
< $ 49,120

Census Tracts	Median HH Income	Population	Housing Units
Census Tract 1007	$ 42,643	2,632	1,075
Census Tract 1010	$ 34,975	7,866	3,734
Census Tract 1101	$ 46,121	7,466	2,451
Census Tract 1103	$ 32,713	6,710	1,767
Census Tract 1104	$ 47,909	7,976	2,002
Census Tract1105.01	$ 35,581	7,646	2,115
Census Tract1105.02	$ 47,400	6,088	1,465
Census Tract 1106	$ 46,136	8,349	2,240
Census Tract 1215	$ 48,686	4,917	2,741
TOTAL		**59,650**	**19,590**

Source: Median Household Income estimates from ACS 5YR Estimates 2009-2013; Population and Housing counts from Census 2010.

See maps in Attachment I-5A, depicting subject census tracts within the countywide project area with median household income of less than $49,120, from the ACS 5YR

Estimates 2009-2013. The maps show that disadvantaged populations under 18 years of age are distributed throughout the county and will benefit by the proposed project. Also, the table in Attachment I-5C which identifies schools with over 75% or greater number of the students eligible for free or reduced price meals, from the most recent data available from the California Department of Education. Virtually all of the schools on the list are within the Pajaro Valley Unified School District which serves the city of Watsonville and surrounding community. A significant geographic area within the City of Watsonville qualifies for the CalEnviroScreen 2.0 score (census tracts: 1103 and 1104).

B. For proposals located within disadvantage community: (5 points max)
What percent of the funds requested will be expended in the disadvantaged community? **>20%**
Explain how this percent was calculated.

The total population of the census tracts shown above is 59,650 out of the total county population of 269,444 or 22%, based on 2013 US Census Bureau. The total households of the census tracts shown above is 19,590 out of a total number of households in the county of 104,698, based on 2013 US Census Bureau estimates, or 18.7%. Thirty-six miles or 35% of the total 102 miles of preferred bike routes are within census tracts with less than $49,120. The balance of the preferred route network effectively connects the disadvantaged communities to the rest of the county including employment, commercial, and recreation centers, transit hubs, and schools.

C. Describe how the project/program/plan provides (for plans: will provide) a direct, meaningful, and assured benefit to members of the disadvantaged community. (5 points max)

The project will provide improved and safer access to jobs and destination within the identified disadvantaged community areas where over 20% of the county's population reside and as well as preferred routes to destinations outside of those areas (to schools, employment, transit, and recreation centers). Bicycling is a low cost transportation option and by making bicycling a more attractive and safer transportation mode the associated benefits will accrue to this segment of the community. Public outreach of the

preferred bicycle route program will focus on these disadvantaged areas as the communities most likely to benefit from the greater use and safety of bicycle travel. The disadvantaged communities are located in some of the most urbanized areas of the county and increased use of bicycle travel will result in improved quality of life with concomitant reductions in automobile congestion and vehicle emissions.

Students will be a major beneficiary of the Bike Signage Program making travel to and from schools safer for bicyclists by alerting motorists to the shared use of the roadway and directing bicyclists to preferred routes. Attachment I-5C identifies schools with over 75% or greater number of the students eligible for free or reduced price meals, from the most recent data available from the California Department of Education. Virtually all of the schools on the list are within the Pajaro Valley Unified School District which serves the city of Watsonville and surrounding community (census tracts: 1101, 1103, 1104, 1105.01, 1105.02, and 1106).

Part B: Narrative Questions
Detailed Instructions for: Question #6

QUESTION #6

COST EFFECTIVENESS *(0-5 POINTS)*

A. Describe the alternatives that were considered and how the ATP-related benefits vs. project-costs varied between them. Explain why the final proposed alternative is considered to have the highest Benefit to Cost Ratio (B/C) with respect to the ATP purpose of "increased use of active modes of transportation". (3 points max.)

The Bicycle Route Signage Program has been identified as a priority project and a cost-effective strategy for increasing bicycle ridership and reducing bicycle related collisions in Santa Cruz County. Alternatives to this project were not considered due to the benefits of signage in increasing the effectiveness of the existing infrastructure. Benefits of the signage program are distributed equitably and across transportation disadvantaged populations.

Although consideration has been given to implementing bicycle route signage in phases, review of other programs revealed that sign installation must be coordinated and comprehensive to achieve maximum effectiveness and avoid confusion. Developing routes in isolation is problematic and doesn't achieve desired results of providing a network that is easy to navigate.

B. Use the ATP Benefit/Cost Tool, provided by Caltrans Planning Division, to calculate the ratio of the benefits of the project relative to both the total project cost and ATP funds requested. The Tool is located on the CTC's website at: http://www.dot.ca.gov/hq/tpp/offices/eab/atp.html. After calculating the B/C ratios for the project, provide constructive feedback on the tool (2 points max.)

FROM ATP Benefit Cost Calculator

Benefit(Net Present) /Total Project Cost (Net Present)= 1481 ($526,964/355,769)

Benefit(Net Present) /Requested Project Cost (Net Present)= 1712 ($526,964/307,692)

The ATP Benefit Cost Calculator is a fantastic tool for providing a standard consistent method for comparing the benefit/cost of various projects. It is extremely easy to use

and the assumptions are well defined. There were some areas of the tool that I was unclear on such as 1) why there were boxes for actual data on the number of increased bicycle trips after completion of the project and 2) how you can enter data on new daily trips for commuters and recreational users if data is available. I will likely use this tool as a starting point for other grant applications. I was also challenged with using the equations above for entering the results from the benefit/cost tool.

Part B: Narrative Questions
Detailed Instructions for: Question #7

QUESTION #7
LEVERAGING OF NON-ATP FUNDS *(0-5 points*)

A. The application funding plan will show all federal, state and local funding for the project: (5 points max.)

In 2009, the SCCRTC programmed $100,000 in Regional Surface Transportation Program (RSTP) funding for development of the Santa Cruz County Bicycle Route Signage Program. In December 2013, staff presented a preliminary Draft Bicycle Route Signage Implementation Plan which documented extensive review of similar implementation plans throughout the nation and discussions with local jurisdictions within Santa Cruz county to replicate the success of increased bicycling and improved bicycling safety in other areas of the country. With positive response and direction from local jurisdictions, SCCRTC staff continued work with local agencies, stakeholders, and RTC's Bicycle Advisory Committee to create an implementation plan for the Bicycle Route Signage Program which the RTC approved on May 7, 2015.

The SCCRTC programmed $50,000 in RSTP Exchange funds in the FY 2014-2015 Budget with the intent of leveraging these local matching funds to an Active Transportation Program grant, as authorized in the resolution adopted by the SCCRTC on May 21, 2015 (Attachment I-7). The RTC proposes to direct these funds towards the Non-Infrastructure Work Plan detailed in Attachment H, with a total cost of $70,000 (rounded) of which RTC would fund $50,000 and request $20,000 in ATP Non-Infrastructure grant funds to complete this work element. RTC feels that the data collection, public outreach, and evaluation of the project's impacts is critical to documenting the results of the proposed project and further potential amendments to optimize conditions for a safe active transportation program in Santa Cruz County.

Part B: Narrative Questions
Detailed Instructions for: Question #8

QUESTION #8

USE OF CALIFORNIA CONSERVATION CORPS (CCC) OR A CERTIFIED COMMUNITY CONSERVATION CORPS *(0 or -5 points)*

Step 1: Is this an application requesting funds for a Plan (Bike, Pedestrian, SRTS, or ATP Plan)?

- ☐ Yes (If this application is for a Plan, there is no need to submit information to the corps and there will be no penalty to applicant: 0 points)
- **X** No (If this application is NOT for a Plan, proceed to Step #2)

Step 2: The applicant must submit the following information via email concurrently to **both** the CCC **AND** certified community conservation corps prior to application submittal to Caltrans. The CCC and certified community conservation corps will respond within five (5) business days from receipt of the information.

- Project Title
- Project Description
- Detailed Estimate
- Project Schedule
- Project Map
- Preliminary Plan

California Conservation Corps representative:
Name: Wei Hsieh
Email: atp@ccc.ca.gov
Phone: (916) 341-3154

Community Conservation Corps representative:
Name: Danielle Lynch
Email: inquiry@atpcommunitycorps.org
Phone: (916) 426-9170

Step 3: The applicant has coordinated with Wei Hsieh with the CCC **AND** Danielle Lynch with the certified community conservation corps and determined the following (check appropriate box):

- **X** Neither corps can participate in the project (0 points) **See Att-I-8.**
- ☐ Applicant intends to utilize the CCC or a certified community conservation corps on the following items listed below (0 points).

_____

_____

_____

- ☐ Applicant has contacted the corps but intends not to use the corps on a project in which either corps has indicated it can participate (-5 points)
- ☐ Applicant has not coordinated with both corps (-5 points)

Part B: Narrative Questions
Detailed Instructions for: Question #9

QUESTION #9
APPLICANT'S PERFORMANCE ON PAST GRANTS AND DELIVERABILITY OF PROJECTS
(0 to-10 points OR disqualification)

A. *Applicant*: Provide short explanation of the Implementing Agency's project delivery history for all projects that include project funding through Caltrans Local Assistance administered programs (ATP, Safe Routes to School, BTA, HSIP, etc.) for the last five (5) years.

The SCCRTC has good performance including timely and responsible oversight of grant funding on previously awarded grants, including:Regional Surface Transportation Program (RSTP), Caltrans Planning, Corridor Mobility Improvement Account (CMIA), State Transportation Improvement Program (STIP), Monterey Air Control District AB 2766, Congestion Mitigation and Air Quality (CMAQ) program, and the Federal Transit Administration 5304 Planning program.

B. *Caltrans response only*:
Caltrans to recommend score for deliverability of scope, cost, and schedule based on the overall application.

Part C

Part C: Application Attachments

Applicants must ensure all data in this part of the application is fully consistent with the other parts of the application. See the Application Instructions and Guidance document for more information and requirements related to Part C.

List of Application Attachments

The following attachment names and order must be maintained for all applications. Depending on the Project Type (I, NI or Plans) some attachments will be intentionally left blank. All non-blank attachments must be identified in hard-copy applications using "tabs" with appropriate letter designations

Application Signature Page **Attachment A**

Required for all applications

ATP - PROJECT PROGRAMMING REQUEST (ATP-PPR) **Attachment B**

Required for all applications

Engineer's Checklist **Attachment C**

Required for Infrastructure Projects

Project Location Map **Attachment D**

Required for all applications

Project Map/Plans showing existing and proposed conditions **Attachment E**

Required for Infrastructure Projects (optional for 'Non-Infrastructure' and 'Plan' Projects)

Photos of Existing Conditions **Attachment F**

Required for all applications

Project Estimate **Attachment G**

Required for Infrastructure Projects

Non-Infrastructure Work Plan (Form 22-R) **Attachment H**

Required for all projects with Non-Infrastructure Elements

Narrative Questions backup information **Attachment I**

Required for all applications

Label attachments separately with "H-#" based on the # of the Narrative Question

Letters of Support **Attachment J**

Required or Recommended for all projects (as designated in the instructions)

Additional Attachments **Attachment K**

Additional attachments may be included. They should be organized in a way that allows application reviews easy identification and review of the information.

Attachment A

Part C: Attachments
Attachment A: Signature Page

IMPORTANT: Applications will not be accepted without all required signatures.

Implementing Agency: Chief Executive Officer, Public Works Director, or other officer authorized by the governing board
The undersigned affirms that their agency will be the "Implementing Agency" for the project if funded with ATP funds and they are the Chief Executive Officer, Public Works Director or other officer **authorized by their governing board with the authority to commit the agency's resources and funds**. They are also affirming that the statements contained in this application package are true and complete to the best of their knowledge. For infrastructure projects, the undersigned affirms that they are the manager of the public right-of-way facilities (responsible for their maintenance and operation) or they have authority over this position.

Signature:	George Dondero	Date:	May 29, 2015
Name:	George Dondero	Phone:	831-460-3200
Title:	Executive Director	e-mail:	gdondero@sccrtc.org

For projects with a Partnering Agency: Chief Executive Officer or other officer authorized by the governing board
(For use only when appropriate)
The undersigned affirms that their agency is committed to partner with the "Implementing Agency" and agrees to assume the responsibility for the ongoing operations and maintenance of the facility upon completion by the implementing agency and they intend to document such agreement per the CTC guidelines. The undersigned also affirms that they are the Chief Executive Officer or other officer authorized by their governing board with the authority to commit the agency's resources and funds. They are also affirming that the statements contained in this application package are true and complete to the best of their knowledge.

Signature:		Date:	
Name:		Phone:	
Title:		e-mail:	

For Safe Routes to School projects and/or projects presented as benefiting a school: School or School District Official
(For use only when appropriate)
The undersigned affirms that the school(s) benefited by this application is not on a school closure list.

Signature:		Date:	
Name:		Phone:	
Title:		e-mail:	

For projects with encroachments on the State right-of-way: Caltrans District Traffic Operations Office Approval*
(For use only when appropriate)
If the application's project proposes improvements within a freeway or state highway right-of-way, whether it affects the safety or operations of the facility or not, it is required that the proposed improvements be reviewed by the district traffic operations office and either a letter of support/acknowledgement from the traffic operations office be attached or the signature of the traffic manager be secured in the application. The Caltrans letter and/or signature does not imply approval of the project, but instead is only an acknowledgement that Caltrans District staff is aware of the proposed project; and upon initial review, the project appears to be reasonable and acceptable.

Is a letter of support/acknowledgement attached? _____ If yes, no signature is required. If no, the following signature is required.

Signature:		Date:	
Name:		Phone:	
Title:		e-mail:	

* Contact the District Local Assistance Engineer (DLAE) for the project to get Caltrans Traffic Ops contact information. DLAE contact information can be found at http://www.dot.ca.gov/hq/LocalPrograms/dlae.htm

Attachment B

STATE OF CALIFORNIA • DEPARTMENT OF TRANSPORTATION

ATP PROJECT PROGRAMMING REQUEST

Date: 5/29/2015

Project Information:

Project Title:	Santa Cruz Countywide Bicycle Route Signage Project				
District	County	Route	EA	Project ID	PPNO
05	SCR	VAR			

Funding Information:

DO NOT FILL IN ANY SHADED AREAS

Proposed Total Project Cost ($1,000s)

Component	Prior	14/15	15/16	16/17	17/18	18/19	19/20+	Total
E&P (PA&ED)				3				3
PS&E				42				42
R/W								
CON				325				325
TOTAL				370				370

Notes:

ATP Funds Infrastructure Cycle 2

Program Code:

Proposed Funding Allocation ($1,000s)

Component	Prior	14/15	15/16	16/17	17/18	18/19	19/20+	Total
E&P (PA&ED)				3				3
PS&E				42				42
R/W								
CON				255				255
TOTAL				300				300

Funding Agency: CTC

Notes:

ATP Funds Non-infrastructure Cycle 2

Program Code:

Proposed Funding Allocation ($1,000s)

Component	Prior	14/15	15/16	16/17	17/18	18/19	19/20+	Total
E&P (PA&ED)								
PS&E								
R/W								
CON				20				20
TOTAL				20				20

Funding Agency: CTC

Notes: Pre-construcion baseline data collection and public outreach

ATP Funds Plan Cycle 2

Program Code:

Proposed Funding Allocation ($1,000s)

Component	Prior	14/15	15/16	16/17	17/18	18/19	19/20+	Total
E&P (PA&ED)								
PS&E								
R/W								
CON								
TOTAL								

Funding Agency:

Notes:

ATP Funds Previous Cycle

Program Code:

Proposed Funding Allocation ($1,000s)

Component	Prior	14/15	15/16	16/17	17/18	18/19	19/20+	Total
E&P (PA&ED)								
PS&E								
R/W								
CON								
TOTAL								

Funding Agency:

Notes:

ATP Funds Future Cycles

Program Code:

Proposed Funding Allocation ($1,000s)

Component	Prior	14/15	15/16	16/17	17/18	18/19	19/20+	Total
E&P (PA&ED)								
PS&E								
R/W								
CON								
TOTAL								

Funding Agency:

Notes:

STATE OF CALIFORNIA • DEPARTMENT OF TRANSPORTATION

ATP PROJECT PROGRAMMING REQUEST

Date:	5/29/2015

Project Information:

Project Title:	Santa Cruz Countywide Bicycle Route Signage Project				
District	County	Route	EA	Project ID	PPNO
05	SCR	VAR			

Funding Information:

DO NOT FILL IN ANY SHADED AREAS

Fund No. 2: Future Source for Matching

Proposed Funding Allocation ($1,000s)

Component	Prior	14/15	15/16	16/17	17/18	18/19	19/20+	Total
E&P (PA&ED)								
PS&E								
R/W								
CON				50				50
TOTAL				50				50

Program Code: 20.30.010.850

Funding Agency: SCCRTC

Notes: Public outreach and post-construction data collection

Fund No. 3:

Proposed Funding Allocation ($1,000s)

Component	Prior	14/15	15/16	16/17	17/18	18/19	19/20+	Total
E&P (PA&ED)								
PS&E								
R/W								
CON								
TOTAL								

Program Code:

Funding Agency:

Notes:

Fund No. 4:

Proposed Funding Allocation ($1,000s)

Component	Prior	14/15	15/16	16/17	17/18	18/19	19/20+	Total
E&P (PA&ED)								
PS&E								
R/W								
CON								
TOTAL								

Program Code:

Funding Agency:

Notes:

Fund No. 5:

Proposed Funding Allocation ($1,000s)

Component	Prior	14/15	15/16	16/17	17/18	18/19	19/20+	Total
E&P (PA&ED)								
PS&E								
R/W								
CON								
TOTAL								

Program Code:

Funding Agency:

Notes:

Fund No. 6:

Proposed Funding Allocation ($1,000s)

Component	Prior	14/15	15/16	16/17	17/18	18/19	19/20+	Total
E&P (PA&ED)								
PS&E								
R/W								
CON								
TOTAL								

Program Code:

Funding Agency:

Notes:

Fund No. 7:

Proposed Funding Allocation ($1,000s)

Component	Prior	14/15	15/16	16/17	17/18	18/19	19/20+	Total
E&P (PA&ED)								
PS&E								
R/W								
CON								
TOTAL								

Program Code:

Funding Agency:

Notes:

Attachment C

ATP Engineer's Checklist for Infrastructure Projects

Required for "Infrastructure" applications ONLY

This application checklist is to be used by the engineer in "responsible charge" of the preparation of this ATP application to ensure all of the primary elements of the application are included as necessary to meet the CTC's requirements for a PSR-Equivalent document (per CTC's ATP Guidelines and CTC's Adoption of PSR Guidelines - Resolution G-99-33) and to ensure the application is free of critical errors and omissions; allowing the application to be accurately ranked in the statewide ATP selection process.

Special Considerations for Engineers before they Sign and Stamp this document attesting to the accuracy of the application:

Chapter 7; Article 3; Section 6735 of the Professional Engineer's Act of the State of California requires engineering calculation(s) or report(s) be either prepared by or under the responsible charge of a licensed civil engineer. Since the corresponding ATP ***Infrastructure****-application defines the scope of work of a future civil construction project and requires complex engineering principles and calculations which are based on the best data available at the time of the application, the application must be signed and stamped by a licensed civil engineer.*

By signing and stamping this document, the engineer is attesting to this application's technical information and engineering data upon which local agency's recommendations, conclusions, and decisions are made. This action is governed by the Professional Engineer's Act and the corresponding Code of Professional Conduct, under Sections 6775 and 6735.

The following checklist is to be completed by the engineer in "responsible charge" of defining the projects Scope, Cost and Schedule per the expectations of the CTC's PSR Equivalent. The checklist is expected to be used during the preparation of the documents, but not initialed and stamped until the final application and application attachments are complete and ready for submission to Caltrans.

1. **Vicinity map /Location map** **Engineer's Initials:** SW
   a. The project limits must be clearly depicted in relationship to the overall agency boundary

2. **Project layout-plan/map** showing existing and proposed conditions must: **Engineer's Initials:** SW
   a. Be to a scale which allows the visual verification of the overall project "construction" limits and limits of each primary element of the project
   b. Show the full scope of the proposed project, including any non-participating construction items
   c. Show all changes to existing motorized/non-motorized lane and shoulder widths. Label the proposed widths
   d. Show agency's right of way (ROW) lines when permanent or temporary ROW impacts are possible. (As appropriate, also show Caltrans', Railroad, and all other government agencies ROW lines)

3. **Typical cross-section(s)** showing existing and proposed conditions. **Engineer's Initials:** N/A
   (Include cross-section for each controlling configuration that varies significantly from the typical)
   a. Show and dimension: changes in lane widths, ROW lines, side slopes, etc.

4. **Detailed Engineer's Estimate** **Engineer's Initials:** SW
   a. Estimate is reasonable and complete.
   b. Each of the main project elements are broken out into separate construction items. The costs for each item are based on calculated quantities and appropriate corresponding unit costs
   c. All non-participating costs in relation to the ATP funding are clearly identified and accounted for separately from the eligible costs.
   d. All project elements the applicant intends to utilize the CCC (or a certified community conservation corps) on need to be clearly identified and accounted for
   e. All project development costs to be funded by the ATP need to be accounted for in the total project cost

5. **Crash/Safety Data, Collision maps and Countermeasures**: **Engineer's Initials:** SW
   a. Confirmation that crash data shown occurred within influence area of proposed improvements.

6. **Project Schedule and Requested programming of ATP funding** **Engineer's Initials:** SW
   a. All applicants must anticipate receiving federal ATP funding for the project and therefore the project schedules and programming included in the application must account for all applicable requirements and timeframes.
   b. "Completed Dates" for project Milestone Dates shown in the application have been reviewed and verified
   c. "Expected Dates" for project Milestone Dates shown in the application account for all reasonable project timetables, including: Interagency MOUs, Caltrans agreements, CTC allocations, FHWA authorizations, federal environmental studies and approvals, federal right-of-way acquisitions, federal consultant selections, project permits, etc.
   d. The fiscal year and funding amounts shown in the PPR must be consistent with the values shown in the project cost estimate(s), expected project milestone dates and expected matching funds.

7. **Warrant studies/guidance (Check if not applicable)** **Engineer's Initials:** _____
   ☑ N/A
   a. For new Signals – Warrant 4, 5 or 7 must be met (CA MUTCD): Signal warrants must be documented as having been met based on the CA MUTCD

8. **Additional narration and documentation:** **Engineer's Initials:** SW
   a. The text in the "Narrative Questions" in the application is consistent with and supports the engineering logic and calculations used in the development of the plans/maps and estimate
   b. When needed to clarify non-standard ATP project elements (i.e. vehicular roadway widening necessary for the construction of the primary ATP elements); appropriate documentation is attached to the application to document the engineering decisions and calculations requiring the inclusion of these non-standard elements.

Licensed Engineer:

Name *(Last, First)*: WIESNER, STEVEN

Title: ASST. DIRECTOR

Engineer License Number: 54814

Signature: SBW

Date: 5/29/15

Email: Steve.Wiesner@SantaCruzCounty.US

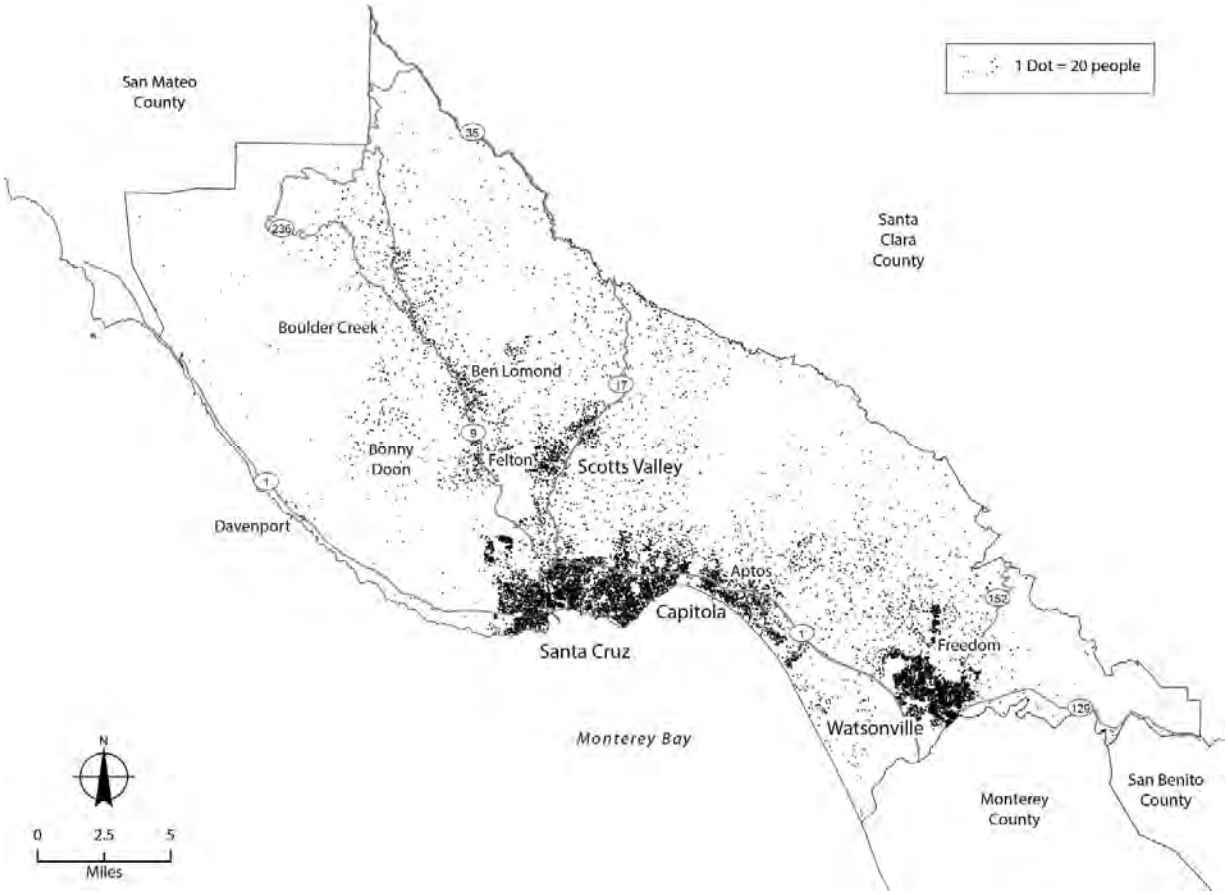
Phone: 831-454-2794

Engineer's Stamp:

REGISTERED PROFESSIONAL ENGINEER
STEVEN B. WIESNER
No. C054814
Exp. 12/31/15
CIVIL
STATE OF CALIFORNIA

Attachment D

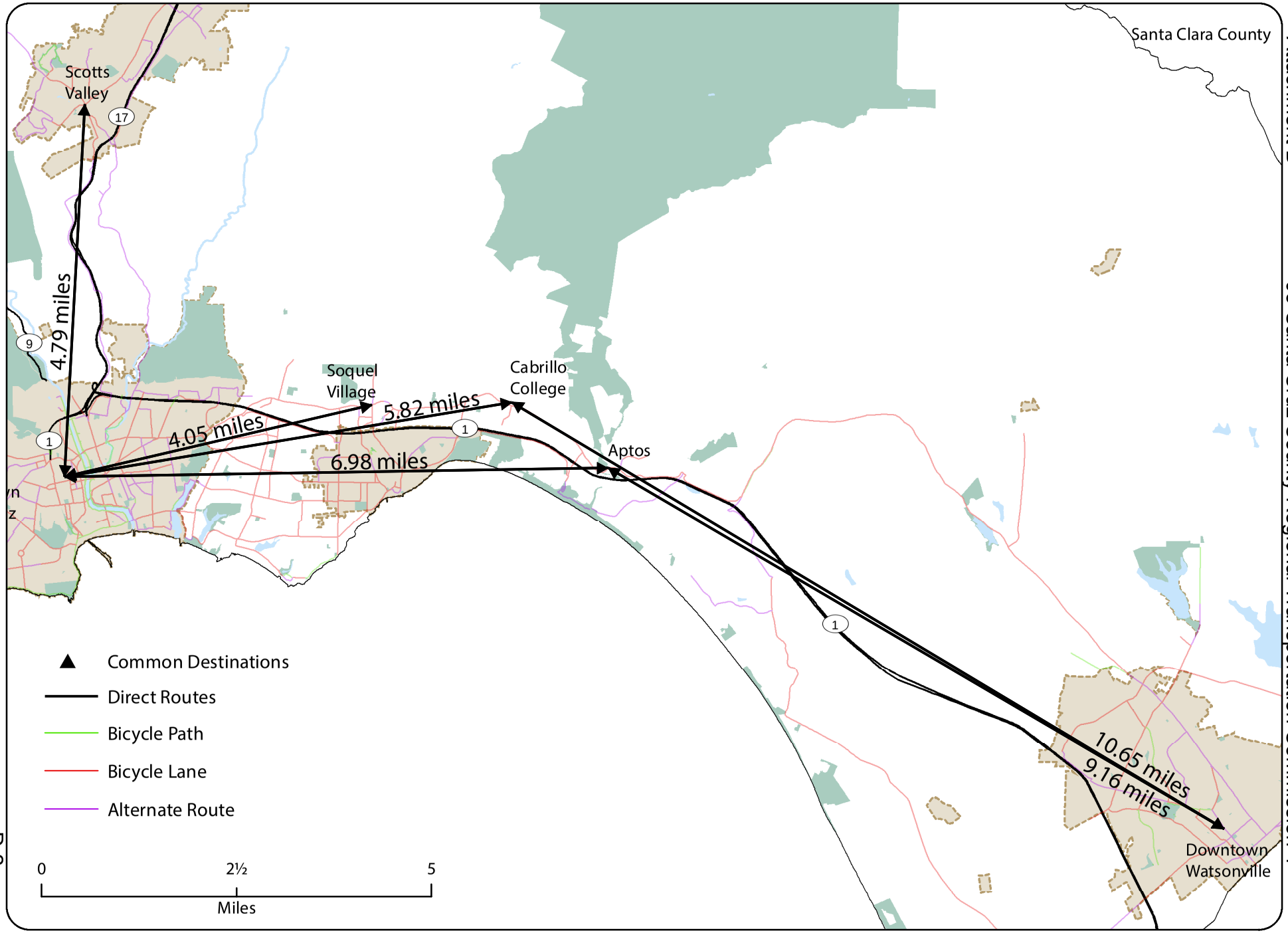
Santa Cruz County Countywide Bike Route Signage Program Area: Emphasis will be on urban areas, depicted in the below as areas with greater population densities.



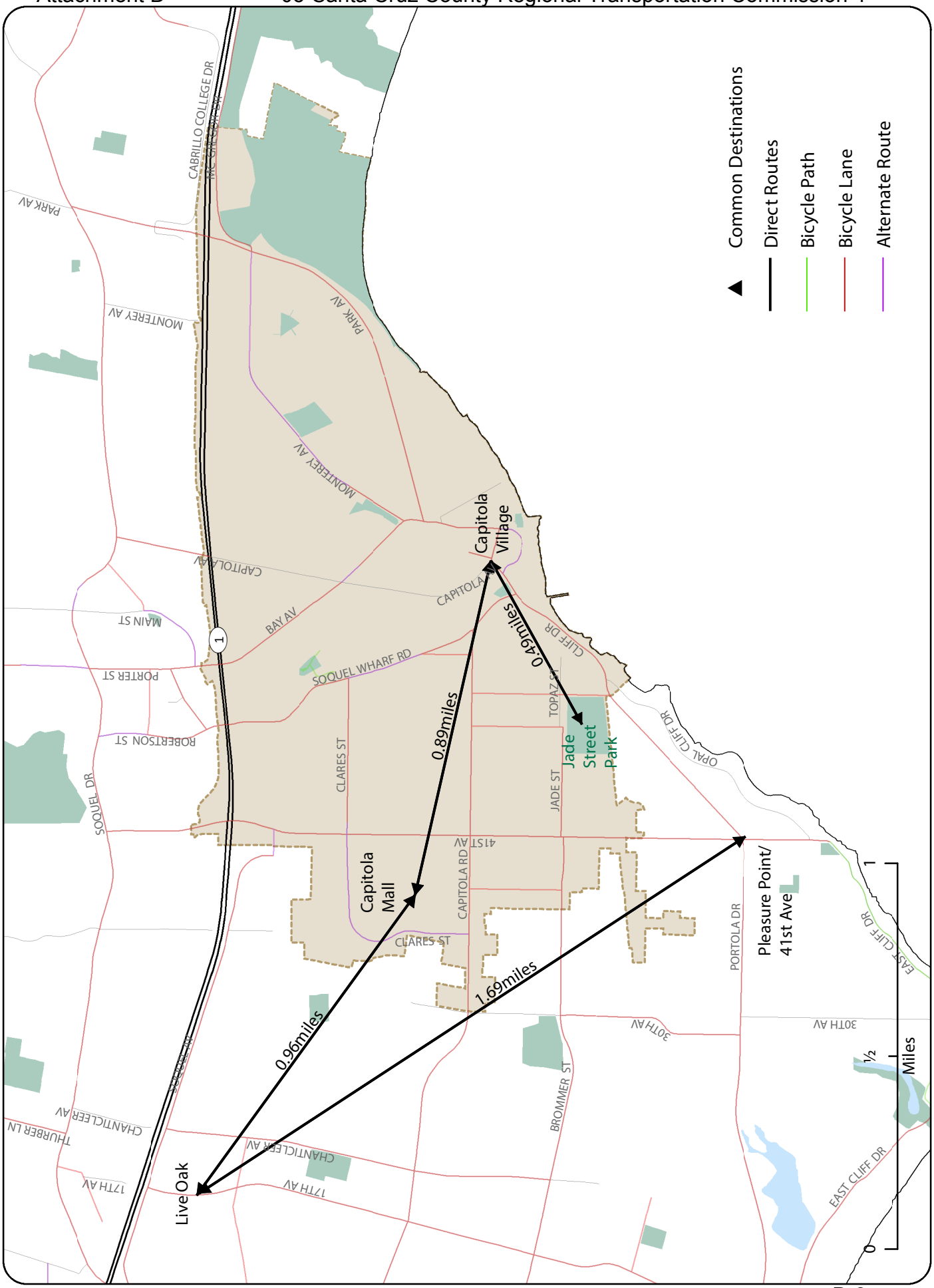
2010 Population Density Map

Source: U.S. Census Bureau

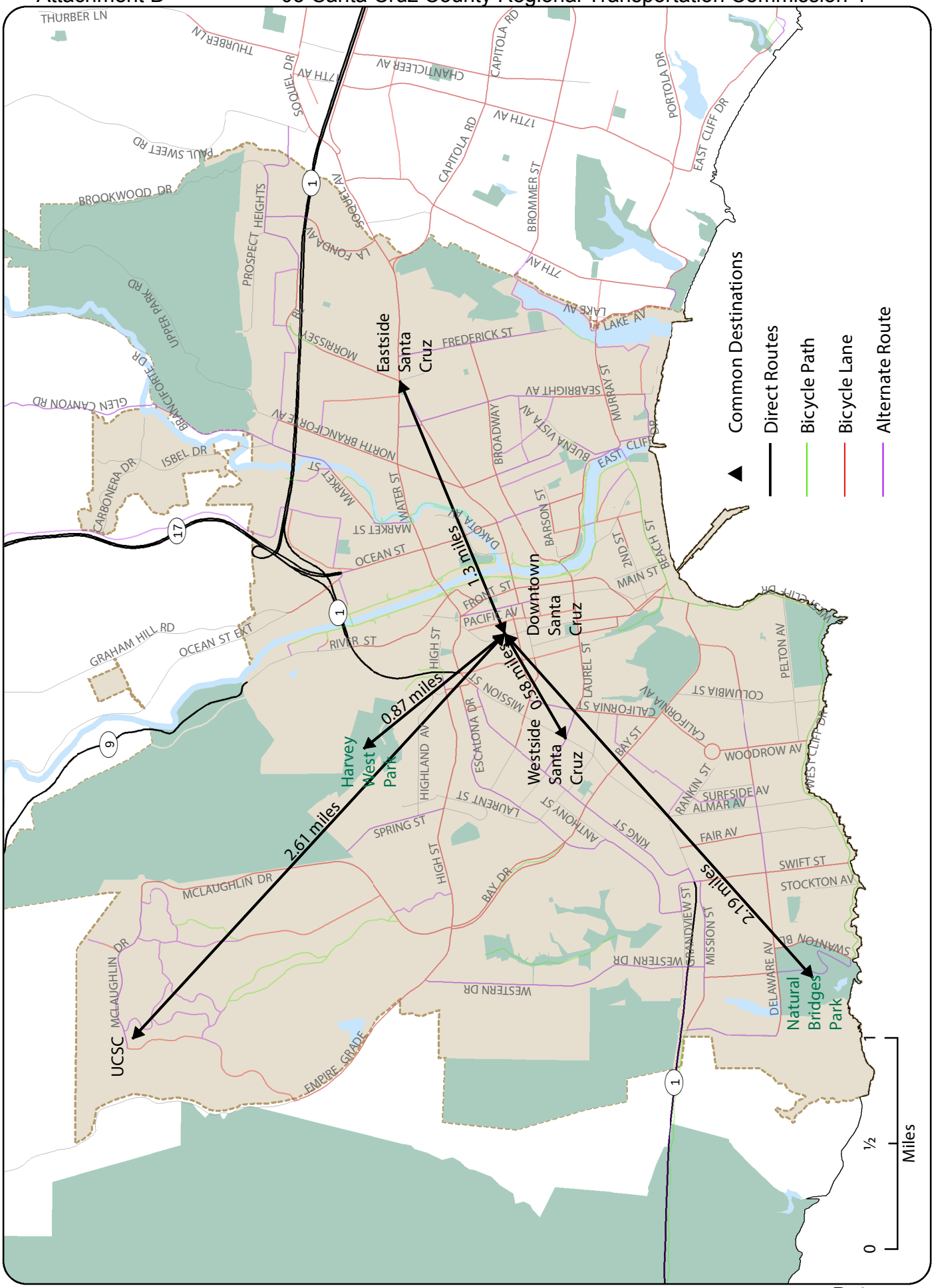
County-wide Bicycle Route Signage Program - Santa Cruz County Direct Routes Map



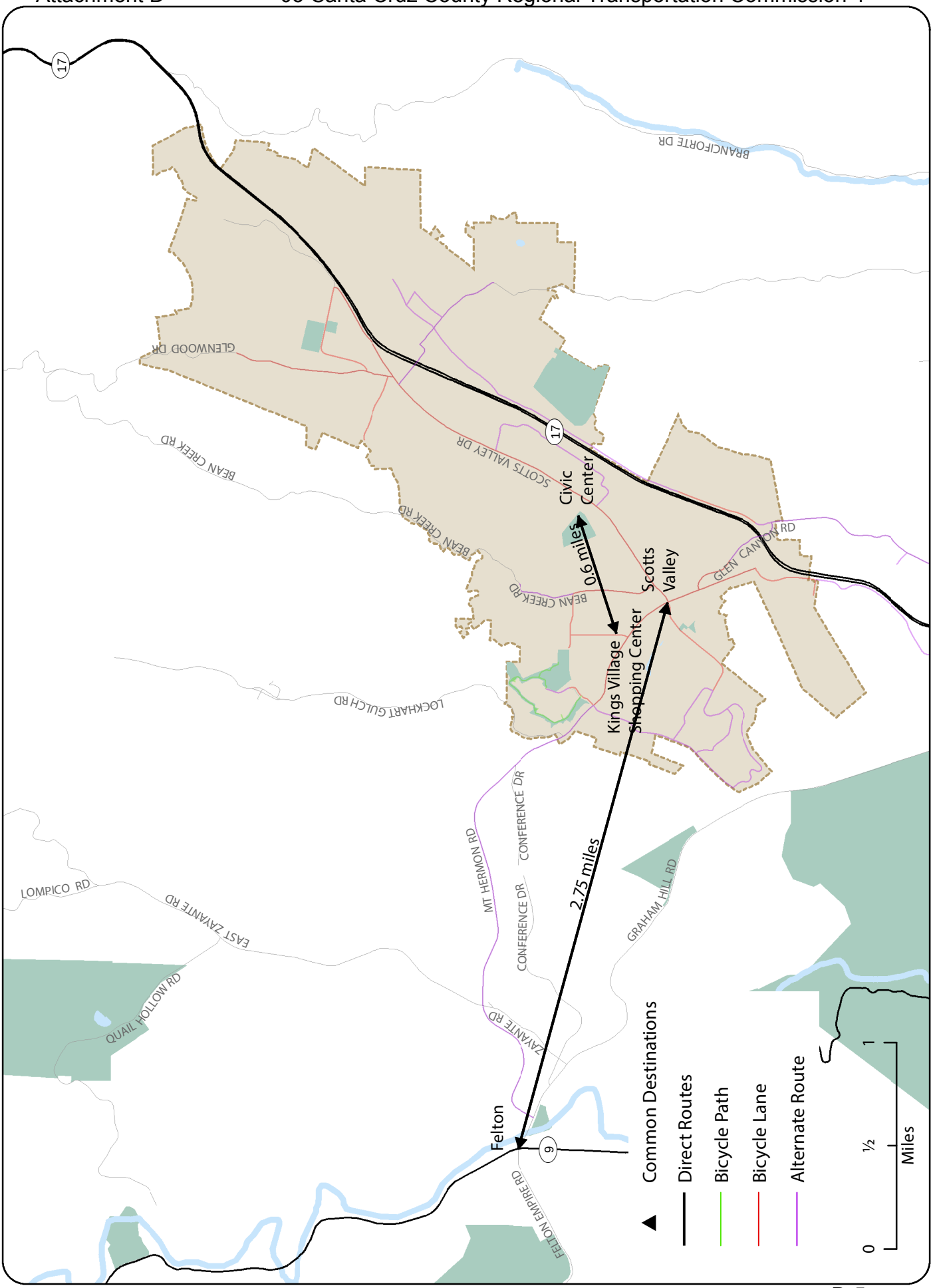
County-wide Bicycle Route Signage Program - Capitola Direct Routes Map



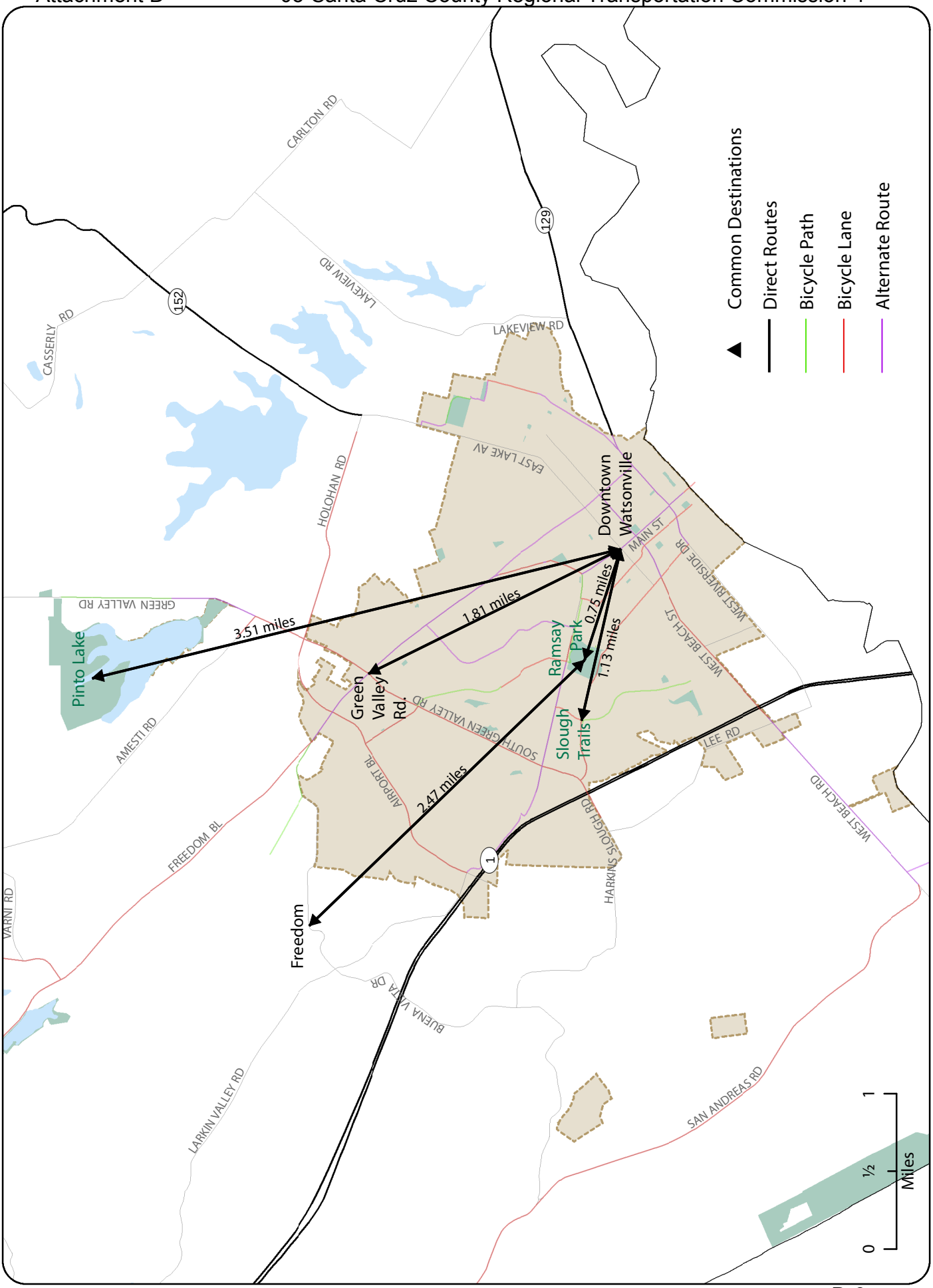
County-wide Bicycle Route Signage Program - Santa Cruz Direct Routes Map



County-wide Bicycle Route Signage Program - Scotts Valley Direct Routes Map

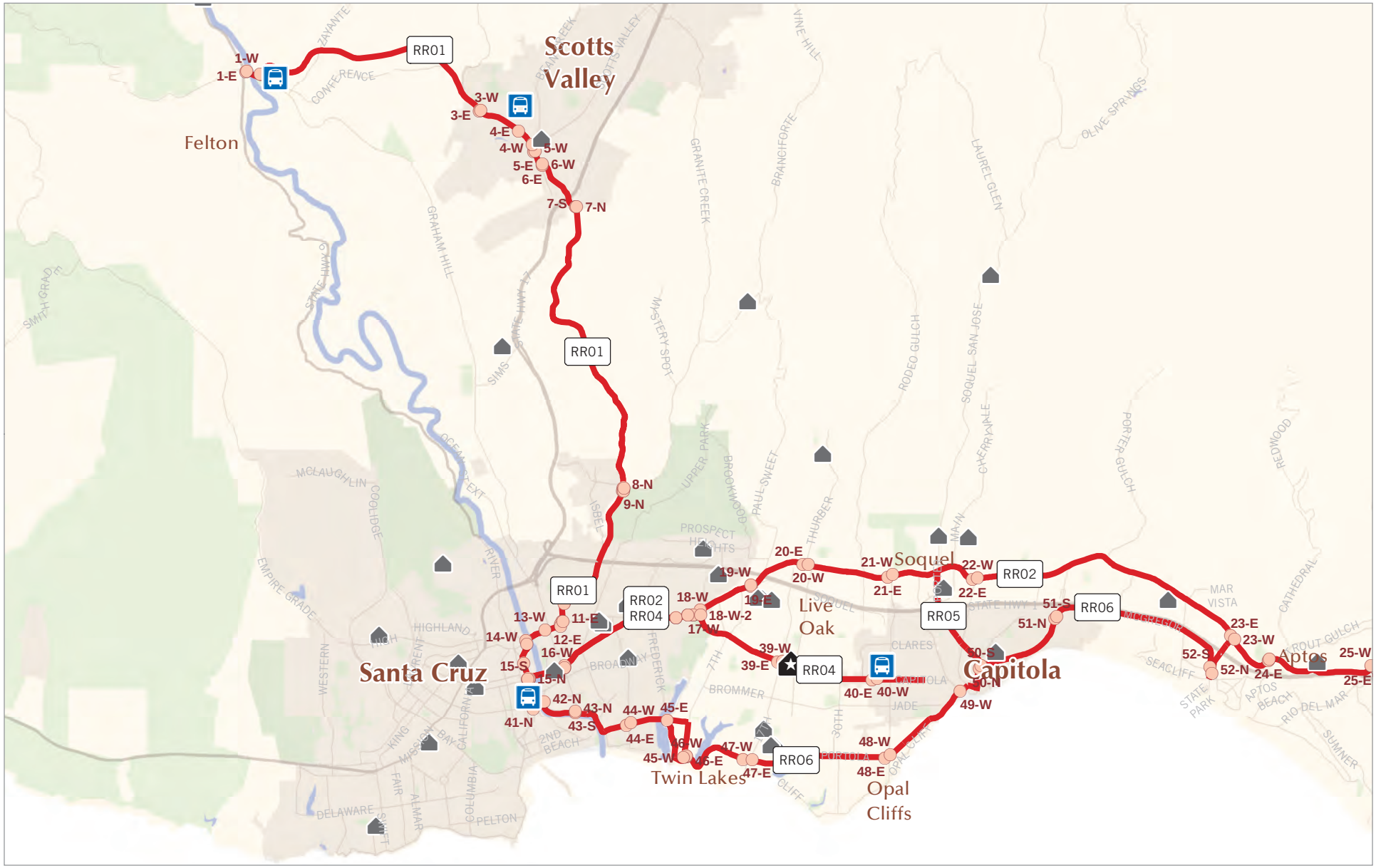


County-wide Bicycle Route Signage Program - Watsonville Direct Routes Map



Area	From	To	Distance - Miles	Distance - Feet
County	Downtown Santa Cruz	Aptos	6.98	36,834
County	Downtown Santa Cruz	Soquel Village	4.05	21,383
County	Downtown Santa Cruz	Cabrillo College	5.82	30,722
County	Downtown Santa Cruz	Scotts Valley	4.79	25,267
County	Downtown Watsonville	Aptos	9.16	48,354
County	Downtown Watsonville	Cabrillo College	10.65	56,245
			41.44	**218,805**
Capitola	Capitola Village	Jade Street Park	0.49	2,566
Capitola	Capitola Village	Capitola Mall	0.89	4,694
Capitola	Capitola Mall	Live Oak	0.96	5,088
Capitola	Pleasure Point/41st Ave	Live Oak	1.69	8,938
			4.03	**21,286**
Scotts Valley	Kings Village	Civic Center	0.60	3,183
Scotts Valley	Scotts Valley	Felton	2.75	14,512
			3.35	**17,695**
Santa Cruz	Downtown Santa Cruz	USCS	2.61	13,779
Santa Cruz	Downtown Santa Cruz	Westside	0.58	3,045
Santa Cruz	Downtown Santa Cruz	Eastside	1.30	6,855
Santa Cruz	Downtown Santa Cruz	Natural Bridges	2.19	11,562
Santa Cruz	Downtown Santa Cruz	Harvey West	0.87	4,569
			7.54	**39,810**
Watsonville	Downtown Watsonville	Pinto Lake	3.51	18,514
Watsonville	Downtown Watsonville	Ramsay Park	0.75	3,975
Watsonville	Downtown Watsonville	Green Valley Rd	1.81	9,583
Watsonville	Freedom	Ramsay Park	2.47	13,024
Watsonville	Downtown Watsonville	Slough Trails	1.13	5,990
			9.68	**51,086**
		TOTAL	**66.04**	**348,682**
			miles	feet

Attachment E

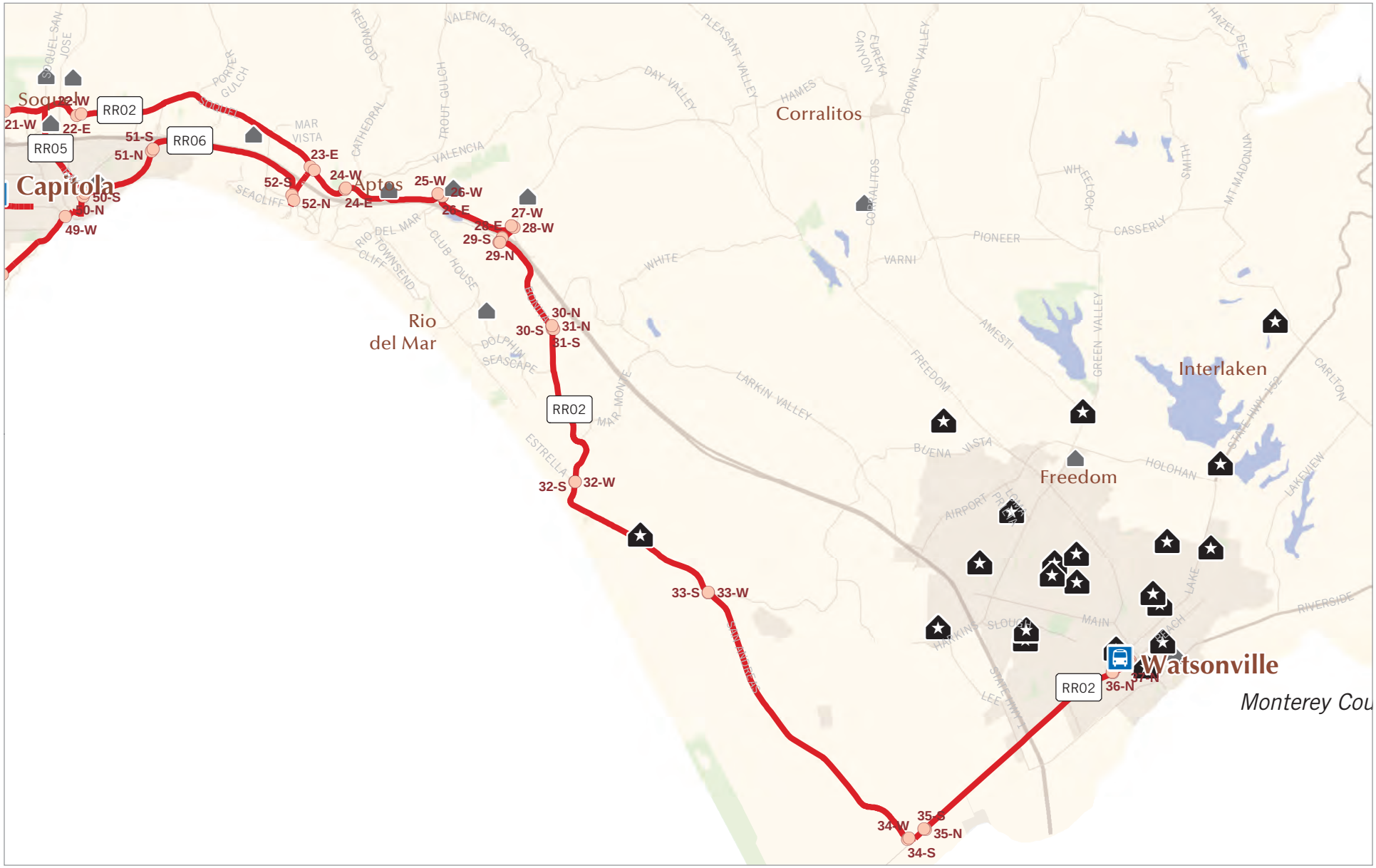


SCC Bicycle Route Signage Program

- Regional Bike Routes
- Local Bike Routes
- Neighborhood Bike Routes
- Transit Center
- Schools with >75% Student Eligibility for FRPM
- Schools with <75% Student Eligibility for FRPM
- Potential Sign Locations
- ID # Route ID

1 Miles

SCCRTC

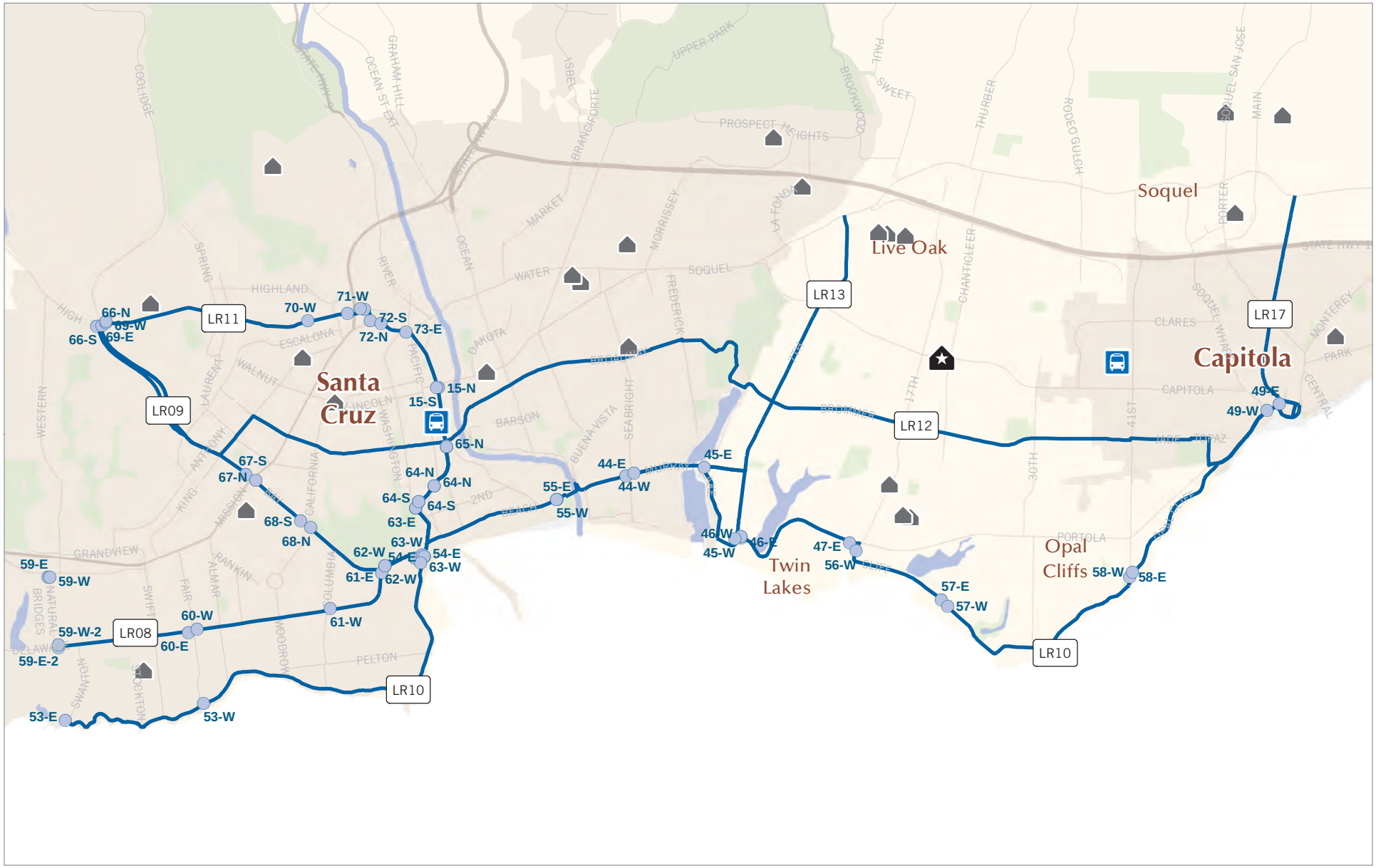


SCC Bicycle Route Signage Program

- Regional Bike Routes
- Local Bike Routes
- Neighborhood Bike Routes
- Transit Center
- Schools with >75% Student Eligibility for FRPM
- Schools with <75% Student Eligibility for FRPM
- Potential Sign Locations
- ID # Route ID

1 Miles

SCCRTC



SCC Bicycle Route Signage Program

- Regional Bike Routes
- Local Bike Routes
- Neighborhood Bike Routes
- Transit Center
- Schools with >75% Student Eligibility for FRPM
- Schools with <75% Student Eligibility for FRPM
- Potential Sign Locations
- ID # Route ID

1 Miles

SCCRTC

SCC Bicycle Route Signage Program

- Regional Bike Routes
- Local Bike Routes
- Neighborhood Bike Routes
- Transit Center
- Schools with >75% Student Eligibility for FRPM
- Schools with <75% Student Eligibility for FRPM
- Potential Sign Locations
- ID # Route ID

1 Miles

SCCRTC

Attachment E: Bicycle Routes, Street Network

Route Reference	Route Type	Route Description	Street Network
Regional Routes			
RR01	Regional	Felton and Scotts Valley to Downtown Santa Cruz	Graham Hill Road, Mt. Hermon Road, Glen Canyon Road, Market Street, Water Street, Front Street
			Graham Hill Road
			Mt. Hermon Road
			Glen Canyon Road
			Market Street
			Water Street
			Front Street
RRO2	Regional	Downtown Santa Cruz to Soquel Village, Aptos Village, Downtown Watsonville	Front Street, Soquel Avenue, Soquel Drive, Bonita Drive, San Andreas Road, Beach Road, West Beach Street
			Front Street
			Soquel Avenue
			Soquel Drive
			Bonita Drive
			San Andreas Road
			Beach Road
			West Beach Street
RR04	Regional	Capitola Mall to Downtown Santa Cruz	Capitola Road, Soquel Avenue
			Capitola Road
			Soquel Avenue
			Front Street
RR05	Regional	Soquel Village to Capitola Village	Porter Street, Bay Avenue , Monterey Avenue, Capitola Avenue
			Porter Street
			Bay Avenue
			Monterey Avenue
			Capitola Avenue
RR06	Regional	Seacliff Village to Capitola Village and Downtown Santa Cruz	State Park Drive, McGregor Drive, Park Avenue, Monterey Avenue, Cliff Drive, Portola Drive, East Cliff Drive, 7th/Lake Avenue, Murray Street , San Lorenzo River Levee, Front Street
			State Park Drive
			McGregor Drive
			Park Avenue
			Monterey Avenue
			Cliff Drive
			Portola Drive
			East Cliff Drive
			7th Avenue/Lake Avenue
			Murray Street
			San Lorenzo River Levee
			Front Street

Attachment E: Bicycle Routes, Street Network

Route Reference	Route Type	Route Description	Street Network
Local Routes			
LR07	Local	Scotts Valley High School to Scotts Valley Town Center	Glenwood Drive, Scotts Valley Drive, Mt. Hermon Road
			Glenwood Drive
			Scotts Valley Drive
			Mt. Hermon Road
			Kings Village Road
LR08	Local	Natural Bridges State Beach to Downtown Santa Cruz	Delaware Avenue, Bay Street, West Cliff Drive, West Cliff Drive (trestle), Pacific Avenue, Front Street
			Delaware Avenue
			Bay Street
			West Cliff Drive
			West Cliff Drive (trestle)
			Pacific Avenue
			Front Street
LR09	Local	UCSC to Santa Cruz Wharf and Downtown Santa Cruz	Bay Drive, Bay Street, West Cliff Drive, West Cliff Drive (trestle), Pacific Avenue, Front Street
			Bay Drive
			Bay Street
			West Cliff Drive
			West Cliff Drive (trestle)
			Pacific Avenue
			Front Street
LR10	Local	Capitola Village to Natural Bridges State Beach	Capitola Avenue, Stockton Avenue, Cliff Drive, Opal Cliff Drive, 41st Avenue, East Cliff Drive, 7th/Lake Avenue, Murray Street, Beach Street, West Cliff Drive
			Capitola Avenue
			Stockton Avenue
			Cliff Drive
			Opal Cliff Drive
			41st Avenue
			East Cliff Drive
			7th Avenue/Lake Avenue
			Murray Street
			Beach Street
			West Cliff Drive
LR11	Local	UCSC to Downtown Santa Cruz	High Street, High Street (pedestrian bridge), Sylvar Street, Mission Street, Pacific Avenue
			High Street
			High Street (pedestrian bridge)
			Sylvar Street
			Mission Street
			Pacific Avenue

Attachment E: Bicycle Routes, Street Network

Route Reference	Route Type	Route Description	Street Network
LR12	Local	Capitola Village to UCSC	Capitola Avenue/Esplanade, Stockton Avenue, Cliff Drive, 47th Avenue, Topaz Street, Jade Street, Brommer Street, Arana Gulch Multi Use Path, Broadway, Laurel Street, King Street, Bay Street, Bay Drive
			Capitola Avenue/Esplanade
			Stockton Avenue
			Cliff Drive
			47th Avenue
			Topaz Street
			Jade Street
			Brommer Street
			Arana Gulch Multi Use Path
			Broadway
			Laurel Street
			King Street
			Bay Street
			Bay Drive
LR13	Local	Soquel Avenue to Seabright Neighborhood	7th Avenue, Murray Street
			7th Avenue
			Murray Street
LR14	Local	Pajaro Valley High School to Downtown Watsonville	Harkins Slough Road, Ford Street, Rodriguez Street
			Harkins Slough Road
			Ford Street
			Rodriguez Street
LR15	Local	Pinto Lake to Downtown Watsonville	Green Valley Road, Pennslyvania Drive, Main Street Path, Rodriguez Street
			Green Valley Road
			Pennsylvania Drive
			Main Street Path
			Rodriguez Street
LR17	Local	Soquel Drive to Capitola Village	Capitola Avenue

Attachment E: Bicycle Routes, Street Network

Route Reference	Route Type	Route Description	Street Network
Neighborhood Routes			
NR18	Neighborhood	Scotts Valley Drive to Scotts Valley Town Center	Bean Creek Road, Blue Bonnet Lane, Kings Village Road
			Bean Creek Road
			Blue Bonnet Lane
			Kings Village Road
NR19	Neighborhood	Mission Street to Laurel Street	Almar Avenue, Seaside Avenue, Acadia Avenue, California Street
			Almar Avenue at Mission Street
			Seaside Avenue
			Acadia Avenue
			California Street
NR20	Neighborhood	Westside Neighborhood Center to West Cliff Drive	Fair Avenue
NR21	Neighborhood	Soquel Avenue to East Cliff Drive	Cayuga Street, Buena Vista Avenue
			Cayuga Street
			Buena Vista Avenue
NR22	Neighborhood	New Brighton State Beach to Capitola Village	Kennedy Drive, Monterey Avenue
			Kennedy Drive
			Monterey Avenue
NR23	Neighborhood	Soquel Avenue to Seabright Neighborhood Center	Cayuga Street, Logan Street, Seabright Avenue
			Cayuga Street
			Logan Street
			Seabright Avenue
NR25	Neighborhood	Prospect Heights Neighborhood to Seabright Neighborhood Center	Prospect Heights, Park Way, to Arana Gulch Mult Use Path, Santa Cruz Harbor
			Prospect Heights
			La Fonda Avenue
			La Fonda Avenue/Park Way multi use pathway connector
			Park Way
			Arana Gulch Multi Use Path
			Santa Cruz Harbor
			Atlantic Avenue
			East Cliff Drive
NR27	Neighborhood	Live Oak Neighborhood to Seabright Neighborhood Center	Rodriguez Street, Jose Avenue, El Dorado Avenue, Brommer Street, Arana Gulch Multi Use Path, Santa Cruz Harbor, Atlantic Avenue, East Cliff Drive
			Rodriguez Street
			Jose Avenue
			El Dorado Avenue
			Brommer Street
			Arana Gulch Multi Use Path
			Santa Cruz Harbor
			Atlantic Avenue
			East Cliff Drive

Attachment E: Bicycle Routes, Street Network

Route Reference	Route Type	Route Description	Street Network
NR29	Neighborhood	Capitola Road to Pleasure Point	30th Avenue, Roland Drive, 35th Avenue, Portola Drive, 37th Avenue, East Cliff Drive
			30th Avenue
			Roland Drive
			35th Avenue
			Portola Drive
			37th Avenue
			East Cliff Drive
NR31	Neighborhood	Clares Street to Capitola Village	46th Avenue, Capitola Road, 47th Avenue, Cliff Drive, Stockton Avenue, Capitola Avenue
			46th Avenue
			Capitola Road
			47th Avenue
			Cliff Drive
			Stockton Avenue
			Capitola Avenue
NR33	Neighborhood	Seacliff Neighborhood to Seacliff Village	Mar Vista Drive, Seacliff Drive, State Park Drive
			Mar Vista Drive
			Seacliff Drive
			State Park Drive
NR35	Neighborhood	Hall Middle School to Downtown Watsonville	Palm Avenue, Madison Street, 5th Street, Brennan, West 5th Street, Rodrigeuz Street
			Palm Avenue
			Madison Street
			5th Street
			Brennan Street
			West 5th Street
			Rodriguez Street
NR36	Neighborhood	Downtown Watsonville to Green Valley Commercial Center and Green Valley Road	Kearney Street, Lower Slough Trails, Oholone Parkway, Upper Slough Trails, Pennsylvania Drive
			Kearney Street
			Lower Slough Trails
			Ohlone Parkway
			Upper Slough Trails
			Pennsylvania Drive
NR37	Neighborhood	Watsonville High School to Downtown Wastonville	East Beach Street, Lincoln Street, Maple Ave, 2nd, Rodriguez Street
			East Beach Street
			Lincoln Street
			Maple Avenue
			2nd
			Rodrigeuz Street
NR39	Neighborhood	Freedom Boulevard to Main Street	Arthur Road, Hammer Drive, Pennyslvania Drive, Main Street Path
			Arthur Road
			Hammer Drive
			Pennsylvania Drive
			Main Street Path

Attachment E: Bicycle Routes, Street Network

Route Reference	Route Type	Route Description	Street Network
NR40	Neighborhood	Freedom Boulevard to East Lake Avenue	Crestview Drive, Brewington Avenue, Martinelli Street
			Crestview Drive
			Brewington Avenue
			Martinelli Street
NR41	Neighborhood	Freedom Boulevard to Highway 129	Crestview Drive, Brewington Avenue, East Lake Avenue, Blackburn Street
			Crestview Drive
			Brewington Avenue
			East Lake Avenue
			Blackburn Street

Attachment F

ATTACHMENT F

County-wide Bicycle Route Signage Program Photos of Existing Conditions

The below photos identify bicycle access to common destinations included in the bicycle route signage network.

Capitola: 41st Ave

Capitola Village: Capitola Ave. and Stockton facing South

Capitola: Jade Street Park (East side)

Capitola: Capitola Ave.

ATTACHMENT F

Scotts Valley: Kings Village Shopping Center

Scotts Valley: Downtown Felton

City of Santa Cruz: UCSC

City of Santa Cruz: West Cliff

City of Santa Cruz: Seabright

City of Santa Cruz: Downtown

City of Santa Cruz: Natural Bridges

City of Santa Cruz: Harvey West

Watsonville: Downtown/Civic Plaza

Watsonville: Ramsey Park

Watsonville: Green Valley Rd near Pinto Lake

Watsonville: Slough Trails

Watsonville: Green Valley Commercial area

Lower 41st Ave.

Cabrillo College

Aptos Village

17th and Brommer	Pleasure Point

Attachment G

Detailed Engineer's Estimate and Total Project Cost

05-Santa Cruz County Regional Transportation Commission-1

Important: Read the Instructions in the other sheet (tab) before entering data. Do not enter in shaded fields (with formulas).

Project Information:

Agency:	Santa Cruz County Regional Transportation Commission				
Application ID:	05-Santa Cruz County Regiuonal Transportation Commission-1	**Prepared by:**	Kim Shultz	**Date:**	**5/26/2015**
Project Description:	The Countywide Bicycle Route Signage program will instaff directional signage to direct cyclists to preferred routes and promote motorist's awareness of shared use.				
Project Location:	Spans the entire county with the majority of the 102 miles of preferred neighborhood, local, and regional bicycle routes serving the urbanized area of the county.				

Engineer's Estimate and Cost Breakdown:

Engineer's Estimate (for Construction Items Only)						Cost Breakdown							
						Note: Cost can apply to more than one category. Therefore may be over 100%.							
						ATP Eligible Items		Landscaping		Non-Participating Items		To be Constructed by Corps/CCC	
Item No.	**Item**	**Quantity**	**Units**	**Unit Cost**	**Total Item Cost**	**%**	**$**	**%**	**$**	**%**	**$**	**%**	**$**
1	MUTCD Sign D11-1, modified	150	/sign	$104.25	$15,638	100%	$156						
2	MUTCD Sign D11-1c	150	/sign	$104.25	$15,638	100%	$156						
3	MUTCD Sign D1-1a	150	/sign	$73.15	$10,973	100%	$110						
4	MUTCD Sign D1-2a	100	/sign	$104.25	$10,425	100%	$104						
5	MUTCD Sign D1-3a	50	/sign	$142.50	$7,125	100%	$71						
6	MUTCD Sign 1-1c	150	/sign	$88.15	$13,223	100%	$132						
7	MUTCD Sign D1-2c	75	/sign	$174.25	$13,069	100%	$131						
8	MUTCD Sign D1-3c	50	/sign	$199.15	$9,958	100%	$100						
9	MUTCD Sign M5/M6	475	/sign	$56.15	$26,671	100%	$267						
10	Posts & Hardware	1,000	LS	$65.00	$65,000	100%	$650						
11													
12													
13													
14													
15													
16													
				Subtotal of Construction Items:	**$187,718**		**$1,877**						
	Construction Item Contingencies (% of Construction Items): **Enter in the cell to the right**			**20.00%**	**$37,544**								
	Total (Construction Items & Contingencies) cost:				**$225,261**								

Project Cost Estimate:

Type of Project Delivery Cost	Cost $		
Preliminary Engineering (PE)			
Environmental Studies and Permits(PA&ED):	$ 3,000		
Plans, Specifications and Estimates (PS&E):	$ 42,000		
Total PE:	**$ 45,000**	**19.98%**	25% Max
Right of Way (RW)			
Right of Way Engineering:	NA		
Acquisitions and Utilities:	NA		
Total RW:	**$ -**		
Construction (CON)			
Construction Engineering (CE):	$ 30,000	**11.75%**	15% Max
Total Construction Items & Contingencies:	$225,261		
Total CON:	**$ 255,261**		
Total Project Cost Estimate:	**$ 300,261**		

Decision Signs:

- To be used before major intersections/decision points

Option 1

D11-1, modified ("Bike Route" removed)

Size: 24" x 18"

D1-1a: Single Destination
D1-2a: Two Destinations
D1-3a: Three Destinations

Size: Height varies based on number of destinations; width varies, but could limit to 24" to match width of D11-1

Note: The two signs for Option 1 can be mounted on single plate

Option 2 (for single destination)

D11-1c

Size: 24" x 18"

M5/M6 arrow series

Option 3

D1-1c: Single Destination
D1-2c: Two Destinations
D1-3c: Three Destinations

Size: Height varies based on number of destinations; width varies, but max. width of 36" suggested due to truck clearance

Confirmation Sign:

- To be used after major intersections/decision points
- To be used on long, uninterrupted stretches

D11-1c

Size: 24" x 18"

Attachment H

Exhibit 22-R ATP Non-Infrastructure Project Work Plan

Fill in the following items:

Date: (1)	1-Jun-15
Project Number: (2)	05-Santa Cruz County Regional Transportation Commission-1
Project Location(s): (3a)	VAR
" " (3b)	
" " (3c)	
Project Description: (4)	Prepare public outreach material for the Countywide Bicycle Ropute Signage program and conduct bicycle counts pre-construction to establish baseline conditions and post-construction (years 1 and 3 after construction) to evaluate the impacts of the project.

Proceed to enter information in each Task Tab, as applies (Task A, Task B, Task C, Task C, etc.)

For Department use only

You will not be able to fill in the following items. Items will auto-populate once you've entered all "Task" tabs that applies:

Task Summary:

Click the links below to navigate to "Task Details" tabs:

Task	Task Name	Start Date	End Date	Cost
Task "A"	Pre-Construction - Data Collection	May-2016	Nov-2016	$ 15,390.45
Task "B"	Public Outreach	Mar-2017	Oct-2017	$ 25,825.74
Task "C"	Post-Construction - Data Collection & Reporting	Jul-2018	Oct-2021	$ 28,681.13
Task "D"				$ -
Task "E"				$ -
Task "F"				$ -
Task "G"				$ -
Task "H"				$ -
Task "I"				$ -
Task "J"				$ -
			GRAND TOTAL	**$ 69,897.32**

TASK "A" DETAIL

Task Name (5a):	**Pre-Construction - Data Collection**		
Task Summary (5b):	Collect historic and current data to identify baseline conditions of bicycle use and safety indicators.		
Task Schedule (5c):	**Start Date :** May-2016	**End Date:**	Nov-2016

	Activities (6a):	**Deliverables** (6b):
1.	Review all availalable data sources to establish preliminary baseline database of bicycle use and safety.	Preliminary Baseline Database
2.	Coordinate with the Santa Cruz County Community Traffic Safety Coalition in the collection of data bicycle users at key locations intersection locations	Collect peak period bicycle counts at up to 40 intersections.
3.	Create GIS layer of bicycle counts at key locations throughout the county	Create GIS layer of bicycle counts at key intersections countywide
4.		
5.		
6.		
7.		
8.		
9.		
10.		

Staff Costs:

	Staff Title (7a):	**Staff Hours** (7b)	**Rate Per Hour** (7c)	**Total $**
Party 1 -	Supervisor/SCCRTC Deputy Director	5	$96.75	$ 483.75
Party 2 -	Project Manager/SCCRTC Transportation Planner	40	$70.20	$ 2,808.00
Party 3 -	GIS Operator/SCCRTC Planning Tech	10	$54.80	$ 548.00
Party 4 -	Clerical/SCCRTC Clerical	5	$47.10	$ 235.50
Party 5 -				$ -
Party 6 -				$ -
			Subtotal Party Costs (6d):	$ 4,075.25
			Indirect Costs (6e):	$ 3,260.20
			Total Staff Costs (6f):	$ 7,335.45

Task Notes (8):

Other Costs:

You will not be able to fill in the following items. The totals for each "Other Costs" category listed below will automatically calculate from information entered in the itemized other costs section:

To fill out an itemized cost for each "Other Cost", click below:	Travel (9a):	$ 55.00
	Equipment (9b):	$ -
	Supplies/Materials (9c):	$ -
	Incentives (9d):	$ -
	Other Direct Costs (9e):	$ 8,000.00
	" " (9f):	$ -
	Total Other Costs (9g):	$ 8,055.00
	TASK GRAND TOTAL (10g):	**$ 15,390.45**

Task "A" Other Costs:

Itemized Travel Cost (9a)

Please provide an itemized "travel" cost estimate for all travel costs applicable to each task

Travel (9a)

	Type of Travel	Expense/Quantity	Total $
1.	Field Inspection to confirm key locations for traffic counts	100MilesX0.55/Mile	$ 55
2.			$ -
3.			$ -
4.			$ -
5.			$ -
6.			$ -
7.			$ -
8.			$ -
9.			$ -
10.			$ -
11.			$ -
12.			$ -
13.			$ -
14.			$ -
15.			$ -
16.			$ -
17.			$ -
18.			$ -
19.			$ -
20.			$ -
	Total	0	$ 55
		Total Travel Cost:	$ 55.00

Itemized Equipment Cost (9b)

Please provide an itemized "equipment" cost estimate for all equipment cost applicable to each task

Equipment (9b)

	Type of Equipment	Quantity	Units	Unit Cost $	Total $
1.					$ -
2.					$ -
3.					$ -
4.					$ -
5.					$ -
6.					$ -
7.					$ -
8.					$ -
9.					$ -
10.					$ -
11.					$ -
12.					$ -
13.					$ -
14.					$ -
15.					$ -
16.					$ -
17.					$ -
18.					$ -
19.					$ -
20.					$ -
	Total:	0		$0	$ -
				Total Equipment Cost:	$ -

Itemized Supplies/Materials Cost (9c)

Please provide an itemized "supplies/materials" cost estimate for all equipment cost applicable to each task

Supplies/Materials (9c)

	Type of Supplies/Materials	Quantity	Units	Unit Cost $	Total $
1.					$ -
2.					$ -
3.					$ -
4.					$ -
5.					$ -
6.					$ -
7.					$ -
8.					$ -
9.					$ -
10.					$ -
11.					$ -
12.					$ -
13.					$ -
14.					$ -
15.					$ -
16.					$ -
17.					$ -
18.					$ -
19.					$ -
20.					$ -
	Total:	0		$0	$ -
				Total Supplies/Materials Cost:	$ -

Itemized Incentives Cost (9d)

Please provide an itemized "incentives" cost estimate for all incentives cost applicable to each task

Incentives (9d)

	Type of Incentives	Quantity	Units	Unit Cost $	Total $
1.					$ -
2.					$ -
3.					$ -
4.					$ -
5.					$ -
6.					$ -
7.					$ -
8.					$ -
9.					$ -
10.					$ -
11.					$ -
12.					$ -
13.					$ -
14.					$ -
15.					$ -
16.					$ -
17.					$ -
18.					$ -
19.					$ -
20.					$ -
	Total:	0		$0	$ -
				Total Incentives Cost:	$ -

Task "A" Other Costs:

Itemized Other Direct Costs (9e)

Please provide an itemized "other" cost estimate for all other costs applicable to each task

Other Direct Costs (9e)

	Type of Other Direct Costs	Quantity	Units	Unit Cost $	Total $
1.	Peak Period Intersection Bicycle Counts	40	IC	$200	$ 8,000.00
2.					$ -
3.					$ -
4.					$ -
5.					$ -
6.					$ -
7.					$ -
8.					$ -
9.					$ -
10.					$ -
11.					$ -
12.					$ -
13.					$ -
14.					$ -
15.					$ -
16.					$ -
17.					$ -
18.					$ -
19.					$ -
20.					$ -
	Total:	40		$200	$ 8,000.00
				Total Other Direct Cost:	**$ 8,000.00**

Itemized Other Direct Costs (9f)

Please provide an itemized "other direct" cost estimate for all other costs applicable to each task

Other Direct Costs (9f)

	Type of Other Direct Costs	Quantity	Units	Unit Cost $	Total $
1.					$ -
2.					$ -
3.					$ -
4.					$ -
5.					$ -
6.					$ -
7.					$ -
8.					$ -
9.					$ -
10.					$ -
11.					$ -
12.					$ -
13.					$ -
14.					$ -
15.					$ -
16.					$ -
17.					$ -
18.					$ -
19.					$ -
20.					$ -
	Total:	0		$0	$ -
				Total Other Direct Cost:	**$ -**

TASK "B" DETAIL

Task Name (5a):	**Public Outreach**		
Task Summary (5b):	Create pamphlet of the preferred bicycle route program and web based map of the countywide system		
Task Schedule (5c):	**Start Date :** Mar-2017	**End Date:**	Oct-2017

Activities and Deliverables:

	Activities (6a):	**Deliverables** (6b):
1.	Develop pamphlets in English and Spanish for distribution to the public public at bicycle safety, bike to work & school events, and RTC public meetings.	Camera ready English and Spanish language versions of the pamphlet.
2.	Create a web based map of the preferred routes for posting in SCCRTC & Cruz 511 webpage providing traveler information.	Web based map of the preferred route system
3.		
4.		
5.		
6.		
7.		
8.		
9.		
10.		

Staff Costs:

	Staff Title (7a):	**Staff Hours** (7b)	**Rate Per Hour** (7c)	**Total $**
Party 1 -				
Party 2 -	Supervisor/SCCRTC Deputy Director	10	$96.75	$ 967.50
Party 3 -	Project Manager/SCCRTC Transportation Planner	120	$70.20	$ 8,424.00
Party 4 -	GIS Operator//Internet Tech Support/SCCRTC Planning Tech	30	$54.80	$ 1,644.00
Party 5 -	Clerical/SCCRTC Clerical	3	$47.10	$ 141.30
Party 6 -				$ -
			Subtotal Party Costs (6d):	$ 11,176.80
			Indirect Costs (6e):	$ 8,941.44
			Total Staff Costs (6f):	$ 20,118.24

Task Notes (8):

Other Costs:

You will not be able to fill in the following items. The totals for each "Other Costs" category listed below will automatically calculate from information entered in the itemized other costs section:

To fill out an itemized cost for each "Other Cost", click below:	Travel (9a):	$ 82.50
	Equipment (9b):	$ -
	Supplies/Materials (9c):	$ -
	Incentives (9d):	$ -
	Other Direct Costs (9e):	$ 5,625.00
	" " (9f):	$ -
	Total Other Costs (9g):	$ 5,707.50
	TASK GRAND TOTAL (10g):	**$ 25,825.74**

Task "B" Other Costs:

Itemized Travel Cost (9a)

Please provide an itemized "travel" cost estimate for all travel costs applicable to each task

Travel (9a)

	Type of Travel	Expense/Quantity	Total $
1.	Distribution public outreach materail at bike safety events	150milesX.55/mile	$ 83
2.			$ -
3.			$ -
4.			$ -
5.			$ -
6.			$ -
7.			$ -
8.			$ -
9.			$ -
10.			$ -
11.			$ -
12.			$ -
13.			$ -
14.			$ -
15.			$ -
16.			$ -
17.			$ -
18.			$ -
19.			$ -
20.			$ -
	Total	0	$ 83
		Total Travel Cost:	$ 82.50

Itemized Equipment Cost (9b)

Please provide an itemized "equipment" cost estimate for all equipment cost applicable to each task

Equipment (9b)

	Type of Equipment	Quantity	Units	Unit Cost $	Total $
1.					$ -
2.					$ -
3.					$ -
4.					$ -
5.					$ -
6.					$ -
7.					$ -
8.					$ -
9.					$ -
10.					$ -
11.					$ -
12.					$ -
13.					$ -
14.					$ -
15.					$ -
16.					$ -
17.					$ -
18.					$ -
19.					$ -
20.					$ -
	Total:	0		$0	$ -
				Total Equipment Cost:	$ -

Itemized Supplies/Materials Cost (9c)

Please provide an itemized "supplies/materials" cost estimate for all equipment cost applicable to each task

Supplies/Materials (9c)

	Type of Supplies/Materials	Quantity	Units	Unit Cost $	Total $
1.					$ -
2.					$ -
3.					$ -
4.					$ -
5.					$ -
6.					$ -
7.					$ -
8.					$ -
9.					$ -
10.					$ -
11.					$ -
12.					$ -
13.					$ -
14.					$ -
15.					$ -
16.					$ -
17.					$ -
18.					$ -
19.					$ -
20.					$ -
	Total:	0		$0	$ -
				Total Supplies/Materials Cost:	$ -

Itemized Incentives Cost (9d)

Please provide an itemized "incentives" cost estimate for all incentives cost applicable to each task

Incentives (9d)

	Type of Incentives	Quantity	Units	Unit Cost $	Total $
1.					$ -
2.					$ -
3.					$ -
4.					$ -
5.					$ -
6.					$ -
7.					$ -
8.					$ -
9.					$ -
10.					$ -
11.					$ -
12.					$ -
13.					$ -
14.					$ -
15.					$ -
16.					$ -
17.					$ -
18.					$ -
19.					$ -
20.					$ -
	Total:	0		$0	$ -
				Total Incentives Cost:	$ -

Task "B" Other Costs:

Itemized Other Direct Costs (9e)

Please provide an itemized "other" cost estimate for all other costs applicable to each task

Other Direct Costs (9e)

	Type of Other Direct Costs	Quantity	Units	Unit Cost $	Total $
1.	Color Copy English & Spanish language pamphlet	7,500	each	$1	$ 5,625.00
2.					$ -
3.					$ -
4.					$ -
5.					$ -
6.					$ -
7.					$ -
8.					$ -
9.					$ -
10.					$ -
11.					$ -
12.					$ -
13.					$ -
14.					$ -
15.					$ -
16.					$ -
17.					$ -
18.					$ -
19.					$ -
20.					$ -
	Total:	7500		$1	$ 5,625.00
				Total Other Direct Cost:	**$ 5,625.00**

Itemized Other Direct Costs (9f)

Please provide an itemized "other direct" cost estimate for all other costs applicable to each task

Other Direct Costs (9f)

	Type of Other Direct Costs	Quantity	Units	Unit Cost $	Total $
1.					$ -
2.					$ -
3.					$ -
4.					$ -
5.					$ -
6.					$ -
7.					$ -
8.					$ -
9.					$ -
10.					$ -
11.					$ -
12.					$ -
13.					$ -
14.					$ -
15.					$ -
16.					$ -
17.					$ -
18.					$ -
19.					$ -
20.					$ -
	Total:	0		$0	$ -
				Total Other Direct Cost:	**$ -**

TASK "C" DETAIL

Task Name (5a):	**Post-Construction - Data Collection & Reporting**		
Task Summary (5b):	Collect and evaluate post construction bicycle user and safety data at 1 and 3 year periods after construction.		
Task Schedule (5c):	**Start Date :** Jul-2018	**End Date:**	Oct-2021

10/30/2017

	Activities (6a):	**Deliverables** (6b):
1.	Coordinate with the Santa Cruz County Community Traffic Safety Coalition in the collection of bicycle users at key locations countywide.	Colect peak period bicycle counts at up to 40 intersections countywide.
2.	Popoulate GIS layer with updated bicycle coutns and safety informations from SWITRS at year 1 and year 3 after construction.	GIS layers of updated bicycle and safety data at years 1 and 3 post construction
3.	Prepare comparative assessment of bicycle users and safety indicators at year 1 and year 3 after construction and report findings to the SCCRTC Bicycle Advisory Committee, stakeholders, SCCRTC Board, AMBAG (MPO), and Caltrans.	Comparative reports of the projects impact of bicycle use and safety
4.		
5.		
6.		
7.		
8.		
9.		
10.		

Staff Costs:

	Staff Title (7a):	**Staff Hours** (7b)	**Rate Per Hour** (7c)	**Total $**
Party 1 -	Supervisor/SCCRTC Deputy Director	10	$101.59	$ 1,015.88
Party 2 -	Project Manager/SCCRTC Transportation Planner	60	$73.71	$ 4,422.60
Party 3 -	GIS Operator/SCCRTC Planning Tech	10	$57.54	$ 575.40
Party 4 -	Clerical/SCCRTC Clerical	8	$49.46	$ 395.64
Party 5 -				$ -
Party 6 -				$ -
			Subtotal Party Costs (6d):	$ 6,409.52
			Indirect Costs (6e):	$ 5,127.61
			Total Staff Costs (6f):	$ 11,537.13

Task Notes (8): Staff rates per hour raised an average 5% for work completed years 1 (FY 2018) & year 3 (FY 2020) following construction.

Other Costs:

You will not be able to fill in the following items. The totals for each "Other Costs" category listed below will automatically calculate from information entered in the itemized other costs section:

To fill out an itemized cost for each "Other Cost", click below:	Travel (9a):	$ -
	Equipment (9b):	$ -
	Supplies/Materials (9c):	$ -
	Incentives (9d):	$ -
	Other Direct Costs (9e):	$ 17,144.00
	" " (9f):	$ -
	Total Other Costs (9g):	$ 17,144.00
	TASK GRAND TOTAL (10g):	**$ 28,681.13**

Task "C" Other Costs:

Itemized Travel Cost (9a)

Please provide an itemized "travel" cost estimate for all travel costs applicable to each task

Travel (9a)

	Type of Travel	Expense/Quantity	Total $
1.			$ -
2.			$ -
3.			$ -
4.			$ -
5.			$ -
6.			$ -
7.			$ -
8.			$ -
9.			$ -
10.			$ -
11.			$ -
12.			$ -
13.			$ -
14.			$ -
15.			$ -
16.			$ -
17.			$ -
18.			$ -
19.			$ -
20.			$ -
	Total	0	$ -
		Total Travel Cost:	$ -

Itemized Equipment Cost (9b)

Please provide an itemized "equipment" cost estimate for all equipment cost applicable to each task

Equipment (9b)

	Type of Equipment	Quantity	Units	Unit Cost $	Total $
1.					$ -
2.					$ -
3.					$ -
4.					$ -
5.					$ -
6.					$ -
7.					$ -
8.					$ -
9.					$ -
10.					$ -
11.					$ -
12.					$ -
13.					$ -
14.					$ -
15.					$ -
16.					$ -
17.					$ -
18.					$ -
19.					$ -
20.					$ -
	Total:	0		$0	$ -
				Total Equipment Cost:	$ -

Itemized Supplies/Materials Cost (9c)

Please provide an itemized "supplies/materials" cost estimate for all equipment cost applicable to each task

Supplies/Materials (9c)

	Type of Supplies/Materials	Quantity	Units	Unit Cost $	Total $
1.					$ -
2.					$ -
3.					$ -
4.					$ -
5.					$ -
6.					$ -
7.					$ -
8.					$ -
9.					$ -
10.					$ -
11.					$ -
12.					$ -
13.					$ -
14.					$ -
15.					$ -
16.					$ -
17.					$ -
18.					$ -
19.					$ -
20.					$ -
	Total:	0		$0	$ -
				Total Supplies/Materials Cost:	$ -

Itemized Incentives Cost (9d)

Please provide an itemized "incentives" cost estimate for all incentives cost applicable to each task

Incentives (9d)

	Type of Incentives	Quantity	Units	Unit Cost $	Total $
1.					$ -
2.					$ -
3.					$ -
4.					$ -
5.					$ -
6.					$ -
7.					$ -
8.					$ -
9.					$ -
10.					$ -
11.					$ -
12.					$ -
13.					$ -
14.					$ -
15.					$ -
16.					$ -
17.					$ -
18.					$ -
19.					$ -
20.					$ -
	Total:	0		$0	$ -
				Total Incentives Cost:	$ -

Task "C" Other Costs:

Itemized Other Direct Costs (9e)

Please provide an itemized "other" cost estimate for all other costs applicable to each task

Other Direct Costs (9e)

	Type of Other Direct Costs	Quantity	Units	Unit Cost $	Total $
0.	Peak Period Intersection Bicycle Counts - Year 1 post Constr - inflated 3.5%	40	IC	$207	$ 8,280.00
2.	Peak Period Intersection Bicycle Counts - Year 3 post Constr - inflated 10.8%	40	IC	$222	$ 8,864.00
3.	Note: Unit costs raised 3.5% for counts taken year 1 after construction (FY2018)				$ -
4.	and 10.8% for counts taken year 3 following construction (FY 2020)				$ -
5.					$ -
6.					$ -
7.					$ -
8.					$ -
9.					$ -
10.					$ -
11.					$ -
12.					$ -
13.					$ -
14.					$ -
15.					$ -
16.					$ -
17.					$ -
18.					$ -
19.					$ -
20.					$ -
	Total:	80		$429	$ 17,144.00
				Total Other Direct Cost:	$ 17,144.00

Itemized Other Direct Costs (9f)

Please provide an itemized "other direct" cost estimate for all other costs applicable to each task

Other Direct Costs (9f)

	Type of Other Direct Costs	Quantity	Units	Unit Cost $	Total $
1.					$ -
2.					$ -
3.					$ -
4.					$ -
5.					$ -
6.					$ -
7.					$ -
8.					$ -
9.					$ -
10.					$ -
11.					$ -
12.					$ -
13.					$ -
14.					$ -
15.					$ -
16.					$ -
17.					$ -
18.					$ -
19.					$ -
20.					$ -
	Total:	0		$0	$ -
				Total Other Direct Cost:	$ -

Attachment I-1

ATTACHMENT I-1

County-wide Bicycle Route Signage New Bicycle Rider Calculation, Assumptions & Supporting Research

Although no studies isolating the relationship between bicycle route signage and increased ridership exist, estimates regarding the impact of bicycle route signage on new bicycle ridership in Santa Cruz County were made based on existing research documenting the relationships between new on-street bicycle facilities and increases in bicycle ridership, professional judgment about the relationship and synergy between bicycle signage and other on-street facilities, and locally available bicycle count and mode share data.

- The existing bike trips for Santa Cruz County can be determined from two different data sources. The American Community Survey data collected between 2006-2010 shows that 2.9% (3,570) of work trips are by bike. The 2011-2012 California Household Travel Survey for Santa Cruz County found that 3.3% of **ALL** trips in Santa Cruz County are by bike. The 3.3% is converted into a total number of bike trips per day in the county (30,191) based on a county population of 271,804 and an average number of total trips per person per day of 3.37.
- Forecasting the number of bike trips in Santa Cruz County without the project into the future was determined by assuming a population growth of 0.27%/year which is consistent with population growth over the last 10 years.
- The forecast of the number of bike trips in Santa Cruz County due to the County-wide Bicycle Route Signage Program estimates 5,448 new bicycle trips per day. This estimate assumes an increase in bicycle trips of 18% for all trips as well as a population growth of 0.26%/year. The total number of bike trips increases from 3.3% to 3.9% as a result of project implementation.
- The estimated 18% increase in bicycle ridership as a result of project implementation is derived from the following relevant research, assumptions, and project information.
- The current centerline length of Class I and II bicycle facilities in Santa Cruz County is approximately 125 miles. These facilities are primarily in the urban areas of the county with an area of approximately 45 square miles. The bicycle facility per square mile distance is thus approximately 2.8 miles/sq mile. The length of the bike signage routes is approximately 102 miles over the urban area of the county (45 sq. miles) which translates into a 2.3 mile/square mile.
- The Santa Cruz County Bicycle Signage Program, by increasing awareness of available bicycle facilities within Santa Cruz County, can be viewed as increasing the effective length

of the bicycle facilities by a certain percentage. The percentage increase that will be assumed here is 5%. A 5 % increase in the effective bicycle lane distance/sq mile is 0.14 miles/sq mile.

- Bike lanes, have been shown to increase bicycle commuting by 258% per 2 miles of bicycle lanes per square mile in areas with density (>2000 persons per square mile) similar to three of the four cities within Santa Cruz County area. [1]
- An increase in bike facilities of 0.14 miles/sq mile can than increase the number of bicycle trips by 0.14/2 miles per sq. mile or 7% of 258% equal to 18%.
- The increase in the number of bicycle users in Santa Cruz County over time will likely increase even more significantly for a number of reasons.
    - As the Monterey Bay Sanctuary Scenic Trail (MBSST - a multi-use separated bicycle trail) begins to be constructed down the length of Santa Cruz County along the rail line, a bicycle signage program creating awareness of this trail will attract new users to this premier bicycle facility.
    - As policies promoting bicycling at the national, state and local level continue to be emphasized, the number of bicycle users will likely increase.
    - Santa Cruz County attracts a large tourist population all year round. Tourists over time will realize the benefits of getting around by active transportation due to ease of wayfinding and the safety of the MBSST.
    - There are 47 schools within one-quarter mile of the bicycle signage routes. See list of schools in Table I-1 below.

Additional supporting information that bike signage promotes an increase in the number of bike trips is below:

a) Providing a network of well signed bicycle routes could have similar effect on increasing usage of bicycling for transportation as other on-street bicycle facility[2] improvements which create a continuous bicycle network by directing and expanding awareness of convenient and attractive routes to common destinations.
b) A revealed preference survey specific to bicycle signage found a positive correlation between cyclists' perception of facility quality and the presence of signed shared

[1] Cambridge Systematics, Inc., "Moving Cooler: An Analysis of Transportation Strategies for Reducing Greenhouse Gas Emissions," Urban Land Institute, Washington, D.C. (2009).
[2] Signed bicycle routes are considered on-street facilities. Other on-street facilities include bike lanes, wide curb lanes, shared streets, and signed routes, according to, National Research Council. "NCHRP Report 552: Guidelines for Analysis of Investments in Bicycle Facilities," Washington, DC: The National Academies Press, 2006.

roadways, though not as strong as with bike lanes. Facility quality was then positively associated with the frequency of commuting by bicycle. [3]

c) A stated preference study found that cyclists preferred residential roads designated as a bicycle route slightly more than residential roads without such designation.[4]
d) The Countywide Bicycle Route Signage Program as proposed would connect over 100 miles[5] of the transportation network.
e) Areas with bicycle signage programs that are coordinated well with a network of bicycle facilities demonstrate the highest shares of bicycle mode share, such as Portland with over a 6% of residents bicycling for transportation.
f) The County-wide Bicycle Route Signage Program's is well suited to shift existing motor vehicles trips to bicycle trips consistent with the Regional Transportation Commission's, *Barriers to Alternative Transportation Modes Survey,* in which 65% of participants indicated they would use a bicycle for a trip less than two miles if not choosing a motor vehicle. [6]
g) New daily adult cyclists are estimated to be 1.93 and 1.11 times the current values for those living within distances of 400 and 800 meters from the new bike facility. [7] Approximately half of the population of Santa Cruz County, or 125,000, live within a half mile of potential signed bicycle routes.

Santa Cruz County Bicycle Usage Data:

h) Bicycle counts taken in May 2012 and October 2014 at locations near likely Santa Cruz County bicycle routes ranged from 365 to 16 riders between the hours of 4pm and 6pm at fifty locations across the County. [8] [9]

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[3] Pucher, John, Dill, Jennifer, Handy, Susan. "Infrastructure, programs, and policies to increase bicycling: An international review," Preventative Medicine 50 (2010) S106-S125. http://policy.rutgers.edu/faculty/pucher/pucher_dill_handy10.pdf
[4] Pucher, John, Dill, Jennifer, Handy, Susan. "Infrastructure, programs, and policies to increase bicycling: An international review," Preventative Medicine 50 (2010) S106-S125. http://policy.rutgers.edu/faculty/pucher/pucher_dill_handy10.pdf
[5] "County-wide Bicycle Route Signage Direct Route Map", Santa Cruz County Regional Transportation Commission, (May 2014).
[6] "Barriers to Alternative Modes – RTP Public Input Survey," Santa Cruz County Regional Transportation Commission (August 2012). http://sccrtc.org/wp-content/uploads/2010/12/RTP-SurveyResults-201208.pdf
[7] National Research Council. "National Cooperative Highway Research Program Report 552: Guidelines for Analysis of Investments in Bicycle Facilities," Washington, DC: The National Academies Press (2006) Page 39.
[8] "Santa Cruz County May 2012 Bicycle and Pedestrian Count Report," Santa Cruz County Regional Transportation Commission, (May 2013).
[9] Santa Cruz County October 2014 Bicycle, Pedestrian, Vehicle Occupancy and Motor Vehicle Count Report," Santa Cruz County Regional Transportation Commission.

ATTACHMENT I-1

i) An annual Bike to Work day event survey reported 6,415 bicycle commuters, a higher number than reported in the American Community Survey.

Table I-1 Schools within One Quarter Mile of Bike Signage Routes

District	School	Street
Santa Cruz County Office of Education	Pacific Collegiate Charter	255 Swift Street
Live Oak Elementary	Cypress Charter High	2039 Merrill Street
Live Oak Elementary	Tierra Pacifica Charter	986 Bostwick Lane
Live Oak Elementary	Green Acres Elementary	966 Bostwick Lane
Live Oak Elementary	Live Oak Elementary	1916 Capitola Road
Live Oak Elementary	Del Mar Elementary	1959 Merrill Street
Live Oak Elementary	Ocean Alternative Education Center	984 Bostwick Lane, Suite 6
Pajaro Valley Unified	Radcliff Elementary	550 Rodriguez Street
Pajaro Valley Unified	Landmark Elementary	235 Ohlone Parkway
Pajaro Valley Unified	Pajaro Valley High	500 Harkins Slough Road
Pajaro Valley Unified	Cesar E. Chavez Middle	440 Arthur Road
Pajaro Valley Unified	Ceiba College Preparatory Academy	260 W. Riverside Drive
Pajaro Valley Unified	New School Community Day	165 Harkins Slough Road
Pajaro Valley Unified	Pacific Coast Charter	294 Green Valley Road
Pajaro Valley Unified	Academic/Vocational Charter Institute	112 Diamond Drive
Pajaro Valley Unified	Renaissance High Continuation	11 Spring Valley Road
Pajaro Valley Unified	Watsonville High	250 East Beach Street
Pajaro Valley Unified	Amesti Elementary	25 Amesti Road
Pajaro Valley Unified	Aptos Junior High	1001 Huntington Drive
Pajaro Valley Unified	E. A. Hall Middle	201 Brewington Avenue
Pajaro Valley Unified	Freedom Elementary	25 Holly Drive
Pajaro Valley Unified	H. A. Hyde Elementary	125 Alta Vista Street
Pajaro Valley Unified	Linscott Charter	220 Elm Street
Pajaro Valley Unified	Mar Vista Elementary	6860 Soquel Drive
Pajaro Valley Unified	Mintie White Elementary	515 Palm Avenue
Pajaro Valley Unified	T. S. MacQuiddy Elementary	330 Martinelli Street
Pajaro Valley Unified	Valencia Elementary	250 Aptos School Road
Pajaro Valley Unified	Starlight Elementary	225 Hammer Drive
Pajaro Valley Unified	Ann Soldo Elementary	1140 Menasco Drive
Santa Cruz City Elementary	Bay View Elementary	1231 Bay Street
Santa Cruz City Elementary	De Laveaga Elementary	1145 Morrissey Boulevard
Santa Cruz City Elementary	Gault Elementary	1320 Seabright Avenue
Santa Cruz City Elementary	Westlake Elementary	1000 High Street
Santa Cruz City Elementary	Santa Cruz City Elementary Alternative Education-Monarch	840 North Branciforte Avenue
Santa Cruz City High	Ark Independent Studies	840 North Branciforte Avenue
Santa Cruz City High	Delta Charter	6500 Soquel Drive, Building 1190
Santa Cruz City High	Alternative Family Education	840 North Branciforte Avenue
Santa Cruz City High	Harbor High	300 La Fonda Avenue
Santa Cruz City High	Costanoa Continuation High	840 North Branciforte Avenue
Santa Cruz City High	Santa Cruz High	415 Walnut Avenue
Santa Cruz City High	Branciforte Middle	315 Poplar Street
Santa Cruz City High	Mission Hill Middle	425 King Street
Soquel Union Elementary	Soquel Elementary	2700 Porter Street
Soquel Union Elementary	New Brighton Middle	250 Washburn Avenue
Santa Cruz County ROP	Santa Cruz County ROP	400 Encinal Street
Scotts Valley Unified	Scotts Valley High	555 Glenwood Drive
Scotts Valley Unified	Scotts Valley Middle	8 Bean Creek Road

Attachment I-2

ATTACHMENT I-2

County-wide Bicycle Route Bicycle Collision Reduction Calculation, Assumptions & Supporting Research

Although no studies isolating the relationship between bicycle route signage and reductions in bicycle collisions have been completed, estimates regarding the impact of bicycle route signage on bicycle collisions resulting from implementation of the County-wide Bicycle Route Signage Program were made based on existing research documenting the relationships between new bicycle lanes and reductions in injury collisions and, professional judgment about the relationship and synergy between bicycle signage and other on-street facilities, and locally available bicycle collision data.

- The County-wide Bicycle Route Signage Program expects to reduce injury and fatal collisions by 20 collisions per year from an average of 199 per year from 2008 through 2012 to 179 and could be expected to reduce a greater number of collisions over time as awareness of bicycling, bicycle routes and safe practices increase.
- The number of bicycle related collisions in Santa Cruz County over the last five years was determined using the SWITRS database. The average number of collisions per year from 2008 through 2012 is 199 with fatalities at 1.4 per year, injuries at 178.2 per year and property damage only collisions are 19.8 per year.[1]
- The bicycle related injury and fatality collisions from 2008 through 2012 are plotted on Figures I-2a through I-2e below.

Relevant research and assumptions that support the estimated reduction of 20 injury and fatal bicycle collisions per year resulting from implementation of the County-wide Bicycle Route Signage Program include:

- A literature review of bicycle facilities and collisions found that the presence of bicycle facilities is associated with lower risk for bicycle collisions. [2]
- Bicycle route signage has a high likelihood of reducing collisions by directing bicyclists to safer bike routes such as separated trails, bike lanes and neighborhood streets. Residents, new students and visitors will be made aware of safer routes for biking thereby decreasing use of higher traffic volume and high traffic speed routes that are more likely associated with collisions.

[1] Statewide Integrated Traffic Records System (SWITRS) http://iswitrs.chp.ca.gov/Reports/jsp/userLogin.jsp
[2] Conor Reynolds, M Anne Harris, Kay Teschke, Peter A Cripton and Meghan Winters, "The impact of transportation infrastructure on bicycling injuries and crashes: a review of the literature", access May 2014, http://www.ehjournal.net/content/8/1/47

ATTACHMENT I-2

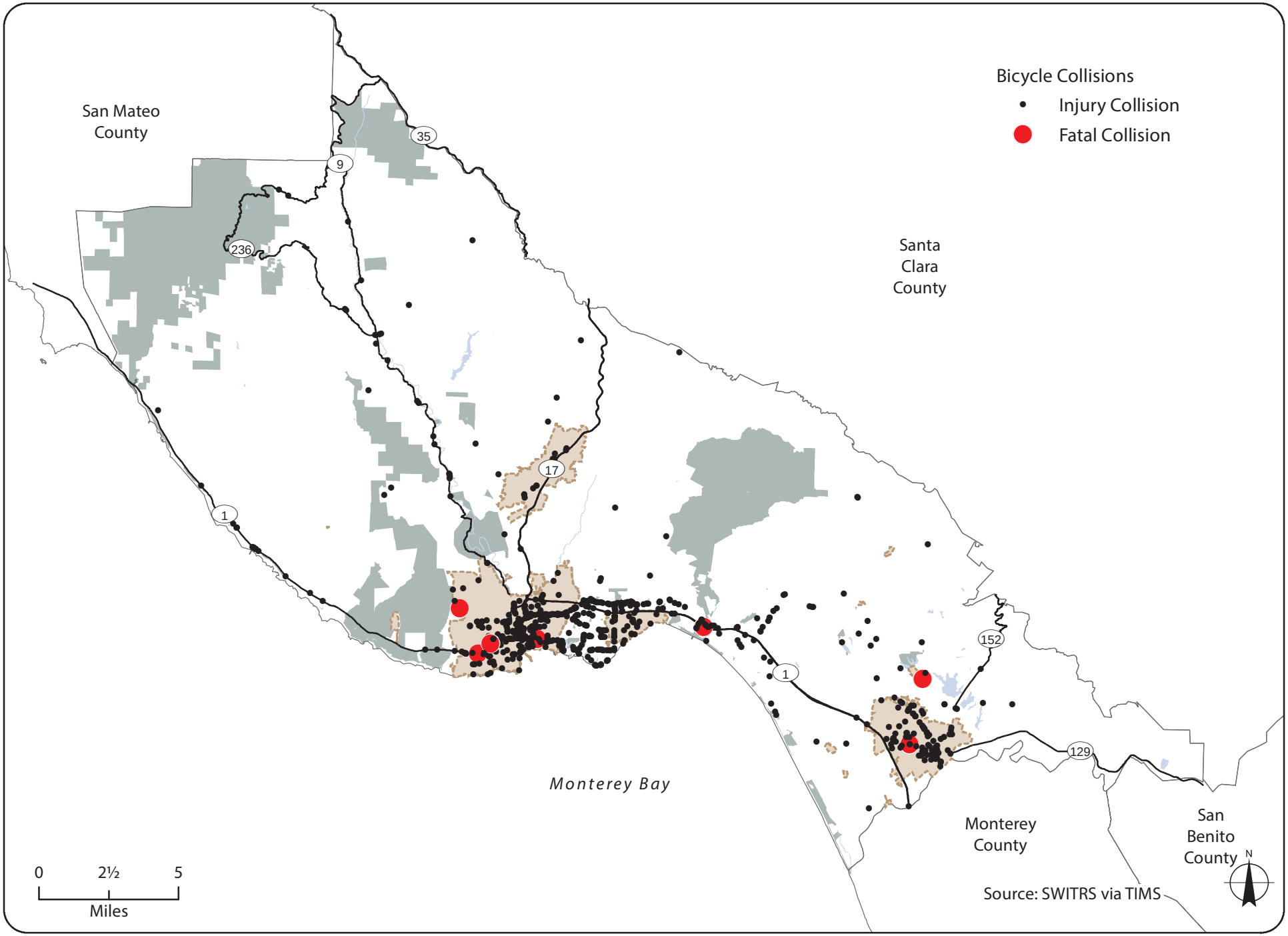
- The installation of bicycle lanes on a New York roadway showed a 57 percent reduction in injury bicycle collisions. [3] Santa Cruz County bicycle route signage will be assumed to decrease the number of collisions by 10% or one sixth the amount of collision reduction as shown for bicycle lanes.
- Findings from SAFETREC research regarding factors related to bicycle collisions support the finding that the Countywide Bicycle Route Signage Program could reduce injuries by identifying "signing" and "visibility" as strategies for reducing bicycle collisions along roadways and at intersections. [4]

[3] "Measuring the Street," City of New York, accessed May 2014, http://www.nyc.gov/html/dot/downloads/pdf/2012-10-measuring-the-street.pdf

[4] "Reducing collisions involving bicycles: Description of Strategies," Implementing the AASHTO Strategic Highway Safety Plan, accessed May 2014, http://safety.transportation.org/htmlguides/bicycles/description_of_strat.htm#strategy_a3

Figure I-2a

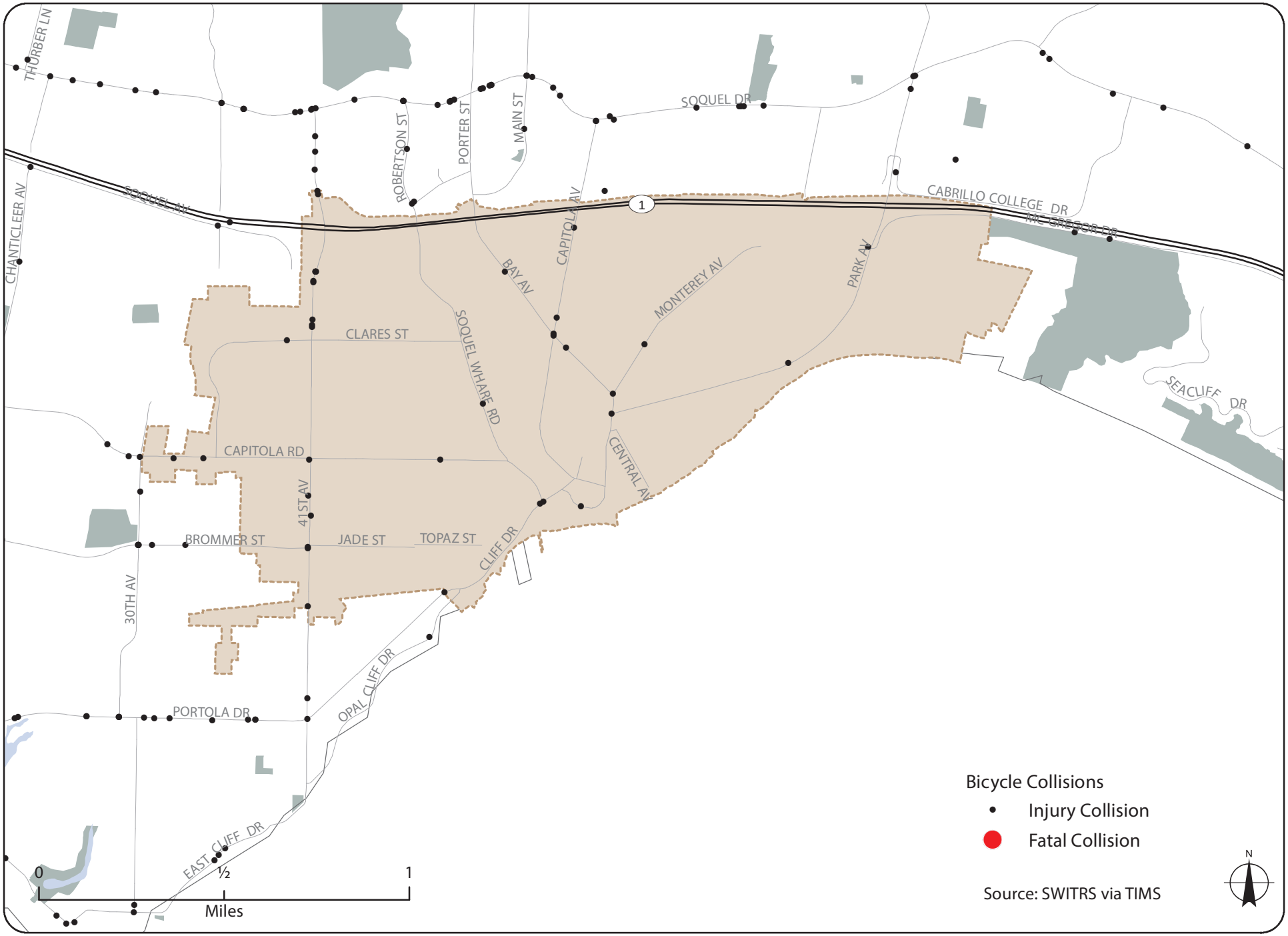
County-wide Bicycle Route Signage Program - Santa Cruz County Bicycle Injury and Fatal Collisions (2008-2012)



Note: Less than 10% of total bicycle collisions not displayed on map due to incomplete lat/long data

Figure I-2b

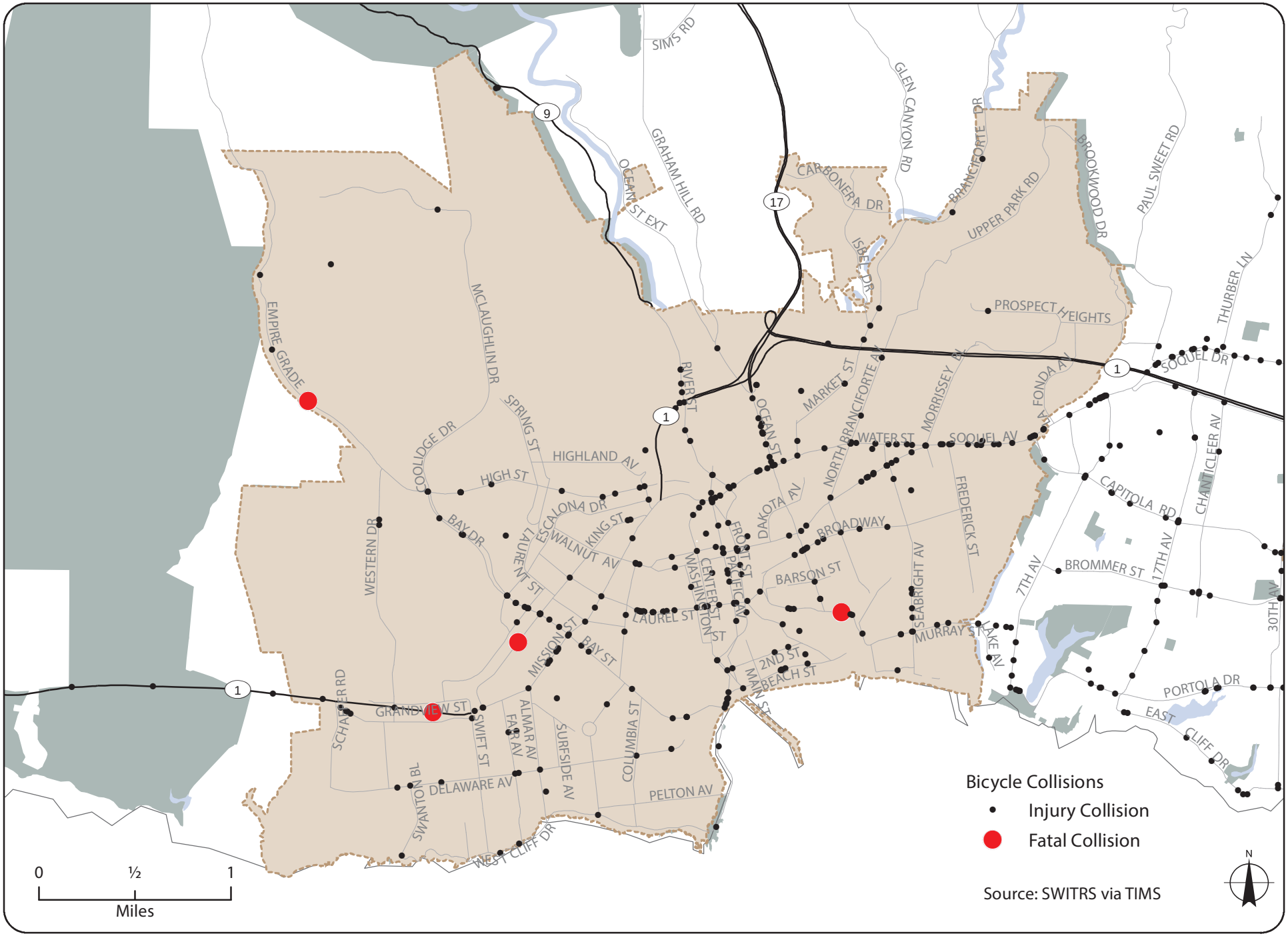
County-wide Bicycle Route Signage Program - Santa Cruz County Bicycle Injury and Fatal Collisions (2008-2012)



Note: Less than 10% of total bicycle collisions not displayed on map due to incomplete lat/long data

Figure I-2c

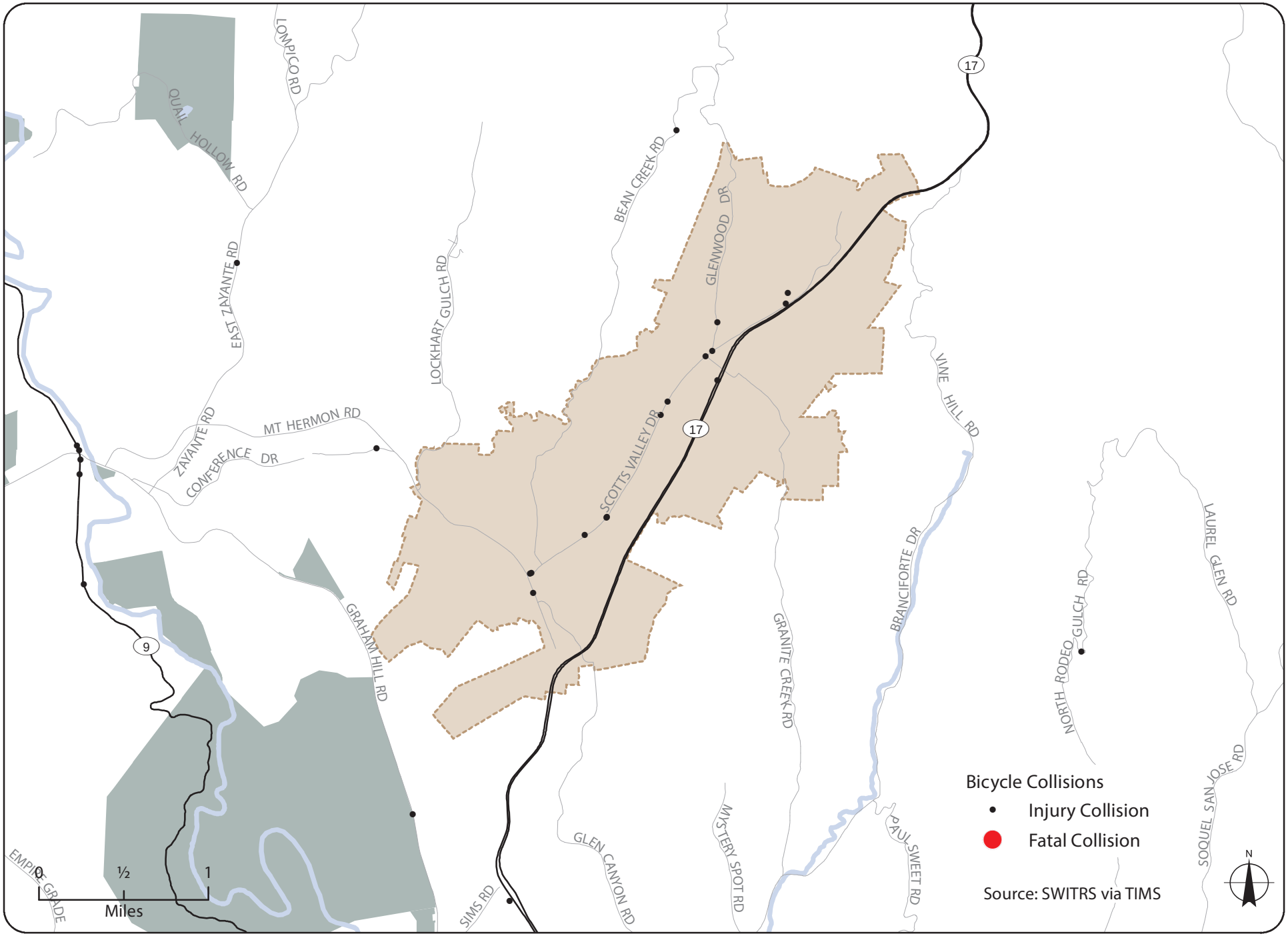
County-wide Bicycle Route Signage Program - Santa Cruz County Bicycle Injury and Fatal Collisions (2008-2012)



Note: Less than 10% of total bicycle collisions not displayed on map due to incomplete lat/long data

Figure I-2d

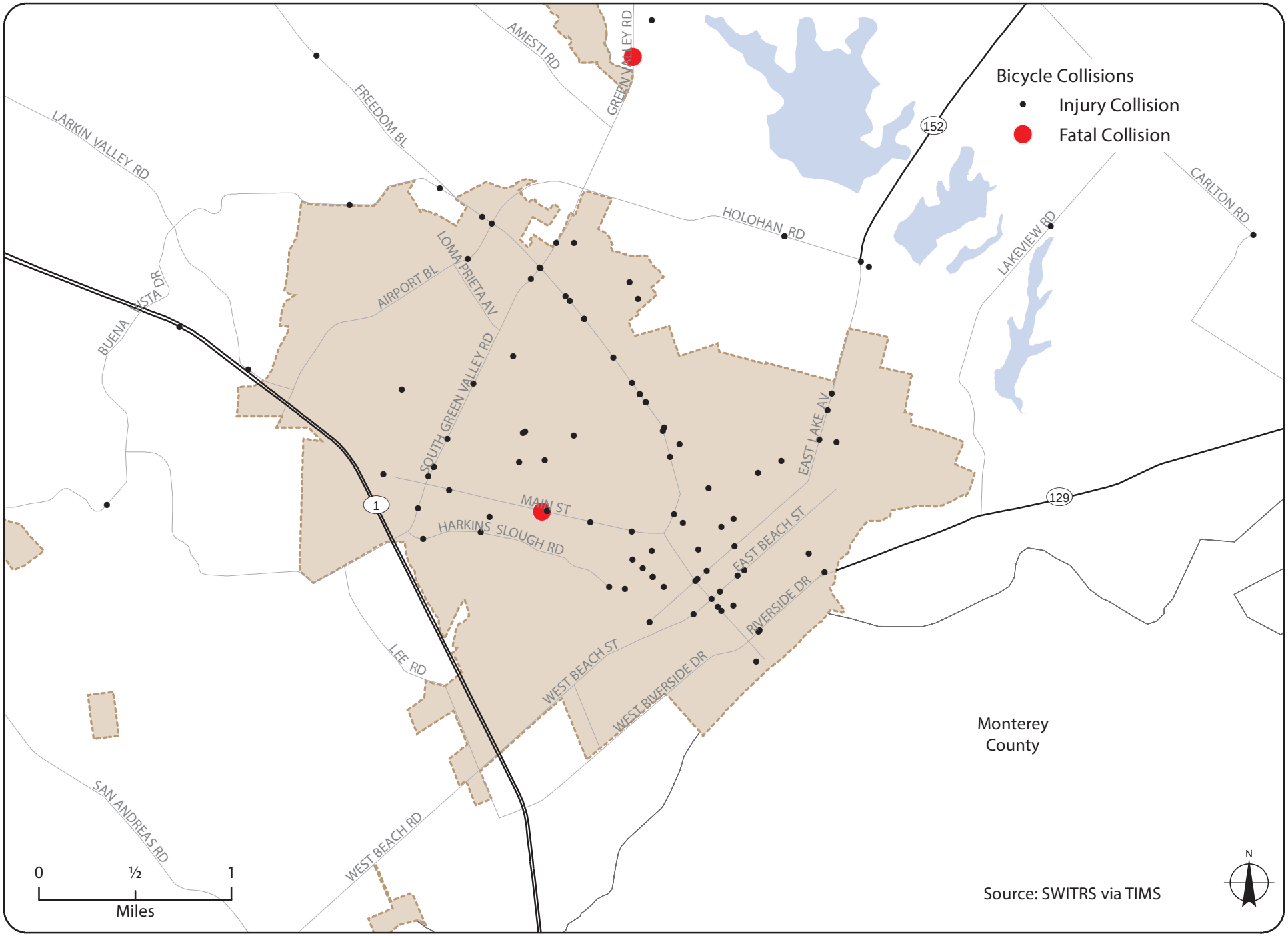
County-wide Bicycle Route Signage Program - Santa Cruz County Bicycle Injury and Fatal Collisions (2008-2012)



Note: Less than 10% of total bicycle collisions not displayed on map due to incomplete lat/long data

Figure I-2e

County-wide Bicycle Route Signage Program - Santa Cruz County Bicycle Injury and Fatal Collisions (2008-2012)



Note: Less than 10% of total bicycle collisions not displayed on map due to incomplete lat/long data

Attachment I-3

Public Participation Process Documentation

Enclosed are the following announcements document noticing and public meetings supporting participation in the development of the Santa Cruz County Bicycle Route Signage Program.

- May 21, 2015: Public meeting of the Santa Cruz County Regional Transportation Commission authorizing submission of the Active Transportation Program grant and committing matching funds
- May 7, 2015: Public meeting of the Santa Cruz County Regional Transportation Commission approving the Santa Cruz County Bicycle Route Signage Program 2015 - Implementation Plan
- April 13, 2015: Public meeting of the Santa Cruz County Regional Transportation Commission's Bicycle Advisory Committee to receive feedback on the Draft Implementation Plan
- March, April and May, 2015: Various meetings with staff members of the Cities of Santa Cruz, Watsonville and Scotts Valley, as well as the County of Santa Cruz and representatives of the Bicycle Advisory Committee, Bike Santa Cruz County, and the Community Traffic Safety Coalition
- May 1, 2014: Public meeting of the Santa Cruz County Regional Transportation Commission consideration of County-wide Bicycle Route Signage Active Transportation program grant application
- December 5, 2013: RTC Board Approves County-wide Bicycle Route Signage Preliminary Draft Implementation Plan
- June 2, 2009: Media release, e-news alert and newspaper ad noticing funding recommendations for transportation projects including the initial planning for County-wide Bicycle Route Signage project
- June 4, 2009: Public hearing on funding for transportation projects including initial planning for County-wide Bicycle Route Signage Program – media release, newspaper ad
- May 2009: Request to Santa Cruz County Regional Transportation Commission Advisory Committees including the Elderly & Disabled Transportation Committee, Bicycle Committee and the Interagency Technical Committee on funding for transportation projects including initial funding for the County-wide Bicycle Route Signage Program
- April 2, 2009 RTC board meeting –Request from public to develop proposal/evaluate funding for the County-wide Bicycle Route Signage Program

Agendas and meeting minutes available upon request

Attachment I-4

ATTACHMENT I-4B-Public Health

County-wide Bicycle Route Signage Program Public Health Improvement Calculation, Assumptions & Supporting Research

Estimates for the impact of bicycle route signage on public health, specifically in regards to physical activity, obesity, asthma and respiratory health in Santa Cruz County, were made based on existing research documenting the impact of: increased bicycle ridership and reduction in vehicle miles traveled, on physical activity and obesity; and, motor vehicle emissions and air toxins on asthma and respiratory disease.

- The Santa Cruz County Bicycle Route Signage Program is estimated to achieve the Center for Disease Control recommended physical activity levels for over 2,200 [1] new bicyclists who will ride 3 miles per day/5 days a week at 10 miles/per/hour, burning over 800 calories/per/week which reduces weight approximately 10 pounds per year. [2]
- The County-wide Bicycle Route Signage Program is estimated to reduce over 1.5 million pounds of airborne toxins [3] [4] [5] annually per new bicycle rider, which improves air quality and reduces risk of asthma and other respiratory illnesses. [6]

Supporting research and assumptions informing the estimated improvements in public health as a result of the Santa Cruz County Bicycle Route Signage Program, specifically physically activity, obesity, asthma and other respiratory diseases include:

Physical Activity & Obesity

- An average one-mile per person reduction in VMT per day through a shift from driving to active transportation, including bicycling, will burn approximately 400 calories/person/week [7] which can cause a reduction in weight of approximately 5 pounds per year. [8]

---

[1] ATP Grant Application, "Section IX, Item E: County-wide Bicycle Route Signage Program Bicycle Rider Calculation, Assumptions & Supporting Research for Increased Bicycle Ridership," May 2014.
[2] "Free Walking Calorie Calculator Tool," Everyday Health Media, LLC, accessed January 2014, http://www.everydayhealth.com/Calories-Burned-Walking.htm & Mayo Clinic Staff, "Counting calories: Get back to weight0-loss basics," Mayo Clinic (June 2012), accessed January 2014, http://www.mayoclinic.com/health/calories/WT00011
[3] Assuming average bicycle trip lengths of 3 miles completed five times per week.
[4] Includes nitrogen oxide, volatile organic compounds, particulate matter and carbon monoxide that are known to cause human health problems.
[5] "Average Annual Emissions and Fuel Consumption for Gasoline-Fueled Passenger Cars and Light Trucks," Environmental Protection Agency, (October 2008). http://www.epa.gov/otaq/consumer/420f08024.pdf
[6] Poor air quality can have negative public health effects such as increase rates of asthma, chronic obstructive pulmonary disease, heart disease, and cancer according to "Effects of Vehicle Exhaust: A Case for Policy Change," Environment & Human Health Inc. (2006). http://www.ehhi.org/reports/exhaust/exhaust06.pdf
[7] "Free Walking Calorie Calculator Tool," Everyday Health Media, LLC, accessed January 2014, http://www.everydayhealth.com/Calories-Burned-Walking.htm
[8] Mayo Clinic Staff, "Counting calories: Get back to weight0-loss basics," Mayo Clinic (June 2012), accessed January 2014, http://www.mayoclinic.com/health/calories/WT00011

ATTACHMENT I-4B-Public Health

- Less than half of annual Santa Cruz County Community Assessment Project survey respondents engaged in the Center for Disease Control recommended 30 minutes of physical activity at least five times per week. [9]
- Obesity rates in Santa Cruz are increasing according to annual Santa Cruz County Community Assessment Project survey indicating overweight and obese increased from 50 percent in 2007 to 61 percent in 2013. Latinos had a higher percentage of overweight or obese respondents (72 %) as compared to Whites (58%) in 2013 [10]
- The percentage of overweight or obese children in grades 5, 7, and 9 grew from 36.9 percent to 37.9 percent. [11]
- States with higher rates of bicycling and walking to work also have a higher percent of the population meeting recommended levels of physical activity, and have lower rates of obesity, high blood pressures, and diabetes. [12]
- Replacing trips made in a vehicle with bicycling reduces the risk for disease associated with driving. According to research by Dr. Lawrence Frank of the University of British Columbia, "every hour a person spends in a car each day makes them six per cent more likely to be obese". [13]

Asthma & Respiratory Illness

- Asthma is one of the most common chronic diseases in the United States and among children. In 2009, about 8.9% of Santa Cruz County residents said that they currently have asthma after diagnosis by a physician. [14] Children make up 20 percent of the population affected by asthma in Santa Cruz County. [15]
- Shorter trips pollute more per mile and have a bigger impact on our overall health than longer trips [16], therefore the Route Signage Program's is well suited to reduce emissions for the 39% of all trips that are less than 3 miles and the 17% that are less than 1 mile. [17]

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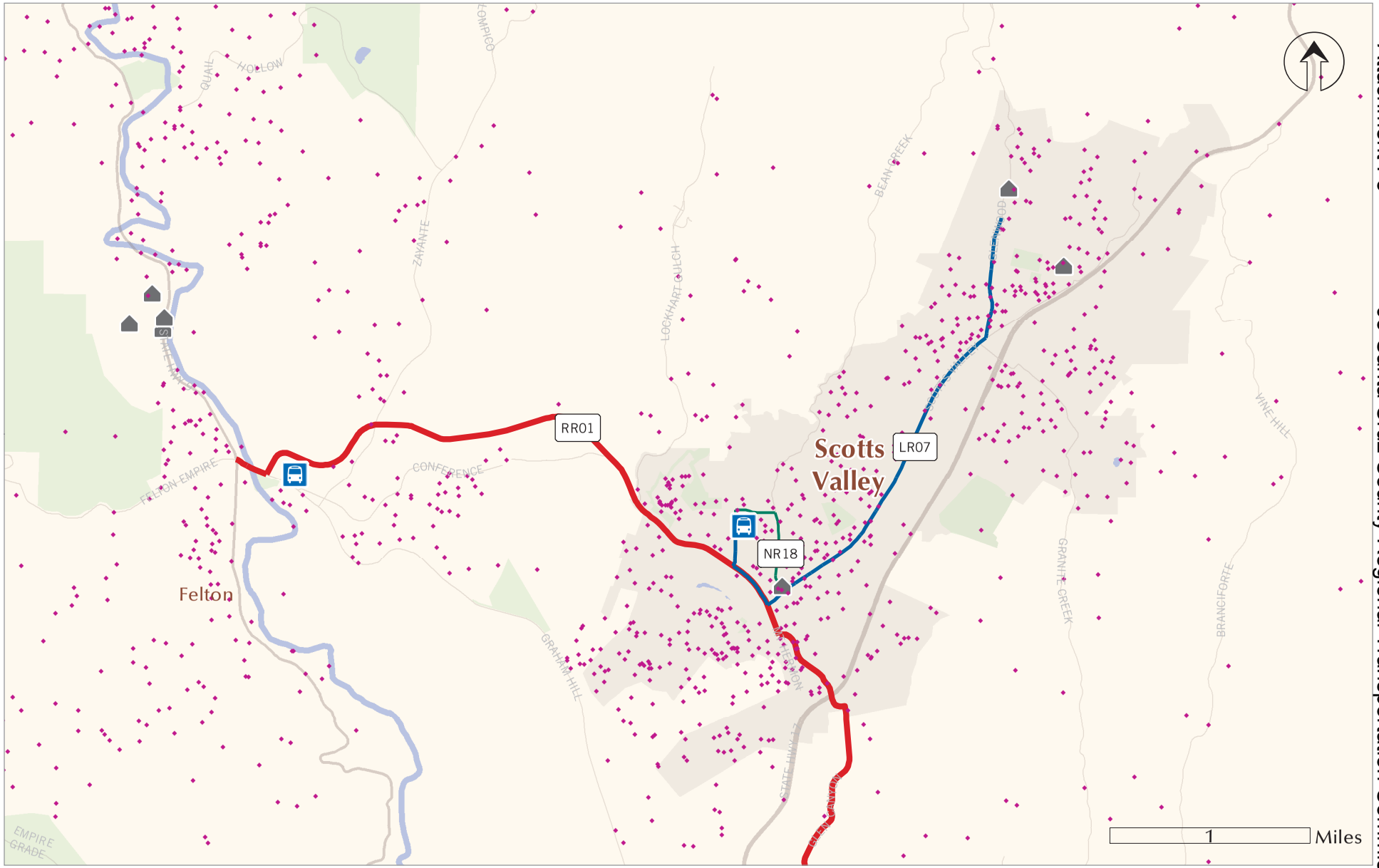
[9] "Santa Cruz County Community Assessment Report," Applied Survey Research, (2014). http://www.appliedsurveyresearch.org/storage/database/quality-of-life/santacruzcap/cap19_2013/CAP%2019%20Health%20FINAL.pdf
[10] See footnote 9
[11] See footnote 9
[12] "Bicycling and walking in the United States 2014 Benchmark Report," Alliance for Biking and Walking, (2014). http://www.bikewalkalliance.org/storage/documents/reports/2014BenchmarkingReport.pdf.
[13] "Transit Investments Lead to Healthier People," Media Release, University of British Columbia, (2013). http://news.ubc.ca/2013/07/04/transit-investments-lead-to-healthier-people.
[14] "*HEALTH, Santa Cruz County, 2012,"* County of Santa Cruz, Public Health Department,(January 2013). http://www.santacruzhealth.org/phealth/CountyHealthReport/2012/pdfs/2012%20Health%20Report.pdf
[15] "Estimated Prevalence and Incidence of Lung Disease," American Lung Association, (May 2014). http://www.lung.org/finding-cures/our-research/trend-reports/estimated-prevalence.pdf
[16] "Report to the U.S. Congress on the Outcomes of the Non-motorized Transportation Pilot Program: SAFETEA-LU Section 1807," Federal Highway Administration, (April 2012), accessed May 2014 http://www.fhwa.dot.gov/environment/bicycle_pedestrian/ntpp/2012_report/page00.cfm
[17]" National Household Travel Survey," U.S. Department of Transportation and Federal Highway Administration, 2001, 2009.

Attachment I-5



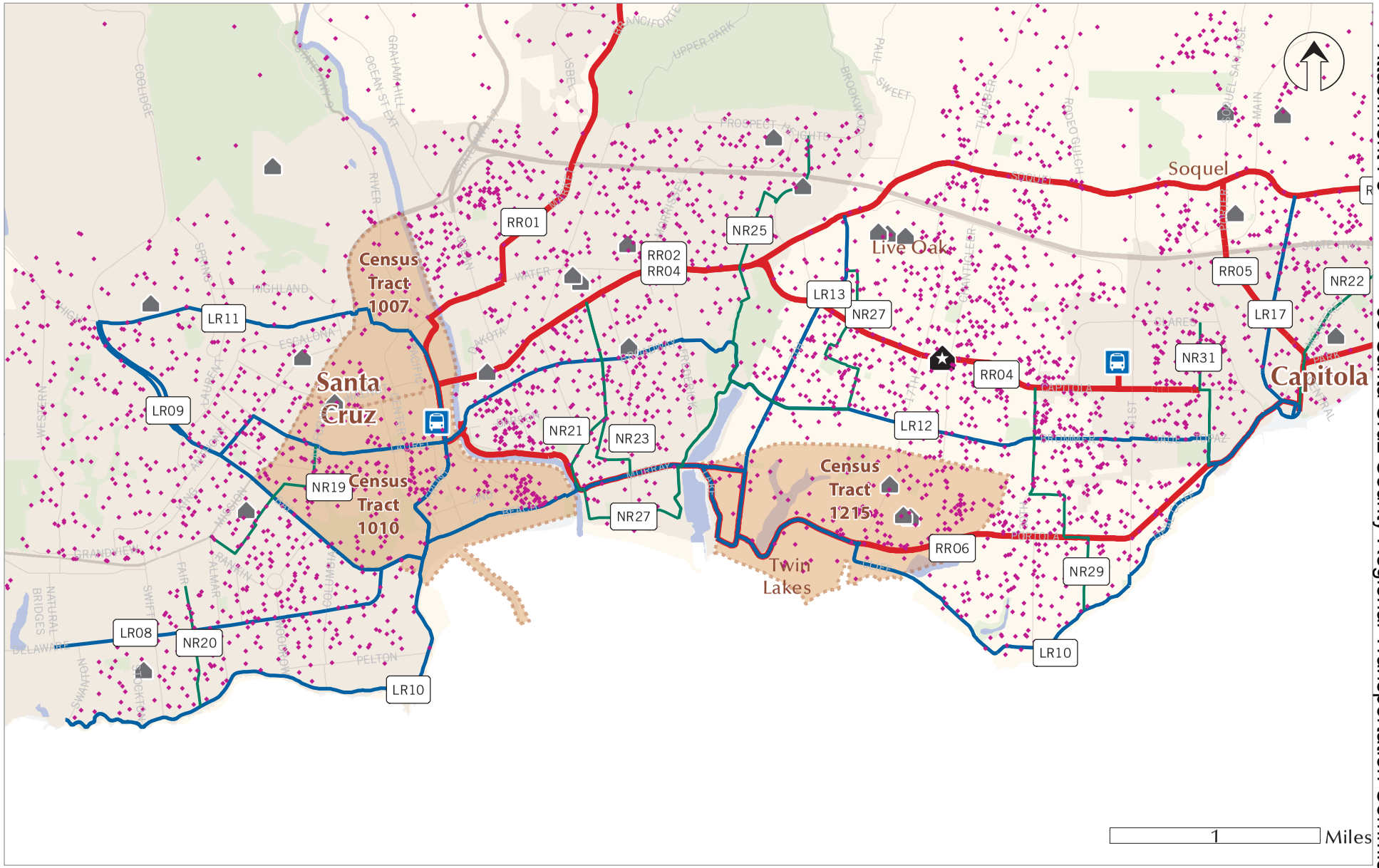
SCC Bicycle Route Signage Program

- Regional Bike Routes
- Local Bike Routes
- Neighborhood Bike Routes
- Transit Center
- Schools with >75% Student Eligibility for FRPM
- Schools with <75% Student Eligibility for FRPM
- Census Tracts < 80% Statewide Median Household Income
- CalEnviroScreen 2.0 Top 25% of Overall Scores

Disadvantaged Populations
- Age under 18 yrs
  1 Dot = 5 persons

ID # Route ID

SCCRTC



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- Regional Bike Routes
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- Neighborhood Bike Routes
- Transit Center
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- Schools with <75% Student Eligibility for FRPM
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- CalEnviroScreen 2.0 Top 25% of Overall Scores

Disadvantaged Populations
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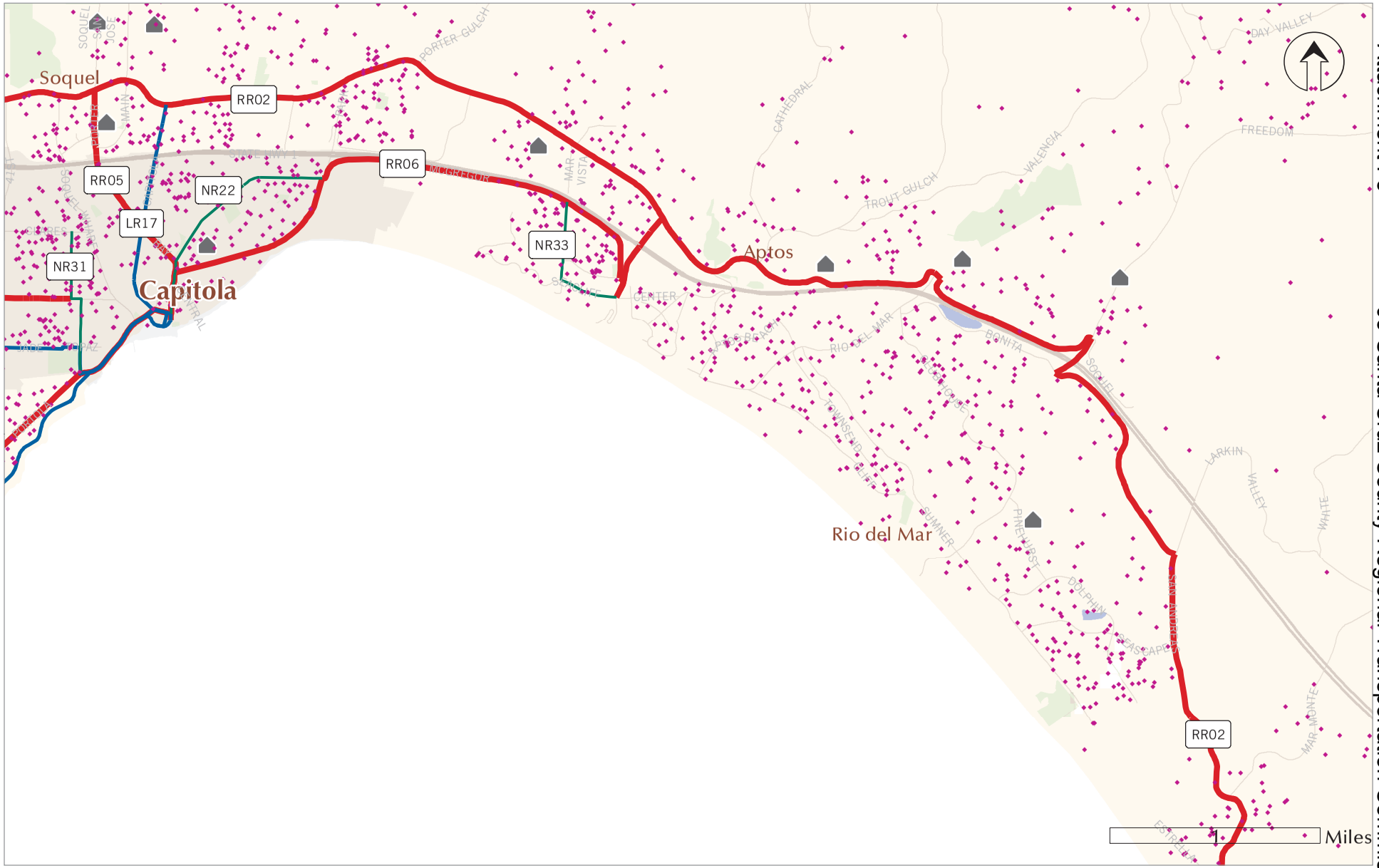
SCCRTC



SCC Bicycle Route Signage Program

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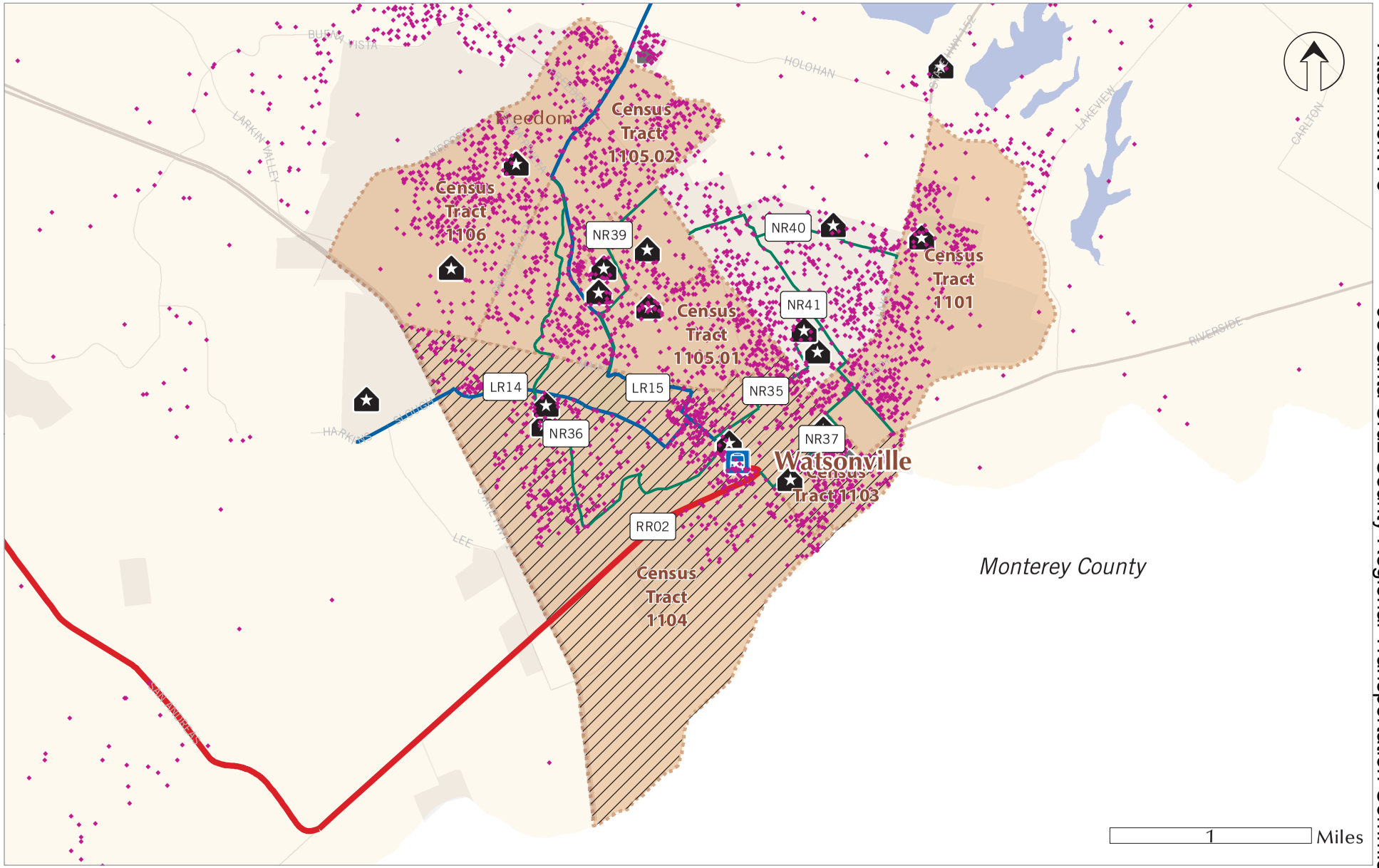
- CalEnviroScreen 2.0 Top 25% of Overall Scores

Disadvantaged Populations
- Age under 18 yrs
  1 Dot = 5 persons

ID # Route ID

SCCRTC



SCC Bicycle Route Signage Program

- Regional Bike Routes
- Local Bike Routes
- Neighborhood Bike Routes
- Transit Center
- Schools with >75% Student Eligibility for FRPM
- Schools with <75% Student Eligibility for FRPM
- Census Tracts < 80% Statewide Median Household Income
- CalEnviroScreen 2.0 Top 25% of Overall Scores

Disadvantaged Populations
- Age under 18 yrs
  1 Dot = 5 persons

ID # Route ID

SCCRTC

Table I-5C

Santa Cruz County Schools with 75% or Greater Free or Reduced Price Meals

District Name	School Name	Enrollment K-12	Percent Eligible FRPM K - 12
Live Oak Elementary	Live Oak Elementary	349	83.4%
Pajaro Valley Unified	Radcliff Elementary	561	95.5%
Pajaro Valley Unified	Landmark Elementary	645	89.0%
Pajaro Valley Unified	Pajaro Valley High	1,453	85.8%
Pajaro Valley Unified	Cesar E. Chavez Middle	594	90.7%
Pajaro Valley Unified	Ceiba College Preparatory Academy	511	79.6%
Pajaro Valley Unified	New School Community Day	38	86.8%
Pajaro Valley Unified	Academic/Vocational Charter Institute	60	90.0%
Pajaro Valley Unified	Renaissance High Continuation	174	83.9%
Pajaro Valley Unified	Watsonville High	1,938	82.4%
Pajaro Valley Unified	Amesti Elementary	623	94.4%
Pajaro Valley Unified	Calabasas Elementary	612	92.0%
Pajaro Valley Unified	E. A. Hall Middle	587	94.7%
Pajaro Valley Unified	Freedom Elementary	674	92.1%
Pajaro Valley Unified	H. A. Hyde Elementary	603	87.4%
Pajaro Valley Unified	Hall District Elementary	613	92.8%
Pajaro Valley Unified	Mintie White Elementary	699	92.7%
Pajaro Valley Unified	Pajaro Middle	431	95.8%
Pajaro Valley Unified	Rolling Hills Middle	655	89.9%
Pajaro Valley Unified	T. S. MacQuiddy Elementary	658	93.6%
Pajaro Valley Unified	Alianza Charter	667	77.5%
Pajaro Valley Unified	Ohlone Elementary	531	93.6%
Pajaro Valley Unified	Starlight Elementary	675	92.1%
Pajaro Valley Unified	Lakeview Middle	664	89.9%
Pajaro Valley Unified	Ann Soldo Elementary	684	86.5%
Santa Cruz City Elementary	Gault Elementary	415	74.7%

Source: California Department of Education - http://www.cde.ca.gov/ds/si/ds/pubschls.asp

Attachment I-6

Project Name:	Santa Cruz Countywide Bicycle Route Signage Program
Project Location:	Santa Cruz County

INFRASTRUCTURE

Bike Projects (Daily Person Trips for All Users) (Box1A)

	Without Project	With Project
Existing	30190	
Forecast (1 Yr after completion)	30270.0035	35718.60413
	Commuters	Recreational Users
Existing Trips	3,570	9,963
New Daily Trips (estimate)	1785	4981.35
(1 YR aftercompletion) (actual)		

Project Information- Non SR2S Infrastructure

Bike Class Type	Bike Class III
Average Annual Daily Traffic (AADT)	30,000

Pedestrian Projects (Daily Person Trips for All Users) (Box 1B)

	Without Project	With Project
Existing	100635	
Forecast (1 YR after project completion)	100892	100892
	Without Project	With Project
Existing step counts (600 steps=0.3mi=1 trip)		
Existing miles walked		

Safe Routes to School (SR2S) (Box 1C)

	Total
Number of student enrollment	
Approximate no. of students living along school route proposed for improvement	
Percentage of students that currently walk or bike to school	
Projected percentage of students that will walk or bike to school after the project	

Project Costs (Box 1D)

Non-SR2S Infrastructure Project Cost	$300,000
SR2S Infrastructure Project Cost	$0

ATP Requested Funds (Box 1E)

Non-SR2S Infrastructure	$300,000
SR2S Infrastructure	

CRASH DATA (Box 1F)

	Last 5 Yrs	Annual Average
Fatal Crashes	7	1.4
Injury Crashes	891	178.2
PDO	99	19.8

SAFETY COUNTERMEASURES (improvements) (Box 1G)

		Y or N (Capitalized)
Signalized Intersection	Pedestrian countdown signal heads	N
	Pedestrian crossing	N
	Advance stop bar before crosswalk	N
	Install overpass/underpass	N
Unsignalized Intersection	Raised medians/refuge islands	N
	Pedestrian crossing (new signs and markings only)	N
	Pedestrian crossing (safety features/curb extensions)	N
	Pedestrian signals	N
Roadways	Bike lanes	N
	Sidewalk/pathway (to avoid walking along roadway)	N
	Pedestrian crossing (with enhanced safety features)	N
	Pedestrian crossing	N
	Other reduction factor countermeasures	Y

Project Name:	Santa Cruz Countywide Bicycle Route Signage Program
Project Location:	Santa Cruz County

NON-INFRASTRUCTURE

Outreach (SR2S)- (Box 2A)	
Participants (School Enrollment)	
Current Active Trans Walker/Bicyclist Users	0
Percentage of Current Active Trans Walkers/Bicyclists	
Project Cost	
ATP Requested Funds	
Duration of Outreach (months)	
Outreach to new users	0

Outreach (Non SR2S)- (Box 2B)	
Participants	271,804
Current Active Trans Walker/Bicyclist Users	30,170
Percentage of Current Active Trans Walkers/Bicyclists	11%
Project Cost	$70,000
ATP Requested Funds	$20,000
Duration of Outreach (months)	60
Outreach to new users	241,634

Perception (must be marked with an "x")- (Box 2C)	
Outreach is Hands-on (self-efficacy)	x
Overcome Barriers (e.g., dist, time, etc.)	x
Eliminates Hazards/Threats (speed, crime, etc.)	x
Connected or Addresses Connectivity Challenges	x
Creating Value in Using Active Transportation	x

Promotional Effort *(must be marked with an "x")-* (Box 2D)	
Effort Targets 5 E's or 5 P's	x
Knowledgable Staff/Educator	x
Partnership/Volunteers	x
Creates Community Ownership/Relationship	x
Part of Bigger Effort (e.g., political support)	x

Age *(must be marked with an "x")-* (Box 2E)	
Younger than 10	x
10-12	x
13-24	x
25-55	x
55+	x

Duration *(must be marked with an "x")-* (Box 2F)	
One Day	
One Month	
One Year	
Multiple Years	
Continuous Effort	x

Projected New Active Trans Riders	
Longitudinal New Users	0

Projected New Active Trans Riders	
Longitudinal New Users	51,347

CRASH DATA - (Box 2G)	Last 5 Yrs	Annual
Fatal Crashes	7	1.4
Injury Crashes	891	178.2
PDO	99	19.8

Assumption:

Benefits only accrue for five years, unless the project is ongoing.

Non Infrastructure- All

Projected New ATP Users	51,347	
Annual Mobility Benefits	$0	**Did not qua**
Annual Health Benefits	########	
Annual Recreational Benefits	$0	**Did not qua**
Annual Safety Benefits	########	**Safety bene**

Fuel saved	$0
Emissions Saved	$0
Fuel and Emissions Saved	$0

Underlying assumptions for calculations:

1) 1 mile driven is ~ 0.05 gal ~ 1 lb of CO2 based on US average 20mpg.
Source: Active Transportation for America: The Case for Increased Federal Investmer in Bicycling and Walking. Rails to Trails Conservancy, page 22.
http://www.railstotrails.org/resourcehandler.ashx?id=2948
2) Assume users divert 1040 miles (4 miles (bike 3 mi, walk .6 mi) * 5days *52 weeks
3) Gasoline price per gallon is $3.41 (incl. tax)
4) Carbon price is $25 per ton (updated $2014 value)
5) 2,000 lbs = 1 ton

ESTIMATED SAFETY BENEFITS FROM POTENTIAL CRASH REDUCTION

Countermeasures			OTHER REDUCTION FACTOR
Crash Reduction Factors (CRFs)			10%
Service Life			5
	1st year		$9,822,130

	Fatal	Injury	PDO	Total
Frequency	7	891	99	997
Cost/crash	$3,750,837	$80,000	$6,924	

SAFE ROUTES TO SCHOOL

Infrastructure

Before Project

No. of students enrollment	0
Approximate no. of students living along school route proposed for improvement	0
Percent that currently walks/bikes to school	0%
Number of students that walk/bike to school	0

After Project

No. of students enrollment	0
Approximate no. of students living along school route proposed for improvement	0
Projected percentage of students that will walk or bike because of the project	0%
Number of students that will walk/bike to school after the project	0

ATP Shift	0
Fuels Saved	$0.00
Emissions Saved	$0.00

Annual Mobility Benefits	$0
Annual Health Benefits	$0
Annual Safety Benefits	$681,257
Fuel and Emissions Saved	$0
Recreational Benefits	$0

Assumptions:

1) 180 school days
2) 2 miles distance to s
3) Takes 1 hour back a
4) Approximate no. of
before and after to ge
5) We used the value o
community in general.
6) Safety benefits are a

Did not quantify recreational ben

20 Year Invest Summary Analysis	
Total Costs	$370,000.00
Net Present Cost	$355,769.23
Total Benefits	$764,832,190.91
Net Present Benefit	$526,964,979.29
Benefit-Cost Ratio	1,481.20

20 Year Itemized Savings	
Mobility	$223,646,869.38
Health	$48,700,715.32
Recreational	$405,220,837.80
Gas & Emissions	$3,043,486.67
Safety	$84,220,281.74

Funds Requested	$320,000.00
Net Present Cost of Funds Requested	$307,692.31
Benefit Cost Ratio	1712.64

ESTIMATED DAILY MOBILITY BENEFITS FROM THE PROJECT

Current Walk Counts	
Total miles walked	0.00
Total person Trips walked	100,892.00
Total Steps walked	0.00

After the Project is Completed	
Total miles walked	0.00
Total person trips walked	100,892.00
Total Steps walked	0.00

Converted miles walked to trips	0
Difference of person trips walked	0
Converted steps walked to trips	0

Current Bike Counts	
Existing Commuters	3,570
New Commuters	1785

Benefits, 2014 values	
Annual Mobility Benefit (Walking)	$0
Annual Mobility Benefit (Biking)	$9,204,571.16

Total Annual Mobility Benefits	$9,204,571

Project Types

For M values:

20.38	min/trip	OFF STREET
18.02	min/trip	ON STREET w/o parking benefit
15.83	min/trip	ON STREET w/ parking benefit

$13.03 Value of Time

600 steps=0.3mi=1 trip

$1 Value of Total Pedestrian Environmental Impacts per trip

Sources:
NCHRP 552 Methodology (Biking)
Heuman (2006) as reported by UK Dept of Transport and Guidance (walking)

YEARLY ESTIMATED HEALTH BENEFITS FROM THE PROJECT

INFRASTRUCTURE

Cycling:

New Cyclists	2724.30032
Value of Health (ave.annual)	$146
Annual Health Benefits	$398,712

GDP Deflator

2006	0.9429
2014	1.0781

Walking:

New Walkers	0
Value of Health	$146
Annual Health Benefits	$0
Total Annual Health Benefits	$398,712

Source: NCHRP 552- Guidelines for Analysis of Investments in Bicycle Facilities, Appendix G.
(Estimated annual per capita cost savings of direct and/indirect) of physical activity)

YEARLY ESTIMATED GAS AND EMISSION SAVINGS FROM THE PROJECT

INFRASTRUCTURE

New Pedestrians	0
New Bicyclists	2,724
Avoided VMT due to Walking	0
Avoided VMT due to Biking	684,480
Fuel Saved	$116,704
Emissions Saved	$8,556
Fuel and Emissions saved	$125,260

Underlying assumptions for calculations:

1) Bike miles traveled= 1.5 mi, walk miles traveled= .3 (CHTS)
2) Assume 50% of new walkers and cyclists choose not to drive their cars
3) 1 mile driven is ~ 0.05 gal ~ 1 lb of CO_2 based on US average 20mpg.
Source: Active Transportation for America: The Case for Increased Federal Investment in Bicycling and Walking. Rails to Trails Conservancy, page 22.
http://www.railstotrails.org/resourcehandler.ashx?id=2948
4) Gasoline price per gallon is $3.41 (incl. tax)

YEARLY ESTIMATED RECREATIONAL BENEFITS FROM THE PROJECT

Biking

New Recreational Users	4,981	$10 per trip
New Commuters	1,785	
ExistingRecreational Users	9,963	$4 per trip
Value of Spending Recreational Time for New Recreational Users	#########	
Valueof Spending Recreational Time for Existing Recreational Users	$4,941,499	
Potential number of recreational time outdoors	124	
Annual Biking Recreational Benefits	#########	

Sources: NCHRP 552 for New Users and Commuters,
TAG (January 2010 UK's Department of Transport Guidance on the Appraisal of Walking and Cycling Schemes) for Existing Users,
World Health Organization's HEAT for cycling (124 days- the observed number of days cycled in Stockholm)

Walking

Total Recreational pedestrians	0	15%- See Misc. Tab
Value of Spending Recreational timefor all pedestrians	$0	$1 per trip
Potential number of recreational time outdoors	365	
AnnualWalking Recreational Benefits	$0	

Sources: Pedestrian and Bicycle Information Center.
TAG (January 2010 UK's Department of Transport Guidance on the Appraisal of Walking and Cycling Schemes) for Existing Users.

Total Annual Recreational Benefits	#########

ESTIMATED SAFETY BENEFITS FROM POTENTIAL CRASH REDUCTION

	SIGNALIZED INTERSECTION COUNTERMEASURES				UNSIGNALIZED INTERESECTIC	
Countermeasures	Install pedestrian countdown signal heads	Install pedestrian crossing	Install advance stop bar before crosswalk (bicycle box)	Install pedestrian overpass/ underpass	Install raised medians/ refuge islands	Install pedestrian crossings (new signs and markings only
Applicable Countermeasures	N	N	N	N	N	N
Crash Reduction Factors (CRFs)	25%	25%	15%	75%	45%	25%
Service Life	20	20	10	20	20	10
1st year	$0	$0	$0	$0	$0	$0

	Fatal	Injury	PDO	Total
Frequency	1.4	178.2	19.8	199.4
Cost/crash	$4,130,347	$81,393	$7,624	

Assumption:

For Other Reduction Factor countermeasure, EAB assumes 20 years service life.

ON COUNTERMEASURES		ROADWAY COUNTERMEASURES					
Install pedestrian crossing (with enhanced safety measures/ curb extensions	Install pedestrian signal	Install bike lanes	Install sidewalk/ pathway (to avoid walking along roadways	Install pedestrian crossing (with enhanced safety measures	Install Pedestrian crossing	OTHER REDUCTION FACTOR	Average of 3 highest countermeasures
N	N	N	N	N	N	Y	
35%	55%	35%	80%	30%	35%	10%	
20	20	20	20	10	10	20	
$0	$0	$0	$0	$0	$0	$2,043,772	$681,257

Annual Benefits
$681,257

ECONOMIC EVALUATION (Constant Values)

Total Benefits	#########
Mobility Benefits	#########
Health Benefits	#########
Recreational Benefits	#########
Safety Benefits	#########
Gas & Emission Benefits	$3,043,487

Total Costs	$370,000

Benefit-Cost Ratio (BCR)	971.9

NON-INFRASTRUCTURE-Non-SR2S and SR2S

Year	Mobility Benefits	Health Benefits	Recreational Benefits	Safety Benefits	Gas & Emission Benefits	Total Benefits	Total Project Cost	Growth Factor
PROJECT OPEN								
1	$0	$7,496,687	$0	$9,822,130	$0	$17,318,817	$70,000	1.02
2	$0	$7,646,621	$0	$10,018,573	$0	$17,665,194		
3	$0	$7,799,553	$0	$10,218,944	$0	$18,018,498		
4	$0	$7,955,545	$0	$10,423,323	$0	$18,378,867		
5	$0	$8,114,655	$0	$10,631,789	$0	$18,746,445		
6								
7								
8								
9								
10								
11								
12								
13								
14								
15								
16								
17								
18								
19								
20								
						Sum Total Benefits	Total Project Cost	
Total	$0	$39,013,062	$0	$51,114,759	$0	$90,127,821	$70,000	

INFRASTRUCTURE - Non SR2S

Year	Mobility Benefits	Health Benefits	Recreational Benefits	Safety Benefits	Gas & Emissions Benefits	Total Benefits	Total Project Cost	Growth Factor
PROJECT OPEN								
1	$9,204,571	$398,712	$11,118,373	$681,257	$125,260	$21,528,174	$300,000	1.02
2	$9,388,663	$406,686	$11,340,741	$694,882	$127,765	$21,958,737		
3	$9,576,436	$414,820	$11,567,555	$708,780	$130,320	$22,397,912		
4	$9,767,965	$423,116	$11,798,907	$722,956	$132,927	$22,845,870		
5	$9,963,324	$431,579	$12,034,885	$737,415	$135,585	$23,302,788		
6	$10,162,590	$440,210	$12,275,582	$752,163	$138,297	$23,768,843		
7	$10,365,842	$449,015	$12,521,094	$767,206	$141,063	$24,244,220		
8	$10,573,159	$457,995	$12,771,516	$782,551	$143,884	$24,729,105		
9	$10,784,622	$467,155	$13,026,946	$798,202	$146,762	$25,223,687		
10	$11,000,315	$476,498	$13,287,485	$814,166	$149,697	$25,728,160		
11	$11,220,321	$486,028	$13,553,235	$830,449	$152,691	$26,242,724		
12	$11,444,727	$495,748	$13,824,300	$847,058	$155,745	$26,767,578		
13	$11,673,622	$505,663	$14,100,786	$863,999	$158,860	$27,302,930		
14	$11,907,094	$515,777	$14,382,801	$881,279	$162,037	$27,848,988		
15	$12,145,236	$526,092	$14,670,457	$898,905	$165,278	$28,405,968		
16	$12,388,141	$536,614	$14,963,866	$916,883	$168,583	$28,974,087		
17	$12,635,904	$547,346	$15,263,144	$935,220	$171,955	$29,553,569		
18	$12,888,622	$558,293	$15,568,407	$953,925	$175,394	$30,144,640		
19	$13,146,394	$569,459	$15,879,775	$973,003	$178,902	$30,747,533		
20	$13,409,322	$580,848	$16,197,370	$992,463	$182,480	$31,362,484		
						Sum Total Benefits	Total Project Cost	
Total	$223,646,869	$9,687,654	$270,147,225	$16,552,761	$3,043,487	$523,077,996	$300,000	

INFRASTRUCTURE- SR2S

Year	Mobility Benefits	Health Benefits	Recreational Benefits	Safety Benefits	Gas & Emission Benefits	Total Benefits	Total Project Cost	Growth Factor
PROJECT OPEN								
1	$0	$0	$0	$681,257	$0	$681,257	$0	1.02
2	$0	$0	$0	$694,882	$0	$694,882		
3	$0	$0	$0	$708,780	$0	$708,780		
4	$0	$0	$0	$722,956	$0	$722,956		
5	$0	$0	$0	$737,415	$0	$737,415		
6	$0	$0	$0	$752,163	$0	$752,163		
7	$0	$0	$0	$767,206	$0	$767,206		
8	$0	$0	$0	$782,551	$0	$782,551		
9	$0	$0	$0	$798,202	$0	$798,202		
10	$0	$0	$0	$814,166	$0	$814,166		
11	$0	$0	$0	$830,449	$0	$830,449		
12	$0	$0	$0	$847,058	$0	$847,058		
13	$0	$0	$0	$863,999	$0	$863,999		
14	$0	$0	$0	$881,279	$0	$881,279		
15	$0	$0	$0	$898,905	$0	$898,905		
16	$0	$0	$0	$916,883	$0	$916,883		
17	$0	$0	$0	$935,220	$0	$935,220		
18	$0	$0	$0	$953,925	$0	$953,925		
19	$0	$0	$0	$973,003	$0	$973,003		
20	$0	$0	$0	$992,463	$0	$992,463		
						Sum Total Benefits	Total Project Cost	
Total	$0	$0	$0	$16,552,761	$0	$16,552,761	$0	

COMBO PROJECTS- Non SR2s Infrastructure and NonInfrastructure

Year	Mobility Benefits	Health Benefits	Recreational Benefits	Safety Benefits	Gas & Emission Benefits	Total Benefits	Total Project Cost
PROJECT OPEN							
1	$9,204,571	#########	$11,118,373	$5,251,694	$125,260	$33,595,297	$370,000
2	$9,388,663	#########	$11,340,741	$5,356,728	$127,765	$34,267,203	
3	$9,576,436	#########	$11,567,555	$5,463,862	$130,320	$34,952,547	
4	$9,767,965	#########	$11,798,907	$5,573,139	$132,927	$35,651,598	
5	$9,963,324	#########	$12,034,885	$5,684,602	$135,585	$36,364,630	
6	$10,162,590	$440,210	$12,275,582	$376,082	$138,297	$23,392,762	
7	$10,365,842	$449,015	$12,521,094	$383,603	$141,063	$23,860,617	
8	$10,573,159	$457,995	$12,771,516	$391,275	$143,884	$24,337,829	
9	$10,784,622	$467,155	$13,026,946	$399,101	$146,762	$24,824,586	
10	$11,000,315	$476,498	$13,287,485	$407,083	$149,697	$25,321,078	
11	$11,220,321	$486,028	$13,553,235	$415,224	$152,691	$25,827,499	
12	$11,444,727	$495,748	$13,824,300	$423,529	$155,745	$26,344,049	
13	$11,673,622	$505,663	$14,100,786	$432,000	$158,860	$26,870,930	
14	$11,907,094	$515,777	$14,382,801	$440,640	$162,037	$27,408,349	
15	$12,145,236	$526,092	$14,670,457	$449,452	$165,278	$27,956,516	
16	$12,388,141	$536,614	$14,963,866	$458,441	$168,583	$28,515,646	
17	$12,635,904	$547,346	$15,263,144	$467,610	$171,955	$29,085,959	
18	$12,888,622	$558,293	$15,568,407	$476,962	$175,394	$29,667,678	
19	$13,146,394	$569,459	$15,879,775	$486,502	$178,902	$30,261,032	
20	$13,409,322	$580,848	$16,197,370	$496,232	$182,480	$30,866,252	
						Sum Total Benefits	Total Project Cost
Total	$223,646,869	#########	$270,147,225	$33,833,760	$3,043,487	$579,372,057	$370,000

COMBO PROJECTS- SR2S Infrastructure and NonInfrastructure

Year	Mobility Benefits	Health Benefits	Recreational Benefits	Safety Benefits	Gas & Emission Benefits	Total Benefits	Total Project Cost	Growth Factor
PROJECT OPEN								
1	$0	#########	$0	$5,251,694	$0	$12,748,381	$70,000	1.02
2	$0	#########	$0	$5,356,728	$0	$13,003,349		
3	$0	#########	$0	$5,463,862	$0	$13,263,416		
4	$0	#########	$0	$5,573,139	$0	$13,528,684		
5	$0	#########	$0	$5,684,602	$0	$13,799,258		
6	$0	$0	$0	$376,082	$0	$376,082		
7	$0	$0	$0	$383,603	$0	$383,603		
8	$0	$0	$0	$391,275	$0	$391,275		
9	$0	$0	$0	$399,101	$0	$399,101		
10	$0	$0	$0	$407,083	$0	$407,083		
11	$0	$0	$0	$415,224	$0	$415,224		
12	$0	$0	$0	$423,529	$0	$423,529		
13	$0	$0	$0	$432,000	$0	$432,000		
14	$0	$0	$0	$440,640	$0	$440,640		
15	$0	$0	$0	$449,452	$0	$449,452		
16	$0	$0	$0	$458,441	$0	$458,441		
17	$0	$0	$0	$467,610	$0	$467,610		
18	$0	$0	$0	$476,962	$0	$476,962		
19	$0	$0	$0	$486,502	$0	$486,502		
20	$0	$0	$0	$496,232	$0	$496,232		
						Sum Total Benefits	Total Project Cost	
Total	$0	#########	$0	$33,833,760	$0	$72,846,822	$70,000	

COMBO PROJECTS- NonSR2S & SR2S Infrastructure

Year	Mobility Benefits	Health Benefits	Recreational Benefits	Safety Benefits	Gas & Emission Benefits	Total Benefits	Total Project Cost
PROJECT OPEN							
1	$4,602,286	$199,356	$11,118,373	$681,257	$62,630	$16,663,902	$300,000
2	$4,694,331	$203,343	$11,340,741	$694,882	$63,883	$16,997,180	
3	$4,788,218	$207,410	$11,567,555	$708,780	$65,160	$17,337,124	
4	$4,883,982	$211,558	$11,798,907	$722,956	$66,463	$17,683,866	
5	$4,981,662	$215,789	$12,034,885	$737,415	$67,793	$18,037,544	
6	$5,081,295	$220,105	$12,275,582	$752,163	$69,149	$18,398,294	
7	$5,182,921	$224,507	$12,521,094	$767,206	$70,532	$18,766,260	
8	$5,286,579	$228,997	$12,771,516	$782,551	$71,942	$19,141,585	
9	$5,392,311	$233,577	$13,026,946	$798,202	$73,381	$19,524,417	
10	$5,500,157	$238,249	$13,287,485	$814,166	$74,849	$19,914,906	
11	$5,610,160	$243,014	$13,553,235	$830,449	$76,346	$20,313,204	
12	$5,722,364	$247,874	$13,824,300	$847,058	$77,872	$20,719,468	
13	$5,836,811	$252,832	$14,100,786	$863,999	$79,430	$21,133,857	
14	$5,953,547	$257,888	$14,382,801	$881,279	$81,019	$21,556,534	
15	$6,072,618	$263,046	$14,670,457	$898,905	$82,639	$21,987,665	
16	$6,194,070	$268,307	$14,963,866	$916,883	$84,292	$22,427,418	
17	$6,317,952	$273,673	$15,263,144	$935,220	$85,978	$22,875,967	
18	$6,444,311	$279,147	$15,568,407	$953,925	$87,697	$23,333,486	
19	$6,573,197	$284,729	$15,879,775	$973,003	$89,451	$23,800,156	
20	$6,704,661	$290,424	$16,197,370	$992,463	$91,240	$24,276,159	
						Sum Total Benefits	Total Project Cost
Total	$111,823,435	$4,843,827	$270,147,225	$16,552,761	$1,521,743	$404,888,991	$300,000

SUMMARY OF QUANTIFIABLE BENEFITS AND COSTS

Year	Mobility Benefits	Health Benefits	Recreational Benefits	Safety Benefits	Gas & Emission Benefits	Total Benefits	Total Project Cost	Benefit Cost Ratio
PROJECT OPEN								
1	$9,204,571	$7,895,399	$16,677,560	$11,184,645	$125,260	$45,087,435	$370,000	2,067.11
2	$9,388,663	$8,053,307	$17,011,111	$11,408,338	$127,765	$45,989,184		
3	$9,576,436	$8,214,373	$17,351,333	$11,636,504	$130,320	$46,908,967		
4	$9,767,965	$8,378,661	$17,698,360	$11,869,234	$132,927	$47,847,147		
5	$9,963,324	$8,546,234	$18,052,327	$12,106,619	$135,585	$48,804,090		
6	$10,162,590	$440,210	$18,413,374	$1,504,326	$138,297	$30,658,798		
7	$10,365,842	$449,015	$18,781,641	$1,534,413	$141,063	$31,271,974		
8	$10,573,159	$457,995	$19,157,274	$1,565,101	$143,884	$31,897,413		
9	$10,784,622	$467,155	$19,540,419	$1,596,403	$146,762	$32,535,361		
10	$11,000,315	$476,498	$19,931,228	$1,628,331	$149,697	$33,186,069		
11	$11,220,321	$486,028	$20,329,852	$1,660,898	$152,691	$33,849,790		
12	$11,444,727	$495,748	$20,736,449	$1,694,116	$155,745	$34,526,786		
13	$11,673,622	$505,663	$21,151,178	$1,727,998	$158,860	$35,217,321		
14	$11,907,094	$515,777	$21,574,202	$1,762,558	$162,037	$35,921,668		
15	$12,145,236	$526,092	$22,005,686	$1,797,809	$165,278	$36,640,101		
16	$12,388,141	$536,614	$22,445,800	$1,833,765	$168,583	$37,372,903		
17	$12,635,904	$547,346	$22,894,716	$1,870,441	$171,955	$38,120,361		
18	$12,888,622	$558,293	$23,352,610	$1,907,849	$175,394	$38,882,768		
19	$13,146,394	$569,459	$23,819,662	$1,946,006	$178,902	$39,660,424		
20	$13,409,322	$580,848	$24,296,055	$1,984,927	$182,480	$40,453,632		
						Sum Total Benefits	Total Project Cost	Benefit Cost Ratio
Total	$223,646,869	#########	$405,220,838	$84,220,282	$3,043,487	$764,832,191	$370,000	2,067.11

SUMMARY OF QUANTIFIABLE BENEFITS AND COSTS

Year	Mobility Benefits	Health Benefits	Recreational Benefits	Safety Benefits
PROJECT OPEN				
1	$9,204,571	$7,895,399	$16,677,560	$11,184,645
2	$9,388,663	$8,053,307	$17,011,111	$11,408,338
3	$9,576,436	$8,214,373	$17,351,333	$11,636,504
4	$9,767,965	$8,378,661	$17,698,360	$11,869,234
5	$9,963,324	$8,546,234	$18,052,327	$12,106,619
6	$10,162,590	$440,210	$18,413,374	$1,504,326
7	$10,365,842	$449,015	$18,781,641	$1,534,413
8	$10,573,159	$457,995	$19,157,274	$1,565,101
9	$10,784,622	$467,155	$19,540,419	$1,596,403
10	$11,000,315	$476,498	$19,931,228	$1,628,331
11	$11,220,321	$486,028	$20,329,852	$1,660,898
12	$11,444,727	$495,748	$20,736,449	$1,694,116
13	$11,673,622	$505,663	$21,151,178	$1,727,998
14	$11,907,094	$515,777	$21,574,202	$1,762,558
15	$12,145,236	$526,092	$22,005,686	$1,797,809
16	$12,388,141	$536,614	$22,445,800	$1,833,765
17	$12,635,904	$547,346	$22,894,716	$1,870,441
18	$12,888,622	$558,293	$23,352,610	$1,907,849
19	$13,146,394	$569,459	$23,819,662	$1,946,006
20	$13,409,322	$580,848	$24,296,055	$1,984,927
	Total Mobility Benefits	Health Benefits	Recreational Benefits	Safety Benefits
	$223,646,869	$48,700,715	$405,220,838	$84,220,282

Gas & Emission Benefits	Total Benefits	Present Value Benefit	Total Project Cost	Present Value Cost	Discount Rate
					4.00%
$125,260	$45,087,435	$43,353,303	$370,000	$355,769	
$127,765	$45,989,184	$42,519,585		$0	
$130,320	$46,908,967	$41,701,901		$0	
$132,927	$47,847,147	$40,899,941		$0	
$135,585	$48,804,090	$40,113,404		$0	
$138,297	$30,658,798	$24,230,093		$0	
$141,063	$31,271,974	$23,764,130		$0	
$143,884	$31,897,413	$23,307,127		$0	
$146,762	$32,535,361	$22,858,913		$0	
$149,697	$33,186,069	$22,419,319		$0	
$152,691	$33,849,790	$21,988,178		$0	
$155,745	$34,526,786	$21,565,328		$0	
$158,860	$35,217,321	$21,150,611		$0	
$162,037	$35,921,668	$20,743,868		$0	
$165,278	$36,640,101	$20,344,948		$0	
$168,583	$37,372,903	$19,953,699		$0	
$171,955	$38,120,361	$19,569,974		$0	
$175,394	$38,882,768	$19,193,628		$0	
$178,902	$39,660,424	$18,824,520		$0	
$182,480	$40,453,632	$18,462,510		$0	
Gas & Emission Benefits	Sum Total Benefits	Sum Present Value Benefit	Sum Total Project Cost	Sum Present Value Cost	
$3,043,487	$764,832,191	$526,964,979	$370,000	$355,769	

Net Present Value	BCA Ratio	Funds Requested	PV of Funds Requested
$526,609,210.06	1,481.20		
		320,000	307,692
		Sum Funds Requested	Sum PV Funds Requested
		$320,000	$307,692

PARAMETERS

Mobility Parameters		
CA Statewide Houly Wage (2014)	$26.07	
Value of Time (VOT)- adult	$13.03	
Value of Time (VOT)- child	$5.42	
Bike Path (Class I)	20.38	min/trip
Bike Lane (Class II)	18.02	min/trip
Bike Route (Class III)	15.83	min/trip

Health Parameters		
Cycling	$146	annual$/person
Walking	$146	annual$/person

Accident Cost Parameters		
Cost of a Fatality (K)	$4,130,347	$/crash
Cost of an Injury	$81,393	$/crash
Costy of Property Damage (PDO)	$7,624	$/crash

Source: Appendix D, Local Roadway Safety: A manual for CA's Local Road Owners Caltrans. April 2013.

Recreational Values Parameters		
Biking		
New Users	$10	per trip
Existing Users	$4	per trip
Walking		
All Users	$1	per trip

VMT Reduction		
		Average fuel price (November 2013-No
		http://www.eia.gov/to
Price of gasoline (per gallon incl. tax)	$3.41	
Price of CO2 (per ton)-adj to 2014$	$25	Interagency Working Group on Social C
Price of Co2 (per lb)	$0.01	for Regulatory Impact A
Working days	250	

2%	Average CA Annual Growth of Population (1955-2011)
4%	Discount Rate used (same as Cal B/C Model)

Reasons for Bicycling	Percent
Recreation	33
Exercise or health	28
Personal errands	17
Vist a friend or relative	8
Commuting to/from work	7
Commuting to/from school	4

Reasons for Walking	Percent
Exercise or health	39
Personal errands	17
Recreation	15
Walk the dog	7
Visit a friend or relative	7
Commuting to/from work	5
Commuting to/from school	3
Required for my job	2

Source: The 2012 National Survey of Pedestrian and Bicyclist Attitudes and Behaviors, Highlights Report. Pedestrian & Bicycle Information Center.

Estimated An (direct and/or		
Study/Agency		
Washington DOH		
Garrett et al.		
South Carolina DOH		
Georgia Department of Human Re		
Colditz		
Minnesota DOH		
Goetz et al.		
Pronk et al.		
Pratt		
Michigan Fitness Foundation		

Source: NCHRP 552, Guidelines fo Facilities, Appendix G.

Note: An annual per-capita cost sa determined by taking the median year 2006$. The updated 2014$ va

nual Per Capita Cost Savings
indirect of physical activity)

	Per Capita Cost Savings ($)		
		19	
		57	
		78	
sources		79	
		91	
		>100	
		172	
		176	
		330	
		1175	

r Analysis of Investments in Bicycle

avings from physical activity of $128 was
value of ten noted studies above for
alue is $13.03.

Gross Domestic Product (GDP

Fiscal Year	Chained GDI
2006	0.9
2007	0.9
2008	0.9
2009	1.0
2010	1.0
2011	1.0
2012	1.0
2013	1.0
2014 (est.)	1.0
2015 (est.)	1.0
2016 (est.)	1.1
2017 (est.)	1.1
2018 (est.)	1.1
2019 (est.)	1.1

Source: Office of Management Bud
Table 10.1- Gross Domestic Product
http://www.whitehouse.gov/sites/
page 217-218.

Deflator)

P Price Index
429
684
884
000
087
284
464
622
781
966
170
391
619
852

lget, Budget of the United States Government, Fiscal Year 2015
: and Deflators in the Historical Tables: 1940-2019.
default/files/omb/budget/fy2015/assets/hist.pdf

Attachment I-7

RESOLUTION NO. 28-15

Adopted by the Santa Cruz County Regional Transportation Commission
on the date of May 21, 2015
on the motion of Commissioner Schiffrin
duly seconded by Commissioner Dutra

A RESOLUTION AUTHORIZING THE EXECUTIVE DIRECTOR TO
APPLY FOR FUNDS AND EXECUTE AGREEMENTS WITH CALTRANS FOR
IMPLEMENTATION OF THE SANTA CRUZ COUNTY BICYCLE ROUTE SIGNAGE PROGRAM

WHEREAS, the 2015 Implementation Plan for the Santa Cruz County Bicycle Route Signage Program was approved on May 7, 2015; and,

WHEREAS, the Active Transportation Program was created by Senate Bill 99 and Assembly Bill 101 of 2013 to encourage increased use of active modes of transportation, such as bicycling and walking; and,

WHERAS, RTC is eligible to receive federal and state funding for certain transportation projects through the California Transportation Commission and California Department of Transportation (Caltrans); and,

WHEREAS, the Active Transportation Program grant is more competitive if matching funds are committed to the project by the sponsoring agency; and

WHEREAS, the RTC's FY 14-15 Budget includes $50,000 programmed for implementation of the Bicycle Route Signage Program which is available to leverage in competing for funds through Active Transportation Program to implement Phase 1 of the Santa Cruz County Bicycle Route Signage Program;

BE IT RESOLVED BY THE SANTA CRUZ COUNTY REGIONAL TRANSPORTATION COMMISSION (RTC):

1. The Executive Director, or their designee, is hereby authorized to execute and file an application with Caltrans for a grant from the Active Transportation Program, to accept such funding and execute the necessary agreements with Caltrans and local jurisdictions if awarded, and to implement the Santa Cruz County Bicycle Route Signage Program; and,

2. A contribution $50,000 in RTC funds is hereby authorized to be used as matching funds to the Active Transportation Program grant.

AYES:	COMMISSIONERS	Chase, Lane, Leopold, Mulhearn, McPherson, Schiffrin, Dutra, Caput
NOES:	COMMISSIONERS	
ABSTAIN:	COMMISSIONERS	
ABSENT:	COMMISSIONERS	

John Leopold, Chair

ATTEST:

George Dondero, Secretary

S:\RESOLUTI\2015\RES0515\RES-CTPlanningGrant--SCCBikeRouteSignage.docx

Attachment I-8

Kim Shultz Conservation Corps Responses

From: Active Transportation Program [inquiry@atpcommunitycorps.org]
Sent: Wednesday, May 27, 2015 11:09 AM
To: Kim Shultz
Cc: atp@ccc.ca.gov; Ginger Dykaar
Subject: Re: Santa Cruz Countywide Bicycle Route Signage Project - ATP Cycle 2 Application

Hello,

Thank you for reaching out to the local conservation corps. Unfortunately, we are not able to participate in this project. Please include this email with your application as proof that you reached out to the Local Corps.

Thank you

On Thu, May 21, 2015 at 4:26 PM, Kim Shultz <kshultz@sccrtc.org> wrote:

To: Wei Hsieh, CCC and Danielle Lynch, certified community conservation corps

The Santa Cruz County Regional Transportation Commission (SCCRTC) intends to submit an ATP Cycle 2 grant application with the subject project name. Following is information regarding the proposed project for your review and determination of the ability of your respective organizations to participate.

Project Title

Santa Cruz Countywide Bicycle Route Signage Project

Project Description

The project will install approximately 1000 directional signs to promote preferred cycling routes and motorist's awareness of shared roadway, evaluate the project's effectiveness in increasing bicycle use and safety, and public outreach.

Detailed Estimate

There are two elements to this project the costs of which are summarized below and shown in further detail in the referenced attachments:

Project Construction: $275,000

See: *Att-G – Eng Estimate*

Project Evaluation & Public Outreach: $25,000

See: *Att-H-Form22R-V-5*

Project Schedule

Project Preliminary Design/Environmental Documentation	July 2016 – Sept 2016
Final Design Plans, Specifications & Estimates	October 2016 – March 2017
Construction	May 2017 –October 2017

The project evaluation will be comprised of 3 phases:

Pre Construction – Baseline Performance Measure Data Collection	August 2016 – June 2017
Public Outreach of the Preferred Routes Program	May 2016 – October 2017
Post Construction – Performance Measure Data Collection and Evaluation	July 2018 – September 2018

Project Map

The County Bicycle Route Signage Project spans the entire county with the majority of the 102 miles of preferred neighborhood, local, and regional bicycle routes serving the urbanized areas of the county (see *Att-E-Exhibit-RouteMaps*).

Preliminary Plan

The preliminary plan for the project is shown in the afore mentioned project elements and a sample of the bicycle route sign options as shown in the final attachment entitled *SampleSignTypes*.

Please give me a call with any questions concerning the project or your organizations participation.

Regards,

Kim

. . . . . .

Kim Shultz, Highway 1 Project Manager/Senior Planner
Santa Cruz County Regional Transportation Commission
1523 Pacific Avenue | Santa Cruz CA 95060
Santa Cruz 831.460.3200 | Watsonville 831.768.8012
Direct 831.460.3208

Follow our social networks for the latest RTC news

--

Monica Davalos | Legislative Policy Intern
Active Transportation Program
California Association of Local Conservation Corps
1121 L Street, Suite 400
Sacramento, CA 95814
916.426.9170 | inquiry@atpcommunitycorps.org

Kim Shultz

From: Hsieh, Wei@CCC [Wei.Hsieh@CCC.CA.GOV] on behalf of ATP@CCC [ATP@CCC.CA.GOV]
Sent: Tuesday, May 26, 2015 11:32 AM
To: Kim Shultz
Cc: ATP@CCC; Hsieh, Wei@CCC; inquiry@atpcommunitycorps.org; Wohlgemuth, Janet@CCC; Burks-Herrmann, Brenda@CCC
Subject: RE: Santa Cruz Countywide Bicycle Route Signage Project - ATP Cycle 2 Application

Hi Kim,

Thank you for contacting the CCC. Unfortunately, we are unable to participate in this project. Please include this email with your application as proof that you reached out to the CCC.

Thank you,

Wei Hsieh, Manager
Programs & Operations Division
California Conservation Corps
1719 24th Street
Sacramento, CA 95816
(916) 341-3154
Wei.Hsieh@ccc.ca.gov

From: Kim Shultz [mailto:kshultz@sccrtc.org]
Sent: Thursday, May 21, 2015 4:26 PM
To: ATP@CCC; inquiry@atpcommunitycorps.org
Cc: Kim Shultz; Ginger Dykaar
Subject: Santa Cruz Countywide Bicycle Route Signage Project - ATP Cycle 2 Application

To: Wei Hsieh, CCC and Danielle Lynch, certified community conservation corps

The Santa Cruz County Regional Transportation Commission (SCCRTC) intends to submit an ATP Cycle 2 grant application with the subject project name. Following is information regarding the proposed project for your review and determination of the ability of your respective organizations to participate.

Project Title
Santa Cruz Countywide Bicycle Route Signage Project

Project Description
The project will install approximately 1000 directional signs to promote preferred cycling routes and motorist's awareness of shared roadway, evaluate the project's effectiveness in increasing bicycle use and safety, and public outreach.

Detailed Estimate
There are two elements to this project the costs of which are summarized below and shown in further detail in the referenced attachments:
Project Construction: $275,000
See: *Att-G – Eng Estimate*
Project Evaluation & Public Outreach: $25,000

Project Schedule

Project Preliminary Design/Environmental Documentation	July 2016 – Sept 2016
Final Design Plans, Specifications & Estimates	October 2016 – March 2017
Construction	May 2017 –October 2017

The project evaluation will be comprised of 3 phases:

Pre Construction – Baseline Performance Measure Data Collection	August 2016 – June 2017
Public Outreach of the Preferred Routes Program	May 2016 – October 2017
Post Construction – Performance Measure Data Collection and Evaluation	July 2018 – September 2018

Project Map

The County Bicycle Route Signage Project spans the entire county with the majority of the 102 miles of preferred neighborhood, local, and regional bicycle routes serving the urbanized areas of the county (see *Att-E-Exhibit-RouteMaps*).

Preliminary Plan

The preliminary plan for the project is shown in the afore mentioned project elements and a sample of the bicycle route sign options as shown in the final attachment entitled *SampleSignTypes*.

Please give me a call with any questions concerning the project or your organizations participation.

Regards,
Kim

. . . . . .

Kim Shultz, Highway 1 Project Manager/Senior Planner
Santa Cruz County Regional Transportation Commission
1523 Pacific Avenue | Santa Cruz CA 95060
Santa Cruz 831.460.3200 | Watsonville 831.768.8012
Direct 831.460.3208
Follow our social networks for the latest RTC news

Attachment J

County of Santa Cruz

BOARD OF SUPERVISORS

701 OCEAN STREET, SUITE 500, SANTA CRUZ, CA 95060-4069
(831) 454-2200 • FAX: (831) 454-3262 TDD: (831) 454-2123

JOHN LEOPOLD FIRST DISTRICT | **ZACH FRIEND** SECOND DISTRICT | **RYAN COONERTY** THIRD DISTRICT | **GREG CAPUT** FOURTH DISTRICT | **BRUCE MCPHERSON** FIFTH DISTRICT

May 5, 2015

Caltrans, Division of Local Assistance, MS 1
Attn: Office of Active Transportation and
Special Projects
P.O. Box 942874
Sacramento, CA 94274-0001

Dear ATP Grant Selection Committee:

As the Chairperson of the Santa Cruz County Regional Transportation Commission and the Santa Cruz County First District Supervisor, I am writing to express support for Santa Cruz County Regional Transportation Commission's County-wide Bicycle Route Signage Program Active Transportation Program grant application. The program will involve defining a network of preferred bicycle routes between common destinations and developing and installing signs directing bicyclists to these preferred routes. Routes, signage types, and implementation will be undertaken through a collaborative process involving community members, advocacy groups, and local agency representatives.

Directing cyclists to safer routes will increase traffic safety for all street users and will encourage bicycling in Santa Cruz County. Increasing the bicycling mode share, a goal of the Regional Transportation Plan, will maximize the existing transportation network, promote non-emission generating trips by converting short distance automobile trips to bicycling trips, and improve the health and well-being of members of our community. The program's objectives are to:

- Guide cyclists onto streets better suited for bicycles;
- Promote bicycle use by making the public more aware of the bicycle as a viable and sustainable transportation mode;
- Remind motorists that they are sharing the road with cyclists who are traveling on official bicycle routes;
- Increase bicycle ridership by attracting new bicycle riders who may be intimidated by traffic and other safety considerations or constraints; and
- Make it easier for bicyclists to find common destinations, and reach them safely, while being informed about trip length.

May 5, 2015
Page 2

I urge you to support this valuable project which will have such clear benefits for residents in the Santa Cruz County community.

Santa Cruz County has an unacceptable level of bicycle accidents. This new bike signage program will provide useful support to remind both cyclists and motorists about successfully sharing the road.

Sincerely,

JOHN LEOPOLD, Supervisor, First District
Chairperson, Santa Cruz County
Regional Transportation Commission

JL:ted

2357A1

SCCRTC
SANTA CRUZ COUNTY REGIONAL TRANSPORTATION COMMISSION
1523 Pacific Ave., Santa Cruz, CA 95060-3911 • (831) 460-3200 FAX (831) 460-3215 EMAIL info@sccrtc.org

May 5, 2015

Caltrans, Division of Local Assistance, MS 1
Attn: Office of Active Transportation and Spec. Prog.
P.0. Box 942874, Sacramento, CA 94274-0001

RE: RTC Active Transportation Program (ATP) Grant Application for Santa Cruz County Bicycle Route Signage Program

Dear ATP Grant Selection Committee:

On behalf of the Regional Transportation Commission's Bicycle Advisory Committee, I wish to extend great support for the RTC's grant application for the Santa Cruz County-wide Bicycle Route Signage Program. This project will provide a critical way-finding tool for residents and tourists traveling by bike by direct them to safer routes, and alert motorists to expect greater bicycle travel on certain routes.

The Regional Transportation Commission's Bicycle Advisory Committee serves to assist in the development and maintenance of a complete, convenient and safe regional bicycle and pedestrian network. Such a network increases the opportunity and attractiveness of bicycle and pedestrian trips for transportation purposes and reduces the dependency on automobile travel. With that goal in mind, the RTC seeks to provide continuous, safe, and comfortable facilities that incentivize bicycle travel. The Bike Route Signage Program will define a network of preferred routes; provide development and installation of signs; and increase bicycle ridership by attracting new riders who may be intimidates by traffic and other safety considerations. This program, should it be implemented, has the potential to extend a much needed welcoming mat to new and experienced cyclists alike.

The Committee thanks you for your consideration of this grant proposal. Please feel free to contact the RTC's Bicycle Program Manager and staff to the Bicycle Advisory Committee, Cory Caletti at (831) 460-3201 or by email at ccaletti@sccrtc.org, for this and any other committee related matters.

Sincerely,

David Casterson

David Casterson
Bicycle Committee Chair

cc: Santa Cruz County Regional Transportation Commission
Santa Cruz County Regional Transportation Commission's Bicycle Committee

S:\Bike\Committee\CORR\BC2015\Bike_Route_Signage_ATP.docx

County of Santa Cruz

DEPARTMENT OF PUBLIC WORKS

701 OCEAN STREET, ROOM 410, SANTA CRUZ, CA 95060-4070
(831) 454-2160 FAX (831) 454-2385 TDD (831) 454-2123

JOHN J. PRESLEIGH
DIRECTOR OF PUBLIC WORKS

May 11, 2015

OFFICE OF ACTIVE TRANSPORTATION
AND SPECIAL PROGRAMS
California Department of Transportation
Division of Local Assistance, MS 1
P.0. Box 942874
Sacramento, CA 94274-0001

SUBJECT: ACTIVE TRANSPORTATION PROGRAM GRANT APPLICATION LETTER OF SUPPORT

Dear ATP Grant Selection Committee:

I'm writing to express the County of Santa Cruz Department of Public Works' support for the Santa Cruz County Regional Transportation Commission's Countywide Bicycle Route Signage Program Active Transportation Program grant application. The program will involve defining a network of preferred bicycle routes between common destinations, and developing and installing signs directing bicyclists to these preferred routes. Routes, signage types and implementation will be undertaken through a collaborative process involving community members, advocacy groups, and local agency representatives.

Directing cyclists to safer routes will increase traffic safety for all street users and will encourage bicycling in Santa Cruz County. Increasing the bicycling mode share, a goal of the Regional Transportation Plan, will maximize the existing transportation network, promote non-emission generating trips by converting short distance automobile trips to bicycling trips, and improve our community members' health and well-being. The program's objectives are to:

- Guide cyclists onto streets better suited for bicycles;
- Promote bicycle use by making the public more aware of the bicycle as a viable and sustainable transportation mode;
- Remind motorists that they are sharing the road with cyclists who are traveling on official bicycle routes;
- Increase bicycle ridership by attracting new bicycle riders who may be intimidated by traffic and other safety considerations or constraints;
- Make it easier for bicyclists to find common destinations, and reach them safely, while being informed about trip length;
- Provide a transportation system that is convenient, safe, and economical;
- Provide for mode choice;
- Limit increase in auto use, but increase bicycling;
- Increase efficient use of existing transportation facilities; and
- Meet the requirements of the regional plans.

The County of Santa Cruz Department of Public Works urges your committee to seriously consider the Santa Cruz County Regional Transportation Commission's Countywide Bicycle Route Signage Program Active Transportation Program grant application.

Yours truly,

JOHN J. PRESLEIGH
Director of Public Works

MY:my

RTC-ATP grant support letter.doc

420 Capitola Avenue
Capitola, California 95010
Telephone: (831) 475-7300
FAX: (831) 479-8879
Website: www.cityofcapitola.org

May 8, 2015

Caltrans, Division of Local Assistance, MS 1
Attn: Office of Active Transportation and Spec. Prog.
P.O. Box 942874, Sacramento, CA 94274-0001

Dear ATP Grant Selection Committee:

I'm writing to express the City of Capitola's support for Santa Cruz County Regional Transportation Commission's County-wide Bicycle Route Signage Program Active Transportation Program grant application. The program will involve defining a network of preferred bicycle routes between common destinations, and developing and installing signs directing bicyclists to these preferred routes. Routes, signage types and implementation will be undertaken through a collaborative process involving community members, advocacy groups and local agency representatives.

Directing cyclists to safer routes will increase traffic safety for all street users and will encourage bicycling in Santa Cruz County. Increasing the bicycling mode share, a goal of the Regional Transportation Plan, will maximize the existing transportation network, promote non-emission generating trips by converting short distance automobile trips to bicycling trips, and improve our community members' health and well-being. The program's objectives are to:

- Guide cyclists onto streets better suited for bicycles;
- Promote bicycle use by making the public more aware of the bicycle as a viable and sustainable transportation mode;
- Remind motorists that they are sharing the road with cyclists who are traveling on official bicycle routes;
- Increase bicycle ridership by attracting new bicycle riders who may be intimidated by traffic and other safety considerations or constraints; and,
- Make it easier for bicyclists to find common destinations, and reach them safely, while being informed about trip length.

I urge you to support this valuable project which is consistent with the City of Capitola's General Plan goals, policies, and actions to reduce vehicle trips, improving non-motorized connectivity, and provide regional integrated bikeways.

Sincerely,

Steven E. Jesberg
Public Works Director

CITY OF
SANTA CRUZ

PUBLIC WORKS DEPARTMENT
809 Center Street, Room 201, Santa Cruz, CA 95060 • 831 420-5160 • Fax: 831 420-5161

May 5, 2015

Caltrans, Division of Local Assistance, MS 1
Attn: Office of Active Transportation and Spec. Prog.
P.O. Box 942874, Sacramento, CA 94274-0001

Dear ATP Grant Selection Committee:

I'm writing to express the City of Santa Cruz's support for Santa Cruz County Regional Transportation Commission's County-wide Bicycle Route Signage Program Active Transportation Program grant application. The program will involve defining a network of preferred bicycle routes between common destinations, and developing and installing signs directing bicyclists to these preferred routes. Routes, signage types and implementation will be undertaken through a collaborative process involving community members, advocacy groups and local agency representatives.

Directing cyclists to safer routes will increase traffic safety for all street users and will encourage bicycling in Santa Cruz County. Increasing the bicycling mode share, a goal of the Regional Transportation Plan, will maximize the existing transportation network, promote non-emission generating trips by converting short distance automobile trips to bicycling trips, and improve our community members' health and well-being. The program's objectives are to:

- Guide cyclists onto streets better suited for bicycles;
- Promote bicycle use by making the public more aware of the bicycle as a viable and sustainable transportation mode;
- Remind motorists that they are sharing the road with cyclists who are traveling on official bicycle routes;
- Increase bicycle ridership by attracting new bicycle riders who may be intimidated by traffic and other safety considerations or constraints; and,
- Make it easier for bicyclists to find common destinations, and reach them safely, while being informed about trip length.

I urge you to support this valuable project which is consistent with the City of Santa Cruz 2030 General Plan Goal M4.2: "Provide and maintain a complete, interconnected, safe, inviting, and efficient citywide bicycle network."

Sincerely,

Mark Dettle
Public Works Director

CITY OF SCOTTS VALLEY

PUBLIC WORKS DEPARTMENT
701 Lundy Lane Scotts Valley, California 95066
Phone 831.438.5854 Facsimile 831.439.9748

May 5, 2015

Caltrans, Division of Local Assistance, MS 1
Attn: Office of Active Transportation and Spec. Prog.
P.0. Box 942874, Sacramento, CA 94274-0001

Dear ATP Grant Selection Committee:

I'm writing to express the City of Scotts Valley's support for Santa Cruz County Regional Transportation Commission's County-wide Bicycle Route Signage Program Active Transportation Program grant application. The program will involve defining a network of preferred bicycle routes between common destinations, and developing and installing signs directing bicyclists to these preferred routes. Routes, signage types and implementation will be undertaken through a collaborative process involving community members, advocacy groups and local agency representatives.

Directing cyclists to safer routes will increase traffic safety for all street users and will encourage bicycling in Santa Cruz County. Increasing the bicycling mode share, a goal of the Regional Transportation Plan, will maximize the existing transportation network, promote non-emission generating trips by converting short distance automobile trips to bicycling trips, and improve our community members' health and well-being. The program's objectives are to:

- Guide cyclists onto streets better suited for bicycles;
- Promote bicycle use by making the public more aware of the bicycle as a viable and sustainable transportation mode;
- Remind motorists that they are sharing the road with cyclists who are traveling on official bicycle routes;
- Increase bicycle ridership by attracting new bicycle riders who may be intimidated by traffic and other safety considerations or constraints; and,
- Make it easier for bicyclists to find common destinations, and reach them safely, while being informed about trip length.

I urge you to support this valuable project which is consistent with the City of Scotts Valley's Bicycle Transportation Plan.

Sincerely,

Scott Hamby
Public Works Director

Santa Cruz County Cycling Club
www.santacruzcycling.org - P.O. Box 8342, Santa Cruz, CA 95061-8342

May 8, 2015

Caltrans,
Division of Local Assistance, MS 1
Attn: Office of Active Transportation and Spec. Prog.
P.0. Box 942874
Sacramento, CA 94274-0001

Dear ATP Grant Selection Committee:

As President of the Santa Cruz County Cycling Club, I'm writing to express our support for Santa Cruz County Regional Transportation Commission's County-wide Bicycle Route Signage Program Active Transportation Program grant application. The program will involve defining a network of preferred bicycle routes between common destinations, and developing and installing signs directing bicyclists to these preferred routes. Routes, signage types and implementation will be undertaken through a collaborative process involving community members, advocacy groups and local agency representatives.

Directing cyclists to safer routes will increase traffic safety for all street users and will encourage bicycling in Santa Cruz County. Increasing the bicycling mode share, a goal of the Regional Transportation Plan, will maximize the existing transportation network, promote non-emission generating trips by converting short distance automobile trips to bicycling trips, and improve our community members' health and well-being. The program's objectives are to:

- Guide cyclists onto streets better suited for bicycles;
- Promote bicycle use by making the public more aware of the bicycle as a viable and sustainable transportation mode;
- Remind motorists that they are sharing the road with cyclists who are traveling on official bicycle routes;
- Increase bicycle ridership by attracting new bicycle riders who may be intimidated by traffic and other safety considerations or constraints; and,
- Make it easier for bicyclists to find common destinations, and reach them safely, while being informed about trip length.

I urge you to support this valuable project which is consistent with the Santa Cruz County Cycling Club's mission.

Sincerely,

Maura Noel

Maura Noel
President, SCCCC

BIKE SANTA CRUZ COUNTY
703 Pacific Avenue • Santa Cruz, CA 95060
(831) 425-0665

May 5, 2015

Caltrans, Division of Local Assistance, MS 1
Attn: Office of Active Transportation and Spec. Prog.
P.0. Box 942874, Sacramento, CA 94274-0001

Dear ATP Grant Selection Committee:

I'm writing to express Bike Santa Cruz County's support for Santa Cruz County Regional Transportation Commission's County-wide Bicycle Route Signage Program Active Transportation Program grant application. The program will involve defining a network of preferred bicycle routes between common destinations, and developing and installing signs directing bicyclists to these preferred routes. Routes, signage types and implementation will be undertaken through a collaborative process involving community members, advocacy groups and local agency representatives.

Directing cyclists to safer routes will increase traffic safety for all street users and will encourage bicycling in Santa Cruz County. Increasing the bicycling mode share, a goal of the Regional Transportation Plan, will maximize the existing transportation network, promote non-emission generating trips by converting short distance automobile trips to bicycling trips, and improve our community members' health and well-being. The program's objectives are to:

- Guide cyclists onto streets better suited for bicycles;
- Promote bicycle use by making the public more aware of the bicycle as a viable and sustainable transportation mode;
- Remind motorists that they are sharing the road with cyclists who are traveling on official bicycle routes;
- Increase bicycle ridership by attracting new bicycle riders who may be intimidated by traffic and other safety considerations or constraints; and,
- Make it easier for bicyclists to find common destinations, and reach them safely, while being informed about trip length.

I urge you to support this valuable project. Bike Santa Cruz County advocates for safer cycling across the county, and the Bicycle Route Signage Program is a vital way to direct people on bikes to safe infrastructure that is currently unmarked and hard to find. This project is a crucial component to completing the bike network in Santa Cruz County and encouraging more residents to use their bicycles for daily trips.

Sincerely,

Amelia Conlen, Director
Bike Santa Cruz County

703 Pacific Ave.
Santa Cruz, CA 95060
Greenways2school.org
Bikesantacruzcounty.org

May 19, 2015

Caltrans, Division of Local Assistance, MS 1
Attn: Office of Active Transportation and Spec. Prog.
P.0. Box 942874, Sacramento, CA 94274-0001

Dear ATP Grant Selection Committee:

I'm writing to express Green Ways to School's support for Santa Cruz County Regional Transportation Commission's County-wide Bicycle Route Signage Program Active Transportation Program grant application. I work with middle and high school students in the community, and a signage program will directly impact their ability to effectively navigate our county.

Directing cyclists to safer routes will increase traffic safety for all street users and will encourage bicycling in Santa Cruz County. Increasing the bicycling mode share, a goal of the Regional Transportation Plan, will maximize the existing transportation network, promote non-emission generating trips by converting short distance automobile trips to bicycling trips, and improve our community members' health and well-being. The program's objectives are to:

- Guide cyclists onto streets better suited for bicycles;
- Promote bicycle use by making the public more aware of the bicycle as a viable and sustainable transportation mode;
- Remind motorists that they are sharing the road with cyclists who are traveling on official bicycle routes;
- Increase bicycle ridership by attracting new bicycle riders who may be intimidated by traffic and other safety considerations or constraints; and,
- Make it easier for bicyclists to find common destinations, and reach them safely, while being informed about trip length.

I urge you to support this valuable project which is consistent with my agency/group's goals in that it will encourage safe cycling, get more young people outside and exploring our community, and encourage them to be life-long cyclists.

Sincerely,
Tawn Kennedy

Tawn Kennedy

Director, Green Ways to School

May 18, 2015

Caltrans, Division of Local Assistance, MS 1
Attn: Office of Active Transportation and Spec. Prog.
P.0. Box 942874, Sacramento, CA 94274-0001

Dear ATP Grant Selection Committee:

I'm writing to express on behalf of the Community Traffic Safety Coalition (CTSC) in support of the Santa Cruz County Regional Transportation Commission's countywide Bicycle Route Signage Program proposal through the Active Transportation Program grant application. The program will involve defining a network of preferred bicycle routes between common destinations and developing and installing signs directing bicyclists to these preferred routes. Routes, signage types and implementation will be undertaken through a collaborative process involving community members, advocacy groups and local agency representatives.

Directing cyclists to safer routes will increase traffic safety for all street users and will encourage bicycling in Santa Cruz County. Increasing the bicycling mode share, a goal of our Regional Transportation Plan, will maximize the existing transportation network, promote non-emission generating trips by converting short distance automobile trips to bicycling trips, and improve our community members' health and wellbeing. The program's objectives are to:

- Guide cyclists onto streets better suited for bicycles;
- Promote bicycle use by making the public more aware of the bicycle as a viable and sustainable transportation mode;
- Remind motorists that they are sharing the road with cyclists who are traveling on official bicycle routes;
- Increase bicycle ridership by attracting new bicycle riders who may be intimidated by traffic and other safety considerations or constraints; and,
- Make it easier for bicyclists to find common destinations, and reach them safely, while being informed about trip length.

I urge you to support this valuable project, which is consistent with the CTSC's goals in that this signed network will increase the use of alternative forms of transportation while helping to reduce traffic related injuries on our roadways. Thank you for your consideration of this proposal.

Sincerely,

Leo Jed, Co-Chair
Community Traffic Safety Coalition of Santa Cruz County

Ecology Action | Helping people act now.

May 19, 2015

Caltrans, Division of Local Assistance, MS 1
Attn: Office of Active Transportation and Spec. Prog.
P.0. Box 942874, Sacramento, CA 94274-0001

Dear ATP Grant Selection Committee:

I'm writing to express Ecology Action's support for Santa Cruz County Regional Transportation Commission's County-wide Bicycle Route Signage Program Active Transportation Program grant application. The program will involve defining a network of preferred bicycle routes between common destinations, and developing and installing signs directing bicyclists to these preferred routes. Routes, signage types and implementation will be undertaken through a collaborative process involving community members, advocacy groups and local agency representatives.

Ecology Action is a California environmental non-profit headquartered in Santa Cruz where we implement numerous bike encouragement programs including the biannual Bike to Work/School Day, annual spring Bike Week, Safe Routes to School activities, interest-free bike loans, and social and mainstream media bike related outreach. We strongly endorse the Bicycle Route Signage project as it is a relatively inexpensive, county-wide, and non-controversial infrastructure improvement for cyclists of all ages. Santa Cruz County has an unfortunately high rate of bike collision fatalities and bike route signage would help direct cyclists off of unsafe arterial streets such as Mission Street/Highway 1 where numerous cyclist fatalities have occurred.

I urge you to support this valuable project, which is consistent with Ecology Action's goal of making cycling for all ages safer and more convenient therefore increasing bike ridership.

Sincerely,

Jim Murphy
CEO