



ACTIVE TRANSPORTATION PROGRAM - CYCLE 2

Application Form for Part A

Parts B & C must be completed using a separate document

PROJECT unique APPLICATION NO.:

02-Shasta County-02

Auto populated

Total ATP Funds Requested:

\$ 572

(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:

Shasta County

IMPLEMENTING AGENCY'S ADDRESS

CITY

ZIP CODE

1855 Placer St.

Redding

CA

96001

IMPLEMENTING AGENCY'S CONTACT PERSON:

Al Cathey

CONTACT PERSON'S TITLE:

Supervising Engineer

CONTACT PERSON'S PHONE NUMBER:

530-245-6807

CONTACT PERSON'S EMAIL ADDRESS :

acathey@co.shasta.ca.us



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:

Shasta College

PROJECT PARTNERING AGENCY'S ADDRESS

CITY

ZIP CODE

11555 Old Oregon Trail

Redding

CA

96049-6006

PROJECT PARTNERING AGENCY'S CONTACT PERSON:

Morris Rodrigue

CONTACT PERSON'S TITLE:

Vice President

CONTACT PERSON'S PHONE NUMBER:

530-242-7525

CONTACT PERSON'S EMAIL ADDRESS :

mrodrigue@shastacollege.edu

MASTER AGREEMENTS (MAs):

Does the Implementing Agency currently have a MA with Caltrans?

Yes No

Implementing Agency's Federal Caltrans MA number

02-5906

Implementing Agency's State Caltrans MA number

00343S

* 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)

Old Oregon Trail Shasta College Active Transportation Project

Application Number: out of **Applications**

PROJECT DESCRIPTION: (Max of 250 Characters)

Install bike lanes, pavement markings, and flashing beacon on Shasta College campus; changes Old Oregon Trail to add bicycle lanes and improve intersections for non-motorized users. Close bicycle facility gap between campus and existing bike lanes.

PROJECT LOCATION: (Max of 250 Characters)

Project limits are on Old Oregon Trail from College View (just south of Hwy 299) to 300' north of Shasta College's entrance at Collyer; plus on Shasta College Dr from the intersection of Collyer/Old Oregon Trail to the College's South Parking Lot.



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. 40.628000 /long. -122.318000

Congressional District(s):

State Senate District(s): State Assembly District(s):

Caltrans District(s):

County:

MPO:

RTPA:

MPO UZA Population:

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

ESTIMATION OF ACTIVE TRANSPORTATION USERS

Existing Counts:	Pedestrians	<u>28</u>	Bicyclists	<u>22</u>
One Year Projection:	Pedestrians	<u>28</u>	Bicyclists	<u>550</u>
Five Year Projection:	Pedestrians	<u>32</u>	Bicyclists	<u>600</u>

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

Bicycle: Class I Class II Class III Other _____

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



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:	_____		11/30/15
* CEQA Environmental Clearance:	_____		2/29/16
* NEPA Environmental Clearance:	_____		4/30/16
CTC - PS&E Allocation:	_____		6/30/16
CTC - Right of Way Allocation:	_____		9/30/16
* Right of Way Clearance & Permits:	_____		11/30/17
Final/Stamped PS&E package:	_____		2/30/18
* CTC - Construction Allocation:			6/30/18
* Construction Complete:			9/30/18
* Submittal of “Final Report”			11/30/18



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:	\$37	
ATP funds for PS&E:	\$79	
ATP funds for Right of Way:	\$5	
ATP funds for Construction:	\$451	
ATP funds for Non-Infrastructure:		<i>(All NI funding is allocated in a project's Construction Phase)</i>
Total ATP funds being requested for this application/project:	\$572	

Local funds leveraging or matching the ATP funds: \$144

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: \$716

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"

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.



ACTIVE TRANSPORTATION PROGRAM - CYCLE 2

Part B: Narrative Questions (Application Screening/Scoring)

Project unique application No.: 02-Shasta County-02

Implementing Agency's Name: Shasta County Department of Public Works

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.*

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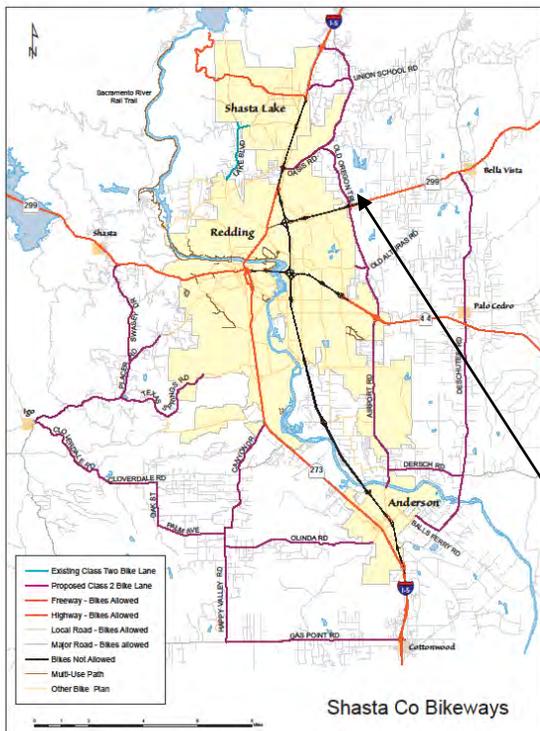
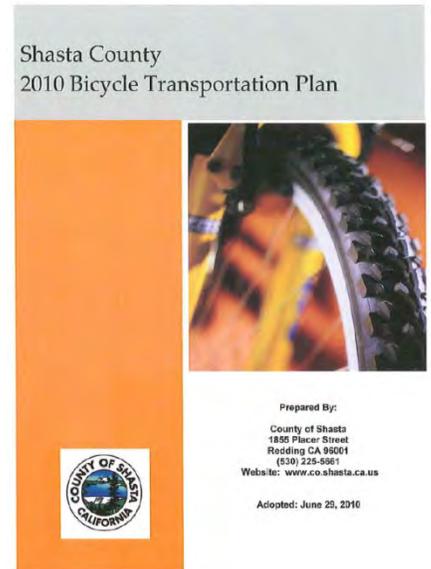
Part B: Narrative Questions Detailed Instructions for: **Screening Criteria**

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

1. Demonstrated fiscal needs of the applicant:

This project will fill a gap between existing bicycle lanes and provide access to Shasta College. The recent drop in Gas Tax Revenue has made funding non-motorized projects unfeasible. Shasta County has extensive public lands, which reduces local tax revenue, and must provide transportation infrastructure in a geographic area three times larger than the state of Rhode Island. This provides financial challenges for our small agency.

This project is not related to environmental mitigation.



2. Consistency with Regional Plan.

The project is listed on Page 143 of the 2015 Regional Transportation Plan (RTP) under Shasta County Active Transportation Projects (Attachment K-1). The project is also consistent with 2010 Shasta County Bicycle Transportation Plan (map on left) and with campus plans at Shasta College (Attachment E-5).

Project Location on Old Oregon Trail at College View to Collyer and on campus.



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.)

Shasta County Health and Human Services Agency (HHSA) has conducted observational bicycle and pedestrian counts at Shasta College’s entrance since 2008. Count data is limited to one day each September, 1.5 hours in the morning and 2 hours in the evening. In 2014, 22 bicyclists and 28 pedestrians used the intersection during the short collection time. We believe peak times for students do not necessarily fall into these times (traffic is very heavy near lunch and just before 9:30 am classes on Tuesdays and Thursdays; courses are offered until 10 pm on weeknights).

SUMMARY - TOTALS							
Location	Bike 14	Bike 13	Bike 12	Bike 11	Bike 10	Bike 09	Bike 08
Old Oregon and Collyer - Bike	22	22	27	30	19	15	6
Old Oregon and Collyer - Ped	28	29	5	11	8	na	na

The 2013 Shasta College Transportation Survey (SCTS) asked how people typically get to campus:

How many DAYS PER WEEK do you typically use each of the following transportation options to get to Shasta College? Main Campus (n=722)			
Answer Options	% respondents NOT using this option in a typical week	% respondents USING this option 1 or more times in typical week	Response Count
Drive a car, truck or van myself	9.9%	90.1%	659
Drive a car, truck or van with other passengers	74.2%	25.8%	427
Ride in a car, truck or van driven by someone else	77.5%	22.5%	418
Ride a motorcycle or scooter	94.8%	5.2%	404
Ride a bicycle	83.5%	16.5%	424
Walk	94.3%	5.7%	401
Take the bus	89.7%	10.3%	407



The SCTS also asked how frequently respondents would bicycle to campus if improvements were made to the main entrance:

How frequently would you.... bicycle to campus if changes were made to the entrance? Main Campus (n=696)					
Answer Options	At least 3 times per week	About once per week	A few times a month	Occasionally	Never
Response Count	139	64	40	98	355
Response %	20.0%	9.2%	5.7%	14.1%	51.0%

Shasta College has 12,465 students and 592 staff/faculty. Over 60% of students receive income-based financial aid and face challenges in paying for transportation. Approximately 65% of the 160 students living on campus do not have cars and rely on walking or bicycling to get to destinations. Public bus service in the area is limited on Saturdays and does not run at all on Sundays.

Of the 710 SCTS respondents who primarily use the main campus, approximately 2% live on campus or within 1 mile, a distance convenient for walking. Approximately 36% live within 6 miles of campus, a distance convenient for bicycling. A Trail User Survey in Redding found the local median bicycle commute to be 8 miles (Healthy Shasta, 2012).

Potential bicyclists at Shasta College: 20% would ride at least a few times/week per survey x 7,200 students/day on campus x 38% live within 6 miles = >550 students potentially bicycling to Shasta College (not counting staff, local residents, other users).

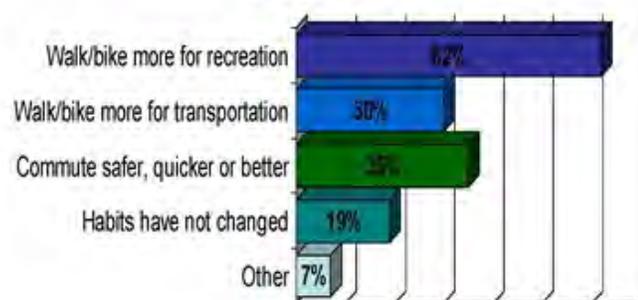
The project will also serve students at Simpson University, located less than one mile west of the project on College View Drive, with 800 undergraduate and 400 graduate students. Approximately 450 students live on campus. The closest market to Simpson is located within the project area. The project is within 3 miles of Bethel Church and



School, Mercy Oaks, Golden Umbrella, residential areas, and other destinations. See Attachment I-3.

Shasta College, Simpson, and Bethel are some of the largest employers in Shasta County. According to Robert Wood Johnson data, 81% of Shasta County residents drive to work alone, compared to 73% in California, representing an opportunity for modal shift to bicycling. The 2012 Trail User Survey indicates that recent improvements in the area of Dana/Hilltop Drive in Redding (which will connect via bicycle lanes to this project) resulted in increased walking or bicycling for both recreation and transportation:

Since Dana Trail Extension Opened...



Among those using Dana on this or last trip; n=249

The number of people bicycling in this corridor is expected to increase substantially given the fact that no current bicycle facilities exist and the public has clearly expressed safety concerns along the route. The project will close a difficult gap between existing bicycle facilities and destinations. The large number of students in the area tend to be young, healthy and face financial barriers in paying for motorized transportation so they are motivated and able to choose non-motorized options.

- 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**

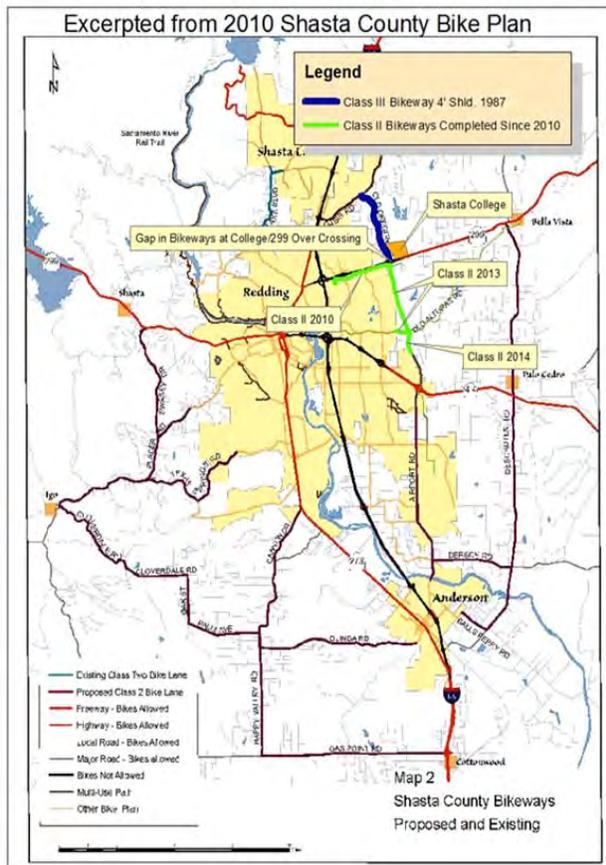


affordable housing, regional, State or national trail system, recreational and visitor destinations or other community identified destinations via: **(12 points max.)**

- 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

Although existing Class II bicycle lanes that lead into Redding are only 0.3 miles south of campus (on both Old Oregon Trail and College View), the area between them and the core of campus has many safety hazards and is very intimidating to all but the most confident bicyclists. The project will close this gap with buffered bicycle lanes and elevated bikeways, providing separation between motorists and bicyclists. The project will also improve intersections for non-motorized transportation, including the addition

of crosswalks and refuge islands, better delineation for bicyclists, and improved signal detection for non-motorized users.

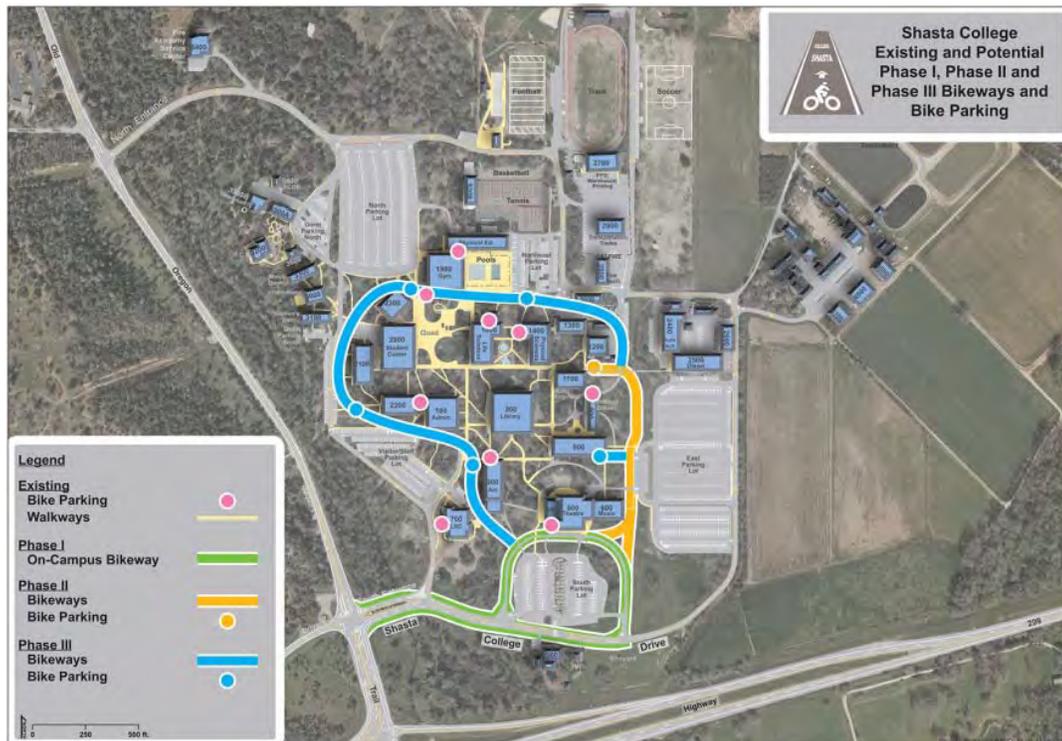


This map from the Shasta County Bike Plan (Attachment K-7) shows the Shasta College campus in orange in relation to recently completed Class II bikeways (in green) on Old Oregon Trail (2013) and College View Drive (2010). A short 0.3 mile gap in bicycle facilities along Old Oregon Trail is an impediment to bicycle commuting to campus and along the Old Oregon Trail corridor. This map does not show new bikeways within City of Redding, which by 2016 will connect this project through vast residential and

commercial areas to the Sacramento River Trail, which people use for commuting.



The on campus portion of the project will provide raised separated bikeways on Shasta College Drive (the main campus access road to Shasta College), which will provide a non-motorized option from Old Oregon Trail to existing service roads which will become multi-use paths on campus. See phase I (green) on Shasta College Map below (Attachment E-5):





The following table outlines key destinations within or near the project limits:

Destinations Served by Project	Distance from Project	Key Barriers Being Addressed	Population
<p>Shasta College</p> <p>(community college and only public institution of higher education within 74 miles)</p>	<p>Part of Project: Project is on campus, at main entrance, and along Old Oregon Trail corridor (the College has only two entrances, both on Old Oregon Trail)</p>	<p>Project addresses top concerns in 2013 Shasta College Transportation Survey</p> <p>Will add buffered bicycle lanes to, from and on campus; add raised bikeways on campus; improve intersections and crossings</p>	<p>12,265 Students (at least 7,200 each day); 60% receive need based financial aid</p> <p>>160 Dorm Residents (65% do not have cars)</p> <p>592 Faculty/Staff</p> <p>General community attend recreation, events, performances on campus</p>
<p>Chevron Market</p> <p>(only store in the area; plans to add deli)</p>	<p>Part of Project: At College View / Old Oregon Trail intersection</p>	<p>Wide intersection with high speeds; project will narrow intersection, tighten turning radii, add crosswalk and bicycle facilities at intersection</p>	<p>Only store/groceries within 1.7 miles of project; closest store to Shasta College, Simpson U, and Mercy Oaks</p>
<p>Simpson University</p> <p>(private university on College View Drive; only 4 year university campus in Shasta County)</p>	<p>Within 1 mile of project</p> <p>(project will connect to existing bike lanes on College View that lead to Simpson University)</p>	<p>Project will close gap in bicycle facilities between Simpson University and Shasta College (some students use both campuses); improve bicycle/pedestrian crossing between College View and Chevron Market (closest store to Simpson)</p>	<p>>1,200 undergraduate and graduate students</p> <p>450 students live on campus</p> <p>400 Faculty/Staff</p> <p>General community attends events, sports, etc</p>
<p>Mercy Oaks & Golden Umbrella</p> <p>(near Simpson on College View Drive)</p>	<p>Within 1 mile of project</p> <p>(project will connect to existing bike lanes on College View that lead to Mercy Oaks)</p>	<p>Project will connect to existing bicycle lanes on College View and improve safety at the intersection of College View and Old Oregon Trail</p>	<p>Senior Housing and day services; largest Senior Dining Center in the County, recreation and social opportunities</p> <p>Employer</p>
<p>Bethel Church/School</p> <p>(College View Dr plus proposed development on Collyer)</p>	<p>Existing headquarters on College View, 2.4 miles from project</p> <p>Proposed Bethel expansion on Collyer will add classrooms and event space, less than 1 mile from project</p>	<p>Project will increase non-motorized safety and connectivity in the area</p>	<p>College View: elementary/middle school, admin offices, church</p> <p>Collyer development will house events and adult education (Bethel has ~2,000 adult students from 64 countries; many without drivers licenses)</p> <p>Large employer</p>
<p>Housing</p>	<p>Limited housing in project area.</p> <p>Project will fill gap in bicycle facilities connecting housing options in Redding to Shasta College</p>	<p>Provide safe bicycle route between Shasta College and extensive housing/rentals in City of Redding. Close gap between campus and the existing bicycle lanes</p>	<p>Housing</p>



The project will remove the key barriers and safety hazards identified during an extensive planning process at Shasta College (Attachments K-3 and K-5). It will also improve connectivity to Simpson University, the Chevron market, Mercy Oaks, Golden Umbrella, residential areas, and other destinations and worksites. The 0.3 miles gap closure along Old Oregon Trail will link the City of Redding to the City of Shasta Lake, with a total of 8 miles of bikeway connectivity along Old Oregon Trail.

Shasta College and Simpson University are regular transit stops for the Redding Area Bus Authority (RABA). This project will make multimodal trips easier for bicyclists to safely access the bus stops. RABA buses are equipped with bike racks to allow for multimodal commutes.

- 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.)

Implementing Agency:

Closing gaps and removing barriers for non-motorized transportation is a high priority for Shasta County and the Old Oregon Trail corridor is our highest focus area, as demonstrated by our action in recent years. In 2013/2014, Shasta County invested in a project that added 3.0 miles of Class II bikeways on Old Oregon Trail, which run south of College View, connecting to 0.5 miles of new bikeways on Old Alturas. In 2010, 2.1 miles of bicycle lanes were added to College View. This project is our top priority because it will close a critical gap between these existing bikeways and Shasta College, as well as improve mobility to large employers in the area. This project will encourage more bike travel and mode shift to non-motorized options which will cut green house gas (GHG) emissions, helping the County as a whole comply with California's regulations regarding GHG.



From the Shasta County 2010 Bicycle Transportation Plan:

The overall goal of the BTP is to provide a safe, effective, efficient, balanced, and coordinated bicycling system that serves the needs of the people within the unincorporated region of Shasta County. The BTP supports the bicycle transportation goals within the general plans of Shasta County, and the cities of Anderson, Redding and Shasta Lake. Additionally, the BTP will provide to citizens a transportation environment that encourages and promotes non-motorized means of travel. The goals, policies, and actions outlined in this plan are intended to:

“Provide a safe, efficient, balanced and coordinated bicycling system”

- Decrease automobile dependency.
- Reduce traffic congestion.
- Reduce air and noise pollution.
- Reduce the effect of green house gasses (GHG) on the environment.
- Promote the development and use of bikeways, both on and off the road.

Partnering Agency:

This project is the top non-motorized priority for Shasta College as it addresses the top concerns and barriers identified in the 2013 Shasta College Transportation Survey. It will greatly improve safety and provide inexpensive transportation options to and from campus. Shasta College partnered with Shasta County Public Health to secure a grant to hire Fehr & Peers to conduct a bikeway feasibility study (Attachment K-2). The time and resources already invested in the planning process demonstrate the commitment to and importance of this project.





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.)**

The most recent bicycle - motor vehicle injury collision at the Collyer / Old Oregon Trail intersection occurred in October 2014 (Attachment K-4), in which a motorist hit a bicyclist traveling through the intersection. SWITRS also records a pedestrian injury crash in 2009 at Old Oregon Trail / Shasta College Drive. Although fatal and injury crashes have been low, very few people choose to walk or bicycle in the area due to substantial barriers and safety concerns.

The 2013 Shasta College Transportation Survey (SCTS; Attachment K-3), along with a workshop held on campus in fall 2013, clearly identified the safety hazards to be addressed and included input from students and staff who regularly bicycle in the area as well as those who would like to but are too afraid. Survey respondents indicated that Old Oregon Trail and College View Drive are the most common streets used on non-motorized commutes. This project will fill a gap between campus and existing bicycle lanes on both these roads.



This collision map is from the State Wide Integrated Traffic Reporting System (SWITRS), 2009-2014. There was one bicycle related collision in the reporting period.



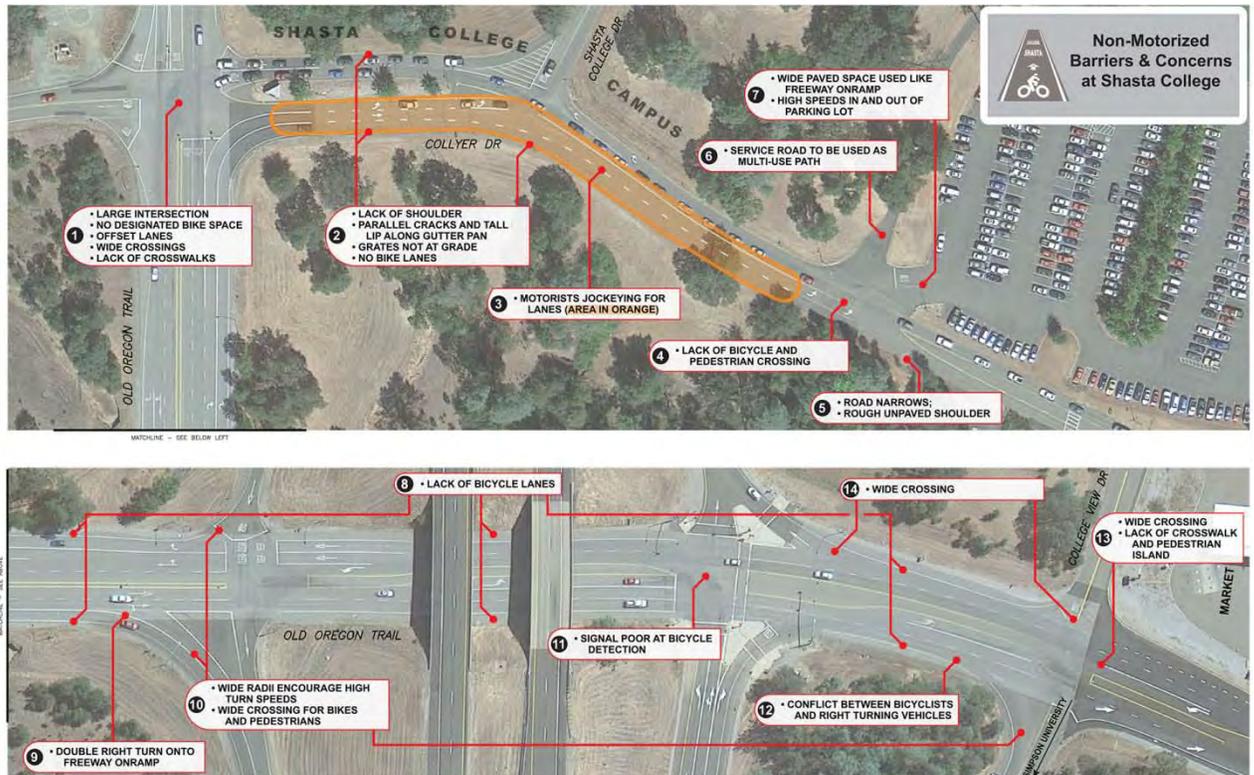
Old Oregon Trail Collision Map

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.)

- Reduces speed or volume of motor vehicles in the proximity of non-motorized users.
- Improves sight distance and visibility between motorized and non-motorized users.
- Eliminates potential conflict points between motorized and non-motorized users, including creating physical separation between motorized and non-motorized users.
- Improves compliance with local traffic laws for both motorized and non-motorized users.
- Addresses inadequate traffic control devices.
- Eliminates or reduces behaviors that lead to collisions involving non-motorized users.
- Addresses inadequate or unsafe traffic control devices, bicycle facilities, trails, crosswalks and/or sidewalks.



This map features key safety hazards identified through a comprehensive planning process which included the SCTS and workshops on the Shasta College campus (Attachment E-4). Also refer to the photos in Attachment F.





The photo above shows Shasta College Drive just east of the main campus entrance (#3 on map). It circles campus to intersect with Old Oregon Trail at two points and is the only bicycle access to campus. Bicyclists share the lane with motorists who are merging and switching lanes in this area, while navigating low drainage grates and a tall lip with parallel cracks between pavement and the concrete gutter pan. The project will construct a raised bikeway along both sides of this road from the entrance to the South Parking Lot, where bicyclists can access a service road which will be converted into a bikeway to the core of campus and classrooms. Beyond this first crossing, the road will be widened to add a Class II bikeway that will connect to an existing service road that will be utilized as a bikeway to the east side of campus. These new bikeways will provide designated space to bicyclists, decreasing potential conflicts with motorists, and the elevated bikeway will provide physical separation.

Two crossings will be added between the bikeway on the south side of Shasta College Drive and the service roads that will be used as bike paths which are on the north side of the road (#4 and 6 on map). The first crossing will also include speed humps and paint to visually narrow the lanes for traffic calming.



Significant changes will be made to the main entrance of campus (photo above; #1 on map). Though it is a four way stop and speeds are low, this wide intersection accounts for half of the collisions in the project limits, including a bicycle injury crash in 2014. The project will add crosswalks and painted refuge islands for pedestrians. Designated space for bicyclists will be delineated at the intersection while buffered and raised bikeways will provide more clearance between motorists and bicyclists. Motor vehicle lanes will be narrowed and turning radii will be reduced, resulting in traffic calming.



The project will remove the second right turn lane from southbound Old Oregon Trail onto westbound Highway 299 (photo above; #9 and 10 on map) and add designated bicycle space to the left of the right turn lane. This will greatly reduce potential conflicts as non-motorized users will have one less lane to cross and decreased crossing distance, resulting in smaller conflict zone. A tighter right turn radii will help reduce speeds.

The project will narrow motor vehicle lanes to slow traffic and reallocate space to provide buffered bicycle lanes in both directions along Old Oregon Trail (#8 on map), providing a safer space for bicyclists and further removing potential conflicts. Currently the shoulder disappears completely in some portions of this segment. Green paint where the bike lane travels through potential conflict zones will increase awareness among all users to watch for each other.

The signal at the eastbound Highway 299 intersection (#11 on map) will be upgraded to provide better bicycle detection, modern pedestrian features, and realign signals to



accommodate the new location of the motor vehicle lanes. Currently the signal is poor at detecting bicyclists, resulting in poor compliance.

Turning from eastbound College View to southbound Old Oregon Trail (#13 on map) was identified as a major safety hazard for non-motorized users due to crossing distance, high speeds and lack of designated space. Paint will visibly narrow the motor vehicle lanes and reduce turning radii as traffic calming measures. This, along with the conversion of one southbound travel lane into a right turn only lane, will greatly reduce the crossing distance. A high visibility crosswalk will be added with a painted refuge island.



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 need for bicycle improvements was first identified by Shasta College's Sustainability Workgroup in 2012, which formed a Subgroup to focus on ways to increase walking and bicycling. The Subgroup met regularly on campus, with representatives from facilities, campus safety, administration, faculty and staff, plus Healthy Shasta. They conducted the Shasta College Transportation Survey (with over 800 students, staff, faculty and campus stakeholders) and hosted an on campus workshop with students, staff and transportation agency representatives.

Public stakeholders in the process included students, staff and faculty at Shasta College, as well as community members. This includes students who live in dorms who do not own motor vehicles, student groups such as Student Senate, and disadvantaged students. Healthy Shasta was involved throughout the process and input was sought from the Shasta Wheelmen bicycling club.

Governmental stakeholders involved include Shasta College, City of Redding, Redding Area Bus Authority, Shasta Regional Transportation Agency, Caltrans District 2, and Shasta County Public Health (including Safe Routes to School staff).

Key individuals closely involved with the process are outlined in Attachment I-1.



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

Over 800 stakeholders completed the Shasta College Transportation Survey (SCTS) in spring 2013, at least 80% of which were students. The survey was conducted by Healthy Shasta and Shasta College's Office of Research and Planning with input from transportation agencies. The survey link was emailed to all students and staff and posted on the College's website. Flyers were hung on campus. Healthy Shasta conducted key informant interviews with campus stakeholders and hosted a 'bikeabout' to engage students and staff in identifying barriers and opportunities. These efforts were key in setting priorities on campus and identifying gaps, needs and priorities for non-motorized safety and connectivity.

In fall 2013, the "Improving Conditions for Walking and Bicycling at Shasta College" workshop was held on campus, facilitated by an engineer from Fehr and Peers and a planner from the Local Government Commission (with presentations, walkabout and 'design table' exercise). The 24 attendees included students, College staff, and local agencies. Refer to the 2013 workshop memo (Attachment K-6).



Student Senate hosted a 2014 Bike Month event in the quad to solicit additional input from students while offering education on bicycle safety and commuting.

Through Public Health Institute funding, Fehr and Peers was hired to conduct the Shasta College / Old Oregon Trail Bikeway Feasibility Study in 2014 (Attachment K-2), which included regular meetings on campus and collaboration with government stakeholders. Additionally, a display was set up in the Quad and students were invited



to comment on the alternatives proposed. Through this process, key stakeholders selected Alternative 5, which this proposal is based on.

- 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)**

Through the key informant interviews, survey, bikeabout, and initial workshop, it became clear that the main entrance intersection and corridor along Old Oregon Trail should be the top priority, in addition to on campus improvements near the entrance.

When asked to rank Shasta College's main campus on being 'safe and convenient for bicycling,' only 12% of SCTS respondents said it's 'great' and 51% said it's 'poor' or 'below average.' (Attachment K-2)

A total of 557 SCTS respondents provided written suggestions 'for making walking and bicycling easier, safer or more convenient on or near campus.' The most common comment was related to (>50 comments) the need for bicycle lanes/path along Old Oregon Trail. Since the survey was completed, bicycle lanes were constructed on Old Oregon Trail 0.3 mile south of campus. This project will fill the gap between campus and these new bicycle lanes.

When asked about the 'biggest barriers to walking or bicycling on or near campus', 535 written comments were provided. There were 73 comments on the lack of bicycle lanes near campus and 40 comments about the lack of bicycle lanes/paths on campus, plus an additional 59 comments about poor or inconsistent shoulders or lack of trails. At least 41 respondents commented on the main entrance, pointing out specific dangers, speeds, heavy traffic, lack of crosswalks, and the need for non-motorized alternatives. Several indicated that the main entrance was the worst part of their entire bike commute. Over 80 commented on the speed, volume, and carelessness of motorists



on or near campus, spurring the inclusion of buffers and grade separation for the bikeways.

The Workshop held in fall 2013 confirmed the survey findings and engaged stakeholders in identifying solutions. Summary in Attachment K-6.

The Shasta College / Old Oregon Trail Bikeway Feasibility Study was completed in 2014 by Fehr and Peers. They initially proposed three alternatives and much discussion focused on a possible two-way cycle track from the South Parking Lot on campus, along the east side of Old Oregon Trail to the signalized intersection at the south side of Highway 299. Both Caltrans and County Public Works opined that conventional bike lanes with a wide buffer would be better for traffic operations and would better serve bicyclists traveling north or south past the college and bicyclists traveling east or west on Collyer. The consultant prepared Alternatives 5 (the preferred alternative) and 6 as a result of this input. A subsequent meeting of County Public Works and Shasta College further refined Alternative 5 to include raised bikeways along the college access road to provide more separation from motorists rather than widen the road at grade for standard Class II bikeways. Bikeway Feasibility Study is Attachment K-2.

The broad involvement of multiple public agencies, along with both staff and students on campus, resulted in a high quality design that removes the top barriers and safety hazards in this corridor, fills an important gap between existing bikeways and destinations, and incorporates features (such as a raised bikeway, buffered bicycle lanes, improved intersections, and crosswalks) to increase the comfort levels for potential bicyclists who have been intimidated by the current environment.



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

Shasta County Public Works will continue to work closely with Shasta College, Healthy Shasta, and other stakeholders in the design and implementation of this project.

Caltrans District 2 will continue to be involved, particularly with an encroachment permit and specific details near the Highway 299 interchange. Public Works will be the lead agency and provide overall coordination and oversight. Shasta College will sign a memorandum of understanding to allow Public Works to coordinate construction on campus and commit to long term maintenance and responsibility for the on campus portions of the project.

Healthy Shasta will continue to assist with public engagement and work with Shasta College to ensure the project aligns with future bicycle and pedestrian improvements outlined in the Campus Master Plan, plus continue efforts to increase safety education and expand secure bicycle parking on campus. As the project nears completion, on campus efforts will encourage mode shift to bicycling among both students and staff.



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)

According to County Health Rankings (Robert Wood Johnson Foundation, 2015), Shasta County ranks 50th out of 57 counties in California for poor health outcomes (most counties are healthier) and 52nd for length of life (our residents die younger). This source indicates that Shasta County residents have more 'poor physical health' and 'poor mental health' days than Californians overall. While both these measures can be improved with physical activity such as active transportation, only 79% of Shasta County residents have 'access to exercise opportunities' (compared to 93% in California).

Less than half of Shasta County adults meet recommendations for moderate physical activity (2011 Mercy Medical Center Community Health Assessment). The California Health Interview Survey (2011-12) indicates only 68.7% of Shasta County residents walk for transportation, fun or exercise (77.2% in California); while 61.1% of Shasta County residents are overweight or obese (56.3% in California). Shasta County adults also face a higher chronic disease burden than other communities, with 9.7% of Shasta County adults diagnosed with diabetes (8.3% nationally). The age-adjusted death rate for heart disease (2010-2012) was 116.9 deaths per 100,000 population compared to the state rate of 106.2 (2014 California County Health Status Profiles).

Although health data specific to Shasta College students is not available, those familiar with students on campus indicate that a lack of physical activity and overweight/obesity are large issues among the campus populations. Research shows that low income



disadvantages populations, which at least half of the College's students are, suffer poorer health outcomes.

Amy Pendergast of Shasta County Public Health has been involved with development of this project. Health related data was identified in conjunction with Ben O'Neil (Epidemiologist, Shasta County Health and Human Services Agency), and Debbie Goodman, RN (Coordinator for Student Health and Wellness, Shasta College).

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

The project will increase the proportion of students and employees at and near Shasta College that bicycle for transportation. As outlined above, Shasta County residents suffer from high rates of overweight/obesity and have low rates of physical activity, both high risk factors for deadly chronic diseases such as diabetes and heart disease. Providing safe and convenient bikeways and addressing the top safety concerns on the route between Shasta College and Simpson University will result in higher levels of physical activity. The U.S. Centers for Disease Control (CDC) recommends at least 150 minutes of moderate physical activity per week for adults to stay healthy and prevent disease. This can be achieved by walking or bicycling 15 minutes each way during one's daily commute (assuming 5 days a week). The project is being designed to appeal to the approximately 60% of people 'interested but concerned' (<http://www.portlandoregon.gov/transportation/article/158497>) about bicycling among motor vehicles but included added comfort and protection with buffered and raised bikeways.

The project addresses important safety hazards, which will lead to fewer transportation related injuries and fatalities. SCTS respondents indicated that the College's entrance area was the 'scariest' part of their commute. Nearly half (49%) of respondents (n=696) indicated they would bicycle to campus at least occasionally if changes were made at the main entrance (including 29% who indicated once a week or more). The potential mode shift to active forms of transportation, especially among a young low income



population such as college students, is huge and can help establish active lifestyle habits at a young age. According to the American Journal of Preventive Medicine (August 2004), each additional hour spent in a car per day is associated with a 6% increase in likelihood of being obese.

In the long term, increasing safe and convenient non-motorized transportation options to and from Shasta College and other nearby institutes of higher education has the potential to help students who are financially struggling stay in school. In Shasta County, only 18.8% of adults (25 years and older) have a Bachelor's degree or higher, compared to 30.7% in California (US Census, 2009-2013 American Community Survey). According to the National Complete Streets Coalition (2010), cost is a barrier to car ownership and among low-income families, such as undereducated Shasta County residents, transportation represents 36% of household income. Providing safe non-motorized options helps people access higher education opportunities and helps reduce the financial barriers to obtaining an education so they can improve their circumstances. Over 56% of high school students in the region who go to college enroll at Shasta College. Research shows that people with higher educational levels have better health outcomes and live longer.

SCTS respondents indicated they would use recreational trails on or near campus, with 43% indicating they would use them at least once a week and an additional 33% at least occasionally. At the same time, vehicle speeds on campus and in parking lots was listed as a top concern. This project will help reduce vehicle speeds on campus and will increase opportunities for safe walking with the addition of crosswalks in key locations and the wider shoulders.

Shasta County Health and Human Services Agency's (HHSA) Strategic Plan (2011-2020) has a stated goal to 'promote physical activity community-wide' to improve both mental and physical health. The plan includes promoting outdoor activities such as



walking and biking, and increasing access to safe and affordable active transportation options. This project aligns with HHSA goals.

In Healthy Shasta's 2016 Strategic Plan, one of the four stated goals focuses on increasing walking and bicycling for both transportation and recreation, including increasing non-motorized connectivity and encouraging people to walk or bicycle to destinations. Healthy Shasta's involvement with this project will continue past construction and they continue to work with Shasta College to identify and implement strategies to make walking and bicycling safer, more convenient and inviting. These efforts, in conjunction with the major infrastructure changes options. Shasta College, Simpson University, and Shasta County are Healthy Shasta partners, committed to the vision of creating a community where 'the healthy choice is the easy choice.'



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)

To receive disadvantaged communities points, projects/programs/plans must be located within a disadvantaged community (as defined by one of the four options below) AND/OR provide a direct, meaningful, and assured benefit to individuals from a disadvantaged community.

1. The median household income of the census tract(s) is 80% of the statewide median household income
2. Census tract(s) is in the top 25% of overall scores from CalEnviroScreen 2.0
3. At least 75% of public school students in the project area are eligible for the Free or Reduced Priced Meals Program under the National School Lunch Program
4. Alternative criteria for identifying disadvantage communities (see below)

Provide a map showing the boundaries of the proposed project/program/plan and the geographic boundaries of the disadvantaged community that the project/program/plan is located within and/or benefiting.

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

- Provide all census tract numbers
- Provide the median income for each census track listed
- Provide the population for each census track listed

Median Household Income	Geographic Area	Population
\$44,651	Shasta County	177,966
\$44,722	96003 zip code (surrounding Shasta College)	44,461
\$58,140	Census Tract 6089010807 (Shasta College Campus is located here; college serves much larger area; this CT has many single family homes with property which is not affordable for most college students)	4,362
\$78,333	Census Tract 6089010804 (overlaps southern portion of this project; note that majority of the College’s students do not live in this CT)	2,745
Source: U.S. Census Bureau, 2009-2013 5-Year American Community Survey		



Option 2: California Communities Environmental Health Screening Tool 2.0 (CalEnviroScreen) score for the community benefited by the project:

- Provide all census tract numbers
- Provide the CalEnviroScreen 2.0 score for each census track listed
- Provide the population for each census track listed

Census Tract	CalEnviroScreen 2.0 Score	Population
6089010807 (location of Shasta College; north portion of project)	11-15%	4,362
6089010804 (south portion of project)	1-5%	2,745

Option 3: Percentage of students eligible for the Free or Reduced Price Meals Programs: 35.6% (Columbia Elementary) and 40.0% (Mt. View Middle) – Note: Shasta College serves a much broader geographic area

- Provide percentage of students eligible for the Free or Reduced Meals Program for each and all schools included in the proposal

Option 4: Alternative criteria for identifying disadvantaged communities:

- Provide median household income (option 1), the CalEnviroScreen 2.0 score (option 2), and if applicable, the percentage of students eligible for Free and Reduced Meal Programs (option 3)
- Provide ADDITIONAL data that demonstrates that the community benefiting from the project/program/plan is disadvantaged
- Provide an explanation for why this additional data demonstrates that the community is disadvantaged

ADDITIONAL DATA: This project primarily serves people traveling to Shasta College’s main campus, where a substantial portion of the student population is disadvantaged. At least 60% received need-based financial aid for the 2013-14 school year (not including loans). For example, 6,692 students received Board of Governors Enrollment Fee Waiver due to TANF, SSI or general assistance eligibility and 3,889 students received need-based grants. Shasta College has 286 students on CalWORKS. Plus 79% of Shasta College’s enrollment represents first generation college students.

Within a mile of the project, 99% of Simpson University’s 800 undergraduate students receive financial aid (both need based and loans).

Shasta County is one of the poorest in California, with a median household income of \$44,651 compared to \$61,400 in California. In Shasta County, 17.6% of families live below the poverty level, compared to 15.9% in the US. Plus 41% of households with children and a single female adult live in poverty in Shasta County (compared to 32% for this population in California (American Community Survey, 2005-2009, US Census).

B. For proposals located within disadvantage community: (5 points max)

**What percent of the funds requested will be expended in the disadvantaged community? >60 %
Explain how this percent was calculated.**



The largest user groups for this project will be Shasta College students, of whom at least 60% receive need-based financial aid, and the second most likely user group will be Simpson University students. We assume lower income students will be more likely to use the facilities as they face financial barriers to transportation costs. The project will also close a critical bikeway gap along Old Oregon Trail, which serves as a bicycle route between communities in Shasta County where median household incomes are \$44,651 annually.

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)

Define what direct, meaningful, and assured benefit means for your proposed project/program/plan, how this benefit will be achieved, and who will receive this benefit.

This project will directly benefit the 12,265 students at Shasta College, over half of which receive need-based financial aid (see ‘Additional Data’ under 5a), by filling a critical gap between campus and existing bicycle lanes that lead to housing and other destinations. It will also improve safety for the 65% of students living in Shasta College’s dorms who do not own motor vehicles. Currently there are no bikeways nor good routes to reach Shasta College’s campus and none that connect the core of campus to Old Oregon Trail. Simpson University students will also benefit with a safer crossing to the market closest to campus.



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.)**

All five alternatives proposed by Fehr and Peers provided the same benefits—improved bicycle access to the Shasta College campus, non-motorized improvements at intersections, and closing the existing gap in bicycle facilities. Costs vary for each alternative and overall traffic operations drove the decision. Three of the alternatives included a two-way cycle track. The final alternative chosen offers a higher benefit to cost ratio because it better serves bicyclists traveling past the college and to/from the west (the two-way cycle track primarily served bicyclists traveling to and from the south to the core of campus). Alternatives are outlined in Attachments K-2 and K-5.

- 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.)**

$$\left(\frac{\textit{Benefit}}{\textit{Total Project Cost}} \textit{ and } \frac{\textit{Benefit}}{\textit{Funds Requested}} \right).$$

The cost benefit ratio from the calculator is: 6.94

The cost benefit tool had clear instructions and was easy to use. The preferred alternative input and output are excerpted here:



Project Name: 02-Shasta County-2		INFRASTRUCTURE																					
Project Location: Old Oregon Trail north of Hwy 299																							
Bike Projects (Daily Person Trips for All Users) (Box 14)																							
<table border="1"> <tr> <td></td> <td>Without Project</td> <td>With Project</td> </tr> <tr> <td>Existing</td> <td>22</td> <td></td> </tr> <tr> <td>Forecast (1 yr after completion)</td> <td>22</td> <td>550</td> </tr> <tr> <td></td> <td>Commuter</td> <td>Recreational Users</td> </tr> <tr> <td>Existing Trips</td> <td>22</td> <td>3</td> </tr> <tr> <td>New Daily Trips (assumed)</td> <td>526</td> <td>10</td> </tr> <tr> <td>(1 yr after completion) (actual)</td> <td>526</td> <td>10</td> </tr> </table>				Without Project	With Project	Existing	22		Forecast (1 yr after completion)	22	550		Commuter	Recreational Users	Existing Trips	22	3	New Daily Trips (assumed)	526	10	(1 yr after completion) (actual)	526	10
	Without Project	With Project																					
Existing	22																						
Forecast (1 yr after completion)	22	550																					
	Commuter	Recreational Users																					
Existing Trips	22	3																					
New Daily Trips (assumed)	526	10																					
(1 yr after completion) (actual)	526	10																					
Project Information- Non SR25 Infrastructure																							
Bike Class Type	Bike Class II																						
Average Annual Daily Traffic (AADT)	5,435																						
Project Costs (Box 10)																							
Non-SR25 Infrastructure Project Cost	\$716																						
SR25 Infrastructure Project Cost																							
ATP Requested Funds (Box 18)																							
Non-SR25 Infrastructure	\$572,000																						
SR25 Infrastructure																							
CRASH DATA (Box 21)																							
	Last 5 Yrs	Annual Average																					
Fatal Crashes	0	0																					
Injury Crashes	7	1.4																					
PDO	12	2.4																					
SAFETY COUNTERMEASURES (Improvements) (Box 16)																							
	Y or N (Capitalized)																						
Signalized Intersection	Pedestrian countdown signal heads																						
	Pedestrian crossing																						
	Advance stop bar before crosswalk																						
	Install overpass/underpass																						
Unsignalized Intersection	Raised medians/refuge islands																						
	Pedestrian crossing (two signs and markings only)	Y																					
	Pedestrian crossing (three signs/markings/advance stop)																						
Roundabout	Pedestrian signals																						
	Bike lanes																						
	Sidewalk/pathway (to assist walking along roadway)	Y																					
Other reduction factor countermeasures																							
<table border="1"> <tr> <td>Pedestrian crossing (with unraised safety islands)</td> <td>Y</td> </tr> <tr> <td>Pedestrian crossing</td> <td>Y</td> </tr> </table>			Pedestrian crossing (with unraised safety islands)	Y	Pedestrian crossing	Y																	
Pedestrian crossing (with unraised safety islands)	Y																						
Pedestrian crossing	Y																						
Safe Routes to School (SR25) (Box 13)																							
Number of student enrollment	None																						
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																							

20 Year Invest Summary Analysis	
Total Costs	\$716.00
Net Present Cost	\$688.46
Total Benefits	\$8,931,523.36
Net Present Benefit	\$5,915,164.96
Benefit-Cost Ratio	8,591.86

20 Year Itemized Savings	
Mobility	\$26,281,721.82
Health	\$1,955,808.42
Recreational	-\$23,299,926.32
Gas & Emissions	\$887,727.49
Safety	\$3,106,191.95

Funds Requested	\$572,000.00
Net Present Cost of Funds Requested	\$550,000.00
Benefit Cost Ratio	10.75



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.)

The proposal includes match to cover 20% of project costs with non-ATP funds:

- Shasta College will contribute \$70,000
- Shasta County Public Works will work with the Shasta Regional Transportation Agency (SRTA) to contribute the amount needed to reach 20% match, which may include Rural BLAST funds or the 2% Transportation Development Act set aside through SRTA. See the table below:

<i>Funding Plan and Leveraging of Non-ATP Funds</i>					
Proposed Total Project Cost (\$1,000s)					
Component	Funding Source	16/17	17/18	18/19	Total
Env. Clearance & Permitting	ATP	37			37
Plans, Specifications, & Estimate (PS&E)	ATP		79		79
R/W	ATP		5		5
Construction	ATP			451	451
Construction	Shasta College			70	70
Construction	Shasta County/SRTA Local Trans. Funds			74	74
				Total:	716



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)
 - 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):

- Neither corps can participate in the project (0 points) See attachment I-2.
- 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)

The CCC and certified community conservation corps will provide a list to Caltrans of all projects submitted to them and indicating which projects they are available to participate on. The applicant must also attach any email correspondence from the CCC and certified community conservation corps to the application verifying communication/participation.



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.

Shasta County has experienced professional staff familiar with the various federal and state funding requirements and regulations including Local Assistance Procedures and Guidelines. Annually we complete three to five federal aid projects.

In the last five years Shasta County has worked on the following HSIP projects:

No.	Project ID	CT District	Agency Name	MPO	Location of Work	PE	Env.	PSE/RW	Const.
6	HSIP5-02-003	2	Shasta County	SCRTPA	Gas Point Rd. between Keri Ln. and Charles St.				
7	HSIP5-02-004	2	Shasta County	SCRTPA	Olinda Rd. between Sammy Ln. and Greenleaf Ln.				
8	HSIP6-02-003	2	Shasta County	SRTA	On Deschutes Rd between Balls Ferry Rd and Beatie Rd				
9	HSIP6-02-004	2	Shasta County	SRTA	On Deschutes Rd between Beatie Rd and Brundage Rd				
	HRRL	2	Shasta County	SRTA	Hawthorn Ave Happy Valley to 1.5 miles west				
Phase Authorized=									

- B. **Caltrans response only:**

Caltrans to recommend score for deliverability of scope, cost, and schedule based on the overall application.



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 Required for all applications	Attachment A
ATP - PROJECT PROGRAMMING REQUEST (ATP-PPR) Required for all applications	Attachment B
Engineer's Checklist Required for Infrastructure Projects	Attachment C
Project Location Map Required for all applications	Attachment D
Project Map/Plans showing existing and proposed conditions Required for Infrastructure Projects (optional for 'Non-Infrastructure' and 'Plan' Projects)	Attachment E
Proposed Conditions: Alternative 5 Map	Attachment E-1
Proposed Conditions: Modifications on Shasta College Campus	Attachment E-2
Proposed Conditions: Typical Sections	Attachment E-3
Existing Conditions: Barriers and Concerns Map	Attachment E-4
Shasta College Bikeway and Bicycle Parking Map	Attachment E-5
Photos of Existing Conditions Required for all applications	Attachment F
Project Estimate Required for Infrastructure Projects	Attachment G
Non-Infrastructure Work Plan (Form 22-R) Required for all projects with Non-Infrastructure Elements	Attachment H (none)
Narrative Questions backup information Required for all applications Label attachments separately with "H-#" based on the # of the Narrative Question	Attachment I



Key Stakeholders Involved	Attachment I-1
California Conservation Corps Communication	Attachment I-2
Destinations Table	Attachment I-3
Letters of Support	Attachment J
Required or Recommended for all projects (as designated in the instructions)	
Shasta College Letter of Support (partnering agency)	Attachment J-1
Shasta Regional Transportation Agency Letter of Support	Attachment J-2
Shasta County Public Health Letter of Support	Attachment J-3
Shasta Living Streets Letter of Support	Attachment J-4
Healthy Shasta Letter of Support	Attachment J-5
Shasta Wheelmen Letter of Support	Attachment J-6
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.	
Regional Transportation Plan	Attachment K-1
Shasta College / Old Oregon Trail Bikeway Feasibility Study	Attachment K-2
Shasta College Transportation Survey (2013)	Attachment K-3
Record Searchlight Article	Attachment K-4
Fehr & Peers Proposed Alternatives	Attachment K-5
Fehr & Peers Workshop Memo (Fall 2013)	Attachment K-6
Shasta County Bike Plan (2010)	Attachment K-7



Application Signature Page

Required for all applications

Attachment A



Part C: Attachments Attachment A: Signature Page

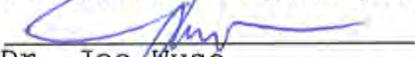
IMPORTANT: Applications will not be accepted without all required signatures.

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:  Date: 5/14/15
Name: Patrick J. Minturn Phone: 530-225-5661
Title: Public Works Director e-mail: pminturn@co.shasta.ca.us

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: May 14, 2015
Name: Dr. Joe Wyse Phone: (530) 242-7510
Title: Superintendent/President e-mail: jwyse@shastacollege.edu

For Safe Routes to School projects and/or projects presented as benefiting a school: School or School District Official
(For use only when appropriate)

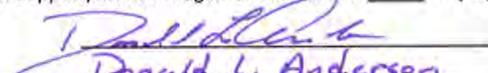
The undersigned affirms that the school(s) benefited by this application is not on a school closure list.

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: 5-20-15
Name: Donald L. Anderson Phone: (530) 225-3545
Title: District Deputy Director e-mail: Don.anderson@DOT.CA.GOV

* 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>



ATP - PROJECT PROGRAMMING REQUEST (ATP-PPR)

Required for all applications

Attachment B

ATP PROJECT PROGRAMMING REQUEST

Date: 5/12/2015

Project Information:					
Project Title: Old Oregon Trail Shasta College Active Transportation Project					
District	County	Route	EA	Project ID	PPNO
2	Shasta	Old Oregon Trail			

Funding Information:
DO NOT FILL IN ANY SHADED AREAS

Proposed Total Project Cost (\$1,000s)									Notes:
Component	Prior	14/15	15/16	16/17	17/18	18/19	19/20+	Total	
E&P (PA&ED)				37				37	
PS&E					79			79	
R/W					5			5	
CON						595		595	
TOTAL				37	84	595		716	

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	Funding Agency
E&P (PA&ED)				37				37	Caltrans
PS&E					79			79	Notes:
R/W					5			5	
CON						451		451	
TOTAL				37	84	451		572	

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	Funding Agency
E&P (PA&ED)									
PS&E									Notes:
R/W									
CON									
TOTAL									

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	Funding Agency
E&P (PA&ED)									
PS&E									Notes:
R/W									
CON									
TOTAL									

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	Funding Agency
E&P (PA&ED)									
PS&E									Notes:
R/W									
CON									
TOTAL									

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	Funding Agency
E&P (PA&ED)									
PS&E									Notes:
R/W									
CON									
TOTAL									

ATP PROJECT PROGRAMMING REQUEST

Date: 5/12/2015

Project Information:					
Project Title: Old Oregon Trail Shasta College Active Transportation Project					
District	County	Route	EA	Project ID	PPNO
2	Shasta	Old Oregon Trail			

Funding Information:
DO NOT FILL IN ANY SHADED AREAS

Fund No. 2:	Future Source for Matching								Program Code
Proposed Funding Allocation (\$1,000s)									
Component	Prior	14/15	15/16	16/17	17/18	18/19	19/20+	Total	Funding Agency
E&P (PA&ED)									SRTA/County
PS&E									Notes:
R/W									Local Transportation Dollars used from SRTA BLAST program or LTF
CON						74		74	
TOTAL						74		74	

Fund No. 3:	Future Source for Matching								Program Code
Proposed Funding Allocation (\$1,000s)									
Component	Prior	14/15	15/16	16/17	17/18	18/19	19/20+	Total	Funding Agency
E&P (PA&ED)									Shasta College
PS&E									Notes:
R/W									Discretionary Funds for Maintenance
CON						70		70	
TOTAL						70		70	

Fund No. 4:	Future Source for Matching								Program Code
Proposed Funding Allocation (\$1,000s)									
Component	Prior	14/15	15/16	16/17	17/18	18/19	19/20+	Total	Funding Agency
E&P (PA&ED)									
PS&E									Notes:
R/W									
CON									
TOTAL									

Fund No. 5:	Future Source for Matching								Program Code
Proposed Funding Allocation (\$1,000s)									
Component	Prior	14/15	15/16	16/17	17/18	18/19	19/20+	Total	Funding Agency
E&P (PA&ED)									
PS&E									Notes:
R/W									
CON									
TOTAL									

Fund No. 6:	Future Source for Matching								Program Code
Proposed Funding Allocation (\$1,000s)									
Component	Prior	14/15	15/16	16/17	17/18	18/19	19/20+	Total	Funding Agency
E&P (PA&ED)									
PS&E									Notes:
R/W									
CON									
TOTAL									

Fund No. 7:	Future Source for Matching								Program Code
Proposed Funding Allocation (\$1,000s)									
Component	Prior	14/15	15/16	16/17	17/18	18/19	19/20+	Total	Funding Agency
E&P (PA&ED)									
PS&E									Notes:
R/W									
CON									
TOTAL									



Engineer's Checklist

Required for Infrastructure Projects

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: ac

- 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: ac

- 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: ac

(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: ac

- 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: ac

- 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: ac

- 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: ac

- 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):

Title:

Engineer License Number

Signature: *Alfred V. Cathey*

Date:

Email:

Phone:

Engineer's Stamp:



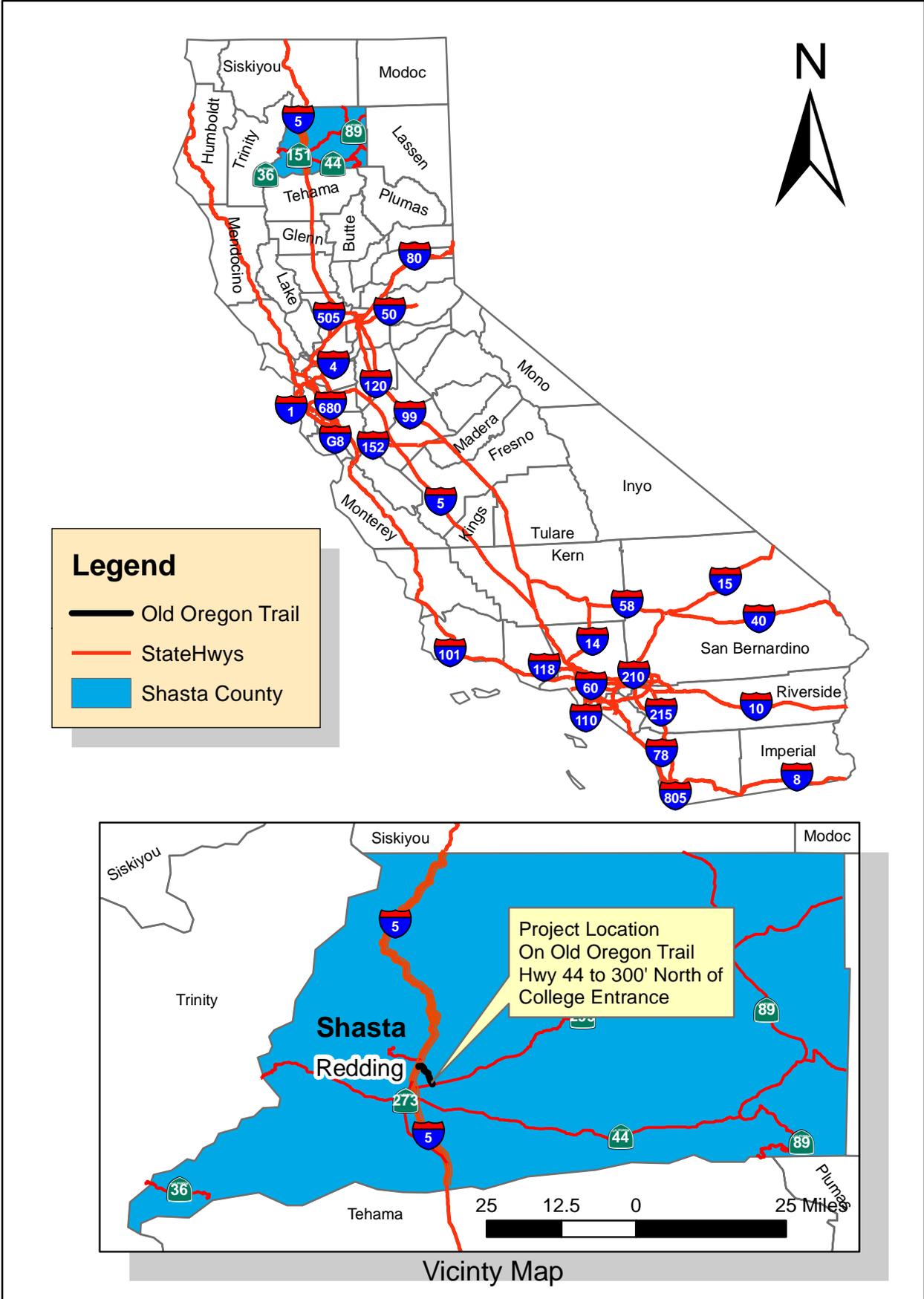


Project Location Map

Required for all applications

Attachment D

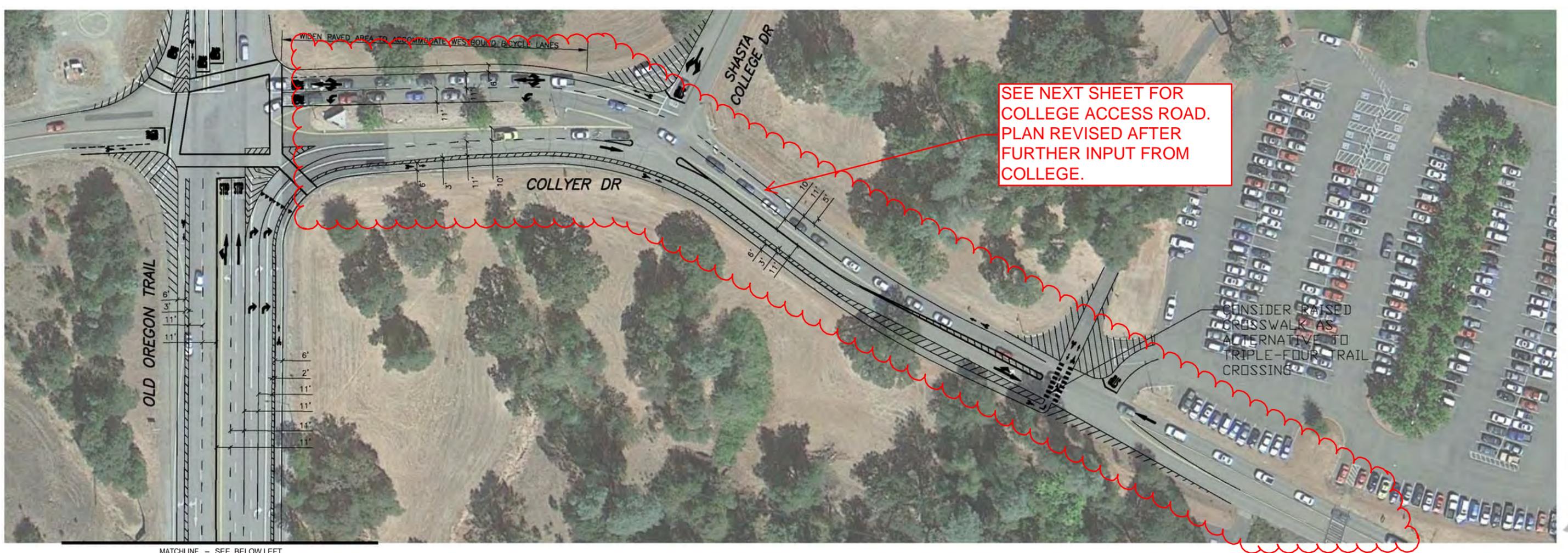
Project Location Map



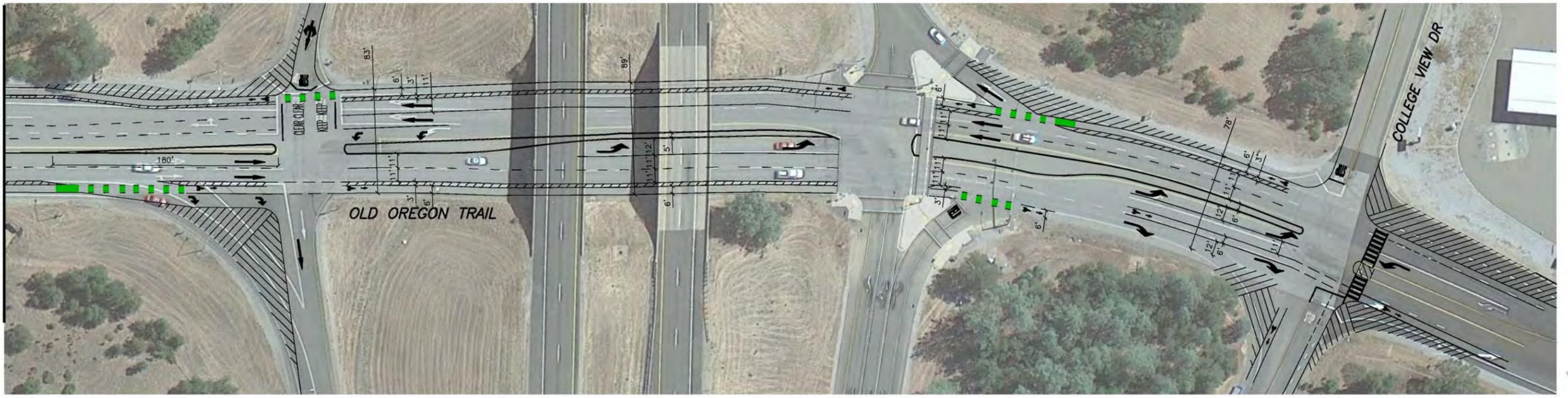


Project Map/Plans showing existing and proposed conditions	Attachment E
Required for Infrastructure Projects (optional for 'Non-Infrastructure' and 'Plan' Projects)	
Proposed Conditions: Alternative 5 Map	Attachment E-1
Proposed Conditions: Modifications on Shasta College Campus	Attachment E-2
Proposed Conditions: Typical Sections	Attachment E-3
Existing Conditions: Barriers and Concerns Map	Attachment E-4
Shasta College Bikeway and Bicycle Parking Map	Attachment E-5

Letter of Intent with Shasta College can be found in Attachment J-1

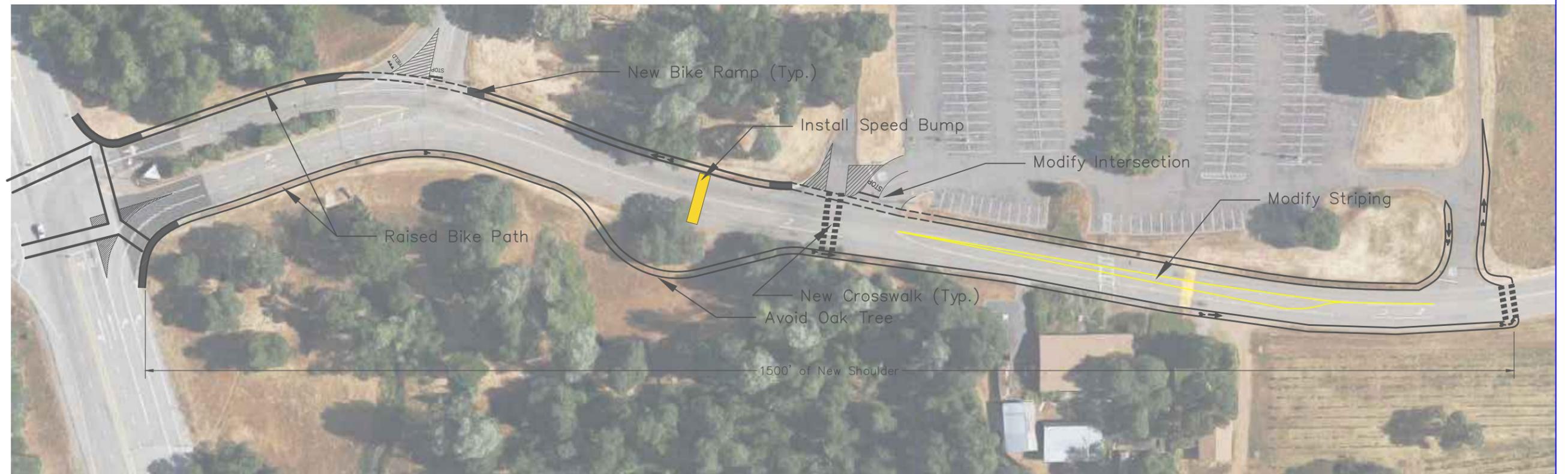


MATCHLINE - SEE BELOW LEFT



MATCHLINE - SEE ABOVE



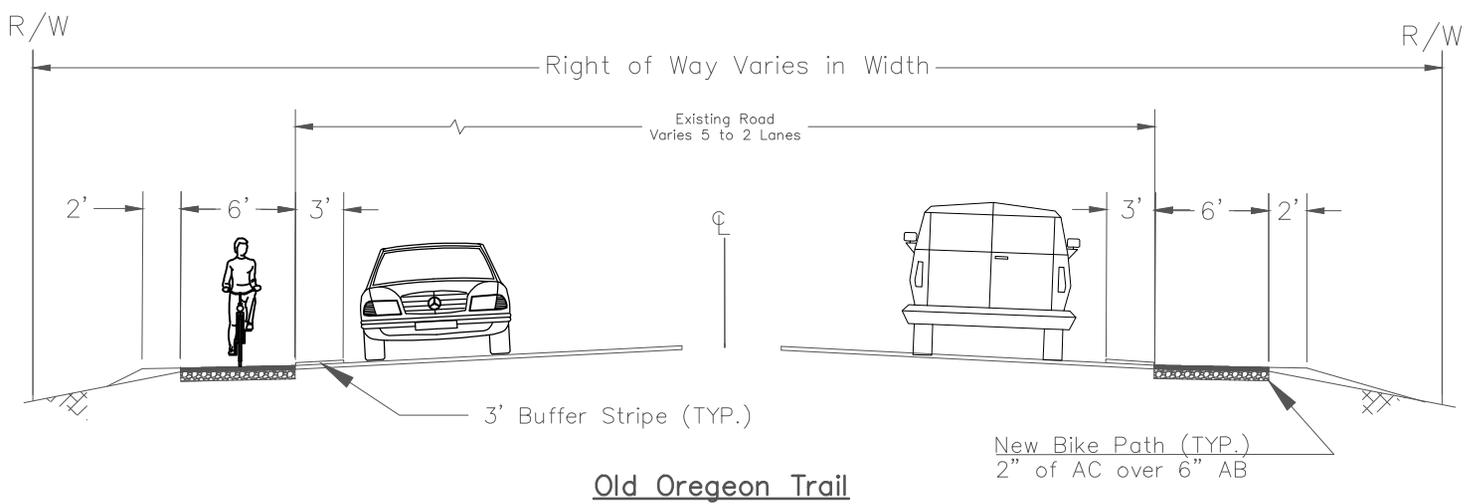
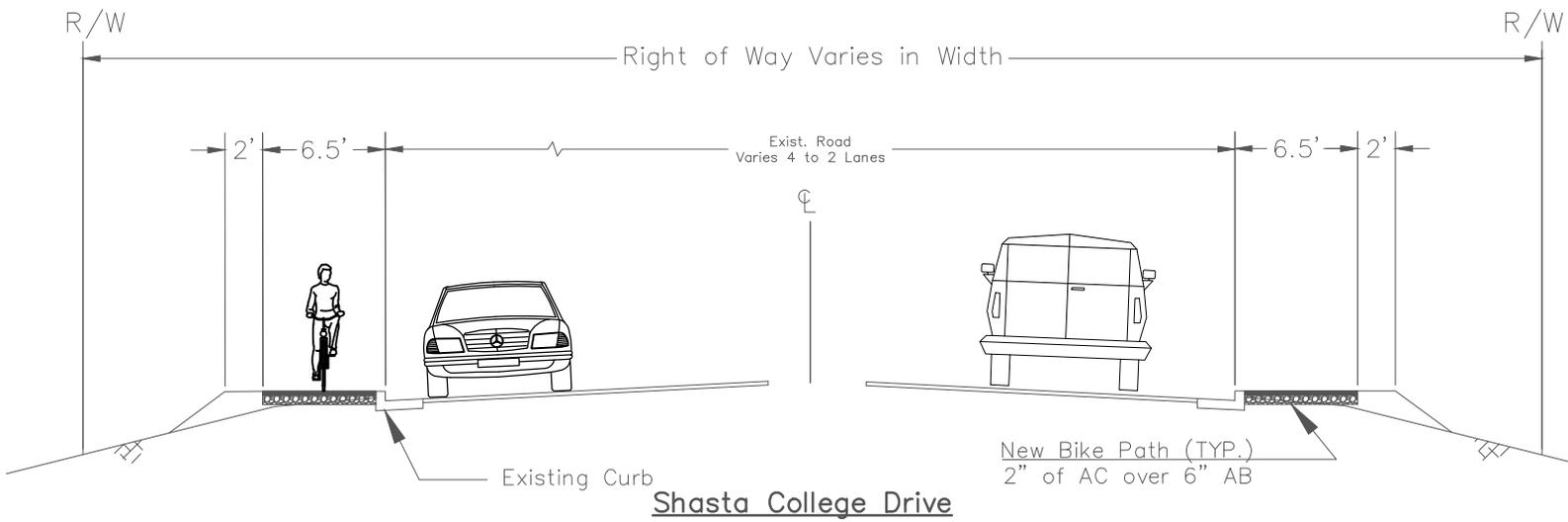


See Attachment J-1 for Letter of Intent from Shasta College.

SHASTA COUNTY DEPARTMENT OF PUBLIC WORKS

Old Oregon Trail/Shasta College ATP Project
On Campus Bike Lanes

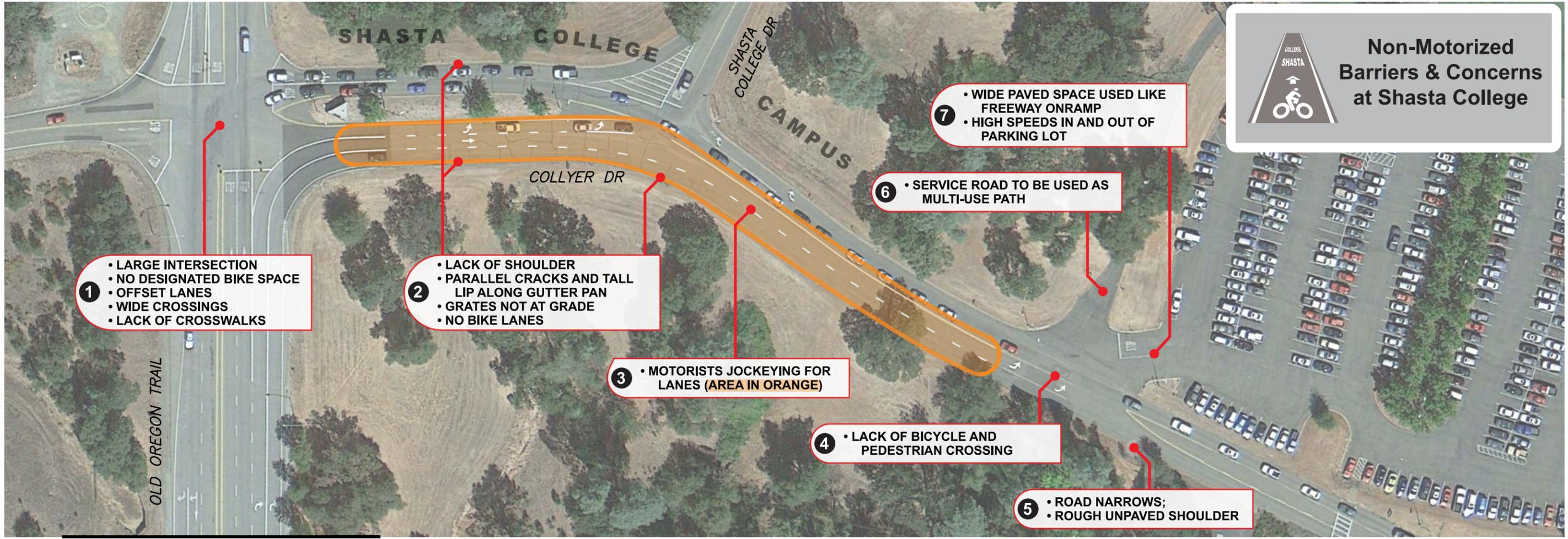
SCALE: 1"=100' | DATE: 4/14/2015 | DRAWN BY: AVC



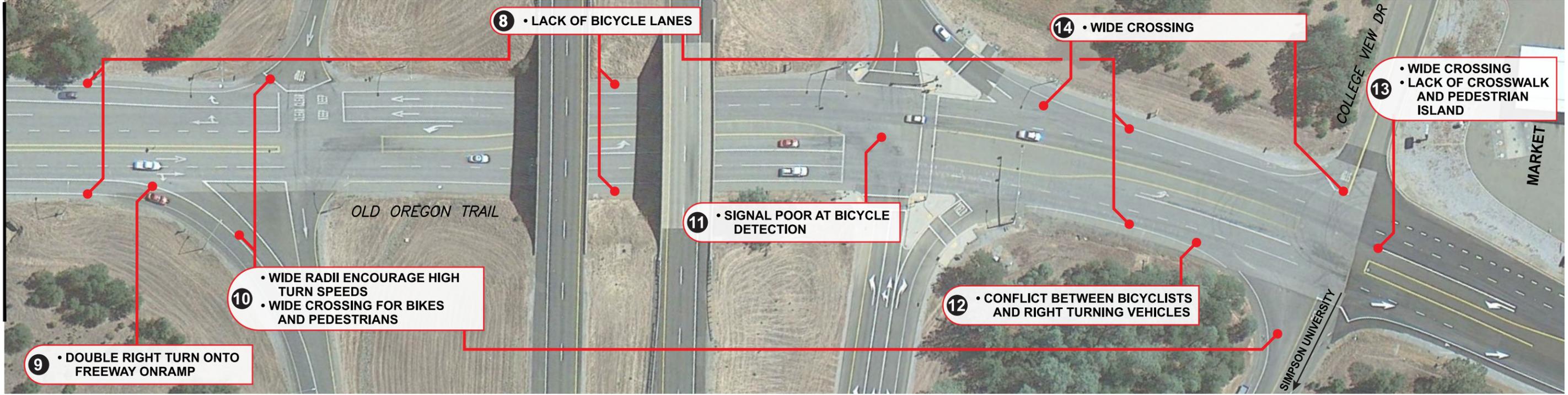
Old Oregon Trail/Shasta College ATP Project
Typical Sections
 Attachment E-3



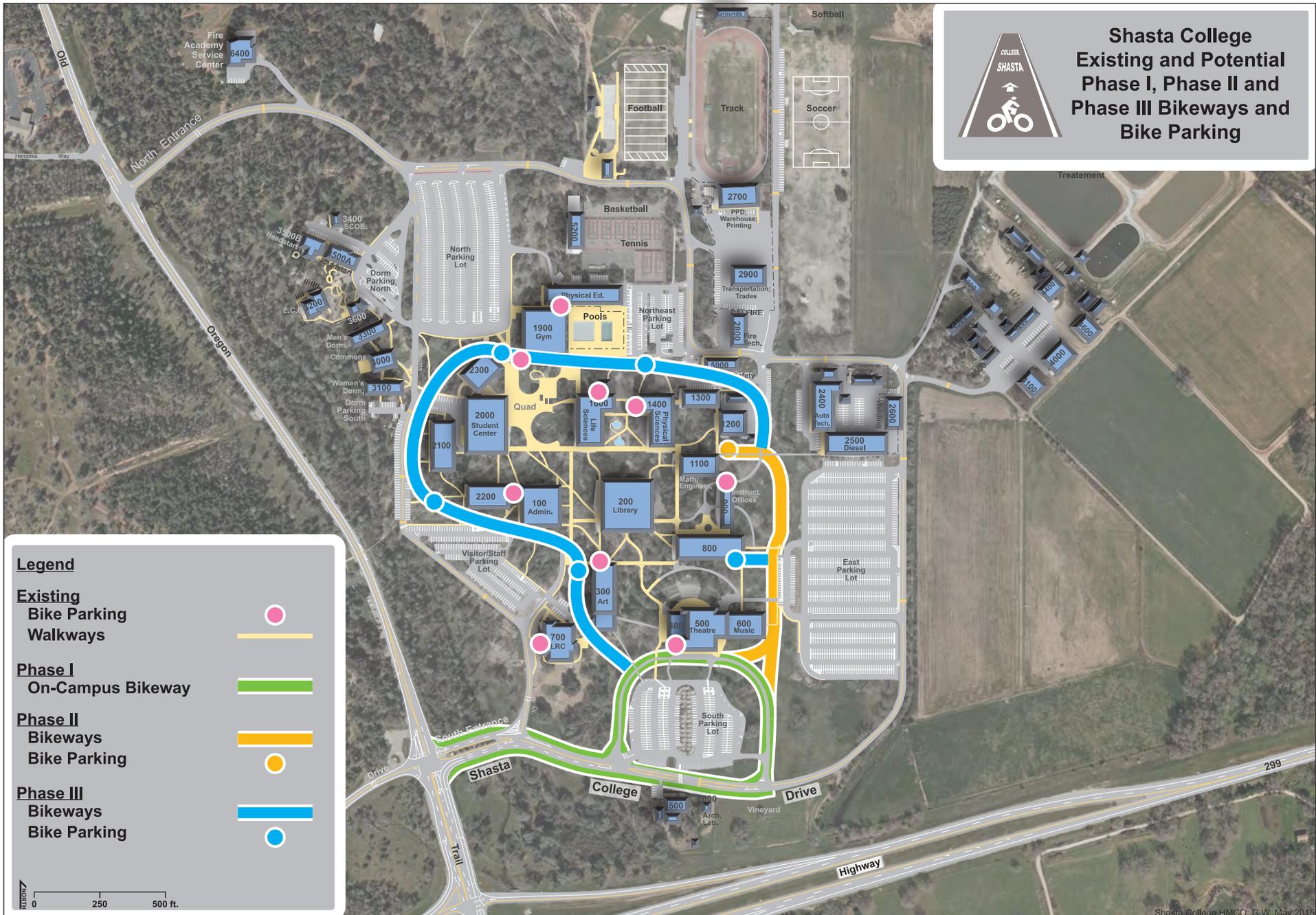
Non-Motorized Barriers & Concerns at Shasta College



MATCHLINE - SEE BELOW LEFT



MATCHLINE - SEE ABOVE



Shasta College
Existing and Potential
Phase I, Phase II and
Phase III Bikeways and
Bike Parking



Legend

- Existing Bike Parking Walkways
- Phase I On-Campus Bikeway
- Phase II Bikeways Bike Parking
- Phase III Bikeways Bike Parking

0 250 500 ft.



Photos of Existing Conditions
Required for all applications

Attachment F

Shasta College and Old Oregon Trail Corridor Current Conditions – Attachment F

NOTE: Numbers below correspond to the “Non-Motorized Barriers and Concerns” Map (Attachment E-4) Items identified on the map reflect barriers to non-motorized transportation and safety concerns identified by students and stakeholders through the Spring 2013 Shasta College Transportation Survey and Fall 2013 Workshop held on campus.

Shasta College Main Entrance (1 on Map Attachment E-4)

Entire Main Entrance is a barrier to non-motorized transportation:

- No designated space for bicyclists; lack of bicycle lanes; inconsistent or lack of shoulders on Old Oregon Trail and Shasta College Drive;
- Up to 6 lanes wide; very wide crossings in every direction
- Wide turning radii encourages high speeds on turns
- No crosswalks; lacks pedestrian space and shoulders
- Uncontrolled double right turn only lanes from northbound Old Oregon Trail to eastbound Shasta College Drive are a challenge for pedestrians and bicyclists to cross
- Wide vehicle lanes; lots of pavement but lanes do not align
- Near a freeway interchange so many motorists have a ‘high speed’ mentality with no visual cues to slow them

Facing north on Old Oregon Trail approaching main entrance. Note lack of shoulder on the turn, curb extending into the shoulder; and double right turn lanes. This is the direction from which the vast majority of commuters to the college come from. Challenging for bicyclists and pedestrians planning to continue north past the college.



Facing south on Old Oregon Trail at Shasta College's main entrance / Shasta College Drive is on the left and Collyer is on the right:



Shasta College Drive (2 and 3 on Map Attachment E-4)

- Current travel lanes do not have designated space for bicyclists
- Tall lip and parallel cracks between pavement and concrete gutter pose a hazard for bicyclists
- Inconsistent elevation along shoulder at drains
- Curb along Shasta College Drive between the entrance (Old Oregon Trail) and the South Parking Lot, offering no 'escape' for bicyclists from motorists traveling too close

Facing east on Shasta College Drive, just east of Main Entrance. This is an area where several lanes come together and the number one lanes become left turn only lanes so motorists are often jockeying between lanes.





Facing west on Shasta College Drive, toward main entrance at Collyer/Old Oregon Trail. Note condition of surface where pavement meets concrete gutter:



Shasta College Drive near South Parking Lot (4, 5, 6 and 7 on Map Attachment E-4)

- Lack of designated space for bicyclists in area with high traffic volumes and high speeds. Existing pavement narrows on eastbound lane, leaving little room for bicyclists to share the road.
- Lack of safe crossing from south side of Shasta College Drive so difficult for bicyclists coming onto campus to turn north toward the core of campus and classroom buildings.
- Wide undefined space at entrance/exit of South Parking Lot. Location is angled like a freeway on/off ramp so motorists take it at high speeds and continue driving fast in the parking lot. Motorists exiting parking lot are at an angle that makes it difficult to see motorists or bicyclists coming from the left.
- Space between the current service road (which will be utilized as a bikeway to the core of campus and classroom buildings) and the South Parking Lot entrance/exit is a vast undefined space.

Facing east on Shasta College Drive, approaching South Parking Lot. Through lane becomes left turn only; paved shoulder on the right narrows.



Facing south from 'service road' that will be utilized as a bikeway toward the core of campus; vehicles in photo are entering/exiting South Parking Lot to and from Shasta College Drive; vast space is undefined:



Old Oregon Trail / Highway 299 Interchange (8, 9, 10 and 11 on Map Attachment E-4)

- Double right turn lane (southbound Old Oregon Trail to westbound Highway 299 onramp)
- Lack of bike lanes and inconsistent shoulders on Old Oregon Trail
- Wide turning radii results in high speeds around corners
- Wide motor vehicle lanes result in high speeds
- Wide crossings are a barrier for bicyclists and pedestrians
- Signal at Old Oregon Trail / Highway 299 eastbound ramps is poor at detecting bicyclists and in need of pedestrian upgrades (note that bicyclists do make left turns onto the highway at the signalized intersection because there are no convenient alternative routes to residential areas to the east)

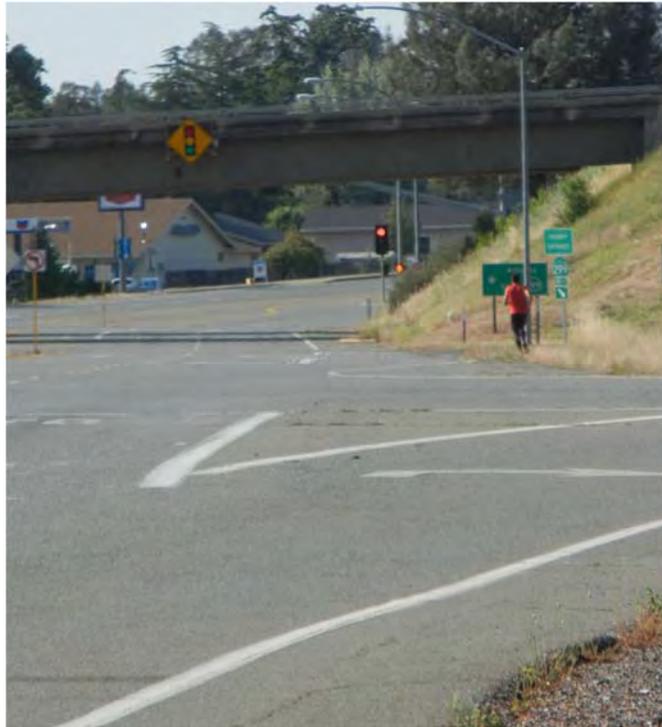
Facing south on Old Oregon Trail, approaching the Highway 299 interchange just south of the Shasta College entrance. Notice double right turn lanes and lack of designated space for bicyclists:



Facing north on Old Oregon Trail at Highway 299 westbound off-ramp; note inconsistent shoulders and stop bar location:



Facing north on Old Oregon Trail at Highway 299 interchange:



Old Oregon Trail at College View (12, 13 and 14 on Map Attachment E-4)

- Very wide crossing with high speeds on Old Oregon Trail; difficult for pedestrians and bicycles to cross Old Oregon Trail to or from College View; particularly noted by bicyclists traveling from College View towards Shasta College (Redding City limits and access to extensive residential areas and other destinations are accessed to the west via College View)
- Lack of pedestrian refuge island; lacks crosswalks
- Wide radii results in high turning speeds

Facing south on Old Oregon Trail at College View:



Fall 2013 Bicycling & Walking Workshop on Shasta College's Campus:

Workshop participants preparing for 'walkabout' to identify gaps, barriers and opportunities for bicycling and walking to, from and on campus:



Workshop participants during a 'tabletop design' exercise on campus:





Project Estimate

Required for Infrastructure Projects

Attachment G

Detailed Engineer's Estimate and Total Project Cost

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

Project Information:

Agency:	Shasta County		
Application ID:	02-Shasta-02	Prepared by:	AVC
Project Description:	Old Oregon Trail Shasta College Active Transportation Project		
Project Location:	Old Oregon Trail from Hwy 44 to 300' north of the college entrance. Bike lanes will be constructed on campus from Old Oregon Trail to a 1/4 mile east.		

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	SLURRY SEAL	370	TON	\$300.00	\$111,000	100%	\$111,000						
2	BIKE RAMP	7	EA	\$5,360.00	\$37,520	100%	\$37,520						
3	SPEED BUMP	1	EA	\$10,000.00	\$10,000	100%	\$10,000						
4	REMOVE CONC. CURB AND GUTTER	240	EA	\$5.00	\$1,200	100%	\$1,200					100%	\$1,200
5	6" THERMOPLASTIC TRAFFIC STRIPE (Bike Lane)	5550	LF	\$2.00	\$11,100	100%	\$11,100						
6	4" THERMOPLASTIC TRAFFIC STRIPE	22480	LF	\$2.00	\$44,960	100%	\$44,960						
7	THERMOPLASTIC PAVEMENT MARKING	2842	SQFT	\$8.00	\$22,736	100%	\$22,736						
8	THERMOPLASTIC TRAFFIC GREEN (SPRAYABLE)	300	SF	\$8.00	\$2,400	100%	\$2,400						
9	PLACE PAVEMENT MARKER	340	EA	\$8.00	\$2,720	100%	\$2,720						
10	TRAFFIC CONTROL	1	LS	\$20,000.00	\$20,000	100%	\$20,000						
11	ASPHALT CONC. (SHOULDER WIDNING)	310.5	TON	\$100.00	\$31,050	100%	\$31,050						
12	AGGREGATE BASE	621	CY	\$50.00	\$31,050	100%	\$31,050						
13	ROADWAY FILL (SHOULDER WIDENING)	1799	CY	\$35.00	\$62,965	100%	\$62,965						
14	LED FLASHING BEACONS	1	EA	\$19,000.00	\$19,000								
15	TRAFFIC SIGNAL MODIFICATIONS	1	LS	\$75,000.00	\$75,000								
16													
Subtotal of Construction Items:					\$482,701		\$388,701						\$1,200
Construction Item Contingencies (% of Construction Items):													
Enter in the cell to the right				10.00%	\$48,270								
Total (Construction Items & Contingencies) cost:					\$530,971								

Project Cost Estimate:

Type of Project Delivery Cost	Cost \$		
Preliminary Engineering (PE)			
Environmental Studies and Permits(PA&ED):	\$	37,168	
Plans, Specifications and Estimates (PS&E):	\$	79,646	
Total PE:	\$	116,814	22% 25% Max
Right of Way (RW)			
Right of Way Engineering:	\$	5,000	
Acquisitions and Utilities:	\$	-	
Total RW:	\$	5,000	
Construction (CON)			
Construction Engineering (CE):	\$	63,717	11% 15% Max
Total Construction Items & Contingencies:		\$530,971	
Total CON:	\$	594,688	
Total Project Cost Estimate:		\$	716,501



Non-Infrastructure Work Plan (Form 22-R)

Required for all projects with Non-Infrastructure Elements

Attachment H

(none)



Narrative Questions backup information

Attachment I

Required for all applications

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

Key Stakeholders Involved

Attachment I-1

California Conservation Corps Communication

Attachment I-2

Destinations Table

Attachment I-3

Shasta College / Old Oregon Trail Active Transportation Project Stakeholders Involved

Attachment I-1

In addition to multiple staff at Shasta County Public Works, key stakeholders that have been involved with the planning process for this project over the past two years include:

Shasta College

- Morris Rodrigue, Vice President
- George Estrada, Facilities / Physical Plant Director
- Frank Nigro, Dean
- Pat McNamara, Facilities
- Dan Scollon, Faculty
- Steven Reeves, Staff (also member of Shasta Wheelmen)
- Leanne Williams, Staff
- Heather Rossi, Campus Safety
- Marc Beam, Director of Research and Planning
- Gregg Wood, Staff
- Various students, student groups, faculty and staff were involved in key points of the process (those listed above were involved throughout the process), including Student Senate and the Walking/Bicycling Subgroup of the Sustainability Committee

Healthy Shasta Partnership

- Amy Pendergast (built environment & health)

Caltrans District 2

- Dave Moore, Deputy Director of Planning
- Aaron Casas, Bicycle & Pedestrian Coordinator

Shasta County Health & Human Services Agency:

- Sara Sundquist, Safe Routes to School Coordinator (Public Health)
- Ben O'Neil, Epidemiologist

City of Redding & Redding Area Bus Authority

- Sarah Grant, Bicycle & Pedestrian Coordinator and Redding Area Bus Authority
- Zach Bonnin, Planner and Redding Area Bus Authority
- Chuck Aukland, Assistant Director of Public Works – Traffic Operations

Shasta Regional Transportation Agency

- Ellen Tablo, Planner
- Keith Williams, Transportation Planner

From: [Active Transportation Program](#)
To: [Alfred Cathey](#)
Cc: atp@ccc.ca.gov
Subject: Re: Requets for Corp Assistance for Active Transportation Program
Date: Tuesday, May 12, 2015 1:01:14 PM

Hi Alfred,

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

Thank you
Monica

On Mon, May 11, 2015 at 2:04 PM, Alfred Cathey <acathey@co.shasta.ca.us> wrote:

To Whom it May Concern,

Attached is a submittal package for an ATP project in Shasta County in the community of Redding. Please review the submitted information and let me know whether the Corp is able to supply any of the work on this project. This request is a requirement of the granting agency's review process. Thank you in advance for your response.

Sincerely,

Al Cathey
Supervising Engineer, Roads
Shasta County Department of Public Works
1855 Placer Street
Redding CA, 96001
Ph: [530-225-5661](tel:530-225-5661)

From: Hsieh_Wei@CCC on behalf of ATP@CCC
To: [Alfred Cathey; inquiry@atpcommunitycorps.org](mailto:Alfred_Cathey; inquiry@atpcommunitycorps.org)
Cc: ATP@CCC; Hsieh_Wei@CCC; Johnson_Nicholas@CCC; Wolsey_Scott@CCC
Subject: RE: Requets for Corp Assistance for Active Transportation Program
Date: Friday, May 15, 2015 10:23:34 AM

Hi Al,

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: Alfred Cathey [mailto:acathey@co.shasta.ca.us]
Sent: Monday, May 11, 2015 2:04 PM
To: ATP@CCC; inquiry@atpcommunitycorps.org
Subject: Requets for Corp Assistance for Active Transportation Program

To Whom it May Concern,

Attached is a submittal package for an ATP project in Shasta County in the community of Redding. Please review the submitted information and let me know whether the Corp is able to supply any of the work on this project. This request is a requirement of the granting agency's review process. Thank you in advance for your response.

Sincerely,

Al Cathey
Supervising Engineer, Roads
Shasta County Department of Public Works
1855 Placer Street
Redding CA, 96001
Ph:530-225-5661

Shasta County ATP Proposal: Old Oregon Trail & Shasta College

Destinations Served by Project

Attachment I-3

Destinations Served by Project	Distance from Project	Key Barriers Being Addressed	Population
<p>Shasta College (community college and only public institution of higher education within 74 miles)</p>	<p>Part of Project: Project is on campus, at main entrance, and along Old Oregon Trail corridor (the College has only two entrances, both on Old Oregon Trail)</p> <p>Has transit stops</p>	<p>Project addresses top concerns in 2013 Shasta College Transportation Survey</p> <p>Will add buffered bicycle lanes to, from and on campus; add raised bikeways on campus; improve intersections and crossings</p>	<p>12,265 Students (at least 7,200 each day); 60% receive need based financial aid</p> <p>>160 Dorm Residents (65% do not have cars)</p> <p>592 Faculty/Staff</p> <p>General community attend recreation, events, performances on campus</p>
<p>Chevron Market (only store in the area; plans to add deli)</p>	<p>Part of Project: At College View / Old Oregon Trail intersection</p>	<p>Wide intersection with high speeds; project will narrow intersection, tighten turning radii, add crosswalk and bicycle facilities at intersection</p>	<p>Only store/groceries within 1.7 miles of project; closest store to Shasta College, Simpson U, and Mercy Oaks</p>
<p>Simpson University (private university on College View Drive; only 4 year university campus in Shasta County)</p>	<p>Within 1 mile of project</p> <p>(project will connect to existing bike lanes on College View that lead to Simpson University)</p> <p>Has transit stops</p>	<p>Project will close gap in bicycle facilities between Simpson University and Shasta College (some students use both campuses); improve bicycle/pedestrian crossing between College View and Chevron Market (closest store to Simpson)</p>	<p>>1,200 undergraduate and graduate students</p> <p>450 students live on campus</p> <p>Large employer</p> <p>General community attends events, sports, etc</p>
<p>Mercy Oaks & Golden Umbrella (near Simpson on College View Drive)</p>	<p>Within 1 mile of project</p> <p>(project will connect to existing bike lanes on College View that lead to Mercy Oaks)</p>	<p>Project will connect to existing bicycle lanes on College View and improve safety at the intersection of College View and Old Oregon Trail</p>	<p>Senior Housing and day services; largest Senior Dining Center in the County, recreation and social opportunities</p> <p>Employer</p>

Shasta County ATP Proposal: Old Oregon Trail & Shasta College

Destinations Served by Project

Attachment I-3

<p>Bethel Church/School</p> <p>(College View Dr plus proposed development on Collyer)</p>	<p>Existing headquarters on College View, 2.4 miles from project</p> <p>Proposed Bethel expansion on Collyer will add classrooms and event space, less than 1 mile from project</p>	<p>Project will increase non-motorized safety and connectivity in the area</p>	<p>College View: elementary/middle school, admin offices, church</p> <p>Collyer development will house events and adult education (Bethel has ~2,000 adult students from 64 countries; many without drivers licenses)</p> <p>Large employer</p>
<p>Housing</p>	<p>Limited housing in project area.</p> <p>Project will fill gap in bicycle facilities connecting housing options in Redding to Shasta College.</p>	<p>Provide safe bicycle route between Shasta College and extensive housing/rentals in City of Redding. Close gap between campus and the existing bicycle lanes</p>	<p>Housing</p>



Letters of Support

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

Shasta College Letter of Support (partnering agency)

Shasta Regional Transportation Agency Letter of Support

Shasta County Public Health Letter of Support

Shasta Living Streets Letter of Support

Healthy Shasta Letter of Support

Shasta Wheelmen Letter of Support

Attachment J

Attachment J-1

Attachment J-2

Attachment J-3

Attachment J-4

Attachment J-5

Attachment J-6



Shasta-Tehama-Trinity Joint Community College District
11555 Old Oregon Trail • P.O. Box 496006 • Redding, CA 96049-6006
Phone: (530) 242-7500 • Fax: (530) 225-4990
www.shastacollege.edu

May 13, 2015

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

Re: Shasta County ATP Proposal for non-motorized improvements at Shasta College entrance

To Whom It May Concern,

As Superintendent/President of Shasta College, I would like to express strong support for the Shasta County Public Works Active Transportation Program (ATP) application and our intent to partner in the construction and ongoing maintenance of bicycle lanes and paths proposed as a part of the grant application. This application is truly a joint effort, both in the immediate and long-term. If funded, Shasta College would permit Shasta County Public Works to perform the proposed and approved construction projects on the campus and college property, while we agree to maintain the infrastructure after its completion. Formal memoranda of understanding and contracts, as necessary, will be implemented upon successful award of grant funding.

Shasta College is a California community college serving a large three county region in rural northern California, with an enrollment of approximately 12,465 students. Our main campus in Redding, the target location for this proposal, serves approximately 7,200 students each day. Over 60% of Shasta College students are disadvantaged low income, as determined by income-based financial aid awards and fee waivers.

As part of our facilities master planning process, Shasta College conducted a campus Transportation Survey in 2013. The results identified the college entrance and immediate vicinity as a significant barrier to bicycle commuting. Navigating this intersection with the current lack of bicycle lanes and road shoulders, considering the large amount of two-way traffic and proximity to two highway on/off ramps, can be difficult. One commuter noted that merging onto campus from Old Oregon Trail is “the scariest part of my ride.” Shasta County’s ATP proposal closes a clearly identified gap in bicycle infrastructure, as bicycle lanes were added to Old Oregon Trail and nearby College View Drive several years ago, however they end 1/3 mile from campus. Between the existing bicycle lanes and the entrance to campus is a four lane road with two highway on-ramps, two off-ramps, and a four way stop sign with no crosswalks. This is a high traffic area with potential for serious injury to cyclists, pedestrians, and motorists alike.

Governing Board Members

Rhonda E. Nehr McArthur	Dr. Rob Lydon Red Bluff	Duane K. Miller Anderson	Kendall S. Pierson Redding	Rayola B. Pratt Shasta	Robert M. Steinacher Corning	Scott J. Swendiman Redding
----------------------------	----------------------------	-----------------------------	-------------------------------	---------------------------	---------------------------------	-------------------------------

Superintendent/President
Joe Wyse, Ed.D.

Once on the Shasta College campus, our perimeter road does not have a shoulder and there is a lack of safe bicycle crossings and dedicated lanes. This is particularly a problem for students living in on-campus dorm housing, 60%-65% of whom do not have a car and rely on bicycling or walking to get to classes, public bus stops, and nearby shopping and eateries. Shasta College is committed to improving bikability through our Facilities Master Plan including future bike paths across campus, bicycle parking, and promoting staff and faculty participation in the annual Shasta Bike Challenge.

The proposed project is based on Alternative 5 in the Shasta College / Old Oregon Trail Bikeway Feasibility Study, completed in 2014 by Fehr & Peers. The planning process with Fehr & Peers was a collaborative project with Shasta College, Shasta County Public Works, Healthy Shasta, and Caltrans District 2, among other stakeholders. It reflects significant collaborative planning between all agencies and commitment to improving the safety and health of our students and community. If you have any additional questions or require a more personal reference, please do not hesitate to contact me. I appreciate your consideration of our application.

Sincerely,



Dr. Joe Wyse
Superintendent/President

JW:tm



1255 East Street, Suite 202 • Redding, CA 96001 • (530)262-6190 • FAX (530)262-6189
E-Mail srta@srta.ca.gov • HOME PAGE www.srta.ca.gov

Daniel S. Little, Executive Director

May 14, 2015

Caltrans Division of Local Assistance, MS 1
Attn: Office of Active Transportation and Special Programs
PO Box 942874
Sacramento, CA 94274-0001

Re: Shasta County Active Transportation Project Proposal for Non-Motorized Improvements
at Shasta College Entrance

To Whom It May Concern:

As Executive Director of Shasta Regional Transportation Agency (SRTA), I would like to express strong support for Shasta County's Active Transportation Program (ATP) application for the Shasta College/Old Oregon Trail Project. The project is consistent with SRTA's Regional Transportation Plan and will close a significant gap in SRTA-funded bike routes to the college. Encouraging active transportation will also help SRTA and the county meet air quality and greenhouse gas reduction goals set by the California Air Resources Board and the region's sustainable communities strategy.

In an effort to encourage active transportation and support state and federal match needs, SRTA has funding available through two separate sources: The Rural Bike Lanes and Sidewalks to Transit Program and or the 2% Transportation Development Act set-aside. The project would be a likely candidate for SRTA to help achieve the 20% in matching funds in cooperation with Shasta College. Sufficient funds are available in both programs and the project strongly aligns with our program criteria.

SRTA supports ATP funding for the Shasta College/Old Oregon Trail Project without reservation. Please contact me if you have any questions.

Sincerely,

A handwritten signature in blue ink, appearing to read "D. Little", is written over a horizontal line.

Daniel S. Little, AICP, Executive Director
Shasta Regional Transportation Agency (MPO)

DSL/jac

Attachment J-2



Health and Human Services Agency

Donnell Ewert, MPH, Director

Public Health

Terri Fields Hosler, MPH, RD, Branch Director

Andrew Deckert, MD, MPH, Health Officer

2650 Breslauer Way

Redding, CA 96001-4246

Phone: (530) 225-5591

Fax: (530) 225-3743

Toll Free: (800) 971-1999

CA Relay Service: (800) 735-2922

April 17, 2015

Caltrans Division of Local Assistance, MS 1
Attn: Office of Active Transportation and Special Programs
PO Box 942874
Sacramento, CA 94274-0001

Re: Shasta County ATP Proposal for non-motorized improvements at Shasta College entrance

Dear Caltrans Division of Local Assistance:

I am writing as part of broad and strong local support of Shasta County Public Work's Active Transportation Program (ATP) proposal to improve bicycle and pedestrian access to Shasta College. The proposed project is critical for increasing use of active transportation modes and improving health and safety, particularly for students living on a tight budget while continuing their education.

Our Public Health staff, including the Safe Routes to School Coordinator and staff specializing in how the built environment impacts health and physical activity, have been involved with this project since planning efforts first began several years ago. In fact, our staff worked with the Public Health Institute to secure funding for the Ferh and Peers traffic study of the Shasta College entrance, which made recommendations on how to improve conditions for bicyclists and pedestrians.

This project is a top priority for our community for many reasons, including:

- It closes a gap between the community college campus and existing bicycle lanes only 1/3 of a mile away (note that this short distance includes a freeway interchange that is currently hard and sometimes dangerous for bicyclists to maneuver).
- It addresses the top barriers to bicycle commuting identified in the 2013 Shasta College Transportation Survey. Barriers identified included navigating the intersection at Old Oregon Trail and College View, lack of bicycle lanes or path between Old Oregon Trail and the core of campus, the westbound onramp to Highway 299 from Old Oregon Trail, and fear of riding in traffic where bike lanes or shoulders do not exist.
- Shasta County adults have low levels of educational attainment, as measured by only 19.3% of Shasta County adults over age 25 completing a Bachelor's degree, which is far below the statewide average (30.5% with Bachelor's) [Source: Amercian Community Survey, 2012]. Our Health Department recognizes that education is closely linked to health outcomes and is involved with local efforts to increase the proportion of high school students that go on to college and/or career training. Shasta College is the only public institution of higher education within 70 miles of Redding. Providing safe and connecting non-motorized transportation options removes one additional barrier to higher education in our community, especially for those for whom owning or driving a car is cost prohibitive. Commuting to college by bicycle also establishes healthy habits for later in life.

"Healthy people in thriving and safe communities"

www.shastahhsa.net

Attachment J-3

- Better bicycle facilities and the addition of crosswalks and pedestrian crossings will increase safety for both bicyclists and pedestrians in this area, thus decreasing injuries, where many drivers are inexperienced and 'rushing to class'.

I commend Shasta County Public Works and Shasta College for their collaborative work to identify and plan for safer connecting bicycle facilities and pedestrian improvements to, from and on the Shasta College campus in a cost effective and community partnership manner. Please contact me at (530) 225-5594 or adeckert@co.shasta.ca.us if I can provide any additional information or answer any questions.

Sincerely,

A handwritten signature in blue ink that reads "Andrew Deckert, MD". The signature is fluid and cursive, with the letters "A", "D", and "M" being particularly prominent.

Andrew Deckert, MD, MPH
Health Officer, Shasta County Health and Human Services Agency - Public Health

Shasta Living Streets

Better bikeways, trails, walkable cities and vibrant public places

May 14, 2015

Caltrans Division of Local Assistance, MS 1
Attn: Office of Active Transportation and Special Programs
PO Box 942874, Sacramento, CA 94274-0001

Re: **Enthusiastic Support for bicycle facility improvements at Shasta College entrance, Shasta County ATP Proposal**

Shasta Living Streets enthusiastically supports Shasta County Public Work's efforts to pursue infrastructure improvements for students traveling to and from Shasta College by bicycle. We look forward to high-quality and innovative bicycle facility improvements at the locations addressed in this project.

The college corridor is a major opportunity for innovative bicycle facilities. Shasta College could be, and should be, one of the major destinations for people traveling by bicycle. Students are young, fit, have somewhat flexible schedules, and a strong interest in keeping their costs down. Improving the safety and convenience of connections and corridors into and out of this college campus could be one of the most effective routes in the county for increasing daily trips by bicycle and thus reducing auto trips. The focus on bicycle facilities in this project is appropriate as the distances are convenient for riding a bicycle, but too far for students to walk to and from the college.

Strong need for low-cost transportation options. Shasta College serves students from within a 70-mile radius. These areas have a low household income and the students need low-cost transportation options. The transit system is very limited in Shasta County, leaving the students with few options.

"I want to ride - the entry is too dangerous." In discussions with students at outreach events, we hear over and over that many students want to ride a bicycle to and from the College because - it's convenient, it's inexpensive, it's enjoyable. However these students do not ride, and the reason they give is a passionate description of how they do not feel safe riding through the intersections and entry to and from the college. This was confirmed in the survey data and workshop. A cyclist was hit by a car here last October.

Shasta Living Streets has a number of methods for gathering comments and input from people in our community about transportation issues – a recent survey returned these responses

If there were better bicycle (like buffered or protected bike lanes) facilities and pedestrian facilities in town, I would ride my bicycle or walk more often.

95% of respondents agreed or strongly agreed with the above statement.

Redding should make better bicycle and pedestrian facilities a higher priority.

93% of respondents agreed or strongly agreed with the above statement.

A buffered or protected bike lane would make me feel more comfortable riding my bicycle on city streets.

95% of respondents agreed or strongly agreed with the above statement.

Thank you for improving the wellbeing of students in our community by ensuring funding for this very important project.



Anne Wallach Thomas
Executive Director, Shasta Living Streets

athomas@shastalivingstreets.org | 530 355-2230 | shastalivingstreets.org



Anderson Partnership for
Healthy Children

City of Anderson

City of Redding

City of Shasta Lake

County of Shasta

First 5 Shasta

Mercy Medical
Center

Redding Rancheria

Redding School
District

Shasta College

Shasta County Office
of Education

Shasta Regional
Transportation Agency

Shasta Family
YMCA

Shasta Head Start

Simpson University

The McConnell
Foundation

Turtle Bay Exploration
Park

University of California
Cooperative Extension

Viva Downtown

Whiskeytown
National
Recreation Area

May 8, 2015

Caltrans Division of Local Assistance, MS 1
Attn: Office of Active Transportation and Special Programs
PO Box 942874
Sacramento, CA 94274-0001

Re: Shasta County ATP Proposal for non-motorized improvements at Shasta College entrance

Dear Caltrans Division of Local Assistance:

Healthy Shasta fully supports the Active Transportation Program proposal being submitted by **Shasta County Public Works** and **Shasta College**. The proposed non-motorized improvements are critical to improving safety and for providing non-motorized transportation options for the students and staff at Shasta College's Main Campus and residents in the area. Currently, the area near Shasta College's entrance (both on and off campus) lacks crosswalks and bikeways, has large confusing intersections, and non-motorized users must contend with high speeds and high volumes of motor vehicle traffic.

This project is a top priority in our community for several reasons:

- **Improved safety** in an area with many young and inexperienced road users. Much of the motorized traffic in the area consists of students driving at high speeds, often distracted or rushing to class – creating additional danger to people walking or bicycling.
- Addresses top safety concerns and **barriers to non-motorized transportation** as identified in a public and collaborative process that began in 2013, including an on-campus transportation survey, several public workshops, and a study completed by Fehr & Peers. The proposed improvements are based on the recommendations of experts from Fehr & Peers.
- **Fills an identified gap** in existing bicycle infrastructure by connecting existing bicycle lanes just south of campus to the core of campus.
- The potential for **mode shift to non-motorized** options is high. The 2013 Campus Transportation Survey identified the College's entrance as the most hazardous or intimidating portion of many respondents' commutes. Of 696 individuals who responded to "How frequently would you bicycle to campus if changes were made to the entrance?," 49% indicated they would ride bikes "about once a week" or more (including 29% who said at least 3 times a week).
- Provides viable non-motorized options which are currently lacking for community college **students who struggle to pay for both school and transportation**, potentially reducing the financial barriers of higher education for low income students. At least 60% of enrolled students at Shasta College have low household income or financial aid.



Anderson Partnership for
Healthy Children

City of Anderson

City of Redding

City of Shasta Lake

County of Shasta

First 5 Shasta

Mercy Medical
Center

Redding Rancheria

Redding School
District

Shasta College

Shasta County Office
of Education

Shasta Regional
Transportation Agency

Shasta Family
YMCA

Shasta Head Start

Simpson University

The McConnell
Foundation

Turtle Bay Exploration
Park

University of California
Cooperative Extension

Viva Downtown

Whiskeytown
National
Recreation Area

We have been impressed with the close collaboration of multiple agencies and on-campus groups during the planning process of this project. Specific infrastructure improvements in the proposal that we applaud, include the addition of crosswalks at the main Shasta College entrance, addition of bikeways on and near campus, a non-motorized crossing of the perimeter road on campus, and closing critical gaps between existing bicycle facilities.

Healthy Shasta is a collaborative with a vision for a community where 'the healthy choice is the easy choice,' and improved bicycle and pedestrian facilities near Shasta College definitely contributes to this vision and improves safety while potentially reducing transportation costs for students striving to improve themselves through higher education. Healthy Shasta will continue to work with Shasta College to incorporate walking and bicycling infrastructure into campus planning documents and support Shasta College's efforts to encourage staff and students to walk or bike more. Please contact me at (530) 229-8428 if I can provide any additional information.

Sincerely,

A handwritten signature in black ink that reads "Shellisa Moore". The signature is written in a cursive, flowing style.

Shellisa Moore
Healthy Shasta Coordinator



May 13, 2015

OFFICERS AND
BOARD
OF DIRECTORS

Charles M. Finkel
President
Don Talkington
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Maggie Fournier
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Wayne Wilson
Treasurer
Doug Holt
Past President

Caltrans Division of Local Assistance, MS1
P.O. Box 942874
Sacramento, CA 94274-0001

Attn: Shasta County ATP Proposal for Non-Motorized Improvements at Shasta
College Entrance

Dear Sir or Madam:

I am current President of the Shasta Wheelmen, a non-profit organization formed in 1970 the purposes of which are, among other good causes, interact with the public and local governmental entities to promote safe, effective cycling, and improved road conditions to facilitate bicycle commuting and recreational riding. This letter is written in support of the proposal by Shasta County Public Works to improve bicycle and pedestrian access to Shasta College.

Bicycling is an important means of transportation for students, faculty and community members alike, and the proposed improvements on and near Shasta College are critical to improving accessibility and safety for cyclists. There are those who presently use their bicycles near and at Shasta College, including myself, yet many safety shortfalls pose a danger to these cyclists, and put a chill on those considering to cycle but opting not to because of the existing roadblocks to safe cycling. These barriers include the difficulty in getting through the intersection of Old Oregon Trail and College View, the lack of bike lanes or pathways between Old Oregon Trail and the main campus, and the difficulty posed to cyclists where there are no bike lanes or rideable shoulders.

It is believed that proposed modifications will alleviate these problems, and encourage more students and residents to ride their bicycles. The benefits associated therewith include better air quality, less motor vehicle congestion, and the promotion of a healthy lifestyle for Shasta County residents. On behalf of the Shasta Wheelmen, I therefore urge all appropriate measures be taken to improve bicycle and pedestrian access, and support the ATP proposal.

Sincerely yours,

CHARLES M. FINKEL
President, Shasta Wheelmen



Additional Attachments

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

Attachment K

Regional Transportation Plan

Attachment K-1

Shasta College / Old Oregon Trail Bikeway Feasibility Study

Attachment K-2

Shasta College Transportation Survey (2013)

Attachment K-3

Record Searchlight Article

Attachment K-4

Fehr & Peers Proposed Alternatives

Attachment K-5

Fehr & Peers Workshop Memo (Fall 2013)

Attachment K-6

Shasta County Bike Plan (2010)

Attachment K-7

Letter of Intent with Shasta College can be found in Attachment J-1

Table 44 - Summary of Projects: Caltrans Active Transportation

Project Number	REGIONAL TRANSPORTATION PROJECTS	SHORT TERM TOTAL EST COST OF PROJECT	LONG TERM TOTAL EST COST OF PROJECT	PROJECT BAND	PROJECT TYPE (PROJECT INTENT)	EXPECTED FUNDING SOURCES
1	151, Begin PM 5.4, End PM 5.9, Shasta Lake City from 0.5 mile west to 0.4 mile east of Poplar Lane	\$2,000,000		(2016-2025)	Construct curb ramps, reconstruct sidewalks and possibly add sidewalks and adjust traffic signal pedestrian buttons.	SHOPP
	Total Short Term Needs =	\$2,000,000				
2	Lake Blvd (SR 299), between SR 273 and Interstate 5, Begin PM 24.238, End PM 24.822, Complete Streets gap closure for multimodal use facilities and aesthetic treatments		\$2,560,000	(2026-2035)	Bicycle and pedestrian, complete streets	SHOPP/ATP
3	Route 299, Begin PM 16.5, End PM 18.3, From Old Shasta to Whiskeytown NRA, Provide westbound truck climbing lane and bike lane.		\$1,536,000	(2026-2035)	Bicycle and pedestrian, truck climbing lane	SHOPP/ATP
4	Entire length of SR 273, Class II Bike Lane (including railroad crossing)		\$15,361,000	(2026-2035)	construct bike lanes	SHOPP/ATP
5	Route 273, Begin PM 3.812, End PM 11.1, various locations in high pedestrian areas, Pedestrian Facilities - Consistent with ADA and Caltrans Design Standards		\$8,961,000	(2026-2035)		SHOPP/ATP
	Total Long Term Fundable Needs =		\$-			

DESCRIPTION	Short (2016-2025)	Long (2026-2035)	Total
Funding Needed By Short and Long Range Bands	\$2,000,000	\$28,418,000	\$30,418,000
Recap of Expected/Estimated/Unknown Resources			
Active Transportation Program (ATP) =	\$200,000	\$-	\$200,000
State Highway Operations and Protection Program (SHOPP) =	\$1,800,000	\$-	\$1,800,000
Total Funding Reasonably Available =	\$2,000,000	\$-	\$2,000,000
Total Unfunded Needs (or Short Term Carryover) =	\$-	\$(28,418,000)	\$(28,418,000)

Note 1 : Green highlighted projects above can be funded in the constrained funding analysis

Note 2 : Un-highlighted projects above cannot be funded. New funding sources will need to be identified or improvement will be developer funded.

Note 3 : Long term projects are escalated by 2.5%

Table 45 - Summary of Projects: Shasta County Active Transportation

Project Number	REGIONAL TRANSPORTATION PROJECTS	SHORT TERM TOTAL EST COST OF PROJECT	LONG TERM TOTAL EST COST OF PROJECT	PROJECT BAND	PROJECT TYPE (PROJECT INTENT)	EXPECTED FUNDING SOURCES
1	Burney - Tamarack Ave. and Park Ave., class ii bike lane	\$420,000		(2016-2025)	Safety/SRTS	2% LTF
2	Burney - Mountain View Drive, Quebec St., Sugar Pine, Safe Routes to School	\$500,000		(2016-2025)	Safety	Local/Other
3	Burney - Park Avenue, between Tamarack Avenue and Burney Creek, Construct shoulders	\$101,500		(2016-2025)	Safety	ATP/Local/Other
4	Burney - Erie Street, Construct sidewalks	\$359,848		(2016-2025)	Safety	ATP/Local/Other
5	Burney - Quebec Street, Construct sidewalks	\$359,848		(2016-2025)	Safety	ATP/Local/Other
6	Burney - Toronto Avenue, between Erie and Quebec Streets, Construct sidewalks	\$359,848		(2016-2025)	Safety	ATP/Local/Other
7	Old Oregon Trail from College View to Collyer Drive, class ii bike lane and interchange improvements	\$500,000		(2016-2025)	Safety	ATP/Local/Other
	Total Short Term Needs =	\$2,601,045				
8	Road segment Gas Point Road, From I-5/Cottonwood, To Happy Valley Road, class ii bike lane		\$4,990,000	(2026-2035)	Safety	ATP/Local/Other
9	Road segment Happy Valley Road, From Gas Point Road, To Hawthorne Avenue, class ii bike lane		\$5,206,000	(2026-2035)	Safety	ATP/Local/Other
10	Road segment Canyon Road, From Hawthorne Avenue, To Highway 273, class ii bike lane		\$1,618,000	(2026-2035)	Safety	ATP/Local/Other
11	Road segment Balls Ferry Road, From Anderson city limit, To Deschutes Road, class ii bike lane		\$834,000	(2026-2035)	Safety	Unfunded or Developer
12	Road segment Deschutes Road, From Balls Ferry Road, To Highway 299 East, class ii bike lane		\$10,860,000	(2026-2035)	Safety	Unfunded or Developer
13	Road segment Placer Road, From Redding city limit, To Cloverdale Road, class ii bike lane		\$5,588,000	(2026-2035)	Safety	Unfunded or Developer
14	Road segment Texas Springs Road, From Placer Road, To Branstetter Road, class ii bike lane		\$5,008,000	(2026-2035)	Safety	Unfunded or Developer
15	Road segment Oasis Road, From I-5/Redding, To Old Oregon Trail, class ii bike lane		\$1,233,000	(2026-2035)	Safety	Unfunded or Developer
16	Road segment Old Oregon Trail, From I-5/Mountain Gate, To Highway 299 East, class ii bike lane		\$5,381,000	(2026-2035)	Safety	Unfunded or Developer
17	Road segment Old Oregon Trail, From Highway 299 East, To Highway 44, class ii bike lane		\$3,452,000	(2026-2035)	Safety	Unfunded or Developer
18	Road segment Cloverdale Road, From Placer Road, To Oak Street, class ii bike lane		\$3,162,000	(2026-2035)	Safety	Unfunded or Developer
19	Road segment Dersch Road, From Airport Road, To Deschutes Road, class ii bike lane		\$2,234,000	(2026-2035)	Safety	Unfunded or Developer
20	Road segment Swasey Drive, From Highway 299 West, To Placer Road, class ii bike lane		\$3,077,000	(2026-2035)	Safety	Unfunded or Developer
21	Burney - Tamarack Avenue, between convenience store and Main Street, Construct sidewalks		\$369,000	(2026-2035)	Safety	Unfunded or Developer
22	Burney - Main Street gap closures, at various locations, Construct sidewalks		\$2,303,000	(2026-2035)	Safety/Gap closure	Unfunded or Developer
23	Road segment Airport Road, From Highway 44, To Anderson city limit, class ii bike lane		\$5,069,000	(2026-2035)	Safety	Unfunded or Developer
24	Road segment Oak Street, From Cloverdale Road, To Palm Avenue, class ii bike lane		\$1,270,000	(2026-2035)	Safety	Unfunded or Developer
25	Road segment Palm Avenue, From Oak Street, To Happy Valley Road, class ii bike lane		\$2,023,000	(2026-2035)	Safety	Unfunded or Developer
26	Burney - Mountain View Road, between Main and Carberry Streets, Construct sidewalks		\$2,948,000	(2026-2035)	Safety	Unfunded or Developer
27	Burney - Ash Avenue, between Hudson and Marquette Streets, Widen shoulders		\$162,000	(2026-2035)	Safety	Unfunded or Developer
28	Burney - Park Avenue, between Burney Creek and Hudson Street, Widen shoulders		\$425,000	(2026-2035)	Safety	Unfunded or Developer
29	Burney - Hudson Street, between Park Avenue and Main Street, Widen shoulders		\$317,000	(2026-2035)	Safety	Unfunded or Developer



View full document at: http://healthyshasta.org/downloads/communities/OldOregonTrail-ShastaCollege_Study_Fall2014%5B1%5D.pdf

ATP Attachment K-2

Shasta College/Old Oregon Trail Bikeway Feasibility Study

FEHR & PEERS



Shasta
College

CA4health

Made possible by Healthy Shasta, Shasta County Public Works, Shasta College, and by CA4Health, a project of the Public Health Institute, with funding from the Centers for Disease Control and Prevention.

INTRODUCTION

In Fall 2013, Healthy Shasta hosted a workshop to help develop a walking and bicycling plan for Shasta College. Key issues and opportunities for on-campus walking and bicycling as well as access to campus on Shasta County roadways were identified. The Old Oregon Trail/Collyer Drive/Shasta College Drive intersection was identified as a key barrier to walking and bicycling to the Campus. As a result, Healthy Shasta secured funding to complete a feasibility study focused on “last mile” bicycle access to campus from Old Oregon Trail and College View Drive. Funding was made possible by CA4Health, a project of the Public Health Institute, with funding from the Centers for Disease Control and Prevention.

This report summarizes the findings of the feasibility study, details the alternatives considered, and presents the preferred alternative for completing the “last mile” connection to campus along Shasta College Drive and Old Oregon Trail.

COMMUNITY OUTREACH

This Study reflects the coordination and cooperation between three key stakeholders: Shasta College, Shasta County Department of Public Works, and Caltrans. The proposed improvements in this Plan are located , within County right-of-way (Old Oregon Trail), Caltrans right-of-way (the Old Oregon Trail/State Route 299 interchange), and Shasta College property (Shasta College Drive). Both the westbound and eastbound State Route 299 (SR 299) ramp terminal intersections at Old Oregon Trail fall within the project area.

Two stakeholder meetings were held through the course of the study. The first was held in July 2014 and kicked off the study. The focus of this meeting was on existing conditions and planned improvements in the area. The first meeting included a site walk of the corridor. The second meeting was held in August 2014 and five alternative proposals were presented for feedback. Input was received and incorporated from the Shasta College community, Shasta County Department of Public Works, Healthy Shasta, Caltrans staff, Shasta Regional Transportation Agency, and Redding Area Bus Authority (RABA).

EXISTING CONDITIONS

Through the 2013 Campus charrette, access from the south side of campus was identified as the key barrier to walking and biking. As a result, the study area was defined to include Old Oregon Trail between Collyer Drive and College View Drive and Shasta College Drive between Old Oregon Trail/Collyer Drive



and the South Parking Lot driveway. Existing roadway characteristics and traffic operations are presented in this section.

Roadway Characteristics

This section identifies the key issues and opportunities along the Old Oregon Trail-Shasta College Drive study area. The area can be understood as three distinct pieces:

1. Shasta College Drive, including the Collyer Drive/Old Oregon Trail intersection
2. Old Oregon Trail/SR 299 Interchange, including both the eastbound and westbound ramps
3. Old Oregon Trail South of the SR 299 eastbound ramps, including College View Drive intersection



1. OLD OREGON TRAIL/COLLEGE VIEW DRIVE AREA

Shasta College Drive is a five lane roadway (three lanes eastbound, two lanes westbound) east of all-way stop controlled intersection with Collyer Drive and Old Oregon Trail. Approximately 600 feet east of the intersection, the roadway is reduced to one lane of traffic in each direction and continues around campus as a perimeter road, connecting campus parking lots and facilities. This roadway and intersection represent the southern gateway to the Shasta College Campus for all modes of travel and serve the highly-utilized South Parking Lot, located approximately 600 feet east of the intersection. The Campus community indicated that westbound vehicle queues from the intersection reach the South Parking Lot driveway during the evening peak period. With the large number of lanes on Shasta College Drive at the intersection, no additional shoulder or roadway space is provided; as a result, dedicated bicycle space through this portion would need to be obtained by reducing vehicle lanes or widening the roadway.

The Collyer Drive/Shasta College Drive/Old Oregon Trail intersection is a multi-lane all-way stop controlled intersection. There are not any bicycle or pedestrian facilities within the intersection. Two northbound free right-turn lanes on Old Oregon Trail allow vehicles to enter Campus without stopping which creates conflicts between autos, pedestrians, and bicyclists. Bicyclists entering campus typically ride along the very narrow shoulder at this location. Because the right-turns are uncontrolled, drivers are able to enter campus at high speeds. For bicyclists traveling through on Old Oregon Trail, this is especially problematic as they are required to weave across two lanes of fast moving traffic to proceed northbound through the intersection. Pedestrians have no dedicated space on Shasta College Drive and at the intersection. No sidewalks are provided, and no crosswalks are marked.

The South Parking Lot driveway is a two-way driveway with access from Shasta College Drive. The driveway is approximately 100 feet wide and intersects a campus maintenance roadway. The driveway is angled, which encourages drivers to enter and exit the driveway at a high rate of speed.

2. OLD OREGON TRAIL/SR 299 INTERCHANGE

This portion of Old Oregon Trail through the SR 299 Interchange has a four lane cross section which widens up to seven lanes at intersections turn lanes to accommodate SR 299 and Shasta College traffic. However, it narrows to a two-lane cross-section 150 feet to the north and 600 feet to the south. Wide shoulders provide ample space to accommodate bike facilities within the existing cross-section.

At the SR 299 Westbound Ramps intersection, the on-ramp is uncontrolled and accommodates high-speed turns onto the freeway from two southbound lanes: a through-right lane and right-turn-only lane. This results in a significant barrier for bicyclists traveling southbound from Campus to College View Drive, as they must negotiate two potential lanes of right-turning traffic. Those who feel most comfortable



riding on the shoulder would need to merge across two lanes of freeway-oriented right-turning vehicles to proceed southbound through the interchange. The SR 299 Westbound Off-Ramp is stop-controlled and intersects Old Oregon Trail at 90-degrees which aids visibility between all modes. Dedicated pedestrian and bicycle facilities are not provided at this intersection.

The SR 299 Eastbound Ramps intersection is signalized, including pedestrian ramps, crosswalks, and pedestrian activated signal heads, which clarifies expectations between autos, pedestrians, and bicyclists. However, an uncontrolled northbound slip lane provides uncontrolled access onto Eastbound SR 299, and the Eastbound SR 299 Off-Ramp has a yield-controlled slip lane onto Old Oregon Trail. Each of these cross a marked crosswalk which is not signal controlled, which makes the crossing uncomfortable for pedestrians and bicyclists as drivers enter and exit the highway at high speeds. Additionally, the slip lanes are difficult for bicyclists to negotiate as they must merge across these areas. The angles of the slip lanes further encourage high speeds on and off the freeway.

Additionally some bicyclists ride along the SR 299 shoulder east of Old Oregon Trail, as this is a primary roadway through this portion of the County with no parallel routes. Approximately a half mile to the east, SR 299 becomes a two-lane rural highway.

3. OLD OREGON TRAIL/COLLEGE VIEW DRIVE

This section of Old Oregon Trail is four lanes with a left-turn pocket, a substantial median, and wide shoulders. A protected bikeway could be accommodated within the existing roadway space.

College View Drive has existing Class II bicycle lanes west of Old Oregon Trail and provides an east-west connection to Campus, paralleling SR 299. A proposed bikeway to campus is envisioned to turn onto College View Drive. With the multiple travel lanes and fast-moving traffic on Old Oregon Trail, crossing support for bicyclists turning from College View Drive onto Old Oregon Trail is also a key consideration. Additionally, each corner of the College View Drive/Old Oregon Trail intersection has wide curb radii, which could be reduced to allow truck traffic while also lowering speeds at the intersection.

CONCEPT ALTERNATIVES

The existing conditions analysis and issues and opportunities identified in the previous section resulted in two key design considerations:

The type of bicycle facility for Old Oregon Trail and Shasta College Drive: A comfortable bicycle facility with two-way bicycle traffic (a "two-way cycletrack" or "two-way separated



bikeway”) or one-way, directional bicycle traffic (a “one-way cycletrack” or “separated bikeway”, or “buffered bicycle lane”) were two options considered to create clear expectations between drivers and bicyclists through the interchange and onto campus as well as to provide additional comfort for bicyclists.

The number of northbound Old Oregon Trail turn lanes onto campus: Currently, there are two northbound right-turn lanes onto campus which are uncontrolled. Controlling these right turns and/or reducing the number of lanes would improve bicycle and pedestrian crossings at the Old Oregon Trail/Collyer Drive/Shasta College Drive intersection.

Based on those two design considerations, five concept alternatives were developed for the corridor:

1. Two-Way Cycletrack with Single Northbound Right-Turn Lane
2. Two-Way Cycletrack with Single Northbound Right-Turn Lane and Northbound Old Oregon Trail Through Bicycle Lane
3. Two-Way Cycletrack with Double Northbound Right-Turn Lane
4. Buffered Bicycle Lanes with Single Northbound Right-Turn Lane and Northbound Old Oregon Trail Through Bicycle Lane
5. Buffered Bicycle Lanes with Double Northbound Right-Turn Lane

All of the above options assume improvements at the College View Drive/Old Oregon Trail intersection and the South Parking Lot/Maintenance Road/Shasta College Drive intersection. All five alternatives are presented in Appendix A Concept Alternatives.

TRAFFIC OPERATIONS ANALYSIS

The traditional metric for assessing operations of roadway facilities analyzes intersection operations for automobiles, with the term “level of service” (LOS). This approach is used to assess level of service for autos only, and level of service for autos is considered in parallel with level of service for pedestrians, transit, and bicyclists, as described in the next section. LOS is a qualitative description of traffic flow from an auto driver’s perspective based on factors such as speed, travel time, delay, and freedom to maneuver. Six levels of service are defined ranging from LOS A (best operating conditions) to LOS F (worst operating conditions). LOS E corresponds to operations “at capacity.” When volumes exceed capacity, stop-and-go conditions result, and operations are designated as LOS F. Traffic conditions at the study intersections were evaluated using the LOS method developed by the Transportation Research Board (TRB), as documented in the 2000 Highway Capacity Manual (HCM).



At signalized intersections, the HCM method calculates control delay at an intersection based on average control vehicular delay, using the method described in Chapter 16 of the 2000 HCM. Inputs to the analysis include traffic volumes, lane geometry, signal phasing and timing, pedestrian crossing times, and peak hour factors. Control delay is defined as the delay directly associated with the traffic control device (i.e., a stop sign or a traffic signal) and specifically includes initial deceleration delay, queue move-up time, stopped delay, and final acceleration delay. These delay estimates are considered meaningful indicators of driver discomfort and frustration, fuel consumption, and lost travel time. The relationship between average control delay and LOS for signalized intersections is summarized in Table 1.

TABLE 1: SIGNALIZED INTERSECTION LEVEL OF SERVICE (LOS) DEFINITIONS

Level of Service	Description of Operations	Average Control Delay (seconds/ vehicle)
A	Insignificant Delays: No approach phase is fully used and no vehicle waits longer than one red indication.	< 10
B	Minimal Delays: An occasional approach phase is fully used. Drivers begin to feel restricted.	> 10 to 20
C	Acceptable Delays: Major approach phase may become fully used. Most drivers feel somewhat restricted.	> 20 to 35
D	Tolerable Delays: Drivers may wait through no more than one red indication. Queues may develop but dissipate rapidly without excessive delays.	> 35 to 55
E	Significant Delays: Volumes approaching capacity. Vehicles may wait through several signal cycles and long vehicle queues from upstream.	> 55 to 80
F	Excessive Delays: Represents conditions at capacity, with extremely long delays. Queues may block upstream intersections.	> 80

Source: Highway Capacity Manual, Transportation Research Board, 2000.

DATA COLLECTION

Multi-modal turning movement counts were collected in August 2014 during the AM (7:00-9:00AM) and PM (4:00-6:00PM) peak periods when the College was in-session:

1. Shasta College Drive/Collyer Drive (on campus, 300' east of intersection #2)
2. Old Oregon Trail/Collyer Drive/Shasta College Drive
3. Old Oregon Trail/SR 299 Southbound Ramps
4. Old Oregon Trail/SR 299 Northbound Ramps



5. Old Oregon Trail/College View Drive

Appendix B includes the traffic counts for each intersection.

SCENARIO TESTING

AM and PM peak hour traffic operations analysis was completed in order to understand the trade-offs between the concept alternatives and their impacts to Shasta College traffic and freeway traffic entering and exiting the SR 299 Ramps. Two scenarios were tested and are described in detail below. The primary difference between the two scenarios is the presence of one or two right-turn lanes onto campus from Old Oregon Trail. Scenario A, applies to Alternatives 1, 2, & 4 and Scenario B, applies to Alternatives 3 & 5. Additional assumptions are detailed for each scenario below. Table 2 summarizes the level of service analysis for each scenario. Note that the two-way stop controlled SR 299 WB Off-Ramp operates at LOS F in the AM peak hour in the existing condition; while this is an unacceptable level of service, the proposed project would not worsen this condition. Appendix C provides the LOS worksheets for each scenario.

Scenario A - Single Northbound Right-turn Lane (Alternatives 1, 2, & 4)

Scenario A applies to the proposed improvements in Alternatives 1, 2, and 4. Scenario A assumes several roadway geometry changes at the following study intersections to accommodate bicycle and pedestrian improvements:

Collyer Drive/Shasta College Drive Intersection (On Campus) Vehicle queues from the Old Oregon Trail intersection spill back to this intersection. To improve operations in the westbound directions, the westbound dedicated right turn lane would be converted to a shared through/right-turn lane. The proposed re-configuration would also remove the free right-turn lane from the southbound approach and square the intersection to have two stop controlled lanes, one dedicated left-turn lane and one right-turn lane. In order to install the proposed bike lanes within the existing pavement, the eastbound direction of Shasta College Drive will be reduced to two lanes, one dedicated left turn lane and one dedicate through lane. The intersection would continue to operate at an overall LOS A with minimal change in delay.

Shasta College Drive/Old Oregon Trail/Collyer Drive The proposed changes for this intersection would affect vehicles entering campus from the south. There are currently two northbound right turn lanes into campus, but the reconfiguration proposed in this scenario would remove one of the dedicated right-turn lanes. The one remaining dedicated right-turn lane would remain channelized and uncontrolled. Removal of this lane increases intersection delay slightly, but it will still operate acceptably with an LOS B during the AM and PM peak hours.



Old Oregon Trail/SR 299 EB Ramps The proposed reconfiguration of the intersection consists of removing the channelized southbound right turn and adding an approximately 100-foot right-turn pocket. This proposed change slightly improves overall intersection operation by reducing delay during the AM and PM peak hours.

Scenario B - Double Northbound Right-turn Lanes (Alternatives 3 & 5)

Scenario B applies to the proposed improvements in Alternatives 3 and 5. Scenario B assumes several roadway geometry changes at the following study intersections to accommodate bicycle and pedestrian improvements:

Collyer Drive/Shasta College Drive Intersection Same proposed changes as Scenario A.

Shasta College Drive/Old Oregon Trail/Collyer Drive The proposed changes for this intersection would remove the dedicated northbound through lane. The northbound lane configuration would consist of the shared left turn and through lane as well as the two existing northbound right turn lanes into campus. The two channelized right turn lanes would be converted to yield controlled in order to also keeping the lane reduction at the downstream Shasta College Drive/Collyer Drive intersection, as described in Scenario A. Similar to Scenario A results, the proposed through lane removal increases the delay at the intersection slightly, but it will still operate acceptably with LOS B during the AM and PM peak hours.

Old Oregon Trail/SR 299 EB Ramps Same proposed changes as Scenario A.

TABLE 2 TRAFFIC OPERATIONS ANALYSIS FOR CONCEPT ALTERNATIVE SCENARIOS

Study Intersections	Period	Existing		Scenario A		Scenario B	
		Delay	LOS	Delay	LOS	Delay	LOS
1. Shasta College Drive/Collyer Drive (on campus, 300' east of intersection #2)	AM	4 (16.9)	A (C)	4.7 (26.0)	A (D)	Same Results Scenario A	
	PM	5.3 (13.9)	A (B)	4.6 (11.3)	A (B)		
2. Old Oregon Trail/Collyer Drive/Shasta College Drive	AM	8.5 (9.5)	A (A)	21.4 (25.9)	C (D)	10.1 (10.3)	B (B)
	PM	12.8 (16.6)	B (C)	12.7 (16.3)	B (B)	13.7 (17.2)	B (C)
3. Old Oregon Trail/SR 299 Southbound Ramps	AM	15.8 (>120)	C (F)	16.2 (>120)	C (F)	Same Results Scenario A	



	PM	1.1 (14.4)	A (B)	1.2 (14.4)	A (B)
4. Old Oregon Trail/SR 299 Northbound Ramps	AM	17.2	B	Same Results as Existing	Same Results as Existing
	PM	11.4	B		
5. Old Oregon Trail/College View Drive	AM	4.1 (17.9)	A (C)	Same Results as Existing	Same Results as Existing
	PM	1.7 (13.4)	A (B)		

Source: August 2014 counts, HCM 2000, Fehr & Peers, 2014.

PREFERRED ALTERNATIVE

To accommodate both the needs of Shasta College and Shasta County Department of Public Works, Alternative 5 was selected as the preferred alternative to be carried forward for grant funding. Alternative 5 provides buffered bicycle lanes on Old Oregon Trail with double northbound right-turn lanes onto Shasta College Drive.

This alternative has the following key benefits and trade-offs:

Provides directional bicycle facilities on the corridor, which allow bicycles to ride in the direction of traffic. However, directional bikeways on Old Oregon Trail require bicyclists leaving Campus to turn left through the busy multi-lane all-way STOP at Old Oregon Trail/Collyer Drive/Shasta College Drive (versus the two-way cycletrack options).

Provides only a standard Class II bicycle lane westbound on Shasta College Drive, which though providing dedicated space does not maximize cyclist comfort as much as a cycletrack.

Maintaining the double right-turn lanes degrade comfort at the intersection for pedestrians and bicyclists continuing north on Old Oregon Trail as a result of uncontrolled, high-speed auto traffic and the possibility of multiple-threat collisions.

Alternative 5 is presented on Figure 1. The cost estimate for this project is approximately \$260,000. The cost estimate is attached in Appendix D Cost Estimate.



See full document at:

<http://healthyshasta.org/downloads/communities/ShastaTransportationSurvey.pdf>

ATP-Attachment K-3



Shasta College Transportation Survey

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RESULTS

Suggestions for making walking and bicycling easier, safer or more enticing on or near campus

PLEASE SEE APPENDIX A FOR A SUMMARY OF THE FULL RESULTS, INCLUDING STREET SPECIFIC COMMENTS.

In a quick glance, here are common themes and trends that emerged...with the most common at the top of the list (summary of 557 open ended responses):

Old Oregon Trail (OOT) – at least 50 comments specific to Old Oregon Trail (of note, this survey was completed before the new bicycle lanes on Old Oregon Trail, between College View and Old Alturas, were constructed. These bicycle lanes do not reach all the way to the Shasta College campus).

Bicycle lanes

- More bike lanes, better bike lanes, paths separate from vehicle, clear path from downtown (to, from or near campus) – at least 50 comments
- More bicycle lanes; safer or better bicycle lanes (does NOT indicate if referring to on campus or near campus)
- Bicycle lanes on campus, across campus, around campus
- Need to sweep, remove debris from bicycle lanes or shoulder

Bicycle Parking

- Bicycle parking in more locations, at more buildings or entrances – at least 25 comments
- Safer bicycle parking, more secure bicycle parking – at least 23 comments
- More Bicycle parking (general)

Paths, trails and walkways on campus

- Paths and sidewalks on campus are good; walking is safe and easy on campus – at least 20 comments
- More walking and bicycling paths (on campus), need wider or larger paths on campus – at least 20 comments
- Bicycle paths for bicycles to get around campus or to class (including paths for bicyclists separate from walkers)
- More trails, expand trail network, more walking trails, more scenic walkways
- More direct paths between buildings, pave the dirt paths between destinations

Entrance/exit

- Add path that avoids the busy intersection, alternative route to enter and exit campus when walking or bicycling, entrance is 'worst spot of my commute' – at least 24 comments
- Need a safer way for walking/biking OUT of south entrance; add bike lanes to exit campus

Other

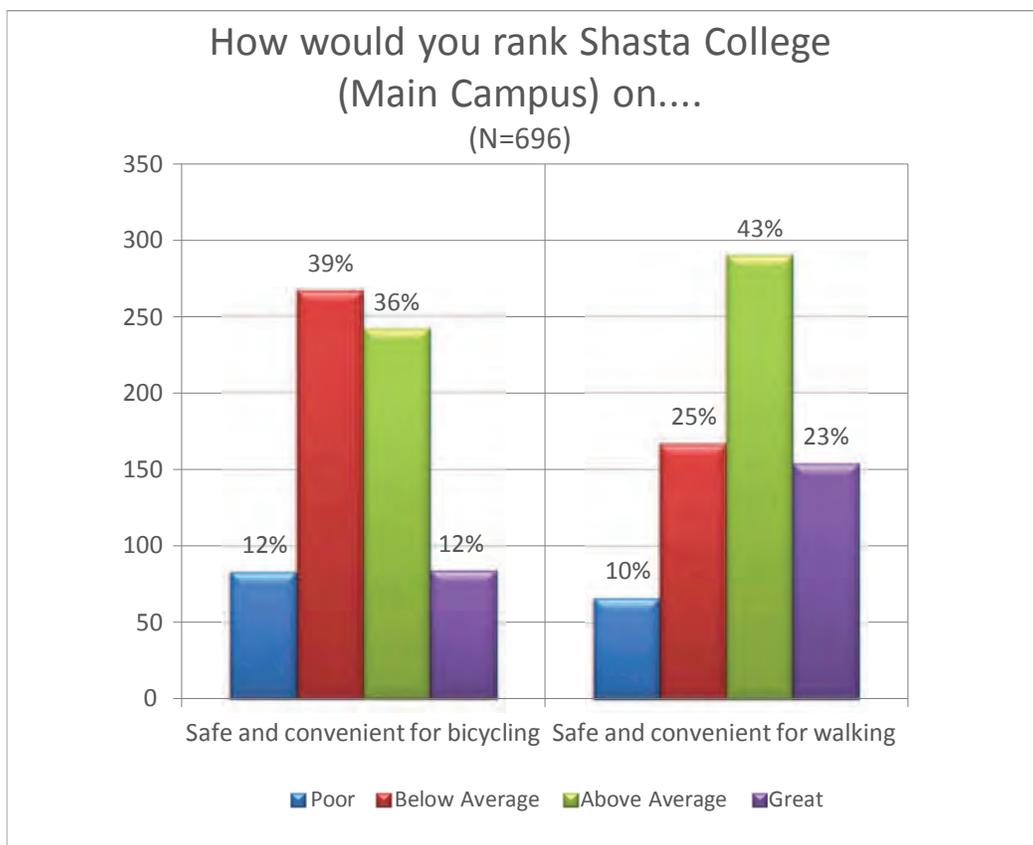
- Better lighting, more lighting on paths and in parking lots – at least 20 comments
- Sidewalks or walking path to, from or near campus, sidewalks along roadways – at least 18 comments
- Decrease speeds on campus; slow speeds on nearby roads
- Incentives or rewards to encourage walking or bicycling, incentive ideas
- More signs; signs to alert drivers; signs to remind bicyclists to be aware of peds; share the road signs
- Comments about Collyer and College View, as well as other nearby roads
- Bicycle club or group, bicycle maintenance, bicycle safety classes
- More campus security; increase security patrols

- More crosswalks or more safe places to cross the road; crossings in parking lots
- More bus routes; more bus times; later bus times
- Plus over 20 comments specific to the Tehama campus and a few regarding other campuses

Perceived Status of Main Campus for Walking and Bicycling

When asked how Shasta College’s main campus ranks as safe and convenient for bicycling, 51% of respondents who use the main campus indicated it is ‘below average’ or ‘poor.’

Respondents did rank Shasta College’s main campus higher on being safe and convenient for walking, with 66% of those who use the main campus selecting ‘great’ or ‘above average.’



Biggest barriers to walking or bicycling on or near Shasta College's campus

PLEASE SEE APPENDIX B FOR A SUMMARY OF THE FULL RESULTS, INCLUDING STREET SPECIFIC COMMENTS.
(N=535, all campuses)

In a glance, here are common themes and trends that emerged...with the most common at the top of the list (summary of 535 open ended responses):

Distance; campus is not centrally located; too far out of town – at least 100 comments specific to distance or location

Lack of bicycle lanes or paths

Lack of bicycle lanes, bike paths or wide shoulders to ride a bike to get to or from campus – at least 73 comments

Lack of bicycle lanes, bike paths or bike trails on campus – at least 40 comments

Lack of bicycle lane or shoulders on perimeter road or around campus – at least 14 comments

Lack of bicycle lanes, shoulder or paths; bicycle lanes are inconsistent; lack of trails; narrow or inconsistent paving (does not indicate if referring to on campus or near campus) – at least 59 comments

Sidewalks, walking paths or trails

Lack of sidewalks, walkways or walking paths; need more paths or trails (does not indicate if referring to on campus or near campus) – at least 45 comments

Lack of sidewalks or walking paths to get to or from campus; sidewalks don't connect campus to adjacent business/destinations; no place to walk along road – at least 20 comments

Campus has great pathways or sidewalks, no problems walking on campus – at least 17 comments

Paths and walkways are too busy, narrow or unsafe for bikes and walkers to share, especially at busy times; inconvenient to bicycle on walking paths because many people walking – at least 25 comments

Paths are indirect or not logically laid out; paths lacking where needed; paths need to be wider, smoother or more paths needed – at least 14 comments

Entrance

Main entrance to campus is difficult or dangerous, not good for walking or bicycling; only room for cars; too busy of intersection; no place for walkers or bicyclists; too much traffic – at least 41 comments

Traffic speed too fast at entrance – at least 9 comments

Entrance lacks bike lane, bike path, crosswalk or sidewalks; needs alternative entrance for biking/walking – at least 13 comments

“The biggest barrier is the main entrance”

Traffic and cars

Traffic, cars, or too much traffic – at least 43 comments

Traffic is too fast (on campus, in parking lots, on route to campus) – at least 26 comments

Drivers are impatient, careless, not paying attention or not respectful of pedestrians and bicyclists – at least 26 comments

Lack of crosswalks, crosswalks needs to be more visible, or drivers need to stop for people at crosswalks – at least 9 comments

Roads near campus

Old Oregon Trail is unsafe, lacks shoulders, too busy, lack sidewalks or crosswalks, etc – at least 45 comments about Old Oregon Trail

Lack of safe route to get to campus, tough place to commute to, road to campus are narrow or unsafe – at least 31 comments

Highways 299, freeway on/off ramp area near campus, high speeds on highway – at least 25 comments

Safety, security and lighting

Lack of lighting is a safety issue – at least 11 comments specific to campus, at least 6 comments specific to nearby road, and at least 14 comments not indicating a location

I don't feel safe, would be safe to walk/bike, walking alone on campus is scary, someone could hide in shrubs, etc – at least 21 comments

Parking

Lack of bicycle parking or storage, secure bicycle parking, bicycle parking near destinations, or places to store cycling gear while in class – at least 23 comments

Challenging to walk or bike through large parking lots, speeding in parking lots, walkways needed in parking lots – at least 13 comments

Other

Bicycles are not welcome on campus or bicycling not allowed on campus; lack of bicycle friendly atmosphere – at least 8 comments

Personal factors or barriers, such as time, schedule, inconvenience, need to carry stuff, don't have a bike, etc – at least 25 comments

Additional comments specific to the Main Campus, as well as the Downtown Campus and Tehama Campus

Interest in bicycling to campus if changes were made to the entrance

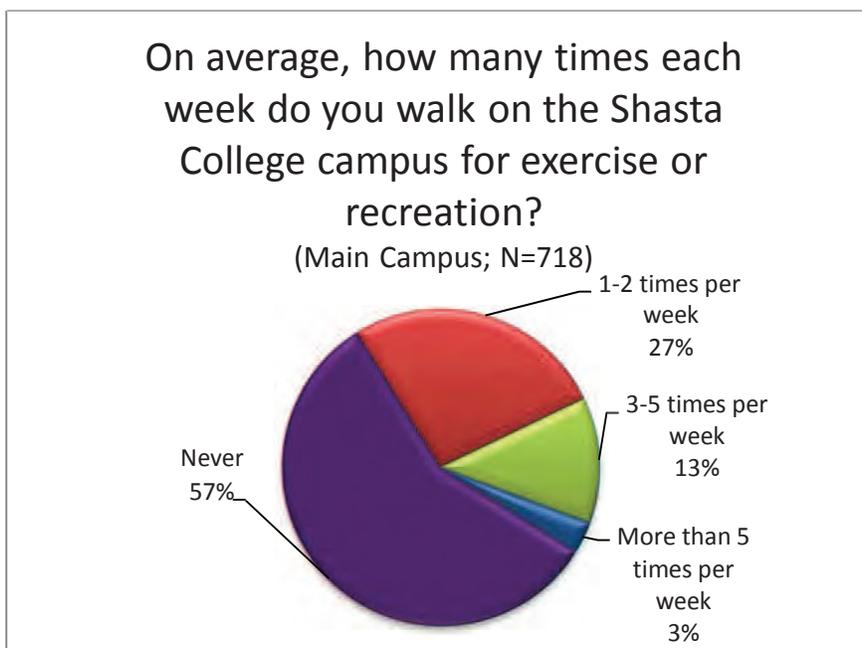
When asked “how frequently would you bicycle to campus if changes were made to the entrance,” those who use the main campus as their primary campus indicated (n=696):

- 29% indicated about once a week or at least 3 times a week
- 20% indicated a few times a month or occasionally
- 51% indicated never

How frequently would you.... bicycle to campus if changes were made to the entrance? Main Campus (n=696)					
Answer Options	At least 3 times per week	About once per week	A few times a month	Occasionally	Never
Response Count	139	64	40	98	355
Response %	20.0%	9.2%	5.7%	14.1%	51.0%

Frequency of walking for exercise or recreation on campus

Approximately 46% of those who use the main campus as their primary campus report walking on campus for exercise or recreation at least once a week. Among those who use another campus as their primary campus, only 23% report walking on campus for exercise or recreation at least once a week.



On average, how many times each week do you walk on the Shasta College campus for exercise or recreation?

Answer Options	Main Campus (N=718)		Other Campuses (N=111)
	Response Percent	Response Count	Response Percent
Never	57.2%	411	76.6%
1-2 times per week	26.7%	192	21.6%
3-5 times per week	12.8%	92	1.8%
More than 5 times per week	3.2%	23	0%
answered question		718	111

Distance between home and campus

Among those using the main campus as their primary campus, approximately 2% live on campus or within a mile of campus, a distance that is very convenient for walking. An additional 11% live within 3 miles of campus, a distance that is convenient for bicycling and somewhat convenient for walking.

Among those using the main campus as their primary campus, approximately 36% live within 6 miles of campus, a distance that is bikable. An additional 35% live 7-10 miles from campus, a reasonable distance for seasoned bicycle commuters but which may be intimidating or inconvenient to those not accustomed to bicycling.

Among those who use other campuses (not their main campus) as their primary campus, 24% live within 3 miles of campus, a very convenient distance for bicycling.

How far do you live from campus? (one-way trip)

Answer Options	Main Campus (N=710)		Non-Main Campus (N=181)
	Response Percent	Response Count	Response Percent
I live on campus	1.3%	9	1.1%
less than 1 mile	0.8%	6	1.7%
1-3 miles	11.3%	80	21.0%
4-6 miles	22.4%	159	19.3%
7-10 miles	34.9%	248	19.9%
More than 10 miles	29.3%	208	37.0%
answered question		710	181

Frequency of using transportation modes

How many DAYS PER WEEK do you typically use each of the following transportation options to get to Shasta College? Main Campus (n=722)			
Answer Options	% respondents NOT using this option in a typical week	% respondents USING this option 1 or more times in typical week	Response Count
Drive a car, truck or van myself	9.9%	90.1%	659
Drive a car, truck or van with other passengers	74.2%	25.8%	427
Ride in a car, truck or van driven by someone else	77.5%	22.5%	418
Ride a motorcycle or scooter	94.8%	5.2%	404
Ride a bicycle	83.5%	16.5%	424
Walk	94.3%	5.7%	401
Take the bus	89.7%	10.3%	407

Note: % columns based on response count for that transportation option. % does not include respondents who left responses blank for that transportation option.

“Other” responses to this question:

Take or teach online courses x7

I take the bus or my roommates takes me

Car pool a couple times a year

(motorcycles and scooters should not be on the list...dangers of motorcycles is most horrific)

Retired; when I work temp I drive my own car.

I have been without a car for a year now. I take the bus home only and my husband drives me a few days a week. I ride my bike weather permitting usually once or twice a week.

Sometimes I do have to take the bus

Some days I've skateboarded instead.

I park on the side of Old Oregon Trail off campus and walk from there.

RABA demand response

During summer I ride my bike, usually when I don't have to pick up my boys or have other things to do after work

I work 2 days per week

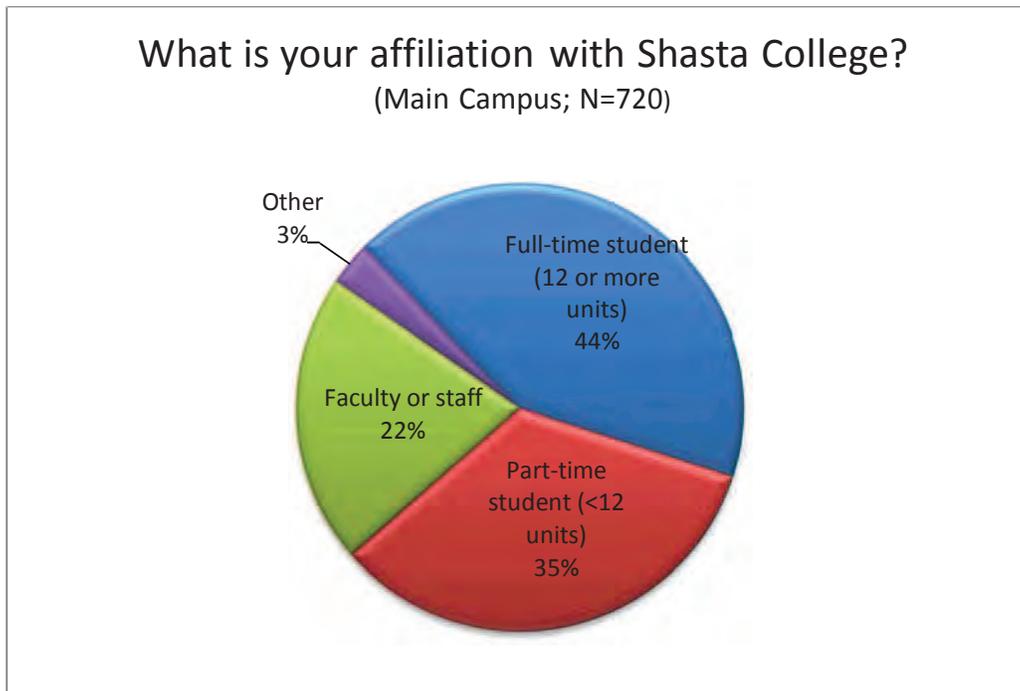
I take my one year old to the children's campus so driving is more acceptable and safe

Depending on semester schedule.

I would bicycle more than a couple of times a year if there were bike lanes near the college.

Affiliation with Shasta College

Among those using the main campus as their primary campus, 80% of respondents indicated that they are a full-time or part-time student, while 22% indicated that they are staff or faculty.



“Other” responses included: College Connection, administrator, auditing a class, bookstore clerk, had to drop out, seeking employment, taking a semester off, senior in high school, involved with student government, non-degree, retiree, researcher, student worker, supervisor, band, taking a GED class, tutor.

Age

Among those reporting the main campus as their primary campus, 38% indicated they are under 25 years of age, 41% indicated 25-49 years, and 22% over 50 years.

What age group are you in?			
Main Campus			
	Main Campus (N=716)		Non-Main Campus (N=111)
Answer Options	Response Percent	Response Count	Response Percent
Under 18 years	2.7%	19	4.5%
18 to 24 years	35.1%	251	24.3%
25 to 49 years	40.5%	290	45.0%
50 years or more	21.8%	156	26.1%
answered question		716	111

Excerpt from the *Record Searchlight*, October 2014

UPDATED: Pickup collides with bicyclist near Shasta College

8:22 AM, Oct 29, 2014

12:16 AM, Oct 30, 2014



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SHOW CAPTION

REDDING, California - A 19-year-old man on a bicycle was injured this morning when he and a pickup collided at Old Oregon Trail and Collyer Drive near the entrance of Shasta College.

The collision happened around 8 a.m.

The cyclist suffered abrasions and a possible head injury, but a California Highway Patrol officer said the injuries are not believed to be life-threatening. The man was conscious and taken to the hospital for treatment.

The cyclist was going east on Collyer when he and the truck collided. The truck was going north on Old Oregon Trail. The pickup came to the intersection and rolled through without coming to a complete stop before it collided with the bike, the CHP officer said.

The pickup driver was not cited.

CHP spokesman Mark Redding said the issuance of a citation for such a collision is up to the discretion of the investigating officer.

But, he said, a collision report will be prepared and the state Department of Motor Vehicles could take disciplinary action against the driver if it finds him at fault for the crash.

Such disciplinary action would include assessing violation points against the driver and the possible suspension of his driver's license, he said.

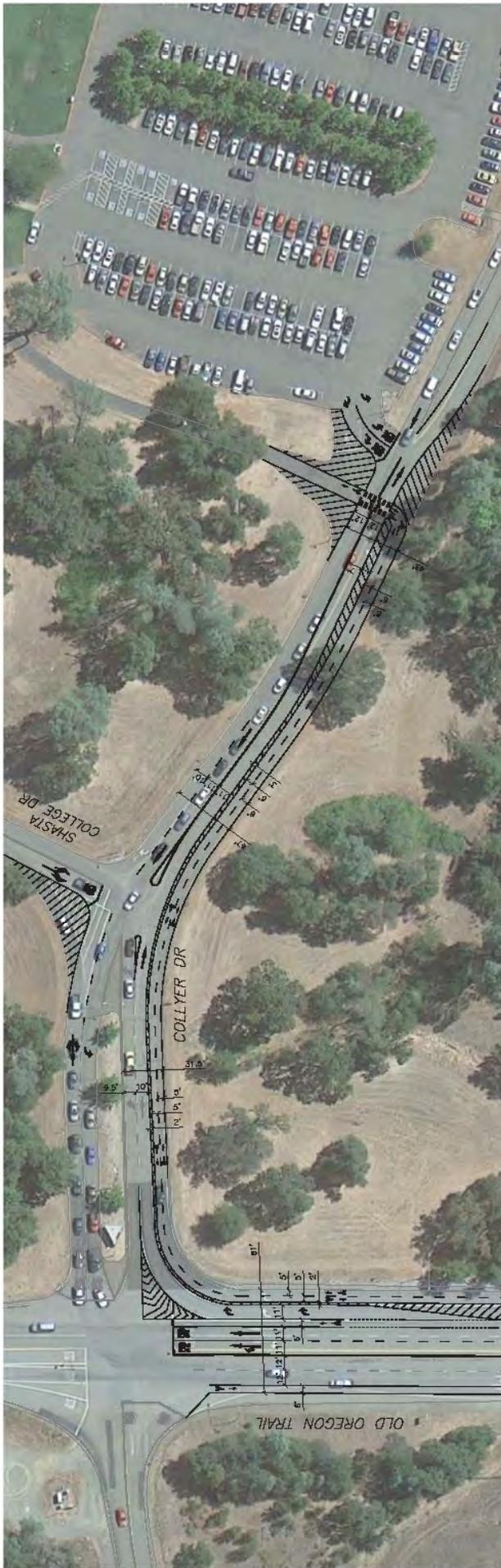
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Oct 01, 2014 1:58:10 PM C:\Users\jgibson\Documents\2014\10\01\1001\1001.dwg



Shasta College / Old Oregon Trail
Alternative 1

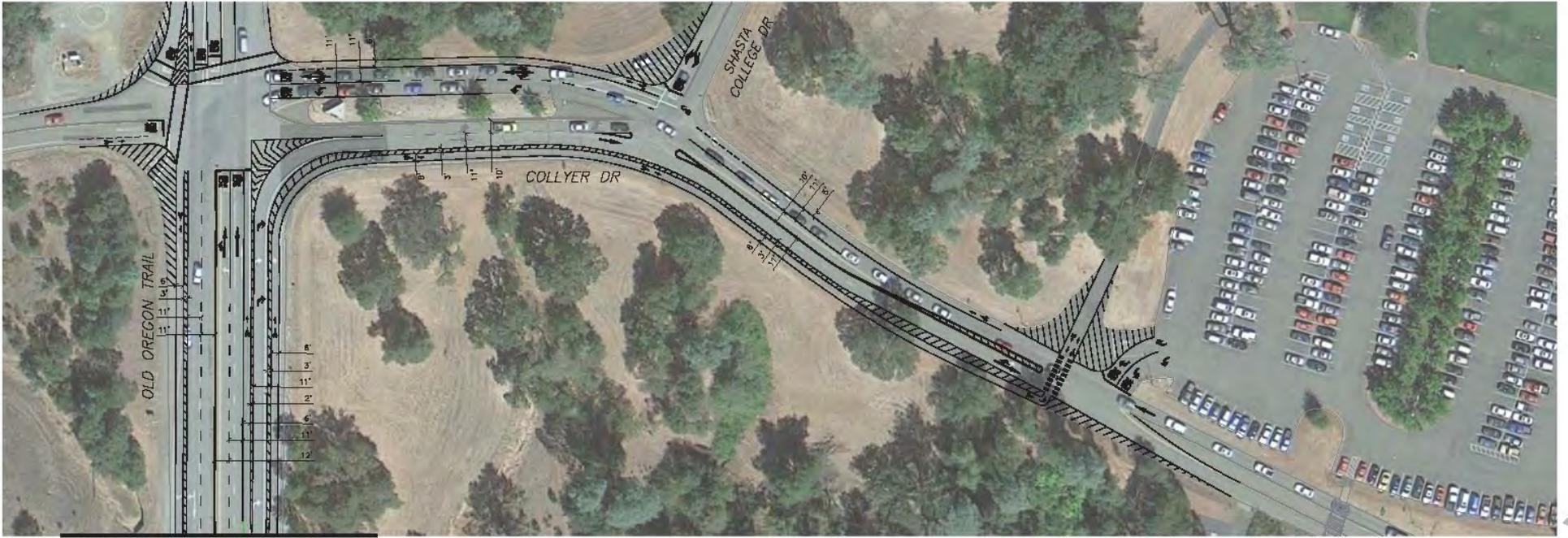


Attachment K-5



MATCHLINE - SEE ABOVE





MATCHLINE - SEE BELOW LEFT



MATCHLINE - SEE ABOVE

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Shasta College 1 Old Oregon Trail
Alternative 4: Class U Bicycle Lanes Option

MEMORANDUM

Date: October 8, 2013

To: Amy Pendergrast, Healthy Shasta
Paul Zykofsky, Local Government Commission

From: Charlie Alexander, PE, Fehr & Peers

Subject: Shasta College Walking and Bicycling Workshop

RS13-3159

Healthy Shasta recently hosted a walking and bicycling workshop for Shasta College. The workshop was part of the development of a walking and bicycling plan for Shasta College. The workshop included:

- Presentations on creating walking- and bicycling-friendly communities.
- Walking audits to identify positive practices, issues, and opportunities for walking and bicycling.
- A design table exercise where participants marked up aerials with suggestions on how to improve conditions for walking and bicycling at Shasta College.

The purpose of this technical memorandum is to document the findings of the walking and bicycling workshop.

ISSUES

The Old Oregon Trail/Collyer Drive/Shasta College Drive intersection was identified by several workshop participants as a barrier to walking and bicycling. Issues identified by workshop participants include:

- Pedestrians have difficulty crossing at the intersection.
- The intersection has high traffic volumes.



- The northbound right-turn is difficult for pedestrians and bicyclists to navigate; it is a free movement.
- Westbound left-turning vehicles bound for State Route 299 (SR 299) southbound often use the number one left-turn lane instead of the number two left-turn lane.
- The westbound through lane alignment overlaps with the intersection's southbound approach.
- There are no sidewalks near the intersection.

Other issues identified by workshop participants include:

- At the campus' South Entrance, bicyclists entering from Old Oregon Trail and making a left turn at Collyer Drive have to merge across traffic.
- There are no bike lanes on campus roadways.
- On the drop-off loop between Building 400/500 and the South Parking Lot, bicyclists ride the wrong-way to access central campus.
- At the Shasta College Drive/Collyer Drive intersection, there is no safe pedestrian crossing across Shasta College Drive.
- There is no direct connection for bicyclists between the South Entrance and Central Campus; campus policies currently prohibit bicycling in central campus.
- The campus needs high-quality short-term and long-term bike parking.
- Several workshop attendees desired additional walking paths through the campus' natural areas.
- At the South Parking Lot's west entrance/exit onto Shasta College Drive, drivers do not come to a complete stop.

OPPORTUNITIES

Workshop participants had several suggestions on how to improve conditions for walking and bicycling at Shasta College. Each of these suggestions warrants further study to determine their feasibility, consistency with relevant design standards, and cost. Suggestions from workshop participants include:



- At the campus' South Entrance:
 - Old Oregon Trail– workshop participants suggested a comfortable bikeway on Old Oregon Trail between Shasta College Drive and College View Drive. Several alternative bikeway types were suggested, including:
 - Class II bike lanes with a reconfiguration of the SR 299/Old Oregon Trail interchange to slow or control high speed movements.
 - A Class I bike path or cycletrack on the east side of Old Oregon Trail with a diagonal crossing at the Old Oregon Trail/College View Drive intersection.
 - A Class I bike path through the Shasta College property at the southeast corner of the Old Oregon Trail/Collyer Drive/Shasta College Drive intersection.
 - Old Oregon Trail/Collyer Drive/Shasta College Drive intersection – workshop participants suggested several improvements to this intersection to make it more pedestrian- and bicycle-friendly:
 - Replace multi-way stop with a traffic signal or roundabout.
 - Add marked crosswalks, possibly including bicycle stencils within the markings.
 - Provide pedestrian refuge islands.
 - Add a westbound left-turn lane for bicyclists so that they can avoid traffic turning onto SR 299 southbound.
 - Shasta College Drive/Collyer Drive intersection- replace side-street stop with a traffic signal or roundabout.
 - Construct sidewalks between the South Entrance and central campus.



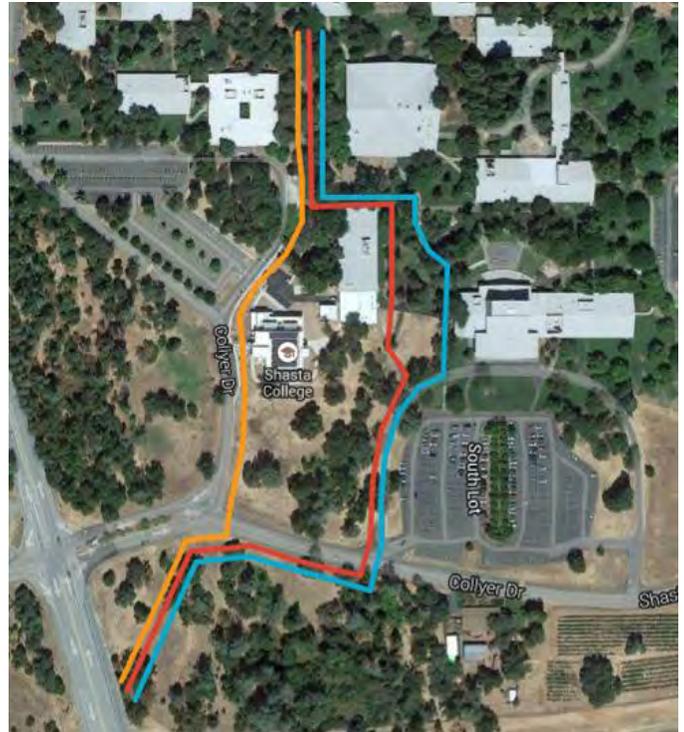
- Between the South Entrance and central campus, several workshop participants suggested a direct connection for bicyclists. Participants recommended three alternative alignments; each alternative begins at the South Entrance and ends near the Library. The three alternative alignments are:

1. West of Building 700 (orange).
2. East of Building 300 (red).
3. West of Building 400 (blue).

Each alternative would require a bike path crossing of Shasta College Drive. A raised crosswalk was suggested by workshop participants, however, the appropriate crossing treatment depends on multiple factors, including traffic volume, traffic speed, sight distance, and emergency response needs.

Several workshop participants suggested using the wide pathway between Building 100 and the Library. On this segment, a bikeway could be delineated separately from the pedestrian walkway. Similar strategies have been used at other colleges, including Aztec Walk at San Diego State University.

Alternatives 2 and 3 both use the drop-off loop between Building 400/500 and the South Parking Lot. These alternatives require reconfiguring the west entrance of the South Parking Lot so that it is separate from the drop-off loop and so that it intersects Shasta College Drive at 90 degrees.



Alternative bike connection alignments
Source: www.maps.google.com



Aztec Walk at SDSU
Source: www.bikesd.org



- Other suggestions include:
 - Bike lanes on campus roadways, including Shasta College Drive and Collyer Drive.
 - “Yield to Bikes” signs at multiple locations to reduce conflicts between vehicles and bicyclists.
 - Improved bike parking is necessary throughout campus. Both short-term bike parking and long-term bike parking is necessary.

Workshop participants suggested placing the short-term bike parking in visible, highly trafficked areas near a bicycle connection to central campus. Proposed locations included near the Library, Campus Quad, or Building 2400. UC Davis’ preferred bike rack is the “lightning bolt” rack, which is available from several manufacturers.

Workshop participants suggested a long-term bike parking corral near the gymnasium where bike commuters would have easy access to the showers.



Example of a lightning bolt rack
Source: www.creativepipe.com



Long-term bike parking at the UC Davis Medical Center

- Walkways and shade trees in campus parking lots may improve safety and would increase comfort for pedestrians, especially on hot days.
- Sidewalks on the east side of the North Parking Lot and the south side of Shasta College Drive between the North Parking Lot and the tennis courts.



- Walking/running trails through natural areas.
- Other bike connections:
 1. From the North Entrance to Building 1800.
 2. From the northwest corner of the East Parking Lot to the Gymnasium.
 3. From Building 500 to the East Parking Lot.

NEXT STEPS

Healthy Shasta should work with Shasta College to incorporate appropriate feedback from the workshop into a walking and bicycling plan; feedback from the workshop is not necessarily comprehensive of everything that should be included in the walking and bicycling plan.

Certain projects require specific next steps for implementation. In particular, improvements to the campus' South Entrance require detailed complete streets corridor planning. Shasta College could partner with Shasta County to apply for a Caltrans Transportation Planning Grant. The grant could be used to develop a corridor plan for Old Oregon Trail between Shasta College Drive and College View Drive. The corridor plan should evaluate alternative bikeway types on Old Oregon Trail, intersection control at the Old Oregon Trail/Collyer Drive/Shasta College Drive intersection, and improvements to the SR 299/Old Oregon Trail interchange.

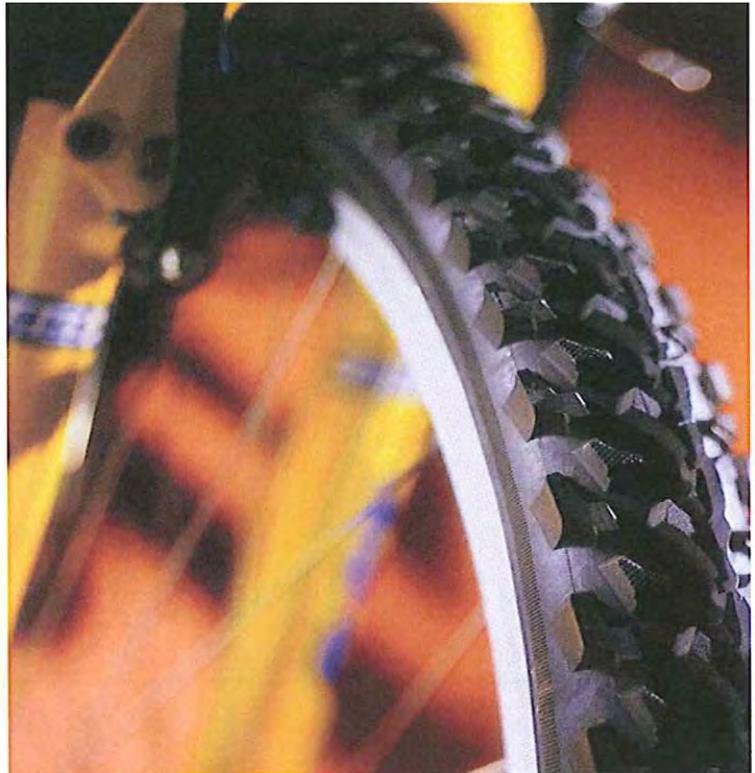
The Caltrans Transportation Planning Grants can be used for conceptual design, which should be adequate to make a determination as to the appropriate infrastructure solution for the South Entrance. Further grants should be pursued to fund design and construction.



Additional bike connections recommendations
Source: www.maps.google.com

Shasta County 2010 Bicycle Transportation Plan

Full Document at:
[http://
healthyshasta.org/
downloads/biking/
ShastaCountyBikePlan2
010.pdf](http://healthyshasta.org/downloads/biking/ShastaCountyBikePlan2010.pdf):



Prepared By:

**County of Shasta
1855 Placer Street
Redding CA 96001
(530) 225-5661
Website: www.co.shasta.ca.us**

Adopted: June 29, 2010



RESOLUTION NO. 2010-063

A RESOLUTION OF THE BOARD OF SUPERVISORS OF THE
COUNTY OF SHASTA ADOPTING THE SHASTA COUNTY
2010 BICYCLE TRANSPORTATION PLAN

WHEREAS, the Board of Supervisors of the County of Shasta has considered adoption of the Shasta County 2010 Bicycle Transportation Plan, in accordance with the provisions of the California Streets and Highways Code, Chapter 517, Article 3, section 891.2, et seq., that requires cities or counties to prepare a bicycle transportation plan in order to be eligible for Bicycle Transportation Account (BTA) funds; and

WHEREAS, the Draft Shasta County 2010 Bicycle Transportation Plan was referred to various affected public and private agencies and County departments for review and comments; and

WHEREAS, a public review and comment period was provided from May 7 to June 7, 2010; and

WHEREAS the County wishes to promote and encourage bicycle transportation opportunities and obtain funding to construct necessary facilities.

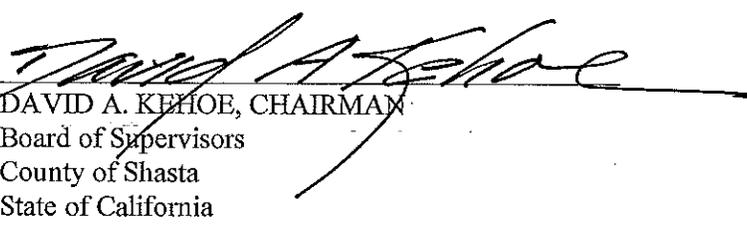
NOW, THEREFORE, BE IT RESOLVED that the Board of Supervisors of the County of Shasta makes the following findings:

- A. The Shasta County 2010 Bicycle Transportation Plan complies with the provisions of the California Bicycle Transportation Act, specifically California Streets and Highways Code Chapter 517, Article 3, section 891.2 et seq.
- B. The Shasta County 2010 Bicycle Transportation Plan is consistent with the Shasta County General Plan and the Shasta County Regional Transportation Plan.

BE IT FURTHER RESOLVED that the Board of Supervisors of the County of Shasta adopts the Shasta County 2010 Bicycle Transportation Plan.

DULY PASSED AND ADOPTED this 29th day of June, 2010 by the Board of Supervisors of the County of Shasta by the following vote:

AYES: Supervisors Baugh, Kehoe, Moty, Hawes, and Hartman
NOES: None
ABSENT: None
ABSTAIN: None
RECUSE: None


DAVID A. KEHOE, CHAIRMAN
Board of Supervisors
County of Shasta
State of California

ATTEST:

LAWRENCE G. LEES
Clerk of the Board of Supervisors

By: Jayne Accetta
Deputy

THIS INSTRUMENT IS A CORRECT COPY
OF THE ORIGINAL ON FILE IN THIS OFFICE

ATTEST JUN 30 2010

CLERK OF THE BOARD
Supervisors of the County of Shasta, State of California
BY: Jayne Accetta

Attachment K-7

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under each corridor description (Tables 3.9a through 3.9e) show the sections that have not been striped or signed.

Table 3.9a: Happy Valley Road Corridor	
Happy Valley Road Corridor will serve the Happy Valley area and the Anderson Union High School by connecting South Redding to Cottonwood by way of Gas Point Road and Happy Valley Road. This corridor will also provide a connection between I-5 corridor route and SR 273 corridor route.	
Gas Point Road	I-5, Cottonwood, to Happy Valley Road
Happy Valley Road	Gas Point Road to Hawthorne Avenue
Canyon Road	Hawthorne Avenue to SR 273

Table 3.9b: Deschutes Road Corridor	
Deschutes Road Corridor will proceed from the local bikeways of the City of Anderson northerly on Deschutes to Palo Cedro and to the terminal point at Bella Vista and the SR 299 corridor route.	
Balls Ferry Road	City of Anderson to Deschutes Road
Deschutes Road	Balls Ferry Road to SR 299

Table 3.9c: Placer Road Corridor	
Placer Road Corridor will connect two local City of Redding bikeways at Placer Road and Branstetter Lane.	
Placer Road	City of Redding to Texas Springs Road
Texas Springs Road	Placer Road to Branstetter Road

Table 3.9d: Old Oregon Trail Corridor	
Old Oregon Trail Corridor will connect SR 44 bike corridor to SR 299 East bike corridor and via Shasta College northerly to Oasis Road and to the I-5 corridor route. This corridor will serve as a connecting link between the local bikeways in the City of Redding to Shasta College and City of Shasta Lake.	
Oasis Road	I-5, City of Redding, to Old Oregon Trail
Union School Road	I-5, City of Shasta Lake, to Old Oregon Trail
Old Oregon Trail	I-5, Mountain Gate, to SR 299 East
Old Oregon Trail	SR 299 East to SR 44