



## 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-City of Redding-2

Auto populated

**Total ATP Funds Requested:**

\$ 3,177

(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:**

City of Redding

**IMPLEMENTING AGENCY'S ADDRESS**

**CITY**

**ZIP CODE**

777 Cypress Avenue

Redding

CA

96001

**IMPLEMENTING AGENCY'S CONTACT PERSON:**

Chuck Aukland

**CONTACT PERSON'S TITLE:**

Assistant Director of Public Works

**CONTACT PERSON'S PHONE NUMBER:**

530-245-7116

**CONTACT PERSON'S EMAIL ADDRESS :**

caukland@ci.redding.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:**

NOT APPLICABLE

**PROJECT PARTNERING AGENCY'S ADDRESS**

**CITY**

**ZIP CODE**

N/A

**PROJECT PARTNERING AGENCY'S CONTACT PERSON:**

**CONTACT PERSON'S TITLE:**

N/A

N/A

**CONTACT PERSON'S PHONE NUMBER:**

**CONTACT PERSON'S EMAIL ADDRESS :**

N/A

N/A

**MASTER AGREEMENTS (MAs):**

Does the Implementing Agency currently have a MA with Caltrans?

Yes  No

Implementing Agency's Federal Caltrans MS number

02-5068

Implementing Agency's State Caltrans MS number

00074S

\* 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)

City of Redding - Quartz Hill Road Active Transportation Project

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

**PROJECT DESCRIPTION:** (Max of 250 Characters)

Widen uphill road grade road for Class 2 Bike lanes and sidewalk, road diet to add bike lanes, add enhanced pedestrian crossings with RRFBs, reduce curb radii and crossing distance to/from neighborhood to the park and connect to trail and school.

**PROJECT LOCATION:** (Max of 250 Characters)

Located in northwest Redding, CA on Quartz Hill Road from Terra Nova Dr. to Market Street (State Highway 273). Quartz Hill road separates neighborhoods from the adjacent Sacramento River trail and park.



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. 40.590335 /long. -122.396421

Congressional District(s):  1

State Senate District(s):  1   State Assembly District(s):  1

Caltrans District(s):  02

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	60	Bicyclists	120
One Year Projection:	Pedestrians	120	Bicyclists	240
Five Year Projection:	Pedestrians	190	Bicyclists	375

**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 CalEnviroScreen  Yes  No

Student Meals  Yes  No Local Criteria  Yes  No

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

**CORPS**

Does the agency intend to utilize the Corps:  Yes  No



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

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

“Plan” applications to show as NI only

**Development of a Plan in a Disadvantaged Community:**  Yes  No

If Yes, check all Plan types that apply:

- Bicycle Plan**
- Pedestrian Plan**
- Safe Routes to School Plan**
- Active Transportation Plan**

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

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

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

- Bicycle Transportation** % of Project 75.0 % (ped + bike must = 100%)
- Pedestrian Transportation** % of Project 25.0 %
- Safe Routes to School** (Also fill out Bicycle and Pedestrian Sub-Type information above)

How many schools does the project impact/serve: 4

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

School name: Multiple Schools  
 School address: Multiple Schools  
 District name: Redding School District  
 District address: 5885 E. Bonnyview Rd. Redding, CA 96001  
 Co.-Dist.-School Code: 45-70110-6101612

School type (K-8 or 9-12 or Both)  Both Project improvements maximum distance from school 3.0 mile

Total student enrollment: 2,420  
 % of students that currently walk or bike to school: 2.0 %  
 Approx. # of students living along route proposed for improvement: 1,800  
 Percentage of students eligible for free or reduced meal programs \*\*: 54.7 %

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

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



**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:	_____	\$0
ATP funds for PS&E:	_____	\$0
ATP funds for Right of Way:	_____	\$0
ATP funds for Construction:	_____	\$3,177
ATP funds for Non-Infrastructure:	_____	\$0 <i>(All NI funding is allocated in a project's Construction Phase)</i>
<b>Total ATP funds being requested for this application/project:</b>	_____	<b>\$3,177</b>

**Local funds leveraging or matching the ATP funds:** \_\_\_\_\_ **\$221**

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:** \_\_\_\_\_ **\$130**

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:** \_\_\_\_\_ **\$3,528**

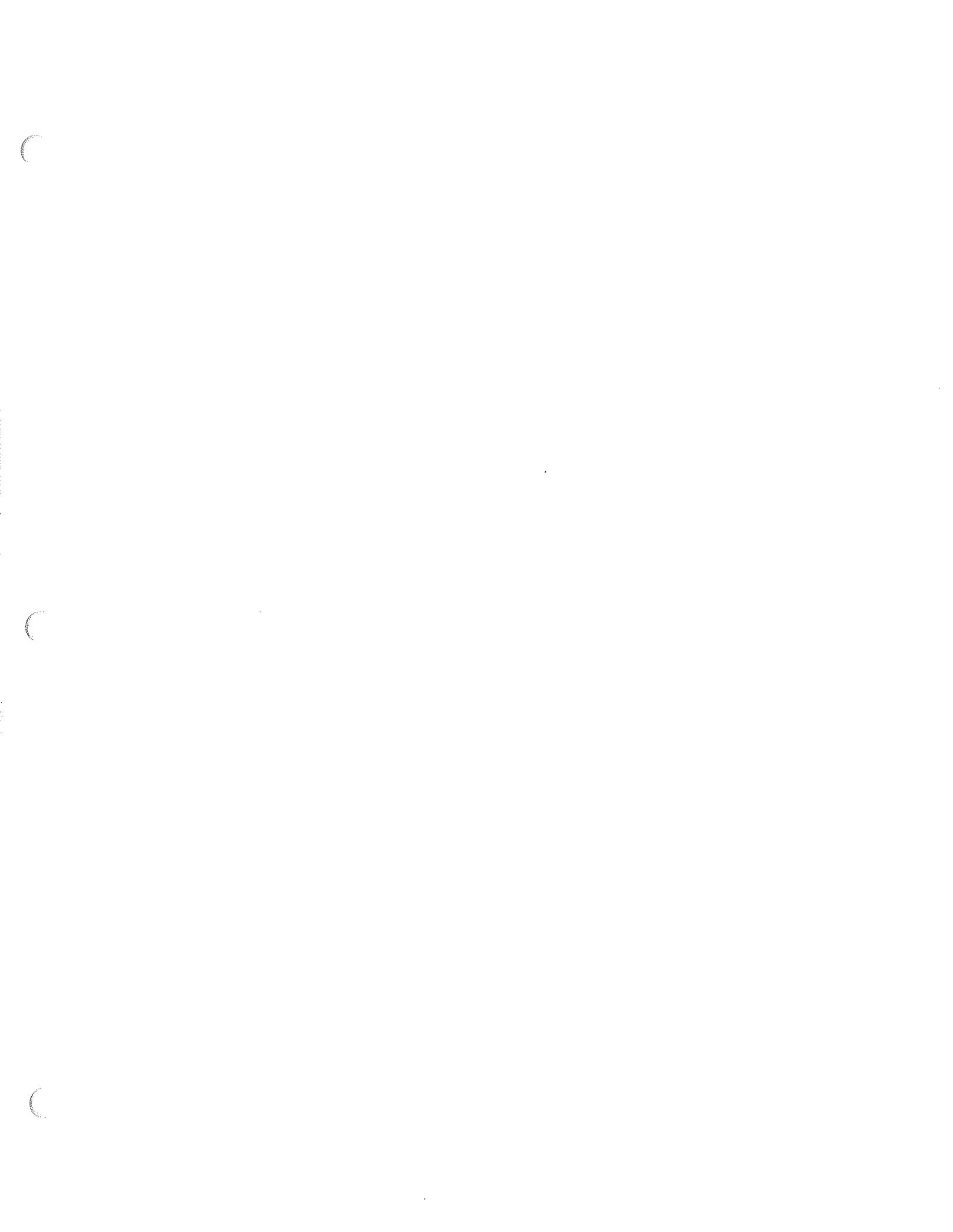
**ATP - FUNDING TYPE REQUESTED:**

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-City of Redding-2

Implementing Agency's Name: City of Redding

**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:**

The Quartz Hill Road Improvement project has been identified as a high priority, top project within the City of Redding as evidenced by the fiscal commitment of funds to design the project, purchase right of way and complete the environmental review. Unfortunately, the costs currently exceed the capacity of the City's Traffic Impact Fee account to construct the project. The project does not create additional automobile capacity and is primarily a bike lane, Safe Routes to School and pedestrian project, therefore the City has had a difficult time allocating the needed construction funds for the project.

In order to add the required shoulders for bike lanes and sidewalks the project requires significant grading and retaining walls to accommodate the road section. The costs associated with the project are necessary as this is the only route to access a large portion of the City within the northwest quadrant of the region. Bike and pedestrian traffic are forced into the single uphill road lane as there is little to no existing shoulder, speeds are upwards of 55 MPH and the grade of the road makes bikes uphill travel slower. This conflict is to the extent that it inhibits non-motorized travel from the numerous subdivisions that exist at the top of the grade.



**2. Consistency with Regional Plan.**

The project is consistent with the

Shasta County Regional Transportation plan adopted in 2010. In Chapter 9 of the RTP



calls out the primary goal of the non-motorized transportation program is to create a transportation environment that encourages non-motorized alternatives. Completion of attractive sidewalks with shade trees, pedestrian lighting, including the improvements on Quartz Hill road is consistent with the RTP. The RTP identifies that regional travel is

required to access a few key City roads to access key points of interest downtown and along the Sacramento River Trail. This section of Quartz Hill Road is certainly a pinch point that collects non-motorized travel from much of the northwest region into this section of road. See attachments for RTP indicating upgrade of bicycle facilities on Quartz Hill Road.

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

### QUESTION #1

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

**A. Describe the following:**

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

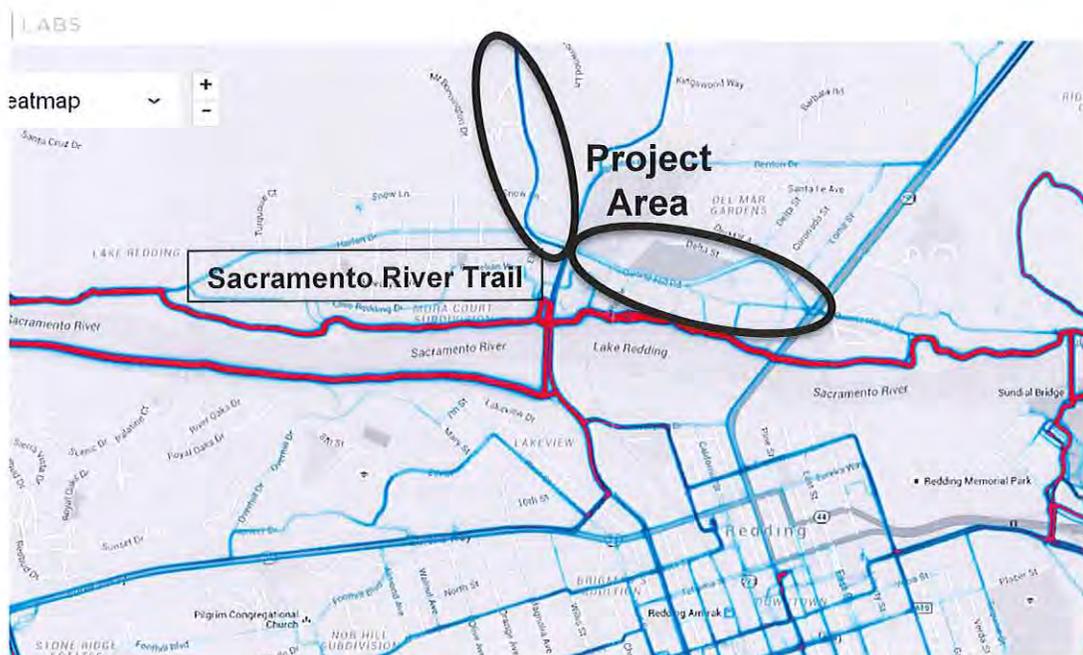
The Sacramento River Trail is the pride of Redding and the main artery of all pedestrian and bicycle activity in Redding for recreation, fitness and commuting. It is a 21-mile network that runs along the banks of the Sacramento River connecting neighborhoods along and across the river to downtown Redding, employment centers such as the Mount Shasta Mall, and most other main points of interest in Redding. The trail offers stunning views of the water and nearby mountains, and connects to one of the most breathtaking bicycle/pedestrian bridges in the country.





The trail was originally for recreation, but has become a critical transportation corridor for connections throughout the City. The City has seen a dramatic uptick in users desiring to access the trail from neighborhoods. The users have found that many of the connections from the road network to the trail system and to destinations along the trail to be woefully inadequate and the users typically drive to trailheads along the route, even though many of the non-motorized portions of the trips can be double or even triple the distance from their origin to the trailhead. Quartz Hill Road is one of the primary examples of this issue. The neighborhoods to the north of the trail refuse to use this section of road due to the inadequate shoulder adjacent to a hillside that forces users onto the road in high speed traffic. The number of existing non-motorized users on this section of road is low but with the improvements have the ability to increase dramatically.

Strava is an excellent resource for data. As shown by heatmaps that show relative use, the river trail is the most heavily used corridor in town. Some of the more agile and confident pedestrians and cyclists take the planned route on Quartz Hill showing the demand as digital goat trails below. The current condition of this route has many barriers as outlined later in this grant.





Healthy Shasta, a program of Shasta County Public Health, have conducted one day pedestrian and bicycle counts since 2008. In this area volunteers counted the peak 1.5 hours of the morning and 2 hours of the afternoon. See results in chart below.

The project will create a safe and comfortable route increasing access to/from the river trail, downtown businesses and nearby schools. Redding has a strong fitness and recreational use of the river trail by building safe and

comfortable facilities to get to the trail for fitness and transport. Redding anticipates increasing numbers of people walking and bicycling across all ages and abilities.

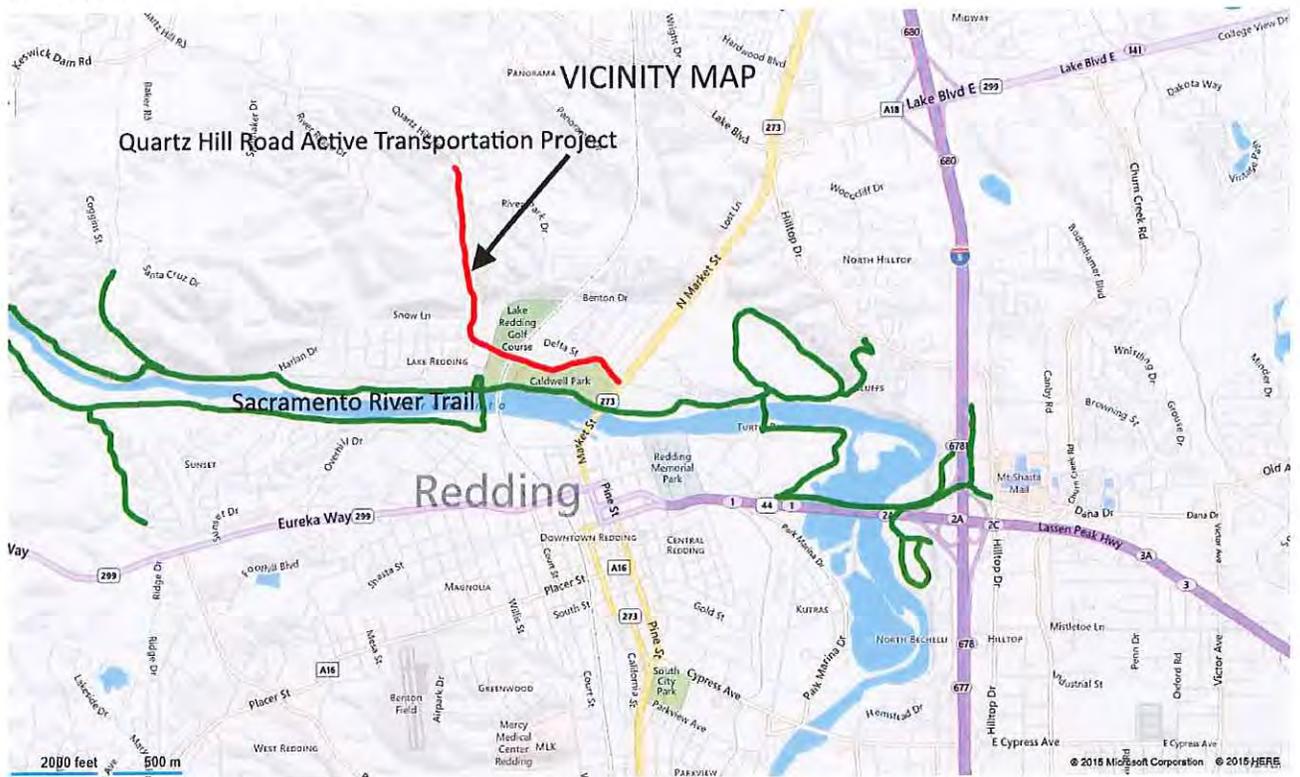
Currently, the route to/from downtown and the river trail from the Quartz Hill Road area is a high stress route, with the biggest barrier being the narrow portion of Quartz Hill Road with no shoulder. Upon completion of the project people of all ages and abilities with a non-motorized mobility choice will be able to enjoy a low stress route. It will certainly appeal to not only current users but also attract riders that are “interested in walking or biking” but concerned due to real and perceived safety concerns. The researchers are just beginning to grasp the impact of low stress routes for bicyclists but initial studies show that people are willing to use higher quality, lower-stress route, even if they must backtrack or ride extra distance to their destination.

Not only does Redding have a strong fitness community that uses the River Trail but also Redding has an interesting relative proportion of people who walk (3%) to work. Followed by transit (2%), then bicycling (<1%) ACS 2008-2012. These statistics reveal the need and desire for better bicycle connections as many would prefer walking over transit and transit over biking in this car-centric community. Bicycling is the most efficient form of transportation and by filling the gaps more riders will be enticed to ride as the bicycle will seem like a viable and economical option.

2012 AM peak 67 bicyclists  
2012 AM peak 76 on foot  
2012 PM peak 98 bicyclists  
2012 PM peak 202 on foot

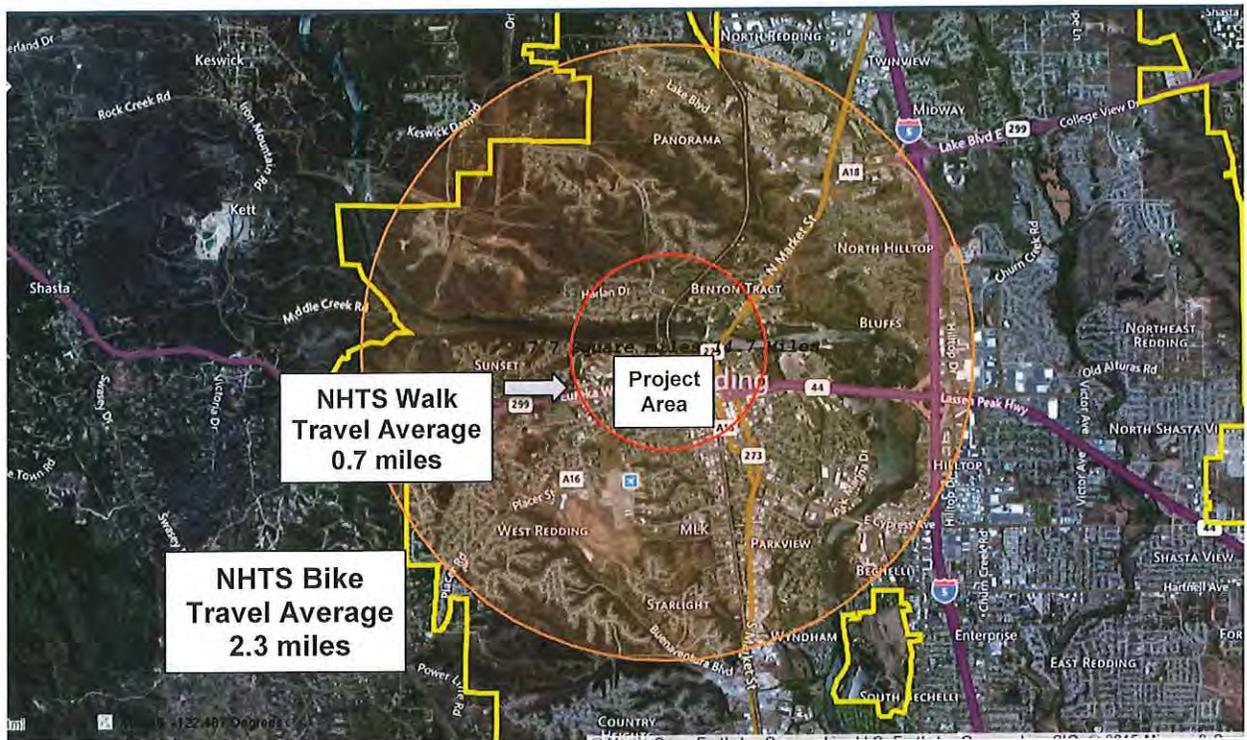


According to the 2013 American Community Survey, Census tract 107.02 which is in the project area showed 0.1% bicycle commute rate, while the average of the City ranges from 2%-4%. Census Tract 101 just south of the subject tract has a 4.7% rate which is higher than the average for Redding, likely due to access and proximity to the River Trail. Census tract 107.02 is located very close to the river trail but does not have any direct access to the trail. From this data it can be deduced that this census tract should have an existing bicycle commute rate closer to the 4%. The proposed improvements should create a safe and comfortable route thereby allowing the amount of bicycle commuters to increase from 0.1% to at least 4%.





According to the National Household Travel Survey, the average one-way distance for all walk trips is 0.7 miles and 2.3 for bike travel. It is arguable that Redding commuters would walk and bike farther than the average due to necessity as land uses are spread out and more suburban in nature, rather than dense. This project will increase access



to downtown from the dozens of access points along the Sacramento River Trail. Below gives a sense of scale for walk and bike distance from the center of the project

**Turtle Bay Safe Routes to School** data indicates more than 70 students live within a mile of school and 168 live within 2 miles of the school. This is the primary elementary school that the project will serve. Few students currently walk or bike to school with the majority delivered to school by their family vehicle. Recent data collected show that currently, about 3-4% of students walk (about 15) and one bikes. There is huge potential to increase

<b>Turtle Bay School Distance between home and school</b>	
Less than 1/4 mile	16 (3%)
1/4 mile up to 1/2 mile	22 (5%)
1/2 mile up to 1 mile	34 (7%)
1 mile up to 2 miles	96 (20%)



the numbers that walk and bike as more than 100 have asked their parents if they could walk or bike to school, a potential 700% increase.

Recently the school has started a walking school bus from Caldwell Park along Quartz Hill Road to the school. From their starting location on Quartz Hill Road students can walk to the school along the River Trail to

the school without crossing any roads on a safe and comfortable route. This has become very popular as parents are avoiding the heavily congested drop-off and pickup lines. See Attachment #K "Avoid the Loop Campaign".



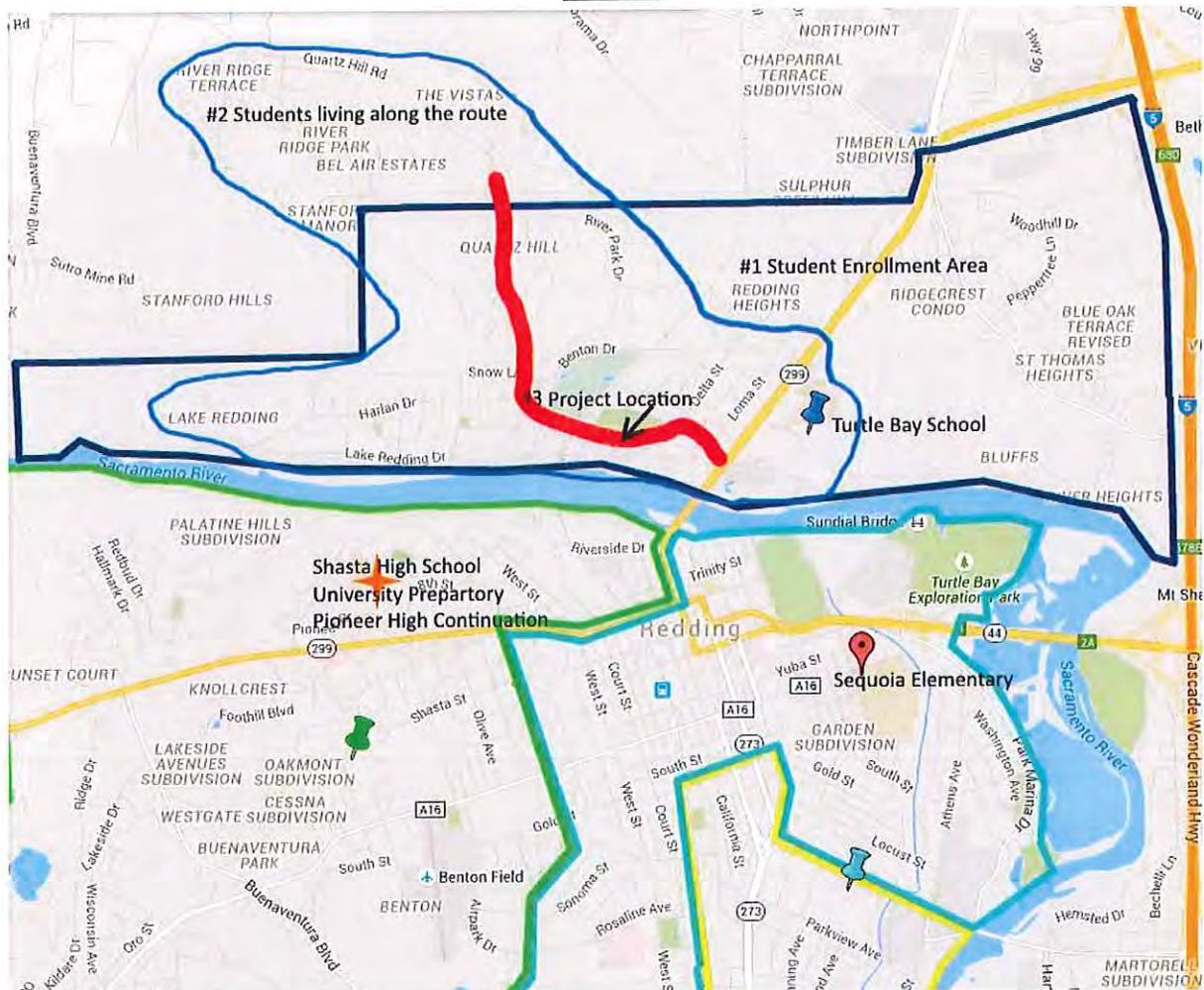
Parents drop off the students at the park even though this location is close to homes, most state this is due to lack of adequate safe facilities to access the park location. It is anticipated that this project would create connections and increase parent and student confidence to access to the school with non-motorized travel options.

**Percentage of Turtle Bay students that have asked parents if they can walk and bike to school.**

- 57% of students that live within 1/4 mile
- 45% of students that live within 1/2 mile
- 48% of students that live within 2 miles
- 16% of students that live more than 2 miles

**Nearby schools include:**

- Turtle Bay Elementary (K-8) 824 students
- University Preparatory (6-12) 939 students
- Shasta High School. (9-12) 1371 students
- Pioneer Continuation High School 217



### Nearby High Schools

There are three high school level schools that pull from the project area and are located within walking or biking distance. These include Shasta High School, U-Prep, and Pioneer High Continuation School. We have limited data for regular walking and biking to our high schools as our safe routes program focuses on younger grades. But both Shasta and U-Prep High Schools are participating in the National Bike Challenge for the first time.

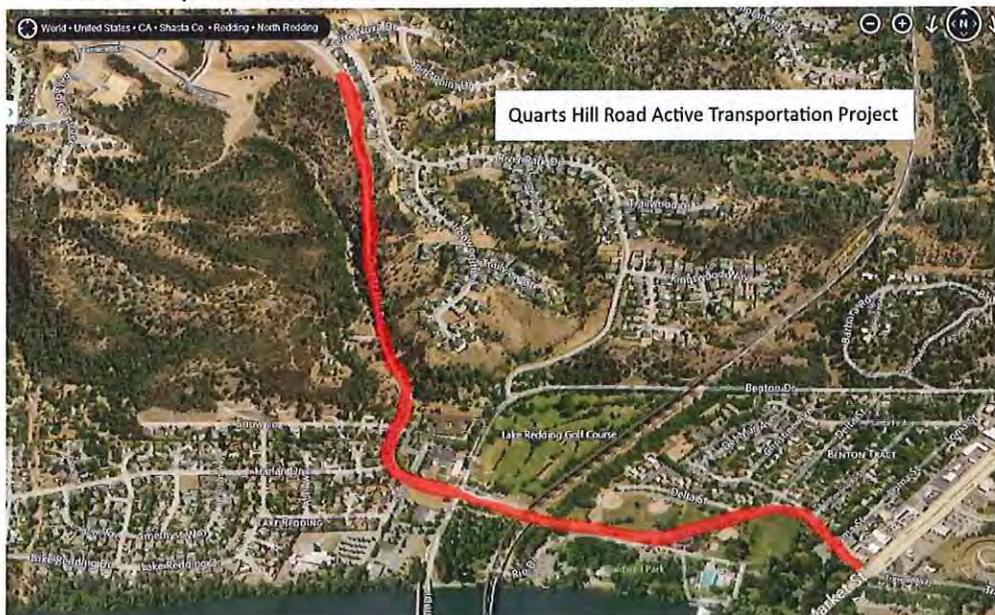
Locally, Shasta High School won the local challenge that ended on May 17<sup>th</sup>. And is currently ranked **2<sup>nd</sup> for amongst all high schools nationally and 9<sup>th</sup> overall!** They have **46 riders that have logged nearly 3,000 miles** as of May 23<sup>rd</sup>



This year's ridership has increased dramatically and many have stated they want to continue riding but are hindered by some difficult conditions, such as the Quartz Hill Road section. This project would resolve some of these barriers.

**Transit** - Quartz Hill Road and State Route 273 have transit routes located at the eastern end of the project. The stops in the project area are on major routes that run more frequent and access most of the City. From the recent studies done by the Redding Area Bus Authority (RABA), access to these stops within this project area continues to be hindered by lack of sidewalks and accessible paths of travel. Any users northwest of this project along Quartz Hill Road have little to no access to transit because they are separated by the unimproved section of roadway along Quartz Hill Road that is currently unimproved for all non-motorized users desiring to access the transit routes.

- 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

This new active transportation corridor will open routes from the northwest region of the community to downtown businesses, employment and retail destinations. The new Class 2 Bike lanes will be constructed on 1.57 miles of road that currently impede non-motorized travel.

The proposed route has major sections without sidewalks and the project seeks to create a continuous path of travel with sidewalk connections from the neighborhoods northwest of the project to the western end of the project where Turtle Bay School is located, Caldwell Park, RABA transit stops and connections to the River Trail and all of the destinations it affords.



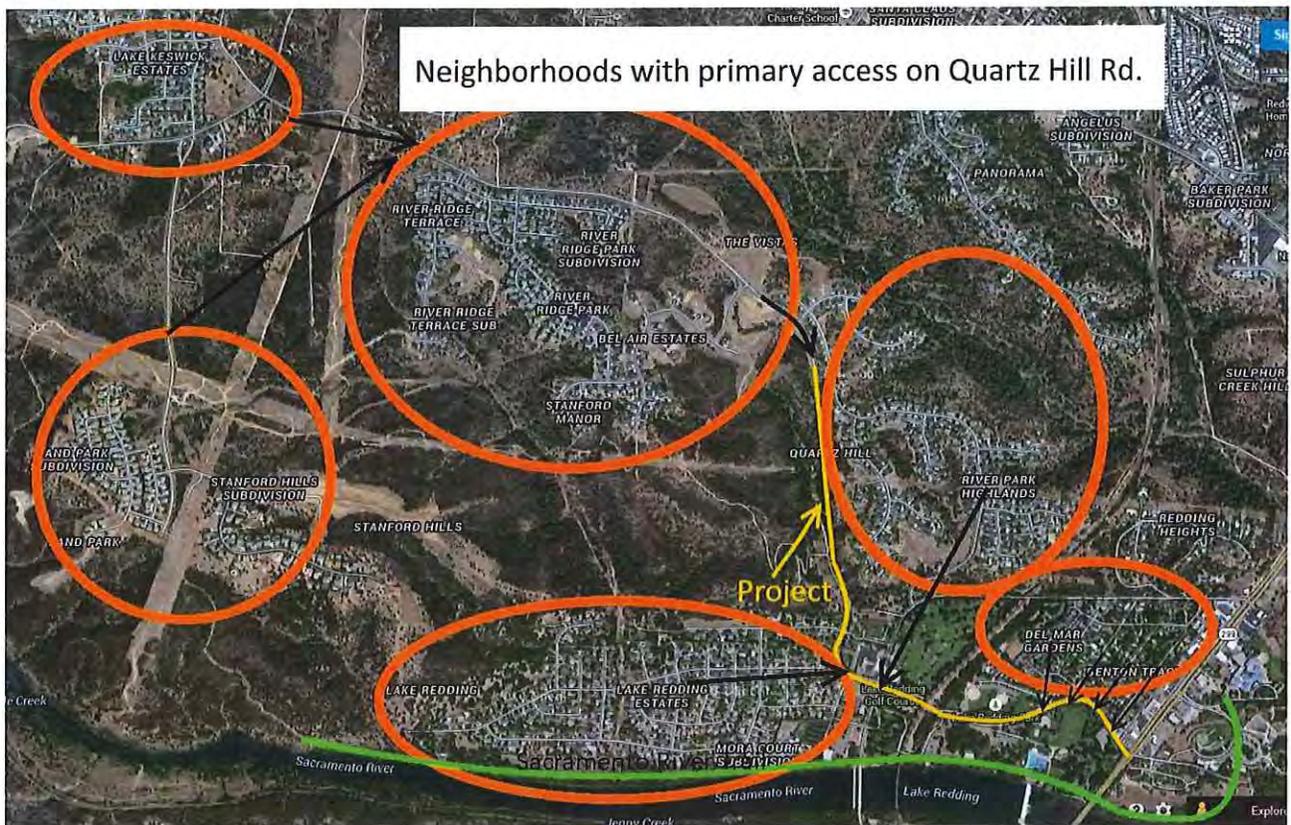
**Upper Quartz Hill Road** is a major barrier to mobility that impedes non-motorized travel. Approximately 3800 linear feet along the upper section of the road referred to as Upper Quartz Hill has little to no shoulders and will require widening to accommodate bike lanes and sidewalks. The upper

section currently features a two lane road with a grade of 4% to 10%, shoulders measured in a few inches, with tight curves and steep slopes on either side of the road. This section of road connects numerous City neighborhoods and county developments beyond the City into the City. It is the only route for most of the residents beyond this location to access the City. Drivers are increasing speed up the hill while the bicyclists must negotiate climbing the hill in the lane and around curves. Speed limit is 40 but drivers tend to be driving much faster. Speed studies Attached #K show speeds upwards of 55 MPH



**Lower Quartz Hill Road** – The lower half of Quartz Hill Road was developed with four lanes and a median with no bike lanes and numerous sidewalk gaps. The project fronts the City’s premier park Caldwell Park, which includes major baseball fields, a skate park, an aquatic center, soccer fields and other

destinations including access to the River Trail. The lower section of the project proposes to connect the neighborhoods to the park and the destinations along the River Trail by creating Class 2 bike lanes in the outer lanes of the road, enhancing crossings with Rapid Flashing Beacons and reducing crossing widths at a few select intersections. The low traffic counts on the lower section of the road can easily accommodate a road diet which will help to reduce speeds and encourage other non-motorized forms of travel.





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

The City of Redding usually funds projects of this nature with Traffic Impact Fees from development. The Quartz Hill Road project has been on the top of the list for years but due to the lack of development activity in recent years the TIF funds have been depleted and funding for the project has not materialized. The City has already spent approximately 240K in design, right of way acquisition and environmental documents to prepare this project for construction. The City also plans to fund approximately \$140k in funds to resurface and restripe into a road diet with bike lanes, the lower half of the road, regardless if this project is funded in whole. The commitment of funds is higher than any other City project not under construction and represents the City's commitment to construct this project.

The grant funding would be used 100% for construction of the project, the funding will allow the City to add the work needed to fill additional sidewalk gaps, construct enhanced crossings with rapid flashing beacons and bulb-outs to reduce crossing width at select crossings.

**See attachments for full documentation of policies and plans**



## 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)

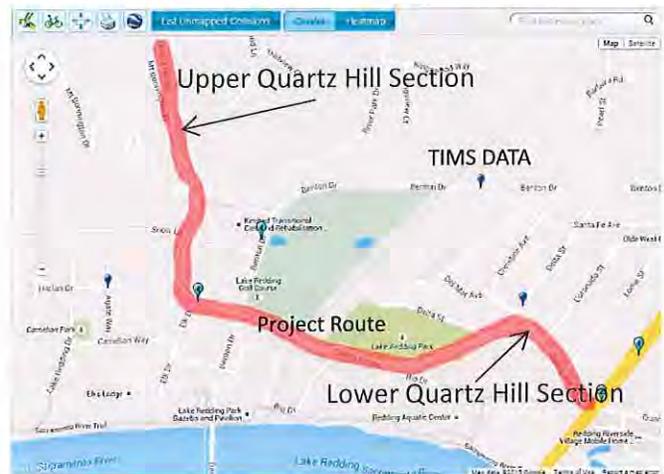
- A. Describe the plan/program influence area or project location's history of collisions resulting in fatalities and injuries to non-motorized users and the source(s) of data used (e.g. collision reports, community observation, surveys, audits). (10 points max.)

Recent data shows there were 15 officially reported accidents in the area. One of these involved a severe accident with a cyclist. Four of the reports were at the intersection of Harlan and Quartz Hill Drive. Most of the accidents reported unsafe speed.

The community has identified two dangerous areas; the first is the Upper

Quartz Hill Section, many reports of cyclists being run off road, clipped by drivers, and other incidents resulting in many complaints to the city of the condition of the road. The attached letters and comments mostly point to this upper section as the potentially most fatal section of the road.

The Lower Quartz Hill Section has had a host of complaints from the neighborhood of the dangerous crossing conditions that exist. The City has received numerous calls and anecdotal evidence that people cross throughout the section which have created non-reported accidents and close calls. There is not one marked crossing from the neighborhood to the north to the park to the south. The neighborhood has mobilized and has generated a petition to push the City into developing safer connections across Quartz Hill Road.





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.

The Upper Quartz Hill Road section will be widened to accommodate bike lanes and a sidewalk. These added improvements will create new facilities for bicycles and pedestrians that currently do not exist, but in addition will eliminate sight distance issues, allow for the bicycles to be separated from the motor vehicles, and standard road design features will help to control speeding.

The Lower Quartz Hill Road section will limit speeds by eliminating a lane, reducing lane width and add a parking lane to help narrow the visual cues. Currently the lower section does not have any marked crosswalks and pedestrians chose to cross where they feel safest. This tends to encourage crossing throughout the corridor, the addition of enhanced crosswalks with rapid flashing beacons will help to direct pedestrians to the safest crossing points and alert motorists.



## 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)

Many community stakeholders have been involved in the development of identified projects and priorities for the City of Redding's Parks, Trails and Open Space Master Plan (2004) and City of Redding's 2010 Bikeway Action Plan.

These plans and the Cities TIF list identify this project as a priority to connect the community northwest of the project into the City core and its services, activities and other destinations.

City Council appointed a special nine-member citizen's advisory group whose members possessed diverse interests and expertise to steer the Parks, Trails and Open Space Plan Master Plan Advisory Committee. In 26 public meetings over almost 2 years, the committee members reviewed inventories of sites and facilities, scrutinized analyses, assisted in survey questionnaire development, advised staff on updated service standards, and helped with the geographic distribution of proposed facilities.

Public Outreach Activities included:

- Cable Access Call-in Show to inform the public of the master planning effort
- Local Sports Organizations were given questionnaires and interviewed to gather information on their recreation facility needs.
- High School Recreation

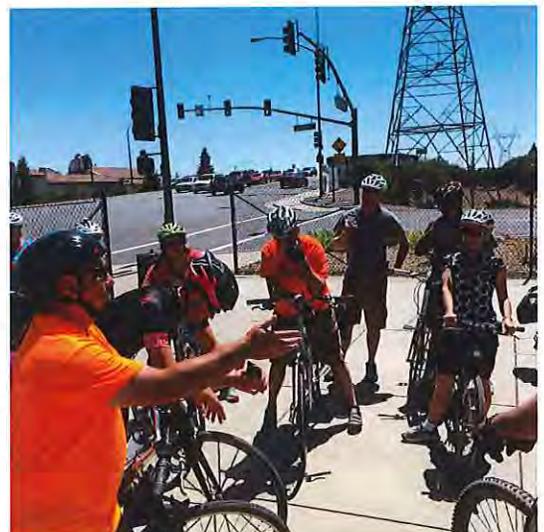




Survey given to 400 students

- Comprehensive Household Survey completed by 1,352 Redding residents to solicit information on participation levels, spending priorities, and ideas for improving services.
- Open Space “Summit” attended by forty representatives from natural resource agencies, adjacent governmental jurisdictions, nonprofit organizations, and interested citizens who discussed the direction for a Redding open space program.
- Community Services Advisory Commission held 5 public meetings and took testimony on the draft Plan.
- Redding Planning Commission held two public hearings to discuss and take testimony on the draft Plan, resulting in their recommendation to Council
- Special Group Meetings were conducted with service clubs, sports organizations and local business organizations.
- Media Coverage in the form of seven articles and editorials in 2003 have informed a broad, local audience.
- Master Plan Web Site launched June 2003 to keep the public up-to-date on scheduled public meetings and hearings, and to allow access online access to Plan documents.

The City’s Bikeway Action Plan 2010-2015 is the first document exclusively dedicated to the bicycle system in Redding since the 1998 Redding Bicycle Plan. The City’s 2000-2020 General Plan adopted on October 3, 2000, established general goals and referenced the need for a more comprehensive bikeway plan. Further development occurred with the City’s Parks,

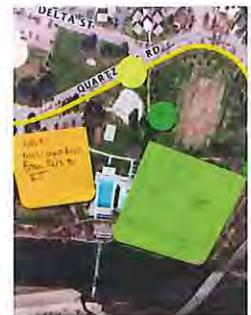




Trails and Open Space Master Plan 2004, adopted on May 4, 2004 as stated above. The Bikeway Action Plan complements the efforts the Parks, Trails, Open Space and provides a detailed inventory and analysis of the existing bikeway system, identified and prioritized specific service improvements, and specified policies and program goals to be adopted. The information contained in this Action Plan has been developed by and in cooperation with local agencies, 19 member Bikeway Action Plan Advisory Committee and community organizations to arrive at a workable solution to many of the issues facing local cyclists.

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

- Recently the Quartz Hill project was brought to the City's attention by parents within the neighborhood concerned by the large number of children crossing across Quartz Hill drive with no improved crossings. The City has proactively conducted speed studies, looked at accident data, reviewed sight distance and determined that the sites warranted enhanced crossings. The City has then designed enhanced crossings and developed the plan to rectify the issues. The City met with the concerned neighborhood to show them the plan to develop enhanced crossings and informed the neighborhood that the City would commit to repave and restripe the lower Quartz Hill Road section and apply to receive funds to construct the enhanced crossings necessary in the area.
- Spring Spin Bike Month celebration event – May 8<sup>th</sup> 2015 – attended by about 200-300 guests near the Sundial Bridge on the Sacramento River Trail on a Friday afternoon. Caltrans D2 and the City of Redding co-hosted a large booth at the event to allow for the public to interface with staff about upcoming projects and to hear from the community about questions or concerns they have in regards to active transportation. The City of Redding brought large maps including a 10 foot map of the River Trail and large posters for ATP projects we are applying for including the Quartz Hill Road





project.

- The City has also actively engaged residents, business owners and current and potential users of the route. Letters of support from these individuals are attached
- The City has also engaged local organizations that are concerned about walking and cycling in the Redding area.
- The City has also attended monthly bike meetings throughout the community and the Quartz Hill Road connection has consistently been addressed as a top need and priority.

**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)**

At a recent event staff asked attendees to pinpoint areas of concern or safety issues on the posters and maps of the project. Many attendees felt Quartz Hill was an uncomfortable and scary place to be walking or bicycling and were enthusiastically in



favor of building a safe and comfortable connection. Others also pointed out that this was a vital connection and there was no real alternative.

The outreach has been effective in re-affirming that this project is a community priority for access to active transportation, especially the 200+ signatures and comments gathered via the Ride Redding community group, and letters from individuals, business owners and community partners.

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

If funds are received, staff will continue to reach out to the community, in particular the neighborhoods closest to the project, on design details of the project and keep them informed of progress. Based on the initial outreach and the enthusiasm for developing the project there will be a lot of interest from the walking and cycling community, neighbors and business owners. The City anticipates hosting open houses to gather



input on the details of the design and other outreach as needed to solicit feedback and input.

## **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)

The public health statistics for Shasta County are believed to be fairly representative of the general populations served by this project. In collaboration with Shasta County Public Health, we have identified the following issues in our community that would benefit from increased physical activity levels, and better infrastructure to support active transportation:

- Residents in Shasta County and Redding have low physical activity levels and high rates of obesity and chronic disease
- Shasta County has an age-adjusted heart disease mortality rate of 229 deaths per 10,000 population, higher than California (189) and the nation (200).
- Less than half of Shasta County adults meet physical activity recommendations like brisk walking for 30 minutes at a time, five times per week (2010 Mercy Medical Center Community Health Assessment)
- 65% of Shasta County residents are overweight or obese (2010 Mercy Medical Center Community Health Assessment), including over one-quarter of the adult population being obese.
- 29% of Shasta County seventh and ninth graders are overweight or obese (2006-07 California Healthy Kids Survey)
- Nearly one in five Shasta County children ages 5-11 are overweight or obese (2005 and 2007 California Healthy Kids Survey)



- 36.6% of low-income school age children and teens (5-19 years) in Shasta County are overweight or obese (2010 Pediatric Nutrition Surveillance System)

Our community has a lower proportion of residents utilizing active transportation choices than other communities. Improved bicycle and pedestrian infrastructure will increase active transportation. For example:

- Only 69% of Shasta County respondents currently walk for transportation, fun, and exercise, compared to 77% statewide (2009 California Health Interview Survey, CHIS)
- Only 36% of Shasta County children report walking or biking to school in the past week, compared to 43% statewide (2009 CHIS)
- More Shasta County residents report driving to work alone (80%) compared to 73% statewide (American Community Survey, 2008-2012). Only 2.4% in Shasta County report walking to work.
- In the City of Redding these numbers are similar for the 2000 Census Journey to Work category: 80% drive alone, 2.4% walk and .5% bicycle

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

With these pedestrian and bicycle infrastructure improvements households located in the project area could easily meet these health guidelines by walking or bicycling to the river trail or downtown a few times a week with the completion of a safe and attractive connection. Not only those that live close but all current and potential trail users can and will benefit from this connection.

Increased levels of physical activity would contribute greatly to improving the health of Redding residents. Walking or bicycling to common destinations such as work, school, or downtown destinations provide a cost-effective way for people to meet the Surgeon General's guidelines for physical activity to improve health and prevent chronic disease. In fact, individuals who walk and bicycle at least 15 minutes each way to work (5 days a week) meet the physical activity guidelines without having to set aside extra



time to “go workout”. Physical activity is known to prevent, and help control heart disease, diabetes, obesity, depression, and other chronic illnesses.

## 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

The state of California’s median income is \$61,094.

80% of that is \$48,875

City of Redding median income: **\$44,236 (2009-2013 ASC 5 Year)**

**Census Tract 107.02**

Average Income: \$56,827

Population: 3904

**Census Tract 107.04**

Average Income: \$32,884

Population: 4093

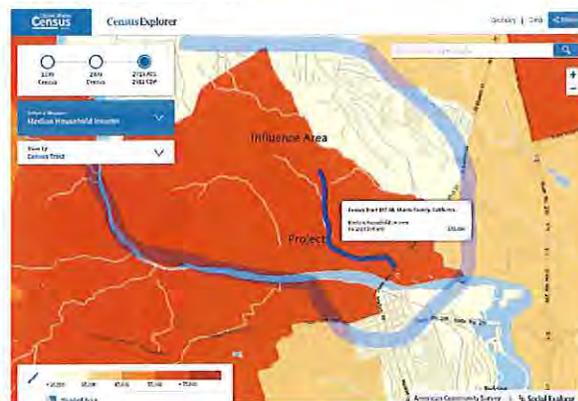
**Census Tract 101**

Average income: \$21,636 (ACS 2013)

Population: 1,454 (ACS 2013 /CPB 2012)

**Census Tract 105**

Median income \$36,418 (ACS 2013)





Population: 4,783

The City of Redding’s median income is under that 80% threshold at \$44,236 which many people who live throughout Redding will be able to utilize this connection. Redding as a community meets the criteria of disadvantaged. It is arguable that the majority of the community (Redding) can and will benefit from this project as it is connected to the most well used and loved active transportation corridor in the county.

**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 107.02**

CalEnviro Score :10.09

Population: 3904

**Census Tract 107.04**

CalEnviro Score : 10.91

Population: 4093

**Census Tract 101**

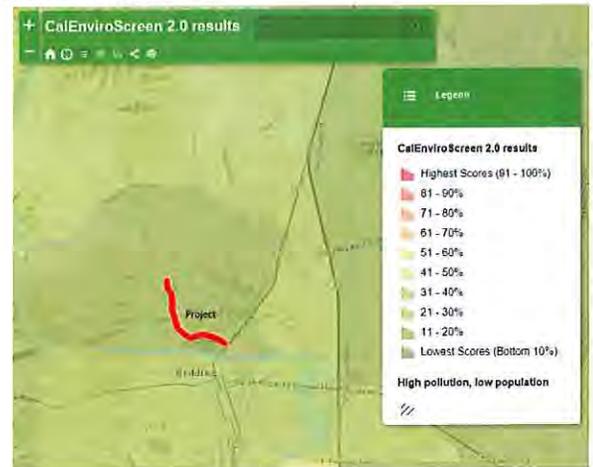
CalEnviro Score : 15.20

Population: 1,454

**Census Tract 105**

CalEnviro Score : 19.66

Population: 4,783



**Option 3:** Percentage of students eligible for the Free or Reduced Price Meals Programs: \_\_\_\_\_ %

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

Turtle Bay Elementary is the primary school the project serves and the school is eligible for 54.7% Free or Reduced Meals

**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

While a portion of the main Census tract served by the project includes a few affluent rural neighborhoods the project will also serve a large community just north of the Lower Quartz Hill Road project, adjacent to the east of State Route 273 that is clearly a disadvantaged community. It is made up of lower income large apartment complexes and multi-family developments that support low income units according to the City Housing Department. This community is highly transit dependent and utilizes other forms of non-motorized travel out of necessity.

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



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

Since the City of Redding median income is \$44,236 (2009-2013 ASC 5 Year) the community qualifies as a disadvantaged community. The project will serve a majority of the community and 100% the funds will be spent within the community. The census tract the project is located within has a higher median income of \$56,827 but the neighborhood directly adjacent to route is much lower and all of the tracts around the project that will benefit from the route qualify as disadvantaged.

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.

The community will have a direct benefit if this project is constructed by increasing connections to transit, schools and other places of employment along the River Trail. The community will also see health benefits associated with increased walking and biking: Constructing sidewalks and bike lanes throughout this corridor will eliminate barriers to transit, schools and other destinations including places of employment. In addition the proposed enhanced crossing on Lower Quartz Hill will create safer access to the park and the River Trail.





## 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.)

As the Quartz Hill Road corridor is the only direct point of access for the neighborhoods to the northwest to access the City of Redding, the only alternative identified was to encourage bike and pedestrians to not use this roadway and sign the area to prohibit bikes and pedestrians. As the public recognizes this corridor as the only direct route, some cyclists and pedestrians still use the corridor. One accident with a cyclist and/or pedestrian is certain to be detrimental due to the high speeds and little to no recovery room. The cost of such an accident would greatly outweigh the benefits of increasing the ability of active modes of transportation to utilize this corridor safely.

- 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.ctc.ca.gov/ATP/ATP-Tools/ATP-Benefit-Cost-Tool/ATP-Benefit-Cost-Tool.aspx](#). 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 tool is relatively easy to use, but the instructions could use more work. At least refer to the input values as C-19 instead of 1,2,3 and give better explanations of each input with a bit more background.



<b>20 Year Invest Summary Analysis</b>	
Total Costs	\$3,177,000.00
Net Present Cost	\$3,054,807.69
Total Benefits	\$6,913,050.11
Net Present Benefit	\$4,578,371.47
Benefit-Cost Ratio	1.50
<b>20 Year Itemized Savings</b>	
Mobility	\$2,329,144.32
Health	\$268,479.16
Recreational	\$1,108,634.31
Gas & Emissions	\$67,588.34
Safety	\$3,139,203.98
Funds Requested	\$3,177,000.00
Net Present Cost of Funds Requested	\$3,054,807.69
Benefit Cost Ratio	1.5



## **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 attached funding plan shows that the City has already invested \$220K into design, engineering, right of way acquisition and environmental documents. This project is 95% complete with design and can be finished in weeks if needed. The City has also committed to fund \$130K for overlay and restriping of the Lower Quartz Hill Road section from Benton to Market Street. If any additional engineering and/or environmental is needed the City has committed to fund those needs. The grant will only pay for construction of the project.



## **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](mailto:atp@ccc.ca.gov)

Phone: (916) 341-3154

Community Conservation Corps representative:

Name: Danielle Lynch

Email: [inquiry@atpcommunitycorps.org](mailto: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 Email Attached
- Applicant intends to utilize the CCC or a certified community conservation corps on the following items listed below (0 points).

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- 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.

In the last five years, The City of Redding has received funds and successfully delivered or is currently delivering on projects from several Caltrans local assistance funding programs including:

ATP Cycle 1 (Placer Street Improvements) – in design

Six Safe Routes to School Projects (both State and Federal Programs)

Two Bicycle Transportation Account Projects

Seven Highway Safety Improvement Program Projects

More than 10 Highway Bridge Program Projects

The City has never failed to deliver any of the aforementioned projects nor been unqualified for applying to any grant funding programs because of failure to deliver on time.

- 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

<b>Application Signature Page</b> Required for all applications	<b>Attachment A</b>
<b>ATP - PROJECT PROGRAMMING REQUEST (ATP-PPR)</b> Required for all applications	<b>Attachment B</b>
<b>Engineer's Checklist</b> Required for Infrastructure Projects	<b>Attachment C</b>
<b>Project Location Map</b> Required for all applications	<b>Attachment D</b>
<b>Project Map/Plans showing existing and proposed conditions</b> Required for Infrastructure Projects (optional for 'Non-Infrastructure' and 'Plan' Projects)	<b>Attachment E</b>
<b>Photos of Existing Conditions</b> Required for all applications	<b>Attachment F</b>
<b>Project Estimate</b> Required for Infrastructure Projects	<b>Attachment G</b>
<b>Non-Infrastructure Work Plan (Form 22-R)</b> Required for all projects with Non-Infrastructure Elements	<b>Attachment H</b>
<b>Narrative Questions backup information</b> Required for all applications Label attachments separately with "H-#" based on the # of the Narrative Question	<b>Attachment I</b>
<b>Letters of Support</b> Required or Recommended for all projects (as designated in the instructions)	<b>Attachment J</b>
<b>Additional Attachments</b> Additional attachments may be included. They should be organized in a way that allows application reviews easy identification and review of the information.	<b>Attachment K</b>





## 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: May 28, 2015  
 Name: Chuck Aukland Phone: 530-225-4170  
 Title: Assistant Public Works Director e-mail: CAukland@ci.redding.ca.us  
 (on behalf of Brian Crane Public Works Director)

**For projects with a Partnering Agency: Chief Executive Officer or other officer authorized by the governing board**  
*(For use only when appropriate)*

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

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

**For Safe Routes to School projects and/or projects presented as benefiting a school: School or School District Official**  
*(For use only when appropriate)* (Shasta High School, University Preparatory & Pioneer HS)

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

Signature: \_\_\_\_\_ Date: \_\_\_\_\_  
 Name: Jim Cloney Phone: 530-241-3261  
 Title: Shasta Union High School District e-mail: JCloney@suhds.net  
 Superintendent

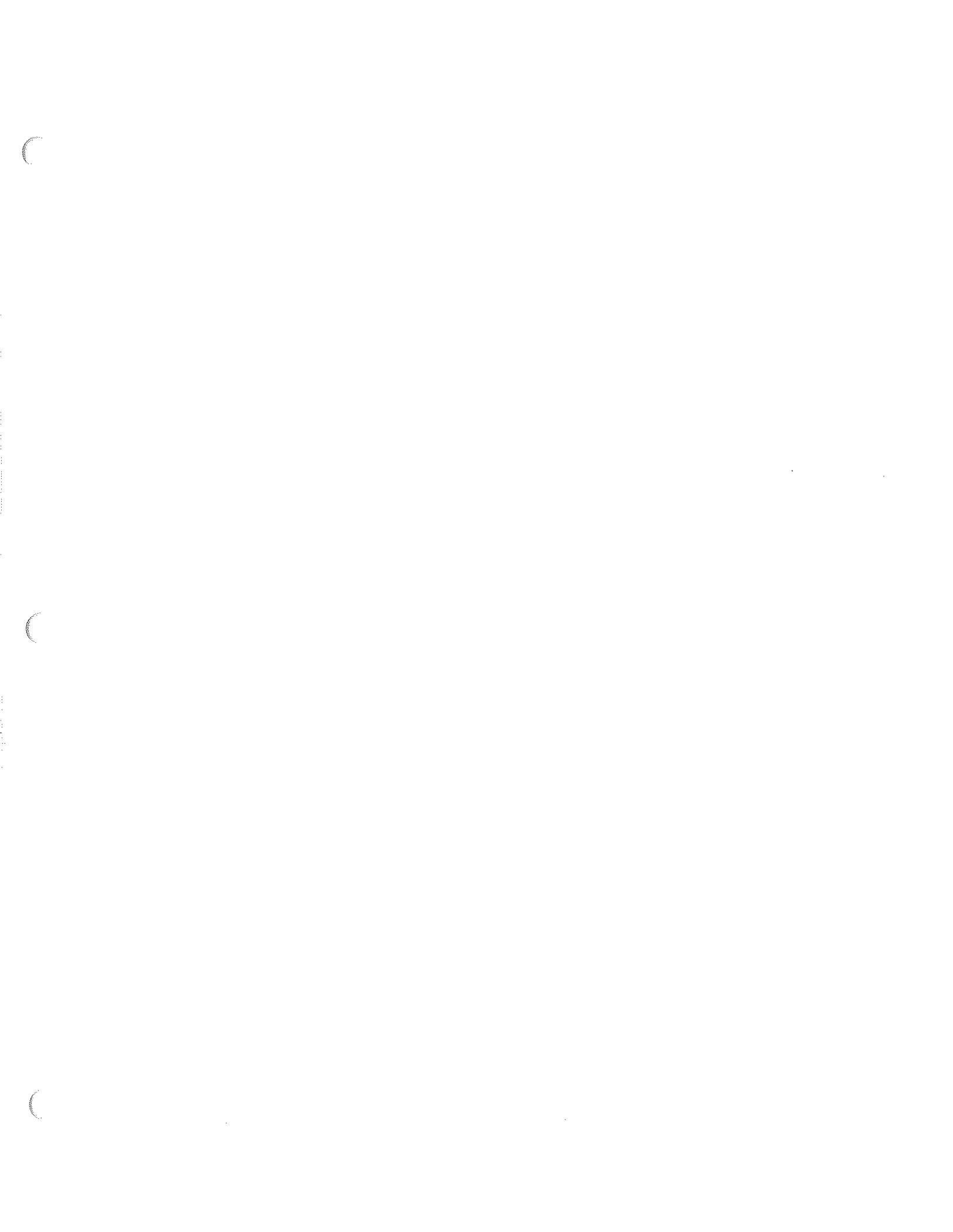
**For projects with encroachments on the State right-of-way: Caltrans District Traffic Operations Office Approval\***  
*(For use only when appropriate)*

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? YES If yes, no signature is required. If no, the following signature is required.

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

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



**ATP PROJECT PROGRAMMING REQUEST**

Date: 5/28/2015

Project Information:					
Project Title:					
District	County	Route	EA	Project ID	PPNO
02	Shasta	Quartz Hill Road			

**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)									
PS&E	201,000	20,000						221,000	
R/W									
CON			130,000	3,177,000				3,307,000	
<b>TOTAL</b>	<b>201,000</b>	<b>20,000</b>	<b>130,000</b>	<b>3,177,000</b>				<b>3,528,000</b>	

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)									
PS&E									Notes:
R/W									
CON				3,177,000				3,177,000	
<b>TOTAL</b>				<b>3,177,000</b>				<b>3,177,000</b>	

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									
<b>TOTAL</b>									

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									
<b>TOTAL</b>									

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									
<b>TOTAL</b>									

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									
<b>TOTAL</b>									

**ATP PROJECT PROGRAMMING REQUEST**

Date: 5/28/2015

Project Information:					
Project Title:					
District	County	Route	EA	Project ID	PPNO
02	Shasta	Quartz Hill Road			

**Funding Information:**  
DO NOT FILL IN ANY SHADED AREAS

Fund No. 2:	Citywide Transportation Impact Fee								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)									City of Redding
PS&E	201,000	20,000						221,000	Notes:
R/W									
CON									
<b>TOTAL</b>	<b>201,000</b>	<b>20,000</b>						<b>221,000</b>	

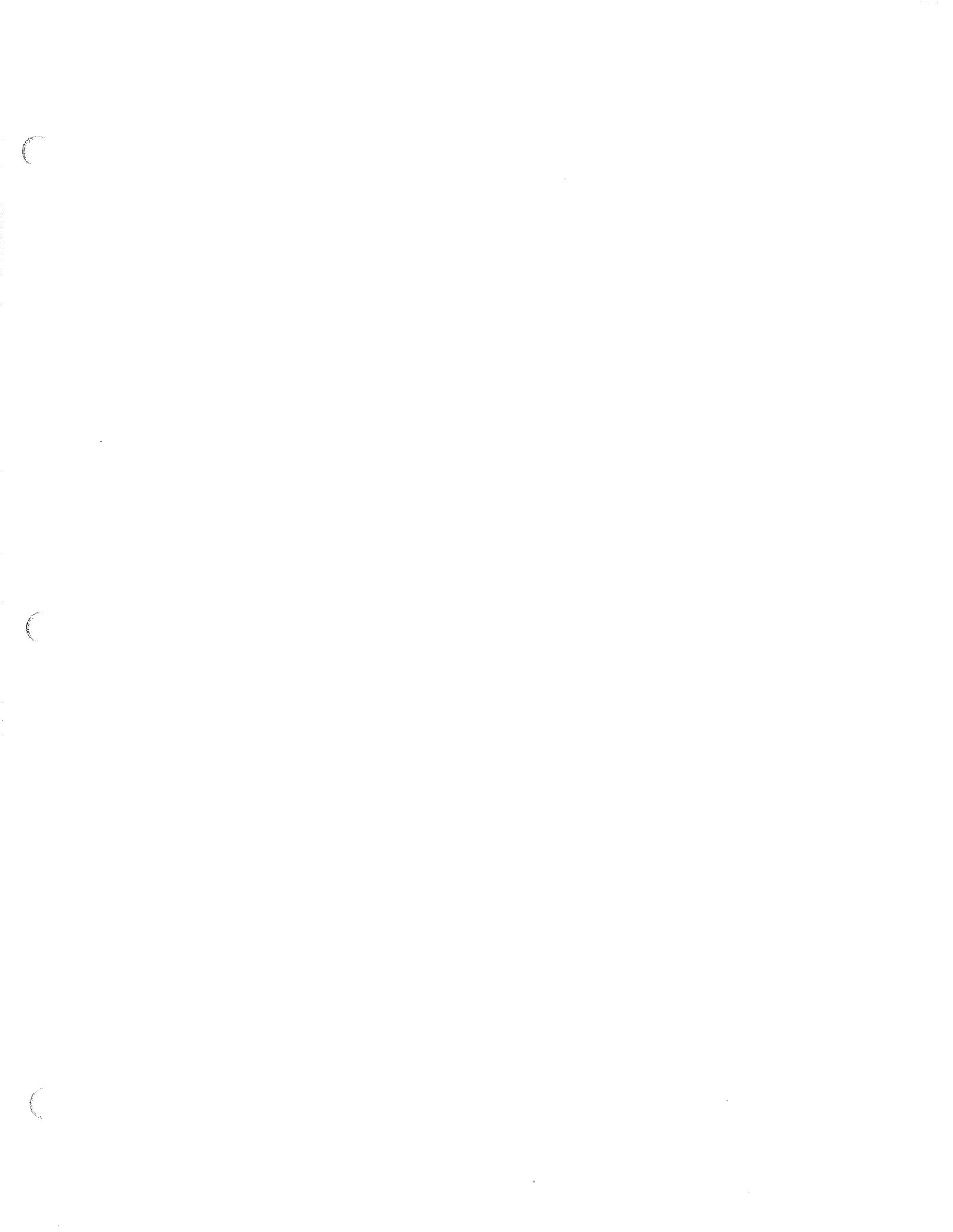
Fund No. 3:	Transportation Development Act								Program Code
Proposed Funding Allocation (\$1,000s)									
Component	Prior	14/15	15/16	16/17	17/18	18/19	19/20+	Total	Funding Agency
E&P (PA&ED)									City of Redding
PS&E									Notes:
R/W									
CON			130,000					130,000	
<b>TOTAL</b>			<b>130,000</b>					<b>130,000</b>	

Fund No. 4:									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									
<b>TOTAL</b>									

Fund No. 5:									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									
<b>TOTAL</b>									

Fund No. 6:									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									
<b>TOTAL</b>									

Fund No. 7:									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									
<b>TOTAL</b>									



## 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: CA

- 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: A

- 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: A

*(Include cross-section for each controlling configuration that varies significantly from the typical)*

- a. Show and dimension: changes in lane widths, ROW lines, side slopes, etc.

**4. Detailed Engineer's Estimate**

Engineer's Initials: A

- 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: CA

- 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: CA

- 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: CA

- 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: CA

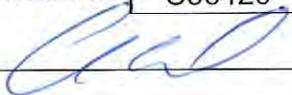
- a. The text in the "Narrative Questions" in the application is consistent with and supports the engineering logic and calculations used in the development of the plans/maps and estimate
- b. When needed to clarify non-standard ATP project elements (i.e. vehicular roadway widening necessary for the 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

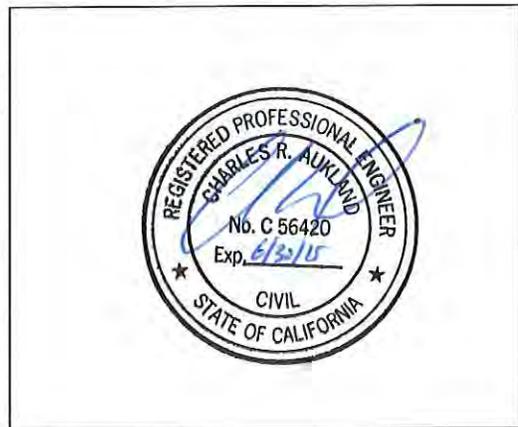
Signature: 

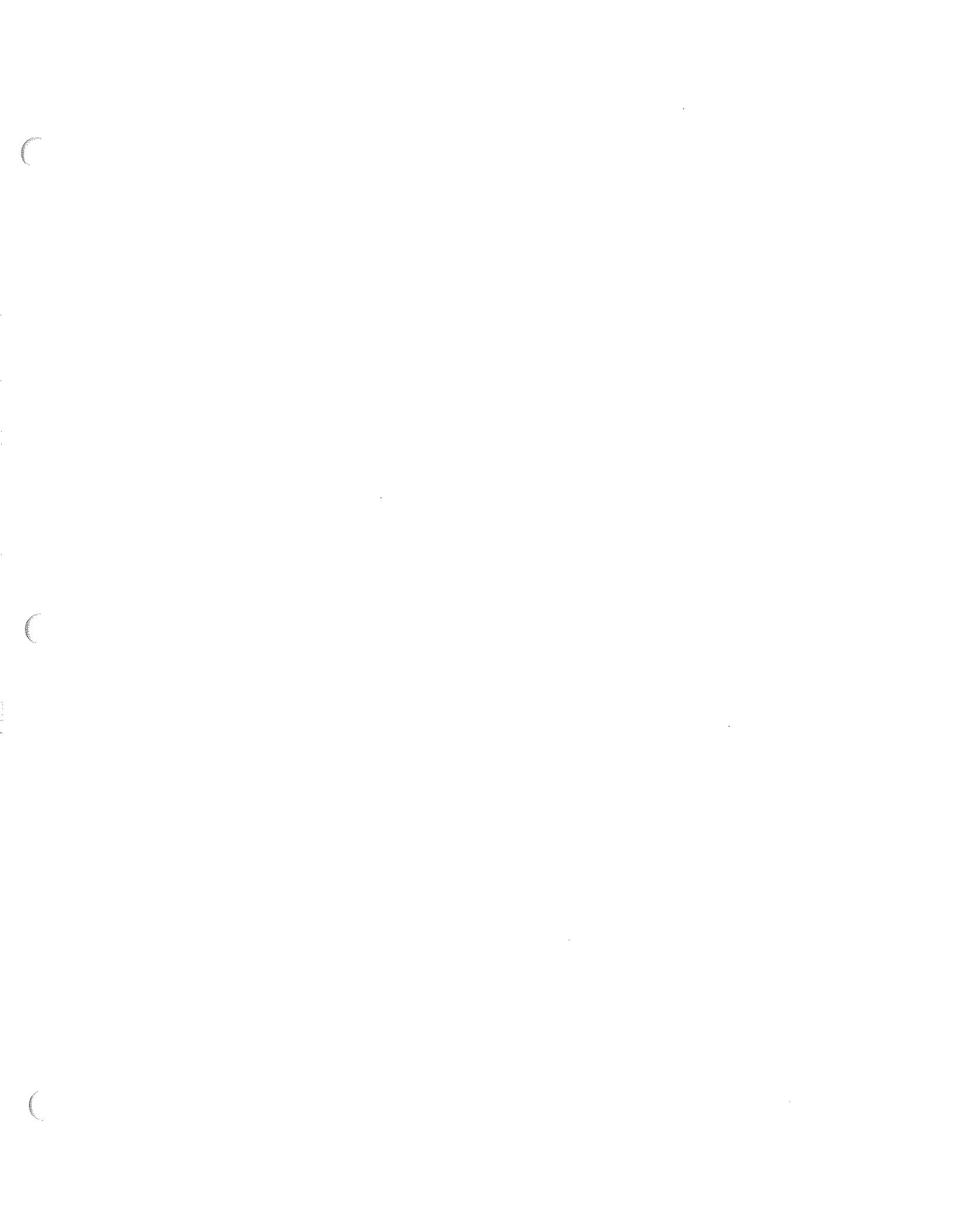
Date:

Email:

Phone:

**Engineer's Stamp:**



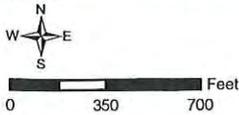




**Legend**  
 — Project Area

# Quartz Hill Improvements

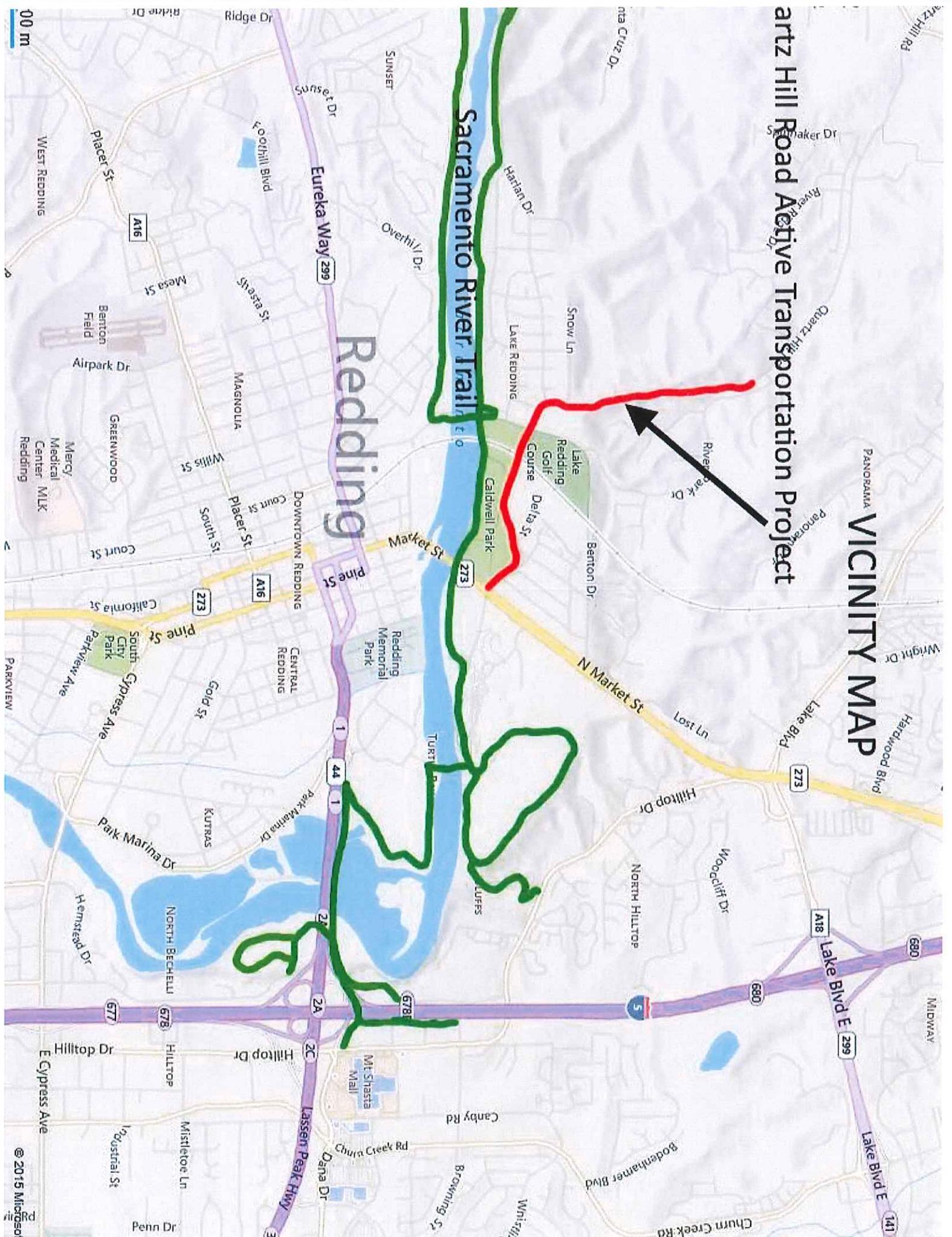
City of Redding



P:\Nrcat\Map\documents\QuartzHill\QuartzHill\_Trail-8-111.mxd

# VICINITY MAP

## artzt Hill Road Active Transportation Project





# CITY OF REDDING

## PROJECT PLANS FOR THE WIDENING AND ASPHALT CONCRETE OVERLAY OF QUARTZ HILL ROAD

JOB NO 2280

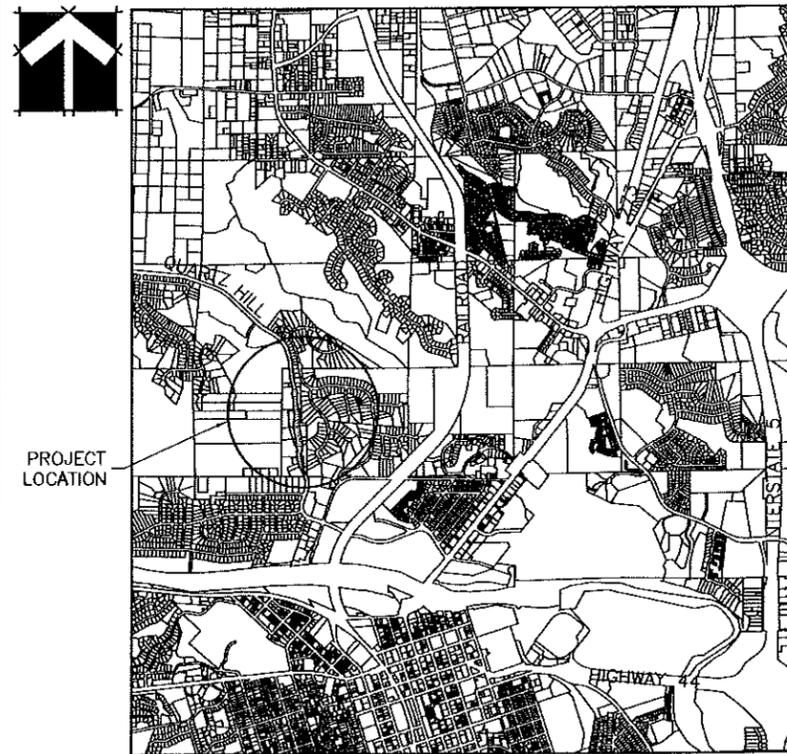
BID SCHEDULE NO 2013

CONTRACTOR SHALL POSSESS A CLASS "A" LICENSE AT THE TIME OF THE BID OPENING.



**PROJECT LOCATION**  
NO SCALE

SHEET INDEX		
SHEET NO.	SHEET	DRAWING NO.
1	COVER SHEET	A-x
2	DATA SHEET	A-x
3	GENERAL NOTES AND QUANTITIES	A-x
4	KEY MAP AND SURVEY DATA	A-x
5	DEMOLITION PLAN	A-x
6	TYPICAL SECTIONS	A-x
7	TYPICAL SECTIONS + DETAILS	A-x
8	LAYOUT 'A' - 133+28.64 (BEGIN) TO 137+25	A-x
9	LAYOUT 'A' - 137+25 TO 141+75	A-x
10	LAYOUT 'A' - 141+75 TO 146+25	A-x
11	LAYOUT 'A' - 146+25 TO 150+75	A-x
12	LAYOUT 'A' - 150+75 TO 155+25	A-x
13	LAYOUT 'A' - 155+25 TO 159+75	A-x
14	LAYOUT 'A' - 159+75 TO 163+30.27 (END)	A-x
15	BDP LINE 'A' AND 'B'	A-x
16	BDP LINE 'C' AND 'D'	A-x
17	GUARDRAIL DETAILS	A-x
18	ROAD SECTIONS 134+00 - 135+50	A-x
19	ROAD SECTIONS 136+00 - 137+50	A-x
20	ROAD SECTIONS 138+00 - 139+50	A-x
21	ROAD SECTIONS 140+00 - 142+50	A-x
22	ROAD SECTIONS 143+00 - 145+50	A-x
23	ROAD SECTIONS 146+00 - 147+50	A-x
24	ROAD SECTIONS 148+00 - 148+85	A-x
25	ROAD SECTIONS 149+00 - 150+50	A-x
26	ROAD SECTIONS 151+00 - 152+50	A-x
27	ROAD SECTIONS 153+00 - 154+00	A-x
28	ROAD SECTIONS 154+50 - 156+00	A-x
29	ROAD SECTIONS 156+50 - 158+50	A-x
30	ROAD SECTIONS 159+00 - 161+00	A-x
31	ROAD SECTIONS 161+50 - 163+00	A-x
32	CONSTRUCTION AREA SIGNS	A-x
33	PAVEMENT DELINEATION	A-x
34	FINAL EROSION CONTROL	A-x



**VICINITY MAP**  
NO SCALE



CALIFORNIA UNDERGROUND SERVICE ALERT  
CALL 1-800-227-2600 AT LEAST  
48 HOURS BEFORE DIGGING

NOT LESS THAN TWO WORKING DAYS NOTICE IS  
REQUIRED PRIOR TO STARTING ANY EXCAVATION  
NEAR UNDERGROUND FACILITIES BELONGING TO  
PG&E, AT&T, OR CITY OF REDDING.  
UNDERGROUND SERVICE ALERT (800) 227-2600  
FOR C.A.T.V. FACILITIES, CALL (530) 229-2221

APPROVED BY:

CITY ENGINEER \_\_\_\_\_ DATE \_\_\_\_\_

PLANS REVIEWED BY:

ELECTRIC SUPPORT _____	AT&T _____
R.E.U. _____	C.A.T.V. _____
SEWER _____	DOHS _____
STREETS _____	PG&E _____
SURVEY _____	RABA _____
WATER _____	SPRINT _____

ORIGINAL SCALE IN INCHES  
0 1 2

DESIGNED BY: TJM  
DRAWN BY: TJM  
REVIEWED BY: GD

DATE: \_\_\_\_\_

CITY OF REDDING  
TRANSPORTATION AND ENGINEERING  
DEPARTMENT

QUARTZ HILL ROAD  
WIDENING AND ASPHALT  
CONCRETE OVERLAY  
JOB NO. 2280  
BID SCH. NO. 2013  
COVER SHEET

**A-X**

ORIGINAL SCALE: N/A  
DATE: 12/26/12  
SHEET 1 OF 34

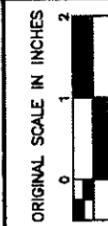
**ABBREVIATIONS**

●	AT	FOC	FACE OF CURB	SQ	SQUARE
AB	AGGREGATE BASE	FRP	FIBER REINFORCED PLASTIC	STA	STATION
AC	ASPHALT CONCRETE	FS	FINISH GRADE	STD	STANDARD
ACP	ASBESTOS CEMENT PIPE	FT	FOOT, FEET	STRUCT	STRUCTURAL OR STRUCTURE
ADA	AMERICANS WITH DISABILITIES ACT	FTG	FOOTING	STSMS	SELF TAPPING SHEET METAL SCREW
AFF	ABOVE FINISH FLOOR	G	GAS	SVC	SERVICE
ASTM	AMERICAN SOCIETY OF TESTING AND MATERIALS	GA	GAUGE	SW	SIDEWALK
BC	BEGINNING OF CURVE	GALV	GALVANIZED	SY	SQUARE YARD
BD	BOARD	GB	GRADE BREAK	T	TELEPHONE
BDRY	BOUNDARY	GM	GAS METER	T&B	TOP AND BOTTOM
BF	BOTTOM OF FOOTING	GP	GUY POLE	TB	TOP OF BANK
BLK	BLOCK	GR	GRADE	TBC	TOP BACK CURB
BM	BENCH MARK	GYP	GYPSPUM	TBR	TO BE REMOVED
BOC	BACK OF CURB	HB	HOSE BIB	TBW	TOP BACK WALK
C	CHANNEL	HC	HANDICAP	TC	TOP OF CURB
C&G	CURB AND GUTTER	HOR	HEADER	TG	TOP OF GRATE
CB	CATCH BASIN	HORIZ	HORIZONTAL	TL	TRIM LINE
CBC	CALIFORNIA BUILDING CODE	HT	HEIGHT	TW	TOP OF WALL
CCO	CONTRACT CHANGE ORDER	ID	INSIDE DIAMETER	TYP	TYPICAL
CCR	CALIFORNIA CODE OF REGULATIONS	INV	INVERT ELEVATION OF PIPE	UG	UNDERGROUND
CCS	CEMENT COATED STEEL	JT	JOINT	USA	UNDERGROUND SERVICE ALERT
CF	CURB FACE, CUBIC FOOT	LT	LEFT	UTIL	UTILITY
CLF	CHAIN LINK FENCE	LB	POUND	VB	VALVE BOX
℄	CENTERLINE	LF	LINEAR FOOT	VCP	VITRIFIED CLAY PIPE
CL	CLEARANCE	LS	LUMP SUM	VERT	VERTICAL
CLR	CLEAR	MAX	MAXIMUM	W	WATER
CMU	CONCRETE MASONRY UNIT	MH	MANHOLE	WL	WETLAND
CO	CLEANOUT (SEWER)	MIN	MINIMUM	WM	WATER METER
COL	COLUMN	MISC	MISCELLANEOUS	WV	WATER VALVE
CONC	CONCRETE	MJ	MECHANICAL JOINT		
CONN	CONNECTION	MON	MONUMENT		
CONT	CONTINUOUS	MS	MOTION SENSOR		
CONTR	CONTRACTOR	(N)	NEW		
CONST	CONSTRUCTION	NG	NATURAL GRADE		
COORD	COORDINATE	NTS	NOT TO SCALE		
CORCS	CITY OF REDDING CONSTRUCTION STANDARDS	OC	ON CENTER		
CP	CONTROL POINT	OD	OUTSIDE DIAMETER		
CSP	CORRUGATED STEEL PIPE	OG	ORIGINAL GROUND		
CY	CUBIC YARD	OH	OVERHEAD		
OF	DOUGLAS FIR	OSA	OUT SIDE AIR		
OIA	DIAMETER	P	TOP OF PAVEMENT		
DIP	DUCTILE IRON PIPE	℄	PLATE (METAL)		
DL	DEAD LOAD	PC	PROPERTY CORNER		
DLT	DAYLIGHT	PCC	PORTLAND CEMENT CONCRETE		
DS	DOWN SPOUT	PE	POLYETHYLENE		
DWG	DRAWING	PL	PROPERTY LINE		
DWY	DRIVEWAY	PP	POWER POLE		
(E)	EXISTING	PSE	PUBLIC SERVICE EASEMENT		
E	ELECTRIC	PSI	POUNDS PER SQUARE INCH		
EA	EACH	PTHF	PRESSURE TREATED HEM FIR		
EC	END OF CURVE	PVC	POLYVINYL CHLORIDE		
EG	EDGE OF GUTTER	R	RADIUS		
EL	ELEVATION	RC	RELATIVE COMPACTION		
ELB	ELBOW	RT	RIGHT		
EN	EDGE NAIL	R/W	RIGHT OF WAY		
EOV	EDGE OVERLAY	REINF	REINFORCED OR REINFORCEMENT		
EP	EDGE OF PAVEMENT	RG	RETAINER GLAND		
ETW	EDGE TRAVEL WAY	S&P	SHELF AND POLE		
EXC	EXCAVATION	SD	STORM DRAIN		
EXT	EXTERIOR	SDMH	STORM DRAIN MANHOLE		
FF	FINISHED FLOOR	SDP	STORM DRAIN PIPE		
FG	FINISHED GRADE	SF	SQUARE FOOT		
FH	FIRE HYDRANT	SIM	SIMILAR		
FL	FLOW LINE	S	SANITARY SEWER, SLOPE		
FLG	FLANGE	SSMH	SANITARY SEWER MANHOLE		
FMJA	FLANGE MECHANICAL JOINT ADAPTER	SSP	SANITARY SEWER PIPE		
FND	FOUNDATION	STL	STEEL		
FOB	FACE OF BLOCK				

**LEGEND**

EXISTING	PROPOSED	
		STORM DRAIN LINE
		SANITARY SEWER LINE
		WATER LINE
		GAS LINE
		ELECTRIC POWER LINE
		STORM DRAIN MANHOLE (CITY STD. PAGE 260.00)
		SANITARY SEWER MANHOLE (CITY STD. PAGE 360.00)
		TELEPHONE MANHOLE
		SEWER/STORM DRAIN CLEANOUT
		AREA DRAIN
		STORM DRAIN CB #3 (CITY STD. PAGE 230.00)
		STORM DRAIN CB #4 (CITY STD. PAGE 240.00)
		OUTLET HEADWALL (CITY STD. PAGE 270.00)
		FLARED END SECTION
		POWER POLE
		GUY POLE
		SIGNAL POLE
		LIGHT STANDARD (PER CITY ELECTRIC PLAN)
		PARKING METER
		COR ELECTRIC SPLICE BOX (PER CITY ELECTRIC PLAN)
		TELEPHONE PAD
		CBU 4'x4'x6" POSTAL PAD
		MAILBOX
		WATER METER
		WATER PRESSURE REDUCER
		FIRE HYDRANT (CITY STD. PAGE 421.00)
		FIRE DEPARTMENT CONNECTION
		WATER VALVE (CITY STD. PAGE 404.00)
		WATER SERVICE CONNECTION - DOMESTIC SERVICE ONLY (CITY STD. PAGE 401.00), RESIDENTIAL FIRE SERVICE (CITY STD. PAGE 422.31) SEE NOTE THIS SHEET FOR LOCATIONS
		WATER LINE BLOWOFF (CITY STD. PAGE 450.00)
		CUT AND CAP
		COMBINATION STOP SIGN AND STREET NAME SIGN (CITY STD. PAGE 152.01R)
		HANDICAP RAMP (TITLE 24 STDS.)
		WELL TYPE MONUMENT (CITY STD. PAGE 184.00)
		SURVEY CONTROL POINT

NOTE:  
THIS IS A STANDARD LEGEND SHEET. THEREFORE SOME SYMBOLS & ABBREVIATIONS MAY BE SHOWN ON THIS SHEET BUT MAY NOT BE UTILIZED ON THE DRAWINGS OF THIS PROJECT.



DESIGNED BY: TJM  
DRAWN BY: TJM  
REVIEWED BY: GD



**CITY OF REDDING**  
**TRANSPORTATION AND ENGINEERING DEPARTMENT**

QUARTZ HILL ROAD  
WIDENING AND ASPHALT  
CONCRETE OVERLAY  
JOB NO. 2280 BID SCH. NO. 2013  
DATA SHEET

A-X  
ORIGINAL SCALE: N/A  
DATE: 12/26/12  
SHEET 2 OF 34

**STANDARD GENERAL NOTES**

1. THE CONSTRUCTION AND INSTALLATION OF IMPROVEMENTS SHALL CONFORM TO THESE PLANS AND THE CITY OF REDDING CONSTRUCTION STANDARDS DATED 2007 AND STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION (GREEN BOOK - CURRENT EDITION).
2. SHOULD THERE BE A CONTRADICTION BETWEEN CITY OF REDDING STANDARDS DATED 2007 AND THE GREEN BOOK, CITY OF REDDING STANDARDS SHALL PREVAIL.
3. ANY CHANGES TO THESE PLANS MUST RECEIVE PRIOR APPROVAL FROM THE CITY OF REDDING DEVELOPMENT SERVICES AND SHARRAH DUNLAP SAWYER, INC.
4. THE LOCATION OF UNDERGROUND UTILITIES SHOWN HEREON, HAS BEEN DETERMINED FROM SURFACE EVIDENCE OF THEIR EXISTENCE OR FROM INFORMATION OBTAINED FROM THE UTILITY COMPANIES. SHARRAH DUNLAP SAWYER, INC. ACCEPTS NO LIABILITY FOR THE EXISTENCE OR NON-EXISTENCE OF UTILITY LINES. CONTRACTORS AND OTHERS USING THESE PLANS SHALL CONFIRM THE LOCATION OF UNDERGROUND LINES OR STRUCTURES PRIOR TO BEGINNING ANY EXCAVATION. CALL USA AT 1-800-227-2600 TWO WORKING DAYS IN ADVANCE OF BEGINNING ANY EXCAVATION.
5. NOTIFY THE CITY OF REDDING ENGINEERING DIVISION AND PUBLIC WORKS FIELD OPERATIONS TWO WORKING DAYS IN ADVANCE OF ANY CONNECTION TO CITY UTILITIES.
6. CONTRACTOR SHALL VERIFY LOCATIONS AND ELEVATIONS OF EXISTING UTILITIES PRIOR TO START OF CONSTRUCTION AND NOTIFY SHARRAH DUNLAP SAWYER, INC. OF ANY DIFFERENCE FROM THAT SHOWN ON THE PLAN.
7. CONTRACTOR SHALL POTHOLE AND VERIFY LOCATION OF ALL PIPE CROSSINGS PRIOR TO CONSTRUCTION.
8. TRENCHING AND BACKFILL FOR ALL UNDERGROUND CONSTRUCTION SHALL CONFORM TO CITY OF REDDING CONSTRUCTION STD. PAGES 610.00, 611.00, AND 620.00.
9. DUST CONTROL SHALL CONFORM TO SECTION 7-8.1 OF STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION (CURRENT EDITION) AND SHALL BE STRICTLY ADHERED TO.
10. IF ANY ARCHAEOLOGICAL SITES ARE UNCOVERED DURING CONSTRUCTION, WORK IS TO BE HALTED FOR EVALUATION OF THE SIGNIFICANCE OF THE SITE BY A QUALIFIED ARCHAEOLOGIST RETAINED BY THE DEVELOPER AND FOR IMPLEMENTATION OF MITIGATION MEASURES. IN ACCORDANCE WITH CITY POLICY, IF A SIGNIFICANT NATIVE AMERICAN CULTURAL OR SACRED FIND IS MADE, DETERMINE THE SIGNIFICANCE OF THE FIND AND DEVELOP APPROPRIATE MITIGATION MEASURES.
11. ALL SITE ACCESSIBLE PARKING SPACES, PATHS OF TRAVEL, AND OTHER FACILITIES INCLUDING, BUT NOT LIMITED TO GRADING, DRAINAGE, SIGNAGE, AND MARKINGS SHALL BE CONSTRUCTED IN COMPLIANCE WITH CALIFORNIA TITLE 24 STANDARDS AND AMERICANS WITH DISABILITIES ACT ACCESSIBILITY GUIDELINES.
12. THE CONTRACTOR AGREES THAT, IN ACCORDANCE WITH GENERALLY ACCEPTED CONSTRUCTION PRACTICES, THE CONTRACTOR WILL BE REQUIRED TO ASSUME SOLE AND COMPLETE RESPONSIBILITY FOR JOB SITE CONDITIONS DURING THE COURSE OF CONSTRUCTION OF THE PROJECT INCLUDING SAFETY OF ALL PERSONS AND PROPERTY. THIS REQUIREMENT SHALL BE MADE TO APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS. THE CONTRACTOR FURTHER AGREES TO DEFEND, INDEMNIFY AND HOLD OWNER AND ENGINEER HARMLESS FROM ANY AND ALL LIABILITY, REAL OR ALLEGED, IN CONNECTION WITH THE PERFORMANCE OF WORK ON THE PROJECT, EXCEPTING LIABILITY ARISING FROM THE SOLE NEGLIGENCE OF THE OWNER OR ENGINEER.
13. EXCAVATIONS SHALL BE ADEQUATELY SHORED, BRACED, AND SHEETED SO THAT THE EARTH WILL NOT SLIDE OR SETTLE AND SO THAT ALL EXISTING IMPROVEMENTS OF ANY KIND WILL BE FULLY PROTECTED FROM DAMAGE. ANY DAMAGE RESULTING FROM A LACK OF ADEQUATE SHORING, BRACING, AND SHEETING SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR AND HE SHALL EFFECT NECESSARY REPAIRS OR RECONSTRUCTION AT HIS OWN EXPENSE. THE CONTRACTOR SHALL PROVIDE ADEQUATE SHEETING, SHORING, BRACING, OR EQUIVALENT METHOD, FOR THE PROTECTION OF LIFE, OR LIMB.
14. CONTRACTOR'S CONSTRUCTION PRACTICES SHALL CONFORM TO THE APPLICABLE CONSTRUCTION SAFETY ORDERS OF THE DIVISION OF INDUSTRIAL SAFETY OF THE STATE OF CALIFORNIA. CONTRACTOR SHALL ALWAYS COMPLY WITH OSHA REQUIREMENTS.
15. THE CONTRACTOR SHALL POST EMERGENCY TELEPHONE NUMBERS FOR POLICE, FIRE, AMBULANCE, AND THOSE AGENCIES RESPONSIBLE FOR MAINTENANCE OF UTILITIES IN THE VICINITY OF THE JOB SITE.
16. STATIONING HEREON IS ALONG STREET CENTERLINE UNLESS OTHERWISE SHOWN OR INDICATED.
17. ALL QUANTITIES AND PAY ITEMS ARE AND WILL BE BASED ON HORIZONTAL MEASUREMENTS.

**STANDARD GENERAL NOTES CONTINUED**

18. ALL EXISTING UTILITIES AND IMPROVEMENTS THAT BECOME DAMAGED DURING CONSTRUCTION SHALL BE COMPLETELY RESTORED TO THE SATISFACTION OF THE LOCAL AGENCY AT THE CONTRACTOR'S SOLE EXPENSE.
19. SHOULD IT APPEAR THAT THE WORK TO BE DONE, OR ANY MATTER RELATIVE THERETO, IS NOT SUFFICIENTLY DETAILED OR EXPLAINED WITHIN THESE PLANS, THE CONTRACTOR SHALL CONTACT SHARRAH DUNLAP SAWYER, INC. AT (530) 221-1792 FOR FURTHER EXPLANATION, AS MAY BE NECESSARY.
20. ALL FIRE HYDRANTS, ELECTROLIERS, AND METER BOXES SHALL CLEAR ALL DRIVEWAYS, EMERGENCY VEHICLE ACCESS EASEMENTS, AND OTHER FACILITIES AS REQUIRED BY THE GOVERNING AGENCY.
21. UNLESS OTHERWISE NOTED, THE WORD "INSTALL" SHALL INCLUDE THE PURCHASE, DELIVERY, PLACEMENT, AND CONNECTION OF ITEMS DESCRIBED ON THESE PLANS AND ALL APPURTENANCES REQUIRED FOR A COMPLETE INSTALLATION.
22. ALL SANITARY SEWER AND WATER MAINS SHALL HAVE 10-FOOT MINIMUM SEPARATION UNLESS SPECIAL PROVISIONS ARE MADE AND APPROVED IN ADVANCE BY CITY OF REDDING DEVELOPMENT SERVICES.
  - A. WATER MAIN SHALL BE 1 FOOT ABOVE SEWER OR STORM DRAIN AND SHALL HAVE NO JOINTS WITHIN 10 FEET ON CENTER HORIZONTALLY OF THE PIPELINE CROSSING.
23. TOP OF GRATE AND FLOW LINE ELEVATIONS FOR CURB-OPENING INLETS ARE TAKEN AT THE CENTER OF THE INLET AND DO NOT REFLECT THE ELEVATION DROP AT THE LOCAL DEPRESSION.
24. SHOULD THE CONTRACTOR REQUEST REVISIONS TO THE IMPROVEMENT PLANS TO FACILITATE HIS OPERATION, THE CONTRACTOR SHALL COMPENSATE SHARRAH DUNLAP SAWYER, INC., FOR SUCH ADDITIONAL REVISIONS.
25. CONTRACTOR SHALL OBTAIN AN ENCROACHMENT PERMIT FROM THE CITY OF REDDING ENGINEERING DIVISION PRIOR TO ANY CONSTRUCTION WORK INVOLVING MAIN-LINE, PUBLIC UTILITY FACILITIES, OR WITHIN THE PUBLIC RIGHT OF WAY. FAILURE TO OBTAIN AN ENCROACHMENT PERMIT MAY DELAY ISSUANCE OF CERTIFICATE OF OCCUPANCY FOR ANY BUILDINGS ON THE SITE.

**GRADING NOTES**

1. GRADING SHALL CONFORM TO THE GRADING PLAN AND CITY OF REDDING GRADING PERMIT ISSUED FOR THIS PROJECT AND THE CITY OF REDDING MUNICIPAL CODE.
2. THIS GRADING PLAN IS TO BE USED IN CONJUNCTION WITH THE GEOTECHNICAL INVESTIGATION REPORT AND RECOMMENDATIONS BY CGI TECHNICAL SERVICES, INC. DATED JULY 2, 2010.
3. THE EXISTING TOPOGRAPHY SHOWN ON THESE PLANS IS BASED ON A FIELD SURVEY BY SHARRAH DUNLAP SAWYER, INC. DATED JANUARY 2009, THE CITY OF REDDING DATED DECEMBER 2004, AND AN AERIAL SURVEY BY GREENHAW MAPPING DATED MAY 1998.
4. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY FIELD CHANGES MADE WITHOUT WRITTEN AUTHORIZATION FROM THE CITY OF REDDING AND SHARRAH DUNLAP SAWYER, INC.
5. BASED ON THE CONTRACTOR'S FIELD RECONNAISSANCE, THESE PLANS, AND THE GEOTECHNICAL INVESTIGATION REPORT RECOMMENDATIONS, CONTRACTOR SHALL ESTIMATE THE EARTHWORK QUANTITIES TO HIS SATISFACTION PRIOR TO THE START OF CONSTRUCTION. CONTRACTOR SHALL ARRANGE FOR DISPOSAL OF EXCESS MATERIAL OR ACQUISITION OF IMPORT MATERIAL AS REQUIRED TO COMPLETE THE GRADING AS SHOWN ON THE GRADING PLAN. NO ADDITIONAL COMPENSATION WILL BE MADE FOR ANY EXPORT OR IMPORT REQUIRED, EXCEPT AS SPECIFICALLY PROVIDED FOR IN THE BID DOCUMENTS.
6. ALL UNSUITABLE MATERIAL, INCLUDING ANY DELETERIOUS VEGETATION, RUBBLE, ASPHALT, CONCRETE, ETC., SHALL BE COMPLETELY REMOVED FROM THE SITE AND DISPOSED OF IN A LOCATION APPROVED BY THE CITY ENGINEER, AT THE CONTRACTOR'S EXPENSE AND SHALL NOT BE UTILIZED FOR ANY BACKFILL OR STRUCTURAL MATERIAL UNLESS OTHERWISE NOTED.
7. ALL CUT AND FILL SLOPES ARE TO BE 2 HORIZONTAL TO 1 VERTICAL, UNLESS SHOWN OTHERWISE ON THIS PLAN.
8. ALL WELLS DISCOVERED WITHIN THE DEVELOPMENT SHALL BE DESTROYED AT THE DEVELOPER'S EXPENSE PER STATE OF CALIFORNIA WATER WELL STANDARDS BULLETIN 74-81, PART III.
9. STOCKPILING OF MATERIAL SHALL BE LIMITED TO HORIZONTAL AND VERTICAL PARAMETERS SHOWN ON THE GRADING PLAN.
10. CONTRACTOR SHALL ROUND THE TOP OF ALL SLOPES. FINISH GRADING SHALL BE APPROVED BY THE CITY PRIOR TO FINAL HYDROSEEDING.
11. FINISHED GRADE SHOWN ON GRADING PLANS DOES NOT INCLUDE ALLOWANCE FOR LANDSCAPE MATERIAL (I.E. BARK, SOO, TOPSOIL, ETC.).

**STREET SURFACE IMPROVEMENTS**

1. ASPHALT CONCRETE AND AGGREGATE BASE MATERIALS AND PLACEMENT SHALL CONFORM TO GEOTECHNICAL RECOMMENDATIONS, THE CITY OF REDDING CONSTRUCTION STANDARDS, AND THE STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION (GREEN BOOK).
2. PAVING: ALL POINTS OF GRADE CHANGE NOT WITHIN A VERTICAL CURVE SHALL BE ROUNDED IN THE FIELD FOR PROPER APPEARANCE.
3. ALL MANHOLE RIMS, VALVE BOXES, PUBLIC MONUMENT BOXES, AND SIMILAR ITEMS SHALL BE ADJUSTED TO FINISH GRADE AFTER FINISHED SURFACE HAS BEEN PLACED.
4. THE CONTRACTOR SHALL SUPPLY A TRAFFIC CONTROL PLAN, AND PUBLIC SAFETY PLAN TO THE CITY OF REDDING DEVELOPMENT SERVICES FOR APPROVAL PRIOR TO THE COMMENCEMENT OF ANY CONSTRUCTION.
5. THE CONTRACTOR SHALL REPLACE ALL EXISTING TRAFFIC CONTROL DEVICES INCLUDING, BUT NOT LIMITED TO TRAFFIC SIGNS, LINES, MARKINGS, LEGENDS, AND MARKERS THAT ARE DAMAGED, OBLITERATED OR DESTROYED DURING THE COURSE OF CONSTRUCTION AS DIRECTED BY THE CITY ENGINEER.

**INTERIM EROSION CONTROL NOTES**

THE EROSION CONTROL PLAN SHOWN IN THESE PLANS REFLECTS THE BEST MANAGEMENT PRACTICES THAT ARE TO BE IMPLEMENTED ONCE CONSTRUCTION IS COMPLETE. THE CONTRACTOR SHALL IMPLEMENT WATER POLLUTION CONTROL IN ACCORDANCE WITH STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION (GREEN BOOK - CURRENT EDITION) SECTION 7-8.6 BETWEEN THE TIME OF INITIAL EARTH DISTURBANCE AND IMPLEMENTATION OF THE FINAL EROSION CONTROL PLAN.

THE OWNER SHALL BE RESPONSIBLE FOR FILING THE NOTICE OF INTENT FOR THE PROJECT WITH THE STATE WATER RESOURCES CONTROL BOARD. THE CONTRACTOR SHALL PREPARE, SUBMIT AND IMPLEMENT A STORM WATER POLLUTION PREVENTION PLAN IN ACCORDANCE WITH THE GENERAL PERMIT FOR DISCHARGES OF STORM WATER ASSOCIATED WITH CONSTRUCTION ACTIVITY CONSTRUCTION GENERAL PERMIT ORDER 2009-0009-DWD. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY INSPECTION, MONITORING, AND REPORTING AS REQUIRED BY THE GENERAL PERMIT FOR DISCHARGES OF STORM WATER ASSOCIATED WITH CONSTRUCTION ACTIVITY CONSTRUCTION GENERAL PERMIT ORDER 2009-0009-DWD FROM THE TIME OF INITIAL EARTH DISTURBANCE UNTIL ACCEPTANCE OF THE PROJECT BY THE OWNER.

**FINAL EROSION CONTROL NOTES**

1. GRADING AND EROSION CONTROL SHALL CONFORM TO THE GRADING AND EROSION CONTROL PLAN AND THE CITY OF REDDING GRADING PERMIT ISSUED FOR THIS PROJECT AND CITY OF REDDING MUNICIPAL CODE.
2. PERMANENT SEEDING
  - 2.1. IMMEDIATELY AFTER GRADING IS COMPLETED, ALL EXPOSED GROUND SHALL BE COVERED WITH STRAW, SEED, TACKIFIER AND FERTILIZER AS FOLLOWS:
    - 2.1.1. SEED MIX:
      - FESCUE "ZORRO" ANNUAL 5#/ACRE
      - FESCUE "CALIFORNIA" OR "IDAHO" 8#/ACRE
      - DELAR "SMALL BURNET" 2#/ACRE
      - ROSE CLOVER (TRIFOLIUM HIRTUM) 7#/ACRE
    - 2.1.2. FERTILIZER - 16-20-0-S 250#/ACRE
    - 2.1.3. STRAW MULCH 4000#/ACRE
    - 2.1.4. TACKIFIER - SENTINEL TACKIFIER OR EQUAL 100#/ACRE

EROSION CONTROL QUANTITIES		
ITEM	QUANTITY	UNIT
FIBER ROLL	6,500	LF
HYDRO SEEDING (STRAW, FERTILIZER & TACKIFIER)	80,100	SF
SWPPP	1	EA
CONSTRUCTION ACTIVITIES WATER POLLUTION CONTROL, MONITORING & REPORTING	1	EA

DEMOLITION QUANTITIES		
ITEM	QUANTITY	UNIT
SAWCUT	440	LF
REMOVE ASPHALT CONCRETE & ASSOCIATED AGGREGATE BASE	1,640	SF
REMOVE GUARDRAIL & ASSOCIATED WOOD POSTS	400	LF
REMOVE STORM DRAIN MANHOLE	1	EA
REMOVE STORM DRAIN PIPE	150	LF
REMOVE TREES	15	EA
REMOVE MISCELLANEOUS SIGNS & ASSOCIATED POSTS	1	EA
REMOVE TRAFFIC STRIPE	100	LF

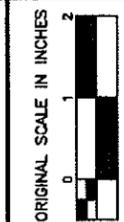
ROADWAY QUANTITIES		
ITEM	QUANTITY	UNIT
EXCAVATION AND EMBANKMENT	29,000	CY
COLD PLANE ASPHALT CONCRETE	6,090	SF
ASPHALT CONCRETE - LEVELING COURSE (3/4")	2,000	TONS
ASPHALT CONCRETE - OVERLAY (1 3/4")	980	TONS
ASPHALT CONCRETE - ROAD WIDENING (4 1/2")	665	TONS
AGGREGATE BASE - ROAD WIDENING (15")	2,220	TONS
AGGREGATE BASE - SIDEWALK, CURB & GUTTER (3")	380	TONS
CURB AND GUTTER (6")	2,700	LF
SIDEWALK (4" PCC)	13,500	SF
SHOULDER BACKING, CLASS II AGGREGATE BASE	3,010	SF
PAVEMENT REINFORCING FABRIC	6,420	SY
GUARDRAIL - 2 EA. TERMINAL SECTIONS, 26 EA. RAILING SECTIONS, INCLUDING WOOD POSTS	400	LF
ADJUST MANHOLE TO GRADE	1	EA
CENTERLINE MONUMENTS	4	EA

STORM DRAIN QUANTITIES		
ITEM	QUANTITY	UNIT
15" DIA HDPE	1,205	LF
18" DIA HDPE	285	LF
24" DIA HDPE	76	LF
24" DIA RCP	7	LF
CATCH BASIN #3	3	EA
MODIFIED CATCH BASIN #3	8	EA
15" DIA CONCRETE FLARED END SECTION	1	EA
24" DIA CONCRETE FLARED END SECTION	1	EA
EARTH DITCH W/PYRAMAT FABRIC	1,720	LF
PYRAMAT FABRIC	575	SY
STANDARD HEADWALL W/RAILING	2	EA
ROCK SLOPE PROTECTION (RSP) OUTFALL	3	EA

ELECTRICAL QUANTITIES		
ITEM	QUANTITY	UNIT
35' LIGHT STANDARD W/CONCRETE BASE	16	EA
LIGHT STANDARD JOINT TRENCH	2,320	LF
2" CONDUIT	2,320	LF

RETAINING WALL QUANTITIES		
ITEM	QUANTITY	UNIT
TYPE II RETAINING WALL W/RETURN WALL, 3'H MAX.=6.33', 6.50' & 15.33'	6,050	SF
TYPE II RETAINING WALL FOOTING	565	LF
RETAINING WALL SUBDRAIN & PERVIOUS BACKFILL	565	LF
RETAINING WALL GUTTER	565	LF
RETAINING WALL GUTTER DRAIN UNDER SIDEWALK	6	EA
RETAINING WALL CABLE RAILING	565	LF

PAVEMENT MARKER AND STRIPING QUANTITIES		
ITEM	QUANTITY	UNIT
TRAFFIC STRIPE - 4" SOLID DOUBLE YELLOW (THERMOPLASTIC)	3,260	LF
TRAFFIC STRIPE - 6" SOLID WHITE (THERMOPLASTIC)	6,000	LF
TRAFFIC STRIPE - 6" SKIP WHITE (THERMOPLASTIC)	220	LF
PAVEMENT MARKING - 8" CROSSHATCH (THERMOPLASTIC)	75	LF
PAVEMENT MARKING - BIKE SYMBOL & ARROW SYMBOL (THERMOPLASTIC)	54	SF
PAVEMENT MARKER - TYPE "D"	272	EA
BIKE ROUTE SIGN (D11-1)	2	EA
RELOCATE MISCELLANEOUS SIGN	5	EA



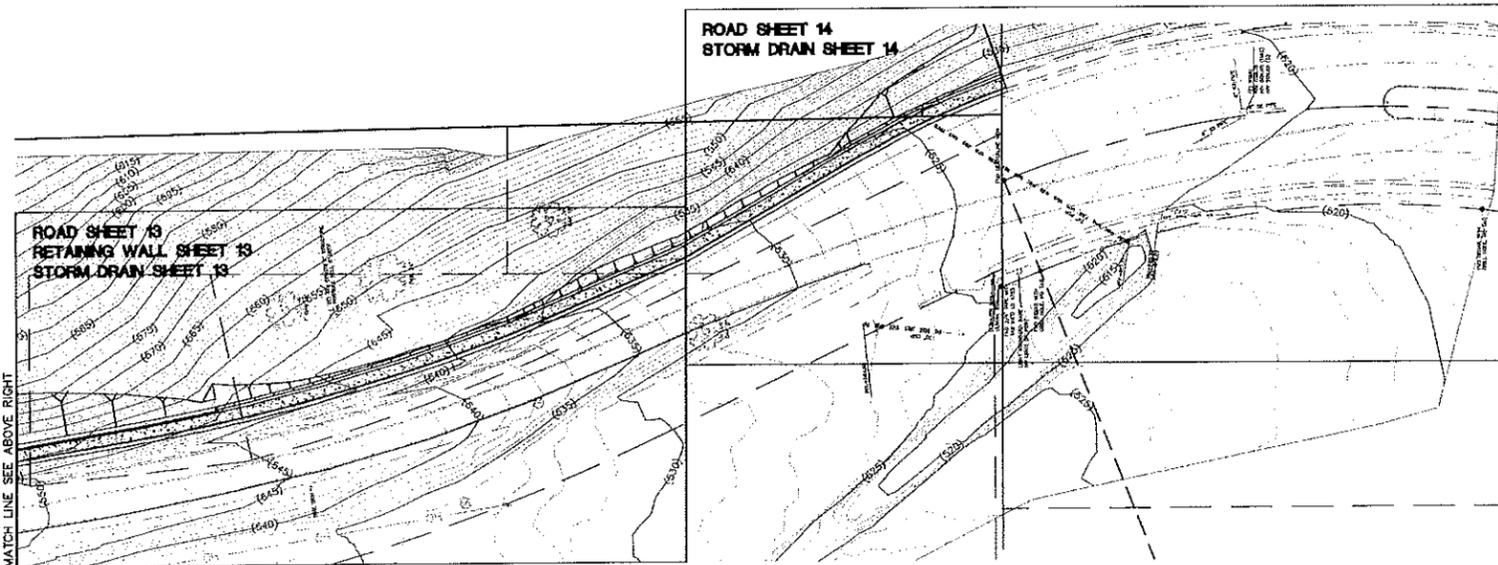
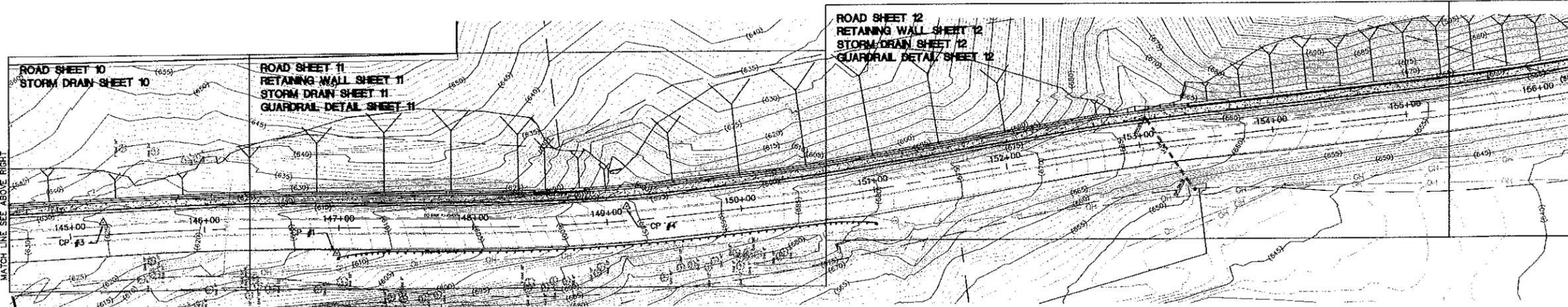
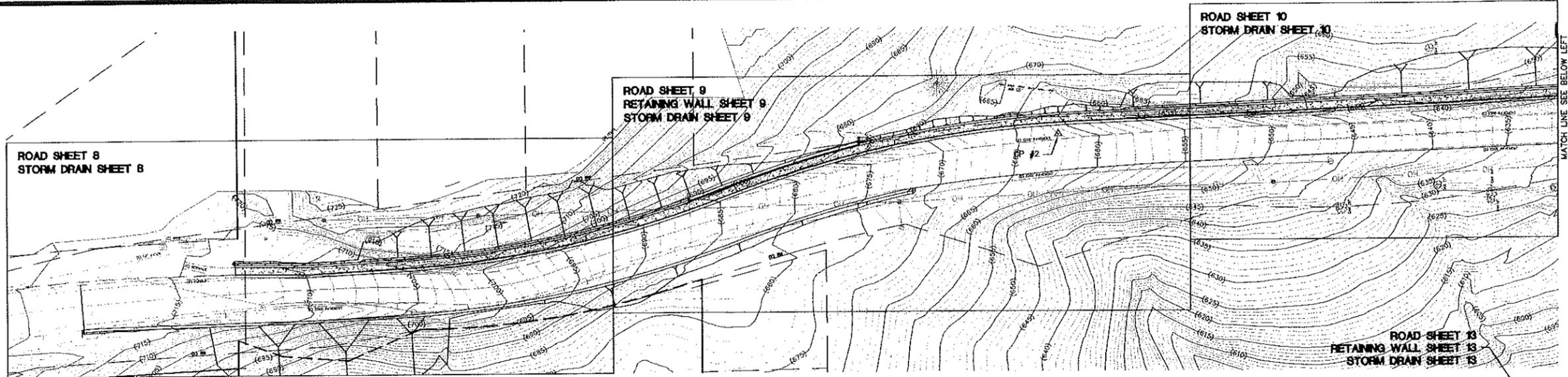
DESIGNED BY TUM  
DRAWN BY TUM  
REVIEWED BY GD



**CITY OF REDDING**  
**TRANSPORTATION AND ENGINEERING DEPARTMENT**

**QUARTZ HILL ROAD WIDENING AND ASPHALT CONCRETE OVERLAY**  
JOB NO. 2286  
BID. SCH. NO. 2013

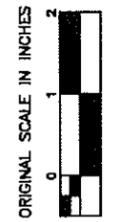
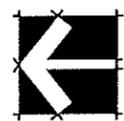
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ORIGINAL SCALE: N/A  
DATE: 12/28/12  
SHEET 3 OF 34



PROJECT CONTROL POINTS						
CP #	NORTHING	EASTING	ELEVATION	DESCRIPTION	STATION	L/R
1	75339.05	81425.30	612.67	60 D SPIKE	146+98.46	18.73'R
2	75959.16	81430.04	662.12	60 D SPIKE	140+78.36	9.44'L
3	75512.95	81449.51	624.66	60 D SPIKE	145+24.87	9.18'L
4	75123.13	81458.27	595.48	60 D SPIKE	149+15.21	10.52'L

**MONUMENT NOTE:**

CONTRACTOR SHALL NOTIFY SHARRAH DUNLAP SAWYER, INC. A MINIMUM OF TWO WORKING DAYS PRIOR TO COMMENCEMENT OF CONSTRUCTION IN AREAS WHERE EXISTING PROPERTY CORNER MONUMENTS ARE SUBJECT TO DISTURBANCE. MONUMENTS SHALL BE TEMPORARILY REMOVED BY SHARRAH DUNLAP SAWYER SURVEYORS, AND THE SAME MONUMENTS REPLACED AFTER CONSTRUCTION.



DESIGNED BY: TJM  
 DRAWN BY: TJM  
 REVIEWED BY: GD

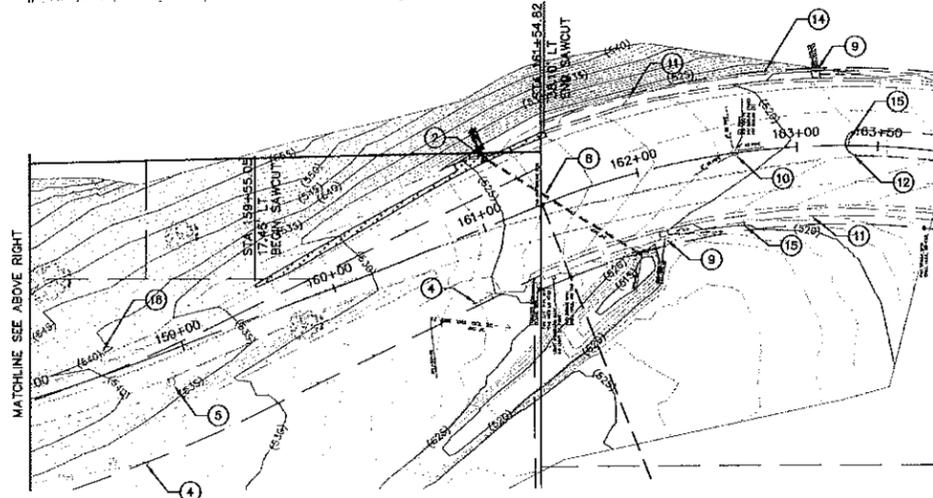
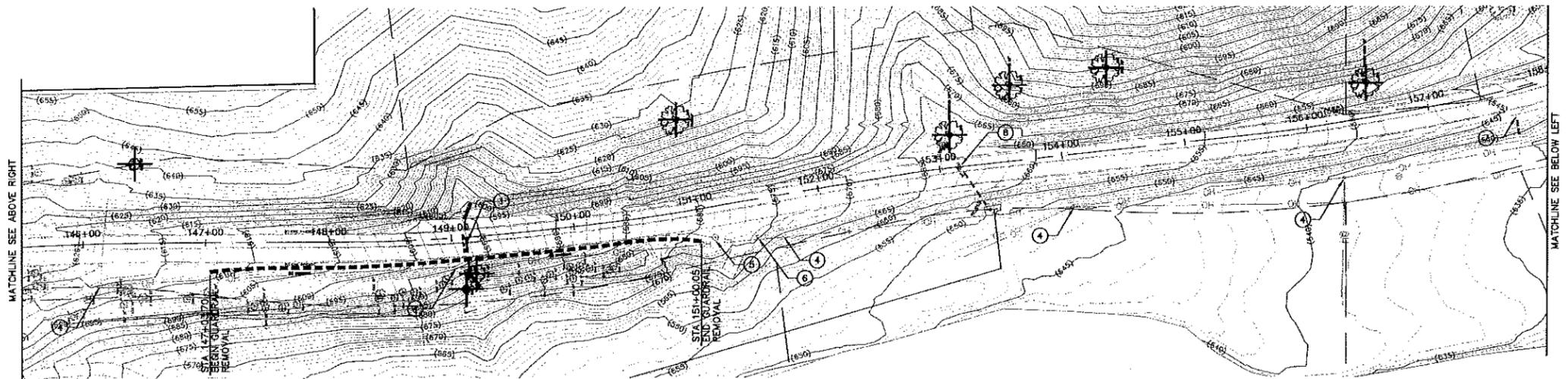
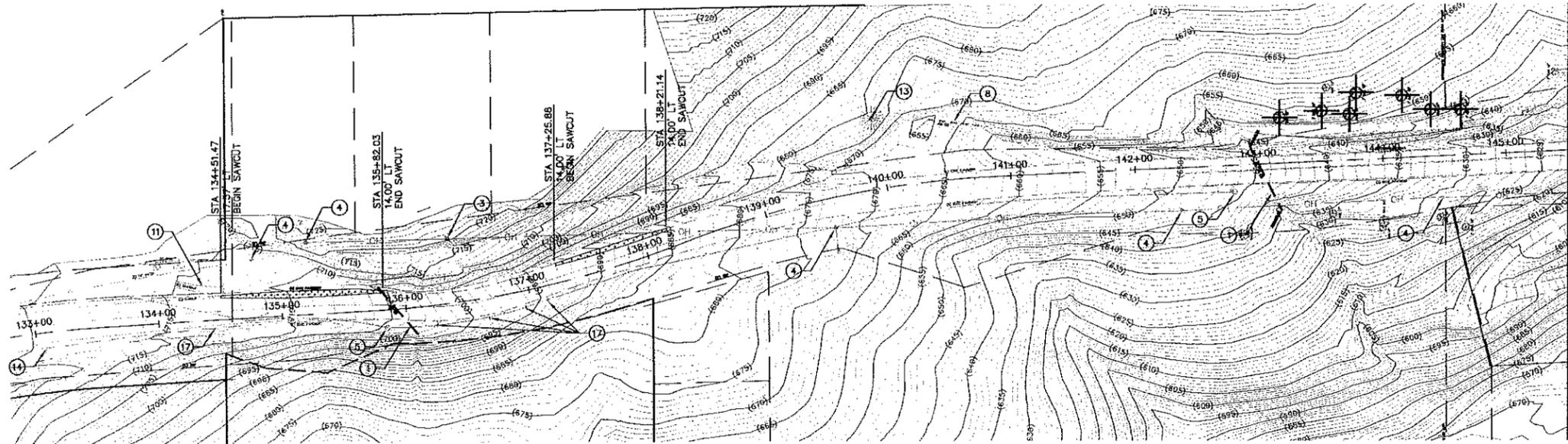
SHARRAH DUNLAP SAWYER, INC.  
 12/26/12  
 DATE



**CITY OF REDDING**  
**TRANSPORTATION AND ENGINEERING**  
**DEPARTMENT**

**QUARTZ HILL ROAD**  
**WIDENING AND ASPHALT**  
**CONCRETE OVERLAY**  
 JOB NO. 2280 BID. SCH. NO. 2013  
**KEY MAP AND SURVEY DATA**

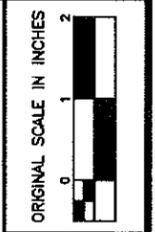
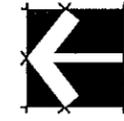
A-X  
 ORIGINAL SCALE:  
 1"=40'  
 DATE: 12/26/12  
 SHEET 4 OF 34



DEMOLITION NOTES	
LABEL	DESCRIPTION
1	EXISTING STORM DRAIN PIPE TO BE REMOVED
2	EXISTING STORM DRAIN STRUCTURE TO BE REMOVED
3	EXISTING UTILITY POLE TO BE REMOVED & REPLACED BY OTHERS
4	EXISTING UTILITY POLE TO REMAIN
5	EXISTING SANITARY SEWER MANHOLE TO REMAIN
6	EXISTING MAIL BOX TO REMAIN
7	EXISTING SIGN TO REMAIN
8	EXISTING STORM DRAIN PIPE TO REMAIN
9	EXISTING CATCH BASIN TO REMAIN
10	EXISTING SANITARY SEWER MANHOLE TO REMAIN
11	EXISTING CONCRETE CURB, GUTTER & SIDEWALK TO REMAIN
12	EXISTING CONCRETE CURB TO REMAIN
13	EXISTING TREE TO REMAIN
14	EXISTING DEER CROSSING SIGN TO REMAIN
15	EXISTING TRAFFIC SIGN TO REMAIN
16	EXISTING BIKE ROUTE SIGN AND POST TO BE REMOVED
17	EXISTING TRAFFIC SIGN TO BE RELOCATED, SEE PAVEMENT DELINEATION PLAN, SHEET 33

- LEGEND**
- EXISTING ASPHALT CONCRETE PAVEMENT & ASSOCIATED AGGREGATE BASE TO BE REMOVED
  - EXISTING GUARDRAIL, POSTS & ASSOCIATED FOOTINGS TO BE REMOVED
  - EXISTING TREE TO BE REMOVED & HOLE RECOMPACTED PER GEOTECHNICAL RECOMMENDATIONS

- NOTES:**
1. DEMOLITION & REMOVAL OF EXISTING SITE FEATURES, INCLUDING TREES AND UNDERGROUND UTILITIES WILL RESULT IN VARIOUS EXCAVATIONS TO VARIOUS DEPTHS ACROSS THE SITE. ALL EXCAVATIONS WILL REQUIRE BACKFILLING WITH ENGINEERED SOIL PER THE GEOTECHNICAL REPORT BY CGI TECHNICAL SERVICES, INC., DATED JULY 2, 2010.
  2. DEMOLITION AND DEMOLITION DEBRIS DISPOSAL SHALL BE IN ACCORDANCE WITH STATE OF CALIFORNIA GUIDELINES.



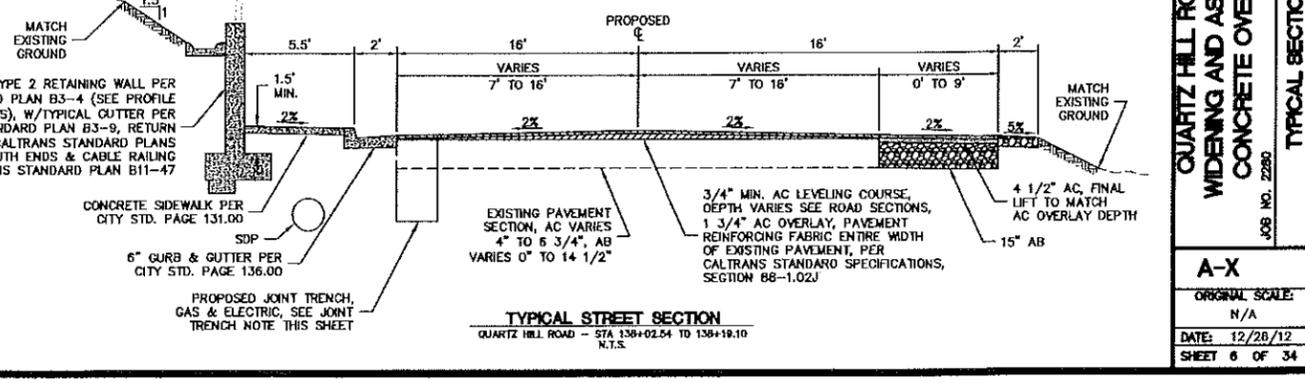
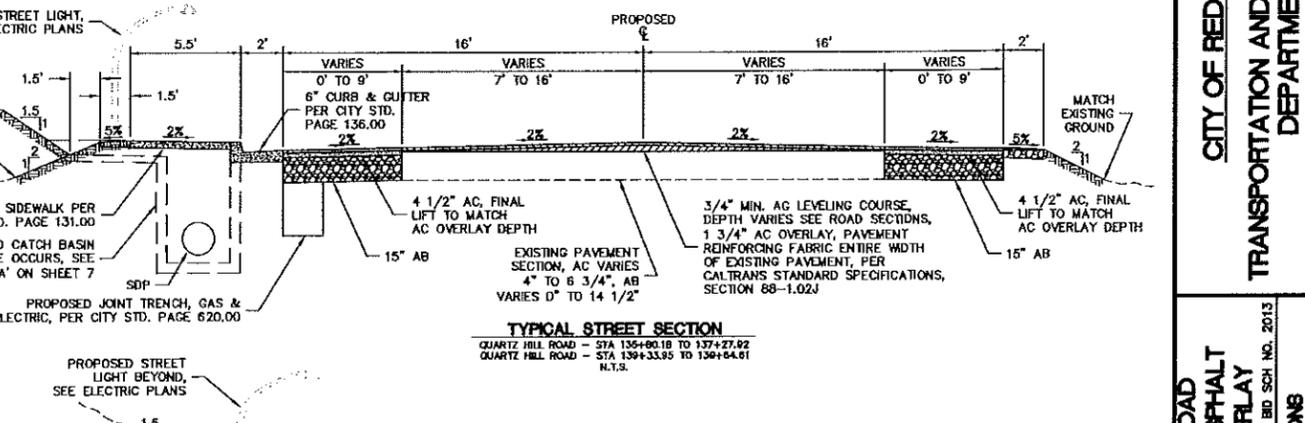
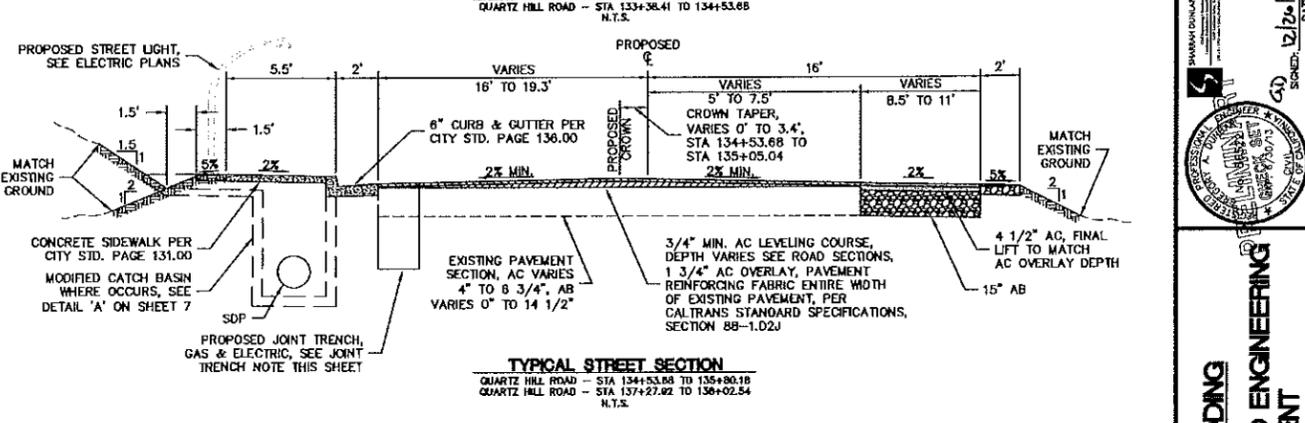
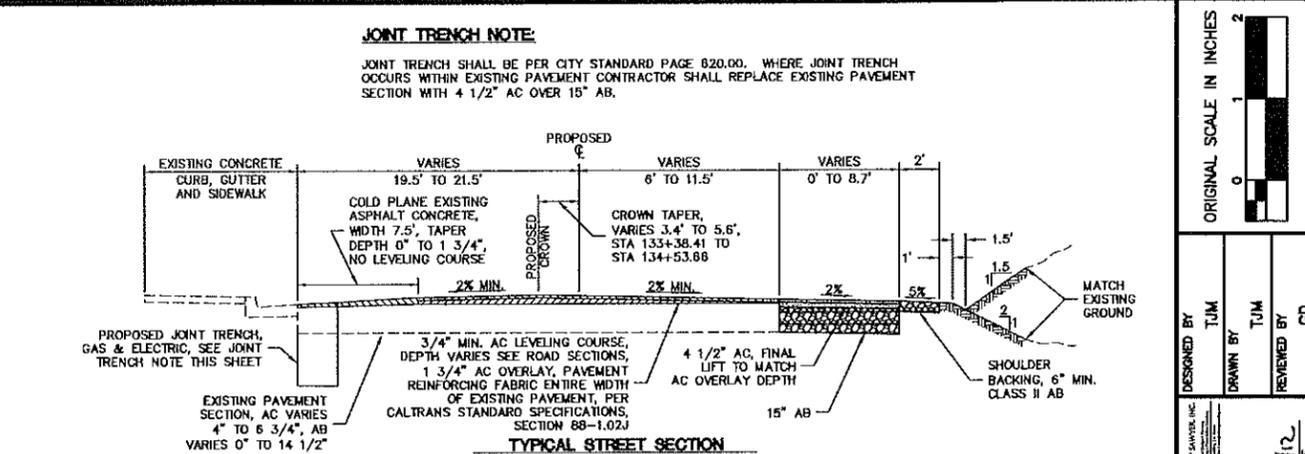
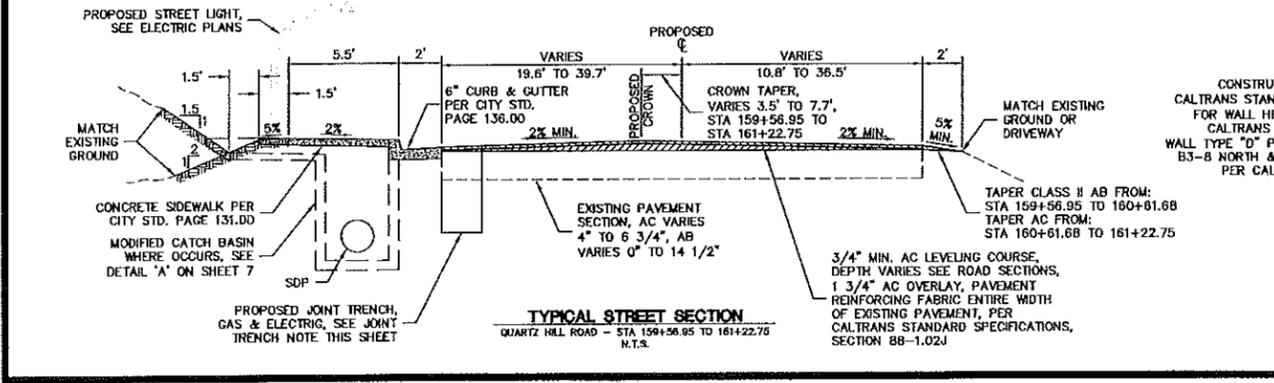
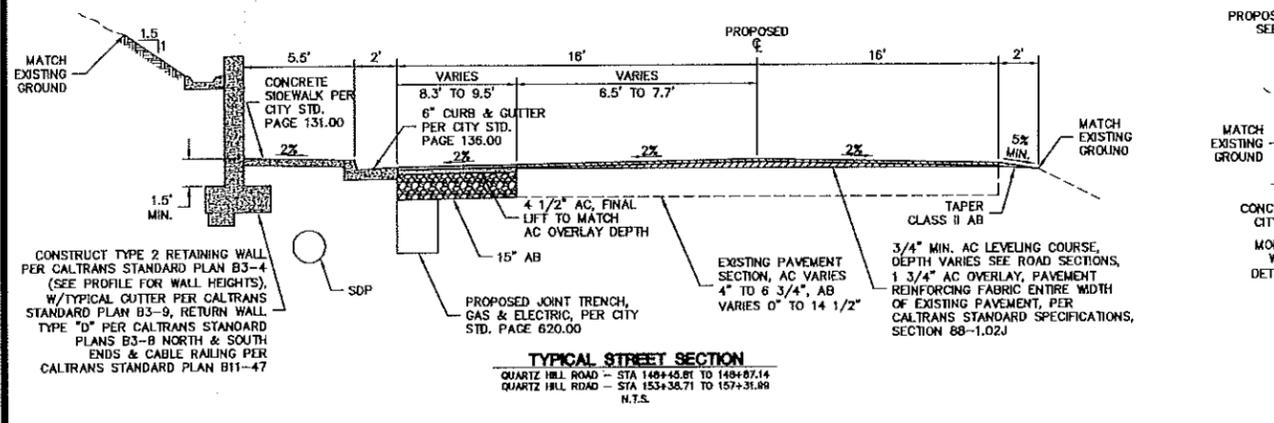
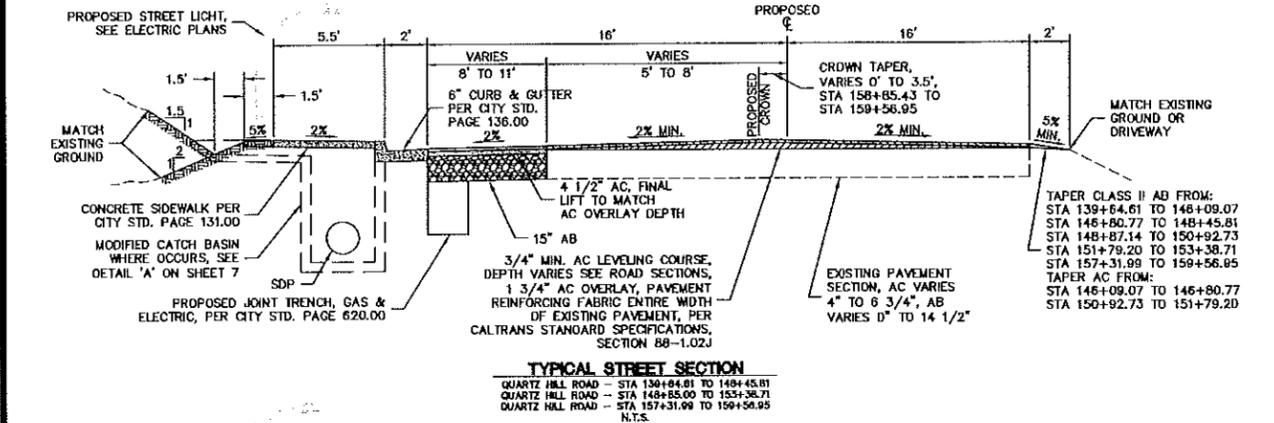
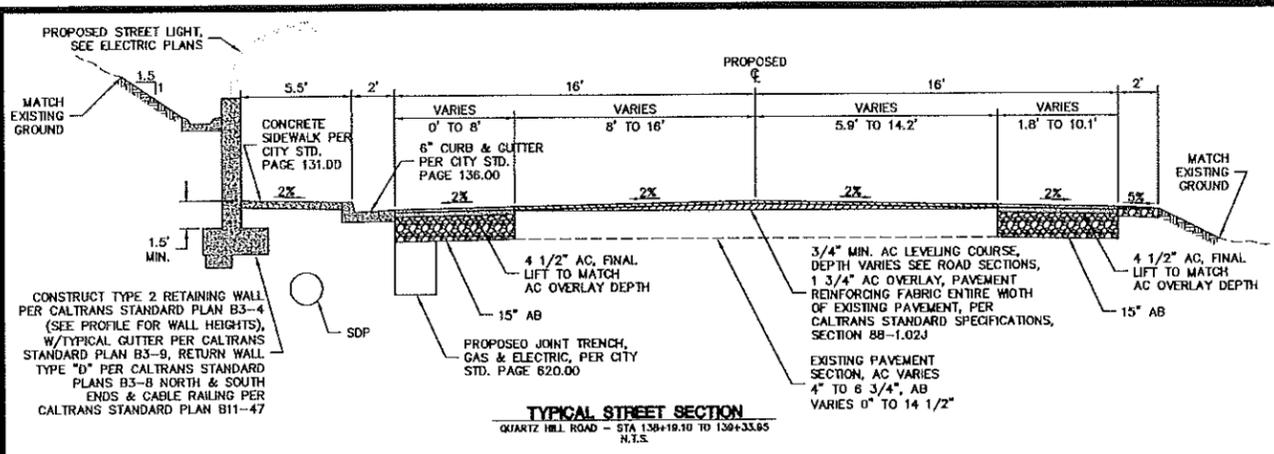
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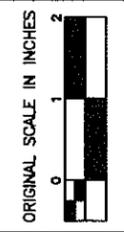
**CITY OF REDDING**  
**TRANSPORTATION AND ENGINEERING**  
**DEPARTMENT**

**QUARTZ HILL ROAD**  
**WIDENING AND ASPHALT**  
**CONCRETE OVERLAY**  
 JOB NO. 2280  
 END SHEET NO. 2013  
**DEMOLITION PLAN**

**A-X**  
 ORIGINAL SCALE:  
 1"=50'  
 DATE: 12/26/12  
 SHEET 5 OF 34



**JOINT TRENCH NOTE:**  
JOINT TRENCH SHALL BE PER CITY STANDARD PAGE 620.00. WHERE JOINT TRENCH OCCURS WITHIN EXISTING PAVEMENT CONTRACTOR SHALL REPLACE EXISTING PAVEMENT SECTION WITH 4 1/2" AC OVER 15" AB.



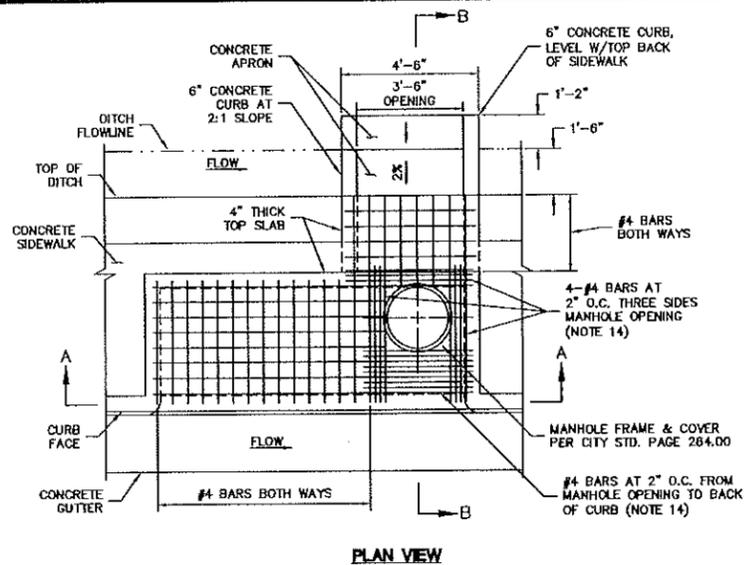
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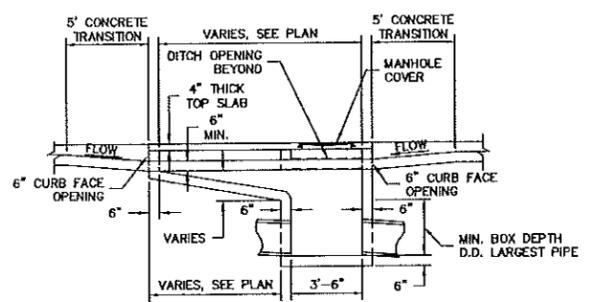
**CITY OF REDDING**  
**TRANSPORTATION AND ENGINEERING**  
**DEPARTMENT**

**QUARTZ HILL ROAD**  
**WIDENING AND ASPHALT**  
**CONCRETE OVERLAY**  
JOB NO. 2280  
BID. SCH. NO. 2013

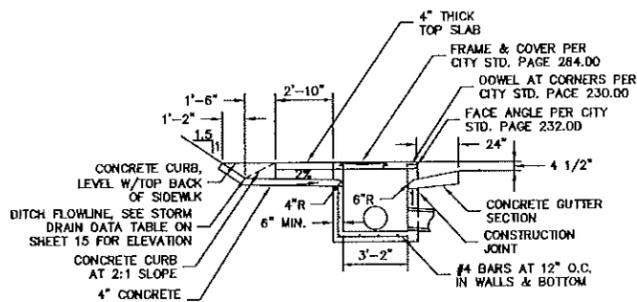
**A-X**  
ORIGINAL SCALE: N/A  
DATE: 12/26/12  
SHEET 6 OF 34



PLAN VIEW



SECTION A-A

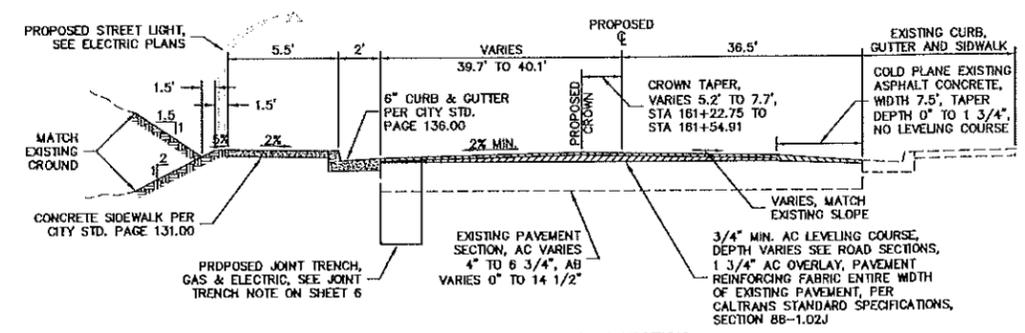


SECTION B-B

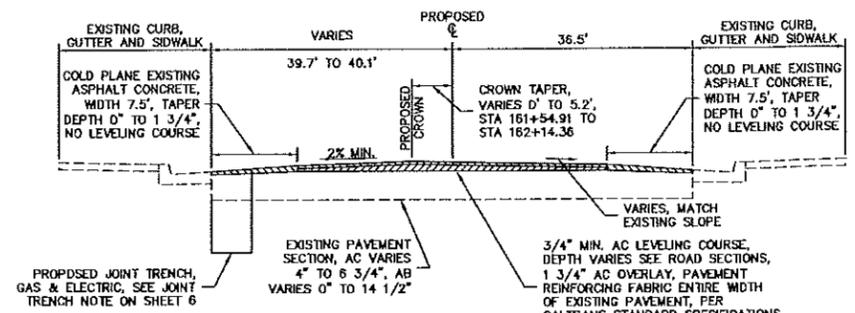
NOTES:

1. ALL WORK PERFORMED AND MATERIALS PROVIDED SHALL CONFORM TO THE STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION, OR AS DIRECTED BY THE ENGINEER.
2. CURVATURE OF THE LIP AND SIDE WALL AT GUTTER OPENING SHALL BE FORMED BY CURVED FORMS.
3. FLOOR OF BASIN SHALL BE TROWELED TO A HARD SMOOTH SURFACE AND SHALL SLOPE FROM ALL DIRECTIONS TO OUTLET.
4. MANHOLE SHALL BE CENTERED OVER DEEPEST PART OF BASIN.
5. OUTLET PIPE SHALL BE TRIMMED TO FINAL SHAPE AND LENGTH PRIOR TO POURING CONCRETE.
6. PROTECTION BAR SHALL BE INSTALLED PER CITY OF REDDING STANDARD PAGE 232.60 WHERE CURB FACE EXCEEDS 10 INCHES IN HEIGHT.
7. SURFACE OF ALL EXPOSED CONCRETE SHALL CONFORM IN SHAPE, GRADE, COLOR, FINISH, AND SCORING TO EXISTING CURB AND SIDEWALK ADJACENT TO BASIN.
8. CURB FACE AT CATCH BASIN OPENING SHALL BE 10 INCHES.
9. ALL CONCRETE SHALL BE PER CITY OF REDDING STANDARD PAGE 100.00.
10. MINIMUM CLEAR DISTANCE BETWEEN FACE OF CONCRETE AND STEEL REINFORCING BARS SHALL BE 1 1/2 INCHES, 3 INCHES WHERE CONCRETE IS POURED AGAINST EARTH.
11. FACE ANGLE SHALL BE PER CITY OF REDDING STANDARD PAGE 232.00.
12. CONSTRUCTION JOINTS SHALL NOT BE PLACED IN LOCATIONS OTHER THAN THOSE SHOWN ON THE PLANS OR AS DIRECTED BY THE ENGINEER.
13. STEEL REINFORCING BARS ARE REQUIRED AROUND MANHOLE OPENING AS PER CITY STANDARD NO. 3 CATCH BASIN (PAGE 230.00) WITH #4 BARS AT 6" O.C. BOTH WAYS FOR THE REMAINDER OF TOP SLAB.
14. #4 BARS SHALL BE PLACED 1 1/2" UNDER LIP OF LID CASTING TO INSURE ADEQUATE SUPPORT, (TYPICAL ALL SIDES).
15. LOCAL DEPRESSION (CURB & GUTTER SECTION) SHALL EXTEND 5 FT EACH SIDE OF BASIN OPENING. COST OF LOCAL DEPRESSION SHALL BE INCLUDED IN THE PRICE OF CATCH BASIN.

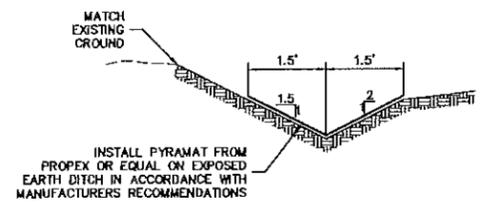
MODIFIED CATCH BASIN NO. 3 DETAIL  
SIMILAR TO CITY OF REDDING STANDARD PAGE 231.50  
N.T.S.



TYPICAL STREET SECTION  
QUARTZ HILL ROAD - STA 161+22.75 TO 161+54.91  
N.T.S.



TYPICAL STREET SECTION  
QUARTZ HILL ROAD - STA 161+54.91 TO 163+39.27  
N.T.S.



TURF REINFORCEMENT MAT LINED DITCH DETAIL  
N.T.S.



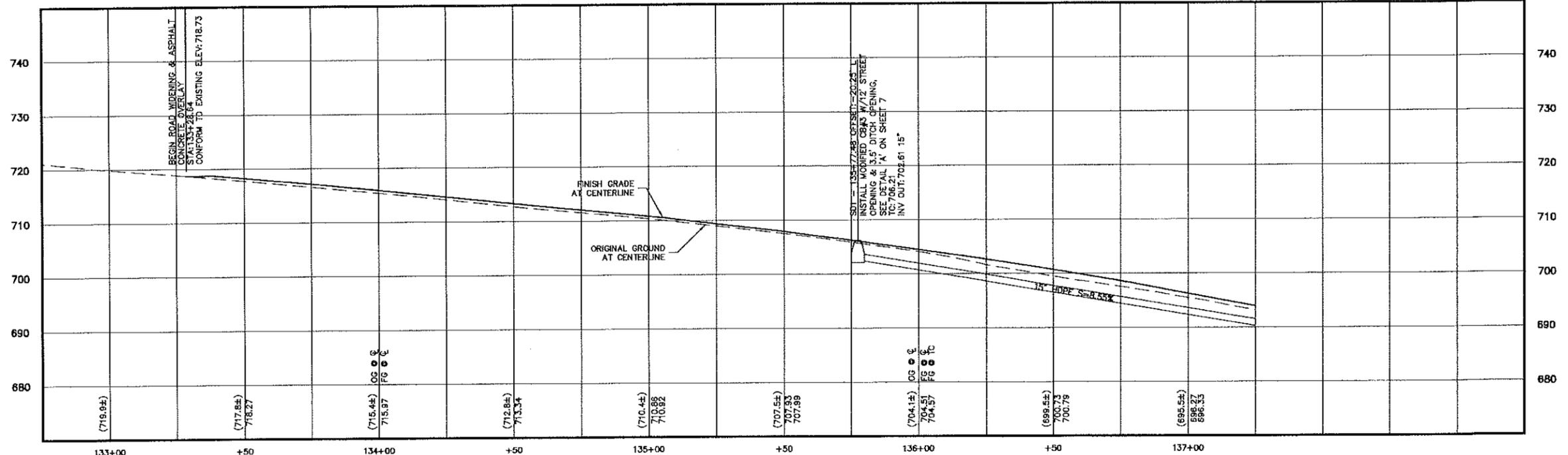
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REVIEWED BY GD

DESIGNED BY TUM  
DRAWN BY TUM  
REVIEWED BY GD  
DATE 12/26/12

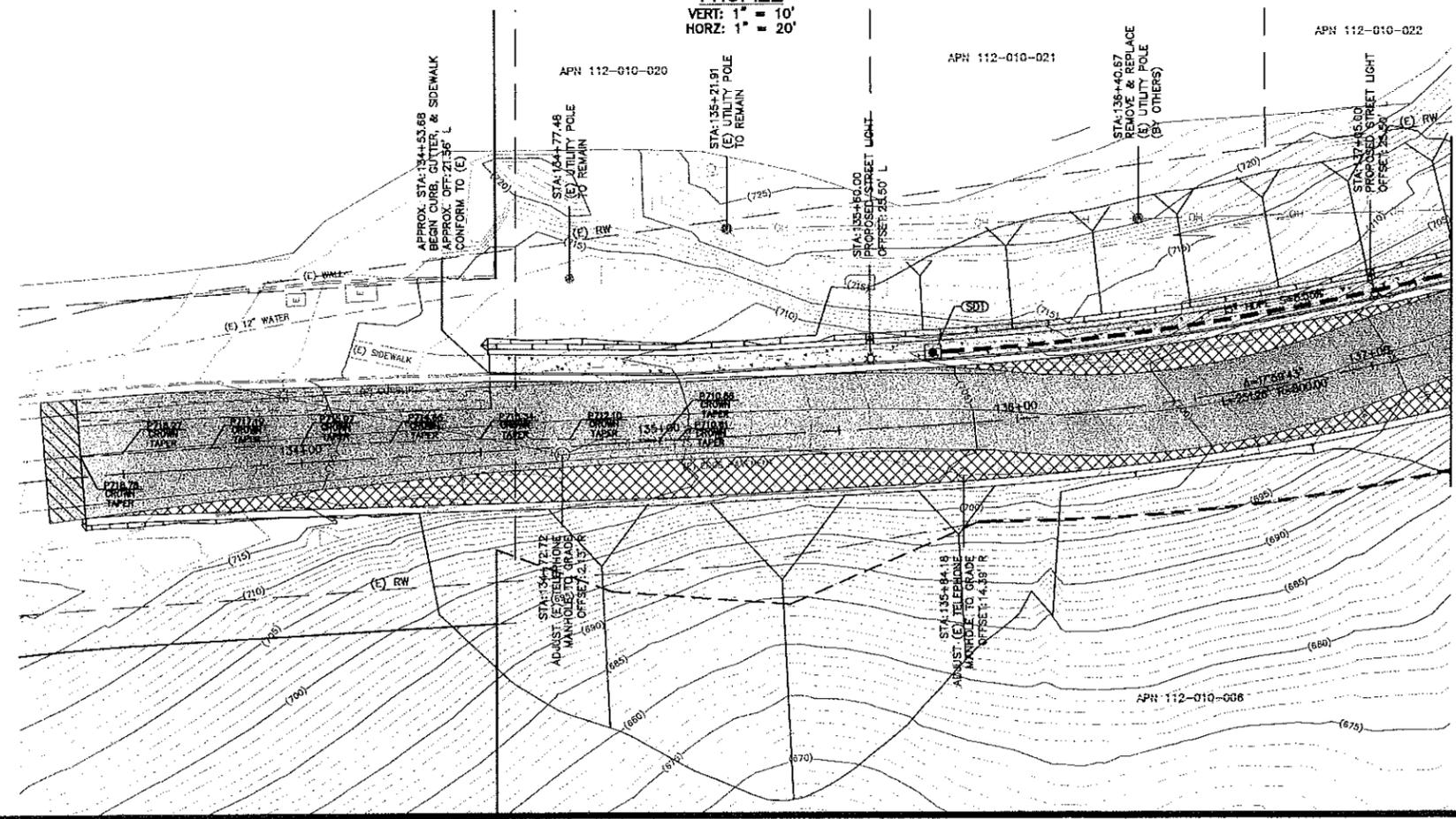
CITY OF REDDING  
TRANSPORTATION AND ENGINEERING  
DEPARTMENT

QUARTZ HILL ROAD  
WIDENING AND ASPHALT  
CONCRETE OVERLAY  
JOB NO. 2280  
BID SCH NO. 2013  
TYPICAL SECTIONS

A-X  
ORIGINAL SCALE:  
N/A  
DATE: 12/26/12  
SHEET 7 OF 34



**PROFILE**  
 VERT: 1" = 10'  
 HORZ: 1" = 20'



- LEGEND**
- COLD PLANE EXISTING ASPHALT CONCRETE 7.5' WIDE, TAPER DEPTH FROM 0" TO 1 3/4", PROVIDE SMOOTH TRANSITION
  - COLD PLANE EXISTING ASPHALT CONCRETE 10' WIDE, TAPER DEPTH 0" TO 1 3/4", PROVIDE SMOOTH TRANSITION
  - 3/4" MIN. ASPHALT CONCRETE LEVELING COURSE, 1 3/4" ASPHALT CONCRETE OVERLAY WITH PAVEMENT REINFORCING FABRIC
  - PAVEMENT WIDENING 4 1/2" ASPHALT CONCRETE OVER 15" AGGREGATE BASE
  - 4" CONCRETE SIDEWALK

**NOTE**  
 SEE SHEET 15 FOR STORM DRAIN DATA TABLE.



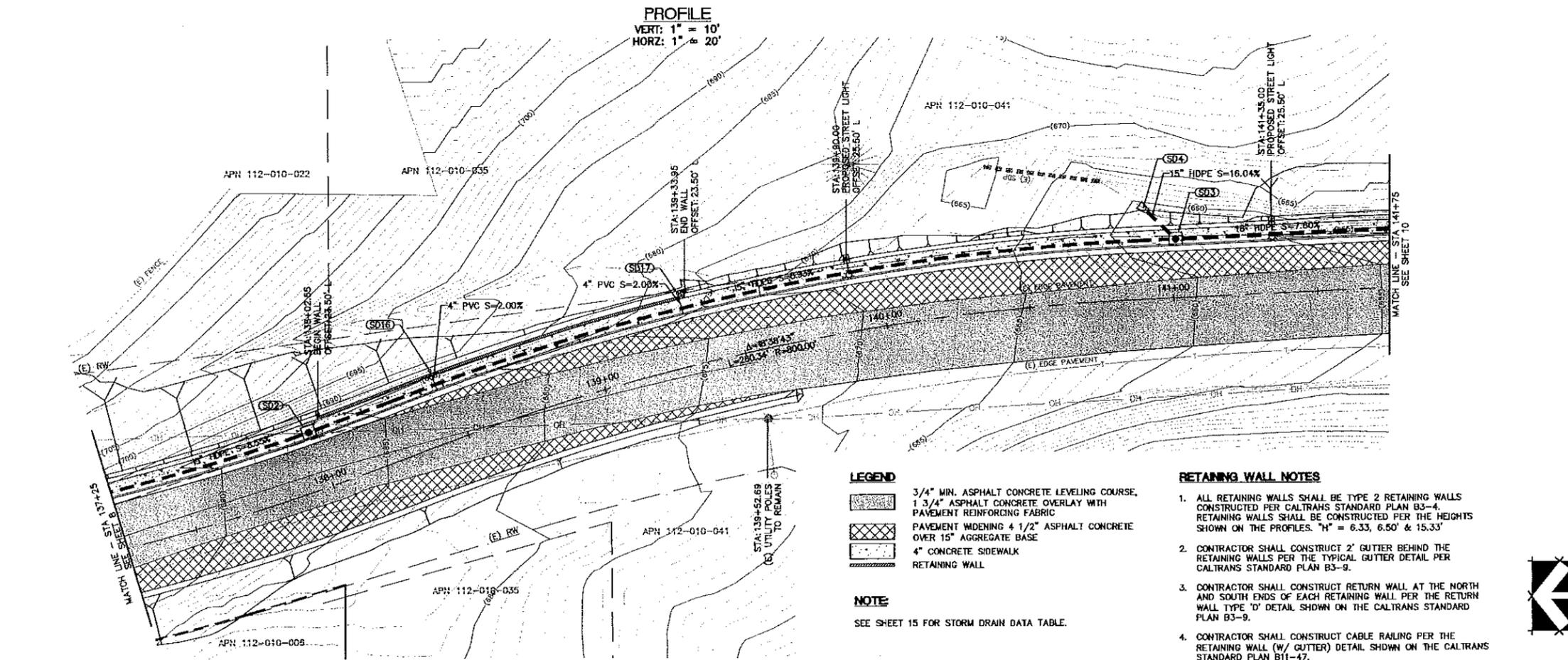
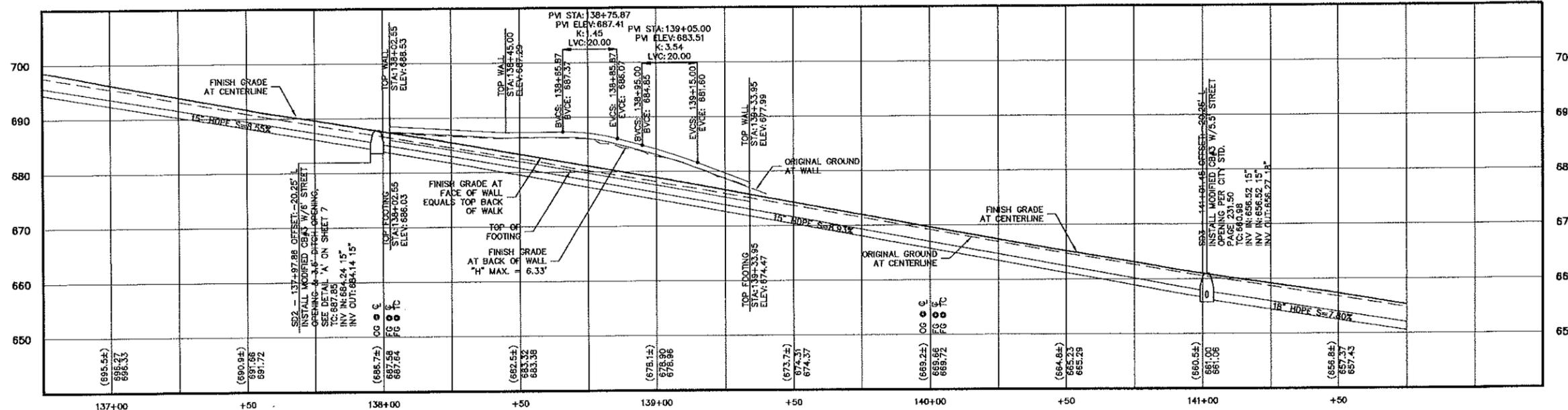
**CITY OF REDDING**  
**TRANSPORTATION AND ENGINEERING DEPARTMENT**

**QUARTZ HILL ROAD**  
**WIDENING AND ASPHALT**  
**CONCRETE OVERLAY**  
 JOB NO. 2260  
 BID SCH. NO. 2013  
 LAYOUT 'A' - 133+28.04 (BEGIN) TO 137+25

DESIGNED BY: TJM  
 DRAWN BY: TJM  
 REVIEWED BY: GD

DATE: 12/26/12  
 SHEET 6 OF 34

ORIGINAL SCALE IN INCHES: 1" = 20'

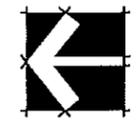


**PROFILE**  
 VERT: 1" = 10'  
 HORZ: 1" = 20'

- LEGEND**
- 3/4" MIN. ASPHALT CONCRETE LEVELING COURSE, 1 3/4" ASPHALT CONCRETE OVERLAY WITH PAVEMENT REINFORCING FABRIC
  - PAVEMENT WIDENING 4 1/2" ASPHALT CONCRETE OVER 15" AGGREGATE BASE
  - 4" CONCRETE SIDEWALK
  - RETAINING WALL

**NOTE**  
 SEE SHEET 15 FOR STORM DRAIN DATA TABLE.

- RETAINING WALL NOTES**
1. ALL RETAINING WALLS SHALL BE TYPE 2 RETAINING WALLS CONSTRUCTED PER CALTRANS STANDARD PLAN B3-4. RETAINING WALLS SHALL BE CONSTRUCTED PER THE HEIGHTS SHOWN ON THE PROFILES. "H" = 6.33, 6.50' & 15.33'
  2. CONTRACTOR SHALL CONSTRUCT 2" GUTTER BEHIND THE RETAINING WALLS PER THE TYPICAL GUTTER DETAIL PER CALTRANS STANDARD PLAN B3-9.
  3. CONTRACTOR SHALL CONSTRUCT RETURN WALL AT THE NORTH AND SOUTH ENDS OF EACH RETAINING WALL PER THE RETURN WALL TYPE 'D' DETAIL SHOWN ON THE CALTRANS STANDARD PLAN B3-9.
  4. CONTRACTOR SHALL CONSTRUCT CABLE RAILING PER THE RETAINING WALL (W/ GUTTER) DETAIL SHOWN ON THE CALTRANS STANDARD PLAN B11-47.
  5. CONTRACTOR SHALL INSTALL WALL DRAINS PER CALTRANS STANDARD PLAN B3-9, WALL DRAIN DETAIL, GRATE DETAIL, AND RETAINING WALL, GUTTER OUTLET.



**CITY OF REDDING**  
**TRANSPORTATION AND ENGINEERING**  
**DEPARTMENT**

**QUARTZ HILL ROAD**  
**WIDENING AND ASPHALT**  
**CONCRETE OVERLAY**  
**LAYOUT 'A' - 87+26 TO 141+75**

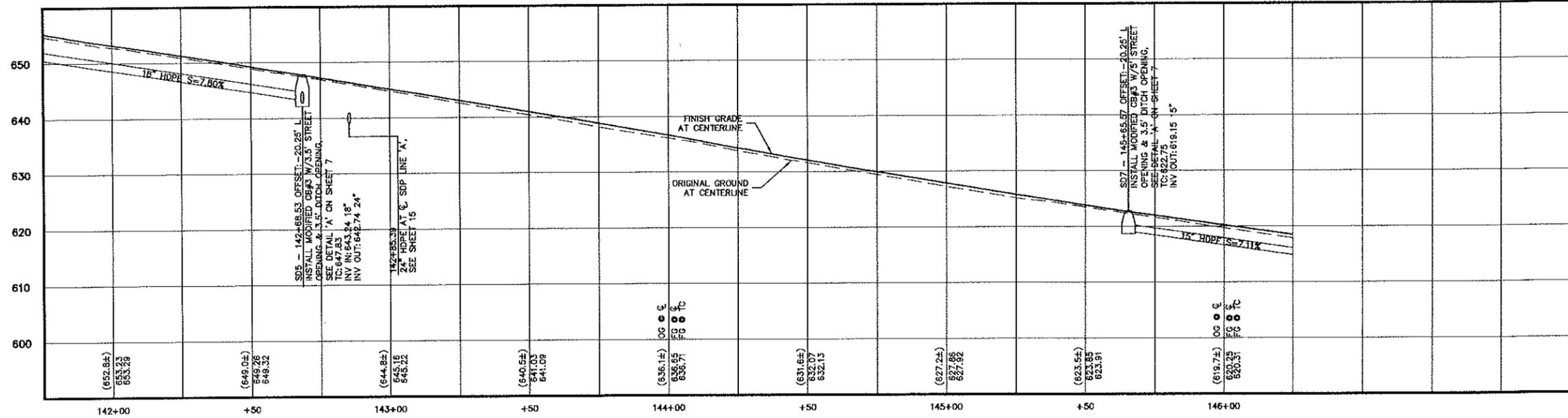
DESIGNED BY: TJM  
 DRAWN BY: TJM  
 REVIEWED BY: GD

DATE: 12/26/12

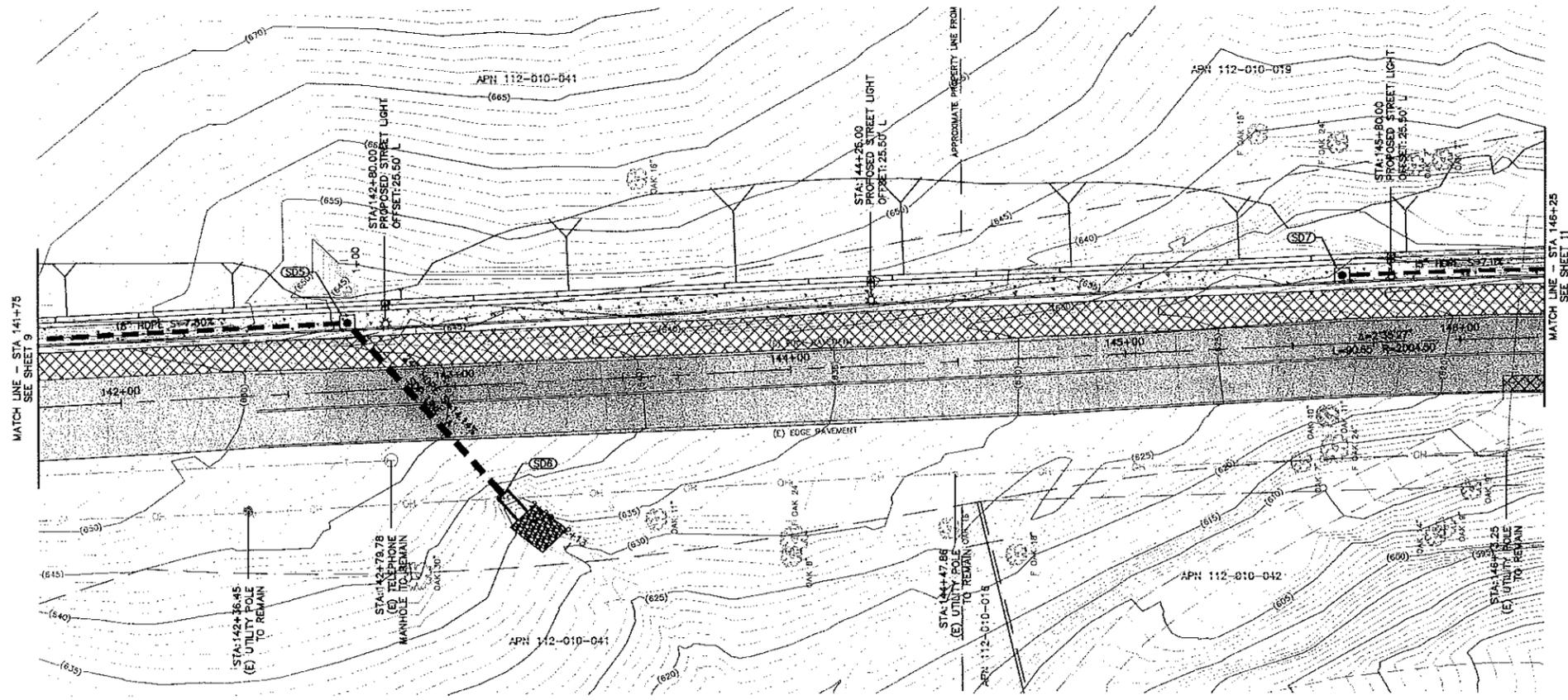
ORIGINAL SCALE IN INCHES: 1" = 20'

DATE: 12/26/12

SHEET 9 OF 34



**PROFILE**  
 VERT: 1" = 10'  
 HORZ: 1" = 20'



- LEGEND**
- COLD PLANE EXISTING ASPHALT CONCRETE 5' WIDE AT DRIVEWAY, TAPER DEPTH 0" TO 1 3/4", PROVIDE SMOOTH TRANSITION
  - 3/4" MIN. ASPHALT CONCRETE LEVELING COURSE
  - 1 3/4" ASPHALT CONCRETE OVERLAY WITH PAVEMENT REINFORCING FABRIC
  - PAVEMENT WIDENING 4 1/2" ASPHALT CONCRETE OVER 15" AGGREGATE BASE
  - 4" CONCRETE SIDEWALK
- NOTE**
- SEE SHEET 15 FOR STORM DRAIN DATA TABLE.



DESIGNED BY: TJM  
 DRAWN BY: TJM  
 REVIEWED BY: GD

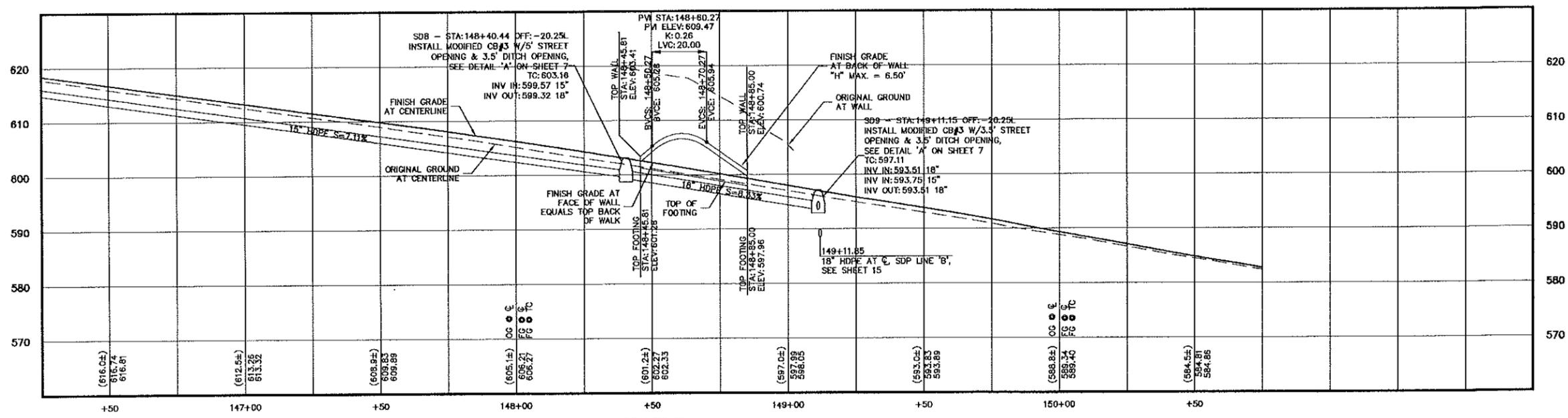
SHARON DENHAM, INC.  
 12/26/12  
 DATE



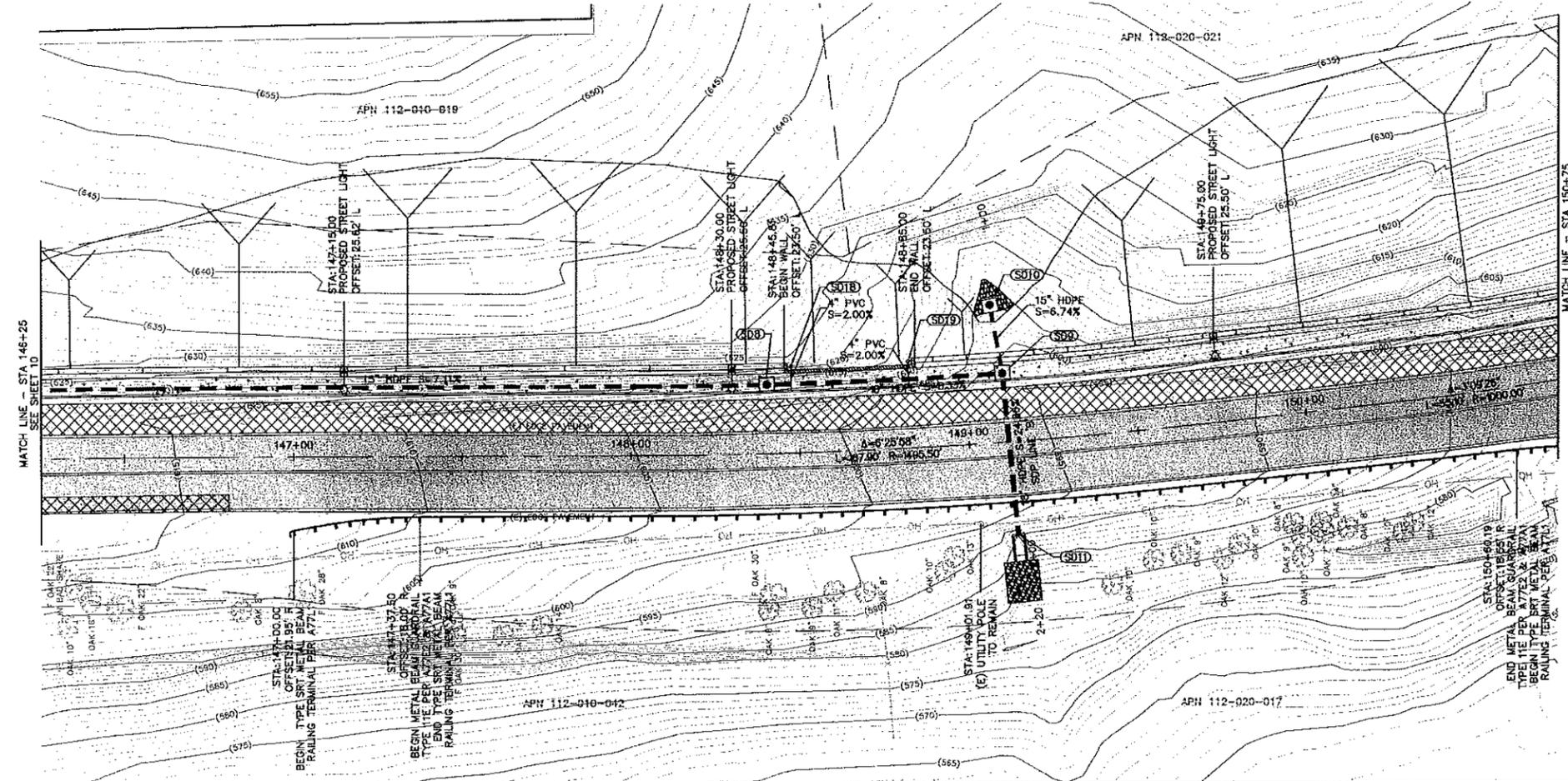
**CITY OF REDDING**  
**TRANSPORTATION AND ENGINEERING DEPARTMENT**

**QUARTZ HILL ROAD**  
**WIDENING AND ASPHALT**  
**CONCRETE OVERLAY**  
 JOB NO. 2290  
 BD SCH. NO. 2013  
 LAYOUT 'A' - 144+75 TO 146+25

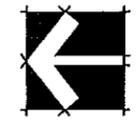
**A-X**  
 ORIGINAL SCALE:  
 1" = 20'  
 DATE: 12/28/12  
 SHEET 10 OF 34



**PROFILE**  
 VERT: 1" = 10'  
 HORIZ: 1" = 20'



- LEGEND**
- COLD PLANE EXISTING ASPHALT CONCRETE 5' WIDE AT DRIVEWAY, TAPER DEPTH 0" TO 1 3/4", PROVIDE SMOOTH TRANSITION
  - 3/4" MIN. ASPHALT CONCRETE LEVELING COURSE, 1 3/4" ASPHALT CONCRETE OVERLAY WITH PAVEMENT REINFORCING FABRIC
  - PAVEMENT WIDENING 4 1/2" ASPHALT CONCRETE OVER 15" AGGREGATE BASE
  - 4" CONCRETE SIDEWALK
  - RETAINING WALL
- NOTES**
- SEE SHEET 15 FOR STORM DRAIN DATA TABLE.
  - SEE SHEET 17 FOR GUARDRAIL DETAILS.
- RETAINING WALL NOTES**
- ALL RETAINING WALLS SHALL BE TYPE 2 RETAINING WALLS CONSTRUCTED PER CALTRANS STANDARD PLAN B3-4. RETAINING WALLS SHALL BE CONSTRUCTED PER THE HEIGHTS SHOWN ON THE PROFILES. "H" = 6.33', 6.50' & 15.33'
  - CONTRACTOR SHALL CONSTRUCT 2' GUTTER BEHIND THE RETAINING WALLS PER THE TYPICAL GUTTER DETAIL PER CALTRANS STANDARD PLAN B3-9.
  - CONTRACTOR SHALL CONSTRUCT RETURN WALL AT THE NORTH AND SOUTH ENDS OF EACH RETAINING WALL PER THE RETURN WALL TYPE 'D' DETAIL SHOWN ON THE CALTRANS STANDARD PLAN B3-9.
  - CONTRACTOR SHALL CONSTRUCT CABLE RAILING PER THE RETAINING WALL (W/ GUTTER) DETAIL SHOWN ON THE CALTRANS STANDARD PLAN B11-47.
  - CONTRACTOR SHALL INSTALL WALL DRAINS PER CALTRANS STANDARD PLAN B3-9, WALL DRAIN DETAIL, GRATE DETAIL, AND RETAINING WALL, GUTTER OUTLET.



**CITY OF REDDING**  
**TRANSPORTATION AND ENGINEERING DEPARTMENT**

**QUARTZ HILL ROAD**  
**WIDENING AND ASPHALT**  
**CONCRETE OVERLAY**  
**LAYOUT 'A' - 146+25 TO 150+75**

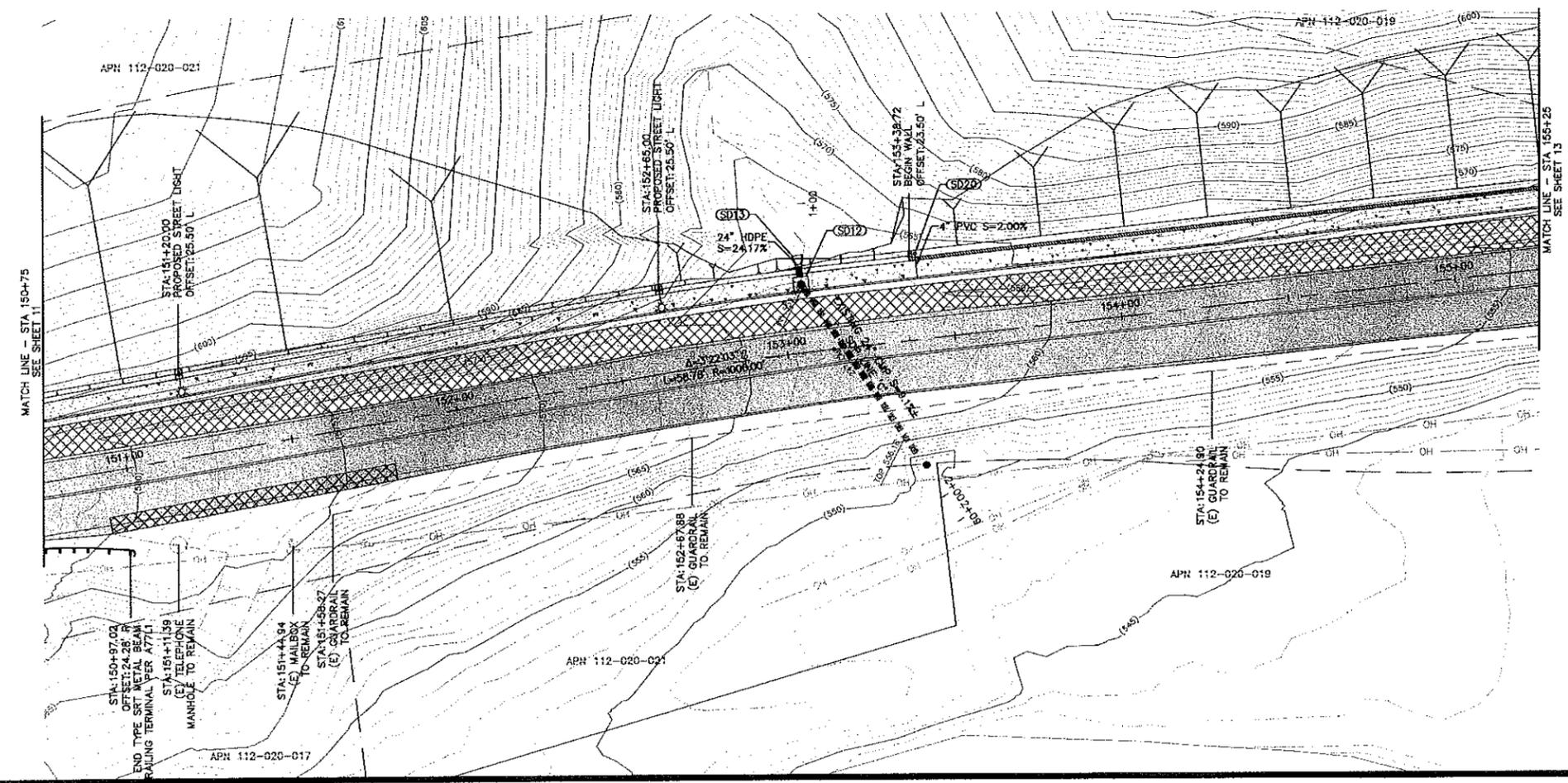
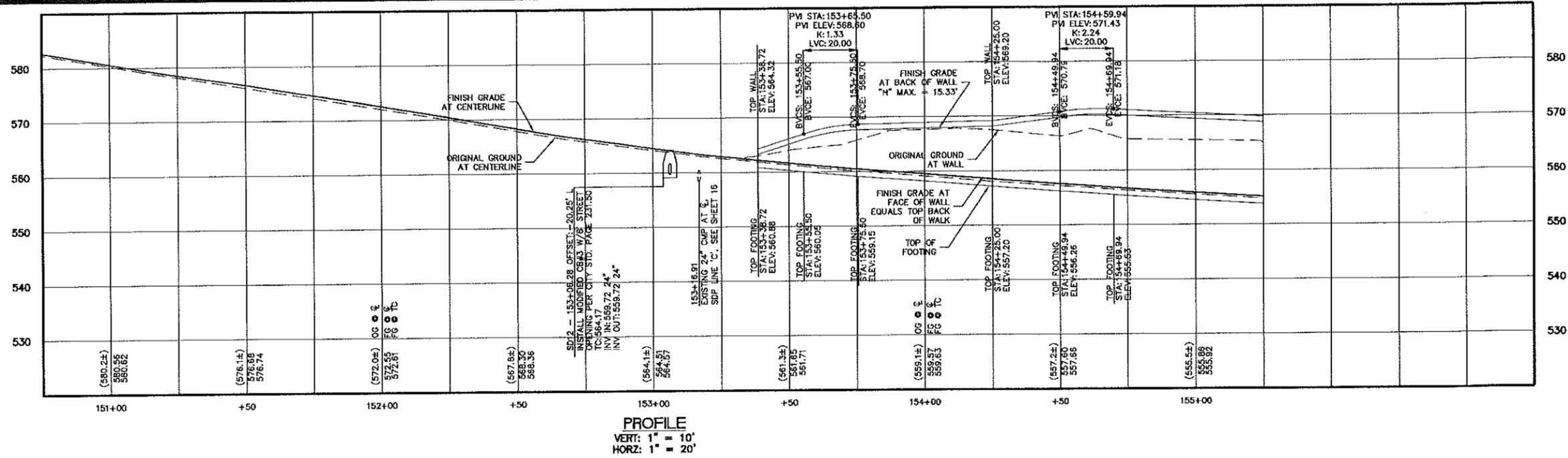
DESIGNED BY: TJM  
 DRAWN BY: TJM  
 REVIEWED BY: GD

DATE: 12/26/12

APR 11 2013

JOB NO. 2290  
 BRD. SCH. NO. 2013

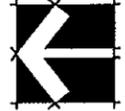
**A-X**  
 ORIGINAL SCALE:  
 1" = 20'  
 DATE: 12/26/12  
 SHEET 11 OF 34



- LEGEND**
- COLD PLANE EXISTING ASPHALT CONCRETE 5' WIDE AT DRIVEWAY, TAPER DEPTH 0" TO 1 3/4", PROVIDE SMOOTH TRANSITION
  - 3/4" MIN. ASPHALT CONCRETE LEVELING COURSE, 1 3/4" ASPHALT CONCRETE OVERLAY WITH PAVEMENT REINFORCING FABRIC
  - PAVEMENT WIDENING 4 1/2" ASPHALT CONCRETE OVER 15" AGGREGATE BASE
  - 4" CONCRETE SIDEWALK
  - RETAINING WALL

- NOTES:**
1. SEE SHEET 15 FOR STORM DRAIN DATA TABLE.
  2. SEE SHEET 17 FOR GUARDRAIL DETAILS.

- RETAINING WALL NOTES**
1. ALL RETAINING WALLS SHALL BE TYPE 2 RETAINING WALLS CONSTRUCTED PER CALTRANS STANDARD PLAN B3-4. RETAINING WALLS SHALL BE CONSTRUCTED PER THE HEIGHTS SHOWN ON THE PROFILES. \*H\* = 6.33', 6.50' & 15.33'
  2. CONTRACTOR SHALL CONSTRUCT 2' CUTTER BEHIND THE RETAINING WALLS PER THE TYPICAL GUTTER DETAIL PER CALTRANS STANDARD PLAN B3-9.
  3. CONTRACTOR SHALL CONSTRUCT RETURN WALL AT THE NORTH AND SOUTH ENDS OF EACH RETAINING WALL FOR THE RETURN WALL TYPE 'D' DETAIL SHOWN ON THE CALTRANS STANDARD PLAN B3-9.
  4. CONTRACTOR SHALL CONSTRUCT CABLE RAILING PER THE RETAINING WALL (W/ GUTTER) DETAIL SHOWN ON THE CALTRANS STANDARD PLAN B11-47.
  5. CONTRACTOR SHALL INSTALL WALL DRAINS PER CALTRANS STANDARD PLAN B3-9, WALL DRAIN DETAIL, GRATE DETAIL, AND RETAINING WALL, GUTTER OUTLET.



**CITY OF REDDING**  
**TRANSPORTATION AND ENGINEERING**  
**DEPARTMENT**

**QUARTZ HILL ROAD**  
**WIDENING AND ASPHALT**  
**CONCRETE OVERLAY**  
 JOB NO. 2280  
 LAYOUT 'A' - 150+75 TO 155+25

**A-X**

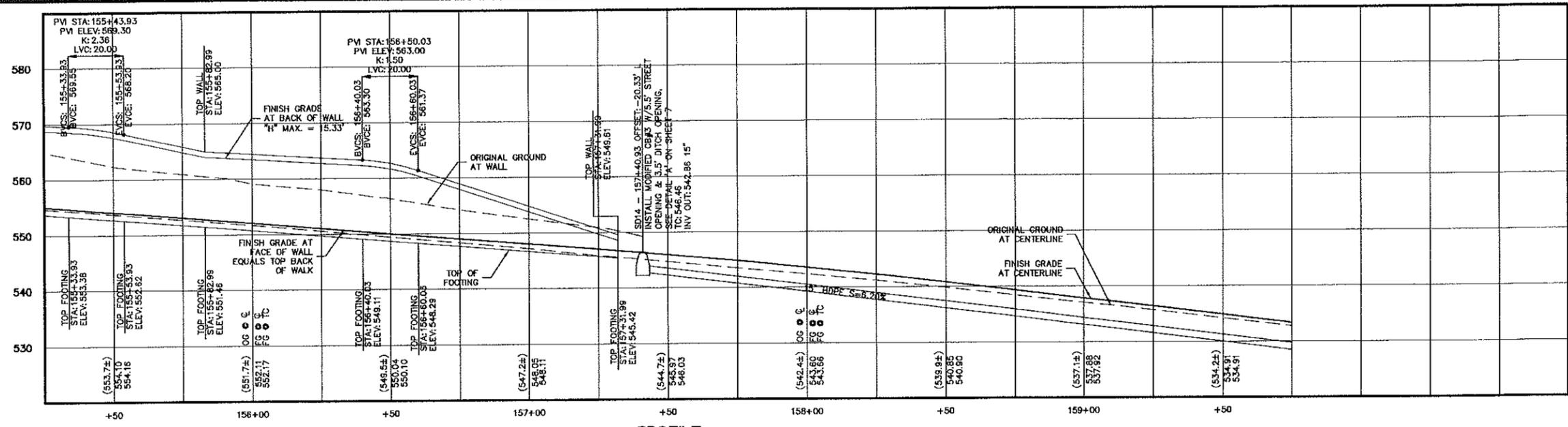
ORIGINAL SCALE:  
 1" = 20'

DATE: 12/26/12  
 SHEET 12 OF 34

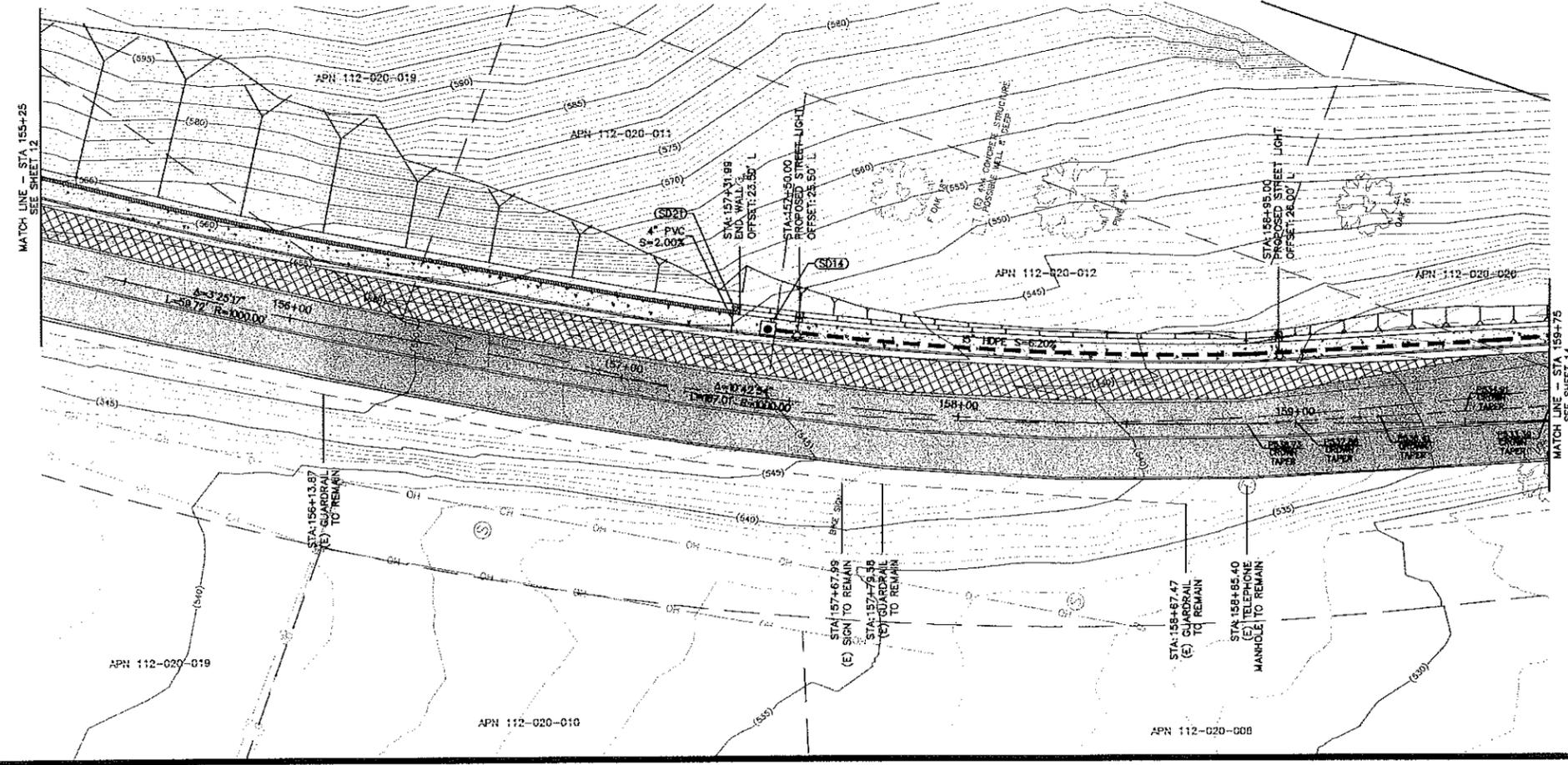
DESIGNED BY: TJM  
 DRAWN BY: TJM  
 REVIEWED BY: GD

DATE: 12/26/12

ORIGINAL SCALE IN INCHES:  
 0 1 2



**PROFILE**  
 VERT: 1" = 10'  
 HORZ: 1" = 20'



- LEGEND**
- 3/4" MIN. ASPHALT CONCRETE LEVELING COURSE, 1 3/4" ASPHALT CONCRETE OVERLAY WITH PAVEMENT REINFORCING FABRIC
  - PAVEMENT WIDENING 4 1/2" ASPHALT CONCRETE OVER 15" AGGREGATE BASE
  - 4" CONCRETE SIDEWALK RETAINING WALL

**NOTE:**  
 SEE SHEET 15 FOR STORM DRAIN DATA TABLE.

- RETAINING WALL NOTES**
1. ALL RETAINING WALLS SHALL BE TYPE 2 RETAINING WALLS CONSTRUCTED PER CALTRANS STANDARD PLAN B3-4. RETAINING WALLS SHALL BE CONSTRUCTED PER THE HEIGHTS SHOWN ON THE PROFILES. "H" = 6.33', 6.50' & 15.33'
  2. CONTRACTOR SHALL CONSTRUCT 2" GUTTER BEHIND THE RETAINING WALLS PER THE TYPICAL GUTTER DETAIL PER CALTRANS STANDARD PLAN B3-9.
  3. CONTRACTOR SHALL CONSTRUCT RETURN WALL AT THE NORTH AND SOUTH ENDS OF EACH RETAINING WALL PER THE RETURN WALL TYPE 'D' DETAIL SHOWN ON THE CALTRANS STANDARD PLAN B3-9.
  4. CONTRACTOR SHALL CONSTRUCT CABLE RAILING PER THE RETAINING WALL (W/ GUTTER) DETAIL SHOWN ON THE CALTRANS STANDARD PLAN B11-47.
  5. CONTRACTOR SHALL INSTALL WALL DRAINS PER CALTRANS STANDARD PLAN B3-9, WALL DRAIN DETAIL, GRATE DETAIL, AND RETAINING WALL, GUTTER OUTLET.

**CITY OF REDDING**  
**TRANSPORTATION AND ENGINEERING DEPARTMENT**

**QUARTZ HILL ROAD**  
**WIDENING AND ASPHALT**  
**CONCRETE OVERLAY**  
 LAYOUT 'A' - 155+25 TO 159+75

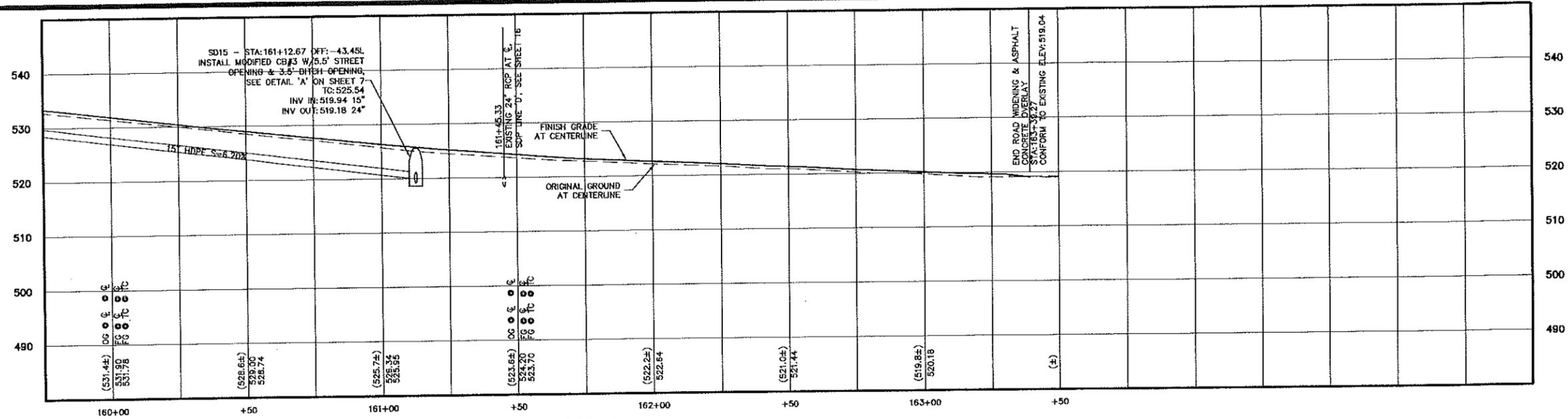
JOB NO. 2290    BID SCH. NO. 2013

**A-X**  
 ORIGINAL SCALE:  
 1" = 20'  
 DATE: 12/26/12  
 SHEET 13 OF 34

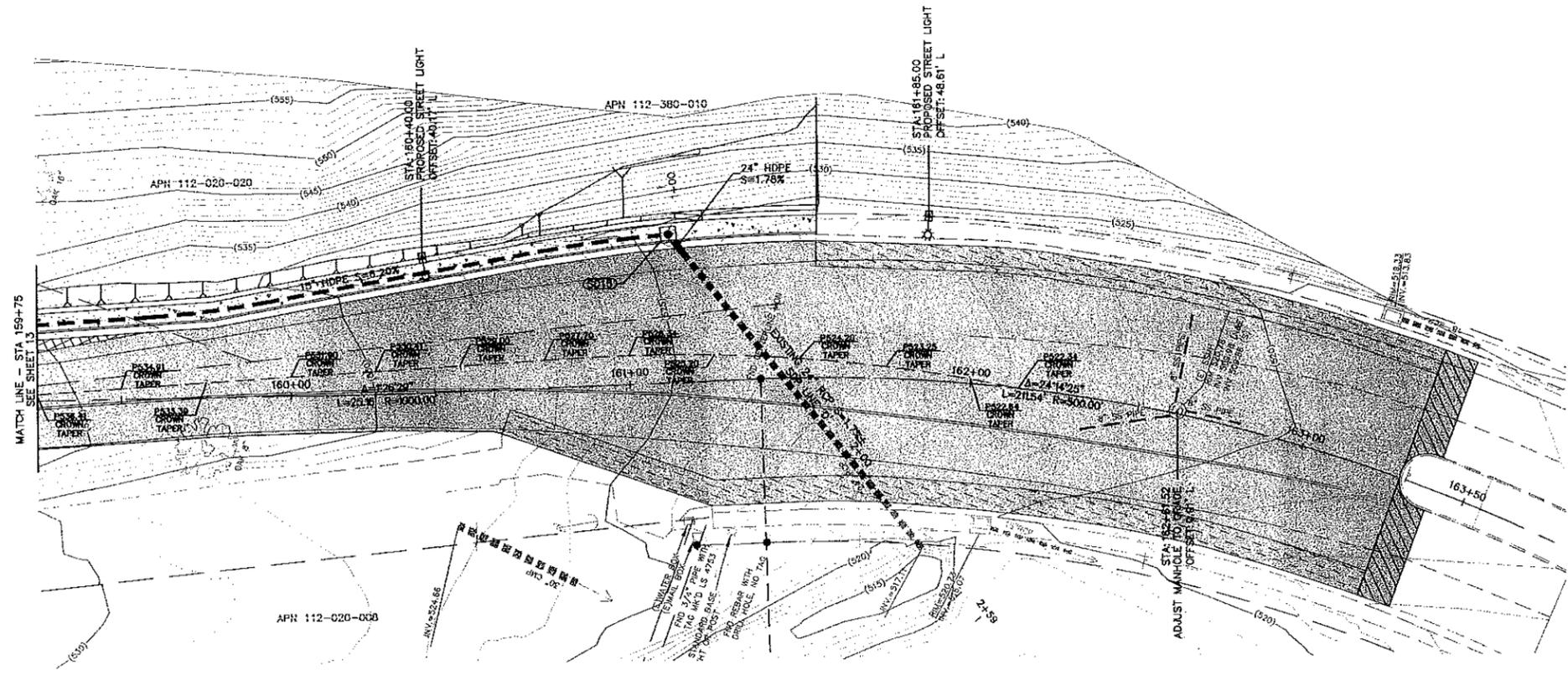
DESIGNED BY: TJM  
 DRAWN BY: TJM  
 REVIEWED BY: GD

DATE: 12/26/12  
 SIGNED: [Signature]

ORIGINAL SCALE IN INCHES  
 0 1 2



**PROFILE**  
 VERT: 1" = 10'  
 HORZ: 1" = 20'



- LEGEND**
- COLD PLANE EXISTING ASPHALT CONCRETE 7.5' WIDE, TAPER DEPTH FROM 0" TO 1 3/4", PROVIDE SMOOTH TRANSITION
  - COLD PLANE EXISTING ASPHALT CONCRETE 10' WIDE, TAPER DEPTH 0" TO 1 3/4", PROVIDE SMOOTH TRANSITION
  - 3/4" MIN. ASPHALT CONCRETE LEVELING COURSE, 1 3/4" ASPHALT CONCRETE OVERLAY WITH PAVEMENT REINFORCING FABRIC
  - PAVEMENT WIDENING 4 1/2" ASPHALT CONCRETE OVER 15" AGGREGATE BASE
  - 4" CONCRETE SIDEWALK

**NOTE**  
 SEE SHEET 15 FOR STORM DRAIN DATA TABLE.



**CITY OF REDDING**  
**TRANSPORTATION AND ENGINEERING DEPARTMENT**

**QUARTZ HILL ROAD**  
**WIDENING AND ASPHALT**  
**CONCRETE OVERLAY**  
 JOB NO. 2280  
 BD SCH NO. 2013  
**LAYOUT 'A' - 159+75 TO 163+00 (END)**

**A-X**

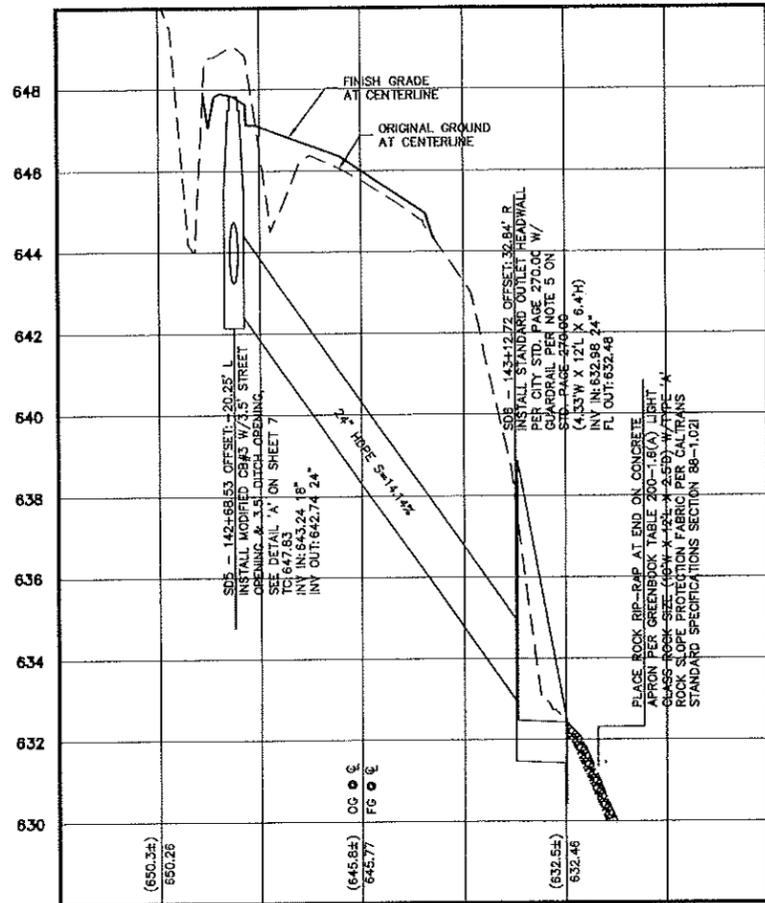
ORIGINAL SCALE:  
 1" = 20'

DATE: 12/26/12  
 SHEET 14 OF 34

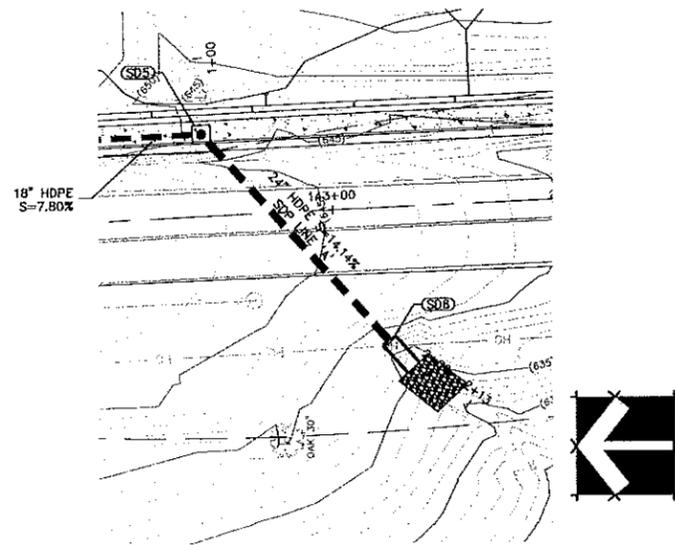
DESIGNED BY: TJM  
 DRAWN BY: TJM  
 REVIEWED BY: GD

PROF. ENGINEER & SURVEYOR  
 No. 55522  
 Exp. 6/30/13  
 DATE: 12/26/12

ORIGINAL SCALE IN INCHES  
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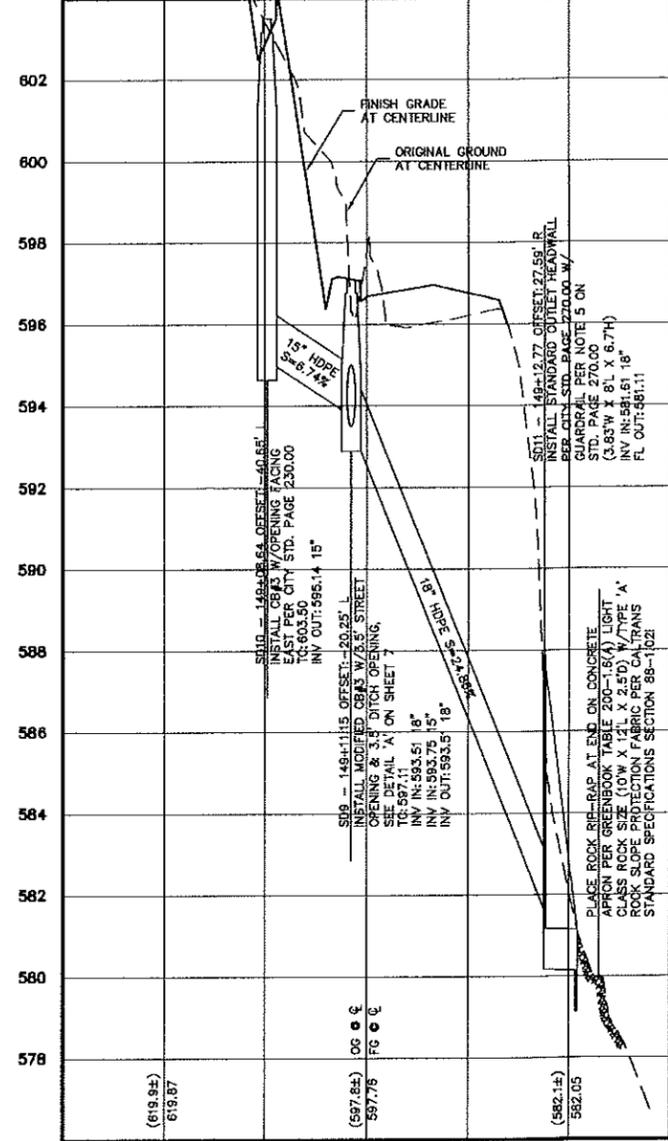


**SDP LINE 'A' PROFILE**  
 VERT: 1" = 2'  
 HORIZ: 1" = 20'

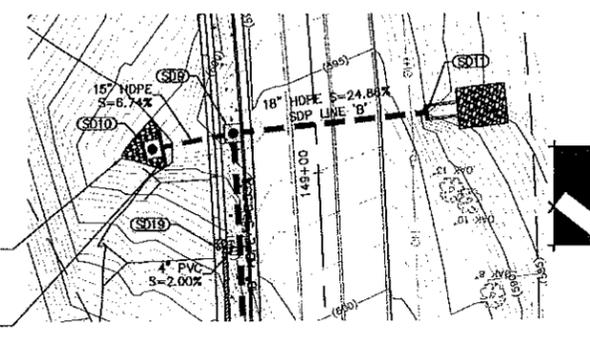


648  
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STORM DRAIN DATA TABLE				
LABEL	DESCRIPTION	WALL DRAIN -- TOP OF GRATE OR CATCH BASIN (CB#3) -- RIM	INVERT IN	INVERT OUT
SD1	INSTALL MODIFIED CB#3 W/12' STREET OPENING & 3.5' DITCH OPENING, SEE DETAIL 'A' ON SHEET 7	708.21		15" INV OUT = 702.61 FL DITCH = 705.45
SD2	INSTALL MODIFIED CB#3 W/8' STREET OPENING & 3.5' DITCH OPENING, SEE DETAIL 'A' ON SHEET 7	687.85	15" INV IN = 684.24	15" INV OUT = 684.14 FL DITCH = 687.09
SD3	INSTALL MODIFIED CB#3 W/5.5' STREET OPENING PER CITY STD. PAGE 231.50	668.88	15" INV IN = 656.52 15" INV IN = 656.52	18" INV OUT = 656.27
SD4	INSTALL 15" CONCRETE FLARED END SECTION			15" INV OUT = 659.00
SD5	INSTALL MODIFIED CB#3 W/3.5' STREET OPENING & 3.5' DITCH OPENING, SEE DETAIL 'A' ON SHEET 7	647.83	18" INV IN = 643.24	15" INV OUT = 642.74 FL DITCH = 647.07
SD6	INSTALL STANDARD OUTLET HEADWALL PER CITY STD. PAGE 270.00 W/ GUARDRAIL PER NOTE 5 ON STD. PAGE 270.00 (4.33'W X 12'L X 6.4'H)		24" INV IN = 632.88	FL OUT = 632.48
SD7	INSTALL MODIFIED CB#3 W/5' STREET OPENING & 3.5' DITCH OPENING, SEE DETAIL 'A' ON SHEET 7	622.75		15" INV OUT = 619.15 FL DITCH = 622.00
SD8	INSTALL MODIFIED CB#3 W/5' STREET OPENING & 3.5' DITCH OPENING, SEE DETAIL 'A' ON SHEET 7	603.16	15" INV IN = 599.57	15" INV OUT = 599.32 FL DITCH = 602.40
SD9	INSTALL MODIFIED CB#3 W/3.5' STREET OPENING & 3.5' DITCH OPENING, SEE DETAIL 'A' ON SHEET 7	597.11	18" INV IN = 593.51 15" INV IN = 593.75	15" INV OUT = 593.51 FL DITCH = 596.35
SD10	INSTALL CB#3 W/OPENING FACING EAST PER CITY STD. PAGE 230.00	603.50		15" INV OUT = 595.14
SD11	INSTALL STANDARD OUTLET HEADWALL PER CITY STD. PAGE 270.00 W/ GUARDRAIL PER NOTE 5 ON STD. PAGE 270.00 (3.83'W X 8'L X 6.7'H)		18" INV IN = 581.61	FL OUT = 581.11
SD12	INSTALL MODIFIED CB#3 W/8' STREET OPENING PER CITY STD. PAGE 231.50	564.17	24" INV IN = 559.72	24" INV OUT = 559.72
SD13	INSTALL 24" CONCRETE FLARED END SECTION			24" INV OUT = 561.40
SD14	INSTALL MODIFIED CB#3 W/5.5' STREET OPENING & 3.5' DITCH OPENING, SEE DETAIL 'A' ON SHEET 7	546.46		15" INV OUT = 542.86 FL DITCH = 545.70
SD15	INSTALL MODIFIED CB#3 W/5.5' STREET OPENING & 3.5' DITCH OPENING, SEE DETAIL 'A' ON SHEET 7	525.54	15" INV IN = 519.94	15" INV OUT = 519.18 FL DITCH = 524.60
SD16	INSTALL WALL DRAIN PER CALTRANS STD. PLAN B3-9, WALL DRAIN DETAIL, GRATE DETAIL, AND RETAINING WALL, GUTTER OUTLET	685.95		4" INV AT STREET GUTTER = 683.36
SD17	INSTALL WALL DRAIN PER CALTRANS STD. PLAN B3-9, WALL DRAIN DETAIL, GRATE DETAIL, AND RETAINING WALL, GUTTER OUTLET	677.09		4" INV AT STREET GUTTER = 675.58
SD18	INSTALL WALL DRAIN PER CALTRANS STD. PLAN B3-9, WALL DRAIN DETAIL, GRATE DETAIL, AND RETAINING WALL, GUTTER OUTLET	602.87		4" INV AT STREET GUTTER = 602.06
SD19	INSTALL WALL DRAIN PER CALTRANS STD. PLAN B3-9, WALL DRAIN DETAIL, GRATE DETAIL, AND RETAINING WALL, GUTTER OUTLET	600.09		4" INV AT STREET GUTTER = 599.10
SD20	INSTALL WALL DRAIN PER CALTRANS STD. PLAN B3-9, WALL DRAIN DETAIL, GRATE DETAIL, AND RETAINING WALL, GUTTER OUTLET	563.30		4" INV AT STREET GUTTER = 561.73
SD21	INSTALL WALL DRAIN PER CALTRANS STD. PLAN B3-9, WALL DRAIN DETAIL, GRATE DETAIL, AND RETAINING WALL, GUTTER OUTLET	548.56		4" INV AT STREET GUTTER = 546.46



**SDP LINE 'B' PROFILE**  
 VERT: 1" = 2'  
 HORIZ: 1" = 20'



PLACE ROCK RIP-RAP PER GREENBOOK TABLE 200-1.6(A) LIGHT CLASS ROCK SIZE (2.5') FROM ELEV. 605.00 TO INLET W/TYPE 'A' ROCK SLOPE PROTECTION FABRIC PER CALTRANS STANDARD SPECIFICATIONS SECTION 88-1.02I

EARTH BERM (0.5'W X 9.5'L X 0.5'H) ELEV.=604.00

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582  
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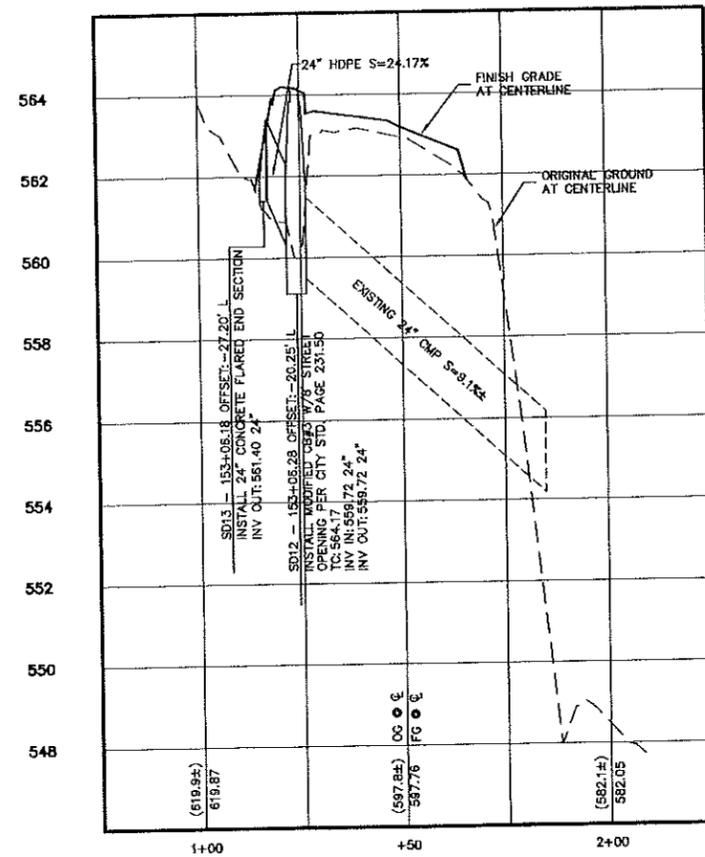
DESIGNED BY: TJM  
 DRAWN BY: TJM  
 REVIEWED BY: GD



**CITY OF REDDING**  
 TRANSPORTATION AND ENGINEERING DEPARTMENT

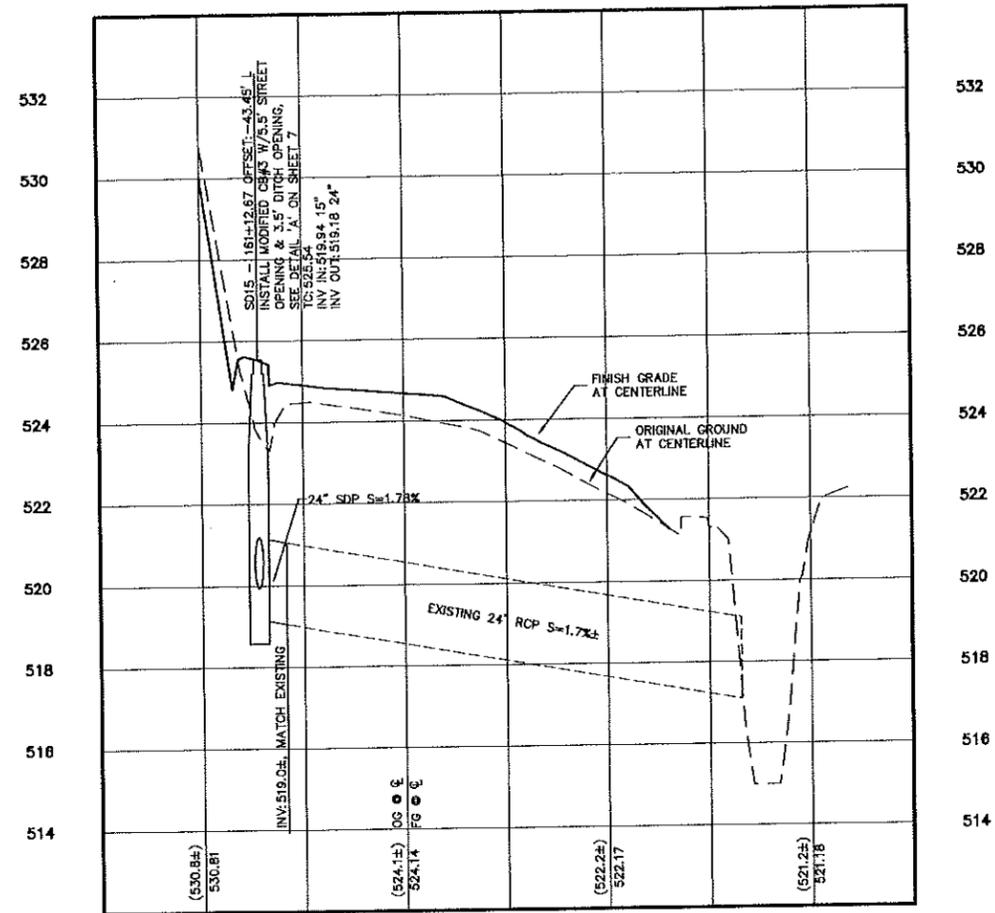
**QUARTZ HILL ROAD**  
 WIDENING AND ASPHALT CONCRETE OVERLAY  
 BID. SCH. NO. 2013  
 JOB NO. 2260  
 SDP LINE 'A' AND 'B'

**A-X**  
 ORIGINAL SCALE: 1" = 20'  
 DATE: 12/26/12  
 SHEET 15 OF 34



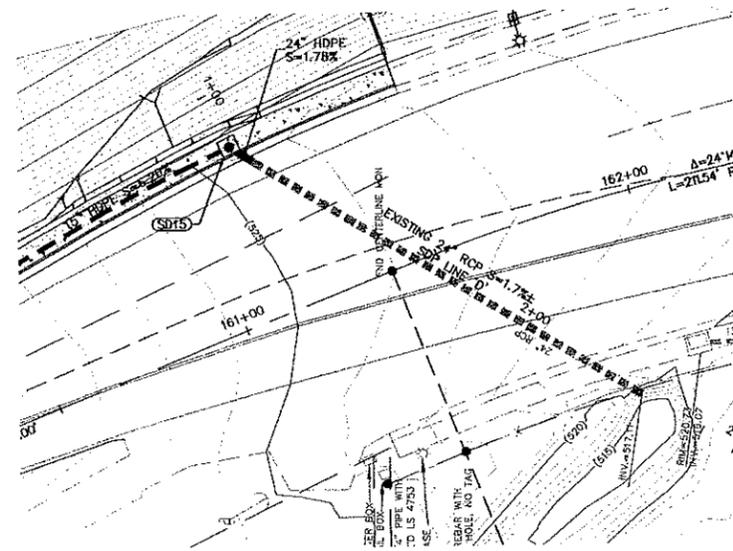
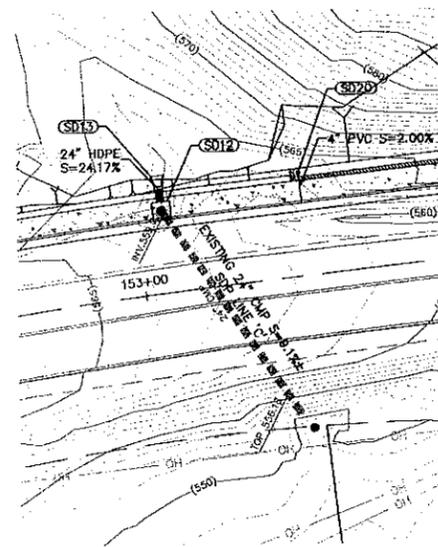
**SDP LINE 'C' PROFILE**  
 VERT: 1" = 2'  
 HORZ: 1" = 20'

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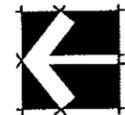
**SDP LINE 'D' PROFILE**  
 VERT: 1" = 2'  
 HORZ: 1" = 20'

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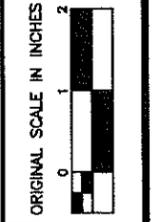
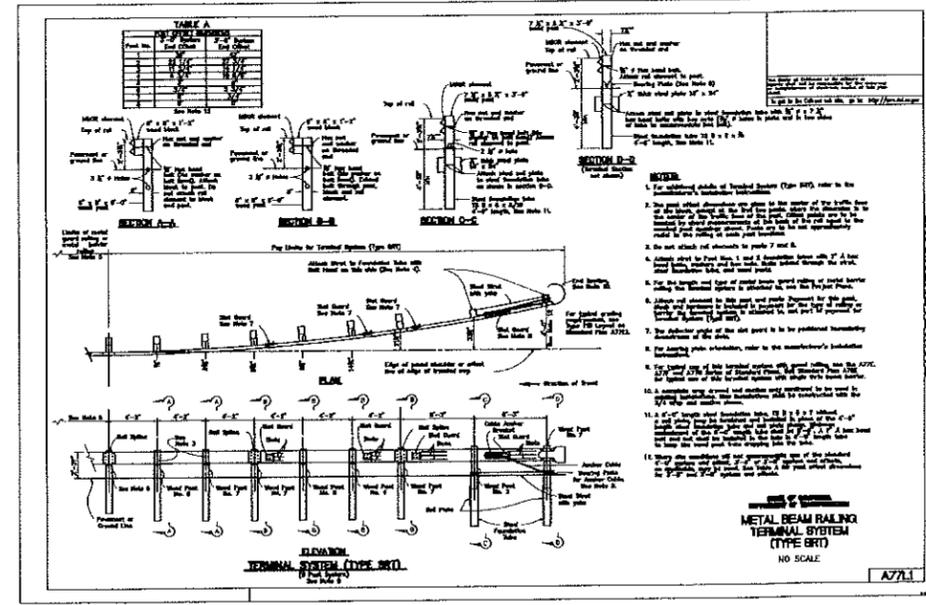
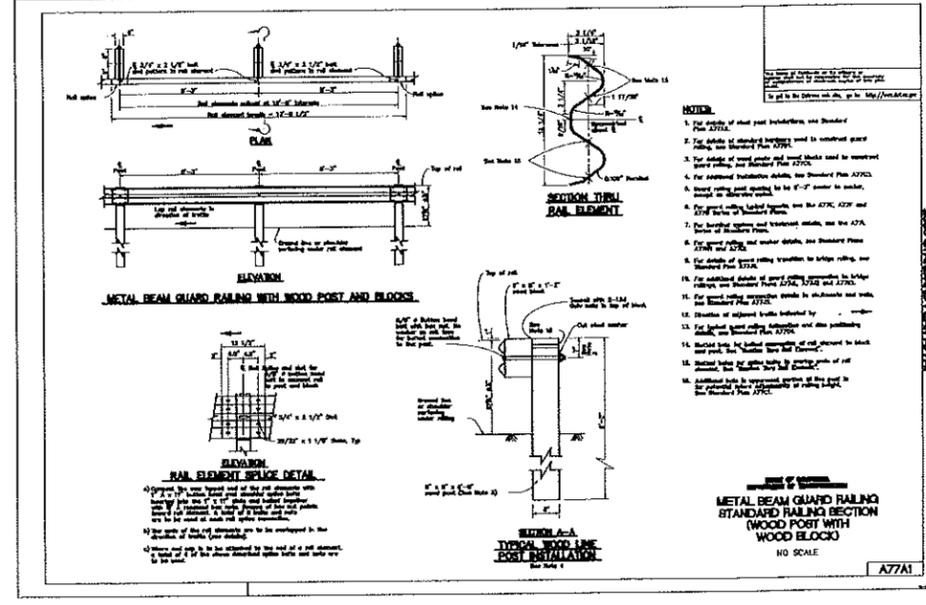
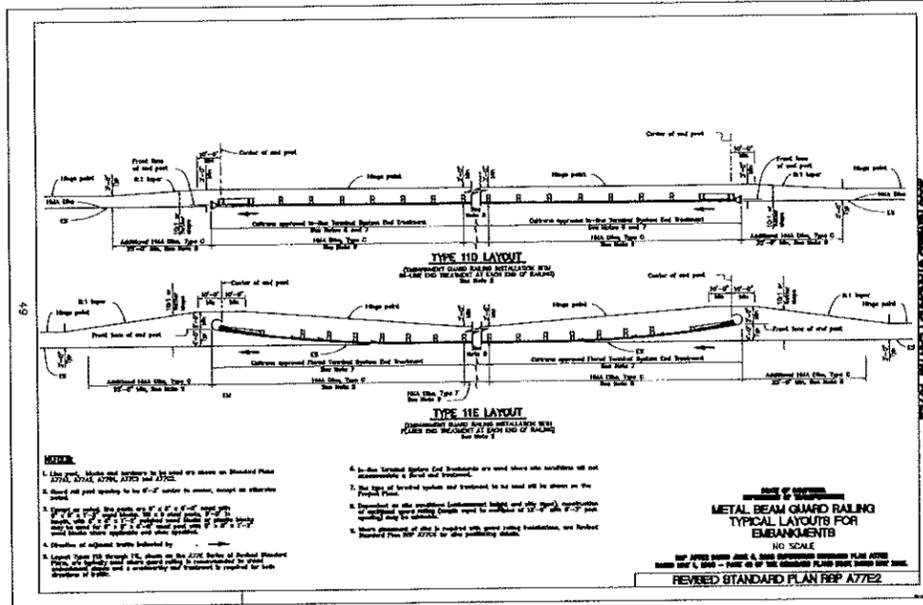


**NOTE**

SEE SHEET 15 FOR STORM DRAIN DATA TABLE.



QUARTZ HILL ROAD WIDENING AND ASPHALT CONCRETE OVERLAY JOB NO. 2280 SDP LINE 'C' AND 'D'	CITY OF REDDING TRANSPORTATION AND ENGINEERING DEPARTMENT		DESIGNED BY	TJM
			DRAWN BY	TJM
			REVIEWED BY	GD
			SIGNED:	12/26/12
			DATE	
ORIGINAL SCALE: 1" = 20'		ORIGINAL SCALE IN INCHES 		
DATE: 12/26/12		SHEET 18 OF 34		



DESIGNED BY: TJM  
 DRAWN BY: TJM  
 REVIEWED BY: GD

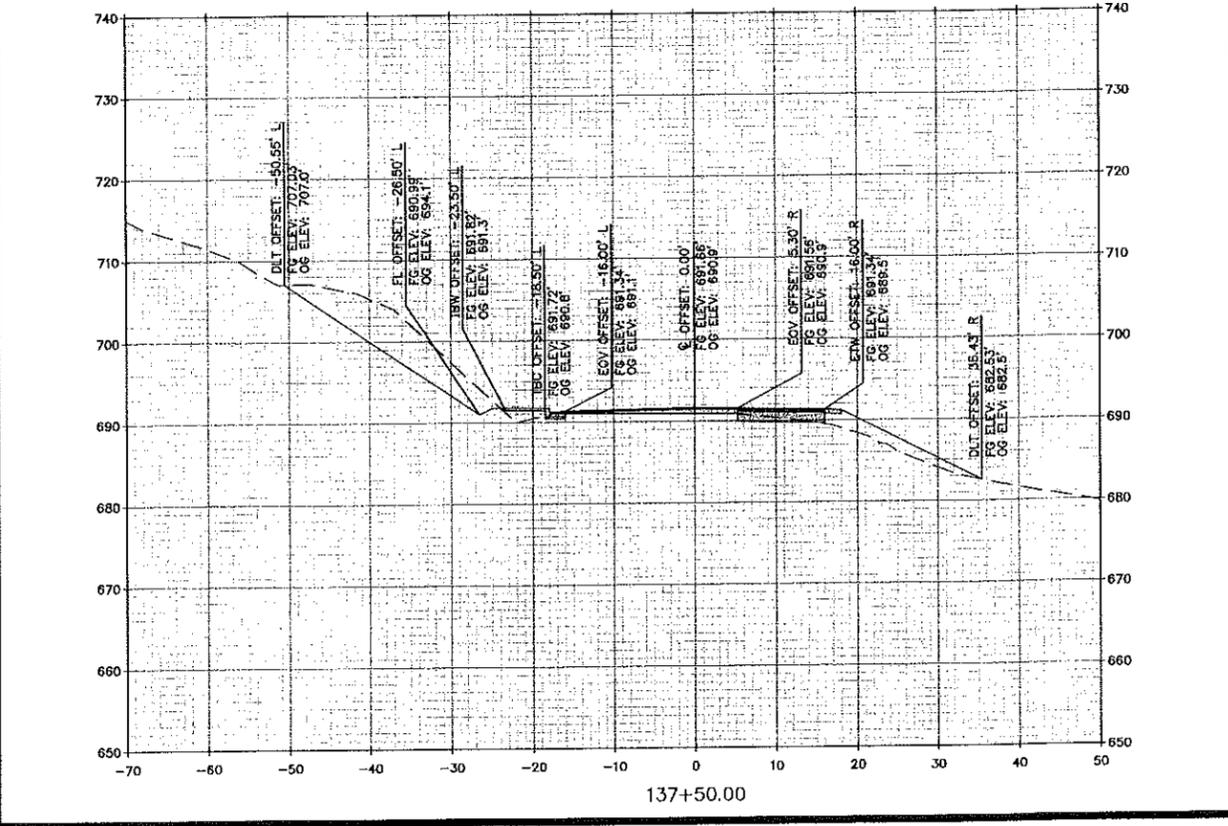
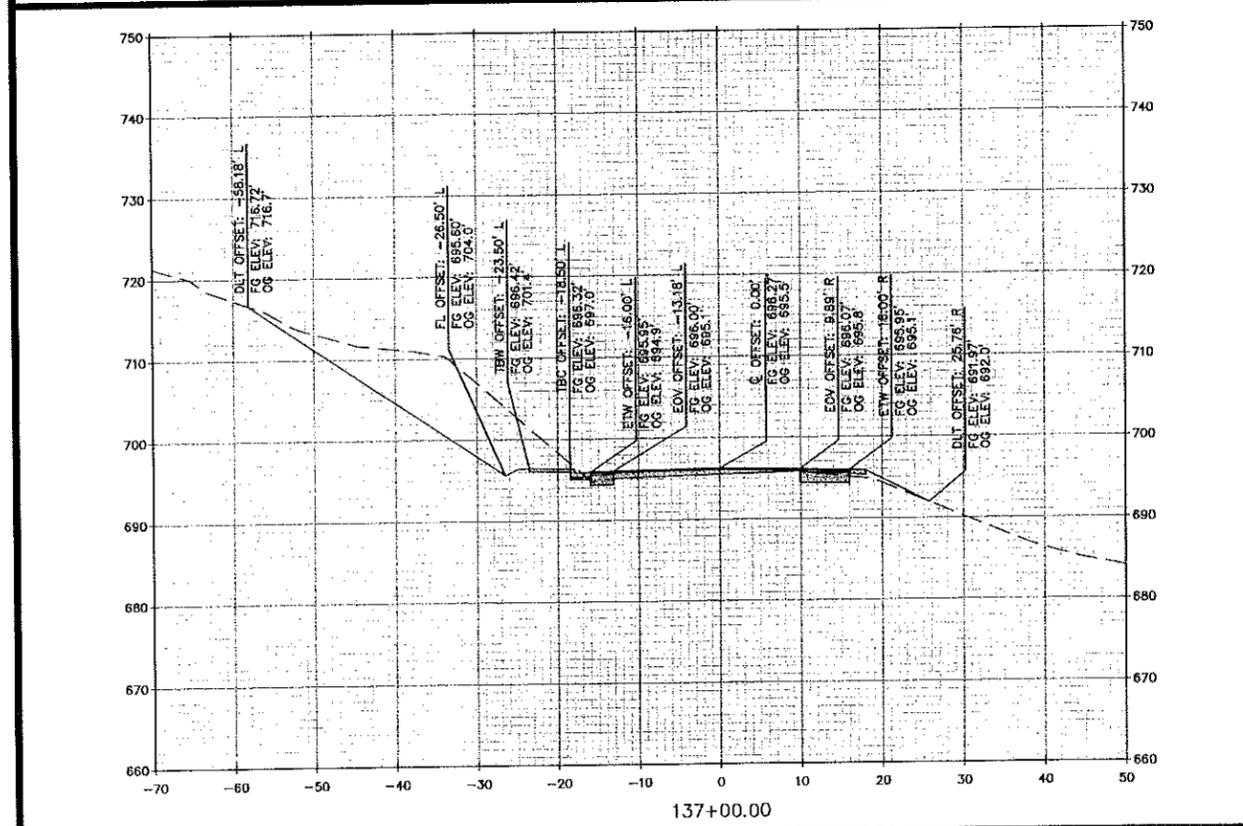
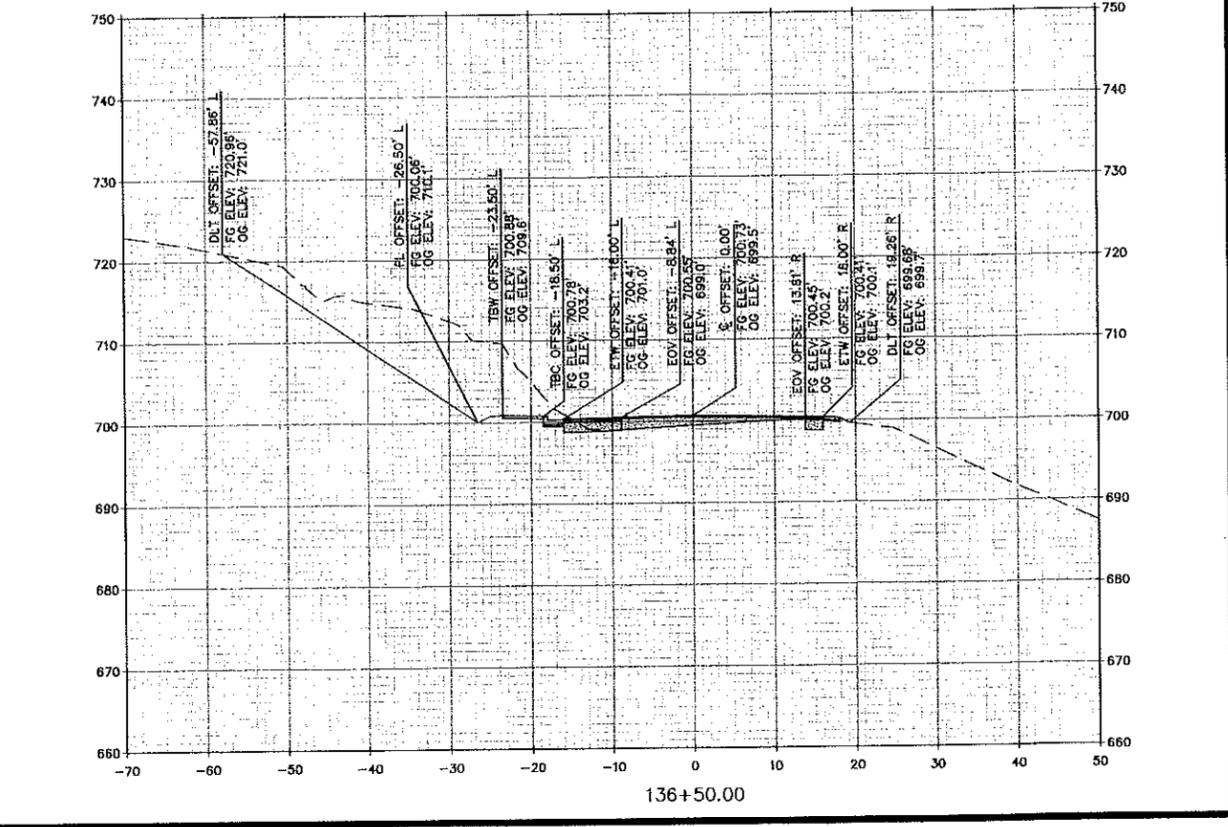
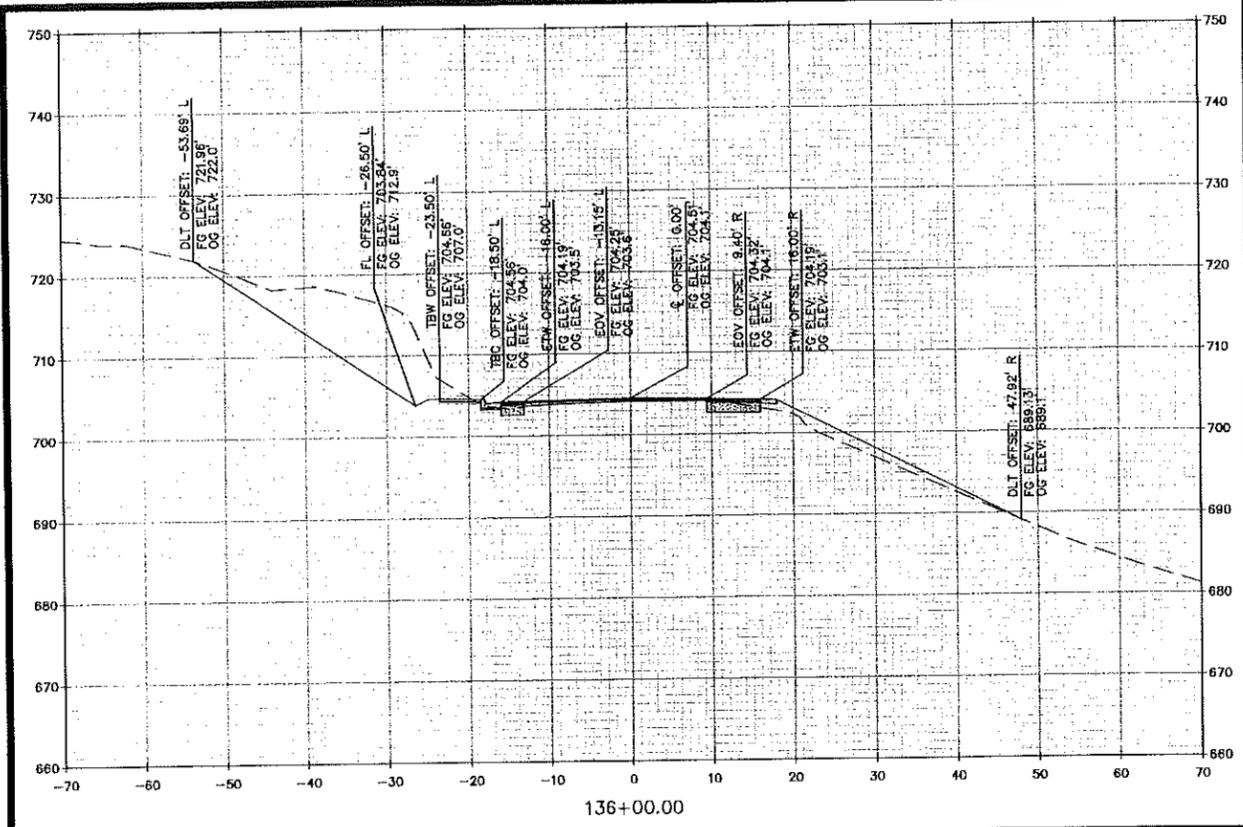
12/26/12  
 DATE

**CITY OF PIEDMONT**  
**TRANSPORTATION AND ENGINEERING DEPARTMENT**

QUARTZ HILL ROAD  
 WIDENING AND ASPHALT  
 CONCRETE OVERLAY  
 JOB NO. 2280  
 BID. SCH. NO. 2013

A-X  
 ORIGINAL SCALE: N/A  
 DATE: 12/26/12  
 SHEET 17 OF 34





**QUARTZ HILL ROAD  
WIDENING AND ASPHALT  
CONCRETE OVERLAY**  
JOB NO. 2280  
ROAD SECTIONS 136+00 - 137+50

**CITY OF REDDING  
TRANSPORTATION AND ENGINEERING  
DEPARTMENT**

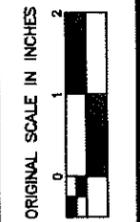
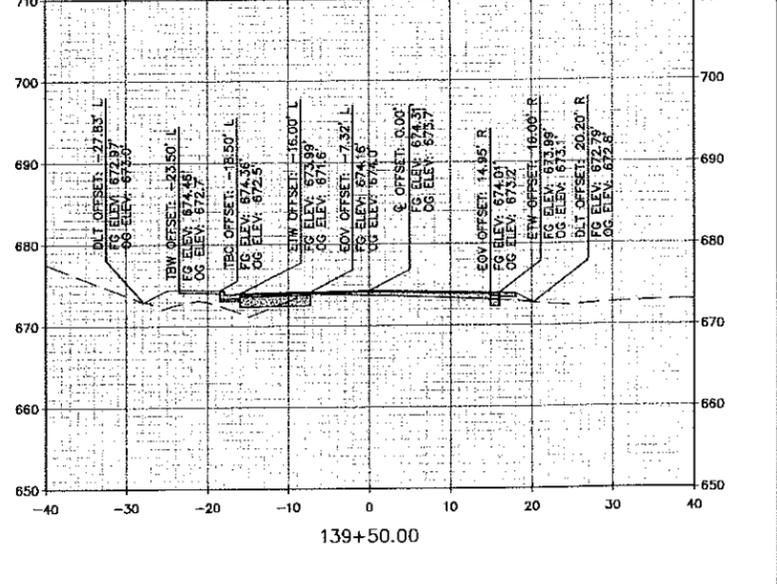
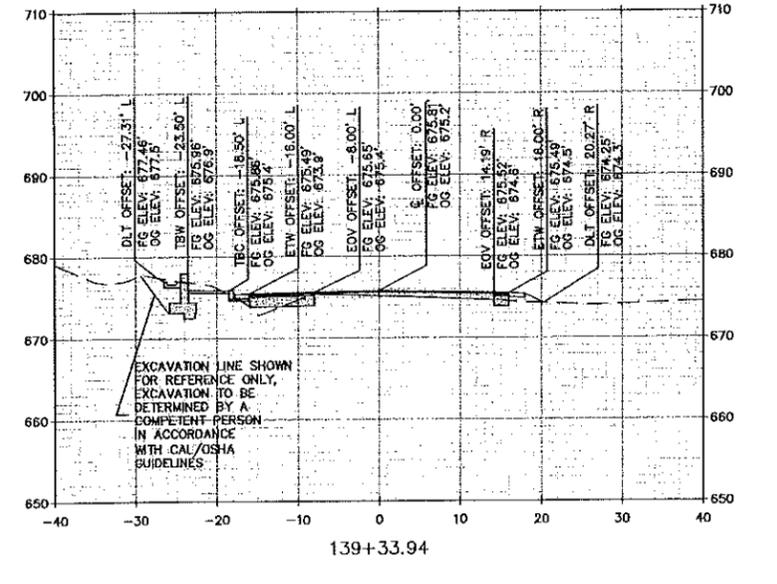
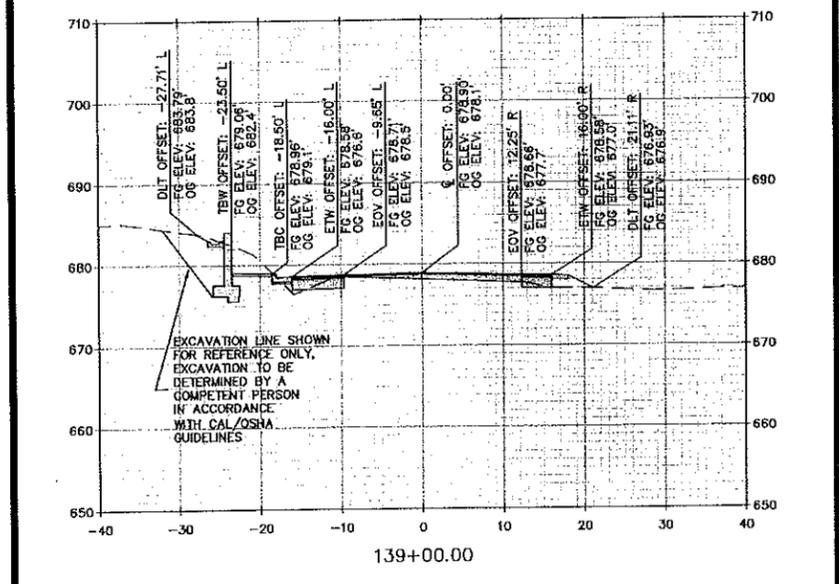
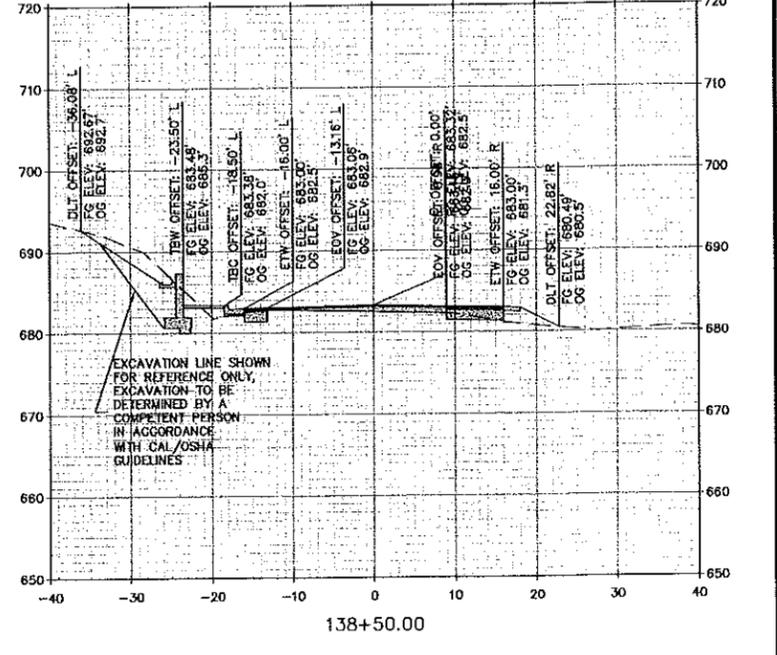
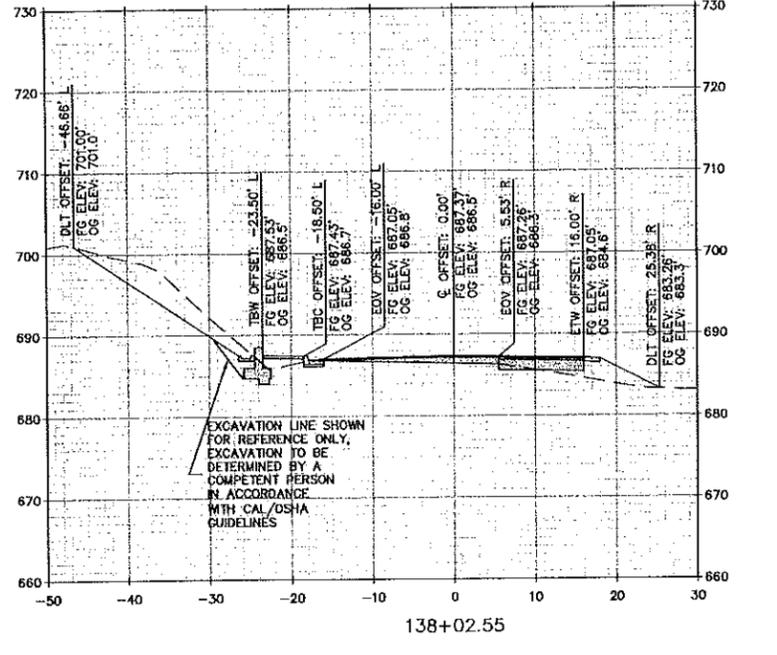
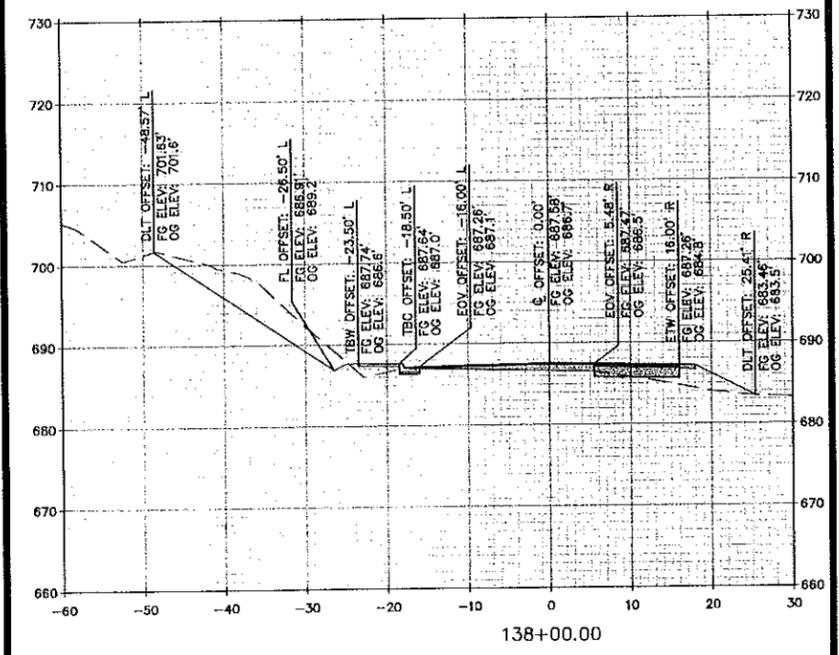
DESIGNED BY: TJM  
DRAWN BY: TJM  
REVIEWED BY: GD

DATE: 12/26/12  
SHEET 19 OF 34

ORIGINAL SCALE: 1"=10'

ORIGINAL SCALE IN INCHES: 0 1 2

STATE OF OREGON  
REGISTERED PROFESSIONAL ENGINEER  
No. 12345  
DATE OF EXPIRATION: 12/31/15



DESIGNED BY TJM  
 DRAWN BY TJM  
 REVIEWED BY GD

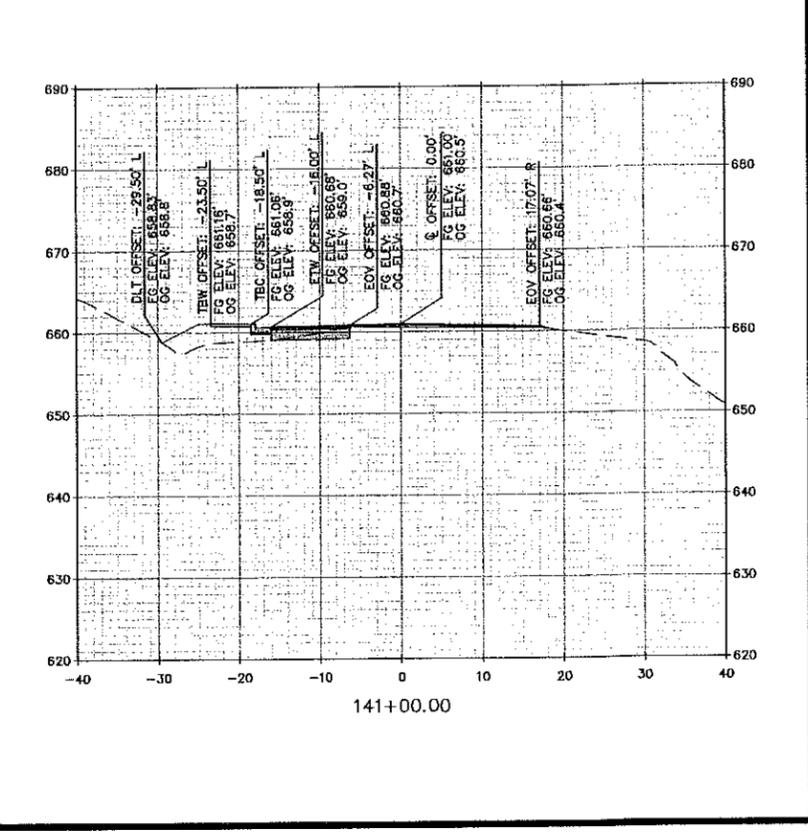
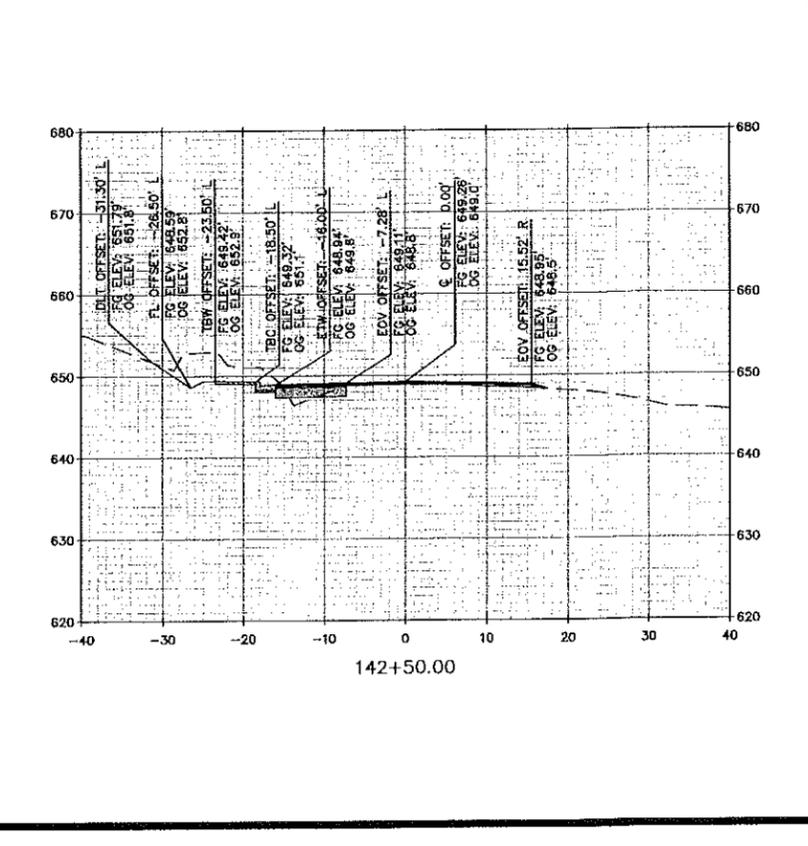
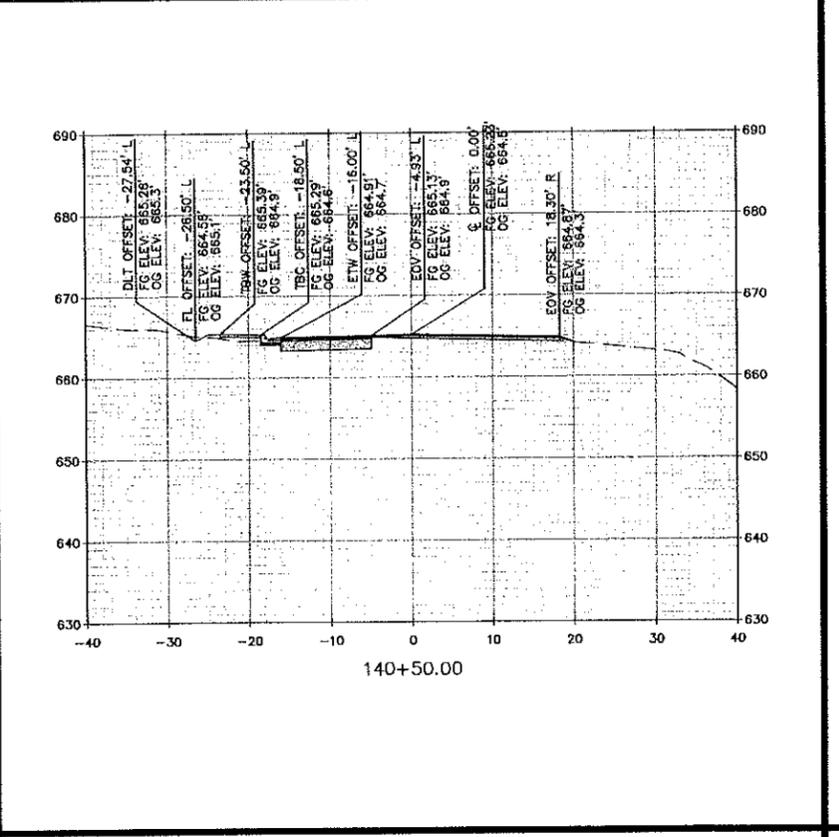
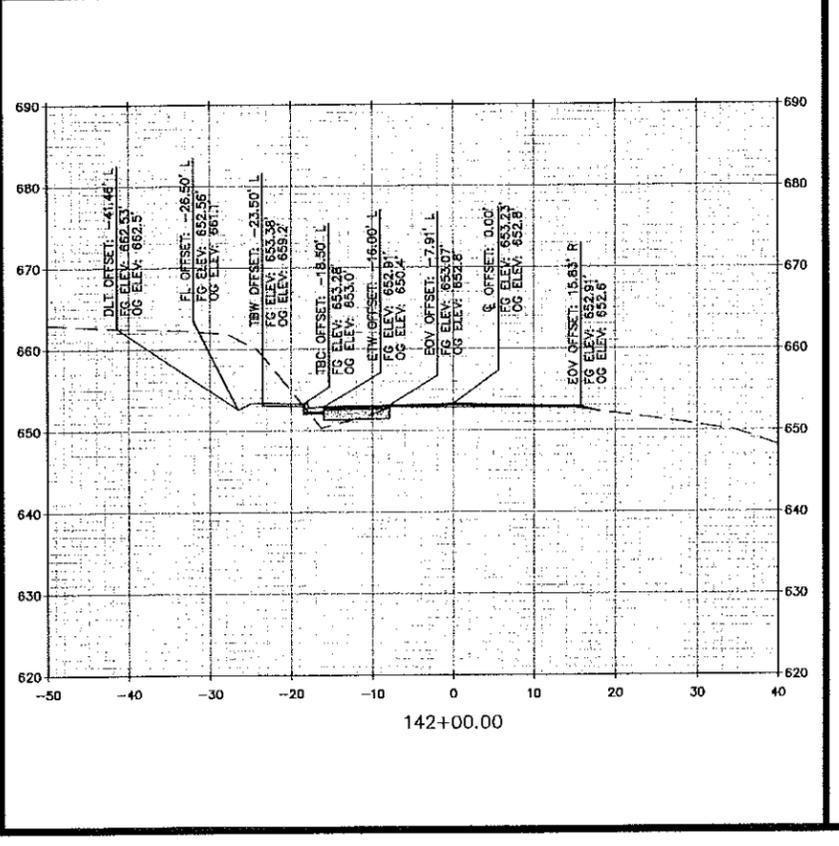
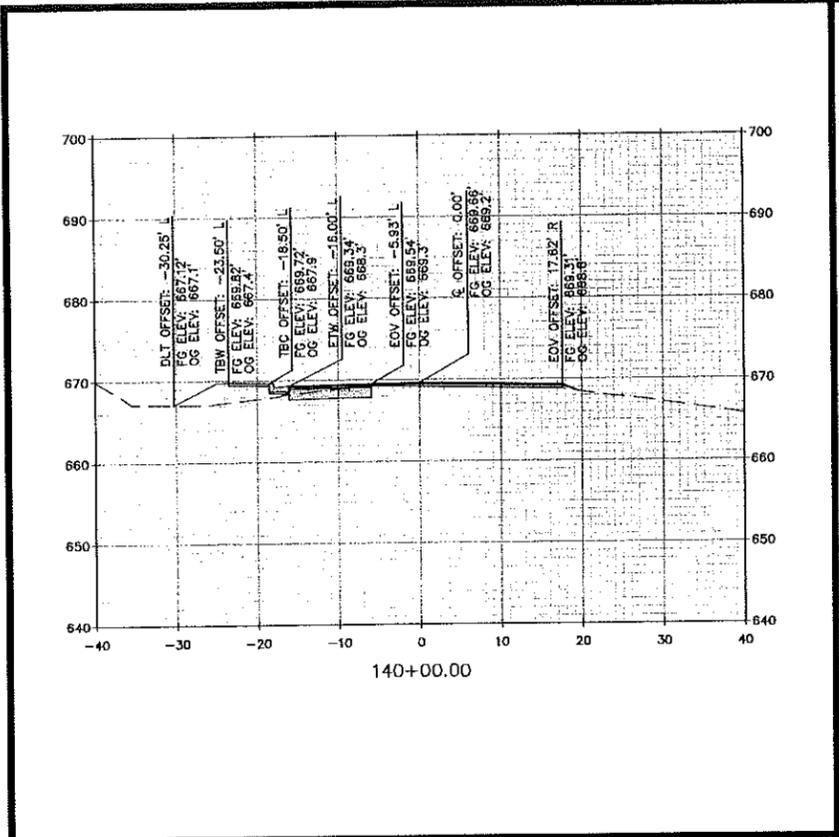
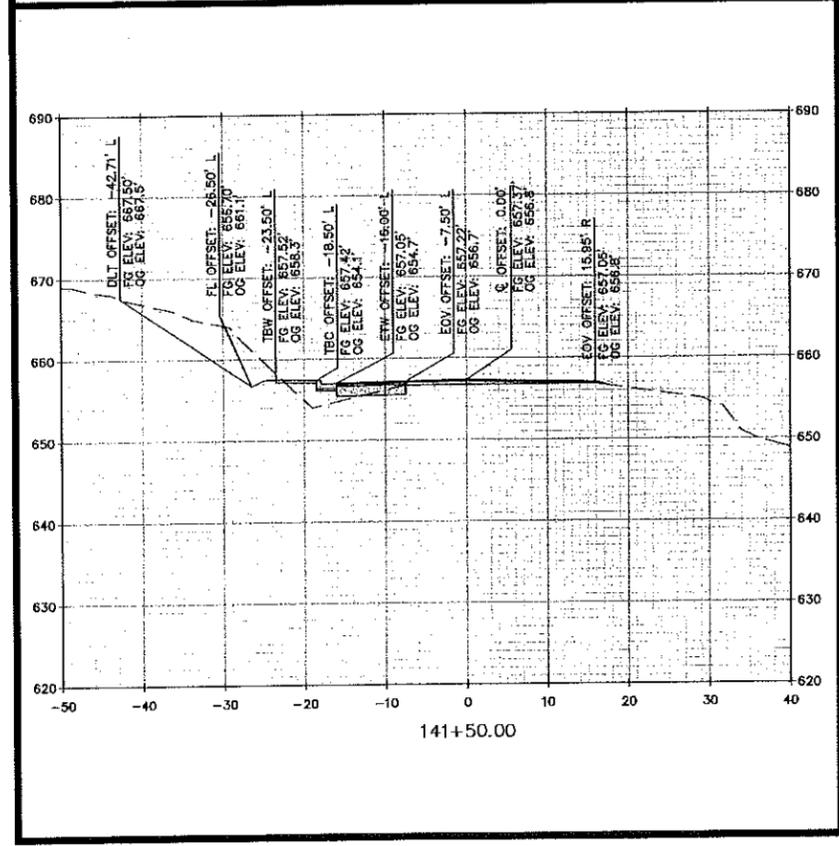
DATE 12/26/12



CITY OF REDDING  
 TRANSPORTATION AND ENGINEERING DEPARTMENT

QUARTZ HILL ROAD  
 WIDENING AND ASPHALT  
 CONCRETE OVERLAY  
 JOB NO. 2280 BID SCH. NO. 2013  
 ROAD SECTIONS 138+00 - 139+50

A-X  
 ORIGINAL SCALE: 1"=10'  
 DATE: 12/26/12  
 SHEET 20 OF 34



**QUARTZ HILL ROAD  
WIDENING AND ASPHALT  
CONCRETE OVERLAY**  
JOB NO. 2280 BD SCH. NO. 2013  
ROAD SECTIONS 140+00 - 142+50

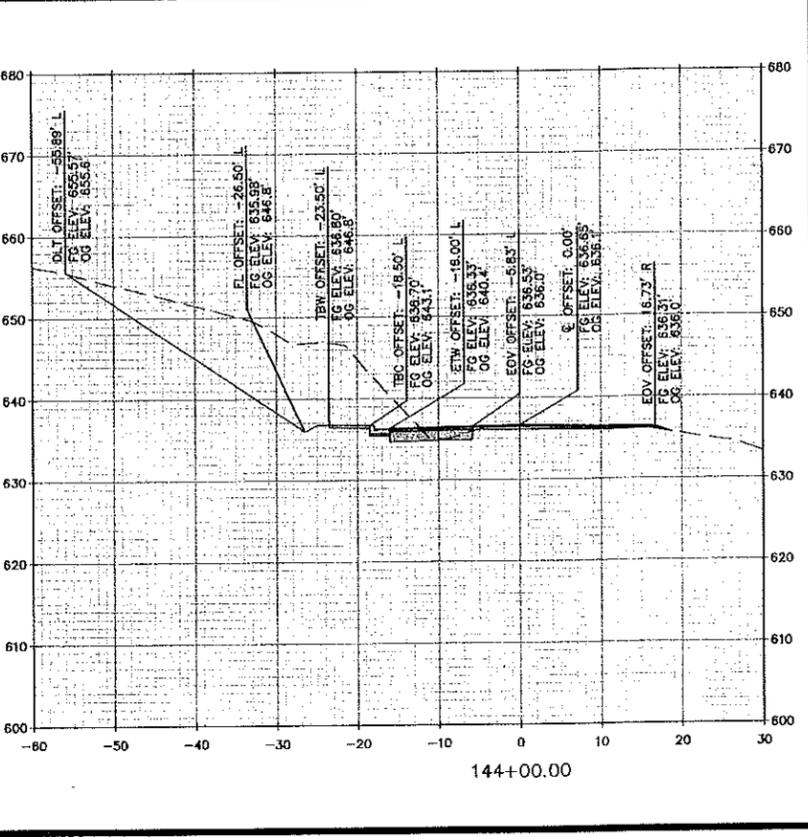
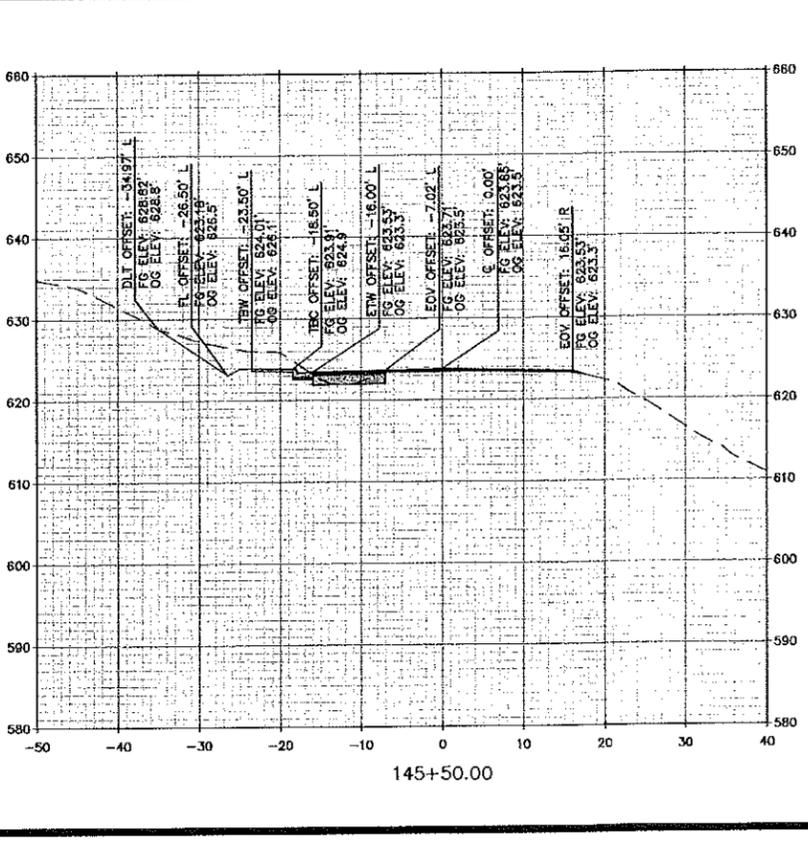
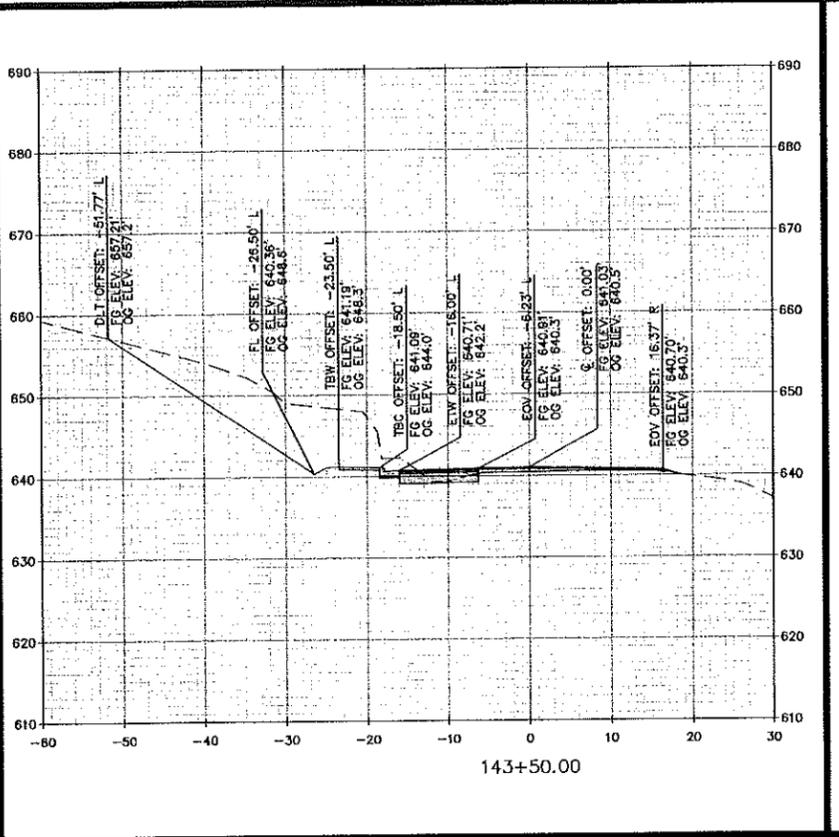
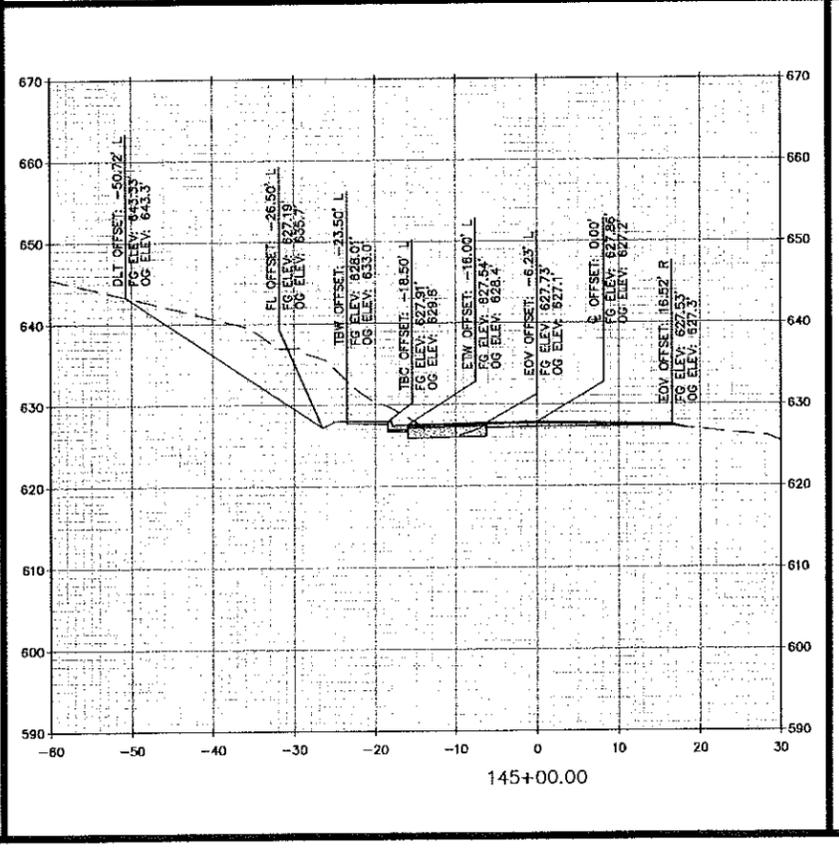
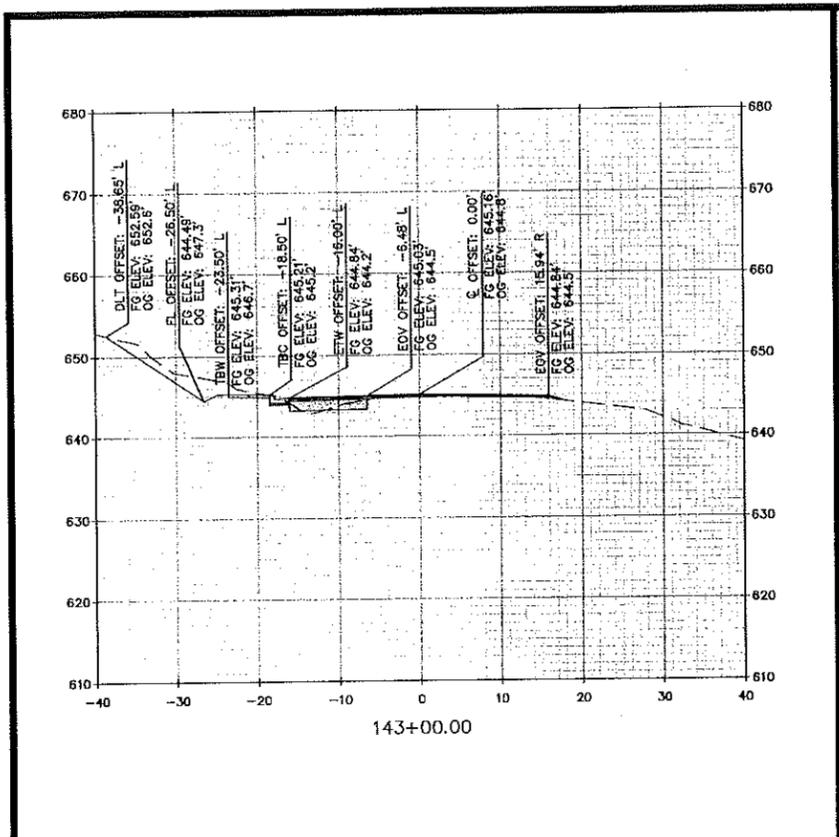
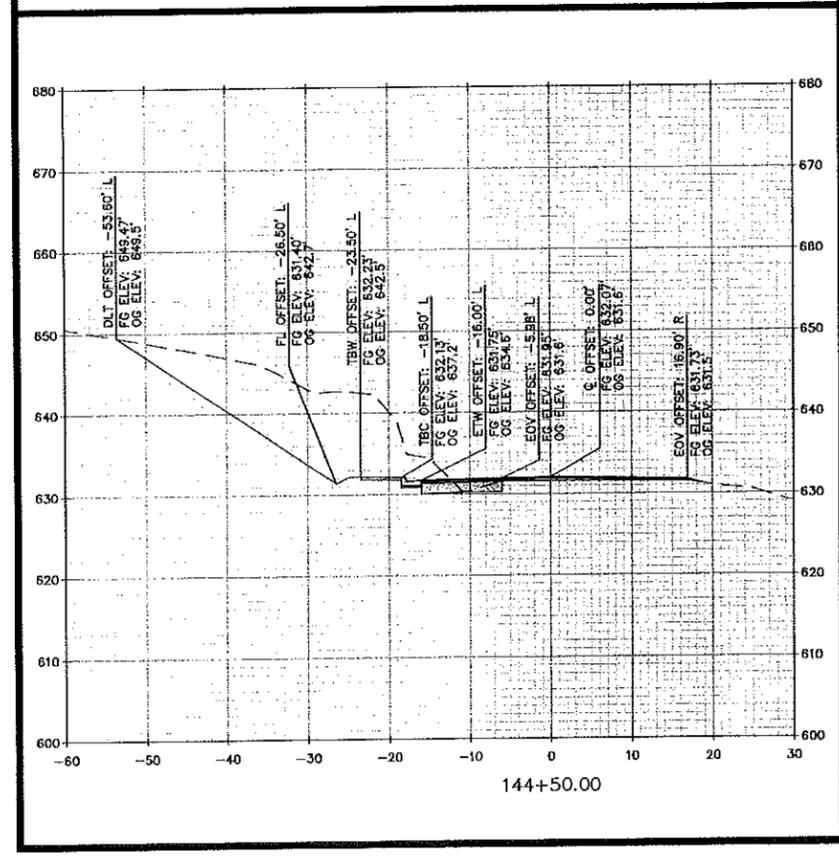
**CITY OF REDDING  
TRANSPORTATION AND ENGINEERING  
DEPARTMENT**

DESIGNED BY: TJM  
DRAWN BY: TJM  
REVIEWED BY: GD

SIGNED: 12/26/12  
DATE

ORIGINAL SCALE: 1"=10'  
DATE: 12/26/12  
SHEET 21 OF 34

ORIGINAL SCALE IN INCHES  
0 1 2



**QUARTZ HILL ROAD**  
**WIDENING AND ASPHALT**  
**CONCRETE OVERLAY**  
 ROAD SECTIONS 143+00 - 145+50

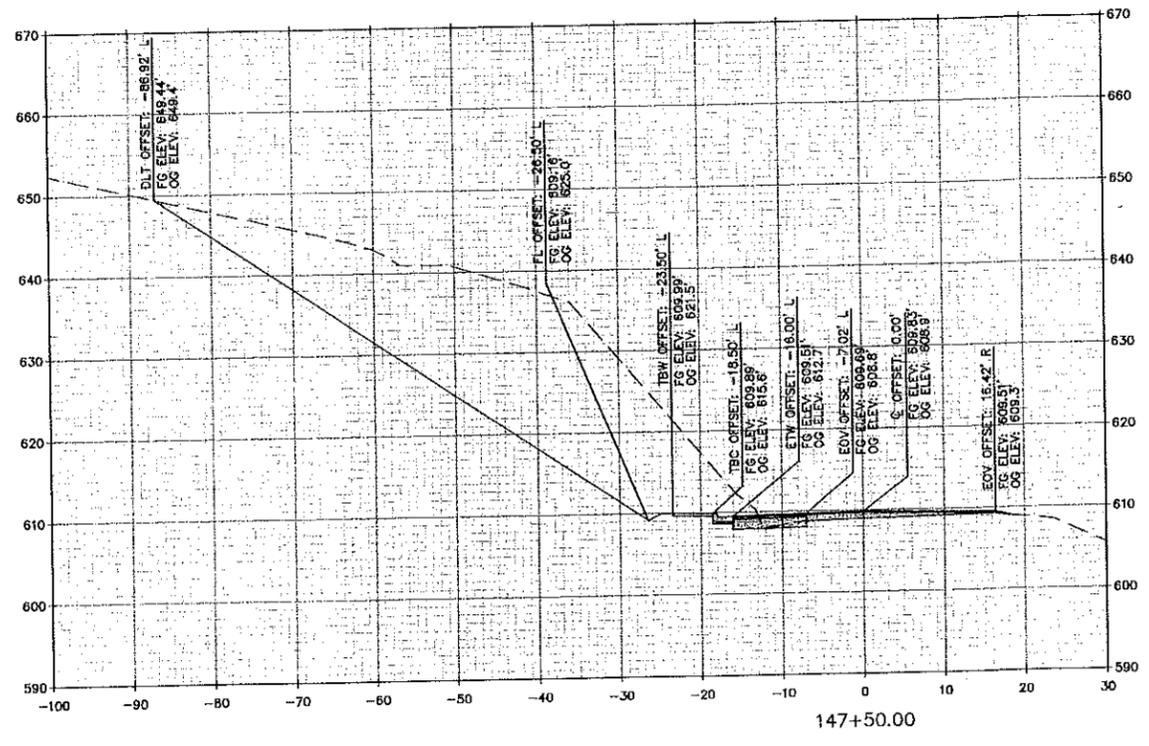
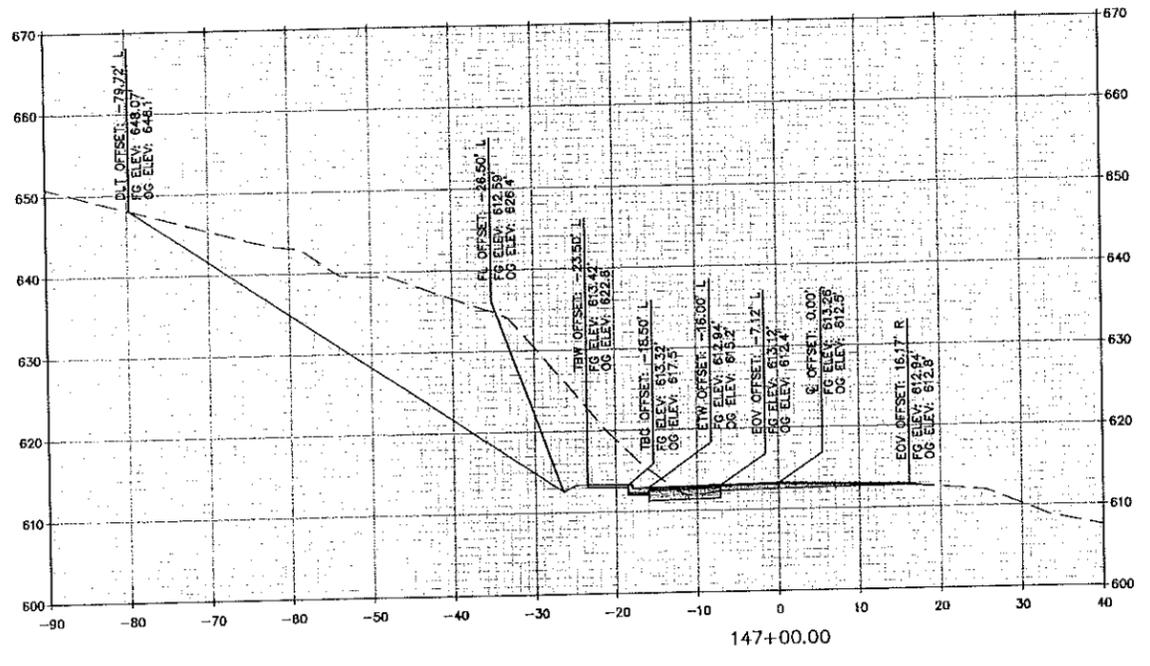
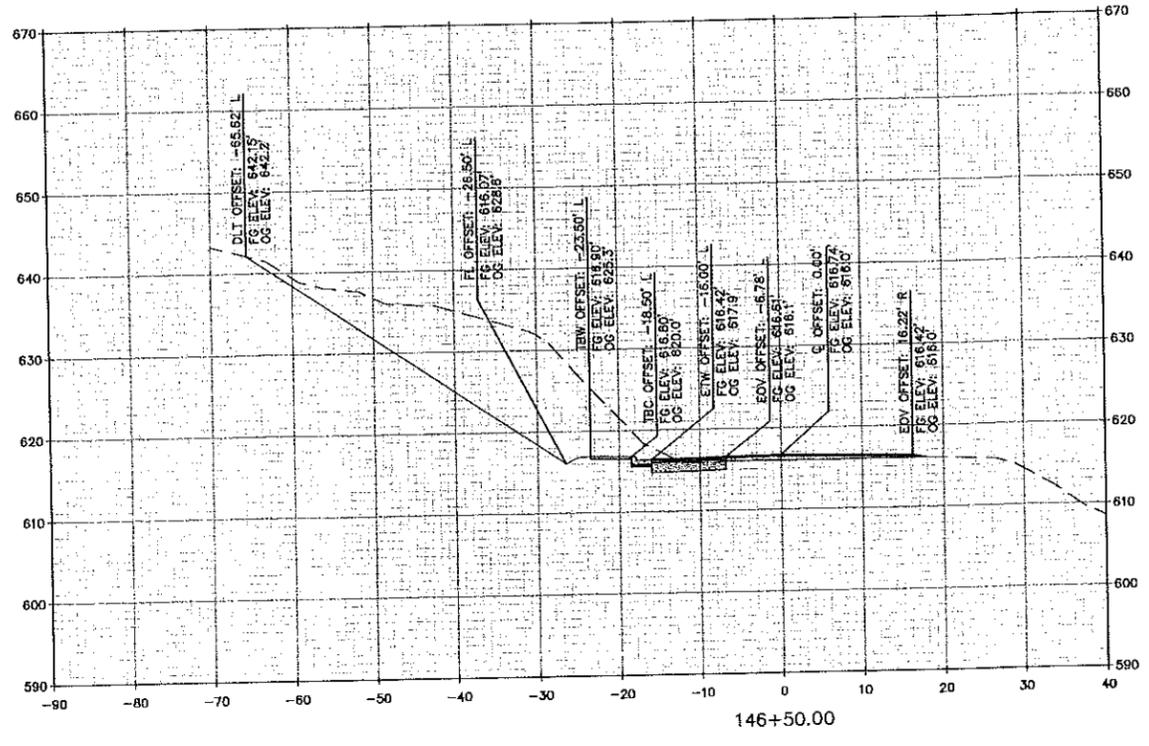
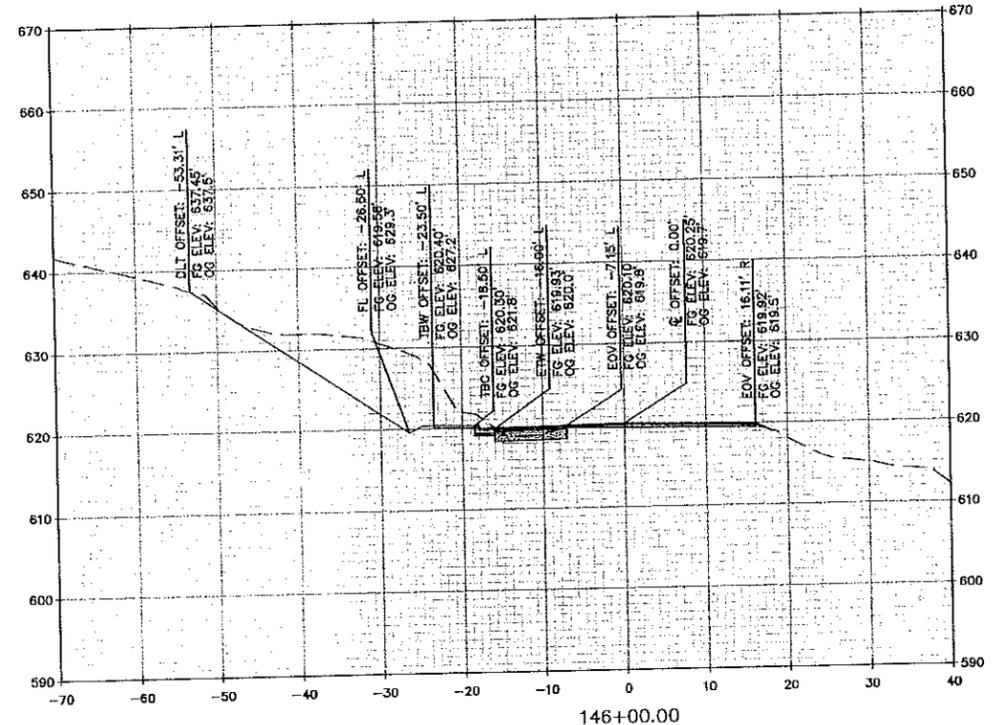
**A-X**  
 ORIGINAL SCALE: 1"=10'  
 DATE: 12/26/12  
 SHEET 22 OF 34

**CITY OF REDDING**  
 TRANSPORTATION AND ENGINEERING DEPARTMENT

DESIGNED BY: TJM  
 DRAWN BY: TJM  
 REVIEWED BY: GD

DATE: 12/16/12

ORIGINAL SCALE IN INCHES: 0 1 2



**CITY OF PIEDMONT**  
TRANSPORTATION AND ENGINEERING DEPARTMENT

**QUARTZ HILL ROAD**  
WIDENING AND ASPHALT  
CONCRETE OVERLAY  
JOB NO. 2280    BID NO. 2013    ROAD SECTIONS 146+00 - 147+50

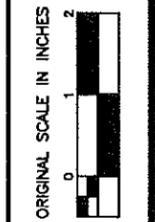
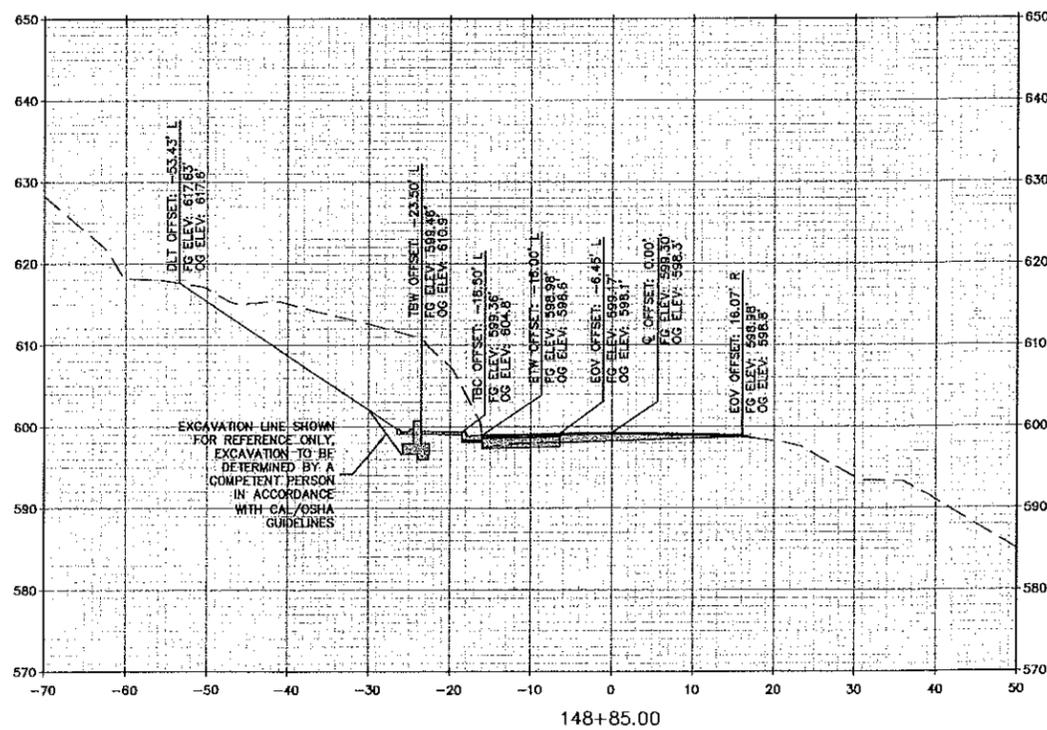
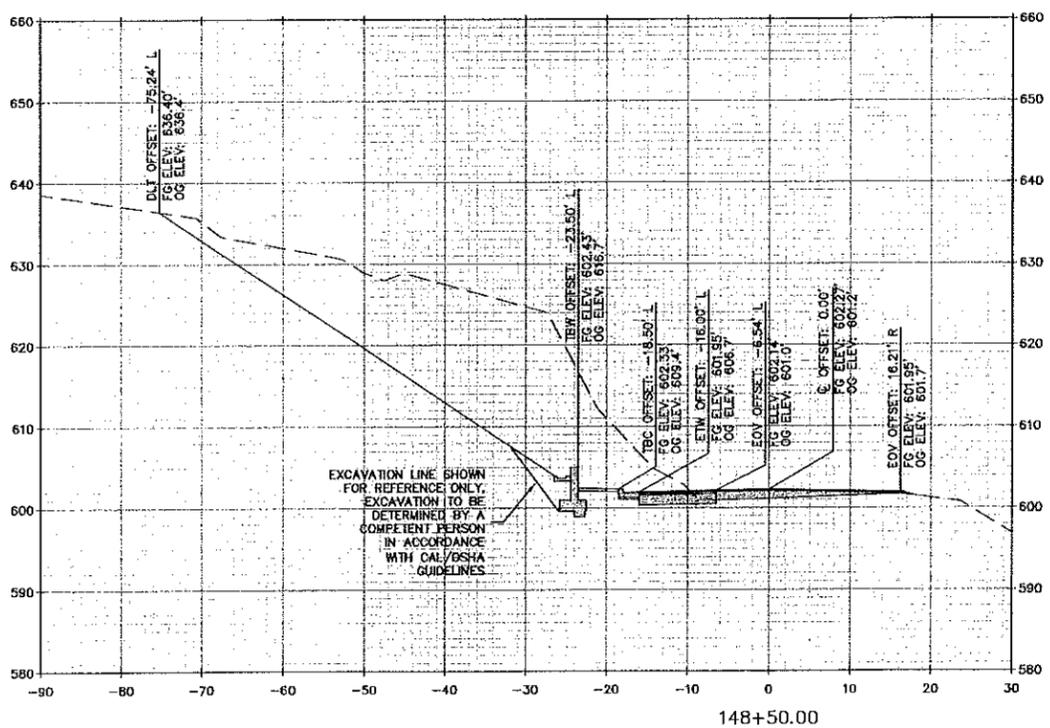
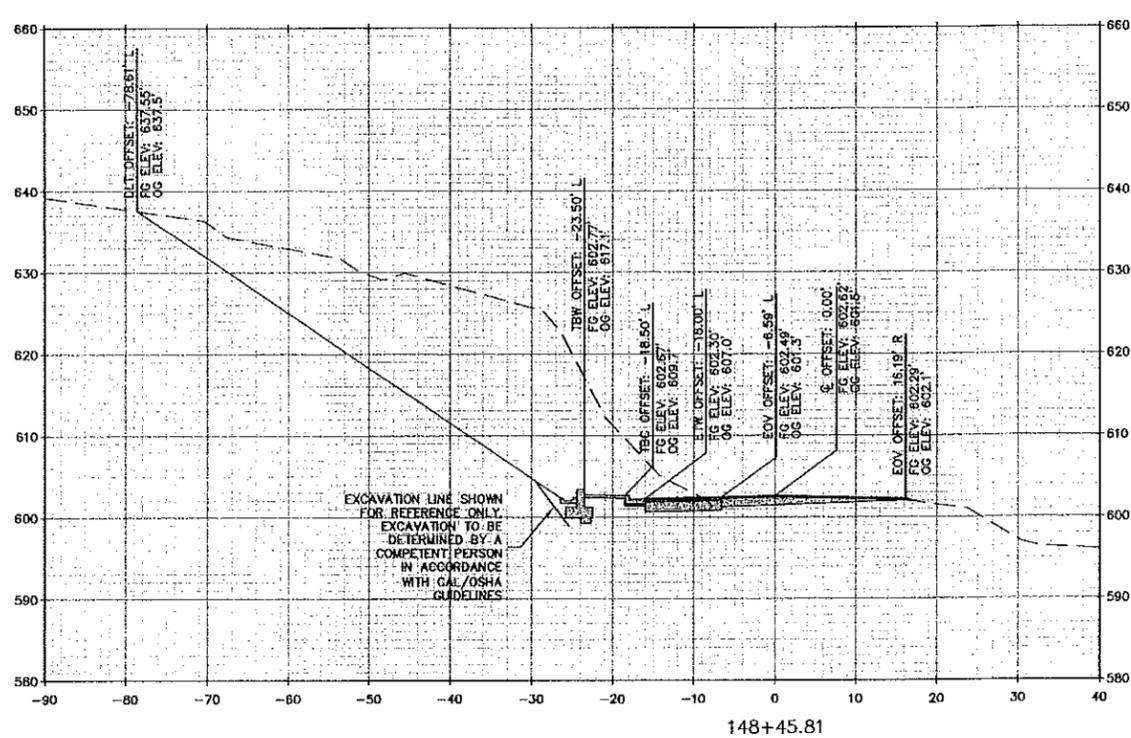
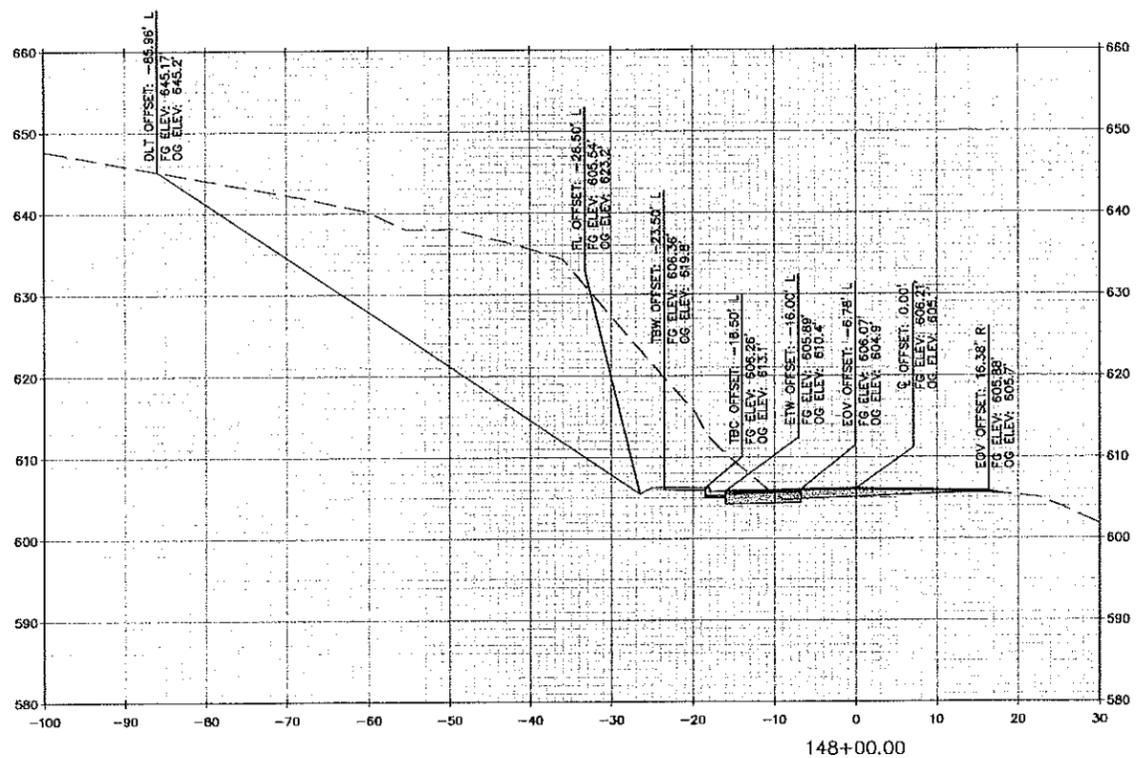
DESIGNED BY: TJM  
DRAWN BY: TJM  
REVIEWED BY: GD

DATE: 12/26/12

ORIGINAL SCALE IN INCHES: 1"=10'

DATE: 12/26/12

SHEET 23 OF 34



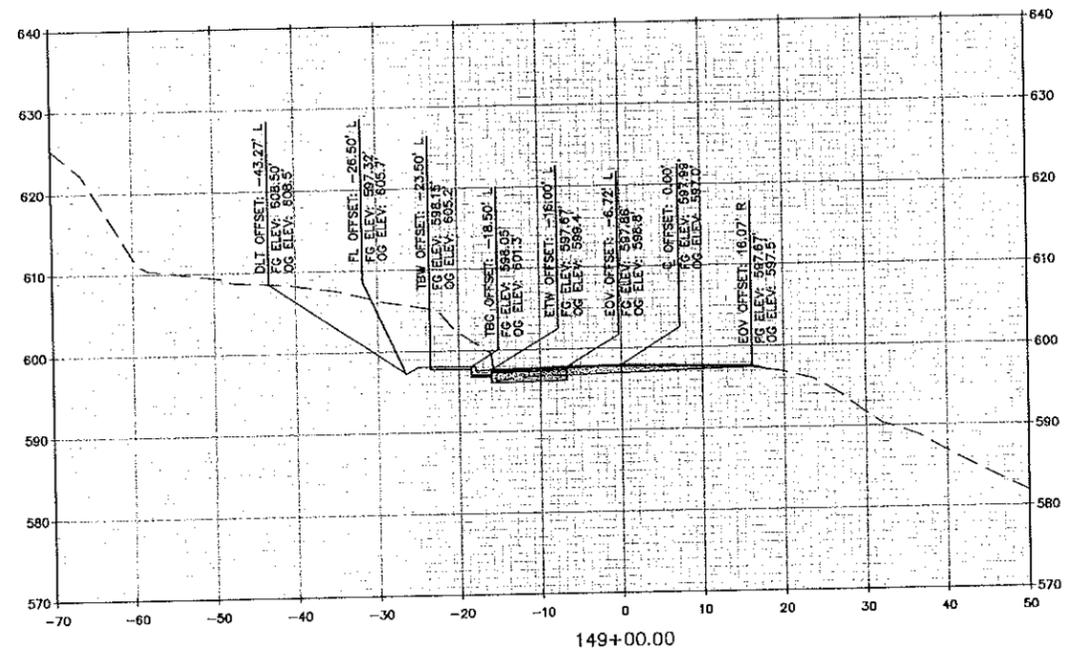
DESIGNED BY: TJM  
 DRAWN BY: TJM  
 REVIEWED BY: GD

DATE: 12/26/12  
 SIGNED: [Signature]

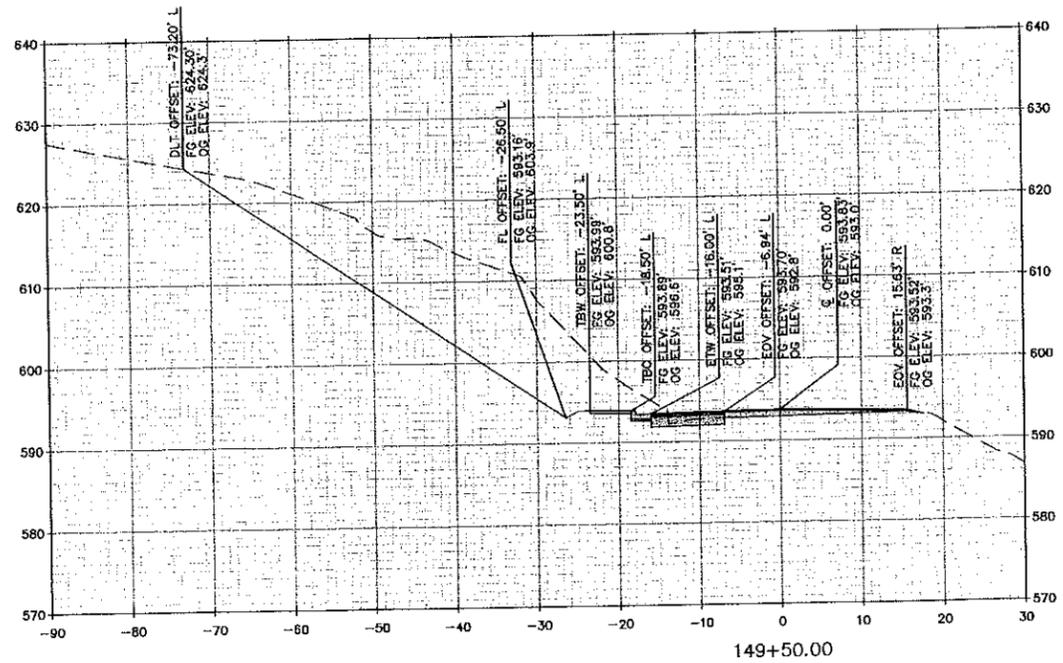
CITY OF REDDING  
 TRANSPORTATION AND ENGINEERING  
 DEPARTMENT

QUARTZ HILL ROAD  
 WIDENING AND ASPHALT  
 CONCRETE OVERLAY  
 JOB NO. 2280  
 ROAD SECTIONS 148+00 - 148+85  
 RD. SCH. NO. 2013

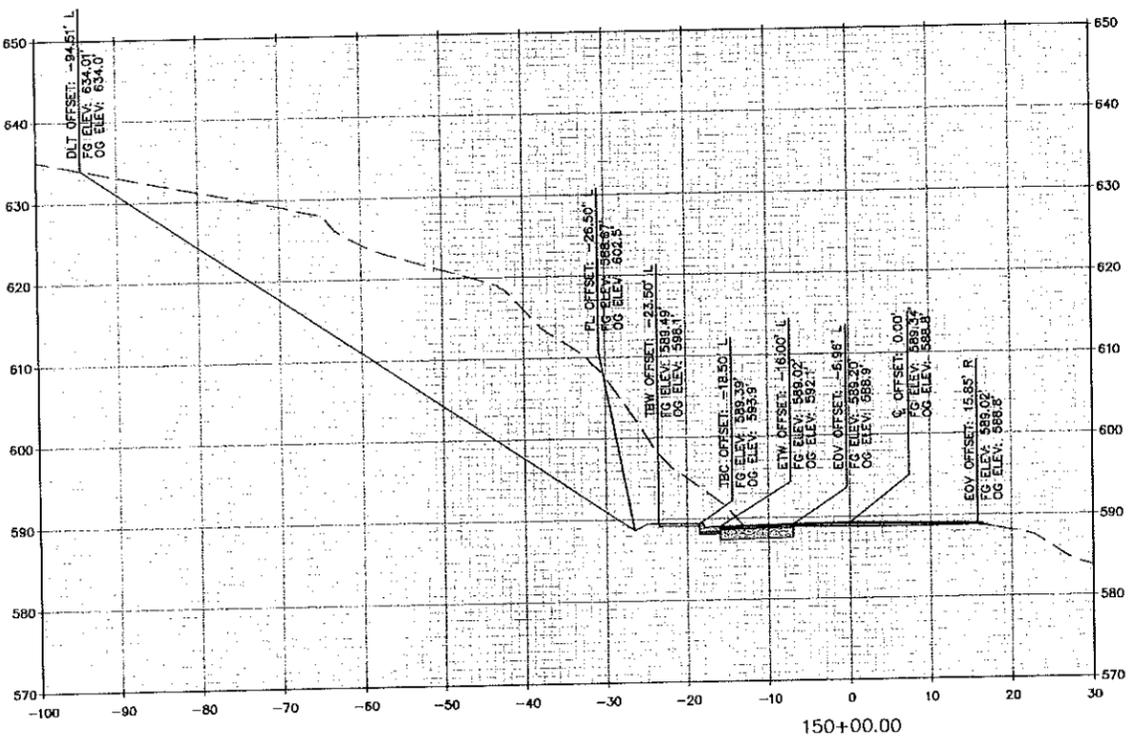
A-X  
 ORIGINAL SCALE: 1"=10'  
 DATE: 12/26/12  
 SHEET 24 OF 34



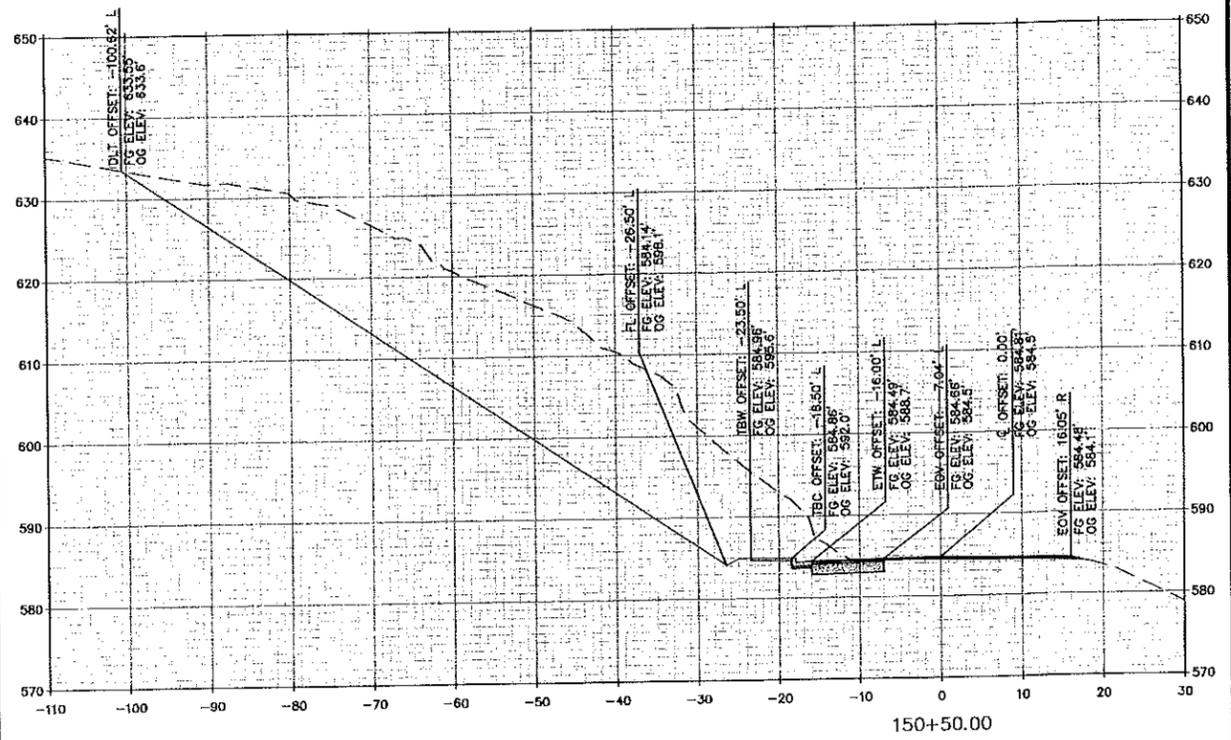
149+00.00



149+50.00



150+00.00



150+50.00



DESIGNED BY TJM  
 DRAWN BY TJM  
 REVIEWED BY GD

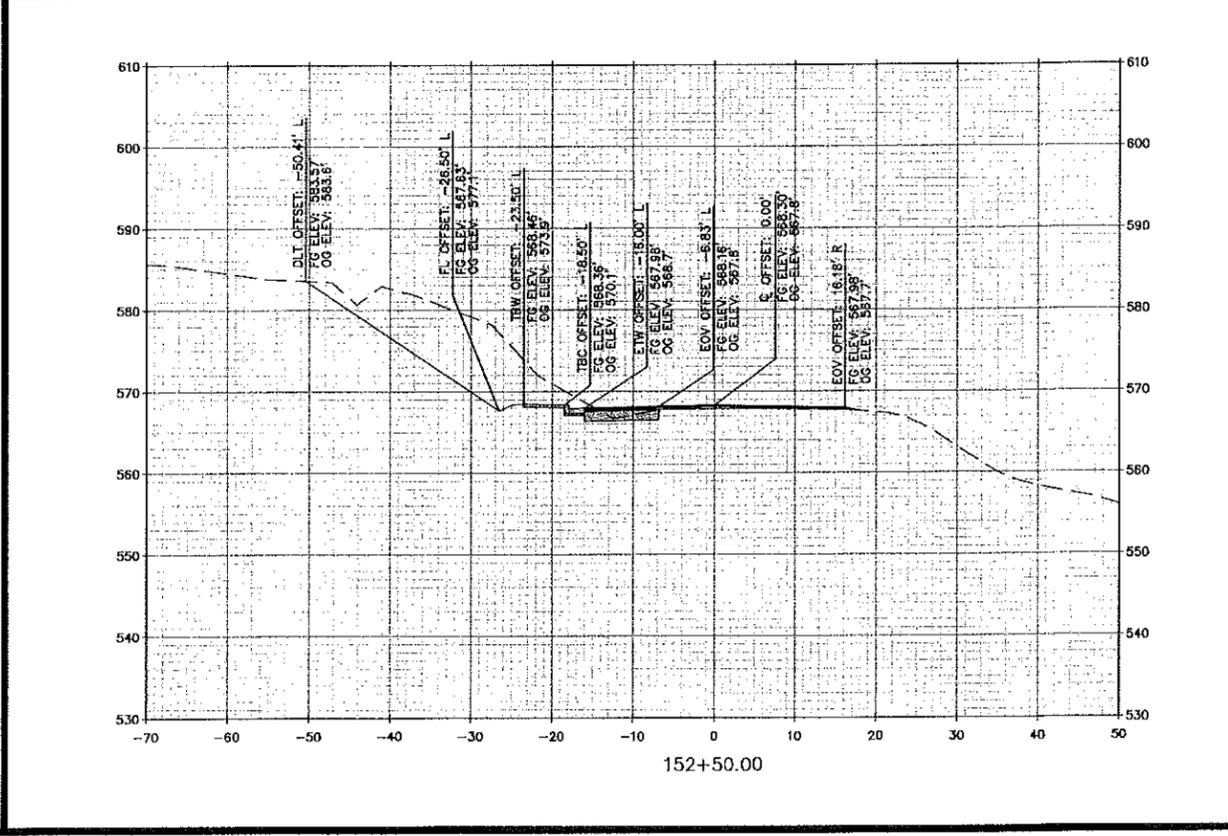
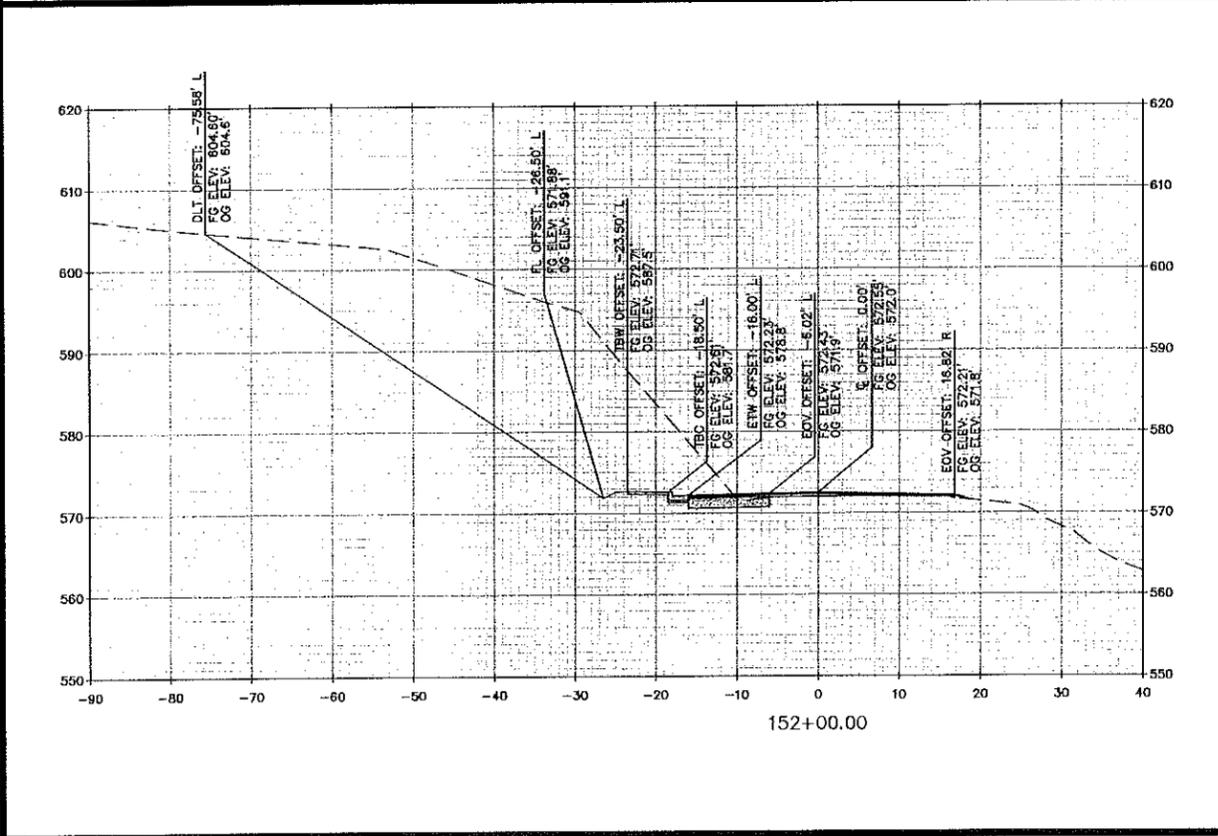
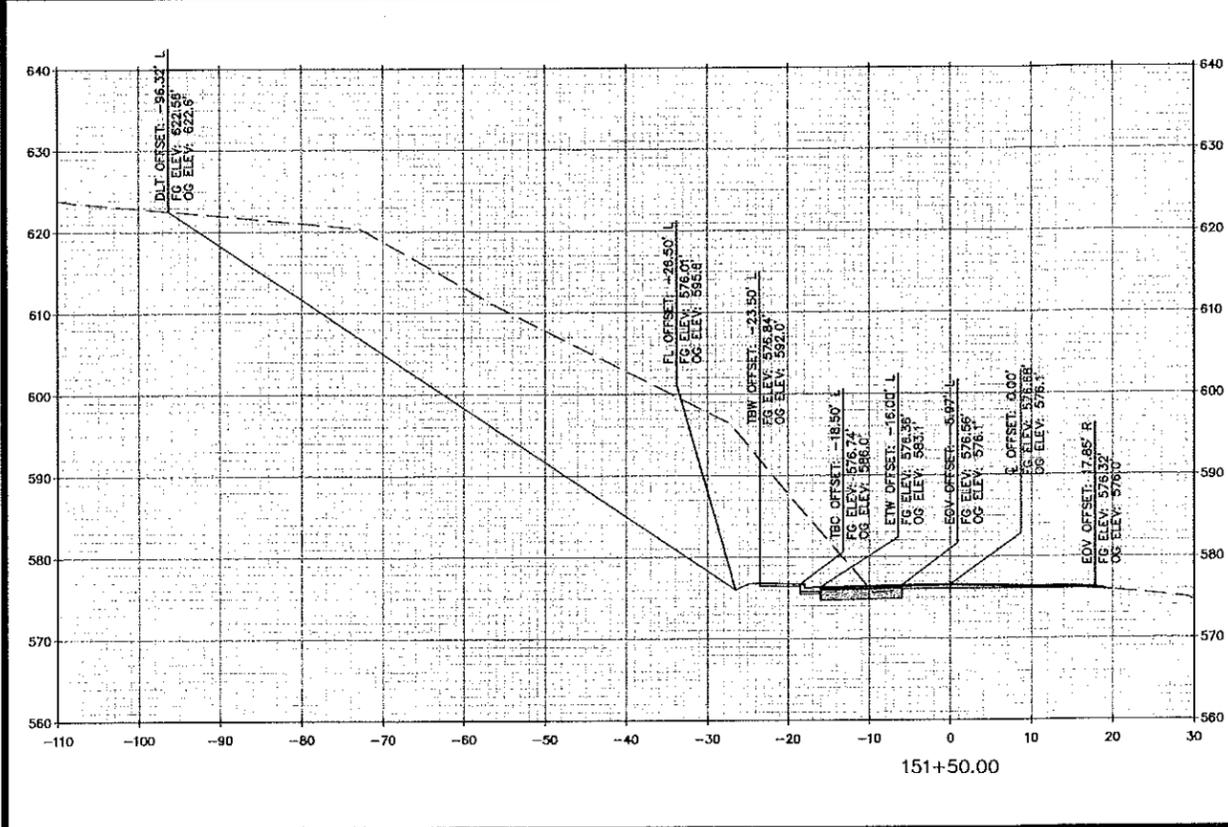
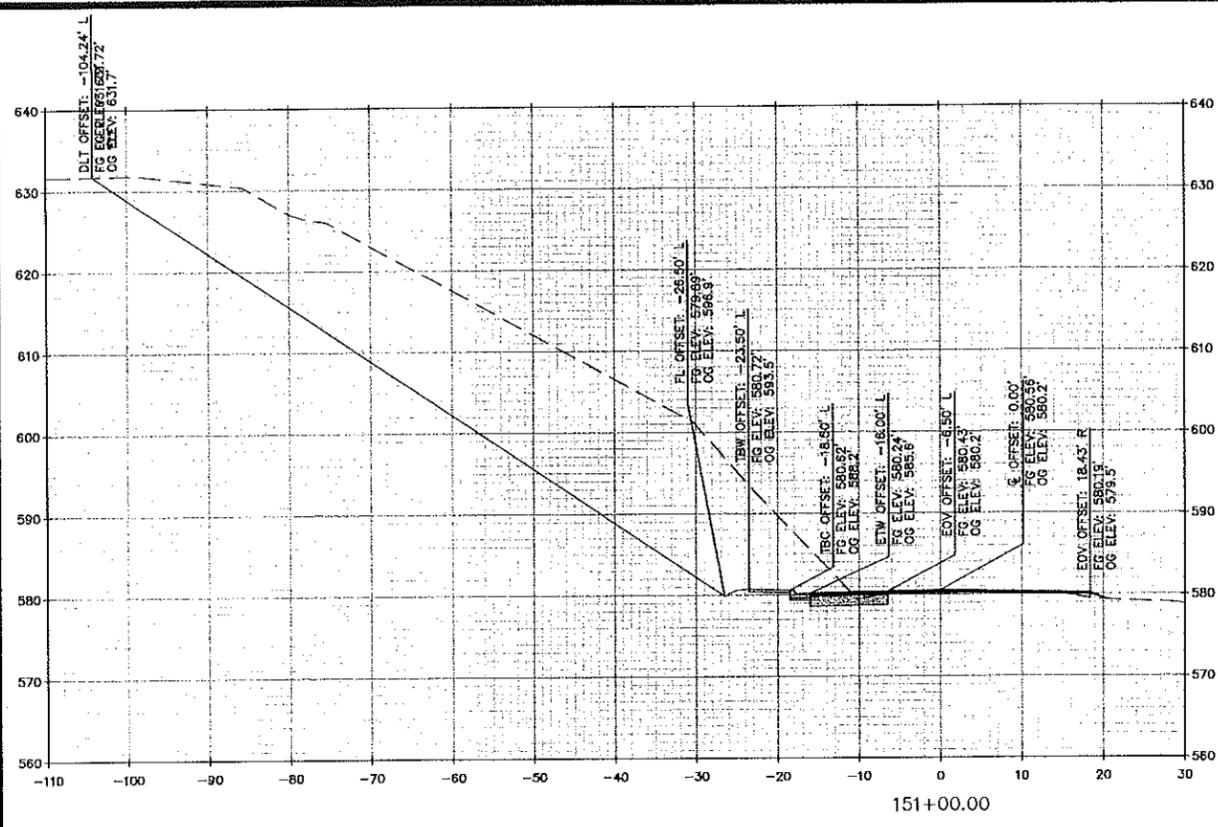
DATE 12/26/12  
 SIGNED GD



CITY OF REDDING  
 TRANSPORTATION AND ENGINEERING  
 DEPARTMENT

QUARTZ HILL ROAD  
 WIDENING AND ASPHALT  
 CONCRETE OVERLAY  
 JOB NO. 2290 BID SCH. NO. 2013  
 ROAD SECTIONS 149+00 - 150+50

A-X  
 ORIGINAL SCALE:  
 1"=10'  
 DATE: 12/26/12  
 SHEET 25 OF 34



**CITY OF REDDING**  
**TRANSPORTATION AND ENGINEERING**  
**DEPARTMENT**

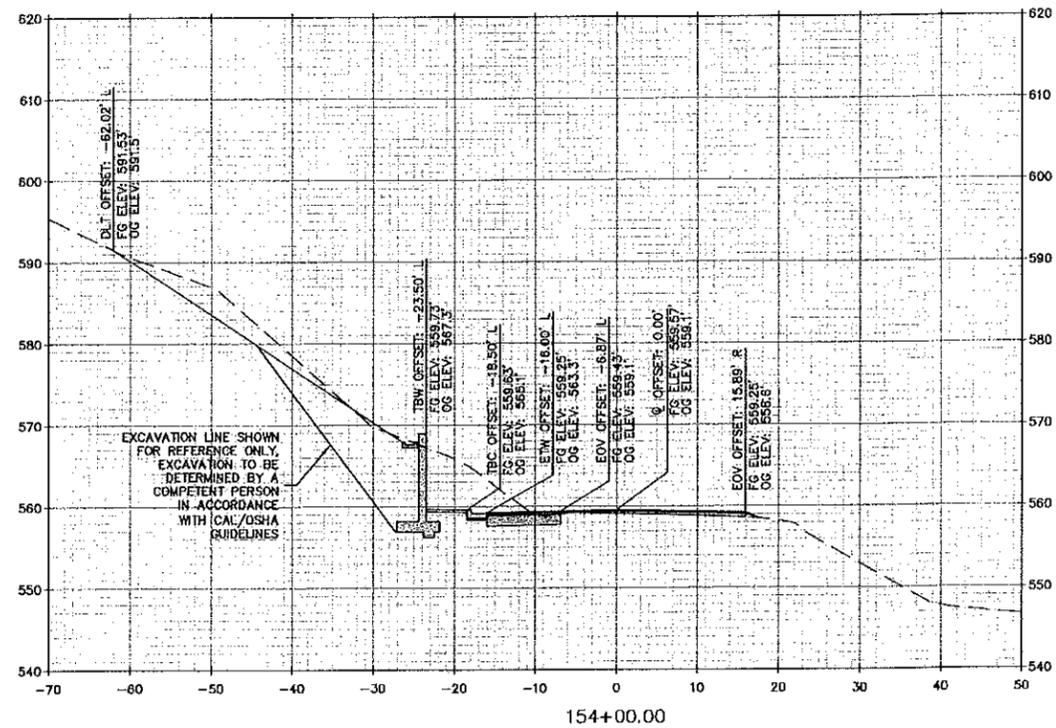
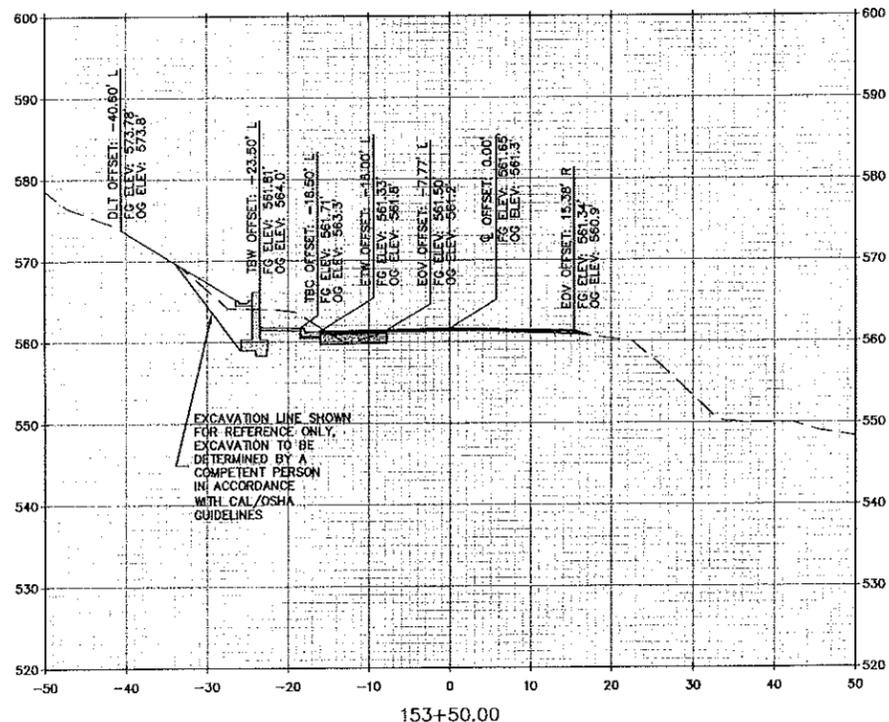
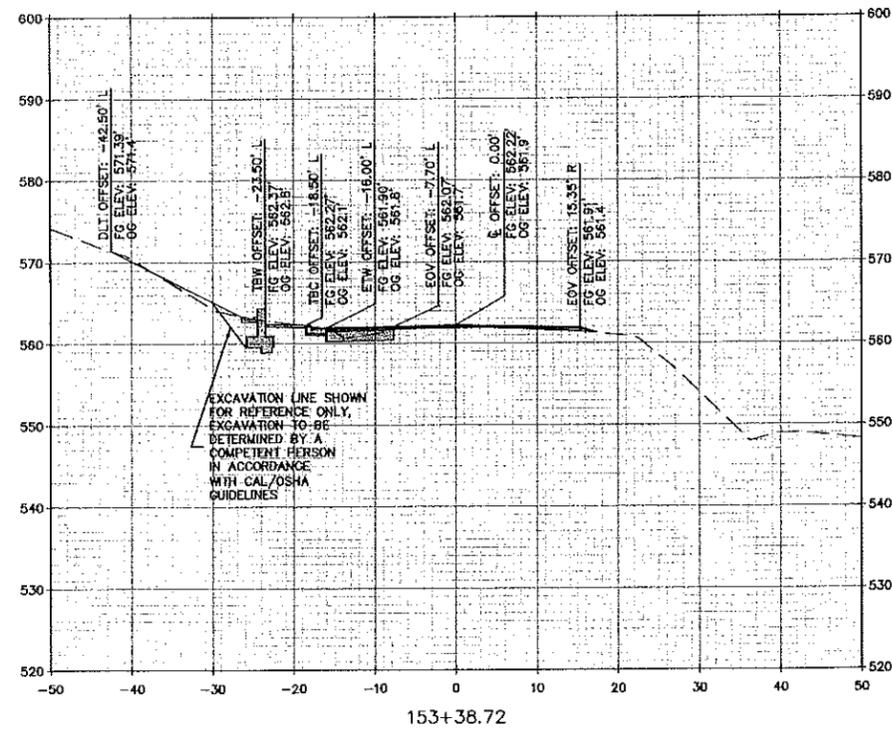
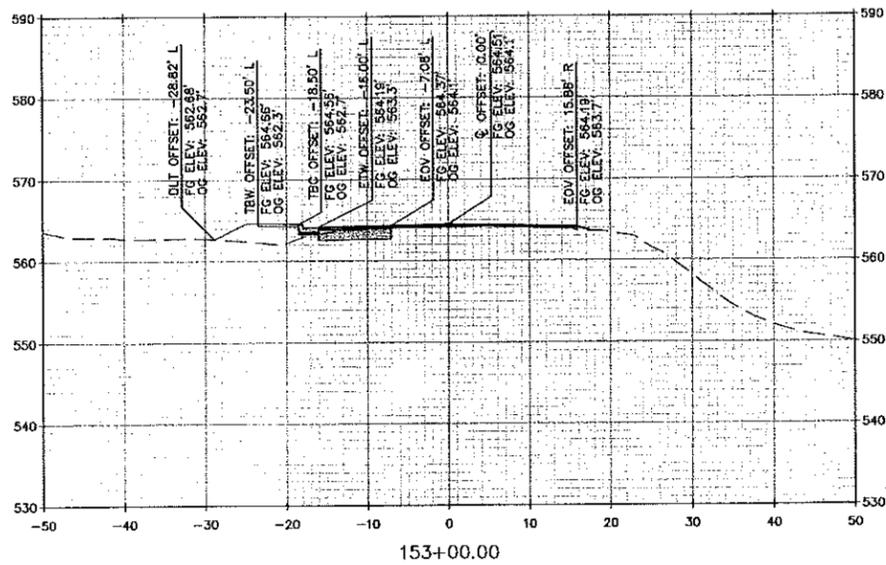
**QUARTZ HILL ROAD**  
**WIDENING AND ASPHALT**  
**CONCRETE OVERLAY**  
 JOB NO. 2280  
 ROAD SECTIONS 151+00 - 152+50

DESIGNED BY: TJM  
 DRAWN BY: TJM  
 REVIEWED BY: GD

DATE: 12/26/12

ORIGINAL SCALE IN INCHES: 2" = 10'

A-X  
 ORIGINAL SCALE: 1" = 10'  
 DATE: 12/26/12  
 SHEET 28 OF 34



**QUARTZ HILL ROAD  
WIDENING AND ASPHALT  
CONCRETE OVERLAY**  
JOB NO. 2280 BUD. SCH. NO. 2013  
ROAD SECTIONS 153+00 - 154+00

**CITY OF REDDING  
TRANSPORTATION AND ENGINEERING  
DEPARTMENT**

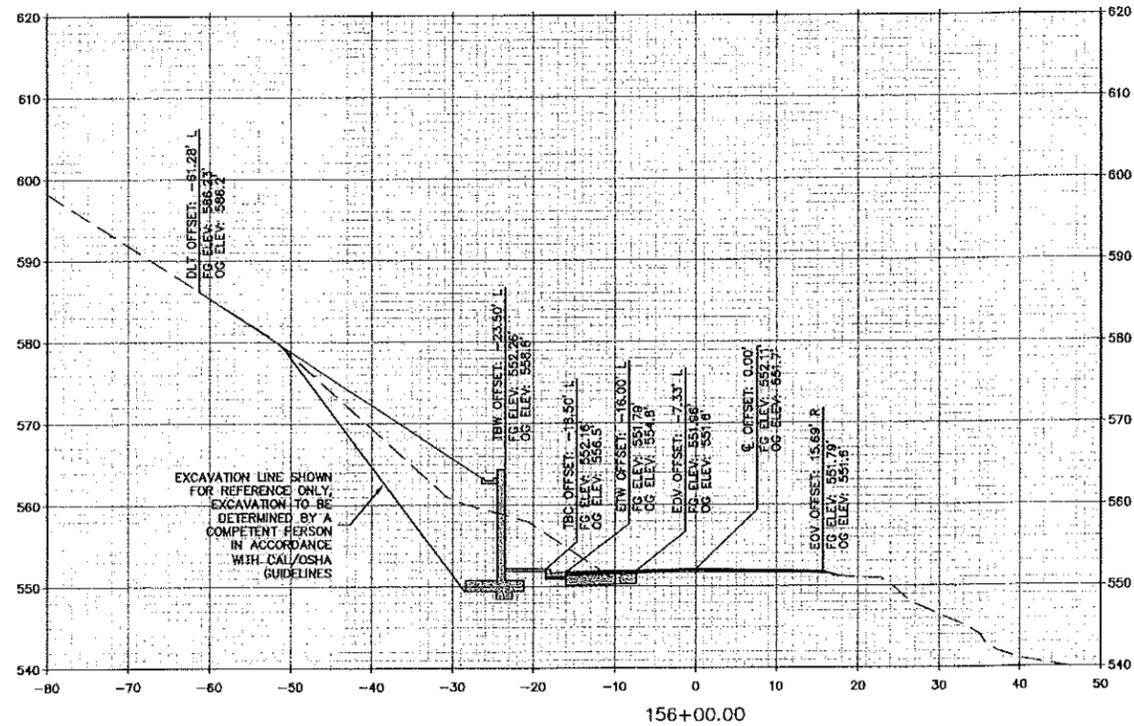
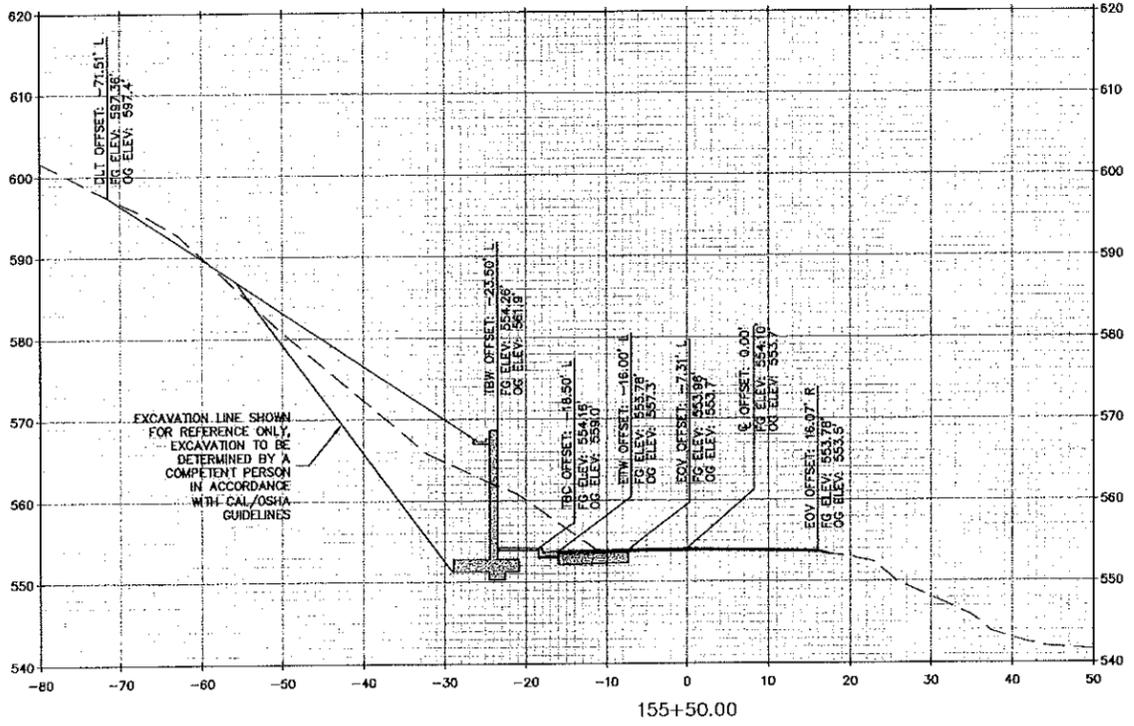
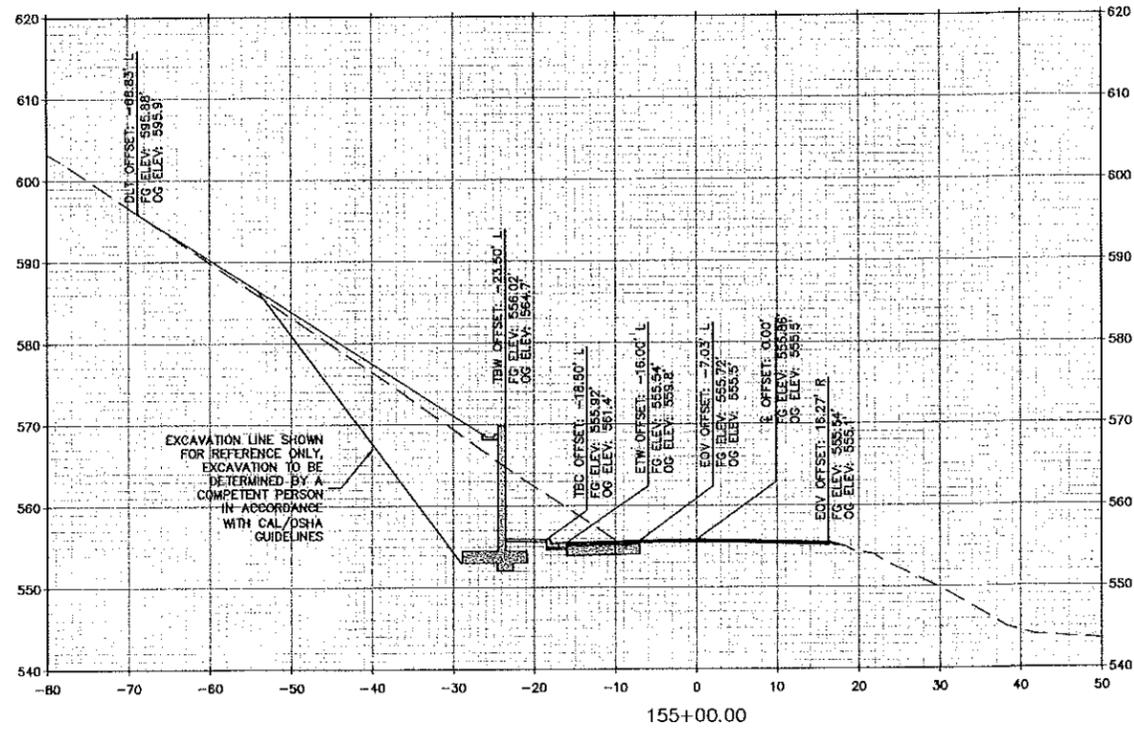
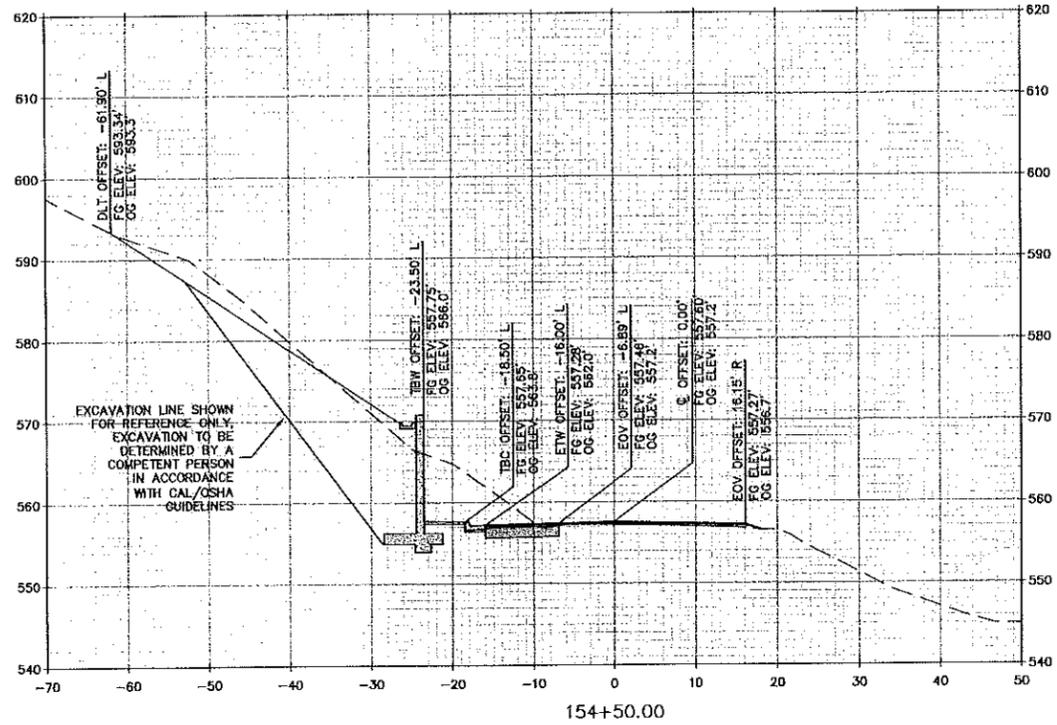
DESIGNED BY: TJM  
DRAWN BY: TJM  
REVIEWED BY: GD

DATE: 12/26/12

ORIGINAL SCALE IN INCHES: 1"=10'

DATE: 12/26/12

SHEET 27 OF 34



DESIGNED BY TJM  
DRAWN BY TJM  
REVIEWED BY GD

DATE 12/26/12

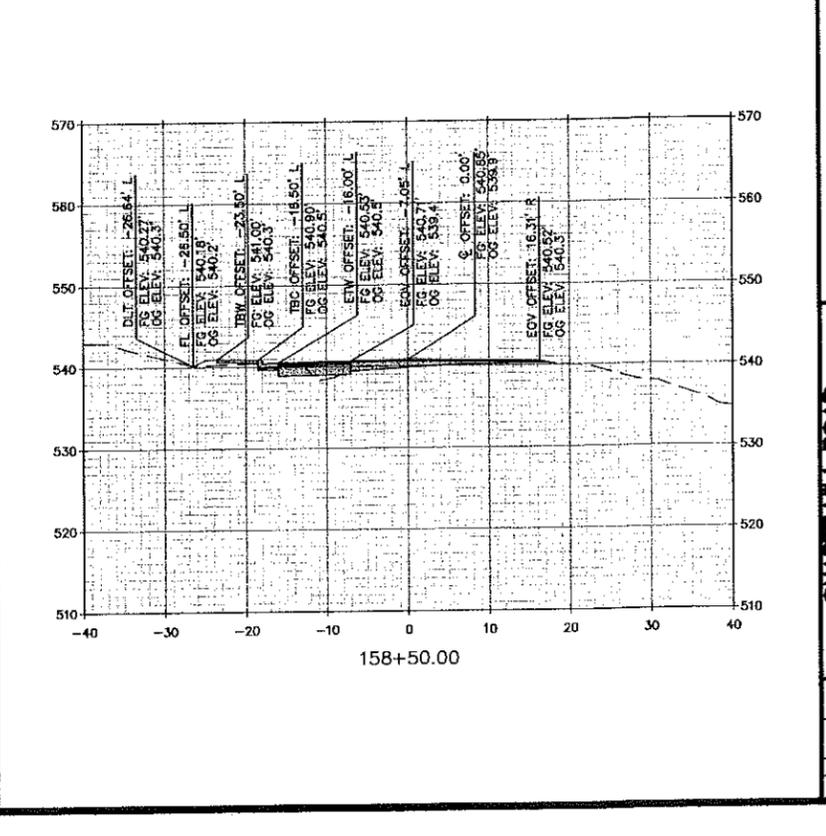
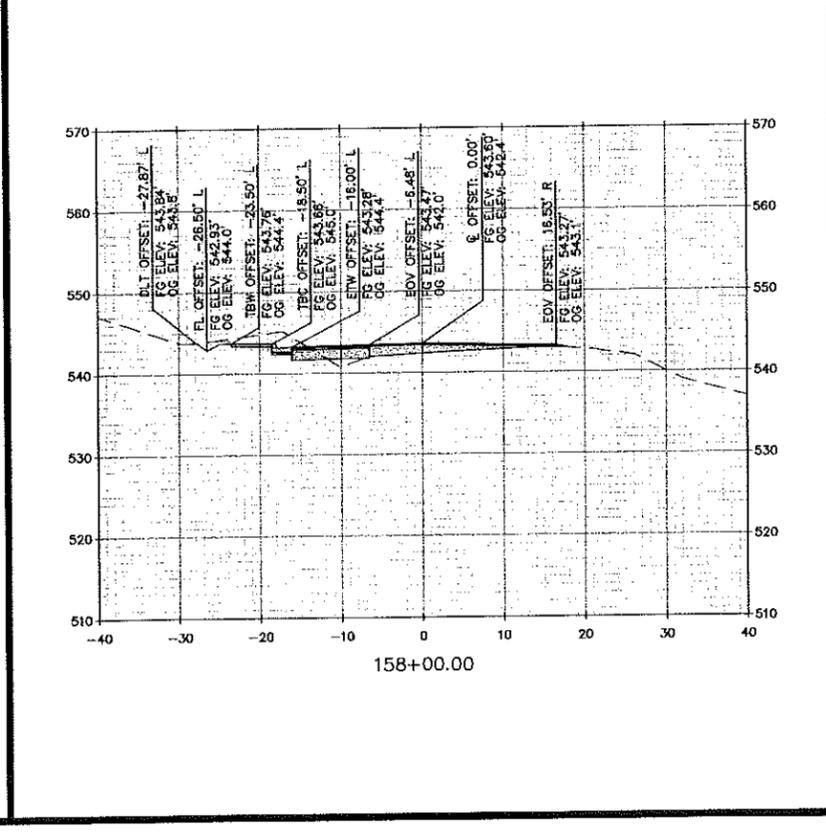
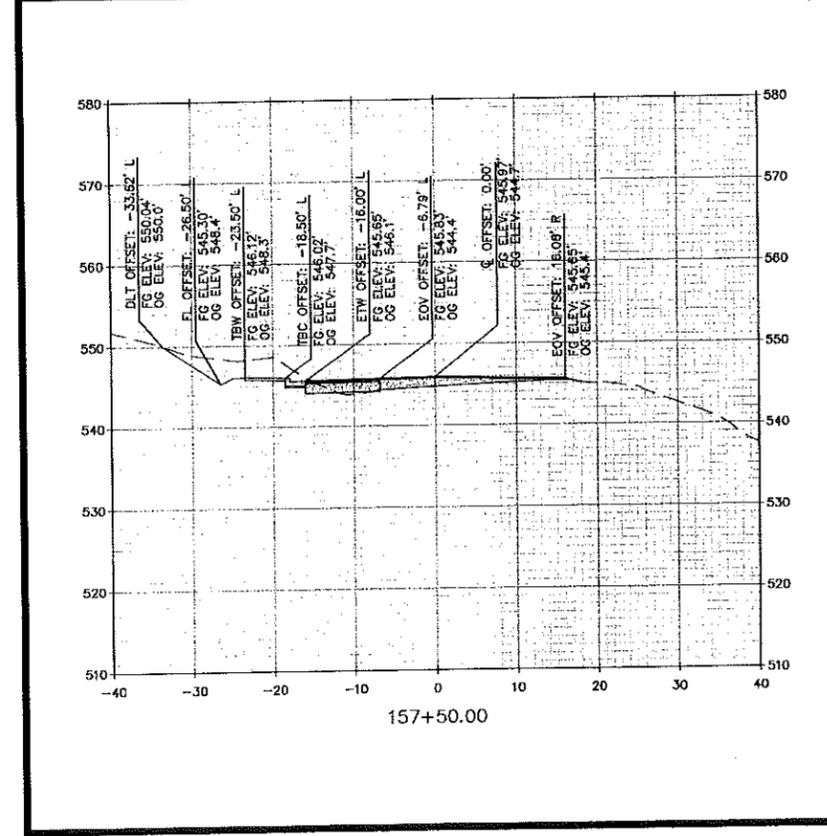
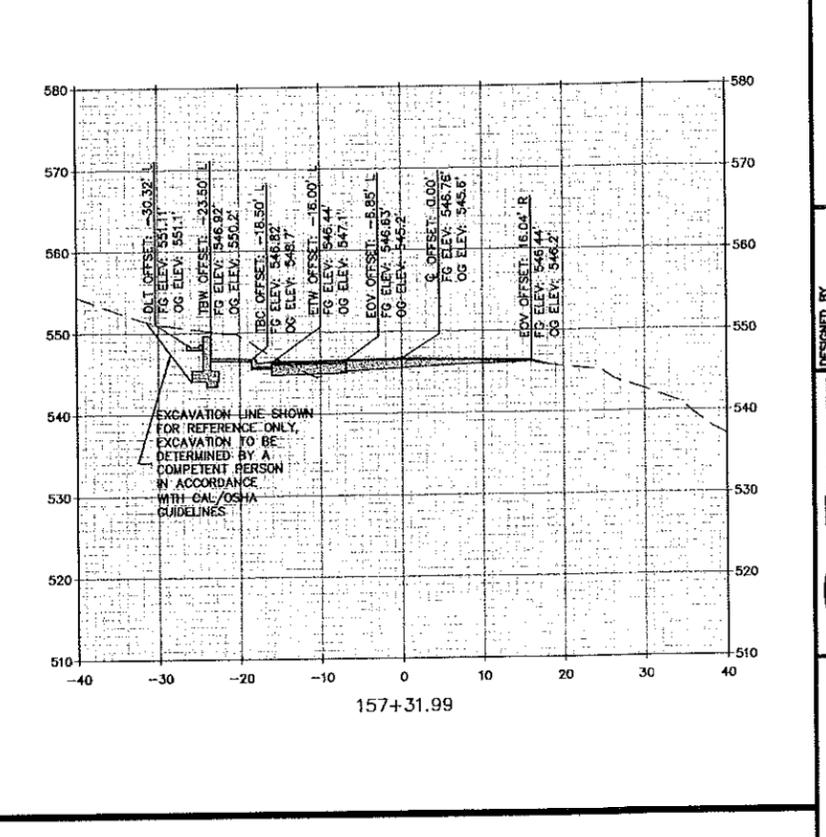
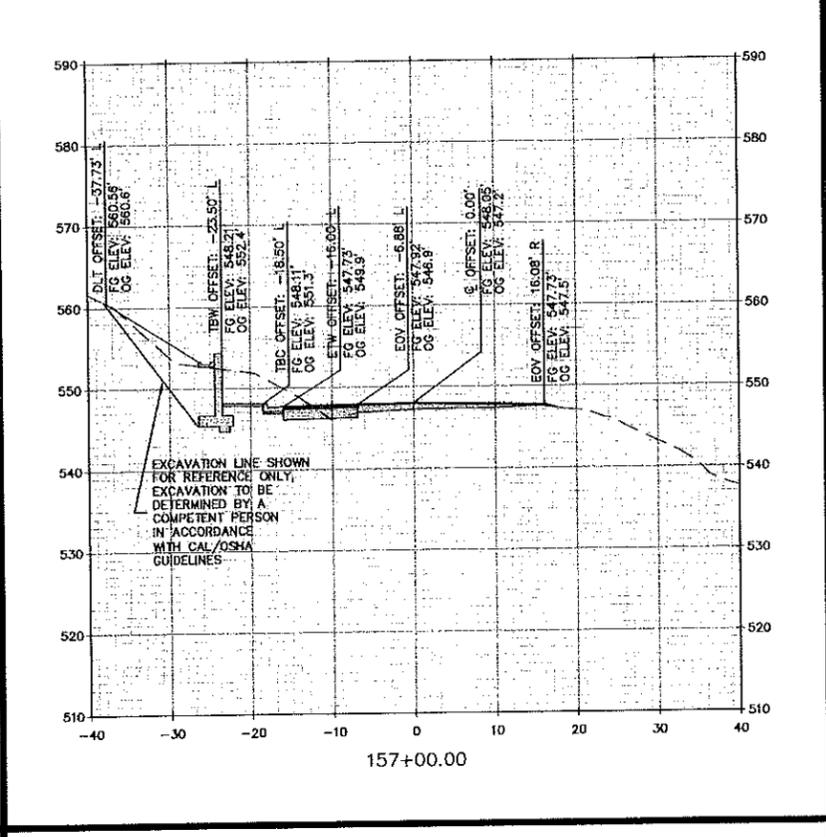
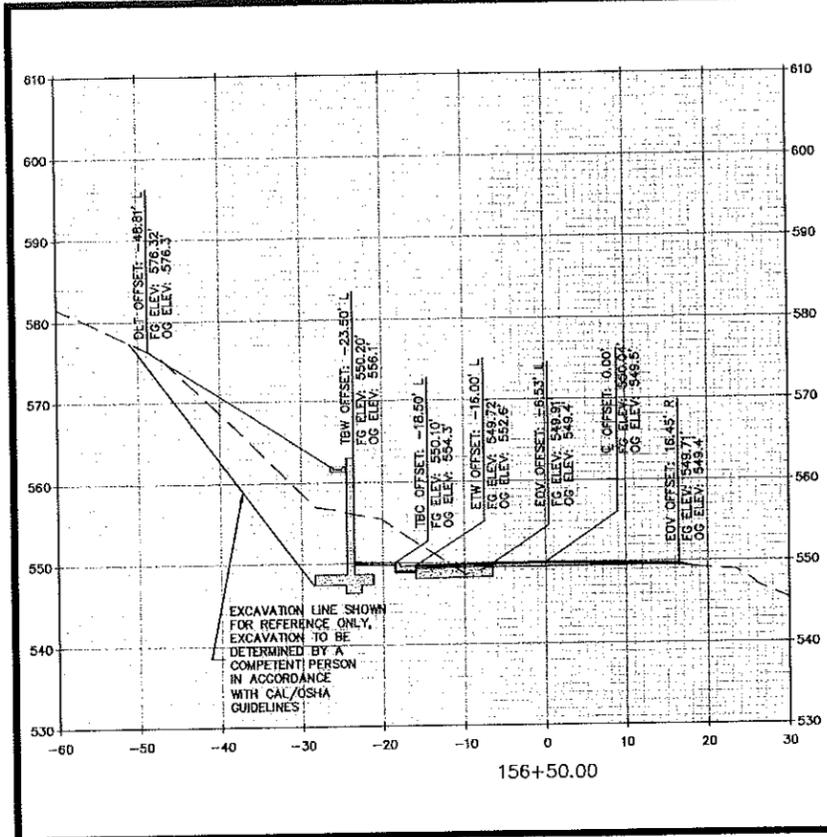


CITY OF REDDING  
TRANSPORTATION AND ENGINEERING DEPARTMENT

QUARTZ HILL ROAD  
WIDENING AND ASPHALT  
CONCRETE OVERLAY  
ROAD SECTIONS 154+50 - 156+00

JOB NO. 2280 BRD SCH. NO. 2013

A-X  
ORIGINAL SCALE: 1"=10'  
DATE: 12/26/12  
SHEET 28 OF 34



QUARTZ HILL ROAD  
WIDENING AND ASPHALT  
CONCRETE OVERLAY  
JOB NO. 2280  
ROAD SECTIONS 156+50 - 158+50

CITY OF REDDING  
TRANSPORTATION AND ENGINEERING  
DEPARTMENT

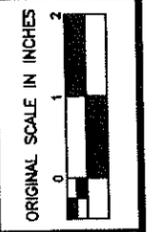
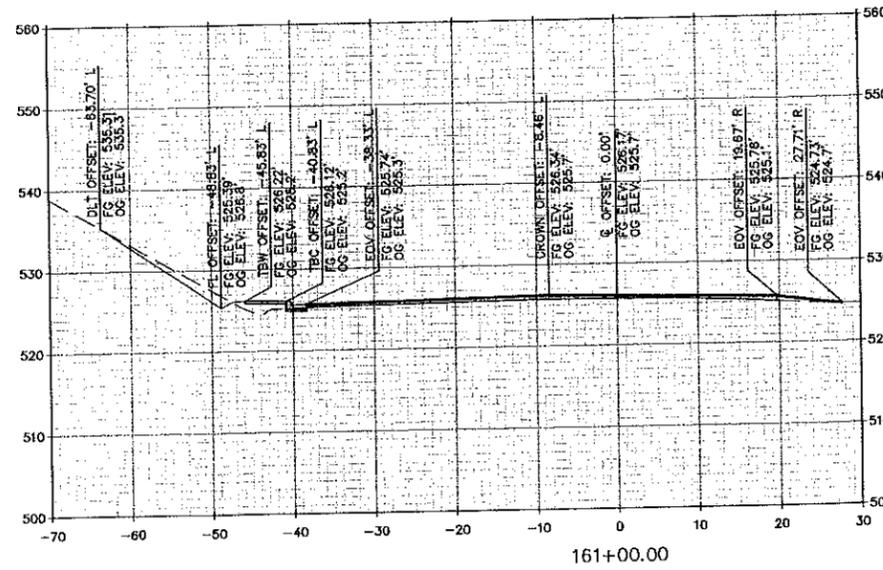
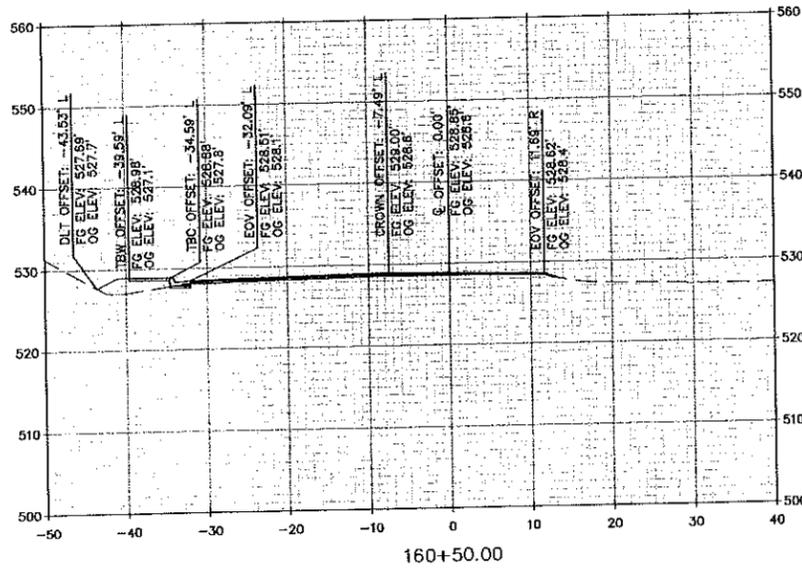
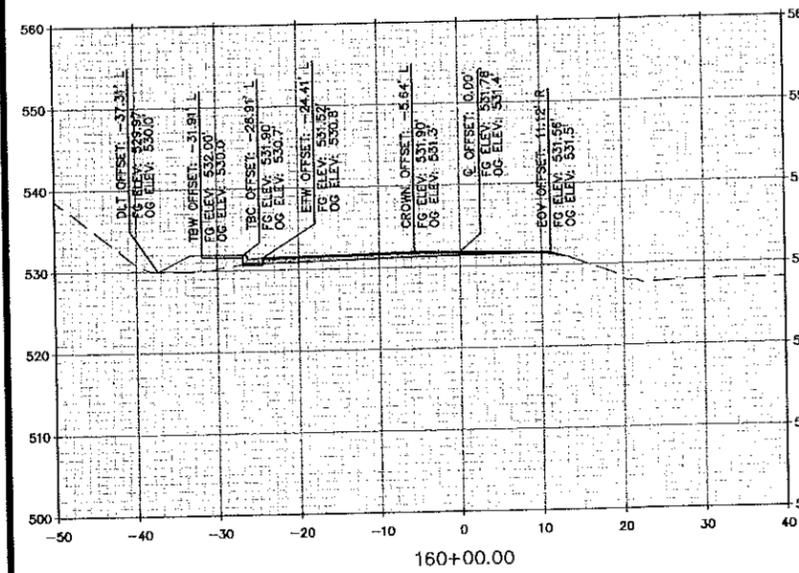
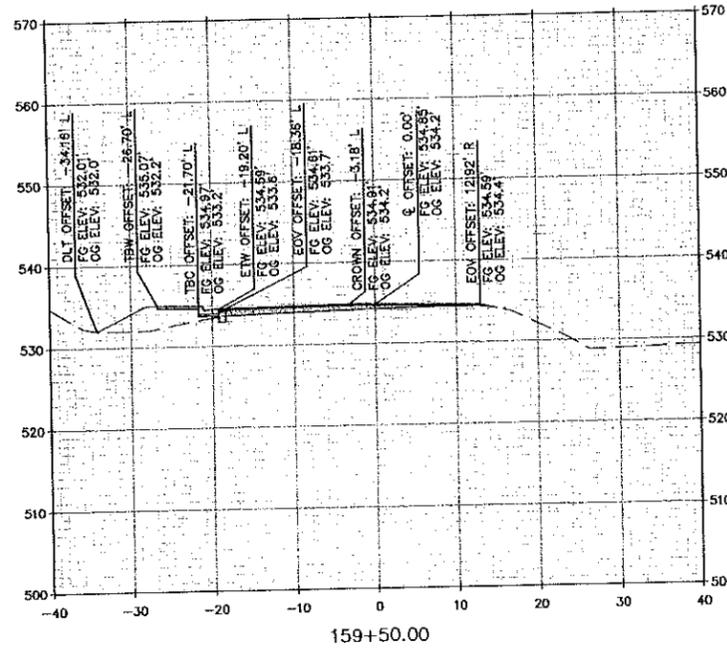
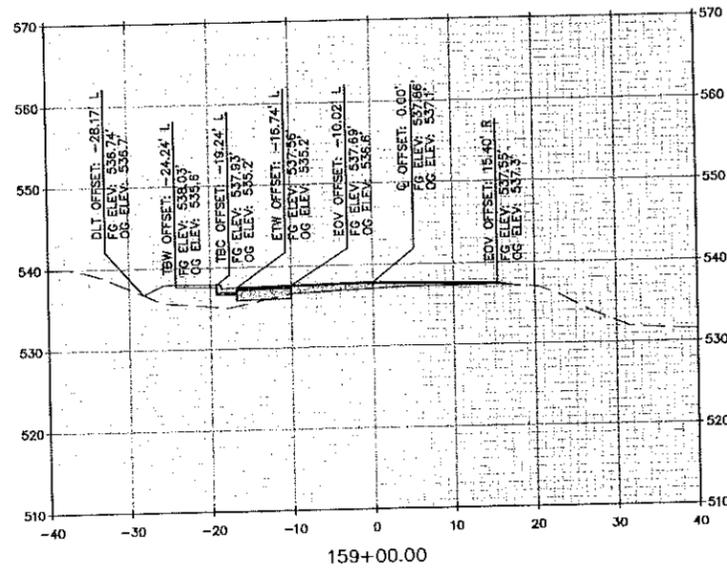
DESIGNED BY: TJM  
DRAWN BY: TJM  
REVIEWED BY: GD

DATE: 12/26/12

SHEET 20 OF 34

ORIGINAL SCALE IN INCHES: 1"=10'

12/26/12



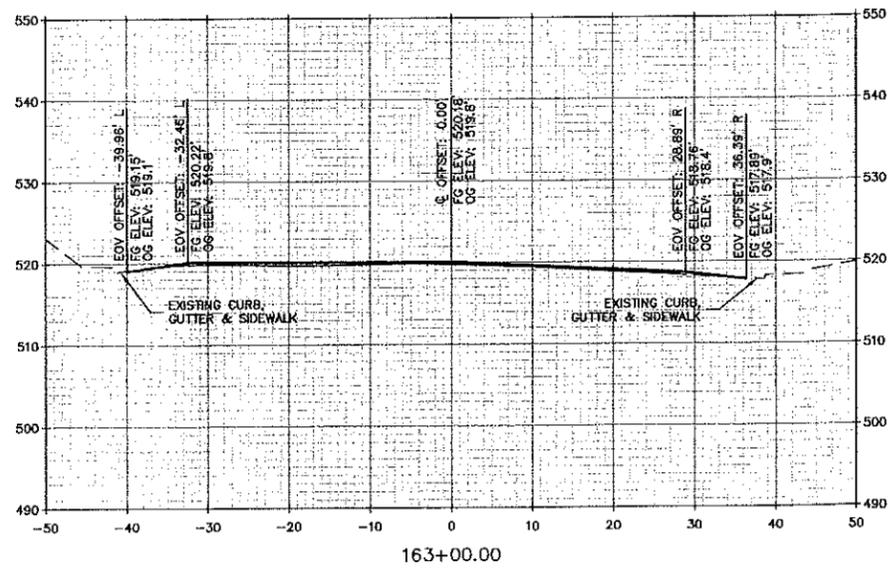
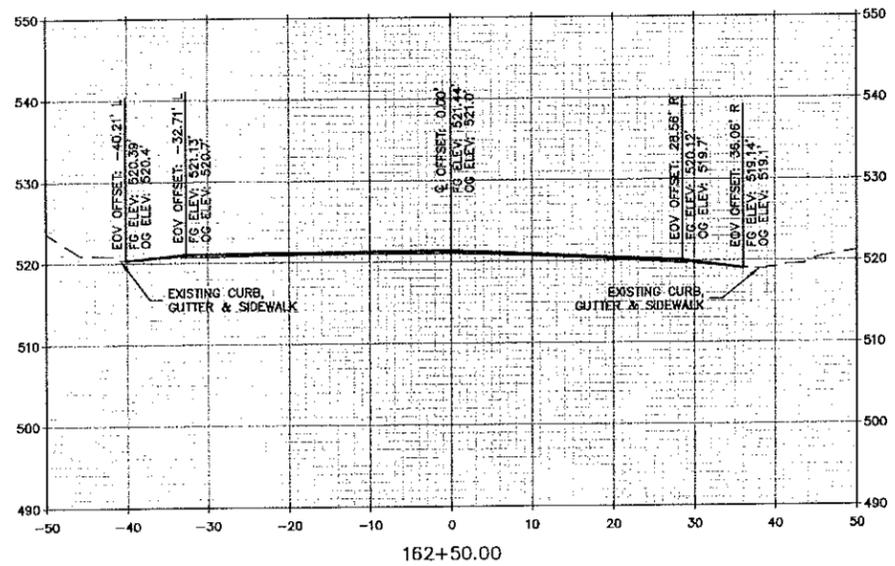
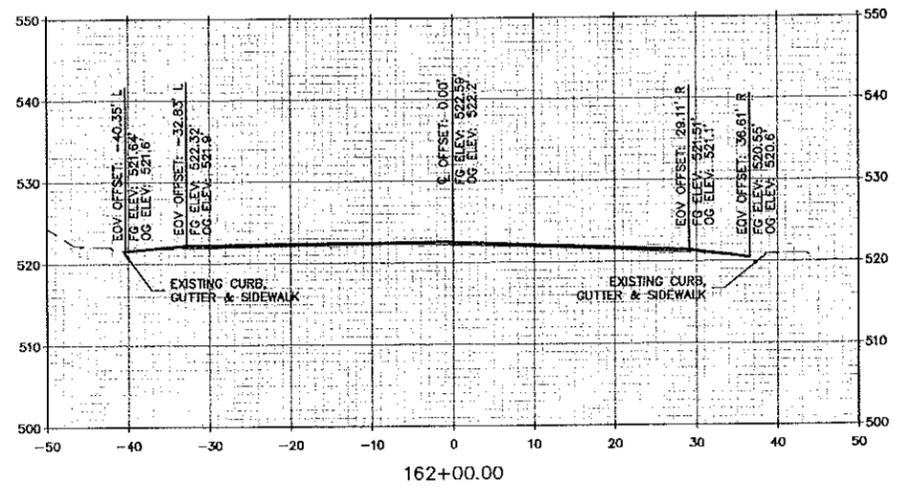
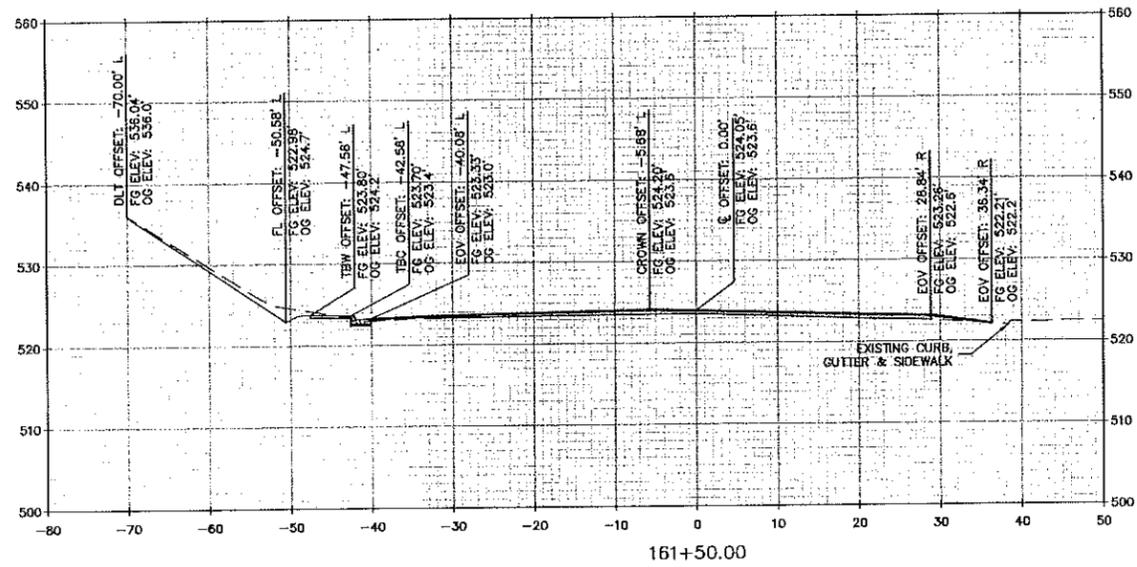
DESIGNED BY TJM  
 DRAWN BY TJM  
 REVIEWED BY GD

12/26/12  
 DATE

CITY OF REDDING  
 TRANSPORTATION AND ENGINEERING  
 DEPARTMENT

QUARTZ HILL ROAD  
 WIDENING AND ASPHALT  
 CONCRETE OVERLAY  
 JOB NO. 2280  
 BID SCH. NO. 2013  
 ROAD SECTIONS 159+00 - 161+00

A-X  
 ORIGINAL SCALE:  
 1"=10'  
 DATE: 12/26/12  
 SHEET 30 OF 34



**QUARTZ HILL ROAD  
WIDENING AND ASPHALT  
CONCRETE OVERLAY  
ROAD SECTIONS 161+50 - 163+00**

DESIGNED BY: TJM  
DRAWN BY: TJM  
REVIEWED BY: GD

DATE: 12/26/12

ORIGINAL SCALE IN INCHES: 1"=10'

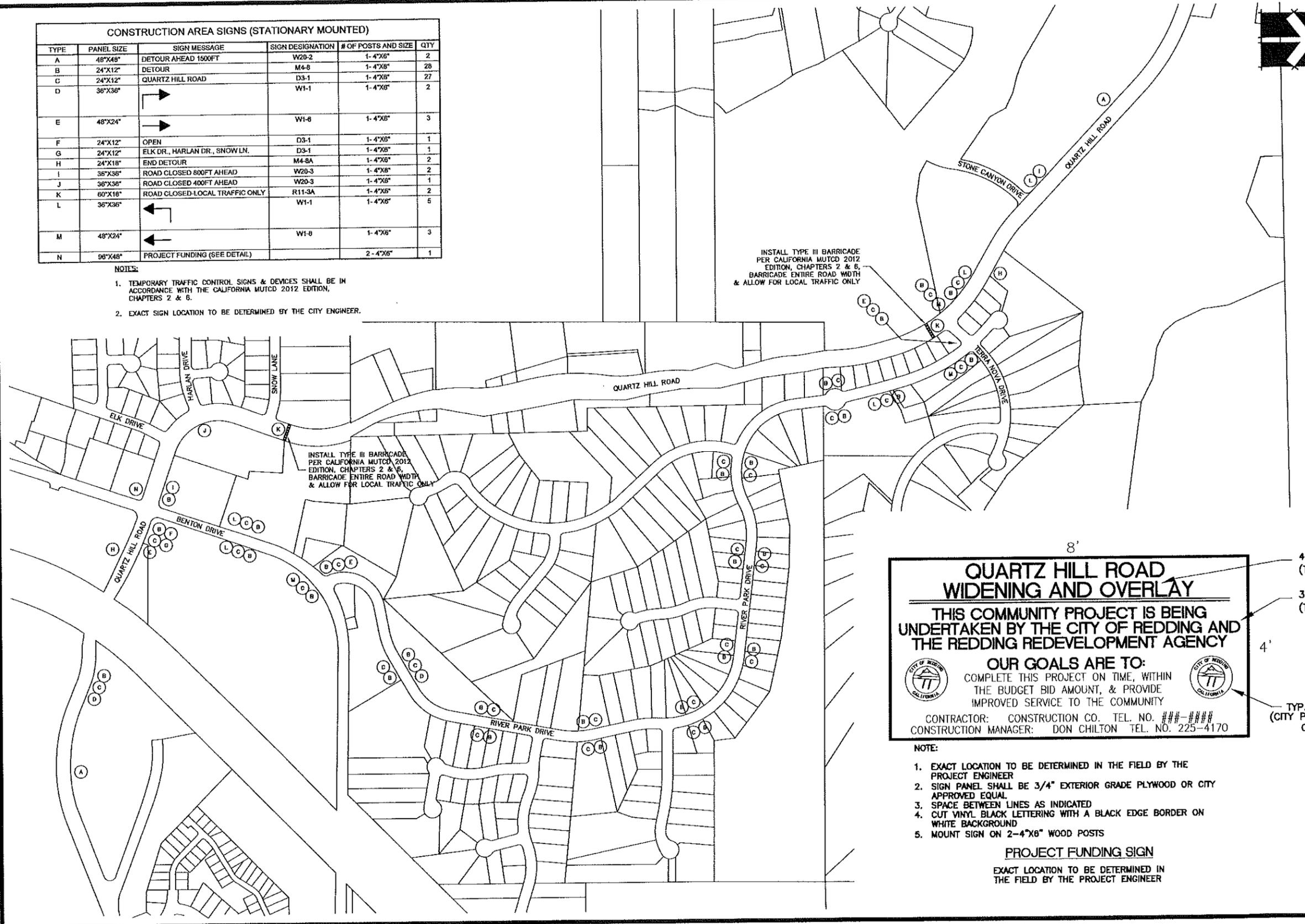
CITY OF REDDING  
TRANSPORTATION AND ENGINEERING  
DEPARTMENT

JOB NO. 2280  
BID SCH. NO. 2013

A-X  
ORIGINAL SCALE: 1"=10'  
DATE: 12/26/12  
SHEET 31 OF 34

CONSTRUCTION AREA SIGNS (STATIONARY MOUNTED)					
TYPE	PANEL SIZE	SIGN MESSAGE	SIGN DESIGNATION	# OF POSTS AND SIZE	QTY
A	48"X48"	DETOUR AHEAD 1500FT	W20-2	1-4"X6"	2
B	24"X12"	DETOUR	M4-8	1-4"X6"	28
C	24"X12"	QUARTZ HILL ROAD	D3-1	1-4"X6"	27
D	36"X36"		W1-1	1-4"X6"	2
E	48"X24"		W1-6	1-4"X6"	3
F	24"X12"	OPEN	D3-1	1-4"X6"	1
G	24"X12"	ELK DR., HARLAN DR., SNOW LN.	D3-1	1-4"X6"	1
H	24"X18"	END DETOUR	M4-8A	1-4"X6"	2
I	36"X36"	ROAD CLOSED 800FT AHEAD	W20-3	1-4"X6"	2
J	36"X36"	ROAD CLOSED 400FT AHEAD	W20-3	1-4"X6"	1
K	60"X18"	ROAD CLOSED-LOCAL TRAFFIC ONLY	R11-3A	1-4"X6"	2
L	36"X36"		W1-1	1-4"X6"	5
M	48"X24"		W1-8	1-4"X6"	3
N	96"X48"	PROJECT FUNDING (SEE DETAIL)		2-4"X6"	1

- NOTES:
- TEMPORARY TRAFFIC CONTROL SIGNS & DEVICES SHALL BE IN ACCORDANCE WITH THE CALIFORNIA MUTCD 2012 EDITION, CHAPTERS 2 & 6.
  - EXACT SIGN LOCATION TO BE DETERMINED BY THE CITY ENGINEER.



**QUARTZ HILL ROAD  
WIDENING AND OVERLAY**

THIS COMMUNITY PROJECT IS BEING  
UNDERTAKEN BY THE CITY OF REDDING AND  
THE REDDING REDEVELOPMENT AGENCY

**OUR GOALS ARE TO:**  
COMPLETE THIS PROJECT ON TIME, WITHIN  
THE BUDGET BID AMOUNT, & PROVIDE  
IMPROVED SERVICE TO THE COMMUNITY

CONTRACTOR: CONSTRUCTION CO. TEL. NO. ###-####  
CONSTRUCTION MANAGER: DON CHILTON TEL. NO. 225-4170

- NOTE:
- EXACT LOCATION TO BE DETERMINED IN THE FIELD BY THE PROJECT ENGINEER
  - SIGN PANEL SHALL BE 3/4" EXTERIOR GRADE PLYWOOD OR CITY APPROVED EQUAL
  - SPACE BETWEEN LINES AS INDICATED
  - CUT VINYL BLACK LETTERING WITH A BLACK EDGE BORDER ON WHITE BACKGROUND
  - MOUNT SIGN ON 2-4"X6" WOOD POSTS

**PROJECT FUNDING SIGN**  
EXACT LOCATION TO BE DETERMINED IN  
THE FIELD BY THE PROJECT ENGINEER

4" LETTERS  
(TYP)

3" LETTERS  
(TYP)

4"

TYP. OF 2  
(CITY PROVIDED)  
CITY SEAL

ORIGINAL SCALE IN INCHES  
0 1 2

DESIGNED BY: TJM  
DRAWN BY: TJM  
REVIEWED BY: GD

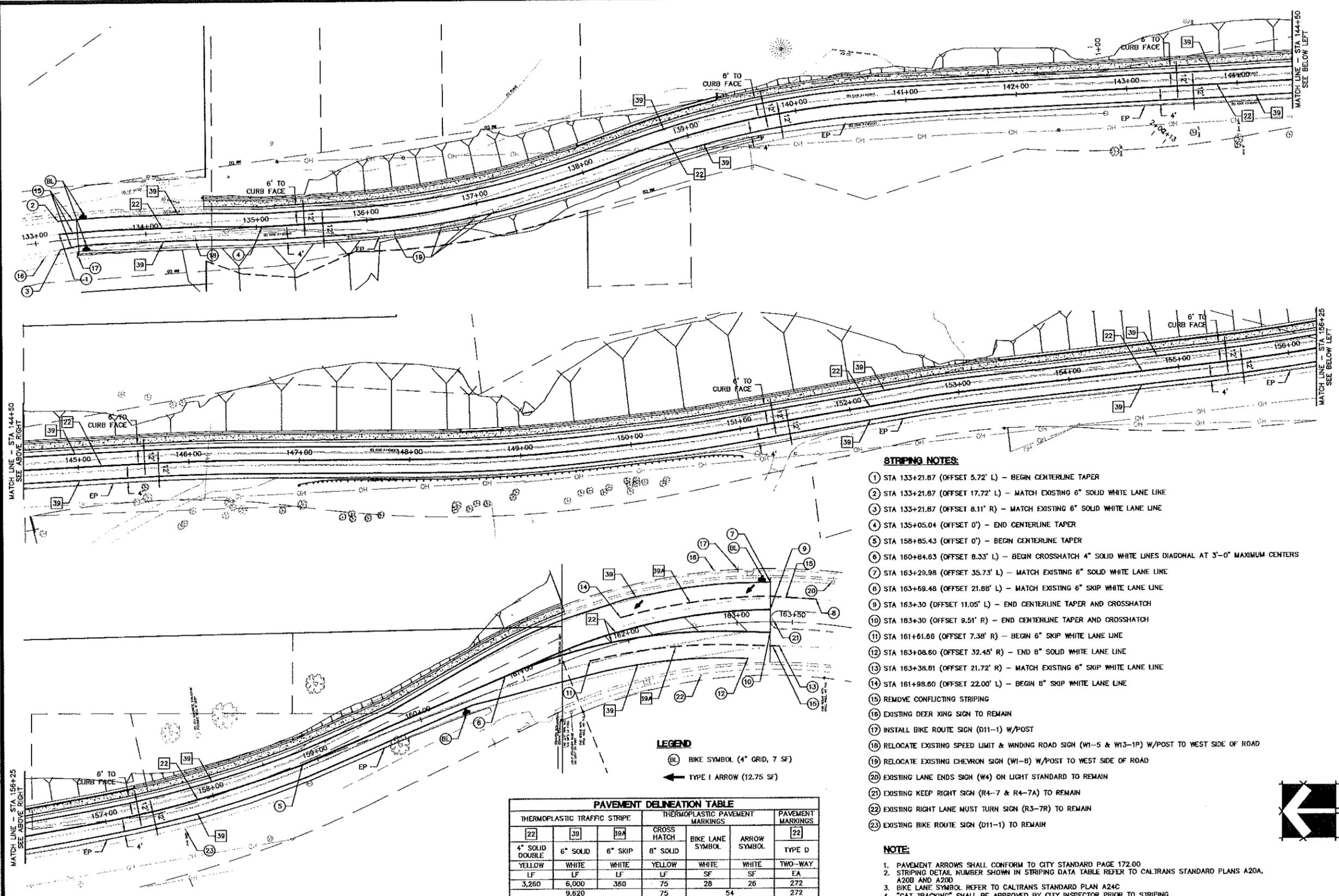
DATE: 12/26/12

**CITY OF REDDING  
TRANSPORTATION AND ENGINEERING  
DEPARTMENT**

**QUARTZ HILL ROAD  
WIDENING AND ASPHALT  
CONCRETE OVERLAY**

JOB NO. 2280  
CONSTRUCTION AREA SIGNS

A-X  
ORIGINAL SCALE:  
N/A  
DATE: 12/26/12  
SHEET 32 OF 34



DESIGNED BY TJM  
 DRAWN BY TJM  
 REVIEWED BY GD

DATE 12/26/12



**CITY OF REDDING**  
**TRANSPORTATION AND ENGINEERING**  
**DEPARTMENT**

**QUARTZ HILL ROAD**  
**WIDENING AND ASPHALT**  
**CONCRETE OVERLAY**  
 JOB NO. 2280  
 PAVEMENT DELINEATION

A-X  
 ORIGINAL SCALE:  
 1"=40'  
 DATE: 12/26/12  
 SHEET 33 OF 34

**STRIPING NOTES:**

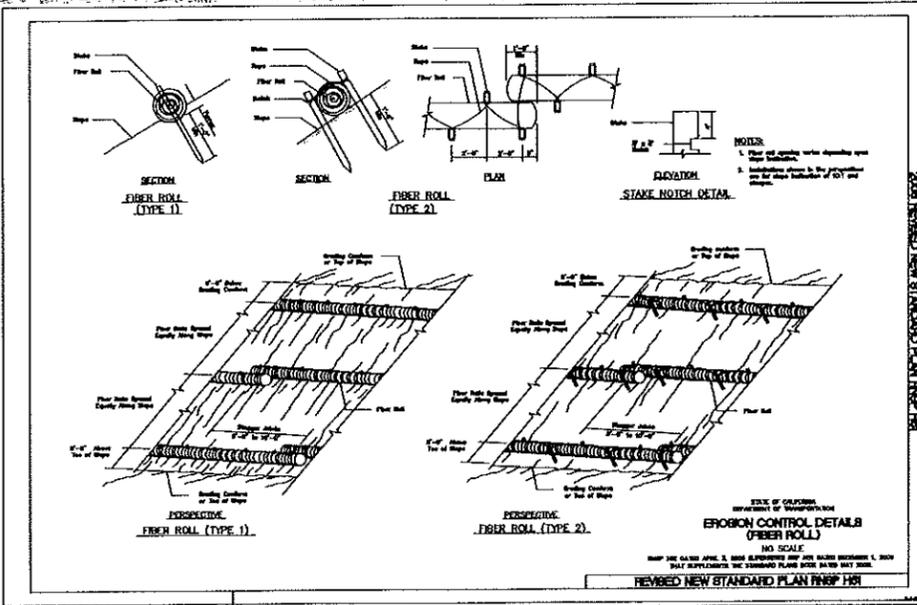
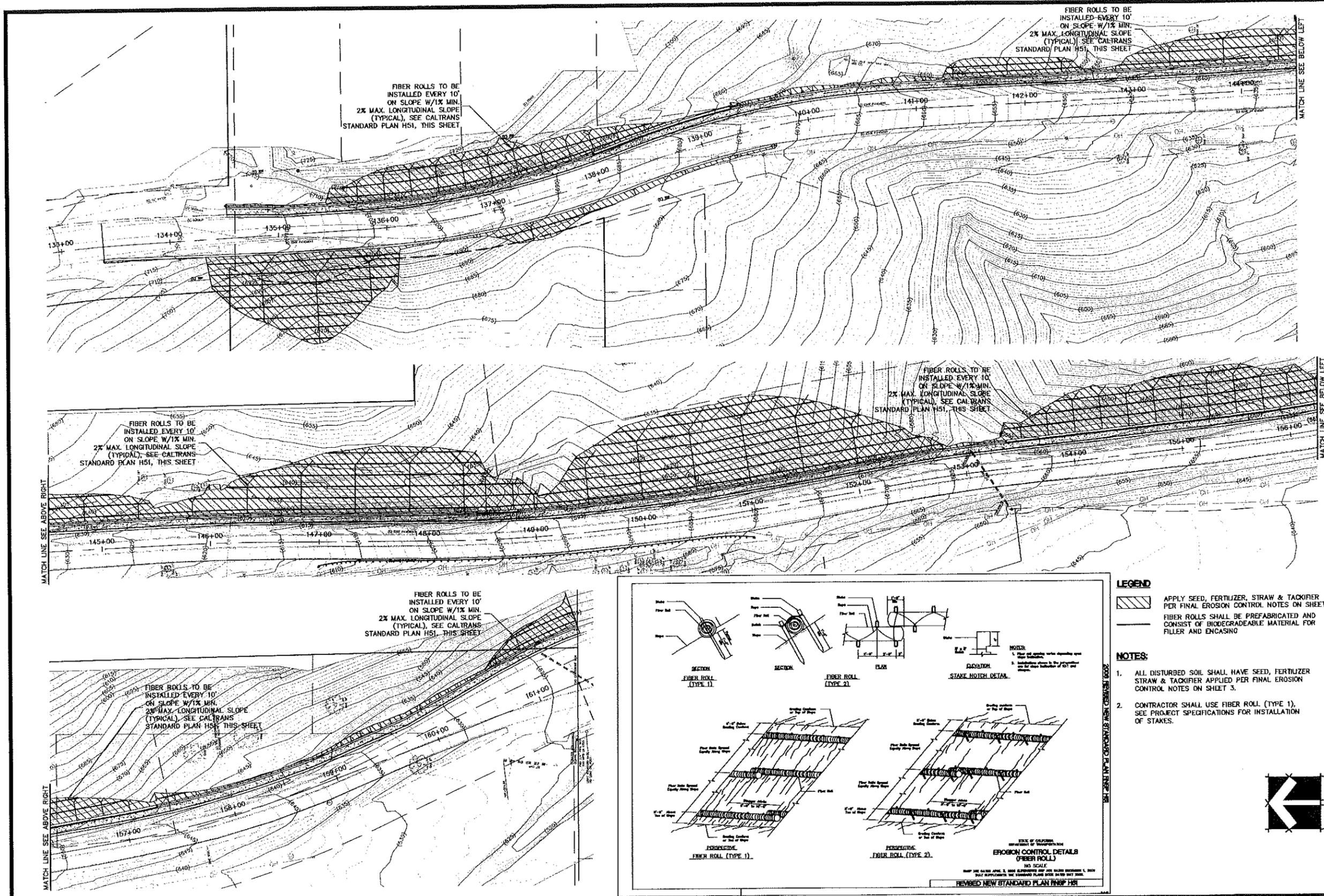
- 1 STA 133+21.87 (OFFSET 5.72' L) - BEGIN CENTERLINE TAPER
- 2 STA 133+21.87 (OFFSET 17.72' L) - MATCH EXISTING 6" SOLID WHITE LANE LINE
- 3 STA 133+21.87 (OFFSET 8.11' R) - MATCH EXISTING 6" SOLID WHITE LANE LINE
- 4 STA 135+05.04 (OFFSET 0') - END CENTERLINE TAPER
- 5 STA 158+85.43 (OFFSET 0') - BEGIN CENTERLINE TAPER
- 6 STA 160+84.63 (OFFSET 8.33' L) - BEGIN CROSSHATCH 4" SOLID WHITE LINES DIAGONAL AT 3'-0" MAXIMUM CENTERS
- 7 STA 163+29.98 (OFFSET 35.73' L) - MATCH EXISTING 6" SOLID WHITE LANE LINE
- 8 STA 163+69.48 (OFFSET 21.88' L) - MATCH EXISTING 6" SKIP WHITE LANE LINE
- 9 STA 163+30 (OFFSET 11.05' L) - END CENTERLINE TAPER AND CROSSHATCH
- 10 STA 163+30 (OFFSET 9.51' R) - END CENTERLINE TAPER AND CROSSHATCH
- 11 STA 161+61.66 (OFFSET 7.38' R) - BEGIN 6" SKIP WHITE LANE LINE
- 12 STA 163+08.60 (OFFSET 32.45' R) - END 6" SOLID WHITE LANE LINE
- 13 STA 163+38.81 (OFFSET 21.72' R) - MATCH EXISTING 6" SKIP WHITE LANE LINE
- 14 STA 161+98.60 (OFFSET 22.00' L) - BEGIN 6" SKIP WHITE LANE LINE
- 15 REMOVE CONFLICTING STRIPING
- 16 EXISTING DEER XING SIGN TO REMAIN
- 17 INSTALL BIKE ROUTE SIGN (D11-1) W/POST
- 18 RELOCATE EXISTING SPEED LIMIT & WINDING ROAD SIGN (W1-5 & W13-1P) W/POST TO WEST SIDE OF ROAD
- 19 RELOCATE EXISTING CHEVRON SIGN (W1-B) W/POST TO WEST SIDE OF ROAD
- 20 EXISTING LANE ENDS SIGN (W4) ON LIGHT STANDARD TO REMAIN
- 21 EXISTING KEEP RIGHT SIGN (R4-7 & R4-7A) TO REMAIN
- 22 EXISTING RIGHT LANE MUST TURN SIGN (R3-7R) TO REMAIN
- 23 EXISTING BIKE ROUTE SIGN (D11-1) TO REMAIN

**LEGEND**  
 (BL) BIKE SYMBOL (4" GRID, 7 SF)  
 ← TYPE I ARROW (12.75 SF)

PAVEMENT DELINEATION TABLE						
THERMOPLASTIC TRAFFIC STRIPE			THERMOPLASTIC PAVEMENT MARKINGS			PAVEMENT MARKINGS
22	39	39A	CROSS HATCH	BIKE LANE SYMBOL	ARROW SYMBOL	22
4" SOLID DOUBLE	6" SOLID	6" SKIP	8" SOLID	WHITE	WHITE	TWO-WAY
YELLOW	WHITE	WHITE	YELLOW	WHITE	WHITE	EA
LF	LF	LF	LF	SF	SF	272
3,260	6,000	360	75	28	26	272
	9,620		75		54	272

**NOTE:**

1. PAVEMENT ARROWS SHALL CONFORM TO CITY STANDARD PAGE 172.00
2. STRIPING DETAIL NUMBER SHOWN IN STRIPING DATA TABLE REFER TO CALTRANS STANDARD PLANS A20A, A20B AND A20C
3. BIKE LANE SYMBOL REFER TO CALTRANS STANDARD PLAN A24C
4. "CAT TRACKING" SHALL BE APPROVED BY CITY INSPECTOR PRIOR TO STRIPING



**LEGEND**

APPLY SEED, FERTILIZER, STRAW & TACKIFIER PER FINAL EROSION CONTROL NOTES ON SHEET 3

FIBER ROLLS SHALL BE PREFABRICATED AND CONSIST OF BIODEGRADABLE MATERIAL FOR FILLER AND ENCASING

**NOTES:**

- ALL DISTURBED SOIL SHALL HAVE SEED, FERTILIZER STRAW & TACKIFIER APPLIED PER FINAL EROSION CONTROL NOTES ON SHEET 3.
- CONTRACTOR SHALL USE FIBER ROLL (TYPE 1). SEE PROJECT SPECIFICATIONS FOR INSTALLATION OF STAKES.



DESIGNED BY: TJM  
 DRAWN BY: TJM  
 REVIEWED BY: GD

DATE: 12/26/12

CITY OF REDDING  
 TRANSPORTATION AND ENGINEERING DEPARTMENT

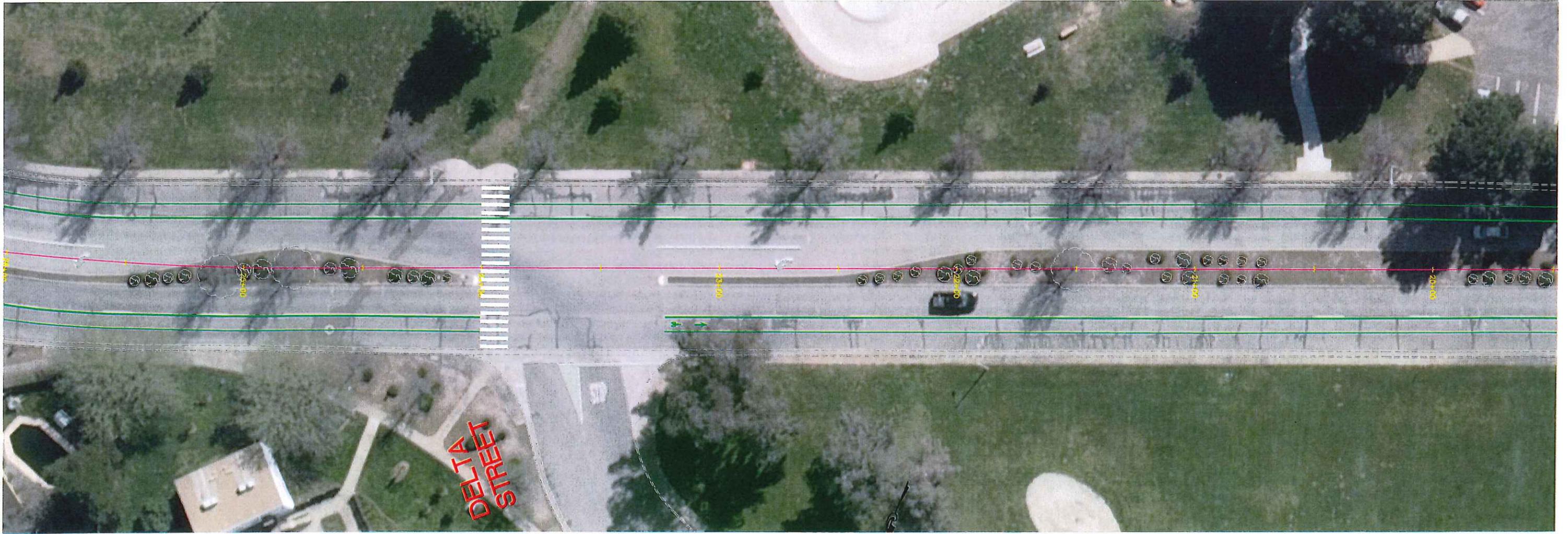
QUARTZ HILL ROAD  
 WIDENING AND ASPHALT  
 CONCRETE OVERLAY  
 JOB NO. 2220  
 BID SCH. NO. 2013

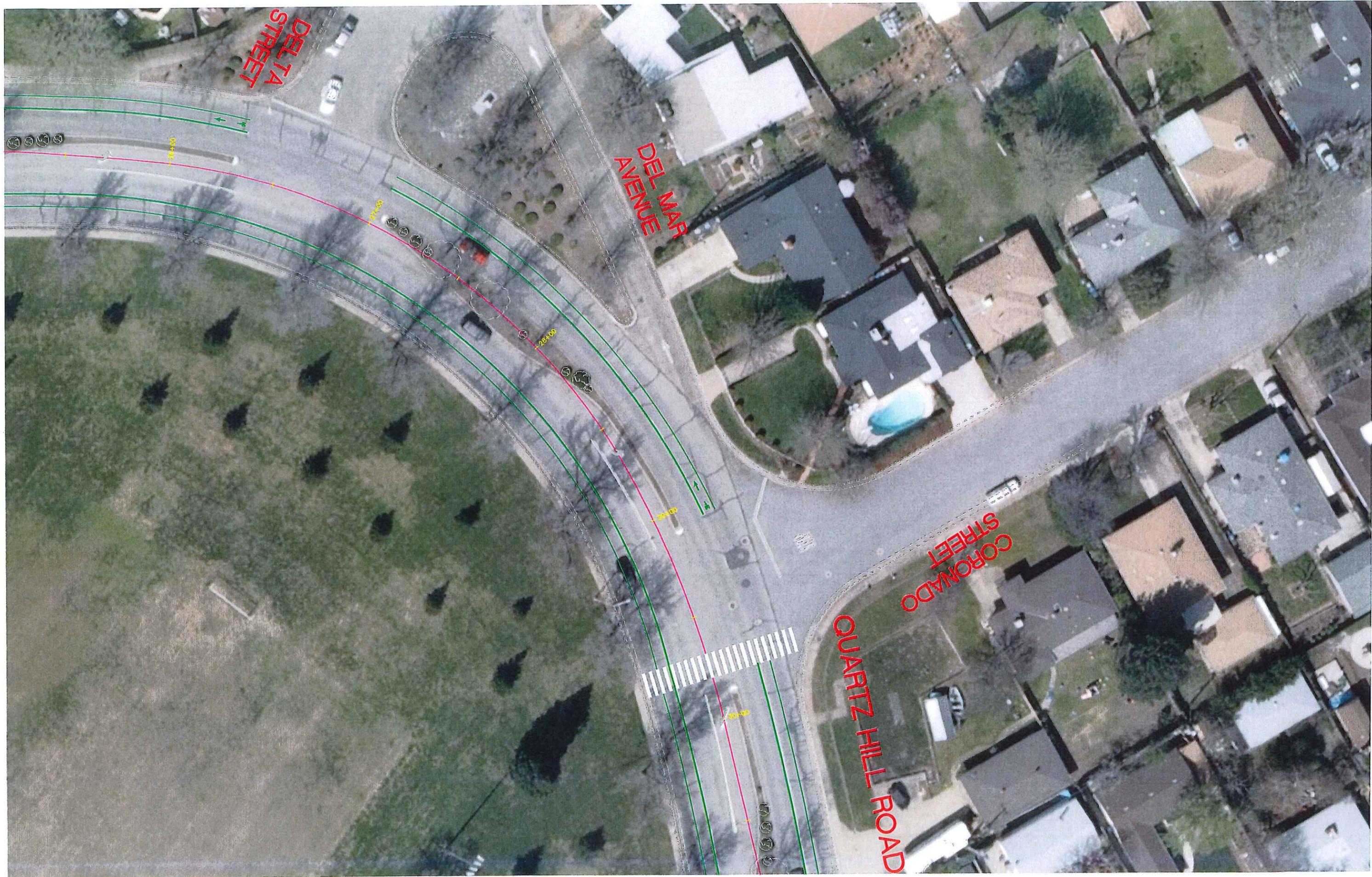
FINAL EROSION CONTROL

A-X  
 ORIGINAL SCALE: 1"=40'  
 DATE: 12/26/12  
 SHEET 34 OF 34









DELTA STREET

DEL MAR AVENUE

CORONADO STREET

QUARTZ HILL ROAD

10+00

10+00

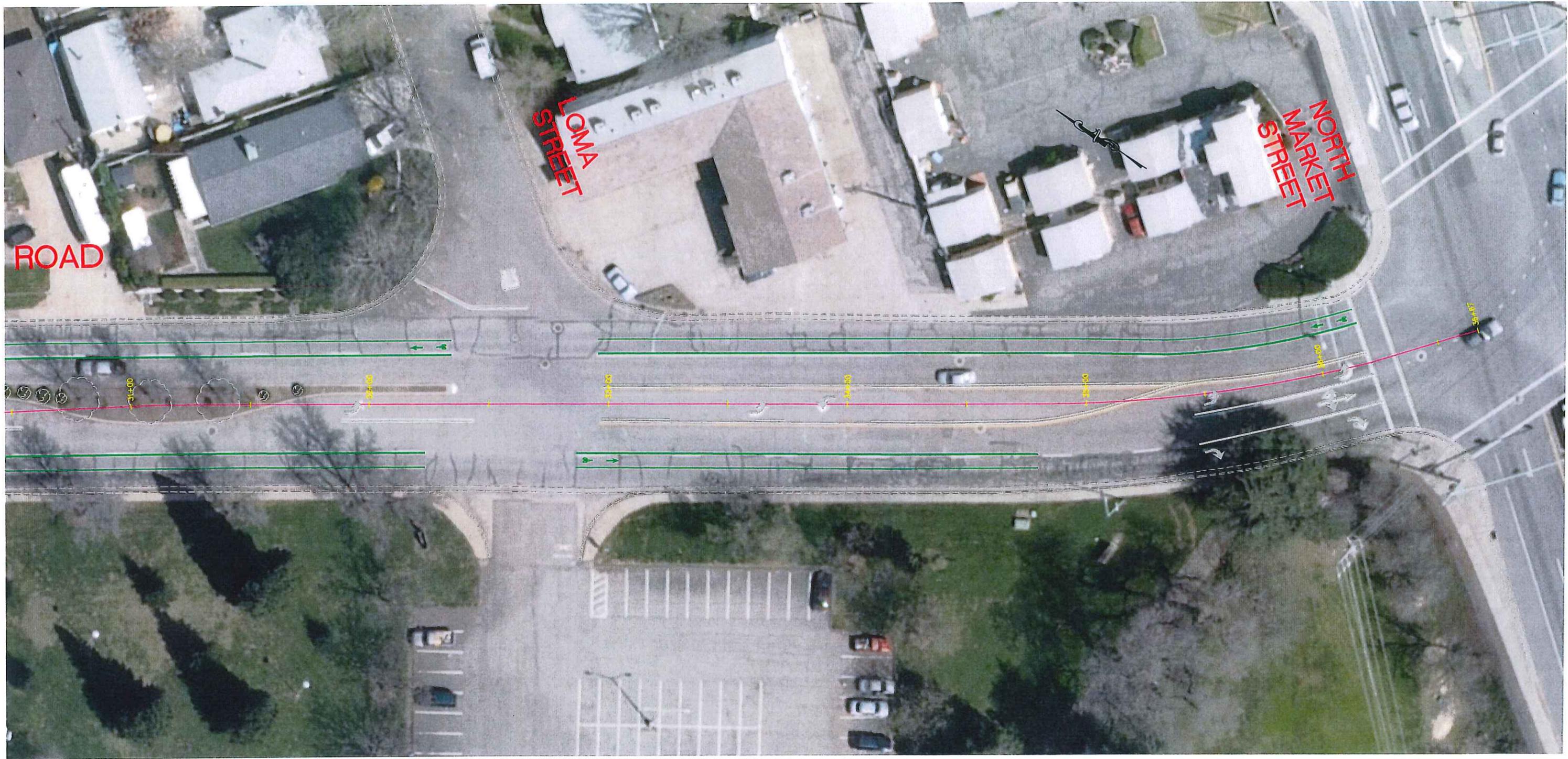
10+00

28+00

40+00

50+00

50+00



ROAD

LONNA  
STREET

NORTH  
MARKET  
STREET

00+21.6

00+22.0

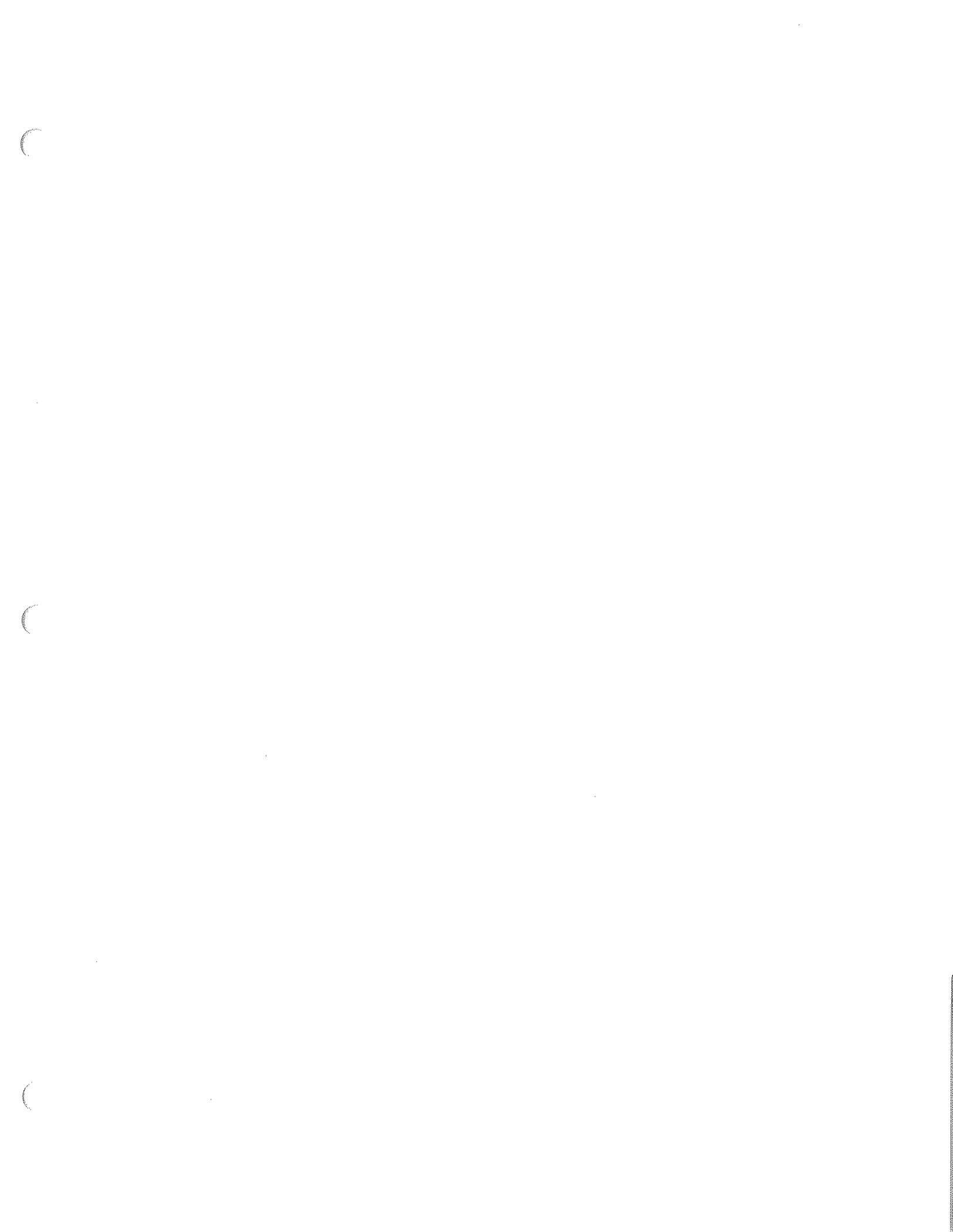
00+22.4

00+22.8

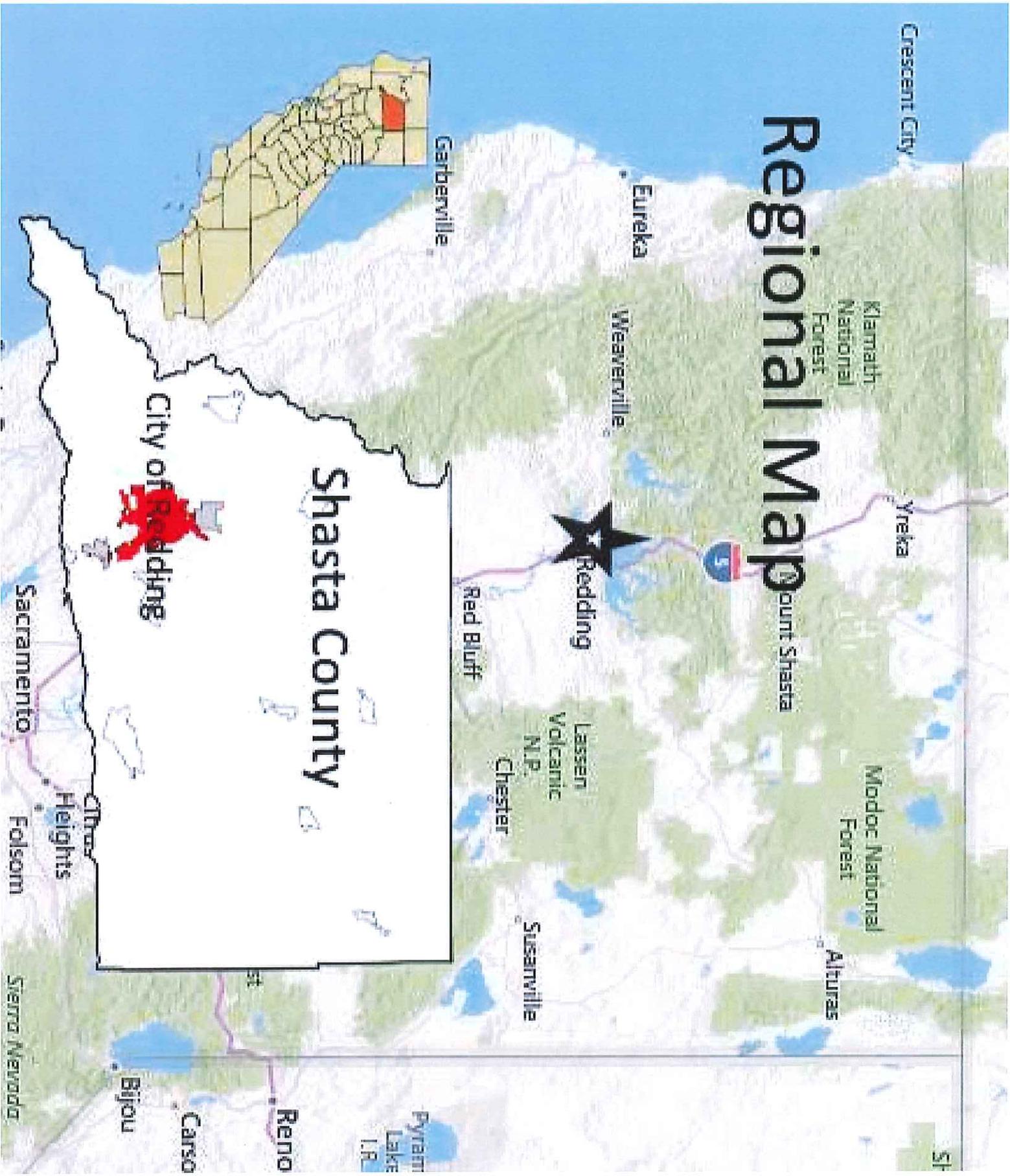
00+23.2

00+23.6

00+24.0



# Regional Map



Crescent City

Klamath National Forest

Mount Shasta

Yreka

Modoc National Forest

Alturas

Eureka

Weaverville

Redding

Lassen Volcanic N.P.

Chester

Susanville

Garberville

Red Bluff

Pyramid Lake I.R.

Shasta County

City of Redding

Sacramento

Heights

Folsom

Sierra Nevada

Bijou

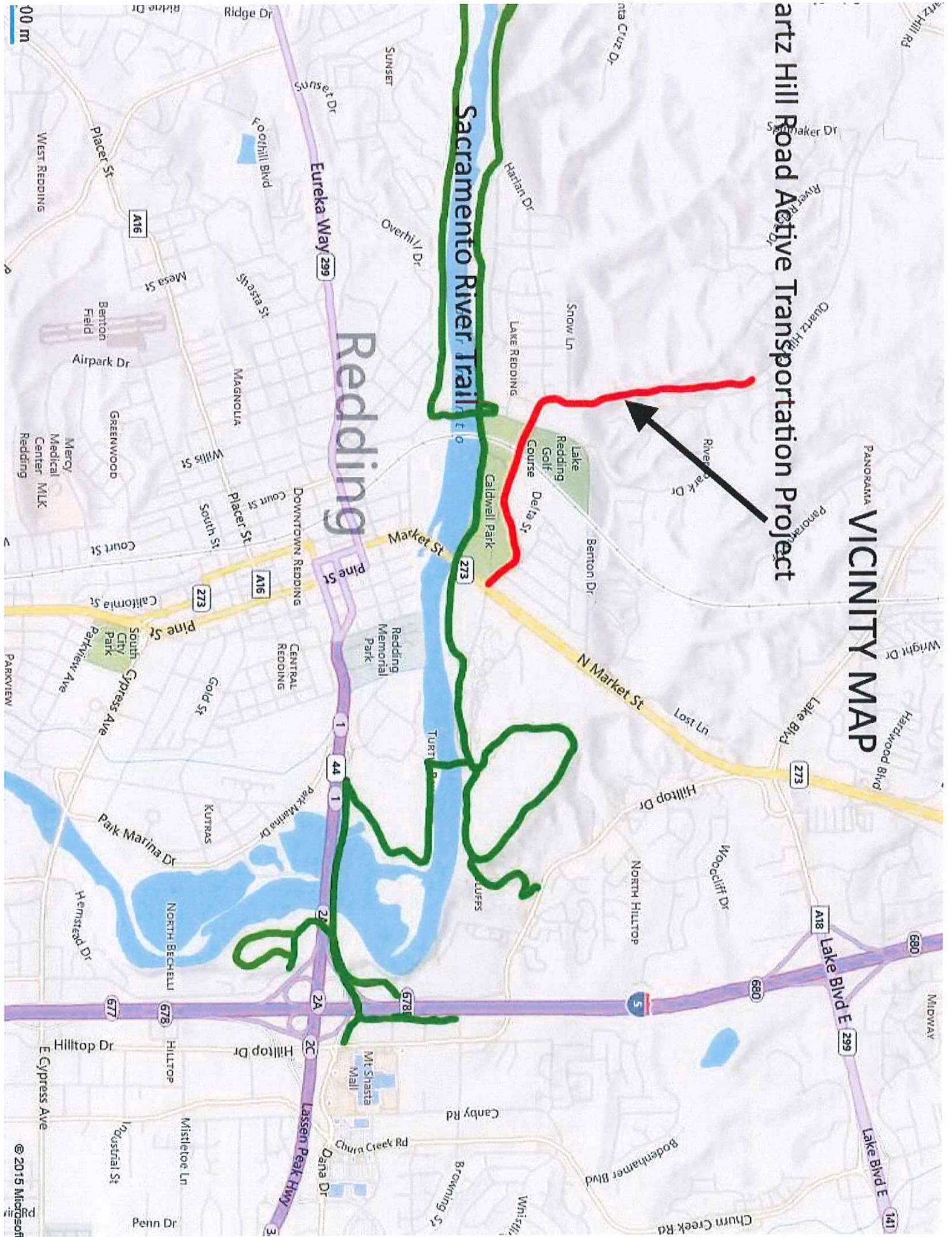
Carso

Reno

St

# VICINITY MAP

## artz Hill Road Active Transportation Project



# Redding

## Sacramento River Trail

Eureka Way 299

Market St 273

N Market St

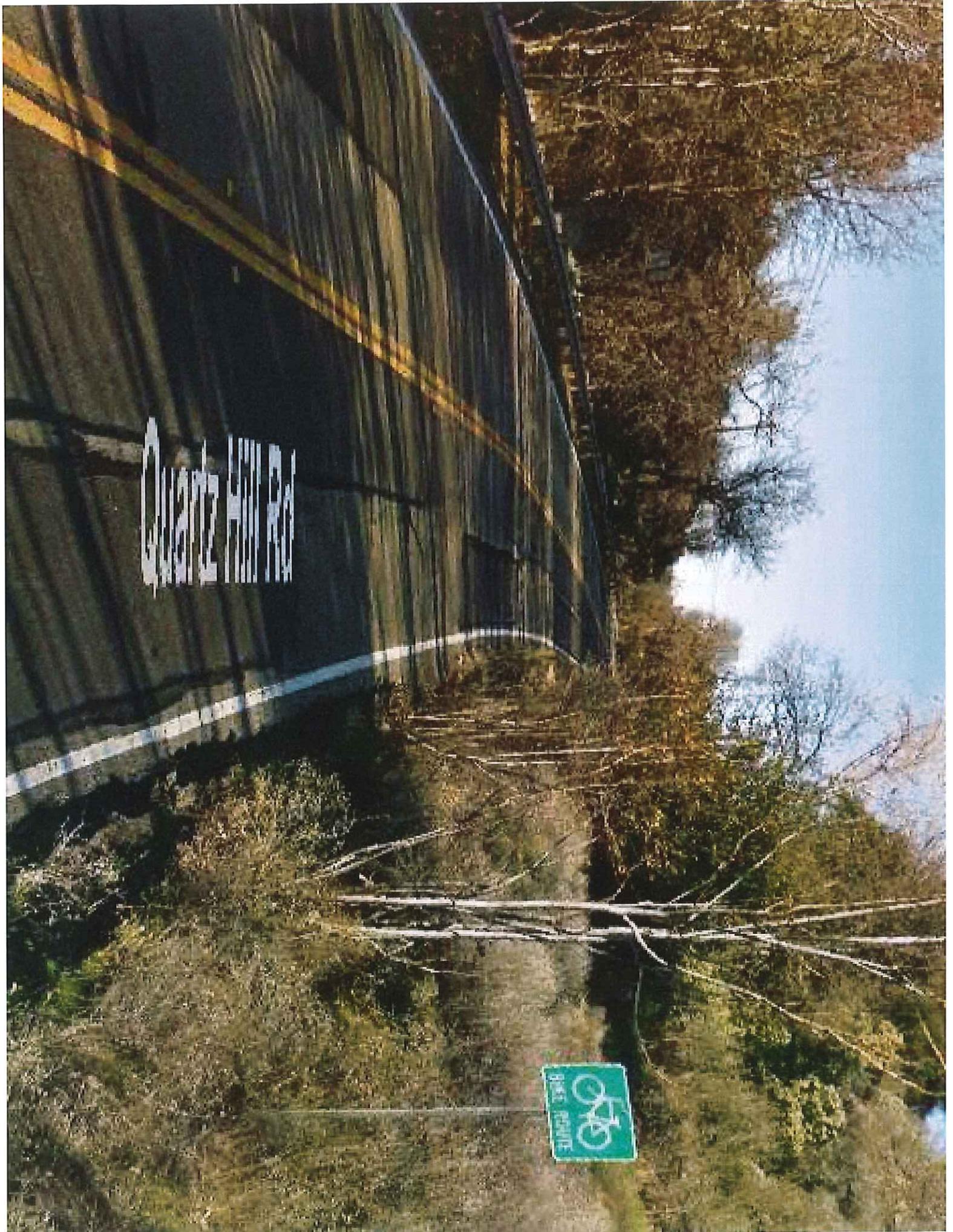
Lake Blvd E 299

100 m

© 2015 Microsoft

mia  
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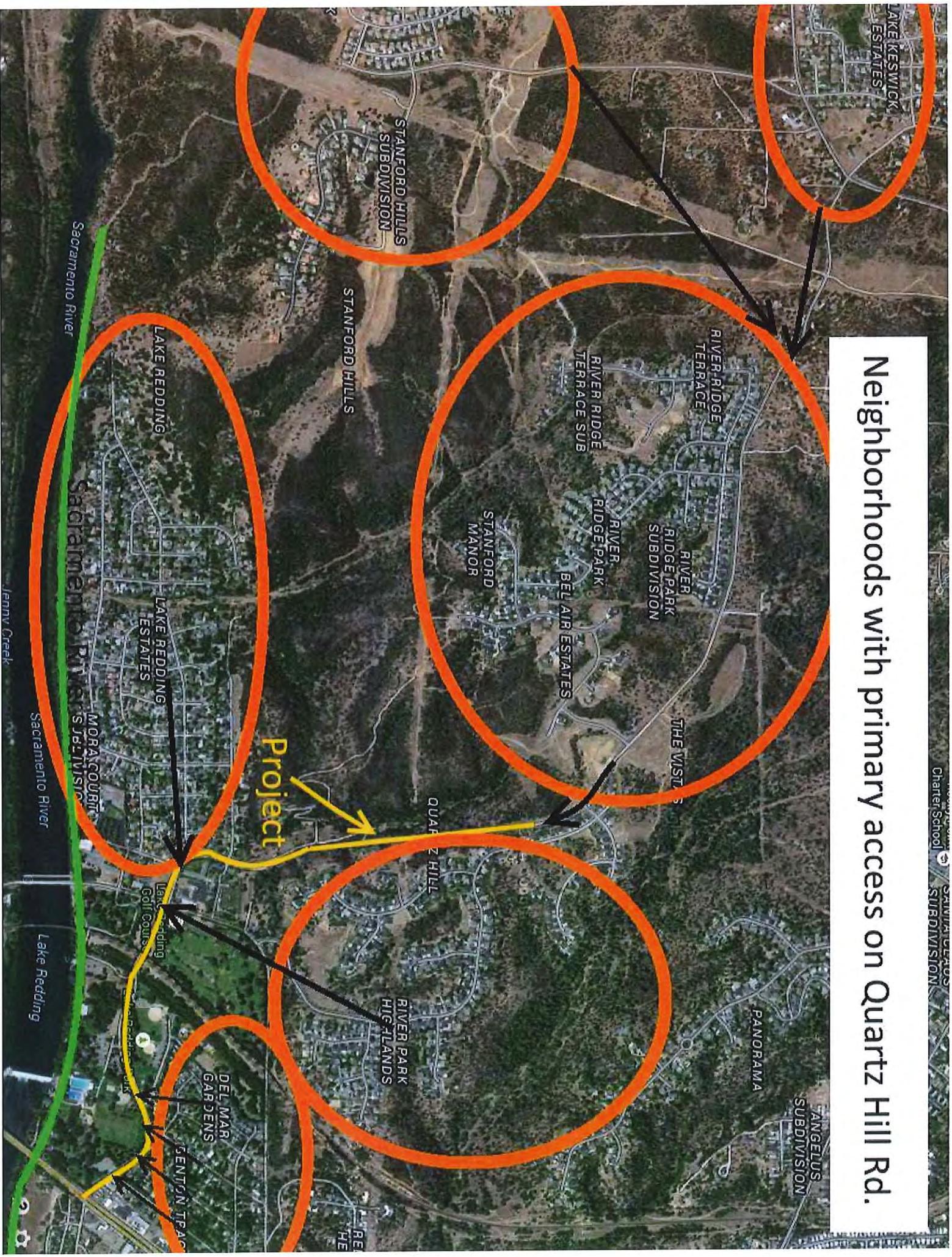




www.fox.com

BIKES PERMITTED

# Neighborhoods with primary access on Quartz Hill Rd.



Charter School

SALVATIERRA SUBDIVISION

LAKE KESWICK ESTATES

STANFORD HILLS SUBDIVISION

STANFORD HILLS

RIVER RIDGE TERRACE

RIVER RIDGE TERRACE SUB

RIVER RIDGE PARK SUBDIVISION

BEL AIR ESTATES

STANFORD MANOR

THE VISTAS

Project

QUARTZ HILL

PANORAMA

ANGELUS SUBDIVISION

RIVER PARK HIGHLANDS

LAKE REDDING

LAKE REDDING ESTATES

Sacramento River

Sacramento River

Lake Redding

Sacramento River

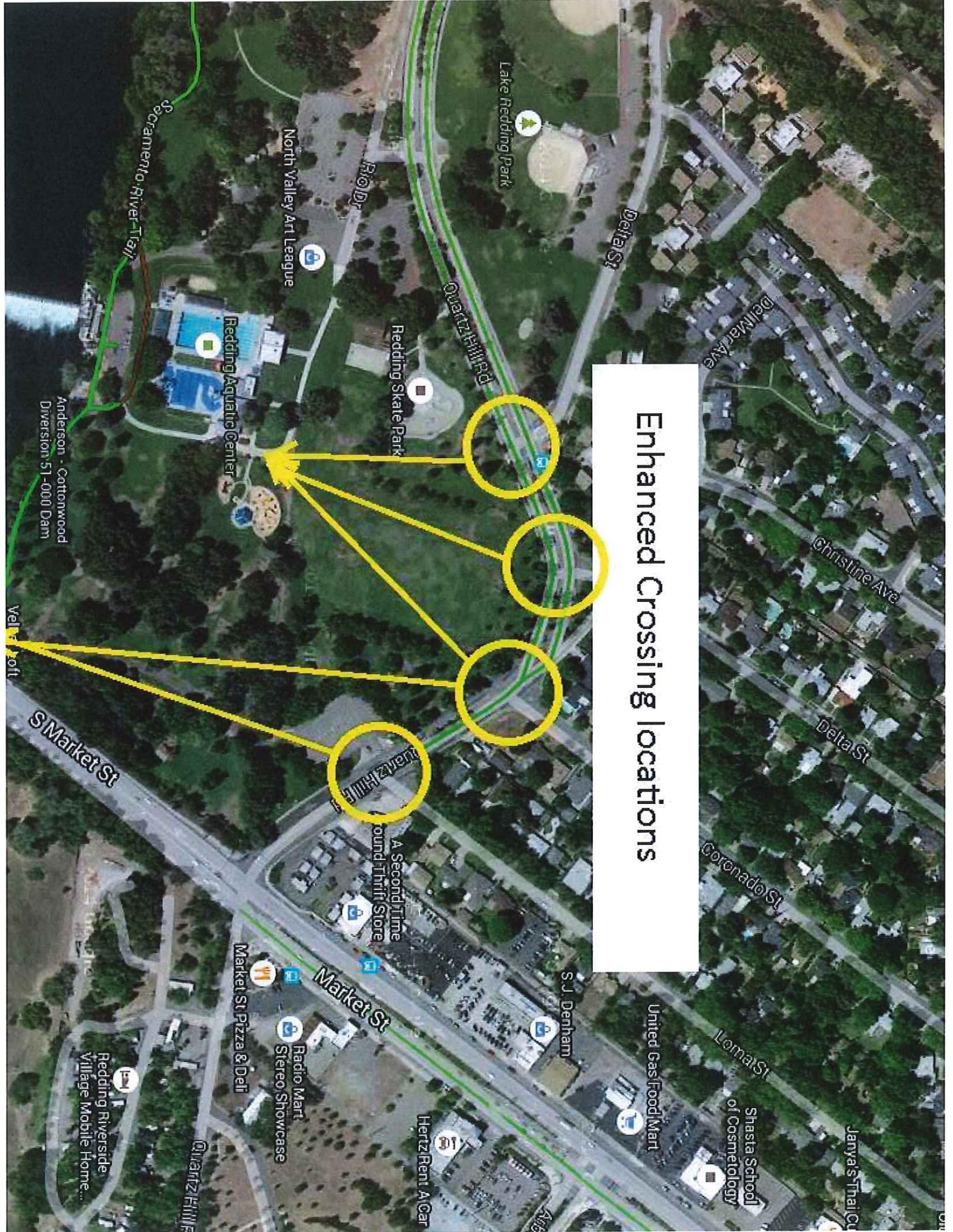
Lake Redding Golf Course

DEL MAR GARDENS

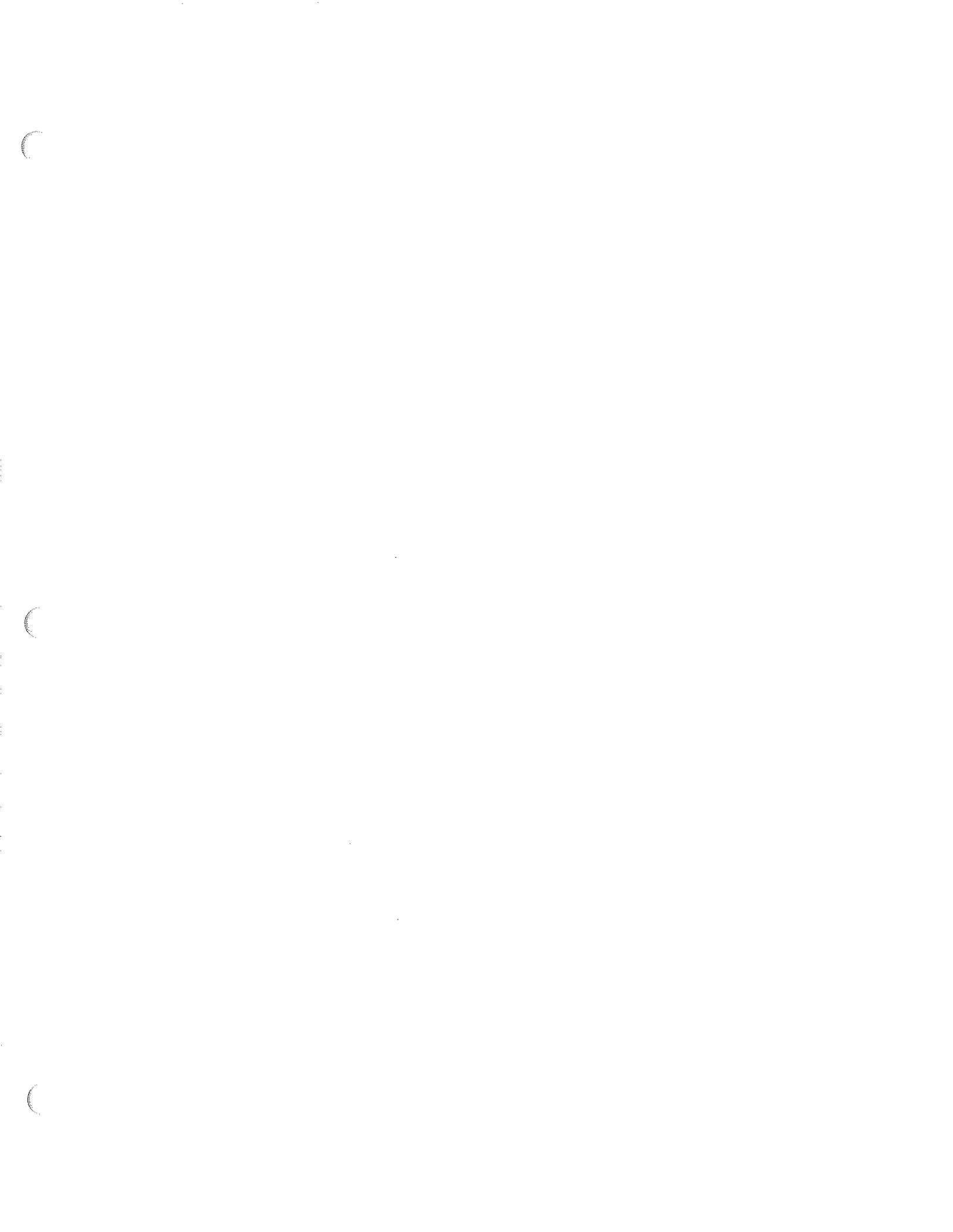
GENTON TRAC

Jenny Creek

# Enhanced Crossing Locations







## 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:	City of Redding			
Application ID:	Prepared by:	Josh Watkins	Date:	5/1/2015
Project Description:	Quartz Hill Road Active Transportation Project			
Project Location:	City of Redding on Quartz Hill Road from Terra Nova Rd. to State Route 273			

### 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							ATP Eligible Items
Item No.	Item	Quantity	Units	Unit Cost	Total Item Cost	%	\$	%	\$	%	\$	%	
1	Upper Quartz Hill Rd. (see attached)				\$2,434,134	10000%	\$2,434,134						
2	Lower Quartz Hill Micro Seal				\$130,000					10000%	\$130,000		
3	Lower Quartz Hill Rd. Enhanced Crossing	5		\$100,000.00	\$500,000	10000%	\$500,000						
4													
5										1000000%			
6													
7													
8													
9													
10													
11													
12													
13													
14													
15													
16													
<b>Subtotal of Construction Items:</b>					\$3,064,134		\$2,934,134				\$130,000		
Construction Item Contingencies (% of Construction Items): Enter in the cell to the right													
<b>Total (Construction Items &amp; Contingencies) cost:</b>					\$3,064,134								

### Project Cost Estimate:

Type of Project Delivery Cost	Cost \$		
<b>Preliminary Engineering (PE)</b>			
Environmental Studies and Permits(PA&ED):	\$ 20,000	Paid By the City of Redding	
Plans, Specifications and Estimates (PS&E):	\$ 161,000	Paid By the City of Redding	
<b>Total PE:</b>	<b>\$ 181,000</b>	5.91%	25% Max
<b>Right of Way (RW)</b>			
Right of Way Engineering:	\$ 2,000	Paid By the City of Redding	
Acquisitions and Utilities:	\$ 18,000	Paid By the City of Redding	
<b>Total RW:</b>	<b>\$ 20,000</b>		
<b>Construction (CON)</b>			
Construction Engineering (CE):	\$ 263,413	7.92%	15% Max
<b>Total Construction Items &amp; Contingencies:</b>	<b>\$3,064,134</b>		
<b>Total CON:</b>	<b>\$ 3,327,547</b>		
<b>Total Project Cost Estimate:</b>	<b>\$ 3,528,547</b>		

**CITY OF REDDING  
PRELIMINARY PROJECT COST ESTIMATE**

<b>PROJECT NAME</b>	QUARTZ HILL ROAD IMPROVEMENTS	<b>ALTERNATE NO.</b>		<b>DATE:</b>	01/14/13
---------------------	-------------------------------	----------------------	--	--------------	----------

**PROJECT DESCRIPTION:**  
Construction Documents dated December 12, 2012 - Project includes, but not limited to; road widening, asphalt concrete overlay, retaining walls, curb, gutter and sidewalk, storm drain, and street lighting. Estimate assumes project will be a complete shutdown with detour and no traffic control.

<b>CLIENT:</b> City of Redding	<b>QUANTITIES BY:</b> SDS
	<b>QTY CHECKED BY:</b> SDS
<b>JOB ORDER NO.:</b>	<b>UNIT PRICES BY:</b> SDS

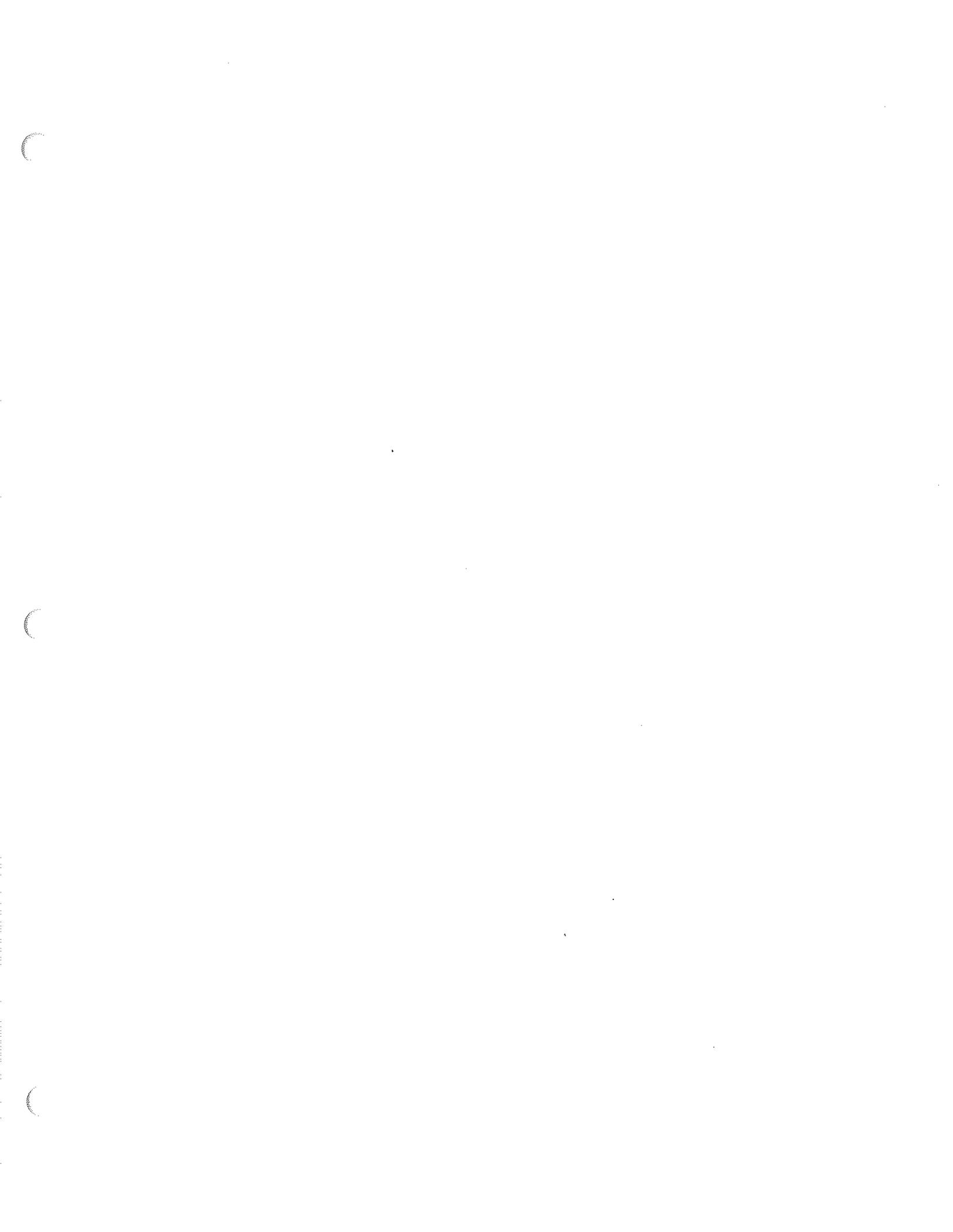
CONTRACT ITEMS					UNIT	QUANTITY	PRICE	AMOUNT
1	Mobilization	LS	1	200,000.00			200,000.00	
2	Construction Area Signs (Includes Project Funding Sign)	LS	1	14,000.00			14,000.00	
3	Prepare Storm Water Pollution Prevention Plan	LS	1	5,000.00			5,000.00	
4	Construction Activities Water Pollution Control, Monitoring and Reporting	LS	1	36,000.00			36,000.00	
5	Erosion Control - Hydro Seeding (Straw, Fertilizer & Tackifier)	SF	81,000	1.00			81,000.00	
6	Erosion Control - Fiber Roll	LF	6,500	3.00			19,500.00	
7	Clearing & Grubbing (Includes Tree Removal)	LS	1	14,000.00			14,000.00	
8	Sawcut Asphalt Concrete	LF	440	2.30			1,012.00	
9	Remove Asphalt Concrete & Associated Aggregate Base	SF	1,640	3.25			5,330.00	
10	Remove Guardrail & Associated Wood Posts	LF	400	8.00			3,200.00	
11	Remove Storm Drain Manhole	EA	1	500.00			500.00	
12	Remove Storm Drain Pipe	LF	150	23.00			3,450.00	
13	Remove Miscellaneous Signs & Associated Posts	EA	1	115.00			115.00	
14	Remove Traffic Stripe	LF	100	5.00			500.00	
15	Excavation & Embankment	CY	26,900	15.00			403,500.00	
16	Cold Plane Asphalt Concrete	SF	6,090	2.00			12,180.00	
17	Pavement Reinforcing Fabric	SY	9,420	2.00			18,840.00	
18	Asphalt Concrete - Leveling Course (3/4")	TON	2,000	100.00			200,000.00	
19	Asphalt Concrete - Overlay (1 3/4")	TON	960	100.00			96,000.00	
20	Asphalt Concrete - Road Widening (4 1/2")	TON	665	100.00			66,500.00	
21	Aggregate Base - Road Widening (15")	TON	2,220	20.00			44,400.00	
22	Aggregate Base - Sidewalk, Curb & Gutter (3")	TON	380	20.00			7,600.00	
23	Curb & Gutter (6")	LF	2,700	15.00			40,500.00	
24	Sidewalk (4" PCC)	SF	13,500	6.00			81,000.00	
25	Shoulder Backing - Class II Aggregate Base	LF	1,505	2.50			3,762.50	
26	Guardrail - Terminal & Railing Sections & Associated Wood Posts	LF	400	65.00			26,000.00	
27	Adjust Manhole To Grade	EA	1	900.00			900.00	
28	Centerline Monuments	EA	4	600.00			2,400.00	
29	Retaining Wall, Return Wall & Footing	CY	450	890.00			400,500.00	
30	Retaining Wall Footing Excavation	CY	250	160.00			40,000.00	
31	Retaining Wall Structural Backfill (Includes Subdrain)	CY	1,900	90.00			171,000.00	
32	Retaining Wall Gutter	LF	565	35.00			19,775.00	
33	Retaining Wall Gutter Drain Under Sidewalk	EA	6	200.00			1,200.00	
34	Retaining Wall Cable Railing	LF	565	60.00			33,900.00	
35	Storm Drain Pipe (15" HDPE)	LF	1,205	47.00			56,635.00	
36	Storm Drain Pipe (18" HDPE)	LF	285	60.00			17,100.00	
37	Storm Drain Pipe (24" HDPE)	LF	76	125.00			9,500.00	
38	Storm Drain Pipe (24" RCP)	LF	7	195.00			1,365.00	
39	Catch Basin #3	EA	1	2,600.00			2,600.00	
40	Modified Catch Basin #3 (Single Inlet)	EA	2	4,100.00			8,200.00	
41	Modified Catch Basin #3 (Double Inlet)	EA	8	6,000.00			48,000.00	
42	Concrete Flared End Section (15")	EA	1	1,800.00			1,800.00	
43	Concrete Flared End Section (24")	EA	1	1,900.00			1,900.00	
44	Earth Ditch W/Pyramat Fabric	LF	1,720	3.50			6,020.00	
45	Pyramat Fabric	SY	575	2.50			1,437.50	
46	Standard Headwall W/Railing	EA	2	5,200.00			10,400.00	
47	Rock Slope Protection (RSP) Outfall	EA	3	1,000.00			3,000.00	
48	Street Light Standard & Luminaire W/Concrete Base (35' Pole, Single Arm)	EA	16	6,000.00			96,000.00	
49	Street Light Standard Joint Trench	LF	2,320	36.00			83,520.00	
50	Electric Conduit (2")	LF	2,320	7.00			16,240.00	
51	Traffic Stripe (Thermoplastic) - 4" Solid Double Yellow	LF	3,260	1.10			3,586.00	
52	Traffic Stripe (Thermoplastic) - 6" Solid White	LF	6,000	1.10			6,600.00	
53	Traffic Stripe (Thermoplastic) - 6" Skip White	LF	360	2.70			972.00	
54	Pavement Marking (Thermoplastic) - 8" Crosshatch White	LF	75	10.00			750.00	
55	Pavement Marking (Thermoplastic) - Bike Symbol & Arrow Symbol	SF	54	5.00			270.00	
56	Pavement Marker - Type "D"	EA	272	4.50			1,224.00	
57	Bike Route Sign (D11-1)	EA	2	600.00			1,200.00	
58	Relocate Miscellaneous Sign & Associated Post	EA	5	450.00			2,250.00	
<b>SUBTOTAL (CONTRACT ITEMS)</b>								<b>\$ 2,434,134.00</b>
<b>CONTINGENCIES</b>								
<b>CONSTRUCTION SUBTOTAL</b>								<b>\$ 2,434,134.00</b>
<b>(Environmental, Design, Plan Review, Permits, Surveys) PRELIMINARY ENGINEERING</b>								
<b>(Contract Admin., Inspecting, Testing, Staking) CONSTRUCTION ENGINEERING</b>								<b>\$ 243,413.40</b>
<b>TOTAL</b>								<b>\$ 2,677,547.40</b>

<b>FUNDING SOURCE:</b>	
For Budget Purposes, Say:	

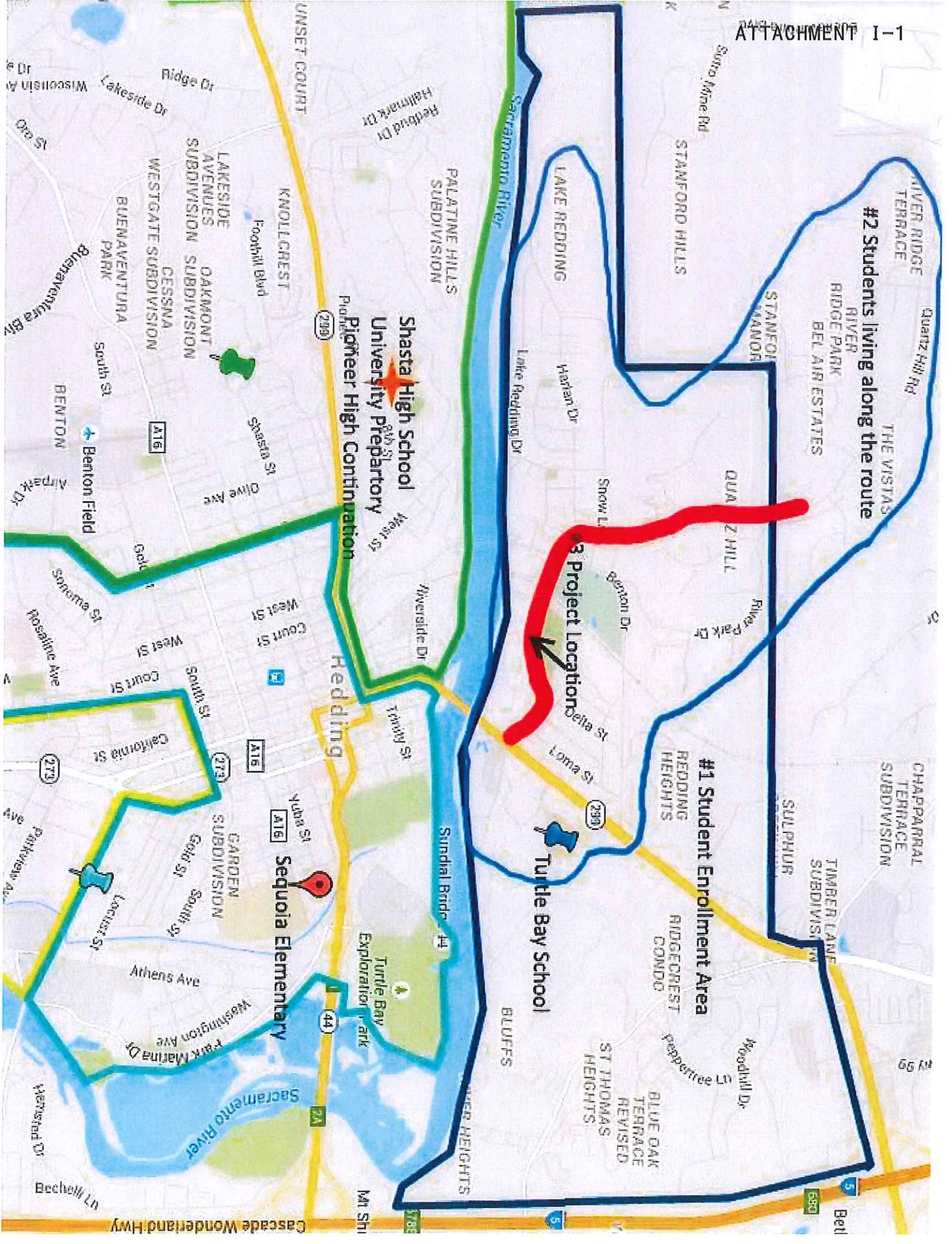
**PREPARED BY:**

**COPIES TO:**

<b>LD's per Capital Improvement &amp; Maint Project Submittal Reqmts</b>	<b>S% * EE</b>
	<b>Working Days</b>







#2 Students living along the route

#1 Student Enrollment Area

#3 Project Location

Shasta High School  
University Preparatory

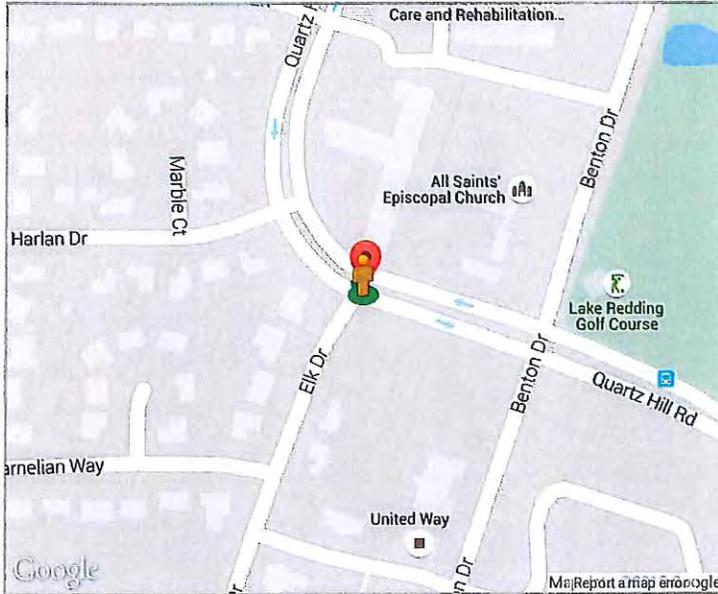
Pioneer High Continuation

Sequoia Elementary

Turtle Bay School

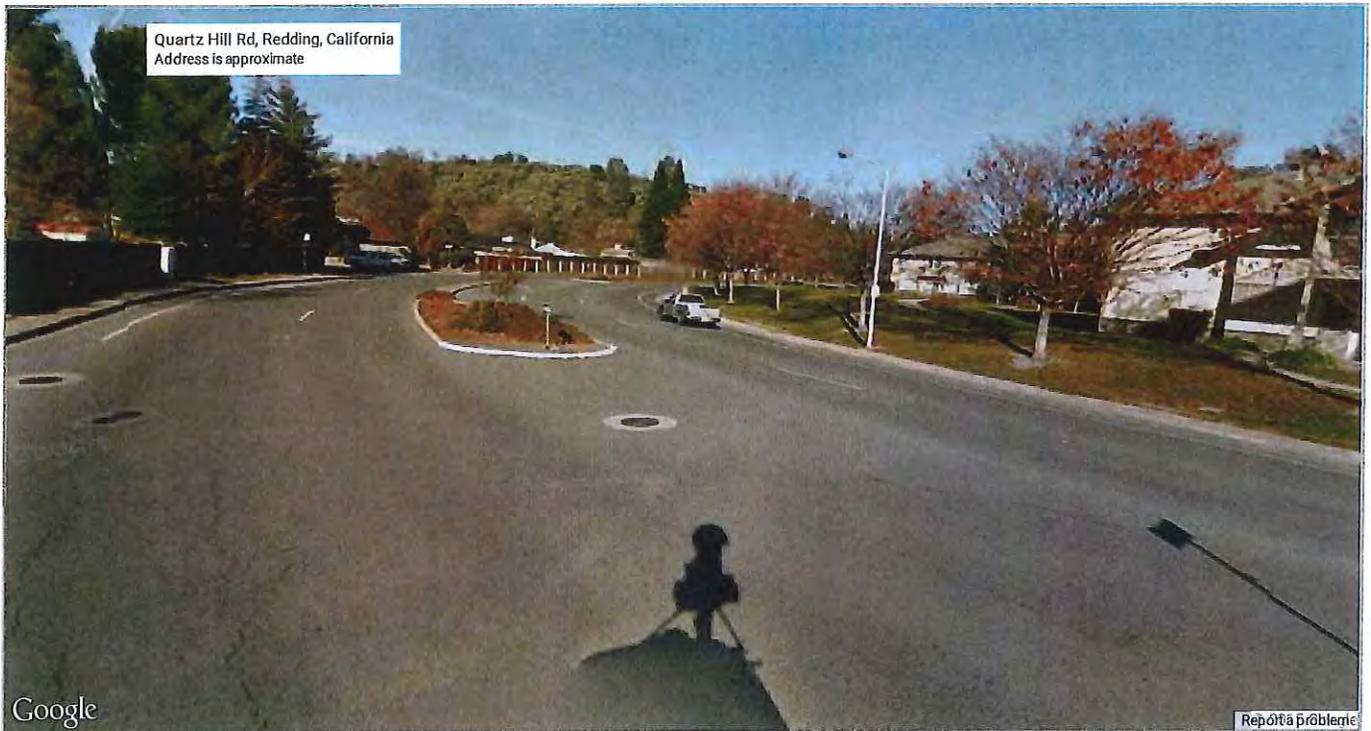


**COLLISION DETAILS: CASE ID 5236493**



<b>County</b>	SHASTA	<b>City</b>	REDDING
<b>Date (Y-M-D)</b>	2011-04-24	<b>Time</b>	17:25
<b>Nearby Intersection</b>	QUARTZ HILL RD & ELKS DR		
<b>Coordinate Location</b>	40.59695547, -122.401941634		
<b>State Highway</b>	N	<b>Route</b>	- Postmile -
<b>Injured Victims</b>	1	<b>Fatalities</b>	0
<b>Alcohol</b>	NO	<b>Weather</b>	Clear
<b>Primary Collision Factor</b>	Unsafe Speed	<b>Involved with</b>	Non-Collision

**STREET VIEW**



Redding Police Department  
Traffic Unit

Traffic Collision History Report  
Midblock Collisions

05/14/2015  
Page 1

Address: QUARTZ HILL RD  
Limit 1: STONE CANYON DR  
Limit 2: N MARKET ST

Total Number of Collisions: 54  
Date Range Reported: 01/01/2004 - 12/31/2013

Report No.	Date Time	Dist/Dir	Location	Type of Collision	Motor Veh. Involved With	DOT1	MPC 1	DOT2	MPC 2	PCF	Highest Injury
04-1430	1/7/04 22:03	156' West of	Quartz Hill Rd/Coronado St	Hit Object	Other Object	Not Stated	Ran Off Road	Not Stated		Other Than Driver or Ped	Complaint of Pain
04-7165	2/4/04 09:19	0'	Quartz Hill Rd/Delta St (W)	Broadside	Other Motor Vehicle	Not Stated	Making Left Turn	Not Stated	Proceeding Straight	Auto R/W Violation	Property Damage Only
04-73080	1/11/8/04 17:34	0'	Benton Dr/Quartz Hill Rd	Sideswipe	Other Motor Vehicle	West	Making Left Turn	East	Making Right Turn	Auto R/W Violation	Property Damage Only
04-76713	12/6/04 12:42	0'	Quartz Hill Rd/Benton Dr	Broadside	Other Motor Vehicle	North	Entering Traffic	West	Proceeding Straight	Auto R/W Violation	Property Damage Only
04-79103	12/17/04 06:48	528' North of	Quartz Hill Rd/Terra Nova Dr	Hit Object	Fixed Object	North	Ran Off Road			Wrong Side of Road	Other Visible Injury
05-9710	2/13/05 22:30	1584' North of	Quartz Hill Rd/Snow Ln	Hit Object	Non-Collision	North	Ran Off Road			Wrong Side of Road	Complaint of Pain
05-29128	5/9/05 08:08	141' West of	Quartz Hill Rd/Benton Dr	Hit Object	Fixed Object	West	Proceeding Straight			Other Than Driver or Ped	Property Damage Only
05-45596	7/14/05 09:06	0'	Quartz Hill Rd/Benton Dr	Sideswipe	Other Motor Vehicle	East	Making Right Turn	East	Stopped in Road	Improper Turning	Property Damage Only
05-52913	8/12/05 00:00	0'	Benton Dr/Quartz Hill Rd	Rear-End	Other Motor Vehicle	North	Proceeding Straight	North	Proceeding Straight	Unsafe Speed	Complaint of Pain
05-75974	11/11/8/05 13:23	0'	N Market St/Quartz Hill Rd	Rear-End	Other Motor Vehicle	South	Slowing/Stopping	South	Stopped in Road	Unsafe Speed	Property Damage Only
05-83497	12/22/05 12:52	0'	Quartz Hill Rd/Benton Dr	Sideswipe	Other Motor Vehicle	East	Passing Other Vehicle	East	Proceeding Straight	Improper Passing	Property Damage Only

Redding Police Department  
Traffic Unit

Traffic Collision History Report  
Midblock Collisions

05/14/2015  
Page 2

Address: QUARTZ HILL RD  
Lane 1: STONE CANYON DR  
Lane 2: N MARKET ST

Total Number of Collisions: 54  
Date Range Reported: 01/01/2004 - 12/31/2013

Report No.	Date Time	Dist/Dir	Location	Type of Collision	Motor Veh. Involved With	DOT1	MPC 1	DOT2	MPC 2	PCF	Highest Injury
05-84056	12/24/05 18:16	0'	Quartz Hill Rd/Benton Dr	Broadside	Other Motor Vehicle	East	Proceeding Straight	South	Proceeding Straight	Auto R/W Violation	Complaint of Pain
06-8159	2/7/06 14:40	0'	Benton Dr/Quartz Hill Rd	Broadside	Other Motor Vehicle	South	Proceeding Straight	North	Making Left Turn	Auto R/W Violation	Property Damage Only
06-25993	4/30/06 14:33	9'	Quartz Hill Rd/Delta St (W)	Sideswipe	Other Motor Vehicle	West	Changing Lanes	West	Proceeding Straight	Unsafe Lane Change	Property Damage Only
06-26616	5/3/06 08:45	0'	N Market St/Quartz Hill Rd	Rear-End	Other Motor Vehicle	North	Proceeding Straight	North	Stopped in Road	Unsafe Speed	Property Damage Only
06-44620	7/17/06 07:36	0'	Quartz Hill Rd/Delta St (W)	Head-On	Other Motor Vehicle	East	Crossed Into Opposing Lane -	West	Proceeding Straight	Driving Under Influence	Severe Injury
06-45014	7/18/06 17:42	0'	Benton Dr/Quartz Hill Rd	Broadside	Other Motor Vehicle	North	Making Left Turn	South	Proceeding Straight	Auto R/W Violation	Other Visible Injury
06-65266	10/11/06 08:41	2112'	Quartz Hill Rd/Snow Ln	Overtaken	Fixed Object	West	Proceeding Straight			Wrong Side of Road	Complaint of Pain
06-80836	12/23/06 06:15	0'	Quartz Hill Rd/Snow Ln	Rear-End	Other Motor Vehicle	East	Proceeding Straight	East	Making Right Turn	Unsafe Speed	Property Damage Only
07-2310	1/10/07 21:17	0'	Benton Dr/Quartz Hill Rd	Broadside	Other Motor Vehicle	South	Proceeding Straight	North	Making Left Turn	Traffic Signals and Signs	Property Damage Only
07-21583	4/3/07 12:23	21'	Quartz Hill Rd/Elk Dr	Overtaken	Non-Collision	East	Proceeding Straight			Unsafe Speed	Complaint of Pain
07-29620	5/6/07 13:58	342'	Quartz Hill Rd/Snow Ln	Other	Non-Collision	West	Proceeding Straight			Unsafe Speed	Other Visible Injury

Redding Police Department  
Traffic Unit

Traffic Collision History Report  
Midblock Collisions

05/14/2015  
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Material: QUARTZ HILL RD  
Limit 1: STONE CANYON DR  
Limit 2: N MARKET ST

Total Number of Collisions: 54  
Date Range Reported: 01/01/2004 - 12/31/2013

Report No.	Date Time	Dist/Dir	Location	Type of Collision	Motor Veh. Involved With	DOT1	MPC 1	DOT2	MPC 2	PCF	Highest Injury
07-34789	5/27/07 01:51	1048' North of	Quartz Hill Rd/Snow Ln	Overtumed	Non-Collision	North	Proceeding Straight			Driving Under Influence	Other Visible Injury
07-43588	7/1/07 17:31	0' In Int.	N Market St/Quartz Hill Rd	Broadside	Other Motor Vehicle	East	Proceeding Straight	South	Not Stated	Traffic Signals and Signs	Other Visible Injury
07-78088	11/25/07 12:27	48' West of	Quartz Hill Rd/N Market St	Rear-End	Other Motor Vehicle	East	Making Right Turn	East	Making Right Turn	Following Too Closely	Complaint of Pain
08-10485	2/18/08 08:24	0' In Int.	Quartz Hill Rd/Harian Dr	Broadside	Other Motor Vehicle	South	Proceeding Straight	West	Making Left Turn	Auto R/W Violation	Property Damage Only
08-12432	2/26/08 19:49	528' North of	Quartz Hill Rd/Snow Ln	Other	Non-Collision	North	Proceeding Straight			Wrong Side of Road	Other Visible Injury
08-16104	3/13/08 13:26	0' In Int.	Benton Dr/Quartz Hill Rd	Broadside	Other Motor Vehicle	West	Proceeding Straight	North	Proceeding Straight	Auto R/W Violation	Property Damage Only
08-30727	5/13/08 17:21	0' In Int.	N Market St/Quartz Hill Rd	Broadside	Other Motor Vehicle	North	Making Left Turn	South	Proceeding Straight	Traffic Signals and Signs	Property Damage Only
08-38027	6/12/08 21:33	2640' West of	Quartz Hill Rd/Harian Dr	Sideswipe	Other Motor Vehicle	West	Stopped In Road	Not Stated	Crossed Into Opposing Lane -	Wrong Side of Road	Property Damage Only
08-62491	9/22/08 07:44	12' West of	Quartz Hill Rd/Benton Dr	Rear-End	Other Motor Vehicle	East	Making Right Turn	East	Making Right Turn	Unsafe Speed	Property Damage Only
08-71121	10/29/08 12:55	276' South of	Quartz Hill Rd/Snow Ln	Hit Object	Fixed Object	North	Proceeding Straight			Wrong Side of Road	Other Visible Injury
09-5154	1/23/09 12:02	0' In Int.	N Market St/Quartz Hill Rd	Rear-End	Other Motor Vehicle	North	Proceeding Straight	North	Slowing/Stopping	Unsafe Speed	Property Damage Only

Redding Police Department  
Traffic Unit

Traffic Collision History Report  
Midblock Collisions

05/14/2015  
Page 4

Serial: QUARTZ HILL RD  
 Unit 1: STONE CANYON DR  
 Unit 2: N MARKET ST  
 Total Number of Collisions: 54  
 Date Range Reported: 01/01/2004 - 12/31/2013

Report No.	Date Time	Dist/Dir	Location	Type of Collision	Motor Veh. Involved With	DOT1	MPC 1	DOT2	MPC 2	PCF	Highest Injury
09-12287	2/24/09 15:48	33' East of	Quartz Hill Rd/Benton Dr	Rear-End	Other Motor Vehicle	West	Proceeding Straight	West	Proceeding Straight	Unsafe Starting or Backing	Complaint of Pain
09-21485	4/4/09 02:01	159' South of	Quartz Hill Rd/Snow Ln	Other	Non-Collision	West	Proceeding Straight			Unsafe Speed	Complaint of Pain
09-25353	4/20/09 11:14	0' In Int.	Quartz Hill Rd/Harlan Dr	Broadside	Other Motor Vehicle	West	Making Left Turn	South	Proceeding Straight	Auto RMV Violation	Complaint of Pain
09-27987	5/1/09 13:42	1310' South of	Quartz Hill Rd/Terra Nova Dr	Hit Object	Other Object	North	Proceeding Straight			Wrong Side of Road	Complaint of Pain
09-32991	5/22/09 00:30	2112' North of	Quartz Hill Rd/Snow Ln	Overtaken	Non-Collision	North	Ran Off Road			Driving Under Influence	Other Visible Injury
09-55237	8/21/09 10:27	3' West of	Quartz Hill Rd/Benton Dr	Sideswipe	Other Motor Vehicle	South	Making Right Turn	East	Stopped In Road	Improper Turning	Property Damage Only
09-73429	11/5/09 15:05	10' West of	Quartz Hill Rd/N Market St	Rear-End	Other Motor Vehicle	East	Proceeding Straight	East	Slowing/Stopping	Following Too Closely	Complaint of Pain
09-80858	12/11/09 14:36	110' West of	Quartz Hill Rd/Benton Dr	Hit Object	Fixed Object	West	Ran Off Road			Unsafe Speed	Property Damage Only
11-16470	3/18/11 07:51	715' East of	Quartz Hill Rd/Terra Nova Dr	Hit Object	Fixed Object	West	Proceeding Straight			Unsafe Speed	Other Visible Injury
11-24708	4/24/11 17:25	45' East of	Quartz Hill Rd/Elk Dr	Overtaken	<del>Non-Collision</del> <i>Bicycle</i>	East	Proceeding Straight			Unsafe Speed	Severe Injury
11-27137	5/4/11 18:20	0' In Int.	Benton Dr/Quartz Hill Rd	Sideswipe	Other Motor Vehicle	East	Making Right Turn	South	Stopped In Road	Driving Under Influence	Property Damage Only

Redding Police Department  
Traffic Unit

Traffic Collision History Report  
Midblock Collisions

05/14/2015  
Page 5

Serial: QUARTZ HILL RD  
Link 1: STONE CANYON DR  
Link 2: N MARKET ST

Total Number of Collisions: 54  
Date Range Reported: 01/01/2004 - 12/31/2013

Report No.	Date Time	Dist/Dir	Location	Type of Collision	Motor Veh. Involved With	DOT1	MPC 1	DOT2	MPC 2	PCF	Highest Injury
11-65730	10/13/11 12:33	0'	Quartz Hill Rd/Benton Dr	Sideswipe	Other Motor Vehicle	West	Making Right Turn	West	Proceeding Straight	Improper Turning	Complaint of Pain
12-17615	3/16/12 17:57	0'	Quartz Hill Rd/Harian Dr	Broadside	Other Motor Vehicle	West	Making Left Turn	East	Proceeding Straight	Auto R/WV Violation	Complaint of Pain
12-39537	6/9/12 09:50	0'	Quartz Hill Rd/Del Mar Ave	Head-On	Fixed Object	West	Proceeding Straight			Driving Under Influence	Property Damage Only
12-43472	6/24/12 12:17	0'	Benton Dr/Quartz Hill Rd	Broadside	Other Motor Vehicle	South	Making Left Turn	South	Making Left Turn	Driving Under Influence	Complaint of Pain
12-47402	7/9/12 07:48	0'	Quartz Hill Rd/Harian Dr	Hit Object	Fixed Object	North	Proceeding Straight			Unsafe Speed	Property Damage Only
13-1544	1/7/13 20:26	63'	Quartz Hill Rd/Harian Dr	Overtaken	Fixed Object	North	Ran Off Road			Wrong Side of Road	Property Damage Only
13-8088	2/5/13 08:51	45'	Quartz Hill Rd/Snow Ln	Hit Object	Animal	South	Proceeding Straight			Unsafe Speed	Other Visible Injurv
13-11858	2/20/13 17:19	0'	Benton Dr/Quartz Hill Rd	Rear-End	Other Motor Vehicle	South	Proceeding Straight	South	Stopped In Road	Unsafe Speed	Property Damage Only
13-19307	3/22/13 18:10	0'	N Market St/Quartz Hill Rd	Broadside	Other Motor Vehicle	North	Proceeding Straight	South	Making Left Turn	Unknown	Property Damage Only
13-57432	8/14/13 16:39	0'	N Market St/Quartz Hill Rd	Rear-End	Other Motor Vehicle	South	Proceeding Straight	South	Stopped In Road	Unsafe Speed	Property Damage Only

Redding Police Department  
Traffic Unit  
Traffic Collision History Report  
Midblock Collisions

05/14/2015  
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Serial: QUARTZ HILL RD  
Limit 1: STONE CANYON DR  
Limit 2: N MARKET ST

Total Number of Collisions: 54  
Date Range Reported: 01/01/2004 - 12/31/2013

Report No.	Date Time	Dist/Dir	Location	Type of Collision	Motor Veh. Involved With	DOT1	MPC 1	DOT2	MPC 2	PCF	Highest Injury
Total Number of Collisions: 54											
Date Range Reported: 01/01/2004 - 12/31/2013											
Total Number of Collisions: 54											
Date Range Reported: 01/01/2004 - 12/31/2013											
Segment Length: 1.76 miles (9,300')											

Settings Used For Query

<u>Parameter</u>	<u>Setting</u>
Limit 1	Include Intersection Related
Limit 2	Include Intersection Related
Intermediate Intersections	Include Intersection Related
Sorted By	Date and Time



**City of Redding**

Public Works Department  
Traffic Operations

**Crosswalk Engineering Study**

Date: 10/1/2014  
By: JCA

**Location Information**

**SAFETY**

Street Lights: **Exists on south side**  
Total 5-year Collisions: **1 parked car**  
5-year Pedestrian Collisions: **0**

**PEDESTRIAN**

Pedestrian volume- Daily: **>100** Peds/Day (est)  
Peak Hour: **36** Peds/hr  
Estimated Pedestrian Delay: **<1** sec  
Dist. to adjacent signalized intersections: **1300** ft  
Dist. to nearest crosswalk- marked: **1300** ft  
or unmarked: **250** ft  
Consolidation of multiple crossings: **no**

**ROADWAY**

Number of Lanes: **5** including turn lane(s)  
Lane Width: **12** ft  
Raised Median Width: **5** ft (0 for none)  
Crossing Width: **78** ft  
Geometrics: **near 300 ft radius curve**  
Sight Distance: **280** ft est. (to west)  
**310** ft est. (to east)  
Min. Stopping Sight Distance (30 mph): **200** ft  
Min. Stopping Sight Distance (40 mph): **305** ft  
On-Street Parking: **yes**  
Adjacent Driveways within 50 ft: **no**



**TRAFFIC**

Average Daily Traffic: **3972** veh/day (ADT)  
Posted Speed Limit: **30** mph  
85th Percentile Speed: **40** mph

**OTHER FACTORS**

Pedestrian Attractors: **Aquatic Center  
Skateboard Park  
Play Fields, Playground  
Pedestrian trailhead  
On-site parking lot**  
Existing Parking:

**CA-MUTCD Section 3B.18 Guidance**

**CONDITION**

Does the Speed Limit exceed 40 mph? **No**  
Does the Roadway have 4 or more travel lanes? **Yes**  
Does the roadway have a raised median? **Yes**  
Is the ADT 12,000 or more? **No**  
Is the ADT 15,000 or more? **No**

**GUIDANCE**

Crosswalk markings may be installed at a signal, STOP, or YIELD controlled locations where engineering judgment indicates they are needed to direct pedestrians to the proper crossing path.

Crosswalk markings may be established at mid-block locations between intersections, in accordance with CVC 21106(a). Mid-block pedestrian crossings are generally unexpected by the motorist and should be discouraged unless, there is strong justification in favor of such installation.

**FHWA Guidance**

Table 11. Recommendations for installing marked crosswalks and other needed pedestrian improvements at uncontrolled locations.\*

Roadway Type (Number of Travel Lanes and Median Type)	Vehicle ADT <= 9,000			Vehicle ADT > 9,000 to 12,000			Vehicle ADT > 12,000 to 15,000			Vehicle ADT > 15,000		
	Speed Limit**											
	<= 30 mph	35 mph	40 mph	<= 30 mph	35 mph	40 mph	<= 30 mph	35 mph	40 mph	<= 30 mph	35 mph	40 mph
Two Lanes	C	C	P	C	C	P	C	C	N	C	P	N
Three Lanes	C	C	P	C	P	P	P	P	N	P	N	N
Multilane (four or more lanes) with raised median***	C	C	P	C	P	N	P	P	N	N	N	N
Multilane (four or more lanes) without raised median	C	P	N	P	P	N	N	N	N	N	N	N

C = Candidate site for marked crosswalks. Confirmation of a minimum utilization of 20 pedestrian crossings per peak hour (or 15 or more elderly and/or child pedestrians) is recommended before placing a high priority on the installation of a marked crosswalk alone.

P = Possible increase in pedestrian crash risk may occur if crosswalks are added without other pedestrian facility enhancements.

N = Marked crosswalks alone are insufficient. Pedestrian crash risk may be increased by providing marked crosswalks alone.

\* Guidelines include intersection and mid-block locations with no traffic signals or stop signs on the approach to the crossing. They do not apply to school crossings. Adding crosswalks alone will not make crossings safer, nor will they necessarily result in more vehicles stopping for pedestrians.

\*\* Where the speed limit exceeds 40 mph, marked crosswalks alone should not be used at unsignalized locations.

\*\*\* The raised median or crossing island must be at least 1.2 m (4 ft) wide and 1.8 m (6 ft) long to serve adequately as a refuge area for pedestrians, in accordance with MUTCD and AASHTO guidelines.

Source: FHWA HRT-04-100 "Safety Effects of Marked Vs. Unmarked Crosswalks at Uncontrolled Locations", Final Report and Recommended Guidelines, Sept 2005.

**Recommendation**

Marked pedestrian facilities are recommended at this location. This is supported by the observed pedestrian demand, multiple pedestrian attractors at the park and for the trails, low traffic volumes, long distances to adjacent crosswalks, strong neighborhood support, and FHWA guidance. A broader systemic two-phase approach for the area adjacent to the park is recommended. Short-term improvements, to include enhanced pedestrian markings and signing, followed by long-term improvements, to include reconfiguration of Quartz Hill Road and designating a statutory 25 mph speed limit based on CVC 22357.1 should be implemented.



**City of Redding**  
 Department of Public Works  
 Traffic Operations

**Prevailing Speed Calculation**

**Location:** Quartz Hill Road west of Market Street

Posted Speed: 30 mph  
 Road Condition: Dry  
 Weather: Clear

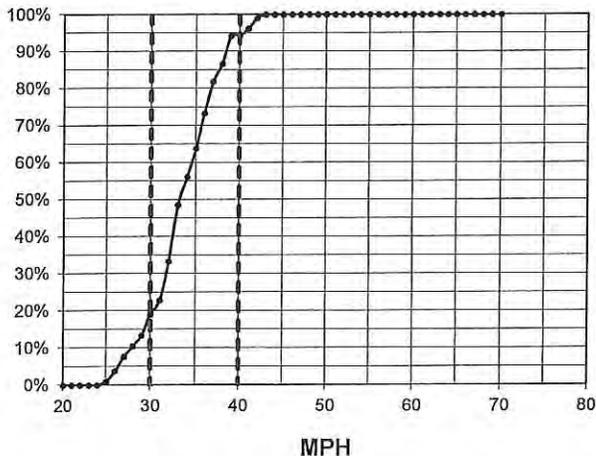
Direction: Combined  
 Observer: Bill Booth  
 Calcs By: Bill Booth

Date: 2/25/2015  
 Day of Week: Wednesday  
 Time: 10:55 to 12:00 AM

**Statistics**

Prevailing Speed (85%) : 38 mph  
 Average Speed : 33.9 mph  
 Median Speed : 34 mph  
 Standard Deviation: 3.9 mph  
 Pace Range : 30 - 40 mph  
 Percent in Pace : 81.0 %  
 Total # Vehicles : 105

**Cumulative Speeds**



MPH	# of Veh.	Tally	%
70			100.0%
69			100.0%
68			100.0%
67			100.0%
66			100.0%
65			100.0%
64			100.0%
63			100.0%
62			100.0%
61			100.0%
60			100.0%
59			100.0%
58			100.0%
57			100.0%
56			100.0%
55			100.0%
54			100.0%
53			100.0%
52			100.0%
51			100.0%
50			100.0%
49			100.0%
48			100.0%
47			100.0%
46			100.0%
45			100.0%
44			100.0%
43	1	◆	100.0%
42	3	◆◆◆	99.0%
41	2	◆◆	96.2%
40			94.3%
39	8	◆◆◆◆◆◆◆◆	94.3%
38	5	◆◆◆◆◆	86.7%
37	9	◆◆◆◆◆◆◆◆◆	81.9%
36	10	◆◆◆◆◆◆◆◆◆◆	73.3%
35	8	◆◆◆◆◆◆◆◆	63.8%
34	8	◆◆◆◆◆◆◆◆	56.2%
33	16	◆◆◆◆◆◆◆◆◆◆◆◆◆◆	48.6%
32	11	◆◆◆◆◆◆◆◆◆◆◆	33.3%
31	4	◆◆◆◆	22.9%
30	6	◆◆◆◆◆◆	19.0%
29	3	◆◆◆	13.3%
28	3	◆◆◆	10.5%
27	4	◆◆◆◆	7.6%
26	3	◆◆◆	3.8%
25	1	◆	1.0%
24			0.0%
23			0.0%
22			0.0%
21			0.0%
20			0.0%
19			0.0%
18			0.0%
17			0.0%
16			0.0%
15			0.0%





**City of Redding**  
 Department of Public Works  
 Traffic Operations

**Prevailing Speed Calculation**

**Location:** Quartz Hill Road north of Snow Lane

Posted Speed: 40 mph  
 Road Condition: Dry  
 Weather: Clear

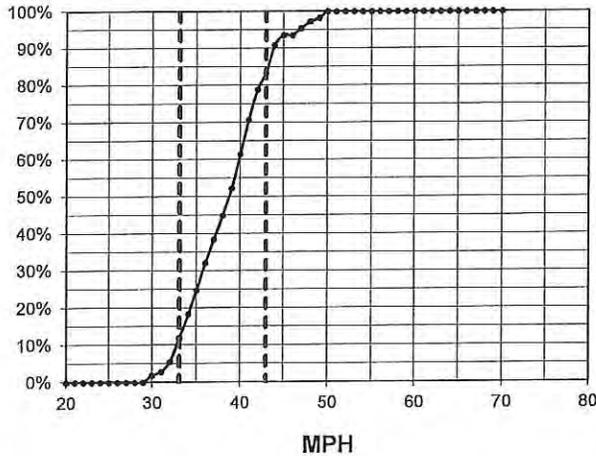
Direction: Combined  
 Observer: Bill Booth  
 Calcs By: Bill Booth

Date: 2/25/2015  
 Day of Week: Wednesday  
 Time: 9:45 to 10:40 AM

**Statistics**

Prevailing Speed (85%) : 44 mph  
 Average Speed : 39.0 mph  
 Median Speed : 39 mph  
 Standard Deviation: 4.5 mph  
 Pace Range : 33 - 43 mph  
 Percent in Pace : 73.4 %  
 Total # Vehicles : 109

**Cumulative Speeds**



MPH	# of Veh.	Tally	%
70			100.0%
69			100.0%
68			100.0%
67			100.0%
66			100.0%
65			100.0%
64			100.0%
63			100.0%
62			100.0%
61			100.0%
60			100.0%
59			100.0%
58			100.0%
57			100.0%
56			100.0%
55			100.0%
54			100.0%
53			100.0%
52			100.0%
51			100.0%
50	2	◆◆	100.0%
49	1	◆	98.2%
48	2	◆◆	97.2%
47	2	◆◆	95.4%
46	0		93.6%
45	3	◆◆◆	93.6%
44	8	◆◆◆◆◆◆◆◆	90.8%
43	5	◆◆◆◆◆	83.5%
42	9	◆◆◆◆◆◆◆◆	78.9%
41	10	◆◆◆◆◆◆◆◆◆	70.6%
40	10	◆◆◆◆◆◆◆◆◆	61.5%
39	8	◆◆◆◆◆◆◆◆	52.3%
38	7	◆◆◆◆◆◆◆	45.0%
37	7	◆◆◆◆◆◆◆	38.5%
36	8	◆◆◆◆◆◆◆◆	32.1%
35	7	◆◆◆◆◆◆◆	24.8%
34	7	◆◆◆◆◆◆◆	18.3%
33	7	◆◆◆◆◆◆◆	11.9%
32	3	◆◆◆	5.5%
31	1	◆	2.8%
30	2	◆◆	1.8%
29			0.0%
28			0.0%
27			0.0%
26			0.0%
25			0.0%
24			0.0%
23			0.0%
22			0.0%
21			0.0%
20			0.0%
19			0.0%
18			0.0%
17			0.0%
16			0.0%
15			0.0%

CITY OF REDDING **SPEED SURVEY CALCULATION SHEET**  
**QUARTZ HILL RD N/ SNOW LN**

Observer: Lori Lackey

Calcs: Frank Hogue

Posted Speed: 35  
 Weather: Sunny & Dry

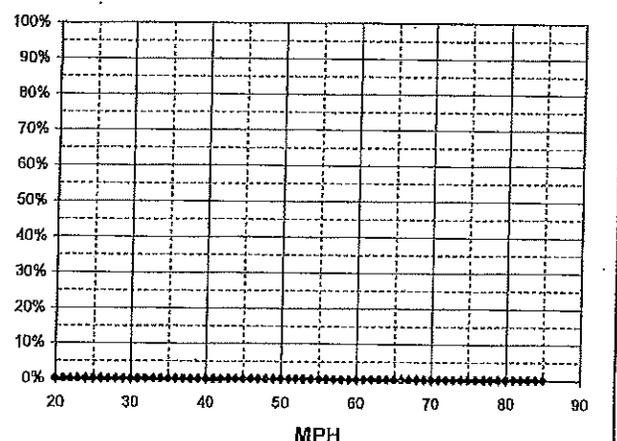
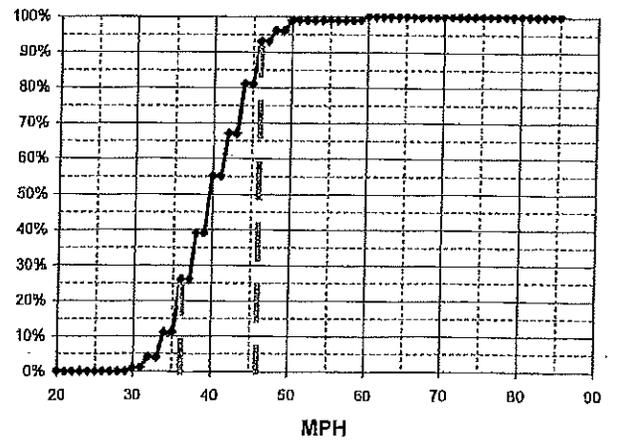
Day: Tuesday  
 Date: 7/25/06  
 Time: 09:30 - 10:07

Critical Speed :	46	mph
Average Speed :	40.6	mph
Median Speed :	40	mph
Standard Deviation:	4.9	mph
Pace Range :	36 - 46	mph
Percent in Pace :	70.0%	
Total # Vehicles :	100	

Critical Speed :	#DIV/0!	mph
Average Speed :	#DIV/0!	mph
Median Speed :	0	mph
Standard Deviation:	#DIV/0!	mph
Pace Range :	#DIV/0!	mph
Percent in Pace :	#DIV/0!	
Total # Vehicles :	0	

MPH	# of Veh.	Both Directions	%
85			100.0%
84			100.0%
83			100.0%
82			100.0%
81			100.0%
80			100.0%
79			100.0%
78			100.0%
77			100.0%
76			100.0%
75			100.0%
74			100.0%
73			100.0%
72			100.0%
71			100.0%
70			100.0%
69			100.0%
68			100.0%
67			100.0%
66			100.0%
65			100.0%
64			100.0%
63			100.0%
62			100.0%
61			100.0%
60	1	♦	100.0%
59			99.0%
58			99.0%
57			99.0%
56			99.0%
55			99.0%
54			99.0%
53			99.0%
52			99.0%
51			99.0%
50	3	♦♦♦	99.0%
49			96.0%
48	3	♦♦♦	96.0%
47			93.0%
46	12	♦♦♦♦♦♦♦♦♦♦	93.0%
45			93.0%
44	14	♦♦♦♦♦♦♦♦♦♦♦♦	81.0%
43			67.0%
42	12	♦♦♦♦♦♦♦♦♦♦	67.0%
41			55.0%
40	16	♦♦♦♦♦♦♦♦♦♦♦♦♦♦	55.0%
39			39.0%
38	13	♦♦♦♦♦♦♦♦♦♦♦♦	39.0%
37			26.0%
36	15	♦♦♦♦♦♦♦♦♦♦♦♦♦♦	26.0%
35			11.0%
34	7	♦♦♦♦♦♦♦	11.0%
33			4.0%
32	3	♦♦♦	4.0%
31			1.0%
30	1	♦	1.0%
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21			0.0%
20			0.0%

MPH	No of Veh.	%
85	#DIV/0!	#DIV/0!
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20	#DIV/0!	#DIV/0!





**City of Redding**  
 Department of Public Works  
 Traffic Operations

**Prevailing Speed Calculation**

**Location:** Quartz Hill Road east of River Ridge Drive

Posted Speed: 45 mph  
 Road Condition: Dry  
 Weather: Clear

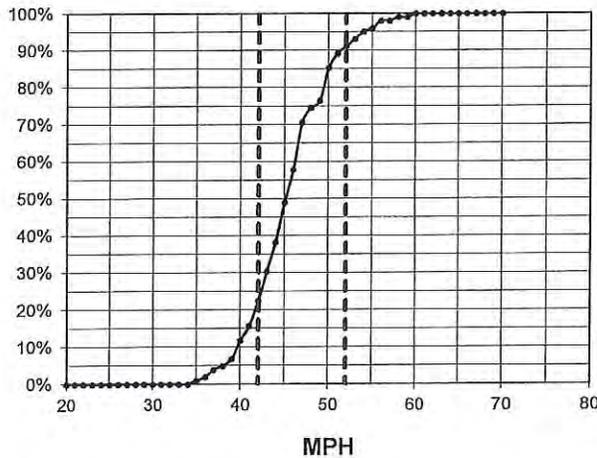
Direction: Combined  
 Observer: Bill Booth  
 Calcs By: Bill Booth

Date: 2/27/2015  
 Day of Week: Friday  
 Time: 10:00 to 11:30AM

**Statistics**

Prevailing Speed (85%) : 50 mph  
 Average Speed : 45.9 mph  
 Median Speed : 46 mph  
 Standard Deviation: 4.7 mph  
 Pace Range : 42 - 52 mph  
 Percent in Pace : 73.5 %  
 Total # Vehicles : 102

**Cumulative Speeds**



MPH	# of Veh.	Tally	%
70			100.0%
69			100.0%
68			100.0%
67			100.0%
66			100.0%
65			100.0%
64			100.0%
63			100.0%
62			100.0%
61			100.0%
60	1	◆	100.0%
59			99.0%
58	1	◆	99.0%
57			98.0%
56	2	◆◆	98.0%
55	1	◆	96.1%
54	2	◆◆	95.1%
53	2	◆◆	93.1%
52	2	◆◆	91.2%
51	4	◆◆◆◆	89.2%
50	9	◆◆◆◆◆◆◆◆◆	85.3%
49	2	◆◆	76.5%
48	4	◆◆◆◆	74.5%
47	13	◆◆◆◆◆◆◆◆◆◆◆	70.6%
46	9	◆◆◆◆◆◆◆◆◆	57.8%
45	11	◆◆◆◆◆◆◆◆◆◆◆	49.0%
44	8	◆◆◆◆◆◆◆◆	38.2%
43	8	◆◆◆◆◆◆◆◆	30.4%
42	7	◆◆◆◆◆◆◆	22.5%
41	4	◆◆◆◆	15.7%
40	5	◆◆◆◆◆	11.8%
39	2	◆◆	6.9%
38	1	◆	4.9%
37	2	◆◆	3.9%
36	1	◆	2.0%
35	1	◆	1.0%
34			0.0%
33			0.0%
32			0.0%
31			0.0%
30			0.0%
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15			0.0%

CITY OF REDDING SPEED SURVEY CALCULATION SHEET

QUARTZ HILL RD E/ RIVER RIDGE DR

Observer: Lori Lackey

Calcs: Frank Hogue

Posted Speed: 35  
Weather: Sunny & Dry

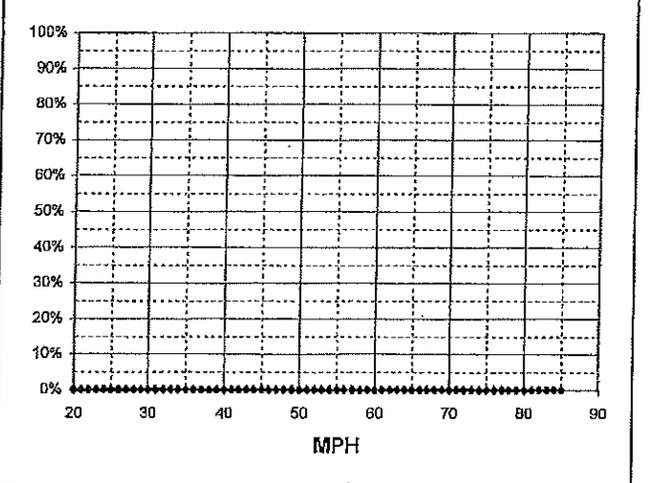
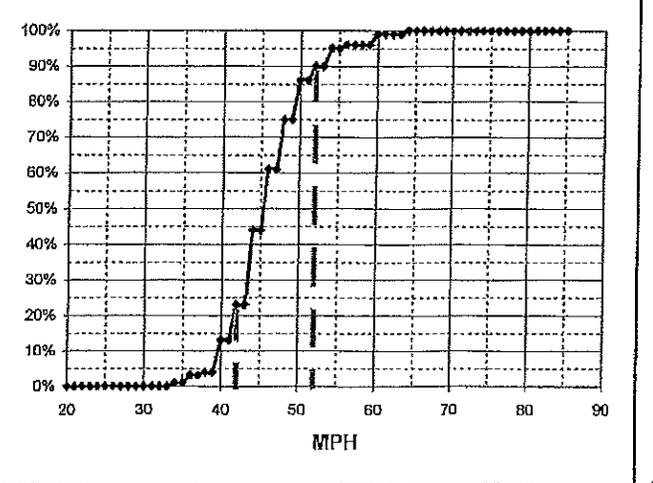
Day: Thursday  
Date: 6/8/08  
Time: 10:40 - 11:25

Critical Speed :	50	mph
Average Speed :	46.3	mph
Median Speed :	46	mph
Standard Deviation:	5.2	mph
Pace Range :	42 - 52	mph
Percent in Pace :	73.0%	
Total # Vehicles :	100	

Critical Speed :	#DIV/0!	mph
Average Speed :	#DIV/0!	mph
Median Speed :	0	mph
Standard Deviation:	#DIV/0!	mph
Pace Range :	#DIV/0!	mph
Percent in Pace :	#DIV/0!	
Total # Vehicles :	0	

MPH	# of Veh.	Both Directions	%
85			100.0%
84			100.0%
83			100.0%
82			100.0%
81			100.0%
80			100.0%
79			100.0%
78			100.0%
77			100.0%
76			100.0%
75			100.0%
74			100.0%
73			100.0%
72			100.0%
71			100.0%
70			100.0%
69			100.0%
68			100.0%
67			100.0%
66			100.0%
65			100.0%
64	1	♦	100.0%
63			99.0%
62			99.0%
61			99.0%
60	3	♦♦♦	99.0%
59			96.0%
58			96.0%
57			96.0%
56	1	♦	96.0%
55			95.0%
54	5	♦♦♦♦♦	95.0%
53			90.0%
52	4	♦♦♦♦	90.0%
51			86.0%
50			86.0%
49			75.0%
48	14	♦♦♦♦♦♦♦♦♦♦♦♦♦♦	75.0%
47			61.0%
46	17	♦♦♦♦♦♦♦♦♦♦♦♦♦♦♦	61.0%
45			44.0%
44	21	♦♦♦♦♦♦♦♦♦♦♦♦♦♦♦♦	44.0%
43			23.0%
42	10	♦♦♦♦♦♦♦♦♦♦	23.0%
41			13.0%
40	9	♦♦♦♦♦♦♦♦♦	13.0%
39			4.0%
38	1	♦	4.0%
37			3.0%
36	2	♦♦	3.0%
35			1.0%
34	1	♦	1.0%
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21			0.0%
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MPH	No of Veh.	%
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List Unmapped Collisions

Cluster

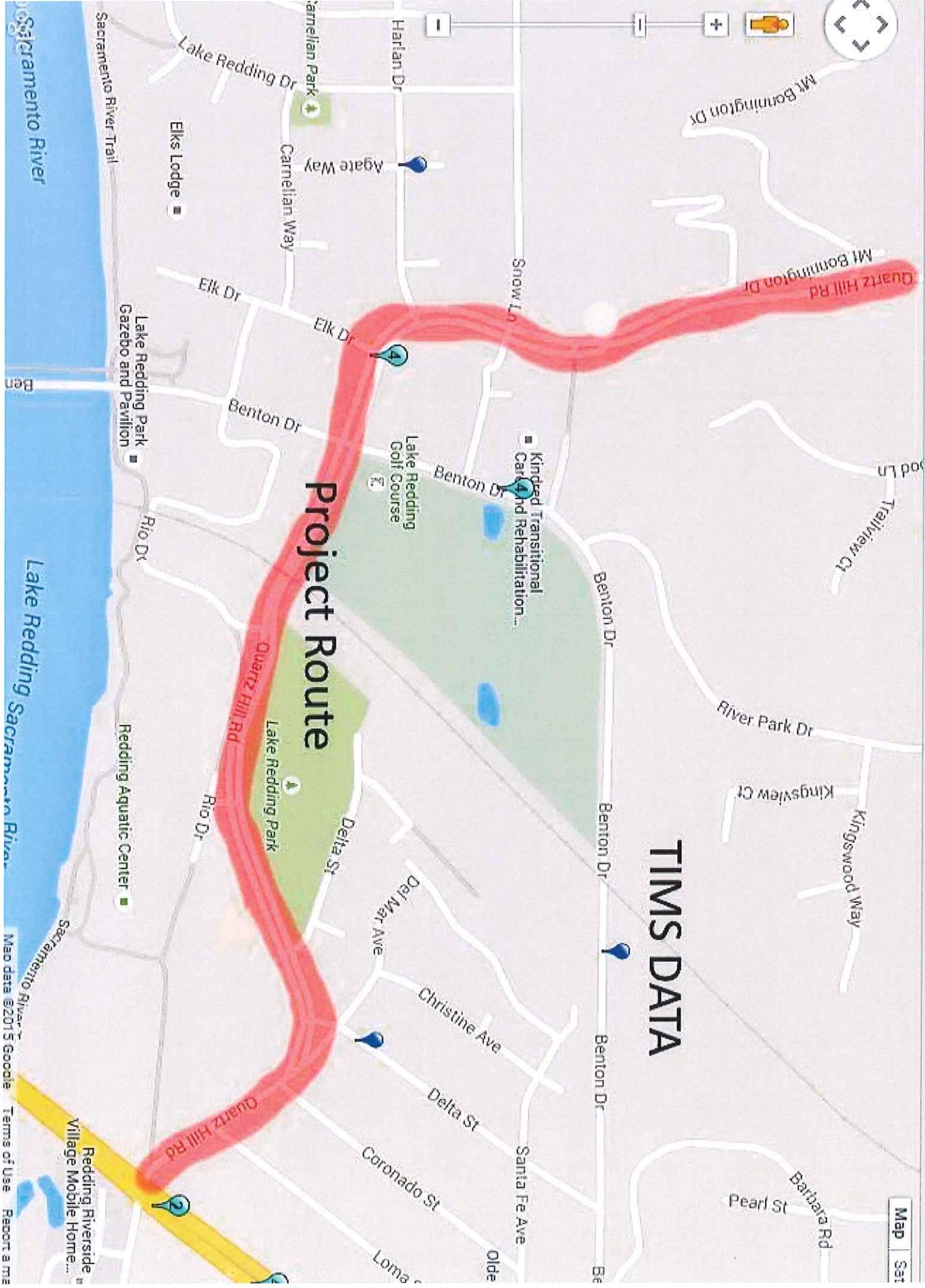
Heatmap

Find address or place

Map Sat

# TIMS DATA

## Project Route







2013 ACS  
2012 CBP



2000  
Census



1990  
Census

by Measure

Median Household Income

by

Census Tract

Enter address or geography

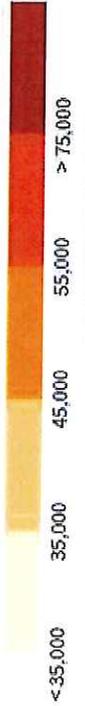
Influence Area

Project

Census Tract 107.04, Shasta County, California

Median Household Income  
(in 2013 Dollars)

\$32,684



Shaded Area

Map Tools



**Project Name:**  
**Project Location:**

Quartz Hill Road Active Transportation Project  
Redding, CA

**INFRASTRUCTURE**

Bike Projects (Daily Person Trips for All Users) (Box 1A)	
Existing	Without Project: 50
Forecast (1 Yr after completion)	With Project: 150
Existing Trips New Daily Trips (estimate)	Recreational Users: 25
(1 YR after completion) (actual)	Commuters: 12.5
<b>Project Information- Non SR2S Infrastructure</b>	
Bike Class Type	Bike Class II
Average Annual Daily Traffic (AADT)	48,000

Project Costs (Box 1D)	
Non-SR2S Infrastructure Project Cost	\$3,177,000
SR2S Infrastructure Project Cost	\$0

ATP Requested Funds (Box 1E)	
Non-SR2S Infrastructure	\$3,177,000
SR2S Infrastructure	\$0

CRASH DATA (Box 1F)	
Fatal Crashes	Last 5 Yrs: 0
Injury Crashes	7
PDO	10
	Annual Average
	1.4
	2

Pedestrian Projects (Daily Person Trips for All Users) (Box 1B)	
Existing	Without Project: 25
Forecast (1 YR after project completion)	With Project: 75
Existing step counts (600 steps=0.3mi=1,trip)	Without Project: [ ]
Existing miles walked	With Project: [ ]

SAFETY COUNTERMEASURES (improvements) (Box 1G)		Y or N (Capitalized)
Signalized Intersection	Pedestrian countdown signal heads	
Unsignalized Intersection	Pedestrian crossing	
	Advance stop bar before crosswalk	
	Install overpass/underpass	
	Raised medians/refuge islands	
	Pedestrian crossing (new signs and markings only)	
	Pedestrian crossing (safety features/curb extensions)	
	Pedestrian signals	
Roadways	Bike lanes	Y
	Sidewalk/pathway (to avoid walking along roadway)	Y
	Pedestrian crossing (with enhanced safety features)	Y
	Pedestrian crossing	Y
	<b>Other reduction factor countermeasures</b>	

Safe Routes to School (SR2S) (Box 1C)	
Number of student enrollment	Total: 2,000
Approximate no. of students living along school route proposed for improvement	250
Percentage of students that currently walk or bike to school	2.00%
Projected percentage of students that will walk or bike to school after the project	4.00%

**20 Year Invest Summary Analysis**

Total Costs	\$3,177,000.00
Net Present Cost	\$3,054,807.69
Total Benefits	\$6,913,050.11
Net Present Benefit	\$4,578,371.47
Benefit-Cost Ratio	1.50

**20 Year Itemized Savings**

Mobility	\$2,329,144.32
Health	\$268,479.16
Recreational	\$1,108,634.31
Gas & Emissions	\$67,588.34
Safety	\$3,139,203.98

Funds Requested	\$3,177,000.00
Net Present Cost of Funds Requested	\$3,054,807.69
Benefit Cost Ratio	1.5



**Grant, Sarah**

---

**From:** Hsieh, Wei@CCC <Wei.Hsieh@CCC.CA.GOV> on behalf of ATP@CCC <ATP@CCC.CA.GOV>  
**Sent:** Friday, May 22, 2015 4:28 PM  
**To:** Grant, Sarah  
**Cc:** Hsieh, Wei@CCC; ATP@CCC; inquiry@atpcommunitycorps.org; Wolsey, Scott@CCC; Johnson, Nicholas@CCC  
**Subject:** RE: ATP - City of Redding Projects

Hi Sarah,

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 24<sup>th</sup> Street  
 Sacramento, CA 95816  
 (916) 341-3154  
[Wei.Hsieh@ccc.ca.gov](mailto:Wei.Hsieh@ccc.ca.gov)

---

**From:** Grant, Sarah [<mailto:sgrant@ci.redding.ca.us>]  
**Sent:** Thursday, May 21, 2015 4:59 PM  
**To:** [inquiry@atpcommunitycorps.org](mailto:inquiry@atpcommunitycorps.org); ATP@CCC  
**Cc:** Bonnin, Zachary  
**Subject:** ATP - City of Redding Projects

Hello Wei and Danielle,

The City of Redding is applying for 2 ATP projects.

Please let us know if the CCC is interested in possibly working with us on any of these projects we will include your response in our grant application.

Feel free to contact us with any questions or if you need further information. Thank you!

**Project 1**

Project Title: City of Redding - Diestelhorst to Downtown Non-Motorized Improvement Project

**Project Description:**

Construct a mix of path connections including:

- Class 1 from Diestelhorst Bridge to Riverside Drive, there will be two options. One option will be an accessible Class 1 path along Benton Drive, the second will go under Diestelhorst Bridge and Benton Drive bridges to Riverside (if a Class 1 cannot be built due to ADA will would install a trail)

- protected bikeways (Class IV),
- complete sidewalk gaps,
- improve intersections to reduce crossing distance, and enhanced crossings including median and rapid flashing beacons to create a corridor to/from Downtown to the River Trail

Detailed Estimate see attached initial draft estimate

Project Schedule: est construct 2017 or 2018

Project Map see attached

Location project spans from Diestelhorst bridge to Riverside to Center Street/Division and ends at California Street

## **Project 2**

Project Title: City of Redding - Quartz Hill Road Improvement Project

Project Description

Widen road to construct new sidewalk and infill gaps to the west of Benton, to the east of Benton road diet, class 2 facilities, enhanced pedestrian crossings with RRFBs, reduce curb radii and crossing distance to/from neighborhood and the Park. Enhance/rehabilitate hardscape paths from Quartz Hill Road to Sacramento River Trail through the Park.

Detailed Estimate : draft estimate for the project west of Benton is attached, staff is still quantifying estimates for road diet and elements west of Benton including new curb corners on selected enhanced crossings and path rehabilitation.

Project Schedule: Construct 2017 or 2018

Project Map see attached

Location Project area spans from Terra Nova to Market (SR299) on Quartz Hill

Preliminary Plan

**Sarah Grant**

**RABA/City of Redding – Public Works**

**530-245-7116**

**Grant, Sarah**

---

**From:** Active Transportation Program <inquiry@atpcommunitycorps.org>  
**Sent:** Wednesday, May 27, 2015 10:15 AM  
**To:** Grant, Sarah  
**Cc:** atp@ccc.ca.gov; Bonnin, Zachary  
**Subject:** Re: ATP - City of Redding Projects

Hi Sarah,

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

Thank you

On Thu, May 21, 2015 at 4:59 PM, Grant, Sarah <[sgrant@ci.redding.ca.us](mailto:sgrant@ci.redding.ca.us)> wrote:

Hello Wei and Danielle,

The City of Redding is applying for 2 ATP projects.

Please let us know if the CCC is interested in possibly working with us on any of these projects we will include your response in our grant application.

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- complete sidewalk gaps,
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Project Schedule: est construct 2017 or 2018

Project Map see attached

Location project spans from Diestelhorst bridge to Riverside to Center Street/Division and ends at California Street

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Project Title: City of Redding - Quartz Hill Road Improvement Project

### Project Description

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Enhance/rehabilitate hardscape paths from Quartz Hill Road to Sacramento River Trail through the Park.

Detailed Estimate : draft estimate for the project west of Benton is attached, staff is still quantifying estimates for road diet and elements west of Benton including new curb corners on selected enhanced crossings and path rehabilitation.

Project Schedule: Construct 2017 or 2018

Project Map see attached

Location Project area spans from Terra Nova to Market (SR299) on Quartz Hill

Preliminary Plan

**Sarah Grant**

**RABA/City of Redding – Public Works**

**530-245-7116**

--

**Monica Davalos** | Legislative Policy Intern

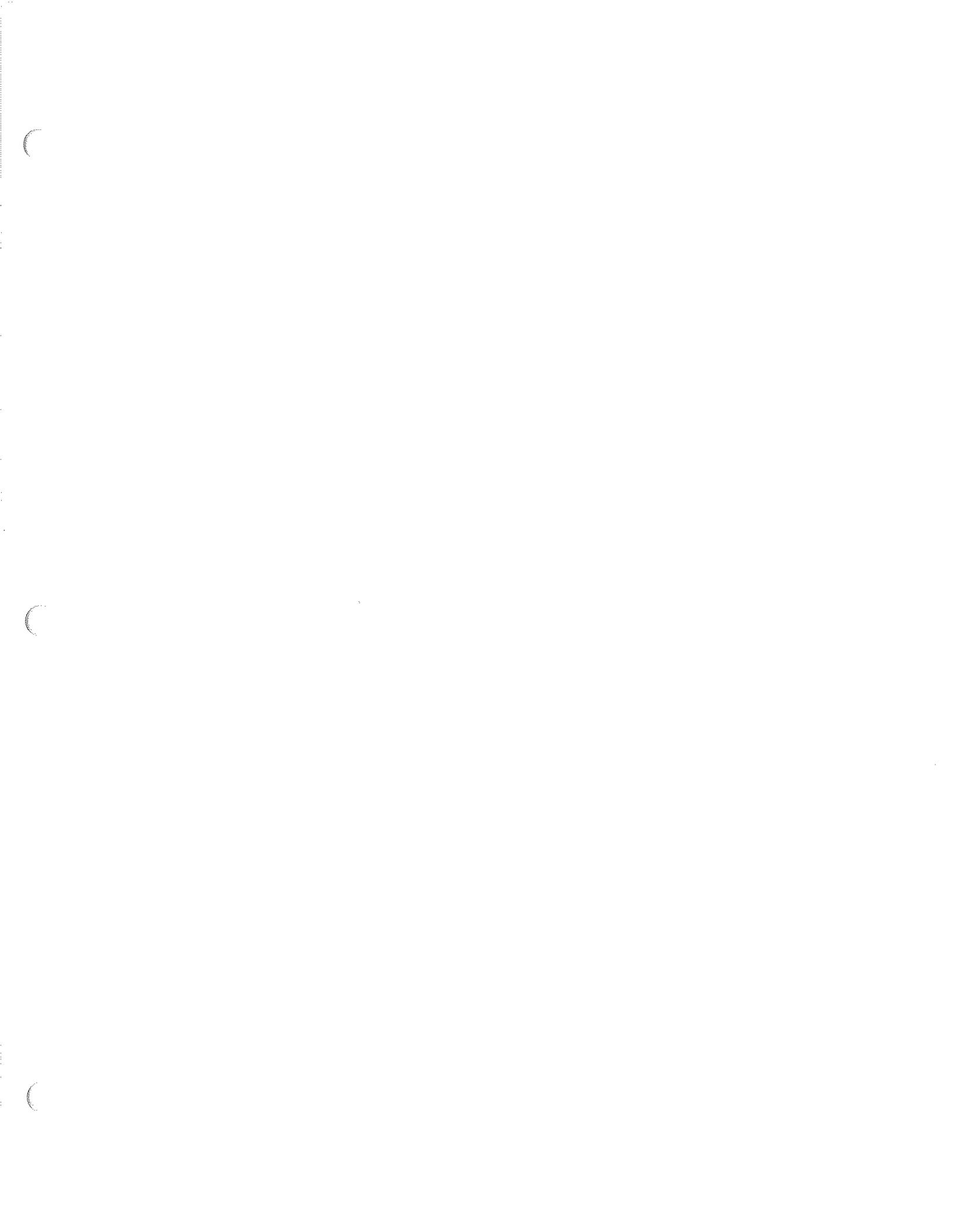
Active Transportation Program

California Association of Local Conservation Corps

1121 L Street, Suite 400

Sacramento, CA 95814

916.426.9170 | [inquiry@atpcorps.org](mailto:inquiry@atpcorps.org)



**DEPARTMENT OF TRANSPORTATION**

OFFICE OF THE DISTRICT 2 DIRECTOR

1657 RIVERSIDE DRIVE

REDDING, CA 96001

PHONE (530) 225-3270

FAX (530) 225-2459

TTY 711

[www.dot.ca.gov/dist2/](http://www.dot.ca.gov/dist2/)

*Serious Drought.  
Help save water!*

May 27, 2015

Mr. Kurt Starman, City Manager  
City of Redding  
777 Cypress Ave.  
Redding, CA 96001

Dear Mr. Starman:

The City of Redding plans to submit an Active Transportation Program Application to receive funds to construct the Quartz Hill Road Corridor Improvement Project. Some of the items identified in the proposed project include:

West of Benton Drive-

- Widen the road to construct new sidewalk and uphill bike lane and shoulder on Quartz Hill Road, west of Benton Drive

East of Benton Drive-

- Infill sidewalk gaps
- Calm traffic with road diet
- Add bike lanes
- Enhance pedestrian crossings with pedestrian activated flashing beacons
- Tighten curb radii to reduce speeds on neighborhood roads
- Reduce pedestrian crossing distance to/from neighborhood and the local Park.

Caltrans recognizes the importance of building and improving safe transportation facilities for bicyclists and pedestrians in the North State.

I appreciate and support your continued efforts in seeking funding opportunities to ensure that this important project is completed.

Sincerely,

A handwritten signature in cursive script that reads "Dave Moore".

Dave Moore  
Acting Director, District 2



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

**Daniel S. Little, Executive Director**

---

May 29, 2015

Chuck Aukland, P.E.  
Assistant Director  
Public Works Department  
City of Redding  
777 Cypress Avenue  
Redding, CA 96001

Subject: Support for city of Redding's ATP Application for Quartz Hill Road Corridor Improvement Project

Dear Mr. Aukland:

The Shasta Regional Transportation Agency (SRTA) is pleased to support the Quartz Hill Road corridor project and strongly encourages its selection for Active Transportation Program funding. The proposed improvements would greatly increase pedestrian and cyclist safety along the corridor and fill gaps in the existing non-motorized network. The project would help accomplish Regional Transportation Plan objectives, including:

- Eliminate barriers to bicycle and pedestrian traffic;
- Increase bicycle/pedestrian network interconnectivity throughout the county; and
- Encourage public use of non-motorized transportation facilities.

The improvements also support the draft 2015 Regional Transportation Plan and Sustainable Communities Strategy objectives, including:

- Develop an integrated, context appropriate range of local transportation choices; and
- Enhance community health, safety and well-being.

SRTA will provide in-kind technical support upon request and integrate improvements into the regional facilities inventory.

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/KW/jac

# Shasta Living Streets

*Better bikeways, trails, walkable cities and vibrant public places*

May 26, 2015

To: State of California, Active Transportation Program

Re: **Enthusiastic Support for City of Redding - Quartz Hill Road Corridor Improvement Project**

We believe our region has an exciting opportunity to build great cities and towns by making bicycling safe, convenient and fun. This is not about thinking bikes are cool and its not about weekend exercise and recreation in our beautiful parks and open spaces. Though those things are good too. We believe making bicycling and walking safe, convenient and fun for everyday transportation brings tremendous advantages – it allows families to be healthy and save money on transportation, makes more vibrant and connected communities, and supports our local businesses by helping them attract customers, retain talented staff and attract tourists.

Shasta Living Streets enthusiastically supports the Quartz Hill Road Corridor Improvement Project. We encourage you ensure this project receives needed funding. For some time this route has been on the priority list for needed improvements.

Throughout the year, as I meet with individuals and groups, people come to me and very earnestly tell me this route is the one that "*really needs to be fixed*". I've heard it many times. That goes for people who ride bicycles and people who drive the road but would never consider riding it as it is now. This is an important route connecting many neighborhoods to the downtown area and the rest of the city, to local parks and the city trail system.

## **Great need in our community**

There is great need in our community for this type of high-quality non-motorized transportation option to help families and individuals as indicated by local measures of wellbeing.

**Disadvantaged community.** Shasta county is considered a disadvantaged community by measures of income and unemployment: Shasta county's median household income is 73% of the state's median; the countywide unemployment rate is 9.7%.

**High rates of negative health outcomes.** Shasta County is ranked at number 50 of 57 in the state of California, for both health outcomes and health determinants. More active living and daily movement is key to addressing these health issues.

**County Health Rankings Measures and Data for Shasta County**

<i>Measure</i>	<i>Year</i>	<i>Shasta Co</i>	<i>State of CA</i>	<i>Difference</i>
Adult obesity	2011	27%	23%	+4
Adult diabetes	2011	11%	8%	+3
Adult physical inactivity	2011	19 %	17%	+2
Access to exercise opportunities	2010-13	79%	93%	-14
Park access within 1 mi	2013	8%	58%	- 50
Drive alone to work	2012-14	81%	73%	+8
Long commute - driving alone	2014	15%	37%	-22
Motor vehicle crash deaths	2006-12	14	9	+5
Alcohol impaired driving deaths	2009-13	38%	31%	+7

**High cost of transportation.** The lack of bicycle and pedestrian options in our community creates a real burden for families and individuals in cost and time commitment.

Recently we heard from a mother who described the family burden created by a typical day of driving her children on daily errands - 60 miles by car in one day. She wants improved facilities so her family could make some of those trips without her driving; they would do so - if they had safe and convenient bicycling and walking facilities, which she feels they currently do not.

Thank you for improving the health and wellbeing of individuals and families and businesses in our community by ensuring funding for this very important project.



Anne Wallach Thomas  
Executive Director, Shasta Living Streets



The McConnell Foundation

*Helping Build Better Communities Through Philanthropy*

May 26, 2015

Sarah Grant  
Transportation Planner  
City of Redding – Public Works

Dear Sara,

On behalf of The McConnell Foundation, please accept this letter in support of the Quartz Hill Road Corridor Improvement Project for which you are applying for grant funding from the State of California Active Transportation program. The Foundation supports efforts to improve the health and livability of the communities we serve.

After reviewing the City of Redding's Quartz Hill Road Corridor Improvement Project and visiting the project site, the McConnell Foundation whole-heartedly recommends this project for ATP funding. We believe the project successfully fulfills the following ATP criteria:

- Increase the proportion of trips accomplished by biking and walking;
- Increase safety and mobility for non-motorized users;
- Advance the active transportation efforts of regional agencies to achieve greenhouse gas (GHG) reduction goals;
- Enhance public health; and
- Ensure that disadvantaged communities fully share in the benefits of the program

Thank you for your efforts to make Redding a safer and more livable community.

Sincerely,

Brian Sindt  
Program Officer

## Grant, Sarah

---

**From:** allen kost <allenkost@sbcglobal.net>  
**Sent:** Wednesday, May 27, 2015 9:29 AM  
**To:** Grant, Sarah  
**Subject:** □□Active Transportation Program Grant - Quartz Hill Road

RE: City of Redding - Quartz Hill Road Corridor Improvement Project

This is one that I have been waiting to see happen for many, many years. This project will go a long way in helping with both safety and connectivity of our transportation system.

The hill on Quartz Hill Road is dangerous for bicycles and motorists due to its narrow surface and the length of time bicycles are exposed to other traffic while on a long climb. This project will give bikes a refuge out of the car lane while making that climb. The hill is steep enough for bicycles to travel the lane on the decent while maintaining a speed which does not impede motor traffic flow.

Adding bicycle lanes between Benton Drive and North Market Street will provide a good element of safety which bicycles lack on that section at the present time. Those bicycle lanes will also provide a quick connection to the River Trail south of Market Street and to the Sundial Bridge area.

This is a very worthwhile project, so I am hoping it will happen in the near future. Sincerely, Allen Kost



1455 Riverside Drive  
Redding CA 96001  
(530) 247-7177  
[www.bridgehousebb.com](http://www.bridgehousebb.com)

Date: May 26, 2015  
RE: City of Redding Quartz Hill Road Corridor Improvement Project  
To: Sarah Grant  
Transportation Planner, City of Redding

I am writing in support of the City of Redding's application to the Active Transportation Program for the Quartz Hill Road Corridor Improvement Project. I feel this project will help promote safer pedestrian and Bicycle traffic from many residential areas off of Quartz Hill Rd to the Park area.

I support the project and I am excited to see this project become a reality as it will reduce speeding and enhance pedestrian crossings to make it safer for families to get outside and use our beautiful park and trail system.

Sincerely,

  
Janelle Pierson  
Bridgehouse Bed and Breakfast



Anderson Partnership for  
Healthy Children/South  
County HEAC

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 County RTPA

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 27, 2015

Caltrans Division of Local Assistance / Office of Active Transportation  
PO Box 942874  
Sacramento, CA 94274-0001

RE: ATP Application for improved bicycle and pedestrian corridor along Quartz Hill Road

Dear ATP Review Committee:

Healthy Shasta supports the City of Redding's efforts to seek funding through the California Active Transportation Program in order to create a safer corridor for non-motorized users along Quartz Hill Road.

At this time there is not a safe, direct, non-motorized route between housing along Quartz Hill Road to Market Street. The project will add sidewalks and fill in sidewalk gaps, add a bike lane and shoulder, calm the road with a road diet which will address currently unsafe crossings by making distances shorter, reducing curb radii, and adding pedestrian activated flashing beacons. These treatments will transform the road to be safer and more pleasant for non-motorized users and result in more people walking and bicycling to and from their neighborhood to Turtle Bay School, the Skate and Aquatic Park, ball fields, the River Trail, and businesses along Market Street.

Healthy Shasta's trail user survey found that nearly three-quarters of people drive to the trailhead at the Diestelhorst Bridge, which is located about mid-way along this project. Improved non-motorized options in the area can help shift driving behavior as people feel it is safe and comfortable to walk or bicycle to the trail. Respondents to the survey also noted being able to bike or walk safely up or down Quartz Hill Road with a separate lane or path would improve their connectivity to the neighborhoods.

Healthy Shasta is a local partnership formed to address obesity and prevent chronic disease by making the 'healthy choice the easy choice' for physical activity and healthy eating. We commend City of Redding for pursuing this project to make active transportation safe and more inviting. If you would like to discuss this further, please contact me at (530) 229-8428.

Sincerely,

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

Shellisa Moore  
Healthy Shasta Coordinator



**Board of Trustees**

*James M. Schwerdt  
Constance Pepple  
Mike Wharton Jr.  
Ron Zufall  
Salvador J. Valdivia*

**Superintendent**

*Jim Cloney*

May 28, 2015

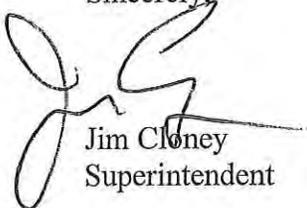
To Whom It May Concern:

The administration of the Shasta Union High School District would like to give its full and sincere support to the City of Redding's applications to Caltrans' Active Transportation Program. The grant funds would go toward the *Diestelhorst to Downtown Non-Motorized Improvement Project* and the *Quartz Hill Corridor Improvement Project*.

We have a significant number of students living in neighborhoods that would be affected by these projects who attend Shasta High School, University Preparatory Charter School or Pioneer Continuation High School. As these neighborhoods are also largely inside of a three mile radius from the school campuses, the District does not provide home to school bus transportation. When funded and completed, the Diestelhorst to Downtown and Quartz Hill Corridor Projects would have a positive impact on the safe access to the above schools for our students who walk or bike to school.

Please give the City of Redding's applications for these projects your highest consideration.

Sincerely,



Jim Cloney  
Superintendent

JOHN FRIESEN  
1091 RIVER RIDGE DR.  
REDDING, CA 96003

May 28<sup>th</sup>, 2015

Sarah Grant  
Transportation Planner  
City of Redding – Public Works  
777 Cypress Ave.  
Redding, CA 96001

I am writing in support of the City of Redding's application to the Active Transportation Program for the Quartz Hill Road Corridor Improvement Project. The project will infill sidewalk gaps, calm traffic with road diet, add bike lanes, enhanced pedestrian crossings with pedestrian activated flashing beacons, reduce curb radii to reduce speeds on neighborhood roads, reduce pedestrian crossing distance to/from neighborhood and the Park, and enhance path connections from Quartz Hill to the river trail through the Park.

I support the project and I am excited to see this project become a reality. The project will mean a safer and more attractive environment for people walking and biking, is good for businesses, local neighborhoods and the community.

I live at the top of Quartz Hill in the River Ridge Subdivision. There is no safe route for myself or my kids to access the Sacramento River Trail. Quartz Hill is a frequently traveled cycling route in the Redding area. There have been numerous times that I have almost been hit by a vehicle riding my bike up or down Quartz Hill. Improving the safety of the Quartz Hill will allow more walkers, runners and cyclists to use this route and will prevent someone from being killed.

Sincerely,

John Friesen

collected at  
Bike Month  
"Spring Spin"  
Event \*

5/8/15

Hi. I do ride Quartz Hill  
south bound but can not ride  
north bound due to no shoulder  
and bad lines of site. This  
route ~~can be~~ could be used  
to get to the upper river  
trail or to Shasta Dam  
Thank you Richard Robinson

(Guest Daw)

Riding to Lake Blvd would be  
safer if Quartz Hill was wider/safer  
for bikers

Paul Thayer  
5/8/15

collected  
at Bike Month  
"Spring Spin"  
Event

Collected  
at Bike Month  
"Spring Spin"  
Event

5/8/15

Please close Riverside Drive to  
vehicle traffic so bikes can  
safely access downtown.

Also - Quartz Hill Drive is  
so narrow and unsafe for  
cyclists which use that road for  
great loops from Kewick & Old  
Shasta. Please widen! And  
protect bikes with an uphill  
bike lane.

Thanks!  
Michelle Morris  
530-605-4430

TODD DODDS  
960 REDBUD DR  
REDDING, CA 96001

May 28<sup>th</sup>, 2015

Sarah Grant  
Transportation Planner  
City of Redding – Public Works  
777 Cypress Ave.  
Redding, CA 96001

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I support the project and I am excited to see this project become a reality. The project will mean a safer and more attractive environment for people walking and biking, is good for businesses, local neighborhoods and the community.

Sincerely,

Todd Dodds

PAUL LENNON  
3275 WILSHIRE DR  
REDDING, CA 96002

May 28<sup>th</sup>, 2015

Sarah Grant  
Transportation Planner  
City of Redding – Public Works  
777 Cypress Ave.  
Redding, CA 96001

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I support the project and I am excited to see this project become a reality. The project will mean a safer and more attractive environment for people walking and biking, is good for businesses, local neighborhoods and the community.

Sincerely,

Paul Lennon

BILL REUSS  
819 PALATINE  
REDDING, CA 96001

May 28<sup>th</sup>, 2015

Sarah Grant  
Transportation Planner  
City of Redding – Public Works  
777 Cypress Ave.  
Redding, CA 96001

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I support the project and I am excited to see this project become a reality. The project will mean a safer and more attractive environment for people walking and biking, is good for businesses, local neighborhoods and the community.

Sincerely,

Bill Reuss

MIKE SIMPSON  
P.O. BOX 713  
SHASTA, CA 96087

May 28<sup>th</sup>, 2015

Sarah Grant  
Transportation Planner  
City of Redding – Public Works  
777 Cypress Ave.  
Redding, CA 96001

I am writing in support of the City of Redding's application to the Active Transportation Program for the Quartz Hill Road Corridor Improvement Project. The project will infill sidewalk gaps, calm traffic with road diet, add bike lanes, enhanced pedestrian crossings with pedestrian activated flashing beacons, reduce curb radii to reduce speeds on neighborhood roads, reduce pedestrian crossing distance to/from neighborhood and the Park, and enhance path connections from Quartz Hill to the river trail through the Park.

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Sincerely,

Mike Simpson

MARK BLASER  
19362 HOLLOW LANE  
REDDING, CA 96003

May 28<sup>th</sup>, 2015

Sarah Grant  
Transportation Planner  
City of Redding – Public Works  
777 Cypress Ave.  
Redding, CA 96001

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I support the project and I am excited to see this project become a reality. The project will mean a safer and more attractive environment for people walking and biking, is good for businesses, local neighborhoods and the community.

Sincerely,

Mark Blaser

JONZ NORINE  
709 METRO WAY  
REDDING, CA 96003

May 28<sup>th</sup>, 2015

Sarah Grant  
Transportation Planner  
City of Redding – Public Works  
777 Cypress Ave.  
Redding, CA 96001

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Sincerely,

Jonz Norine

ADAM PRESSMAN  
1035 REDBUD ROAD  
REDDING, CA 96001

May 28<sup>th</sup>, 2015

Sarah Grant  
Transportation Planner  
City of Redding – Public Works  
777 Cypress Ave.  
Redding, CA 96001

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Sincerely,

Adam Pressman

JORDAN ANDERSON  
9944 TILTON MINE  
REDDING, CA 96001

May 28<sup>th</sup>, 2015

Sarah Grant  
Transportation Planner  
City of Redding – Public Works  
777 Cypress Ave.  
Redding, CA 96001

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I support the project and I am excited to see this project become a reality. The project will mean a safer and more attractive environment for people walking and biking, is good for businesses, local neighborhoods and the community.

Sincerely,

Jordan Anderson

JED POPE  
3785 MARIO AVE  
REDDING, CA 96001

May 28<sup>th</sup>, 2015

Sarah Grant  
Transportation Planner  
City of Redding – Public Works  
777 Cypress Ave.  
Redding, CA 96001

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I support the project and I am excited to see this project become a reality. The project will mean a safer and more attractive environment for people walking and biking, is good for businesses, local neighborhoods and the community.

Sincerely,

Jed Pope

SCOTT ASBILL  
760 SUNRIVER LN  
REDDING, CA 96001

May 28<sup>th</sup>, 2015

Sarah Grant  
Transportation Planner  
City of Redding -- Public Works  
777 Cypress Ave.  
Redding, CA 96001

I am writing in support of the City of Redding's application to the Active Transportation Program for the Quartz Hill Road Corridor Improvement Project. The project will infill sidewalk gaps, calm traffic with road diet, add bike lanes, enhanced pedestrian crossings with pedestrian activated flashing beacons, reduce curb radii to reduce speeds on neighborhood roads, reduce pedestrian crossing distance to/from neighborhood and the Park, and enhance path connections from Quartz Hill to the river trail through the Park.

I support the project and I am excited to see this project become a reality. The project will mean a safer and more attractive environment for people walking and biking, is good for businesses, local neighborhoods and the community.

Sincerely,

Scott Asbill

Ride Redding  
3335 Placer Street  
#121  
Redding CA 96001  
carson.blume@rideredding.com

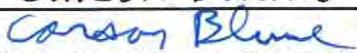
May 28, 2015

To whom it may concern,

Ride Redding is a local community organization that advocates and supports bicycling in the North State. We support the City of Redding's application to the Active Transportation Program for the Quartz Hill Road Corridor Improvements.

Currently, on this approximately 3 mile stretch of road there are no bicycle facilities whatsoever. The project proposes adding bike lanes on the entire length of the project and will tie into the 35 mile network of the Sacramento River Trail. For the neighborhoods along Quartz Hill, the main access whether you are on foot, bike or car is on this road. It is imperative that complete streets are coordinated to provide safe access for all. Quartz Hill is a popular recreational route for cyclists, many ride down it, but most avoid riding up the hill (unless they have to) due to the long steep climb, no shoulders, single lane road and fast speeds of vehicles. A car must cross the double yellow in order to pass a slower moving uphill cyclist. The road diet and enhanced crossings from the neighborhood to Caldwell Park are greatly needed to slow down traffic fronting the Park and neighborhood while providing safer access for children to schools, the River Trail, park amenities, playgrounds, ball fields, skatepark and community pool.

Attached to this letter I am enclosing signatures from over 230 local residents and counting that are in support of the project, collected in just three days. The signatures not only show strong community support but also upon completion we will see an increase in numbers of people walking and biking on this route and more people walking and cycling overall as our City continues to build safer routes for all people, connecting our neighborhoods, business districts and the River Trail.

Carson Blume  
  
Carson Blume, Director, Ride Redding



twitter



instagram



facebook



RideRedding.com  
#rideredding

Dear Sarah Grant, City of Redding Transportation Planner,

We are pleased to present you with this petition affirming this statement:

**"This petition is to support the City of Redding's grant application to Caltrans Active Transportation Program for the Quartz Hill Road Corridor Improvements.**

**Location:**

**Quartz Hill from approximately Terra Nova to Market Street.**

**Brief Project Description:**

**West of Benton, this project would widen road to construct new sidewalk and uphill bike lane and shoulder on the downhill and evaluate a crossing at Snow Lane. East of Benton, it would infill sidewalk gaps, calm traffic with road diet, add bike lanes, add enhanced pedestrian crossings with pedestrian activated flashing beacons, reduce curb radii to reduce speeds on neighborhood roads, reduce the pedestrian crossing distance to and from the neighborhood and the park, and enhance path connections from Quartz Hill to the river trail through the park."**

Attached is a list of individuals who have added their names to this petition, as well as additional comments written by the petition signers themselves.

Sincerely,  
Ride Redding

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Lucy fan  
Redding, CA 96001  
May 28, 2015

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Robert Pastega  
Redding, CA 96003  
May 28, 2015

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This is a dangerous road for bikes due to no shoulder or bike lane.

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Bill Reuss  
Redding ca, CA 96001  
May 28, 2015

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better roads for our peddlers!

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Jacob Watkins  
Redding, CA 96001  
May 28, 2015

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Toby Bodeen  
Redding, CA 96003  
May 28, 2015

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Peter Hsu  
Redding, CA 96003  
May 28, 2015

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robert nixon  
Redding, CA 96003  
May 27, 2015

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Natalie Adams  
Redding, CA 96003  
May 27, 2015

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Breann Selke  
Redding, CA 96003  
May 27, 2015

---

sherrie Brookes  
Palo Cedro, CA 96073  
May 27, 2015

---

dorene leach  
Redding, CA 96003  
May 27, 2015

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Brittney Burrell  
Shasta Lake, CA 96019  
May 27, 2015

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Jaana  
Redding, CA 96003  
May 27, 2015

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Steve Aristo-Frey  
Redding, CA 96002  
May 27, 2015

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Kimberly hayes  
Redding, CA 96003  
May 27, 2015

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Jeremy Pagan  
Redding, CA 96001  
May 27, 2015

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Tamara Murphy  
Palo Cedro, CA 96073  
May 27, 2015

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Ron Johnson  
Redding, CA 96003  
May 27, 2015

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Dianna Thrasher  
Redding, CA 96003  
May 27, 2015

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Cheri aristo  
Redding, CA 96002  
May 27, 2015

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Paula Mosher  
Redding, CA 96001  
May 27, 2015

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Hedemark  
Redding, CA 96003  
May 27, 2015

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Patty Mandville Purn  
Redding, CA 96001  
May 27, 2015

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Cianah Hee  
Redding, CA 96003  
May 27, 2015

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michael cottone  
Redding, CA 96001  
May 27, 2015

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Joel stafft  
Redding, CA 96002  
May 27, 2015

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Tammy mowry  
Redding, CA 96003  
May 27, 2015

---

Tracy Barber  
Shasta Lake, CA 96019  
May 27, 2015

---

Bike and pedestrian safety should be enhanced to produce a healthier lifestyle

Jason  
Shasta Lake, CA 96019  
May 27, 2015

---

Rich Berry  
Redding, CA 96003  
May 27, 2015

---

I own property and pay property tax on a house and this is a great idea to improve safety and encourage fitness.

Collins Bonds  
Redding, CA 96003  
May 27, 2015

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sheryl  
redding, CA 96003  
May 27, 2015

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Kareem Speake  
Redding, CA 96003  
May 27, 2015

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Mark Haslam  
Redding, CA 96002  
May 27, 2015

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John Wood  
Redding, CA 96003  
May 27, 2015

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Nancy Cope  
Palo Cedro, CA 96073  
May 27, 2015

---

Kellie strong  
Redding, CA 96003  
May 26, 2015

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Stephanie Griffin  
Redding, CA 96001  
May 26, 2015

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Brandon Little  
Shasta, CA 96087  
May 26, 2015

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Dustin gaunt  
Redding, CA 96003  
May 26, 2015

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Angela  
Redding, CA 96003  
May 26, 2015

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ronald holmes  
Redding, CA 96001  
May 26, 2015

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Michael Russo  
redding, CA 96001  
May 26, 2015

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Sarah Foster  
Shasta Lake, CA 96019  
May 26, 2015

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Much needed, and will improve safety for everyone.

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Reed Severson  
Redding, CA 96001  
May 26, 2015

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Michelle Young Read  
Redding, CA 96003

May 26, 2015

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Bill Broschat  
Shasta Lake, CA 96019  
May 26, 2015

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John Perry  
Redding, CA 96003  
May 26, 2015

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Doris Leffler  
Anderson, CA 96007  
May 26, 2015

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John E Livingston  
Redding, CA 96001  
May 26, 2015

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Rob Delker  
Redding, CA 96002  
May 26, 2015

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Cecilia Cabrera  
Redding, CA 96001  
May 26, 2015

---

Sharon Lance  
Redding, CA 96003  
May 26, 2015

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Pretty Please!

Keith Alvord  
Redding, CA 96002  
May 26, 2015

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Alexandria  
Redding, CA 96002  
May 26, 2015

---

Nicholas Webb  
Redding, CA 96099  
May 26, 2015

---

steve woodson  
Redding, CA 96003  
May 26, 2015

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Lacie  
Redding, CA 96003  
May 26, 2015

---

jesse bradley  
Pensacola, FL 32503  
May 26, 2015

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Max Ruffcorn  
Redding, CA 96003  
May 26, 2015

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Jake Lefort  
redding, CA 96003  
May 26, 2015

---

Chris Caton  
Redding, CA 96003  
May 26, 2015

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Joanna Guillot  
Redding, CA 96003  
May 26, 2015

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Kevin oleary  
redding ca, CA 96003  
May 26, 2015

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Todd Hudson  
City of Shasta Lake, CA 96019  
May 26, 2015

---

Allison Gardner  
Redding, CA 96003  
May 26, 2015

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mary davis  
Anderson, CA 96007  
May 26, 2015

---

lanada silva  
Redding, CA 96003  
May 26, 2015

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Terry Kellogg  
Redding, CA 96002  
May 26, 2015

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Donna Crane  
Anderson, CA 96007  
May 26, 2015

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Trent King  
Redding, CA 96003  
May 26, 2015

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That area would benefit hugely from this improvement.

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Kelli Graves  
Redding, CA 96001  
May 26, 2015

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Tim Smith  
Redding, CA 96002  
May 26, 2015

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Roger Gardner  
Redding, CA 96003  
May 26, 2015

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Doreen Velasquez  
Redding, CA 96001  
May 26, 2015

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Maureen Kissick  
Redding, CA 96003  
May 26, 2015

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Brianne Henry  
Redding, CA 96003  
May 26, 2015

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Deborah Ferguson  
Redding, CA 96003  
May 26, 2015

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Christopher smith  
Redding, CA 96003  
May 26, 2015

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Devon Hedemark  
Redding, CA 96003  
May 26, 2015

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Patricia Davis  
Redding, CA 96001

May 26, 2015

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J.L Haynes  
REDDING, CA 96049  
May 26, 2015

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I own a home up there and Quartz Hill Rd. is a death trap. Should have been addressed years ago.

maureen bernstein  
redding, CA 96002  
May 26, 2015

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Debra Atlas  
Redding, CA 96001  
May 26, 2015

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Dustin Harms  
Redding, CA 96002  
May 26, 2015

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Jeff Cole  
Redding, CA 96001  
May 26, 2015

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Jason Wilsou  
Redding, CA 96003  
May 26, 2015

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Garth Schmeck  
Redding, CA 96003  
May 26, 2015

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Randee Moutard  
Red Bluff, CA 96080  
May 26, 2015

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Hilari Freeman  
Redding, CA 96003  
May 26, 2015

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Carrie Schmeck  
Redding, CA 96001  
May 26, 2015

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Let's do this.

Thomas Montegary  
Redding, CA 96002  
May 26, 2015

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Maria  
Redding, CA 96001  
May 26, 2015

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carl hulsey  
Redding, CA 96001  
May 26, 2015

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Sean Ferguson  
Redding, CA 96001  
May 26, 2015

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Tamara heggie  
Redding, CA 96001  
May 26, 2015

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Steven Johnson  
redding, CA 96002  
May 26, 2015

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Amy Smallwood  
Shasta Lake, CA 95019  
May 26, 2015

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Tom davies  
Redding, CA 96001  
May 26, 2015

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Patricia Davis  
Redding, CA 96001  
May 26, 2015

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Karen Goodwin  
Chico, CA 95926  
May 26, 2015

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Danny  
Redding, CA 96003  
May 26, 2015

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Jeremy Kellogg  
Redding, CA 96003  
May 26, 2015

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Kurtis Fullerton  
Anderson, CA 96007  
May 26, 2015

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Jennifer Lefort  
Redding, CA 96003  
May 26, 2015

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Michele Driggs  
Redding, CA 96001  
May 26, 2015

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Benjamin L Francis  
Redding, CA 96003  
May 26, 2015

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scott asbill  
redding, CA 96001  
May 26, 2015

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Rick Youngblood  
Redding, CA 96003  
May 26, 2015

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Brandi Greene  
Redding, CA 96001  
May 26, 2015

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Randee  
Anderson, CA 96007  
May 26, 2015

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Bob Ferrari  
Redding, CA 96049  
May 26, 2015

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This is MUCH needed..

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John Tucker  
Redding, CA 96003  
May 26, 2015

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Jessica Wise  
Redding, CA 96003  
May 26, 2015

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Lori orlando  
Redding, CA 96001  
May 26, 2015

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Ned Estill  
Redding, CA 96001

May 26, 2015

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Chari Koller  
Redding, CA 96001  
May 26, 2015

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Andy Hougum  
Redding, CA 96001  
May 26, 2015

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Gino orlando  
Redding, CA 96001  
May 26, 2015

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Casey Kerrigan  
Shingletown, CA 96088  
May 26, 2015

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Susan McClenon  
Anderson, CA 96007  
May 26, 2015

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Andy Wallner  
Redding, CA 96002  
May 26, 2015

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Michelle lennon  
Redding, CA 96002  
May 26, 2015

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Nino Duccini  
Redding, CA 96003  
May 26, 2015

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Maggie Freeman  
Redding, CA 96003  
May 26, 2015

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Michael C. Holmes  
Redding, CA 96002  
May 26, 2015

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debbie Duccin  
Redding, CA 96003  
May 26, 2015

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Carrie Boswell  
Redding, CA 96002  
May 25, 2015

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Megan Dias  
Redding, CA 96001  
May 25, 2015

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Bryan Warwick  
Redding, CA 96003  
May 25, 2015

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Ryan schuppert  
Shasta lake, CA 96019  
May 25, 2015

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Geoff Forcella  
Redding, CA 96003  
May 25, 2015

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Safety first.

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MAX WALTER  
Redding, CA 96001  
May 25, 2015

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Tars Petrie  
Redding, CA 96003  
May 25, 2015

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Kendra  
Redding, CA 96003  
May 25, 2015

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Steven King  
Redding, CA 96003  
May 25, 2015

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Mary Barrow  
Redding, CA 96003  
May 25, 2015

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Cecina Hines  
Shasta Lake, CA 96019  
May 25, 2015

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aaron angeli  
Redding, CA 96003  
May 25, 2015

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Eileen Hall  
Redding, CA 96001

May 25, 2015

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DJ Lauf  
Redding, CA 96003  
May 25, 2015

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Jueil  
Redding, CA 96001  
May 25, 2015

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Carolyn Sullivan  
Redding, CA 96003  
May 25, 2015

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Fred Chaffin  
Redding, CA 96001  
May 25, 2015

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Lorene Bower Holley  
Redding, CA 96003  
May 25, 2015

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Sue Lennon  
Redding, CA 96001  
May 25, 2015

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christie simms  
Redding, CA 96003  
May 25, 2015

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Sylvia Hammer  
Redding, CA 96003  
May 25, 2015

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Riley Johnson  
Redding, CA 96003  
May 25, 2015

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Carson Blume  
Redding, CA 96001  
May 25, 2015

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Ride Redding  
Redding, CA 96001  
May 25, 2015

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# Support The Quartz Hill Road Corridor Improvement Project



May 25, 2015  
by Carson Blume

**SOCIALIZE WITH US!**



## Quartz Hill Road Corridor Improvement Project

This petition is to support the City of Redding's grant application to Caltrans Active Transportation Program for the Quartz Hill Road Corridor Improvements.

Location:  
Quartz Hill from approximately Terra Nova to Market Street.

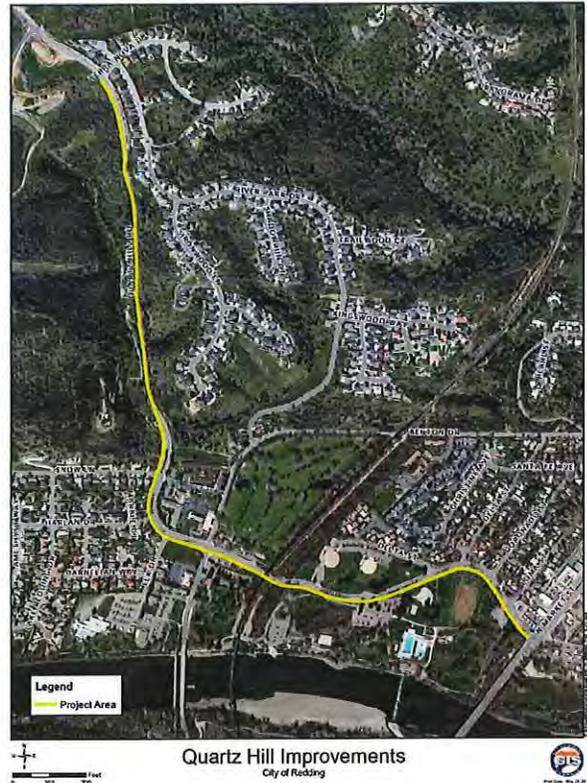
Brief Project Description:  
West of Benton, this project would widen road to construct new sidewalk and uphill bike lane and shoulder on the downhill and evaluate a crossing at Snow Lane. East of Benton, it would infill sidewalk gaps, calm traffic with road diet, add bike lanes, add enhanced pedestrian crossings with pedestrian activated flashing beacons, reduce curb radii to reduce speeds on neighborhood roads, reduce the pedestrian crossing distance to and from the neighborhood and the park, and enhance path connections from Quartz Hill to the river trail through the park.

Sign the Petition!

**MoveOn.ORG**  
*Petitions*

152  
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> [Full Info on this Petition](#)  
> [Terms of Service](#)



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Ride Redding

Published by Carson Blume · May 25 at 9:14pm ·

Some long awaited bike facilities depend on your support!  
http://www.rideredding.com/.../2015525quartz-hill-road-corrid...



Support the Quartz Hill Road Corridor Improvement Project

Socialize with us!  
RIDEREDDING.COM

13,496 People Reached

422 Likes, Comments & Shares

292 Likes      235 On Post      57 On Shares

102 Comments      43 On Post      59 On Shares

28 Shares      28 On Post      0 On Shares

340 Post Clicks

0 Photo Views      232 Link Clicks      108 Other Clicks

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13,496 people reached

Boost Post

Like · Comment · Share · 235 16 28



Mary Millner, Mike Hoag, Bob Ferrari and 232 others like this. Most Recent

28 shares



**Bre Jean** Jeff Luckey  
Unlike · Reply · 1 · May 26 at 8:53pm



**Dawn Dore** You leave my back roads alone please  
Like · Reply · May 26 at 9:55pm



**Ride Redding** They will be improved for everyone  
Like · 1 · Commented on by Carson Blume · May 26 at 9:56pm



**Raymond LeCompte** I almost got hit on my long board going down it, no room and people are rude as fuck  
Unlike · Reply · 1 · May 26 at 11:21pm



**Ride Redding** Insightfully, but can we leave out the fuck?  
Like · 2 · Commented on by Carson Blume · May 26 at 11:27pm



**Ride Redding** And agreed btw  
Like · Commented on by Carson Blume · May 26 at 11:27pm



**Raymond LeCompte** Lol sorry, but I agree it should be fixed  
Unlike · 1 · May 26 at 11:31pm · Edited



**Ride Redding** It's ok just trying to keep it PG13 around here  
Like · 1 · Commented on by Carson Blume · May 26 at 11:32pm



Write a reply...



**Jeff Carson** There are roadways that don't have room for anything other than cars and this is one of them.

You can certainly insist upon your right to occupy this roadway at your own risk, but you really are at risk in blind curves with 50 mph traffic. It's a quand... See

Unlike · Reply · 3 · May 27 at 5:46am



**Kristy Ortega** I don't believe there's a 50 mph speed limit on that road. I agree, it's not bike friendly. I'm not sure it should be, but cars should mind the speed limit.

Unlike · 1 · May 27 at 3:58pm



**Christie Mulligan** The speed limit is 40. Once you get to the top of the hill it goes up to 45.

Unlike · 1 · May 27 at 4:21pm



**Jeff Carson** That's true, the speed limit isn't 50 but I would bet a fair percentage of drivers are doing 50.

I agree the road is not safe for bikes or pedestrians.

Like · May 27 at 10:42pm



**Ride Redding** But it can be!

Like · Commented on by Carson Blume · May 27 at 10:44pm



**Jeff Carson** It can be. The roadway has serious geometric deficiencies that need to be addressed first. I'd assume it'll all get rolled into one project.

Unlike · 2 · May 27 at 10:53pm



Write a reply...



**David Bachik** This is down the hill behind my house bad road definitely needs improving !!!!

Unlike · Reply · 2 · May 27 at 6:20am



**Trucker Rich Berry** Signed

Unlike · Reply · 2 · May 27 at 7:50am



**Tina Marie Sonntag** There's plenty more roads that need improvement...Not just for bikes either...add those to the list and use the money wisely

Like · Reply · 1 · May 27 at 11:04am · Edited



**Ride Redding** This improvement is not just for bikes, and other roads like placer, old alturas, and victor are getting improvements that they would not be getting if it wasn't for bike money because the City does not have enough money to improve them on their own.

Like · 1 · Commented on by Carson Blume · May 27 at 11:50am



**Tina Marie Sonntag** Cool...then two birds one stone. Thank you

Unlike · 2 · May 27 at 11:51am



**Ride Redding** So what roads do you want to see get better?

Like · Commented on by Carson Blume · May 27 at 12:09pm



**Tina Marie Sonntag** Ill have to get beck to you. Placer for sure...the asphalt patches they do are a waste of money because they just fall apart within days. Pine street. Lake Blvd. C street. Too many to list....

Unlike · 1 · May 27 at 12:36pm



**Ride Redding** Well feel free to contact us we are all ears! Thank you!

Like · 2 · Commented on by Carson Blume · May 27 at 12:42pm



**Tina Marie Sonntag** Thank you for actually listening

Like · May 27 at 1:02pm



**Misty Fears** Def Quartz Hill

Like · 1 · May 27 at 7:01pm



**Tina Marie Sonntag** Def quartz hill!

Like · May 27 at 7:01pm



Write a reply...



**Christie Mulligan** I've lived in the River Ridge subdivision for the past 13 years so I've driven up and down this road a million times. Every time I see someone riding a bike or walking on the hill I wonder if they're suicidal or just stupid...and they aren't just putting themselves at risk. A truck was broken down about half way up the hill a few weeks ago...it was gnarly...I was fully expecting a head-on collision at any moment.

Like · Reply · 1 · May 27 at 4:30pm · Edited



**Ride Redding** That's why we want to add a bike lane and a sidewalk.

Like · 1 · Commented on by Carson Blume · May 27 at 4:45pm



**Christie Mulligan** That's kinda what I figured

Unlike · 1 · May 27 at 4:49pm



**Misty Fears** It is def needed....

Unlike · 1 · May 27 at 7:01pm



**Christie Mulligan** I agree. The downside is being delayed everyday during road construction but that inconvenience is nothing if it saves someone's life.

Unlike · 1 · May 27 at 7:40pm



Write a reply...



**Maria Salas** Karyn Henson

Unlike · Reply · 1 · May 27 at 5:03pm



**Steve Norton** ask Jerry Brown for the money, he seems to think it grows on trees and he wants that \$99 billion dollar speed rail, so why not better roads here in the north for us as well !

Like · Reply · May 27 at 9:03pm



**Christie Mulligan** I think it's interesting that no one has showed any concern about whether or not the Quartz Hill Road project could affect the wildlife in the area. As a resident of River Ridge I've seen that road literally look like a "Faces of Death" episode MANY ti... See More

Like · Reply · May 27 at 11:06pm



**Carson Blume** Wildlife might be a concern if there was not all ready established right of away, it would be cool to see this kind of thing around the area.

<http://www.theluxuryspot.com/.../224687468880310832...>



THELUXURYSPOT.COM

Like · Remove Preview · May 27 at 11:10pm



**Christie Mulligan** Regarding: "Wildlife might be a concern if there was not all ready [sic]..."

You do realize the image that you've posted is not part of the plans for Quartz Hill Road project, right???

Like · May 27 at 11:20pm



**Carson Blume** what image?

Like · May 27 at 11:23pm



**Carson Blume** the image I posted, because if so yes, it is an example of a wildlife overpass

Like · 1 · May 27 at 11:24pm



Write a reply...



Write a comment...



Dallas Banks shared a link.  
May 27 at 3:34pm ·

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You like this.



Write a comment...



Trucker Rich Berry via Ride Redding  
May 27 at 7:52am ·

Show Attachment

Unlike · Comment · Share

You like this.



Write a comment...



Gracious Palmer via Ride Redding  
May 26 at 7:58pm ·

Show Attachment

Unlike · Comment · Share

You like this.



Write a comment...



Thad Treece Classic via Ride Redding  
May 26 at 6:07pm ·

sign this petition even if you don't live in redding please.

Show Attachment

Unlike · Comment · Share

You and Denise Rushane Faria like this.



Write a comment...



Erin Flamedream via Ride Redding  
May 26 at 4:30pm ·

Show Attachment

Like · Comment · Share



Write a comment...



Ann Muir Corrin shared a link.  
May 26 at 6:54am ·

Show Attachment

Unlike · Comment · Share

You and Moath Almabashi like this.



Write a comment...



Sally-Ann Bethea-Holt shared a link.  
Yesterday at 5:12am ·

Promote

THIS WEEK

130  
Page Likes

36,309  
Post Reach

13  
Sign Up

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2012

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Cyclists needed for Searc...  
redding.com  
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Boost Post



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**Jennifer Tignor via Ride Redding**

May 27 at 7:09pm ·

Brandon Moore Shauna Brady

Show Attachment

Like · Share · 2



**Friends of the Redding Trails via Ride Redding**

May 26 at 4:38pm ·

When I first moved to Redding and saw the blind corners and no shoulder up and down Quartz Hill with the "Bike Trail" sign posted on it, I wanted to laugh, but it's no laughing matter. In addition, it is not safe to cross Quartz Hill from Caldwell Park to the neighborhoods north of the park - there are no cross walks! Please support this Improvement Project.

Show Attachment

Unlike · Comment · Share · 10 · 2

You and 9 others like this.

Top Comments



Write a comment...



**Carson Blume** Also.

<https://www.facebook.com/RideRedding/posts/789102201196654>

Like · Reply · 1 · May 26 at 5:42pm



**Jay Stewart** I run Quartz Hill from Lake blvd to Keswick consistently and I agree it isn't very friendly to non-autos.

Edit: to elaborate a bit, there are a couple sections where, due to the lack of a shoulder or because of poor visibility and room going around a ... See More

Unlike · Reply · 2 · May 26 at 5:37pm · Edited



**GabeHeidi Garza-Wolf via Ride Redding**

May 26 at 1:57pm ·

Show Attachment

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**Carson Blume via Ride Redding**

May 26 at 8:45am ·

Some long awaited bike facilities depend on your support!

Show Attachment

Like · Comment · Share

Eric Crain, Jason Wilson, Dallas Banks and 2 others like this.



**Mike Aracic** That looks like a terrible place to cycle! Look how tiny those bike lanes are!

Like · Reply · May 26 at 8:55am

**Carson Blume** hence the project

Like · May 26 at 8:57am



**Mike Aracic** You'd think cyclists would prefer lovely, residential river park drive instead.

Like · Reply · May 26 at 8:58am



**Mike Aracic** Or maybe take the bus.

Like · Reply · May 26 at 8:59am · Edited



**Carson Blume** You gots to get places

Like · Reply · May 26 at 8:59am



Write a comment...



**Shasta Wheelmen via Ride Redding**

May 26 at 6:18am ·

Post

Post

ort  
b  
ho's

It would be nice to get improvements on this road to give us another safer option for heading up towards the dam

Show Attachment

Unlike · Comment · Share · 14 · 2

You, Dallas Banks, Reed Severson and 11 others like this. [Top Comments](#)



Write a comment...



**Bruce Allen Hedrick** that would be nice for recreational purposes. But first, there are many safety-related projects right here the city that should take priority. If your real goal is to increase bicycle usage for daily activities we should address the more basic areas of potential use first. And if us riders are on different pages our message will be weakened.

Like · Reply · May 26 at 12:04pm



**Carson Blume** so what are your priorities?

Like · 1 · May 27 at 11:24am



**Bruce Allen Hedrick** How about improved street sweeping (every major intersection has four spots full of gravel/sand/glass, that's about a 5' radius, a few feet away from each of the four corners- the bike lane (if there is one) invariably goes right through that dirty spo... [See More](#)

Unlike · 2 · May 27 at 3:39pm



**Casey Kerrigan** Airport, at least below Rancho, has more of a shoulder on it than the pictured portion of Quartz Hill above. I've ridden on Airport from Anderson up to Rancho a number of times and don't find it that bad. Sweeping the bike lanes would be nice but depr... [See More](#)

Like · 1 · May 27 at 3:55pm · Edited



**Bruce Allen Hedrick** If you look at the big picture of the actions of our city planners you have to wonder-- are they governing for the people's convenience or governing for government's convenience???

Like · May 27 at 3:55pm



**Carson Blume** There is little to on money for these projects, also most of this money has to be gotten in Grants from the State & Fed and that takes a lot of staff time that they do not have, we should be supporting them in their efforts not fighting them at every turn, nothing will get done if the advocates in this community fight with the City. They want to see good projects happen they just need support.

Like · 1 · May 27 at 4:01pm



**Casey Kerrigan** Save the time and money to do studies and apply for grants, and probably save a lot of lives and property damage, by adopting a max 25mph speed limit inside the city limits. Yeah I know probably a pipe dream but a way to make the city much safer without having to spend tons of money.

Like · 1 · May 27 at 4:07pm



**Bruce Allen Hedrick** .. and the Wheelmen want a bike trail to the dam. Many of my suggestions are just a little more attention to detail.

Like · May 27 at 4:22pm



**Casey Kerrigan** There already is a trail to the dam, two of them actually one dirt and one paved if you want a totally care free riding experience. Having a safer Quartz Hill would give another option for people who are heading to destinations on that side of the riv... [See More](#)

Unlike · 2 · May 27 at 4:27pm



**Bruce Allen Hedrick** I agree .. been there several times without having to run the roadway.

Like · May 27 at 4:32pm



Write a reply...



**Richard Tubbs** Nice wide bikelanes on Quartz Hill would allow better access to the deathtrap known as Keswick Road.

Like · Reply · May 26 at 8:57am



**Matthew Fox via Ride Redding**

May 26 at 4:07am ·

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**Carson Blume** **Shaping Redding's Future**

May 25 at 9:25pm ·

Some long awaited bike facilities depend on your support!

Show Attachment

Like · Comment · Share

Ryan Russell, Steven King and 2 others like this.



**Cathy Speedy Bear Ost** this project and the old alturas rd project (narrow sections) is taking so very long to get completed . partly (mostly?) because of the high oil prices in the last many years . many reasons, including the building crunch and the major criminal... [See More](#)

May 26 at 2:57am · Like



**Carson Blume** Old alturas is getting done this summer.

May 27 at 11:24am · Like



Write a comment...



**Carson Blume** **Get Out! Nor Cal**

May 25 at 9:25pm ·

Some long awaited bike facilities depend on your support!

Show Attachment

Like · Comment · Share

Dallas Banks and 4 others like this.



Write a comment...

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Details Video



Ride Redding

Published by Carson Blume

May 26 at 2:42pm

Click here to help improve Quartz Hill Road for everyone!  
<http://petitions.moveon.org/sign/quartz-hill-road-corridor>



01:11

778 people reached

Boost Post

Like · Comment · Share · 13

778 People Reached

242 Video Views

14 Likes, Comments & Shares

13 Likes	13 On Post	0 On Shares
0 Comments	0 On Post	0 On Shares
1 Shares	0 On Post	1 On Shares

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Ride Redding

Published by Carson Blume

May 25 at 9:14pm

Some long awaited bike facilities depend on your support!  
<http://www.rideredding.com/.../2015525quartz-hill-road-corrid...>



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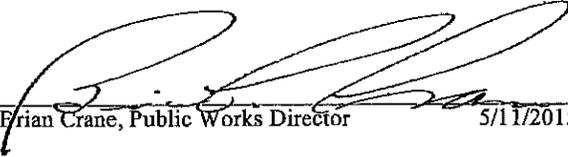






**CITY OF REDDING  
REPORT TO REDDING CITY COUNCIL**

**APPROVED**

<b>MEETING DATE:</b> May 19, 2015 <b>ITEM NO.</b> 9.11(e) [G-100-170]	<b>FROM:</b> Brian Crane, Public Works Director
<b>SUBJECT:</b> 9.11(e)--Active Transportation Program grant applications for roadway improvements	
<b>***APPROVED BY***</b>	
<b>Department Director:</b>  Brian Crane, Public Works Director 5/11/2015	<b>City Manager:</b>  Kurt Starman, City Manager 5/12/2015

***Recommendation***

Authorize submittal of Active Transportation Program grant applications for roadway improvements from Diestlehorst Bridge to Downtown along Riverside Drive and Center Street, and along Quartz Hill Road.

***Background***

On September 26, 2013, Governor Brown signed legislation creating the Active Transportation Program (ATP). The ATP consolidates existing federal and state transportation programs, including the Transportation Alternatives Program (TAP), Bicycle Transportation Account (BTA), and State Safe Routes to School (SR2S), into a single program with a focus on making California a national leader in active transportation. Caltrans will administer the ATP program through its Office of Local Assistance.

The purpose of the ATP is to encourage increased use of active modes of transportation thereby increasing the proportion of biking and walking trips, increasing safety and mobility for non-motorized users and enhance public health. To compete for these funds, projects must include elements that achieve these goals.

Due to very tight project execution requirements, infrastructure projects that are either designed, nearly complete with design, or require little design work compete better overall and are more suited to meet the project execution timelines. As such, staff recommends two project applications for this cycle. The applications include:

- Diestelhorst to Downtown Non-Motorized Project: This project will provide pedestrian and cycling improvements to connect users from the River Trail near the Diestelhorst Bridge into the downtown area. The improvements will include an enhanced crossing of Court Street with rectangular rapid flashing beacons, dedicated cycling and pedestrian

pathway along Riverside Drive that may include a partial closure of Riverside Drive from Court Street to Center Street or one-way vehicular travel, and bike lanes (potentially separated from vehicular traffic), and sidewalks along Center Street to California and Shasta Streets.

- Quartz Hill Road Non-Motorized Improvements: Staff has nearly completed design work for this Citywide Traffic Impact Fee (TIF) program project. The project includes sidewalks along the eastern side as well as widening of the roadway to provide bike lanes/shoulder area on both sides for non-motorized users and vehicle recovery area. The project has been delayed due to TIF funding constraints. Additional funding from the ATP program would reduce the impact on the TIF account and make the project viable.

These projects were presented to, and have the support of, the City's Active Transportation Advisory Group. In addition, the Diestelhorst to Downtown project was presented at the first community meeting regarding the preparation of the City's Downtown Transportation Circulation and Parking Plan.

**Issue**

Should the City Council direct staff to apply for ATP funds for the proposed projects?

**Alternatives; Implication of Alternatives**

1. Direct staff to submit applications to Caltrans to obtain ATP program grant funds for the Diestelhorst to Downtown and Quartz Hill Road Projects. (**Staff Recommendation**)
2. Do not direct staff to apply for ATP program funds.
3. Provide alternative direction to staff.

**Fiscal Impact**

The ATP program does not require matching funds. However, local resources for projects make them better able to compete for ATP funding. Matching funds for the Diestelhorst to Downtown project are available from non-motorized State Transportation Improvement Program funds already programmed for this project through the Shasta Regional Transportation Agency and by the California Transportation Commission. The Quartz Hill project will be matched with TIF program funds already expended for design.

In addition, Street Division funds are used to fund the staff time necessary to complete the project applications. The amount is expected to be less than \$15,000 and sufficient funds are already appropriated in the current fiscal year. Street Division funds have also been utilized to develop and scope the Diestelhorst to Downtown project in sufficient detail to provide sufficient cost estimates for the grant application.

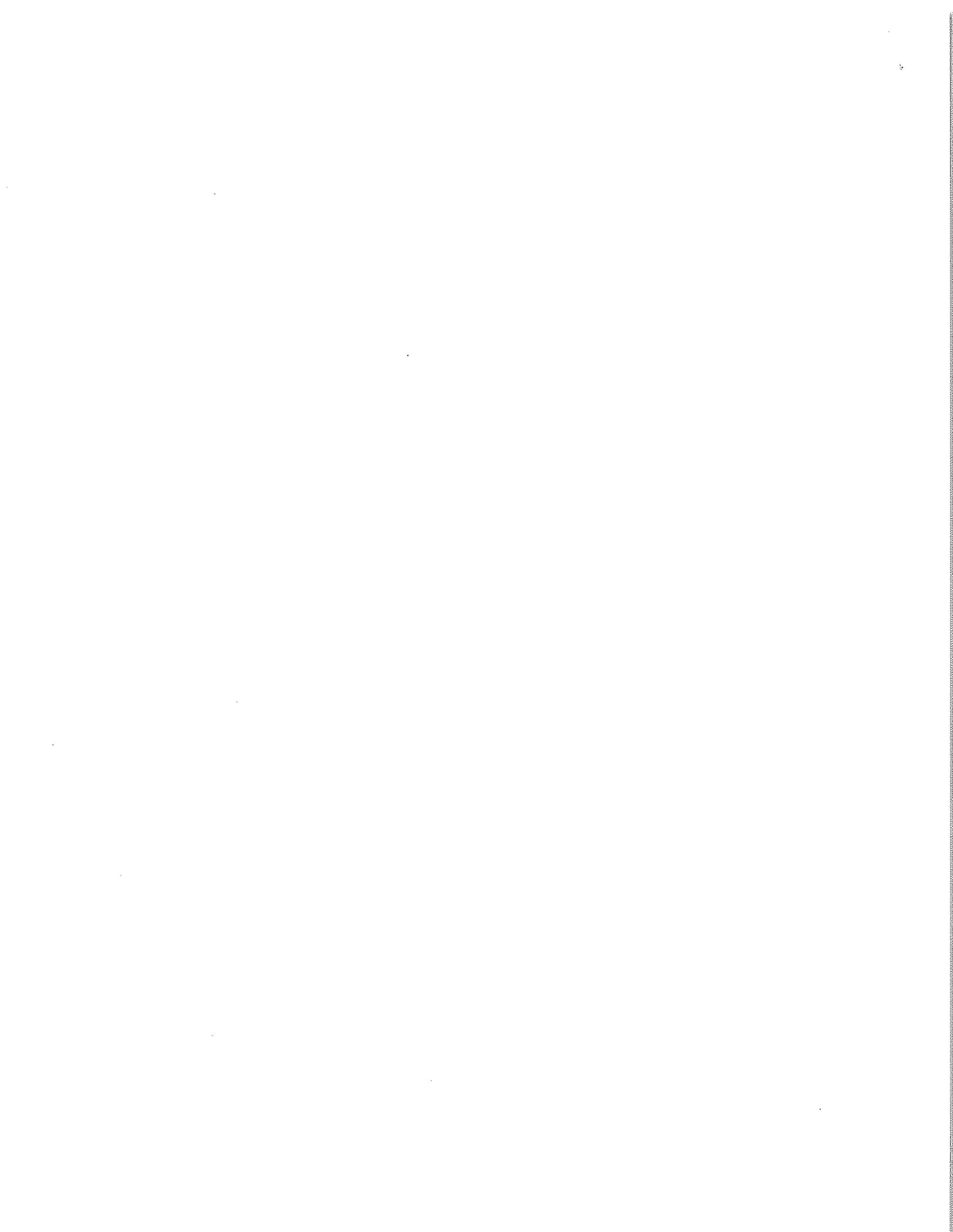
**Conclusion**

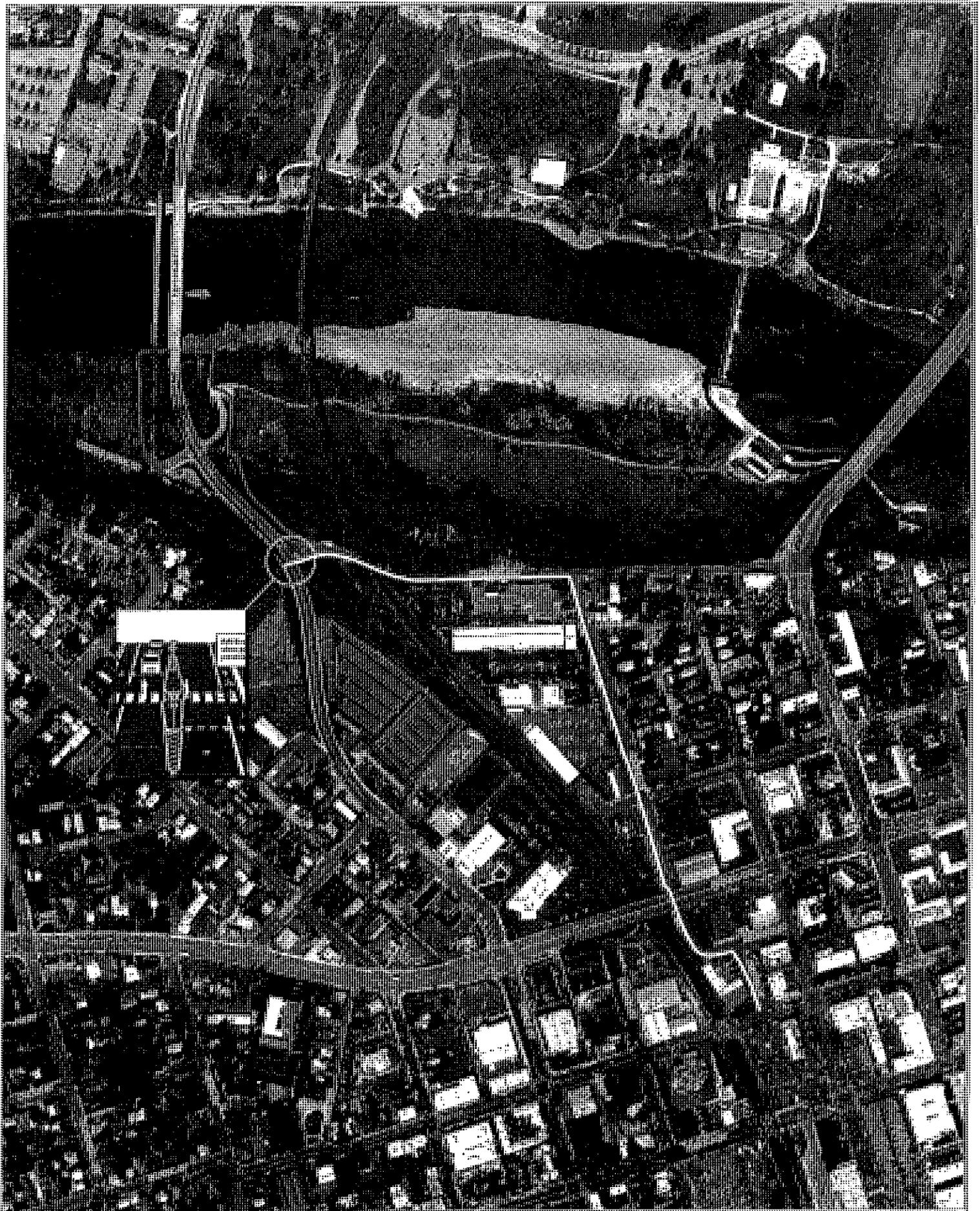
The proposed grant funds can be leveraged with other local investments to provide safe, reliable and efficient facilities for all transportation modes along these corridors. The proposed projects have been identified as priorities for the community of active transportation users and it is prudent to pursue additional grant funding to complete the improvements proposed.

c: Angela Udovich, Public Works  
John Abshier, Streets  
Corri Vandiver, Public Works  
Sarah Grant, Public Works

**Attachments:**

Diestlehorst To Downtown Trail  
Quartz Hill To North Market Trail





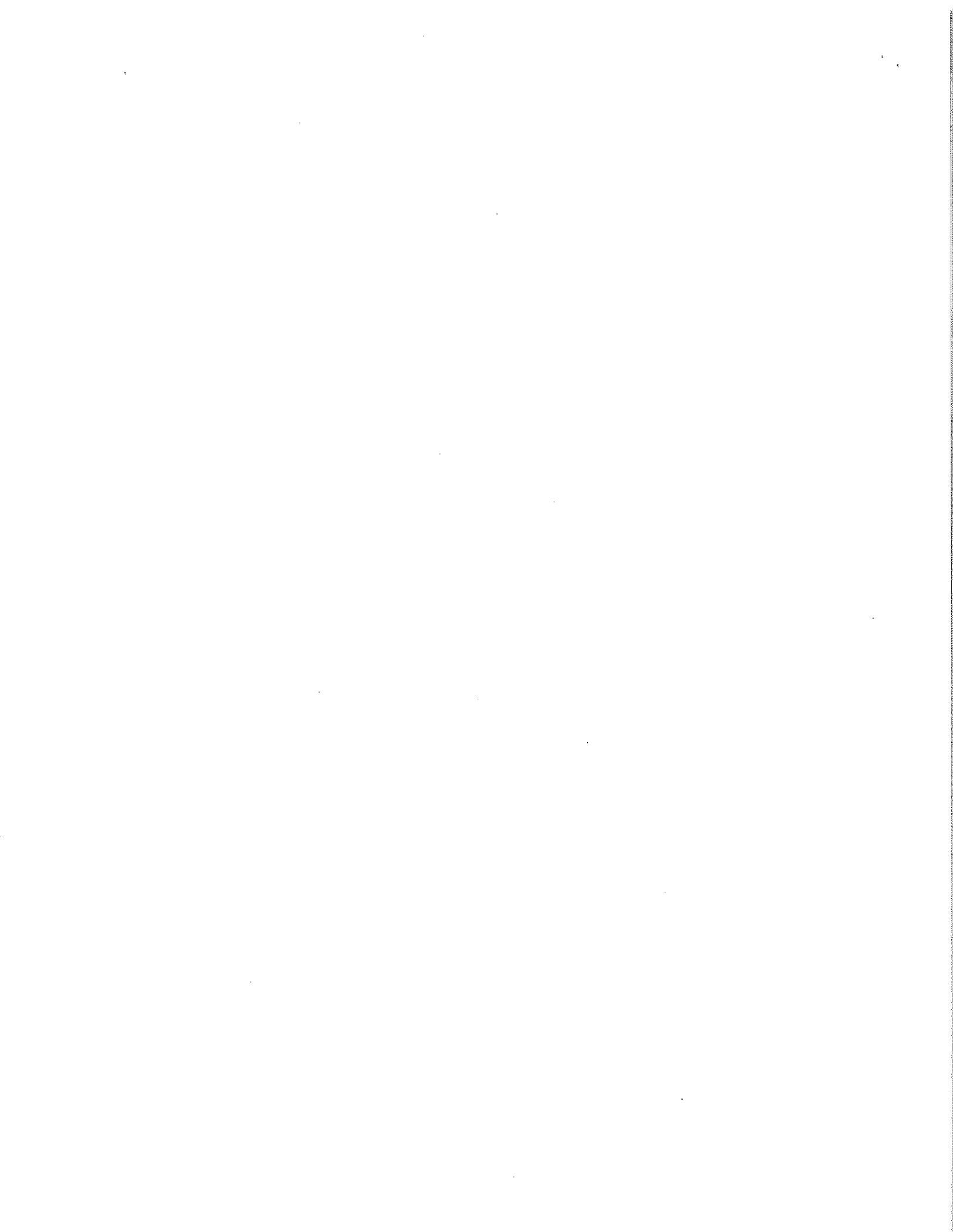
***Diestelhorst to Downtown Trail***  
***City of Redding***





**Quartz Hill Improvements**  
**City of Redding**





# **Trail and Bikeway Strategy**

# Trail and Bikeway Strategy

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## Summary

An integrated system of parks and open spaces linked to neighborhoods and major destinations by outstanding trails, bikeways and linear parks — this is the vision articulated for Redding in the General Plan.

The purpose of the Trail and Bikeway Strategy is to transform this broad vision into a specific action plan that can be implemented over the next two decades. Undoubtedly, the City will accomplish this future work, as in the past, with the help and cooperation of significant partners in both the public and private sectors.

As the trails and greenways movement has evolved over time, the focus has shifted from a primarily recreational use of trails to a broader, more comprehensive view of the transportation role these facilities can play. Trails and bikeways are now considered integral and vital components of our community infrastructure.

Linkage is a central goal of trails and bikeways — to parks, schools, transit stops, shopping, neighborhoods, cultural attractions, and to other trails and bikeways. In the past decade, federal and state programs have increasingly provided support and funding for these facilities. Redding has consistently and assertively used these resources to build an outstanding system enjoyed by residents and visitors alike.

The hub of the system is the nationally recognized Sacramento River Trail, which has recently been designated a National Recreation Trail by the U.S. Department of the Interior. Over the last eighteen years, this paved trail has been extended to almost nine miles in length. It links the city on both sides of the river and creates a viable commuter corridor.

In addition, seventeen other trails, including 6 miles of dirt-surfaced mountain bike and equestrian paths, have been constructed or are under development in parks and open spaces in every quadrant of the City.



Bikeways and sidewalks located along streets and roads also play an important role in the overall system design. They contribute to the multi-modal transportation system, and reduce traffic congestion and air pollution in the urban area. Up-coming projects by the City and others, which incorporate bike and pedestrian accommodations into vehicle bridge designs, will address some of the long-standing difficulties non-motorized travel has had crossing from one side of town to the other.

In the next twenty years, the trail and bikeway system being developed by Redding and its partners will be remarkable. New trails will take people out to the Whiskeytown National Recreation Area with its thousands of acres of lake, mountainous woodlands, and streams, or north to Lake Shasta and the National Forest. In town, they will make their way along paths that follow the River and its large creeks, and enjoy family bike-and-hike loops in their neighborhoods and close-by parks.

### *Trails & Bikeways for the Redding Area*

	<i>TRAILS Paved and Dirt</i>	<i>BIKEWAYS Class I, II, and III</i>	<i>TOTAL System Miles</i>
<i>Existing Miles</i>	31.57	73.12	104.69
<i>Proposed Miles</i>	101.86	52.94	154.80
<i>Total Existing &amp; Proposed Miles</i>	<b>133.43</b>	<b>126.06</b>	<b>259.49</b>

## Connecting to Other Trail and Bikeway Systems

Since linkage and connection are overall goals of the Trail and Bikeway Strategy, coordination with adjacent jurisdictions and agencies is considered essential. At the outset of our planning efforts, we sought information from the cities of Shasta Lake and Anderson, and from Shasta County. As shown on the map, the Strategy has linked those jurisdictions' trails and bikeways to those proposed within the City. In addition, regional trail connections to federal and state lands are also created at several places.

### Shasta-Trinity Trail

The Shasta-Trinity Trail, a concept system developed locally with the help of the National Park Service, envisions a one hundred-mile regional trail connecting significant north state recreation destinations. When completed, the Trail will provide hikers, equestrians, and mountain bikers with a range of opportunities for exploring areas close to town, or to see remote, backcountry areas. It will link the Sacramento River Trail, the Westside Trails, Horsetown-Clear Creek Preserve, Whiskeytown National Recreation Area, and areas around Shasta Lake and Trinity County.

As presently conceived, the trail will utilize both natural corridors and man-made features that remain in the area from past mining and logging activities. Many former roads, rail beds, water ditches, and old stage coach routes can be converted for trail use, while in some places the trail may be routed along existing roads for short distances to get users to the next section of trail.

A trail of this scale can only be established through a commitment to partnerships. With a Steering Committee in place to guide this planning effort, local governments, land management agencies, landowners, and community groups are now working closely together to identify and build the Shasta-Trinity Trail.



### National Trails Designation

In July 1990, the National Trails Agenda Project created a task force that solicited advice from a nationwide cross-section of the trails community. The resulting "Trails for All Americans" report called for a vast interconnected system of private, local, state, and federal trails linking neighborhoods, communities, towns and cities, businesses, parks, and states throughout the country. According to the report, most Americans would live and work within 15 minutes of this national system.

These national trails are being developed and linked, region by region each year. In May 2002, our own Sacramento River Trail and the connecting Sacramento River-Rail Trail were included in this National Trails System when the Secretary of the Interior designated them as *National Recreation Trails*. There are now more than 800 of these

# Trail Classification System

## Classification Overview

The Redding Trail Strategy proposes four types of trails to address the needs of various user groups, and provide connections between parks, schools, major destinations, and open spaces in an integrated system. Generally described below, their specific design specifications can be found starting on page 6.

### Multipurpose Paved Trails

The primary type of trail is the multipurpose trail. Its design specifications call for wide, paved surfaces and high vertical clearances that accommodate pedestrians and bicyclists of all skill levels and experience. The entrances, or trailheads, for multipurpose trails should provide amenities for the comfort and convenience of trail users. These could typically include restrooms, information kiosks, benches, picnic areas, and drinking fountains.

### Improved Dirt Trails

Besides their unpaved surfaces, improved dirt trails are distinguished from multipurpose trails by their narrower width and smaller horizontal and vertical clearances above and to either side of the path. Trailheads for dirt trails contain amenities similar to those found at multipurpose trails, but may also include facilities that can accommodate horses.

### Open Space Trails

Open space trails provide public access to the natural areas found throughout the city. They are usually associated with water bodies, streams, the Sacramento River, and/or scenic view points. Their design width and surfaces are sensitive to the context of their natural environment. Trailheads furnish basic amenities such as parking, drinking fountains, and trail information postings.



*Stress Ribbon Bridge Across Sacramento River*

### Connector Trails

Connector trails are defined as short off-road corridors. They connect neighborhoods, schools, parks, work places, and community centers, helping create a continuous pedestrian travel networks and alternative routes for non-motorized vehicles. Their surfaces are generally consistent with those segments of the trail or transportation system that they are linking. Trailhead amenities consist only of signs marking entrances and the connecting destination points, and security lighting in certain settings.

<b>Improved Dirt Trail</b>		<b>Representative Trail: The Westside Trails</b>
<b>Use and Definition</b>	<b>Typical Characteristics</b>	<b>Typical Amenities</b>
<ul style="list-style-type: none"> <li>▶ Can be built as a temporary first phase of a paved trail, or as a permanent trail that will not require hard paving.</li> <li>▶ Serves pedestrians, bicyclists, and equestrians.</li> <li>▶ Does not allow motorized vehicles, such as mopeds, all-terrain vehicles or motorcycles, except wheelchairs.</li> <li>▶ Wherever possible, improved trails will provide for persons with disabilities. Trail barriers and slopes should be designed to permit passage by people with wheelchairs and strollers.</li> <li>▶ Stairways are disallowed except in situations where alternatives would have substantial negative environmental effects.</li> <li>▶ Trail corridors located outside of parklands are included in the Level-of-Service acreage calculation based on an averaged 50'-wide corridor.</li> </ul>	<ul style="list-style-type: none"> <li>▶ <b>Service Area:</b> Found in developed areas of city, or in open space areas.</li> <li>▶ <b>Location:</b> Provided with sufficient buffer for noise and traffic if homes are nearby.</li> <li>▶ <b>Access:</b> Connected to community via bikeways and sidewalks that lead to trailheads and other points of entry.</li> <li>▶ <b>Landscape:</b> Emphasizes native plants and natural features found either on-site or developed through restoration efforts, including streams, ponds, wetlands, or unique habitats.</li> <li>▶ <b>Maintenance:</b> City-maintained, with some assistance from local groups or residents.</li> <li>▶ <b>Activities:</b> Walking / jogging / running, biking, horseback riding, nature studies and wildlife viewing, fishing access, environmental education.</li> </ul> <p><b>OPTIMAL SPECIFICATIONS</b></p> <ul style="list-style-type: none"> <li>▶ <b>Corridor:</b> 50' to 200' width</li> <li>▶ <b>Setback:</b> 60' to 100' from buildings</li> <li>▶ <b>Path Width:</b> 4' minimum, with wider areas at frequent intervals for passing and turn-outs</li> <li>▶ <b>Cross-Slope:</b> Varies</li> <li>▶ <b>Gradient:</b> 10% maximum</li> <li>▶ <b>Vertical:</b> 12' clearance above</li> <li>▶ <b>Horizontal:</b> 8' clear passage</li> <li>▶ <b>Surface:</b> Graded and compacted dirt, limestone, decomposed granite, or other natural material</li> </ul>	<ul style="list-style-type: none"> <li>▶ Signage clearly marking entrances</li> <li>▶ Directional and interpretive signs appropriate to the trail</li> <li>▶ Drinking fountains</li> <li>▶ Parking lot for cars and possibly trailers</li> <li>▶ Information kiosks with maps, trail characteristics, and directions</li> <li>▶ Seating at entrances, at vistas, and at special viewing areas</li> <li>▶ Picnic tables</li> <li>▶ Group picnic areas if restrooms can be provided</li> </ul>

<b>Connector Trail</b>		Representative Trail: Overhill/Mary Street Connector to Sacramento River Trail
<i>Use and Definition</i>	<i>Typical Characteristics</i>	<i>Typical Amenities</i>
<ul style="list-style-type: none"> <li>▶ Differentiated from other trails in that they provide a safe off-road open space corridor that connects neighborhoods, schools, parks, work places, and community centers.</li> <li>▶ Accommodates pedestrians, commuter or recreation bicyclists, and in-line skaters.</li> <li>▶ Provides multi-use commuter routes for alternative transportation methods that are compatible with pedestrian travel.</li> <li>▶ Wherever possible, connector trails will provide for persons with disabilities. Trail barriers and slopes should be designed to permit passage by people with wheelchairs and strollers.</li> <li>▶ Stairways are disallowed except in situations where alternatives would have substantial negative environmental effects.</li> <li>▶ Connector trails located outside of parklands are included in the Level-of-Service acreage calculation based on an averaged 50'-wide corridor.</li> </ul>	<ul style="list-style-type: none"> <li>▶ <i>Service Area:</i> Can be built as separate paths, or located within existing right-of-way along road shoulders and through utility easements.</li> <li>▶ <i>Location:</i> Provided with sufficient buffer for noise and traffic if homes are nearby.</li> <li>▶ <i>Access:</i> Connected to community via bikeways and sidewalks that lead to trailheads and other points of entry.</li> <li>▶ <i>Landscape:</i> Integrated with immediate surroundings: more ornamental in park-like settings, or emphasizing native materials and plants in natural environments.</li> <li>▶ <i>Maintenance:</i> Typically city-maintained, with some assistance from local groups or residents.</li> <li>▶ <i>Activities:</i> Walking / jogging / running, skating, biking, nature studies and wildlife viewing, fishing access, environmental education.</li> </ul> <p>OPTIMAL SPECIFICATIONS</p> <ul style="list-style-type: none"> <li>▶ <i>Corridor:</i> 50' to 200' width</li> <li>▶ <i>Setback:</i> 60' to 100' from buildings</li> <li>▶ <i>Path Width:</i> 5' minimum, 8' optimal</li> <li>▶ <i>Shoulder:</i> 2' - graded and compacted if paved</li> <li>▶ <i>Cross-Slope:</i> 2% optimal</li> <li>▶ <i>Gradient:</i> 5% desirable, 10% maximum</li> <li>▶ <i>Vertical:</i> 8.5' clearance above</li> <li>▶ <i>Horizontal:</i> 12' clear passage</li> <li>▶ <i>Surface:</i> Asphalt, concrete, or decomposed granite</li> </ul>	<ul style="list-style-type: none"> <li>▶ Signage clearly marking entrances and destinations ahead</li> <li>▶ Security lighting should be considered in some situations</li> </ul>

## Trails Existing or Under Development in the Redding Area, 2003

### MULTIPLE-USE TRAILS

Map No.	Trail Name	From	To	Length	Acres	Quad
1	Blue Gravel Mine Trail *	Placer St	Canyon Creek Rd	2.04	12.34	SW
2	Buckeye Park Trail*	Internal Loop	Internal Loop	0.29	1.76	NW
3	Canyon Creek Trail*	Blazingwood Dr	Buenaventura Blvd	0.51	3.09	SW
4	Cascade Park Trail	Internal Loop	Internal Loop	0.50		SW
5	Civic Center Perimeter Trail	Internal Loop	Internal Loop	0.89		SW
6	Enterprise Park Trail	Internal Loop	Internal Loop	1.53		SE
7	Knolls Trail *	Foothill Blvd	Eureka Way	0.19	0.14	SW
8	Lema Ranch Trails (private, open to the public)	Internal Loop	Internal Loop	3.58		NE
9	Mary Lake Trail	Internal Loop	Internal Loop	1.00		SW
10	Mary Street / Overhill Extension *	Sacramento River Trail	Overhill St	0.31	1.90	SW
34	Old 99 Spur Trail*	Lake Blvd	North Market St	0.98	4.81	NW
36	Parkview Riverfront Park Trail	Civic Center	Cypress Bridge	0.55		SW
11	Peppertree Park Trail	Internal	Internal Loop	0.37		NW
12	Sacramento River Trail - North *	Stress Ribbon Bridge	Hilltop Drive	6.12	37.07	NW
13	Sacramento River Trail - South *	Court St	Stress Ribbon Bridge	2.80	16.97	SW
44	Sacramento River Rail Trail - Connector	Spring Creek	Keswick Dam Rd	3.00		NW
14	Stanford Hills Trail *	Sutro Mine Rd	Sac. River Trail - North	0.86	5.19	NW
MULTIPLE-USE TRAILS				25.49	83.07	

### DIRT TRAILS

15	Westside Trails	Lower Springs / Placer Rd	Mary Lake Park	6.08		SW
DIRT TRAILS				6.08		
MULTIPLE-USE and DIRT TRAILS				31.57		
TRAIL ACREAGE *					83.07	

\* TRAIL ACREAGE Trails included in the Level-of-Service acreage, using a 50'-wide corridor, are marked with asterisks. Included in this acreage calculation are all public trails found within the city limits, and outside a developed park (because its acreage would already be counted in the park's acreage). Excluded from the trail acreage count are private trails (Lema Ranch Trails, a portion of the River Trail within the McConnell Arboretum), trails outside the city (Westside Trails) and those located within developed parks.

# Trail Design

## Trailhead Amenities

The creation of trails for public use involves more than creating the path on which to hike or ride. Trail amenities and well-defined entrances (trailheads) must also be developed so that visitors can fully enjoy the trail system. These types of improvements will encourage people to use the trails to reach activity centers and parks, and foster a more active lifestyle among Redding residents.

While trailheads with higher use may require more parking and additional accommodations, each trailhead should generally have the following improvements to make them enjoyable and so that they avoid conflicts with nearby land uses:

- Entry points clearly signed to encourage people to use the trail system
- Parking for bikes, cars, and horse/boat trailer maneuvering and parking areas
- Drinking fountains for people, dogs, and for filling water bottles
- Seating areas on which to rest and adjust equipment
- Shaded picnic tables or group facilities, if the site allows
- Restroom accommodations at larger trails, or at those associated with parks and/or group picnic areas
- Information boards or kiosks that contain important and useful information about the trail (see Signage section, below), with recognition of any organizations and Adopt-a-Trail groups involved with the trail
- Bus stops for public transportation system linkages, if there is a route nearby.

## Neighborhood and Pedestrian Connections

Trailheads and connector trails should be provided within neighborhood settings to create linkages between residential areas and other parts of the city. The presence of trail signs and other amenities at these locations will advertise the trail, encourage its use, and provide a convenient entry to the trail system.

Improvements at neighborhood trailheads will be designed so that they are compatible with their immediate residential setting, and will include entry and directional signage, trash containers, and drinking fountains where possible.



*Sacramento River Trail entrance within residential area*

## Trail Signage

Signs are an important component of any trail system, and include several types, each with different functions:

- *Entry Signs* advertise the location of trails and trailheads for new users and out-of-town visitors.
- *Informational Signs* posted near entrances describe the characteristics of a trail. This will

## Bikeway Inventory and Classification

CalTrans, the state transportation agency, has divided bicycle facilities into three types — bike paths, bike lanes and bike routes — described in detail on the next page. Together, they serve various bicycle user groups that include casual recreational bike-riders, competitive athletes, fitness enthusiasts, and commuters.

The 2000 U.S. Census statistics show that in California, as many as 134,000 working people over the age of 16 can be considered bicycle commuters. In Shasta County, the data shows that 244 people (4 percent) in this same group use their bikes as their main transportation to work.

### Bridging Transportation Barriers

Like other cities, Redding’s two-wheeled commuters must contend with local impediments to bike travel. Here, those difficulties include steep topography, rainy but mild winters, and very hot summers. Significant transportation barriers limiting cross-town travel include Interstate 5, the Union Pacific Railroad, and the Sacramento River.

Of the six vehicular bridges that currently cross the River, only two safely accommodate bicycle traffic: the Lake Redding Bridge on Court/Benton Street and the South Bonnyview Road Bridge. However, new designs for the Cypress Avenue and State Route 44 bridges will increase the number of safe crossings for non-motorized vehicles in the future.

Fortunately for Redding bicyclists and pedestrians, the Sacramento River Trail has several bridge crossings available exclusively for non-motorized travel:

- *The Stress Ribbon (or Suspension) Bridge* connects the north and south sections of the River Trail just below Keswick Dam.
- *The Diestelhorst Bridge*, near Lake Redding Park at Court Street and Benton Drive, is an historic vehicular structure now used only for pedestrians and bikes.



*Sundial Bridge on the Sacramento River Trail*

- *The Sundial Bridge* spans the River with a spectacular steel cable and glass-decked design. The bridge connects the McConnell Arboretum on the north with the rest of Turtle Bay Exploration Park, the Redding Convention Center, and the Park Marina area to the south.

### Summary of Existing and Proposed Bikeways for the Redding Area

	<i>Class I Bike Path</i>	<i>Class II Bike Lane</i>	<i>Class III Bike Route</i>	<i>TOTAL MILES</i>
<i>Existing Miles</i>	0.86	7.18	65.08	73.12
<i>Proposed Miles</i>	0 *	27.43	25.51	52.94
<b>TOTAL MILES</b>	0.86	34.61	90.59	126.06
* All proposed Class I Bikeways are counted as Multipurpose Trails				

**Table: Existing and Proposed Bikeways in the Redding Area, 2002-2020**

**CLASS I - BIKEWAYS**

STATUS	ROAD SEGMENT	FROM	TO	MILES	QUAD
Existing	CalTrans Bikeway	Boulder Creek	Interstate 5	0.24	NW
Existing	CalTrans Bikeway	Interstate 5	College View Dr	0.61	NE
EXISTING CLASS I BIKEWAYS:				0.85	

**CLASS II - BIKE LANES**

STATUS	ROAD SEGMENT	FROM	TO	MILES	QUAD
Existing	Eastside Rd	Polk St	Breslauer Ln	1.01	SW
Existing	Hartnell Av	Cypress Av	Victor Av	1.98	SE
Existing	Park Marina Dr	State Route 44	Parkview Av	1.93	SW
Existing	Placer St	Wisconsin Av	Pleasant St	1.01	SW
Existing	So Bonnyview Rd	East Bonnyview Rd	Bechelli Ln	1.70	SW
Proposed	Airport Rd	State Route 44	North Street Bridge	5.88	SE
Proposed	Bechelli Ln *	Cypress Av	Hartnell Av	0.50	SW
Proposed	Browning St	Hilltop Dr	Churn Creek Rd	0.37	NE
Proposed	Buenaventura Blvd	Keswick Dam Rd	Sutro Mine Rd	0.79	NW
Proposed	College View Dr	Bodenhamer Blvd (future)	Old Oregon Trail	2.15	NE
Proposed	Cypress Av (future alignment)	Ishi Dr	Goodwater Av	0.42	SE
Proposed	Freebridge Av	Parkview Av	Smile Pl	0.05	SW
Proposed	Hartnell Av	Victor Av	Shasta View Dr	0.73	SE
Proposed	Hawley Rd	State Route 299E	North City Limits	2.88	NE
Proposed	Hilltop Dr	Cypress Av	Maraglia St	0.27	SE
Proposed	Keswick Dam Rd	Sacramento River Trail	North City Limits	2.13	NW
Proposed	Knighten Rd	Churn Creek Rd	Airport Rd	1.63	SE
Proposed	Loma Vista Dr (future alignment)	Churn Creek Rd	Victor Av	0.87	SE
Proposed	Old Oregon Trail	Oasis Rd	State Route 44	6.83	NE
Proposed	Parkview Av	Park Marina Dr	Cypress Av	0.07	SW
Proposed	Parkview Av (future alignment)	Freebridge Av	Hartnell Av	0.69	SW
Proposed	Pleasant St	Shasta St	Placer St	0.20	SW
Proposed	Quartz Hill Rd	Lake Blvd	West City Limits	0.55	NW
Proposed	Quartz Hill Rd	Keswick Dam Rd	North City Limits	0.52	NW
Proposed	South Bonnyview Rd	Bechelli Ln	Churn Creek Rd	0.31	SW
EXISTING CLASS II BIKEWAYS:				7.18	
PROPOSED CLASS II BIKEWAYS:				27.43	
TOTAL CLASS II BIKEWAYS:				34.61	

**CLASS III - BIKE ROUTES**

STATUS	ROAD SEGMENT	FROM	TO	MILES	QUAD
Existing	Bechelli Ln *	Hartnell Av	South Bonnyview Rd	1.89	SW
Existing	Benton Dr *	Quartz Hill Rd	North Market St	1.00	NW
Existing	Branstetter Ln	West City Limits	Westside Rd	3.64	SW
Existing	Buenaventura Blvd	Placer St	Westside Rd	2.21	SW
Existing	Buenaventura Blvd (1)	Eureka Way	Placer St	0.83	SW
Existing	Butte St	Continental St	Auditorium Dr	0.39	SW
Existing	Cedars Rd *	El Reno Ln	South Bonnyview Rd	1.54	SW
Existing	Center St	Trinity St	Riverside Dr	0.18	SW
Existing	Churn Creek Rd *	State Route 44	Rancho Rd	4.13	SE
Existing	Churn Creek Rd *	State Route 299E	State Route 44	2.38	NE
Existing	Clear Creek Rd	West City Limits	State Route 273S	4.03	SW
Existing	Collyer Dr	Hawley Rd	Old Oregon Trail	1.74	NE
Existing	Continental St	Trinity St	Butte St	0.31	SW
Existing	Cypress Av *	Churn Creek Rd	Ishi Dr	1.03	SE
Existing	Cypress Av *	Pine St	Hartnell Av	0.89	SW
Existing	Cypress Av	Interstate 5	Churn Creek Rd	0.38	SE
Existing	Cypress Av	Hartnell Av	Interstate 5	0.49	SW
Existing	East St	Trinity St	Pine St	0.57	SW
Existing	Eastside Rd	Breslauer Ln	South City Limits	2.85	SW
Existing	Freebridge Av	Parkview Av	Ellis St	0.63	SW

# Trail and Bikeway Development

## Planning

Trail and bikeway planning in Redding occurs in the Administrative Division of the Community Services Department, and in the Transportation Division of the Municipal Utilities Department.

## Acquisition and Development

Class I bicycle paths and trails with separate right-of-ways are generally developed as capital projects on City-owned land or acquired through land dedications related to the subdivision process for open space or recreational trail purposes. These dedications may be made as conditions for map approval, or through requirements pursuant to Section 17.41.020 of Redding's Municipal Code. This code section requires developers of subdivisions of two hundred or more parcels to dedicate additional land as may be necessary and feasible to provide bicycle paths for the use and safety of the residents of the subdivision.

Class II and Class III bike facilities, which are a part of the street system, are developed as new road construction occurs, or as special federal and state funds become available to widen shoulders, upgrade existing roadways, and to stripe and sign them.

Trail development costs varies widely, depending on topography, the need for bridges, and drainage issues. Generally speaking, paved trails cost approximately \$250,000 per mile. Bikeway improvement costs are detailed in the table below.

## Maintenance

Responsibility for trail maintenance belongs to the Parks Maintenance Division in the Support Services Department, while maintenance for bikeway facilities on streets and on roadways is a Municipal Utilities function. These divisions are funded with appropriations from the General Fund.

<b>Estimated Per Mile Bikeway Improvement Costs for City of Redding Bikeways</b>					
<b>Bikeway Classification</b>	<b>Improvements</b>	<b>CONSTRUCTION COST PER MILE</b>			
		<b>2000</b>	<b>2002</b>	<b>2004</b>	<b>2006</b>
Class I	two-way path	\$179,300	\$190,200	\$201,800	\$214,100
Class II	no curb	\$124,100	\$131,700	\$139,700	\$148,200
Class II	curb	\$340,600	\$361,300	\$383,300	\$406,650
Class II	signs & striping	\$6,200	\$6,500	\$6,900	\$7,300
Class III	signs	\$535	\$565	\$600	\$650

Source: Shasta County Bikeway Plan (1995), with 3% annual inflation factor

## Funding for Trails and Bikeways

The resources to develop a trail and bikeway system come from various places, including federal appropriations, state funds, grants, and private donations. The next table lists the major sources for recreational and transportation-related trails and bikeways.

No matter the funding source, most development projects include some form of cost-sharing or leveraging. Redding has received approximately \$3 million to expand its trail system over the next five years. More than \$4 million in matching funds will come from our various partners.

Volunteer contributions are also critical to trail construction, protection, and continued maintenance. In 1999, volunteer contributions for National scenic and historic trails alone totaled



more than 550,000 volunteer hours (with an estimated labor value of \$7.4 million) and \$5.7 million in financial contributions.

# Trail and Bikeway Strategy

## Recommended Goals and Policies

The many recommended goals and policies for the Trail and Bikeway Strategy found within this section of the Master Plan are gathered here for ease of reference.

Bracketed text refers to relevant General Plan goals and policies in the Natural Resources [NR], Community Development and Design [CDD], Recreation [R], Public Facilities [PF], and Air Quality [AQ] Elements, which can be found in abridged form in the Appendix.

### Trails

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#### Goal TB1

*Promote and facilitate the development of a Citywide Trail System.* [R11] [AQ2-28]

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Policies to achieve this goal include:

- TB1A *Linkages.* Focus efforts on linking neighborhoods and activity centers, connecting recreational, educational, cultural, commercial, and residential areas and uses. [R11A]
- TB1B *Sacramento River Trail.* Continue development of the Sacramento River Trail to establish a common and continuous thread along the river corridor. [R11B]
- TB1C *Trail Corridors.* Use this document and the map entitled, "Redding Parks, Trails and Bikeways Map," and all subsequent revisions, to guide trail development. [R11]

- Integrate trail corridors and bicycle routes into project improvement plans to provide alternative access to public and private parks and open space, transit stops, nearby commercial developments, and schools. [CDD10F]
- Continue to obtain land dedications and/or easements for the development of public trails and the Regional Sacramento River Parkway through direct purchases, and through the discretionary approval process for new development. [R11D]
- Co-locate trails in open space areas whenever public access is compatible with natural resource goals. [NR10]
- Provide continuous trail connections, including a looped system around the City. [R11A]
- Develop and designate family "bike-and-hike" loops where residents can exercise close to their own neighborhoods.
- Protect the privacy and security of adjacent land uses. [R11F]
- Future expansion to the trail system should take place with the willing cooperation of land owners.

## Bikeways

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### Goal TB4

*Make it easier and safer for people to travel by bicycle.* [T8] [AQ2-28]

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Policies to achieve this goal include:

- TB4A *Bicycle Plan.* Implement the goals and policies found in the “1998 Redding Bicycle Plan.” Incorporate the bikeway components of this document into subsequent revisions of that Plan. [T8A]
- TB4B *Improvements.* Make improvements to existing streets, signs, and traffic signals as needed to improve bicycle travel. [T8C]
- Use this document and the map entitled, “Redding Parks, Trails and Bikeways Map,” and all subsequent revisions, to guide bikeway development.
- TB4C *Design.* Incorporate facilities suitable for bicycle use in the design of interchanges, intersections, street-improvement, and maintenance projects. [T8B]
- TB4D *Safety.* Separate bicyclists and pedestrians from vehicular traffic, and pedestrian facilities from bicycle facilities, whenever feasible. [R11A]
- TB4D *Bicycle Parking.* Install bicycle parking in the Downtown area and at City parks, trailheads, civic buildings, and other community centers. [T8E]

- TB4E *Planning.* Designate a bikeway planner or coordinator to work with bicycle advocacy groups and bike race organizations to plan for and accommodate future improvements to the bicycle system.
- TB4F *Jurisdictional Coordination.* Continue to work with surrounding jurisdictions and agencies to create a regional network of bikeways that connect Shasta County communities and destinations. [R12]
- TB4G *Maintenance.* Keep bikeways free of overhanging shrubbery, debris, and obstacles, and periodically re-grade earthen and gravel shoulders next to bikeways to prevent drop-offs. [T8D]
- TB4H *Funding.* Continue to seek funding for bikeway system expansion, improvement, and maintenance. [AQ2-26]
- Require new development to provide bicycle facilities or pay in-lieu fees based on the fair share of that development’s impacts on the bikeway system and needs identified in this document [T8G] [AQ2-20]
  - Use all available state and federal funding programs. [PF20D]
  - Encourage cooperation among agencies and volunteers for jointly funding bikeway facilities.



# CITY OF REDDING CLEAR CREEK WASTEWATER TREATMENT PLANT Best Management Practices (BMP's)

**Please complete form by hand using an ink pen. Do not type answers.**

To assist with ensuring CCWTP maintains compliance with its Storm Water Pollution Prevention Plan (SWPPP) and Spill Prevention Control Countermeasure (SPCC) Plan, staff will monitor and document the following areas on a monthly basis:

Areas of Responsibility	Compliant (yes/no)	Detail Corrective Actions Taken	Initials	Date
Keep material storage areas clean and covered. Clean up debris that may have accumulated.	yes		TAM	4/30
Store all hazardous materials in proper storage area out of the weather. Properly dispose of chemicals that are not being used. Minimize the potential for hazardous waste spills. Immediately cleanup spills as they occur.	yes		TAM	4/30
Inspect petroleum storage areas, including waste oil tank. Inspect levels, ensure labels exist and are up to date, and check for leakage. Inspect containment areas. Verify that waste oil has not been stored more than 180 days. Immediately cleanup spills as they occur.	yes		TAM	4/30
Inspect facilities for unwanted debris (trash and other debris that blows up against the facility/building). Keep trash cans or bins closed at all times.	yes		TAM	4/30
Sweep asphalt paved areas periodically, as needed.	yes		TAM	4/30
Inspect non-paved areas on a regular basis to prevent pollutants from entering the storm drain system.	yes		TAM	4/30
Inspect straw waddles along swales and near storm drains. Replace as needed.	yes		TAM	4/30
Inspect construction areas monthly to determine whether erosion control measures are in place and functional. If deficiencies are found, contact Project Engineer as soon as possible to request correction.	yes		TAM	4/30
Inspect all vehicles & equipment located at CCWTP for leakage. Clean up any spills. Employ BMP's to prevent entry of any oils, fuel, coolant, etc. into storm drain system.	yes		TAM	4/30
Inspect parking spaces for debris, vehicle fluids, etc.	yes		TAM	4/30

Additional notes:

Date: 4-30-15

Approved by: *[Signature]*

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# TRANSPORTATION ELEMENT

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## INTRODUCTION

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### PURPOSE AND CONTENT

A city is both defined and constrained by the network of highways, roads, trails, railroads, and transit services that move its residents and goods in, through, and out of the community. A comprehensive, well-planned, and efficiently functioning transportation system is essential to Redding's long-term growth and vitality. The Transportation Element (referred to by the Government Code as the *Circulation Element*) provides the necessary framework to guide the growth and development of the Planning Area's transportation-related infrastructure and integrates land use and transportation planning by ensuring that all existing and future developments have adequate circulation. The element is not limited to automobile-related transportation, but addresses the development of a balanced, multimodal transportation system for the City, although the street and highway (circulation/access) system supports the movement of all transportation modes, except rail, in Redding. Recognition of the regional nature of transportation facilities that various transport modes use and the need for interagency coordination is also emphasized.

Background data and information for this element are contained within Chapter 6 of the City of Redding *General Plan Background Report*.

Specific topics addressed within the policy document include:

- ▶ Streets and Highways.
- ▶ Regional Transportation Planning.
- ▶ Neighborhood Streets.
- ▶ Pedestrianism.
- ▶ Parking.
- ▶ Bicycle System.
- ▶ Public Transportation and Facilities.
- ▶ Air Transportation and Facilities.
- ▶ Railroad Services and Facilities.

### AUTHORITY

Pursuant to Government Code Section 65302(b), a general plan is required to include:

*A Circulation Element consisting of the general location and extent of existing and proposed major thoroughfares, transportation routes, terminals, and other local public utilities and facilities, all correlated with the Land Use Element of the plan.*

The provisions of a Transportation Element affect a community's physical, social, and economic environment and are inexorably linked with a land use element. Its provisions must also be integrated with applicable state and regional transportation plans.

The City of Redding has chosen to address utility-oriented facilities, such as energy, water, sewage, storm drainage, and communications, within a comprehensive Public Facilities and Services Element.

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## GOAL T2

**ESTABLISH A SYSTEMATIC COMPLETE STREETS RETROFIT PROGRAM THAT WILL EFFECTIVELY ALTER EXISTING APPROPRIATELY IDENTIFIED STREETS INTO COMPLETE STREETS AS RESOURCES BECOME AVAILABLE.**

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**Policies to achieve this Goal are to:**

- T2A.** Identify and prioritize physical improvements that would make bicycle and pedestrian travel safer along current key bicycling and walking routes. Establish an implementation strategy to construct needed improvements. Undertake improvements as part of street projects where feasible.
- T2B.** Identify intersections and other locations where collisions have occurred or that present safety challenges for pedestrians, bicyclists, or other users, including, but not limited to, intersections within one mile of schools; consider gathering additional data through methods such as walkability/bikeability audits.
- T2C.** Ensure that the transportation capital improvement program and other budgetary tools include funding for Complete Streets infrastructure to the fullest feasible extent. Utilize grant funds and other funding sources to augment City resources. Undertake street modifications with existing capital projects such as overlays, sidewalk repair, ADA curb ramps, and similar projects to reduce costs while providing multimodal accessibility.

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## GOAL T3

**ENSURE THAT EXISTING STANDARDS, PROGRAMS, AND PROCEDURES INCLUDE COMPLETE STREETS IMPLEMENTATION AS A MAIN FOCUS.**

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**Policies to achieve this Goal are to:**

- T3A.** Review the City's construction standards for streets, intersections, pedestrian facilities, bicycle facilities, and transit facilities and

revise as necessary to incorporate Complete Streets standards that support all users.

- T3B.** Consider establishing Multimodal Level of Service Criteria, including pedestrians and cyclists to guide development of the street network.
- T3C.** Collaborate with the Redding Area Bus Authority (RABA) to incorporate infrastructure to assist users in employing multiple means of transportation in a single trip in order to increase transportation access and flexibility. Examples include, but are not limited to, provisions for bicycle access on public transportation, secure bicycle racks at transit stops, and public transportation access to trails and recreational locations.
- T3D.** Consider development of a Complete Streets Design Manual that can serve as a guide for public and private development projects that propose new streets or modifications of existing streets.
- T3E.** Encourage new development in close proximity to existing employment, housing, schools, commercial centers, and other services and amenities.

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## GOAL T4

**WORK WITH THE PUBLIC, STAKEHOLDERS, AND OTHER JURISDICTIONS AND AGENCIES TO PROMOTE, DESIGN, AND CONSTRUCT AN EFFECTIVE TRANSPORTATION SYSTEM THAT SERVES ALL USERS.**

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**Policies to achieve this Goal are to:**

- T4A.** Undertake targeted outreach and public participation in community decisions concerning street design and use.
- T4B.** In collaboration with Shasta County, City of Anderson, City of Shasta Lake, and the Regional Transportation Planning Agency, integrate bicycle, pedestrian, and public transportation facility planning into regional and local transportation planning programs to

Service Level Category	Descriptions of Traffic Conditions	
	Signalized Intersections (Average Length of Wait <sup>1</sup> )	Arterials (Average Speed <sup>2</sup> )
Tolerable Delays (LOS D)	Many vehicles have to stop. Drivers are aware of heavier traffic. Cars may have to wait through more than one red light. Queues begin to form, often on more than one approach. On the average, vehicle wait is 25 to 40 seconds. <i>Common afternoon peak-hour LOS at many intersections.</i>	High traffic volumes and delays at intersections reduce average travel speeds somewhat compared to free-flow. Drivers aware of slower pace of traffic. <i>Cypress Avenue at noon—most intersections.</i>
Significant Delays (LOS E)	Cars may have to wait through more than one red light. Long queues form, sometimes on several approaches. Average waits of 40 to 60 seconds. <i>Apparent at major arterial intersections at peak hour.</i>	High traffic volume and many signalized intersections with long queues reduce average travel speed to one-third of free-flow. <i>Cypress Avenue at 5 p.m. at Bechelli Lane.</i>
Excessive Delays (LOS F)	<i>Intersection is jammed.</i> Many cars have to wait through more than one red light or more than 60 seconds. Traffic may back up into "upstream" intersections. Generally caused by obstruction or irregular occurrence (e.g., signal preemption for a train). This condition often viewed as "gridlock."	Travel is "stop and go"—one-third or one-fourth of free-flow. Usually caused by a "downstream" obstruction, such as lanes reduced from 4 to 3 or a stalled car or signal preemption for a train. <i>At times, Cypress Avenue experiences LOS "F" at the freeway interchange area and when the Cypress Bridge over the Sacramento River is closed to only one lane in a single direction (due to accidents or other problems).</i>

<sup>1</sup> "Average wait" is a measure of traffic conditions at intersections. It is an estimate of the average delay for all vehicles entering the intersection in a defined period of time, for example, the evening peak hour. It is expressed as a range rather than a single value. Some drivers will actually wait more or less time than indicated by the range.

<sup>2</sup> "Average speed" is a measure of traffic conditions on arterials. "Average speed" is based on the total time it takes to travel a certain distance, including the time spent waiting at intersections. It is determined more by traffic volume and conditions at intersections than by the legal speed limit.

Quantitative measures of LOS are useful aids to understanding the community and helping to identify potential problems with street design and land use impacts. However, LOS is theoretical in nature and must be tempered by judgment and interpretation. For instance, minor adjustments in signal timing, turning-lane provisions, points of access from adjoining properties, and other modifications can improve the actual operation of a given street or intersection. Further, LOS describes the conditions based on a "peak hour," usually corresponding to the morning or afternoon commute. Intersections may be impacted for shorter periods of time without affecting the LOS rating.

This General Plan uses a multilevel approach to assigning LOS expectations. It recognizes that the same level of service for all streets is not appropriate or necessary. For example, moving traffic through Downtown without delay detracts from efforts to establish an active, pedestrian-friendly area. A different level of service is also appropriate for certain principal arterial streets as well as for state highway facilities, including those indicated on Figure 2-1.

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**GOAL T5**  
**COORDINATE TRANSPORTATION AND**  
**LAND USE PLANNING; PROTECT EXISTING AND**  
**PLANNED LAND USES FROM TRANSPORTATION-**  
**RELATED CONFLICTS; PROMOTE MULTI-MODAL**  
**TRANSPORTATION OPTIONS.**

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**Policies to achieve this goal are to:**

T5A. Establish the following peak-hour LOS standards for transportation planning and project review. They reflect the special circumstances of various areas of the community, as depicted in Figure 2-1:

- ▶ Use LOS "C"—"acceptable delays"—for most arterial streets and their intersections.
- ▶ Use LOS "D"—"tolerable delays"—for the Downtown area where vitality, activity, and pedestrian and transit use are primary goals.

- ▶ Use LOS "D" —"tolerable delays"—for streets within the state highway system and interchanges.
- ▶ Use LOS "D" —"tolerable delays"—for river-crossing street corridors whose capacity is affected by adjacent intersections.

- T5B. Require development projects to construct both on- and off-site improvements as necessary to mitigate the effects of increased traffic generated by the project and maintain peak-hour LOS standards established by Policy T1A. The traffic analysis used to establish mitigating measures shall be based on the City's Traffic Model or other City-approved method. Improvements may be deferred by the City upon approval of a Deferred Improvement Plan which identifies improvements needed, costs, funding sources, and other pertinent data required by the City.
- T5C. Obtain needed street right-of-way dedications with ministerial projects and with the approval of subdivisions, use permits, and other discretionary actions.
- T5D. Encourage employers to provide incentives for employees utilizing alternatives to the single-occupant automobile, such as car pools, van pools, buses, bicycling, and walking.
- T5E. Encourage employers, including government agencies, to allow telecommuting and flex time and to promote staggered shifts or base work hours that do not coincide with peak-period traffic to reduce peak-hour trips.
- T5F. Route through truck traffic around existing and future residential neighborhoods and incompatible commercial areas to the extent feasible.
- T5G. Continue to utilize signage and enforcement to clearly demonstrate the City's intent to reduce truck traffic and parking in residential districts.

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**GOAL T6**  
**USE TRANSPORTATION SYSTEMS TO REINFORCE**  
**THE URBAN LAND USE**  
**PATTERN OF DOWNTOWN.**

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**Policies to achieve this goal are to:**

- T6A. Retain alleys in the Downtown area to provide pedestrian circulation and convenient service access to local businesses.
- T6B. Establish motorized and/or non-motorized transportation linkages to connect Downtown Redding to the Park Marina, Turtle Bay, and Civic Center areas; augment the transit system to establish frequent and convenient access to these destination areas.

**PROVIDING EFFICIENT ROADWAYS**

The street network is, and will remain, the basic element of the transportation system for the foreseeable future. That network is made up of a number of different types of streets, each performing a special function and serving different types of traffic. The street classifications Redding uses are listed in the table below. Each class, with the exception of Freeways and Expressways, also has subclasses, depending on the nature and quantity of traffic they are designed to carry. Figure 2-2 depicts the City's basic circulation system, including new street links that will be needed between now and buildout of the City. Appendix "A" notes the types of street improvements that will be needed over the next 40 to 50 years. Appendix "B" provides a list of the City's expressway, arterial, and collector streets. These improvements have been projected through the use of the "Shasta County Travel Demand Model." This computer model utilizes existing and planned land uses to estimate future traffic levels and roadway deficiencies. It is based on a countywide system, thereby taking into account traffic originating from areas outside the city as well as those generated from within.

Given significant barriers such as Interstate 5, the Sacramento River, the Union Pacific Railroad, Redding Cemetery, and often difficult topography, Redding has done an admirable job of planning for and constructing an efficient system of cross-town arterial streets. Most traffic flows smoothly, even during peak hours. The system, however, must be continually enhanced as

traffic levels increase.

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**GOAL T7**  
**BUILD AND MAINTAIN A SAFE AND EFFICIENT**  
**LOCAL STREET SYSTEM WITH THE AIM OF**  
**MEETING LOS STANDARDS.**

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**Policies to achieve this goal are to:**

- T7A. Establish a system of street cross-sections that will:
- ▶ Accommodate all improvements necessary to handle forecasted volumes at adopted LOS standards.
  - ▶ Accommodate bicycles and transit facilities.
  - ▶ Attain the design objectives for streets as addressed in the Community Development and Design Element.
- T7B. Require streets to be dedicated and improved in accordance with adopted street standards; allow modifications to standard street sections when approved by the Planning Commission and City Engineer.
- T7C. Maximize intersection and driveway spacing on arterial and collector streets. Require shared/common driveways wherever feasible.
- T7D. Provide right-turn lanes for arterial-to-arterial and arterial-to-collector intersections wherever feasible.
- T7E. Pursue financing in a timely manner for all components of the transportation system to achieve and maintain adopted level of service standards.
- T7F. Assess fees on new development sufficient to cover the fair share portion of that development's impacts on the local and regional transportation system. Exceptions may be when new development generates significant public benefits (e.g., low-income housing, primary-wage-earner employment), and alternative sources of funding for the improvements can be obtained to offset

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**Street Classification System**

**Freeways.** Drivers use freeways primarily for long-distance trips. Cars can enter a freeway only at an interchange; major streets cross only at underpasses or overpasses. These facilities range from 4 to 6 lanes.

**Expressways.** Drivers also use expressways for regional trips. Other roads may cross expressways at intersections with traffic signals, or they may have underpasses or overpasses. It is usually not possible to enter an expressway from an adjacent parcel of land. These 4- to 6-lane facilities require right-of-way generally between 110 feet and 150 feet in width.

**Arterial.** Drivers use these streets to travel to activity centers, freeways, expressways, and other arterials and collectors. Driveways may connect adjacent land uses directly; collector streets conduct traffic to the arterials. Right-of-ways necessary to accommodate traffic projected for these 4- to 6-lane streets generally range from 84 feet to 135 feet.

**Collectors.** Drivers use these streets to travel within and between residential areas and neighborhood commercial areas. Access to adjacent land uses may be restricted in residential areas. These streets collect traffic from local streets and route it to arterials. Collector street right-of-ways range from 60 feet for 2-lane residential collectors to 125 feet for 4-lane facilities.

**Local Streets.** Drivers travel on these streets only to reach adjacent land uses. Local streets serving residential areas are designed to protect residents from through traffic. Right-of-ways generally range from 28 feet to 60 feet in width.

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foregone revenues.

- T7G. Utilize intelligent transportation control systems, where appropriate, to improve traffic flow and safety on the street and highway system.
- T7H. Utilize information in Appendices "A" and "B" and Figure 2-2 in addition to any information obtained from project-specific traffic studies when determining right-of-way needs and the type/level of improvements required to maintain and upgrade the street system.
- T7I. Require assurance of long-term, private maintenance for all private streets constructed within the City.

**REGIONAL TRANSPORTATION PLANNING**

Regional planning is a key element in dealing with traffic congestion and air pollution that results from vehicle commuting. To address regional transportation issues, Redding works closely with the Shasta County Regional Transportation Planning Agency (RTPA).

physical and program options to divert traffic in problem areas. The size and kind of problem should be verified by a special traffic study prior to carrying out any options. Careful review of proposed street designs (including street patterns and widths) in new subdivisions is also important to avoid the creation of new problems.

The speed vehicles travel in residential neighborhoods is a very real concern. Although residential streets are "designed" for a speed of 25 MPH, the average speed along the City's residential streets is in excess of 30 MPH. On certain streets, the average speed is considerably higher. Excessive speed not only poses serious pedestrian safety concerns, it also detracts from the general quality of life within the neighborhood.

Speed can be controlled through a number of means, including increased enforcement; traffic-calming devices, such as roundabouts and neck-downs; and narrowing the "pavement width" of the street. The latter two can work together when designed as an integral component of new neighborhoods as addressed in the Community Development and Design Element. Where problems occur on existing streets, the same types of techniques can be used to "retrofit" the street, thereby slowing vehicle speed. Speed bumps, street closures, and diversions should be used only as a last resort. These devices may cause longer response times for emergency vehicles and reduce access options.

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## GOAL T9

### PROTECT RESIDENTIAL NEIGHBORHOODS FROM EXCESSIVE THROUGH TRAFFIC, WHERE FEASIBLE.

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**Policies to achieve this goal are to:**

- T9A. Develop neighborhood protection plans when traffic studies or monitoring confirm excessive traffic volumes, substantial through traffic, speeding, or accidents in specific residential areas.
- T9B. Emphasize the use of landscape and other visual deterrents to through traffic; install physical measures only as a last resort.
- T9C. Establish street design standards and review criteria intended to avoid the creation of local

streets that will encourage excessive speed and/or which will ultimately function as collectors. Factors that may contribute to a local street functioning as a collector include:

- ▶ Excessive length (typically greater than one-half mile).
- ▶ Excessive width.
- ▶ The lack of other streets which may be used to convey traffic to nearby arterials.

T9D. Encourage new neighborhoods to incorporate detached sidewalks and to establish landscape "parkways" between the curb and sidewalk. Continuous and consistent tree-planting to form canopy closure is encouraged.

T9E. Route through traffic around the perimeters of neighborhoods where possible.

### PEDESTRIANISM

The popularity of walking is continuing to increase. Not only does walking provide a good form of exercise, it can also be an effective "commuting" mode if complementary land uses are located nearby. In the past, the realm of the pedestrian has often been overlooked in Redding. In order to be effective, sidewalks and other pedestrian areas need to be reasonably attractive, impart a feeling of safety and separation from vehicles, and be designed for use by all individuals, including those with mobility impairments. These objectives can largely be achieved through facility design. Factors such as sidewalk width and the creation of an attractive separation between the sidewalk and the curb (usually by a maintained landscape strip) can contribute to the quality and perceived safety of the pedestrian's experience. This is particularly important on streets which carry heavy traffic volumes and/or have relatively high vehicle speeds.

Sidewalks are particularly critical in areas where young children are likely to walk. This would include corridors between residential areas and parks or schools. The installation of handicapped ramps in accordance with Americans with Disabilities Act requirements is also important at intersections, so that those with mobility impairments can easily cross the street and safely return to a sidewalk system. In order

T11D. Establish maximum and minimum standards for parking spaces in transit corridors and Downtown to promote use of alternate modes.

**BICYCLE SYSTEM**

Bicycles can be an integral part of a city’s transportation system. As lifestyles and land use patterns continue to change, there is every reason to expect that this transportation mode will increase considerably. To make the most of commuter bicycle use, a comprehensive system of bikeways needs to be established. There are many opportunities within Redding’s existing arterial and collector street system to establish a viable commuter system. In many instances, this system can be linked to the system of multiuse trails that have been and will be constructed along the river, its tributary streams, and other areas. It will take commitment on the part of the City to ensure that proper facilities are provided as new streets are constructed and to establish an active program to retrofit existing streets to accommodate bike facilities. This work may consist of restriping streets to provide adequate width for bike facilities and/or providing additional paved width along shoulders. The preparation of a properly documented Bikeway Plan is necessary to identify existing deficiencies, recommend upgrades, and establish timing and funding priorities.

Until a Comprehensive Bikeway Plan is adopted, Figure 2-3 should be used to plan for a well-integrated bikeway system. The system should include all classes of facilities as addressed in Table 2-1.

**Table 2-1  
Bikeway Classifications**

Bikeway Classification	Description of Facility
Class I	Paths developed within an entirely separate right-of-way for the exclusive use of bicycles and pedestrians. Except for occasional cross-flow points, these facilities completely separate cyclists from motorists.
Class II	Lanes within the road right-of-way designated specifically for one-way bicycle use. Class II facilities are delineated by signs and striping along street shoulders.
Class III	Bicycle routes indicated only by posted signs on existing streets. No specific bicycle lane is delineated.

**GOAL T12**

**MAKE IT EASIER AND SAFER FOR PEOPLE TO TRAVEL BY BICYCLE.**

**Policies to achieve this goal are to:**

- T12A. Develop and maintain a Comprehensive Bikeway Plan geared to establishing an integrated bicycle system.
- T12B. Incorporate facilities suitable for bicycle use in the design of interchanges, intersections, and other street-improvement/maintenance projects.
- T12C. Make improvements to streets, signs, and traffic signals as needed to improve bicycle travel.
- T12D. Keep bikeways free of overhanging shrubbery, debris, and other obstacles.
- T12E. Install bicycle parking in the Downtown area and at City parks, civic buildings, and other community centers.
- T12F. Support the efforts of the Redding Area Bus Authority (RABA) to provide bicycle racks on all buses within the system.
- T12G. Require new development to provide bicycle facilities or pay in-lieu fees based on the fair share of that development’s impacts on the bikeway system and needs identified on the Comprehensive Bikeway Plan.

**PUBLIC TRANSPORTATION AND FACILITIES**

Public transportation, particularly bus service, is essential to the circulation system. It is often the only means of transport for people who cannot or choose not to drive, including school children, the elderly, and disabled persons. In conjunction with fundamental land use changes that provide adequate densities to ensure the feasibility of transit, the availability of a quality public transportation system can help reduce residents' dependence on the automobile. Coordination between transit and air transportation services can also enhance the transportation options available to residents and visitors.

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### **GOAL T13**

**PROMOTE AND MAINTAIN A PUBLIC TRANSIT SYSTEM THAT IS SAFE, EFFICIENT, COST-EFFECTIVE, AND RESPONSIVE TO THE NEEDS OF RESIDENTS.**

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**Policies to achieve this goal are to:**

- T13A. Support the continuation and expansion of private commercial bus operations to provide additional regional transit opportunities for residents.
- T13B. Work with the Redding Area Bus Authority (RABA) on an ongoing basis to plan and implement additional transit services that are timely, cost-effective, responsive to growth patterns, and meet the needs of existing and future transit demand.
- T13C. Provide bus pull-outs along arterial streets at approximately ¼-mile intervals or as indicated in the Shasta County Transit Development Plan. Determine the precise locations during development plan review or at the time of major street improvement or reconstruction.
- T13D. Require development to install passenger amenities at designated bus stops when identified as a mitigating measure.
- T13E. Provide attractive, well-lighted, comfortable, and protected waiting areas for bus passengers.
- T13F. Promote coordination of transit and air transportation services to enhance the transportation options available for residents and visitors to the Redding community.

#### **AIR TRANSPORTATION AND FACILITIES**

Redding's two airports—Redding Municipal and Benton Airpark—provide the community with transportation options which not all cities have. Not only do these facilities provide a base for corporate, recreational, and emergency-response aircraft, they also play a key role in serving the commercial aviation needs of businesses and the traveling public. It is important that the community support activities to maintain and expand these facilities as needed in conjunction with the City's growth.

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### **GOAL T14**

**PRESERVE AND ENHANCE THE AIR TRANSPORTATION OPPORTUNITIES PROVIDED BY THE REDDING MUNICIPAL AIRPORT AND BENTON AIRPARK, WHILE PROTECTING THE PUBLIC FROM AIRPORT-RELATED NOISE AND SAFETY HAZARDS.**

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**Policies to achieve this goal are to:**

- T14A. Continue to plan and develop the Redding Municipal Airport to maximize its contributions to business efficiency, economic development, and recreational opportunities within the region.
- T14B. Encourage the establishment of additional commercial airline providers at the Redding Municipal Airport to provide the widest range of aviation travel choices to residents and businesses within the region.
- T14C. Support Benton Airpark as a public-use, general aviation airport and commercial-reliever facility for the Redding Municipal Airport.
- T14D. Protect existing and planned local air transportation facilities from encroachment by potentially incompatible land uses and require developers to file an aviation easement with the City if a proposed development or expansion of an existing use is located in the area subject to the overlay district.

#### **RAIL SERVICES AND FACILITIES**

Redding is bisected by the Union Pacific railroad in a north-south direction. The railroad provides valuable opportunities for rail transit from several industrial areas and also serves passengers to a somewhat limited extent.

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### **GOAL T15**

**ENCOURAGE MAXIMUM AVAILABILITY AND USE OF BOTH FREIGHT AND PASSENGER RAIL SERVICE.**

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**Policies to achieve this goal are to:**

**APPENDIX "A"**  
**TRANSPORTATION ELEMENT**

<b>FUTURE ROADWAY NETWORK</b>		
<b>Roadway</b>	<b>Location</b>	<b>Improvements</b>
<b>New Roadway Extensions</b>		
Auditorium Drive	Convention Center to North Market Street	2-lane collector
Bodenhamer Drive	Churn Creek Road to College View Drive	2-lane collector New Boulder Creek Bridge
Buenaventura Boulevard	Eureka Way to Keswick Dam Road	2-lane collector
Cedars Road	El Reno Lane to Buenaventura Boulevard	2-lane arterial
Creekside Drive	Sacramento Street to S. Bonnyview Road	2-lane collector
Cypress Avenue	Victor Avenue to Shasta View Drive	2-lane collector/Churn Creek bridge
Dana Drive Ramp	Hilltop Drive to SR 299 WB Ramp	Freeway - 2-lane ramp meter
George Drive	North terminus to Oasis Road	2-lane collector
Hilltop Drive	E. Lake Boulevard to Twin View Boulevard	2-lane arterial
Industrial Street	Bechelli Lane to Hilltop Drive	New - 2-lane overcrossing <sup>1</sup>
Kenyon Drive	West terminus to Placer Road	2-lane collector
Knighton Road	I-5 to SR 273	2-lane arterial/Sacramento River bridge
Loma Vista Drive	Churn Creek Road to Victor Avenue	2-lane collector
Old Oregon Trail	Paso Robles Avenue to La Crescenta Drive	Non-access, two lane arterial realignment
Palacio Drive	Churn Creek Road to Old Oregon Trail	2-lane collector/ Churn Creek bridge
Parkview Avenue	Freebridge Street to South Market Street	Modify to a 2-lane arterial; Sacramento River bridge
Presidio Drive	Churn Creek Road to Canby Road	New 2-lane extension
Santa Rosa Avenue	Quartz Hill Road to Lake Boulevard	2-lane collector
Shasta View Drive	Collyer Drive to Gold Hills Drive	4-lane arterial
Shasta View Drive	Collyer Drive to north City limits	4-lane arterial
Shasta View Drive	Rancho Road to Airport Road	4-lane arterial

<b>FUTURE ROADWAY NETWORK</b>		
<b>Roadway</b>	<b>Location</b>	<b>Improvements</b>
SR 44	Airport Road to Deschutes Road	4-lane expressway
SR 44	Interstate 5 to Auditorium Drive	Add auxiliary lanes
Victor Avenue	Old Alturas Road to Churn Creek Road	4-lane arterial
<b>Interchange Improvements</b>		
Interstate 5	at Cypress Avenue	Ramp improvements
Interstate 5	at Knighton Road - widening	4-lane freeway overcrossing
Interstate 5	at Oasis Road	Expand freeway overcrossing per Oasis Road Specific Plan FEIR
Interstate 5	South Bonnyview	Ramp improvements
Interstate 5	SR 44 interchange	Ramp improvements
<b>Downtown Circulation Revision</b>		
EB 299	East Street to Auditorium Drive	Add third lane
Market Street	Tehama Street to Placer Street	Reestablish two lane collector
Shasta Street	Market to Court Street	3-lane one-way (westbound)
Gold Street	Union Pacific Railroad	Undercrossing <sup>2</sup>

1 This link may be reexamined if other options for modifying traffic flow in the East Cypress/Hilltop Drive/I-5 interchange area are identified and determined to be feasible.

2 Crossing may be located at a location other than Gold Street.



FIELD DATA COLLECTION FORM  
INDUSTRIAL GENERAL PERMIT

MONTHLY VISUAL OBSERVATIONS OF STORM WATER DISCHARGES

- Storm water discharge visual observations are required for at least one storm event per month between October 1 and May 31.
- Visual observations must be conducted during the first hour of discharge at all discharge locations.
- Water must be flowing from the SW1, SW2, or SW3 outlets to be considered a discharge.
- Discharges of temporarily stored or contained storm water must be observed at the time of discharge.
- Indicate "None" in the first column of this form if you did not conduct a monthly visual observation.
- Make additional copies of this form as necessary.
- Until a monthly visual observation is made, record any eligible storm events that do not result in a storm water discharge and note the date, time, name, and title of who observed there was no storm water discharge

Observation Date: <u>February 16, 2015</u>	SW1	SW2	SW3	Comments:
Observers Name: <u>Troy Mitchell</u>	07:53	07:56	09:45	
Title: <u>Plant Supervisor</u>	07:00	07:00	09:30	
Signature: <u>Troy Mitchell</u>	NO	NO	YES	
Observation Date: <u>March 16, 2015</u>	SW1	SW2	SW3	Comments:
Observers Name: <u>Troy Mitchell</u>	0800	0805	0815	
Title: <u>Plant Supervisor</u>	0700	0700	0700	
Signature: <u>Troy Mitchell</u>	NO	NO	NO	
Observation Date: <u>April 30, 2015</u>	SW1	SW2	SW3	Comments: <u>NO discharge in April</u>
Observers Name: <u>Troy Mitchell</u>				
Title: <u>Plant Supervisor</u>				
Signature: <u>Troy Mitchell</u>				
Observation Date: <u>May 1</u>	SW1	SW2	SW3	Comments:
Observers Name: _____				
Title: _____				
Signature: _____				

**CITY OF REDDING, CALIFORNIA  
COUNCIL POLICY**

SUBJECT	RESOLUTION NUMBER	POLICY NUMBER	EFFECTIVE DATE	PAGE
COMPLETE STREETS INFRASTRUCTURE	2012-073	1303	AUGUST 21, 2012	1

***BACKGROUND***

On September 30, 2008, Governor Arnold Schwarzenegger signed Assembly Bill 1358, "The California Complete Streets Act." The legislation requires local jurisdictions to amend their General Plans as necessary to ensure that they include polices that will lead to the construction of streets that can accommodate use by pedestrians, bicyclists, disabled persons, and transit users, in addition to motor vehicles. The City of Redding adopted amendments to the Transportation Element of the General Plan on August 21, 2012, to comply with the Complete Streets Act.

***PURPOSE***

The purpose of this Council policy is to provide specific direction to affected City departments in the implementation of the City's Complete Street policies.

***POLICY***

The following shall be the policy of the City of Redding to ensure that Complete Streets are, and will continue to be, a vital element of the City's transportation infrastructure.

1. The various departments of the City of Redding shall make Complete Streets practices a routine part of everyday operations, shall approach transportation projects and programs as opportunities to improve public streets and the transportation network for all users, and shall work in coordination with other departments, agencies, and jurisdictions to achieve Complete Streets. For purposes of this resolution, projects and programs include the public and private construction, reconstruction, retrofit, maintenance, alteration, or repair of the street system and includes the planning, design, approval, and implementation processes. Projects and programs do not include minor routine upkeep such as cleaning, sweeping, mowing, spot repair, or interim measures on detour routes.
2. Street projects, including those constructed within and adjacent to, or necessary to serve, new development should incorporate Complete Streets infrastructure that balances the needs of all users, provided, however, that such infrastructure may be excluded upon written approval by the Public Works Director where documentation and data indicate that:
  - a. Use by nonmotorized users is prohibited by law.
  - b. The existing right-of-way does not allow for the accommodation of all users. In such cases, alternatives shall be explored, such as the use of revised travel-lane configurations, paved shoulders, signage, traffic-calming, or similar alternatives.
  - c. The cost would be excessively disproportionate to the need or probable future.
  - d. There is a documented absence of current or future need.
  - e. The safety of pedestrians, bicyclists, transit users, or vehicular traffic may be placed at an unacceptable risk

**CITY OF REDDING, CALIFORNIA  
COUNCIL POLICY**

SUBJECT	RESOLUTION NUMBER	POLICY NUMBER	EFFECTIVE DATE	PAGE
<b>COMPLETE STREETS INFRASTRUCTURE</b>	<b>2012-073</b>	<b>1303</b>	<b>AUGUST 21, 2012</b>	<b>3</b>

- e. Report to the City Council regarding the steps taken to implement this policy, additional steps planned, and any desired actions that would need to be taken by the City Council or other agencies or departments to remove impediments to implementation of this policy.
  
- 7. Provide opportunities for City staff and the public to participate in training programs in how to integrate, accommodate, and balance the needs of all users when such training becomes available.

Policies\CompleteStreets-KM-CC.wpd

### Background

#### Overview

The primary goal of the non-motorized transportation program is to create a transportation environment that encourages non-motorized alternatives. Actions and policies listed below promote bicycling and walking as a means to decrease automobile-dependency; reduce traffic congestion, air pollution, and noise pollution; and support sidewalks, and bike and pedestrian trails. Planning for facilities to promote walking and biking as transportation modes provides for safe non-motorized travel.



#### Pedestrian

Most residents of Shasta County choose the automobile for transportation to work: 92% of workers, or 59,096 people, according to the 2000 Census.<sup>1</sup> Walking is the next most popular mode, with 2.2% of workers, or 1,443 people, walking. Although often overlooked as a significant mode of transportation, walking is more common than both transit and bicycling. Attempts to promote walking are primarily addressed through land use measures. The policy section of the land use chapter (see Chapter 10) encourages local agencies to provide for mixed-use development that lends itself to walking or bicycling.

Recreational hiking and bike riding are widespread in the many parks and forests in Shasta County. Lassen Volcanic National Park, in the southeast corner of the county, has perhaps the best-developed series of hiking trails. Additionally, hundreds of miles of abandoned logging roads provide recreational opportunities for mountain biking.

The Pacific Crest National Scenic Trail extends 2,600 miles from Canada to Mexico. Seventy-eight miles of this hiking and equestrian trail lie in Shasta County, extending up the east side and across the north side of the county. The U.S. Forest Service has another 275 miles of trails in Shasta County.

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<sup>1</sup>The 2000 Census only addresses transportation modes to work; therefore, modes of travel to schools and stores are not addressed in this document.

**TABLE 9-2**  
Existing Trails in the City of Redding (2008)

<b>MULTIPLE-USE TRAILS</b>					
	<b>Trail Name</b>	<b>From</b>	<b>To</b>	<b>Length</b>	<b>Acres *</b>
1	Blue Gravel Mine Trail *	Placer St	Canyon Creek Rd	2.04	12.34
2	Buckeye Park Trail*	Internal Loop	Internal Loop	0.29	1.76
3	Buenaventura Trail	Lakeside Drive	Sunflower Drive	0.45	
4	Canyon Creek Trail*	Blazingwood Dr	Buenaventura Blvd	0.51	3.09
5	Cascade Park Trail	Internal Loop	Internal Loop	0.50	
6	Civic Center Perimeter Trail	Internal Loop	Internal Loop	0.89	
7	Clover Creek Preserve	Internal Loop	Internal Loop	2.00	
8	Enterprise Park Trail	Internal Loop	Internal Loop	1.53	
9	Knolls Trail *	Foothill Blvd	Eureka Way	0.19	0.14
10	Lema Ranch Trails (private, open to the public)	Internal Loop	Internal Loop	3.58	
11	Mary Lake Trail Loop	Internal Loop	Internal Loop	0.75	
12	Mary Lake - Westside Trail Connector *	Mary Lake Park	Westside Trail	0.30	1.82
13	Mary Street / Overhill Extension *	Sacramento River Trail	Overhill St	0.31	1.90
14	Park Marina River Front	Cypress Bridge	2703 Park Marina	0.11	
15	Parkview Riverfront Park Trail	Civic Center	Cypress Bridge	0.55	
16	Peppertree Park Trail	Internal	Internal Loop	0.37	
17	Sacramento River Trail - North *	Keswick Dam Road	Hilltop Drive	6.72	40.73
18	Sacramento River Trail - South *	Court St	Keswick Dam Road	3.40	20.61
19	Sacramento River Rail Trail (BLM)	Motion Creek	Keswick Dam Rd	12.00	
20	Stanford Hills Trail *	Sutro Mine Rd	Sac. River Trail - North	0.86	5.19
21	Sundial Bridge *	Riverfront Park	Highway 44/Auditorium Dr	1.32	8.00
<b>MULTIPLE-USE TRAILS</b>				<b>38.67</b>	<b>87.58</b>
<b>DIRT TRAILS</b>					
	<b>Trail Name</b>	<b>From</b>	<b>To</b>	<b>Length</b>	<b>Acres *</b>
1	Buenaventura Trail	Sunflower Drive	Sacramento River Trail	0.70	
2	Churn Creek Open Space Trails (private, open to public)	Tidmore Lane	Minder Park	4.00	
3	Clover Creek Preserve	Internal Loop	Internal Loop	2.50	
4	Fishermens Trail (BLM)	Keswick Dam	Sacramento River Rail Trail	0.40	
5	Hornbeck Trail (BLM)	Quartz Hill Road	Walker Mine Road	4.00	
6	Lower Sacramento Ditch Trail (BLM)			3.30	
7	Sunset Trail (Palatine) *	Scenic Dr	Sacramento River Trail	0.50	3.03
8	Swasey Trails (BLM)	Swasey Road	Mule Town Road	10.80	
9	Upper Sacramento Ditch Trail (BLM)	Walker Mine Road	Shasta Dam	10.00	
10	Westside Trails	Lower Springs/Placer Rd	Mary Lake Park	6.08	
<b>DIRT TRAILS</b>				<b>41.58</b>	<b>3.03</b>
<b>MULTIPLE-USE and DIRT TRAILS</b>				<b>80.25</b>	
<b>TRAIL ACREAGE*</b>					<b>90.61</b>

\* TRAIL ACREAGE. Trails included in the Level-of-Service acreage, using a 50'-wide corridor, are marked with asterisks. Included in this acreage calculation are all public trails found within the city limits and outside a developed park.

**TABLE 9-3 (Cont'd)**

<b>DIRT TRAILS</b>						
	<b>Trail Name</b>	<b>From</b>	<b>To</b>	<b>Miles</b>	<b>Acres</b>	<b>Year</b>
1	China Dam Trail	Placer Rd	Texas Springs Rd	2.43	14.75	2012
2	Mercedes Trail	Arboretum Perimeter Trail	Mercedes Ln	0.21	1.26	2015
3	Olney Creek Trail	Texas Springs Rd	Cascade Park	3.67	22.22	2016
4	Ridgeview Trail	Ridgeview Park	Blue Gravel Mine Trail	0.65	3.91	2012
5	Salt Creek Trail	Lower Springs Rd	Sacramento River Trail	2.00	12.12	2010
6	Sulphur Creek Trail - North	Quartz Hill Rd	North Market St	3.30	20.02	2012
7	Greenwood Trail	Walnut Ave	Sonoma St	0.83	5.03	2010
8	Avalon Trail	Shasta View Dr	Old Oregon Trail	1.00	6.06	2015
<b>FUTURE DIRT TRAILS</b>				<b>14.09</b>	<b>85.37</b>	
<b>TOTAL FUTURE TRAILS</b>				<b>78.45</b>		
<b>TOTAL FUTURE ACRES</b>					<b>475.44</b>	

### Bicycling

In California, 0.83% of employees bicycled to work in 2000, according to the 2000 Census. This is an unusually high average because of good weather and the presence of bicycle-friendly cities, such as Davis, where 25% of commuters bicycle.

In Shasta County, only 0.38% of employees bicycle to work. This is the same percentage as the national average.

There are some significant impediments for bicycle commuters in Shasta County. The major barriers in the urbanized area are Interstate 5, the Union Pacific Railroad, and the Sacramento River. Of the seven existing Sacramento River crossings for autos in the urbanized areas of Redding and Anderson, three have design provisions to accommodate bicycle traffic: the Diestelhorst, South Bonnyview, and Airport Road/North Street bridges. Two others, Cypress Avenue and Highway 44, are currently being widened and will contain pedestrian and bicycle facilities. There are also two bicycle/pedestrian bridges connecting sections of the Sacramento River Trail that cross the river: the Ribbon and Sundial bridges.

Bikeways are only part of the story. The Redding Area Bus Authority has front-mounted bike racks on its fixed-route buses. Each bus can carry three bicycles. This will increase opportunities for both commuting and recreational bicyclists.

Biking to the store, school, or work provides the added benefit of improving the health of Shasta County citizens. By providing a system that supports bicycling as an alternative transportation option, citizens have a time-efficient, low cost way of attaining the U.S. Surgeon General's recommended daily allowance for

### Bikeways Defined

Bikeways are divided into three basic categories, based on the degree to which they separate bicycles from other travel modes:

- **Class I bikeways** (bike "paths") - Characterized by completely separate rights-of-way separating cyclists from motorists.
- **Class II bikeways** (bike "lanes") - Delineated by signs and striping along street shoulders.
- **Class III bikeways** (bike "routes") - Indicated only by posted signs on existing streets.

### Bikeways Existing and Proposed

The following is an inventory of bikeways, both existing and proposed:

**TABLE 9-5  
Shasta County Bikeways**

<b>Class II Bike Lanes</b>					
	<b>STATUS</b>	<b>ROAD SEGMENT</b>	<b>FROM</b>	<b>TO</b>	<b>MILES</b>
1	Existing	Lake Boulevard	Redding city limit	Ashby Road	2.05
2	Existing	Deschutes Road	Hillside Drive	Berkeley Drive	0.60
3	Existing	Ashby Road	Lake Boulevard	Shasta Lake city limit	0.15
4	Proposed	Gas Point Road	I-5/Cottonwood	Happy Valley Road	6.44
5	Proposed	Happy Valley Road	Gas Point Road	Hawthorne Avenue	6.58
6	Proposed	Canyon Road	Hawthorne Avenue	Highway 273	2.18
7	Proposed	Balls Ferry Road	Anderson city limit	Deschutes Road	1.03
8	Proposed	Deschutes Road	Balls Ferry Road	Highway 299 East	13.80
9	Proposed	Placer Road	Redding city limit	Cloverdale Road	7.64
10	Proposed	Texas Springs Road	Placer Road	Branstetter Road	4.60
11	Proposed	Oasis Road	I-5/Redding	Old Oregon Trail	1.72
12	Proposed	Union School Road	I-5/Shasta Lake	Old Oregon Trail	1.73
13	Proposed	Old Oregon Trail	I-5/Mountain Gate	Highway 299 East	7.34
14	Proposed	Old Oregon Trail	Highway 299 East	Highway 44	4.37
15	Proposed	Airport Road	Highway 44	Anderson city limit	6.40
16	Proposed	Cloverdale Road	Placer Road	Oak Street	5.78
17	Proposed	Oak Street	Cloverdale Road	Palm Avenue	1.57
18	Proposed	Palm Avenue	Oak Street	Happy Valley Road	2.54
19	Proposed	Olinda Road	Happy Valley Road	Anderson city limit	5.20
20	Proposed	Old Alturas Road	Redding city limit	Old Oregon Trail	0.45
21	Proposed	Dersch Road	Airport Road	Deschutes Road	2.79
22	Proposed	Swasey Drive	Highway 299 West	Placer Road	4.06
23	Proposed	Abandoned McCloud Railway Company railbed*	Burney	To be determined	N/A

\* Sponsored by Save Burney Falls, a non-profit organization.

**TABLE 9-7**  
**City of Redding Bikeways**

<b>CLASS I - BIKEWAYS</b>				
<b>STATUS</b>	<b>ROAD SEGMENT</b>	<b>FROM</b>	<b>TO</b>	<b>MILES</b>
Existing	SR 299E	Boulder Creek	Interstate 5	0.24
Existing	SR 299E	Interstate 5	College View Dr	0.61
	SR 44	Dana Drive	Sundial Bridge Drive	1.10
<b>EXISTING CLASS I BIKEWAYS:</b>				<b>1.95</b>

<b>CLASS II - BIKE LANES</b>				
<b>STATUS</b>	<b>ROAD SEGMENT</b>	<b>FROM</b>	<b>TO</b>	<b>MILES</b>
Existing	Buenaventura Blvd	Keswick Dam Rd	Stanford Hills Trailhead	1.00
Existing	Cedars Rd	Westside Rd	State Route 273	0.03
Existing	Eastside Rd	Polk St	Radio Ln	1.13
Existing	Knighton Rd	Churn Creek Rd	Airport Rd	1.75
Existing	Park Marina Dr	Butte	Parkview Av	1.36
Existing	Polk St	Ellis	Eastside	0.37
Existing	South Bonnyview Rd	State Route 273	Churn Creek Rd	3.06
Existing/ Proposed	N Market St	Lake Blvd	Quartz Hill Rd	1.26
Existing/ Proposed	Tarmac Rd	Shasta View Dr	Abernathy Ln	0.97
Existing/ Upgrade	Buenaventura Blvd	Buenaventura Trailhead	Railroad Av	3.00
Existing/ Upgrade	Hilltop Dr	State Route 299	E Cypress Av	3.34
Existing/ Upgrade	Lake Blvd	Pine Grove Av	N Market St	5.02
Existing/ Upgrade	Old Alturas Rd	Churn Creek Rd	Old Oregon Trail	2.46
Existing/ Upgrade	Shasta View Dr	College View Dr	Rancho Rd	5.97
Existing/ Upgrade	Victor Av	Old Alturas Rd	Rancho Rd	3.68
Existing/ Upgrade/ Proposed	Bechelli Ln	Bechelli River Access	South Bonnyview Rd	3.22
Existing/ Upgrade/ Proposed	Browning St	Hilltop Dr	Old Alturas Rd	1.11
Existing/ Upgrade/ Proposed	Churn Creek Rd	State Route 299	Knighton Rd	8.53
Existing/ Upgrade/ Proposed	Hartnell Av	Cypress Av	Airport Rd	4.14

Existing	Cedars Rd	El Reno Ln	Westside Rd	1.50
Existing	Clear Creek Rd	West City Limits	State Route 273	4.01
Existing	Collyer Dr	Mountain View Dr	Old Oregon Trail	2.42
Existing	East St	South St	Locust St	0.21
Existing	Eastside Rd	Radio Ln	Girvan Rd	2.35
Existing	El Reno Ln	Cedars Rd	Westside Rd	0.15
Existing	Ellis St	Polk St	Anita St	0.12
Existing	Freebridge Av	Parkview Av	Rio St	0.39
Existing	Girvan Rd	Eastside Rd	State Route 273	0.04
Existing	Honeybee Rd	Texas Springs Rd	Clear Creek Rd	0.67
Existing	Mountain View Dr	Twin View Blvd	Collyer	0.57
Existing	Rio St	Freebridge Av	Anita St	0.04
Existing	Texas Springs Rd	Honeybee Rd	Branstetter Ln	2.42
Existing	Twin View Blvd	Oasis Rd	Mountain View Dr	1.29
Proposed	8 th St	Mary St	West St	0.08
Proposed	11 th St	West St	Court St	0.08
Proposed	Airpark Dr	Placer St	Gold St	0.16
Proposed	California St	Trinity St	Tehama St	0.24
Proposed	Center St	Trinity St	Division	0.10
Proposed	Churn Creek Rd	Knighton Rd	Airport Rd	3.43
Proposed	Civic Center Dr	Locust St	Cypress Av	0.14
Proposed	Continental St	Butte St	South St	0.32
Proposed	Dersch Rd	Airport Rd	Stillwater Creek Trail	0.81
Proposed	Division	Center St	California St	0.08
Proposed	Foothill Blvd	Lakeside Dr	Knolls Trailhead / Las Animas	0.59
Proposed	Gold St	Airpark Dr	West St	0.52
Proposed	Hemstead	Cypress Av	Bechelli Ln	0.47
Proposed	Hilltop Dr	E Cypress Av	Maraglia St	0.27
Proposed	Keswick Dam Rd	Sacramento River Trailhead	Buenaventura Blvd	1.48
Proposed	Lakeside Dr	Buenaventura Blvd	Foothill Blvd	0.14
Proposed	Las Animas	Foothill Blvd	Monte Bello	0.05
Proposed	Locust St	East St	Civic Center Dr	0.32
Proposed	Manzanita Hills Av	Knolls Trailhead / Monte Bello	Shasta St	0.11
Proposed	Market St	Placer St	South St	0.11
Proposed	Mary St	Overhill Trailhead	8 th St	0.20
Proposed	Meadow View Dr	Churn Creek Rd	Airport Rd	0.93
Proposed	Monte Bello	Las Animas	Manzanita Hills Av	0.05
Proposed	Overhill	Eureka Way	Overhill Trailhead	0.53
Proposed	Pleasant St	Placer St	Stratford	0.20
Proposed	Quartz Hill Rd	Keswick Dam Rd	Lake Blvd	2.91
Proposed	Railroad Av	South St	Schley Ave / Court St	0.44
Proposed	Shasta St	Stratford	Court St	0.98
Proposed	South St	West St	Court St	0.08
Proposed	Tehama St	West St	California St	0.28

<b>Class III - Bike Routes</b>				
	<b>STATUS</b>	<b>ROAD SEGMENT</b>	<b>FROM</b>	<b>TO</b>
16	Proposed	Lake Blvd	Shasta Dam Blvd	North city limit
17	Proposed	SR 151	Lake Blvd	West city limit
18	Proposed	Flanagan Road	Lake Blvd	West city limit
19	Proposed	Hill Street	Lake Blvd (south)	Lake Blvd (north)
20	Proposed	Toyon Ave	Lake Blvd	Sacramento Ave
21	Proposed	Future road	Pine Grove Ave	South city limit
22	Proposed	Montana St	Vallecito Ave	Red Bluff Ave
23	Proposed	Vallecito Ave	Montana St	Washington Ave
24	Proposed	Washington Ave	Vallecito Ave	Shasta Way
25	Proposed	Shasta Way	Washington Ave	Shasta Dam Blvd
26	Proposed	Fort Peck St	Montana Ave	Shasta Way
27	Proposed	Red Bluff Ave	Montana Ave	Mussel Shoals Ave
28	Proposed	Mussel Shoals Ave	Shasta Dam Blvd	Black Canyon Rd
29	Proposed	Grand Ave	Mussel Shoals Ave	Shasta Way

## **Non-Motorized Goal, Issues, Objectives, Policies, and Actions**

**Goal:** *Create a transportation environment that encourages non-motorized alternatives.*

### **Issues**

- A. Inadequate bicycle and pedestrian facilities discourage non-motorized trips. Bike plans need to account for commuter trail interconnectivity in order to increase bike- and walk-to-work trips.
- B. Many existing or potential on-street bicycle/pedestrian routes are not used due to a lack of shoulders or other barriers.
- C. Class I bikeways are costly, difficult to maintain, and used less by bicycle commuters.
- D. Class II and III bikeways utilizing street and road shoulders are often littered with glass, gravel, and other debris.
- E. The lack of a continuous regional bikeway system often impedes bicycle commuters.
- F. In addition to bicycles, Class II facilities are important routes for wheelchair users and pedestrians.
- G. Traffic lights often won't change for bicycles.
- H. Maintenance of bike lanes and bike paths is a continuing problem.
- I. Utility poles often obstruct pedestrian facilities.

- P-9 Identify traffic signal detectors for bicycle placement with use of standard road markings.
- P-10 Provide automatic walk signals at fixed-time signalized intersections equipped with walk/don't walk signals, where feasible.
- P-11 Use the Transportation Enhancement (TE) funding available within Shasta County for development of non-motorized projects.
- P-12 Where feasible and appropriate, enhance pedestrian safety by installing traffic calming measures, such as raised sidewalks, medians, and pedestrian countdown signals that are appropriately timed to meet the needs of seniors.

## **Actions**

### Short-Range (2010-2020)

#### *Caltrans and Regional Transportation Planning Agency*

- TE funds will remain available for use in constructing/improving non-motorized facilities. (P-1, P-2, P-11)

#### *Shasta County*

- The Shasta County Bikeway Plan emphasizes safety, and focuses on Class II and III bike lanes adjacent to selected roadways. (P-2) This Bikeway Plan is currently being updated.
- Due to low construction and maintenance costs and higher commuter usage of Class II and III facilities, Shasta County is focusing on these types of facilities for improvement of its bicycle corridors. (P-2)

#### *City of Anderson*

- The City of Anderson Bicycle Transportation Plan was adopted October of 2007. It emphasizes coordination of bicycle facilities with local agencies to link major activity centers. The City currently has about 7.5 miles of Class I, II, and III bicycle facilities, including about 2.5 miles in the Anderson River Park. The Plan proposes to add 9.9 miles of bikeways. (P-1)

#### *City of Redding*

- The City of Redding has identified various potential bikeways and paths that are expected to be built by land developers as part of their requirements. Several feeder routes to the Sacramento River Trail are planned, allowing access from adjacent residential areas. (P-2, P-4)

#### *City of Shasta Lake*

- The City of Shasta Lake adopted a new Bicycle Transportation Plan (BTP) in July of 2009. Adoption of the plan qualifies the city to apply for Bicycle Transportation Account funding. The City has about seven miles of existing bikeways. The BTP proposes to construct an additional 16.5 miles of bikeways. (P-1).



## APPENDIX B- Recommended System Changes and Capital Improvement Plan

### Recommended System Changes

The Bikeway Plan Committee systematically reviewed the current bikeway network to consider various circulation and connectivity improvements, identify safety issues, and grade the overall functionality of the system. The result was a number of recommended additions, deletions or corrections.

The accompanying table in this appendix and the maps included in Appendix F detail the proposed changes to the bikeway system. 2.9 miles of bikeways have been deleted from the system, primarily in the downtown core where bike traffic has been re-routed to less congested streets. Conversely 41.60 miles in bikeways have been added to the system, in the downtown core as mentioned and at other strategic locations throughout the City to improve connectivity. The result is a net gain of 38.70 on-street miles for a system total of 140.30 on-street miles.

Based on the recommendations of the Bikeway Plan Committee, the *Action Plan* anticipates by 2015 the complete bikeway system network totaling 162.81 miles of dedicated paved multi-use paths and on-street signed routes to serve current and future needs, with a significant portion of the on-street system upgraded to a Class 2 Bike Lane level of service.

The Bikeway Plan Committee also identified emerging issues that while not contained in the current *Action Plan* recommendations should be considered in future bikeway system discussions:

- Establishing a connection between Browning Street and the Dana-to-Downtown Trail either via the Caltrans right-of-way next to Interstate 5, or alternatively using the service lane located behind the retail centers on Hilltop Drive.
- Ensuring that bike-friendly elements are incorporated into the traffic circulation designed for the forthcoming Shasta County Courthouse construction.

### Capital Improvement Plan

The accompanying table in Appendix B also serves as the Capital Improvement Plan for the *Action Plan* with priorities based on street projects identified in the *City of Redding's 2009-10 to 2014-15 Capital Improvement Plan*.



Existing	South Bonnyview Rd	State Route 273	Churn Creek Rd	3.06
Existing / Proposed	N. Market St	Lake Blvd	Quartz Hill Rd	1.26
Existing / Proposed	Tarmac Rd	Shasta View Dr	Abernathy Ln	0.97
Existing / Upgrade	Buenaventura Blvd	Buenaventura Trailhead	Railroad Av	3.00
Existing / Upgrade	Hilltop Dr	State Route 299	E. Cypress Av	3.34
Existing / Upgrade	Lake Blvd	Pinegrove	N. Market St	5.02
Existing / Upgrade	Old Alturas Rd	Churn Creek Rd	Old Oregon Trail	2.46
Existing / Upgrade	Shasta View Dr	College View Dr	Rancho Rd	5.97
Existing / Upgrade	Victor Av	Old Alturas Rd	Rancho Rd	3.68
Existing / Upgrade / Proposed	Bechelli Ln	Bechelli River Access	South Bonnyview Rd	3.22
Existing / Upgrade / Proposed	Browning St	Hilltop Dr	Old Alturas Rd	1.11
Existing / Upgrade / Proposed	Churn Creek Rd	State Route 299	Knighton Rd	8.53
Existing / Upgrade / Proposed	Hartnell Av	Cypress Av	Airport Rd	4.14
Upgrade	Benton Dr	Quartz Hill Rd	Sacramento River	0.47
Upgrade	Butte St	Continental St	Park Marina Dr	0.39
Upgrade	Center St	Riverside Dr	Trinity St	0.16
Upgrade	College View Dr	Bodenhamer Blvd (Future)	Old Alturas Rd	2.01
Upgrade	Continental St	Trinity St	Butte	0.31
Upgrade	Court St	Sacramento River	Schley Av / Railroad Av	1.19
Upgrade	Cypress Av	Civic Center Dr	Ishi Dr	2.90
Upgrade	East St	Trinity St	South St	1.14
Upgrade	Keswick Dam Rd	Buenaventura Blvd	Lake Blvd	1.70
Upgrade	Oasis Rd	Lake Blvd	Old Oregon Trail	4.15
Upgrade	Old Oregon Trail	Oasis Rd	State Route 44	7.09
Upgrade	Parkview Av	Market Street	Park Marina Dr	0.96
Upgrade	Quartz Hill Rd	Keswick Dam Rd	N. Market St	3.01
Upgrade	Railroad Av	Schley Av	Buenaventura Blvd	1.35
Upgrade	Riverside Dr	Court St	Center St	0.20
Upgrade	Schley Av	Court St	Railroad Av	0.07
Upgrade	State Route 273	South Bonnyview Rd	City Limits	3.88
Upgrade	Trinity St	Center St	Continental St	0.43
Upgrade	Westside Rd	Buenaventura Blvd	Cedars Rd	1.87
Upgrade / Proposed	Boulder Dr	State Route 299 Bikeway	State Route 299 Bikeway	0.18

Proposed	11 th St	West St	Court St	0.08
Proposed	Airpark Dr	Placer St	Gold St	0.16
Proposed	California St	Trinity St	Tehama St	0.24
Proposed	Center St	Trinity St	Division	0.10
Proposed	Churn Creek Rd	Knighton Rd	Airport Rd	3.43
Proposed	Civic Center Dr	Locust St	Cypress Av	0.14
Proposed	Continental St	Butte St	South St	0.32
Proposed	Dersch Rd	Airport Rd	Stillwater Creek Trail	0.81
Proposed	Division	Center St	California St	0.08
Proposed	Foothill Blvd	Lakeside Dr	Knolls Trailhead / Las Animas	0.59
Proposed	Gold St	Airpark Dr	West St	0.52
Proposed	Hemstead	Cypress Av	Bechelli Ln	0.47
Proposed	Hilltop Dr	E. Cypress Av	Maraglia St	0.27
Proposed	Keswick Dam Rd	Sacramento River Trailhead	Buenaventura Blvd	1.48
Proposed	Lakeside Dr	Buenaventura Blvd	Foothill Blvd	0.14
Proposed	Las Animas	Foothill Blvd	Monte Bello	0.05
Proposed	Locust St	East St	Civic Center Dr	0.32
Proposed	Manzanita Hills Av	Knolls Trailhead / Monte Bello	Shasta St	0.11
Proposed	Market St	Placer St	South St	0.11
Proposed	Mary St	Overhill Trailhead	8 th St	0.20
Proposed	Meadow View Dr	Churn Creek Rd	Airport Rd	0.93
Proposed	Monte Bello	Las Animas	Manzanita Hills Av	0.05
Proposed	Overhill	Eureka Way	Overhill Trailhead	0.53
Proposed	Pleasant St	Placer St	Stratford	0.20
Proposed	Quartz Hill Rd	Keswick Dam Rd	Lake Blvd	2.91
Proposed	Railroad Av	South St	Schley Ave / Court St	0.44
Proposed	Shasta St	Stratford	Court St	0.98
Proposed	South St	West St	Court St	0.08
Proposed	Tehama St	West St	Callifornia St	0.28
Proposed	Traveled Way	N. Market St	Sacramento River Trailhead	0.24
Proposed	West St	8 th St	11 th St	0.30
Proposed	West St	Shasta St	Gold St	0.46
Proposed	Willis	Shasta St	Shasta St	0.01
TOTAL CLASS III BIKEWAYS:				36.50
TOTAL ALL TYPES OF BIKEWAYS:				142.25

Existing - Dirt	Swasey Trails	Swasey Rd	Mule Town Rd	10.80
Existing - Dirt	Upper Sacramento Ditch Trail	Walker Mine Rd	Shasta Dam	10.00
Existing - Dirt	Westside Trails	Placer Rd	Mary Lake Park	6.08
Proposed - Paved	ACID Trail	Butte St	Cypress Av	0.89
Proposed - Paved	Boulder Creek Trail	State Route 299 Bikeway	Churn Creek	1.69
Proposed - Paved	Canyon Creek Trail Extension	Placer St	Blazingwood Dr	2.13
Proposed - Paved	Churn Creek Trail	Minder Park	Churn Creek Rd	4.03
Proposed - Paved	Clear Creek Trail	State Route 273	Cascade Park	1.66
Proposed - Paved	Clover Creek Trail	Sports Park	Sacramento River	8.30
Proposed - Paved	Jenny Creek Trail	Eureka Way	Mary Lake	0.62
Proposed - Paved	Lema - Nash Trail	Shasta View Dr	Old Oregon Trail	0.98
Proposed - Paved	Linden Creek Trail	Placer St	Sheridan St	1.64
Proposed - Paved	Little Churn Creek Trail	Hartnell Av	Churn Creek	1.07
Proposed - Paved	Manzanita Trail	Manzanita Hills Av	Almond Av	0.27
Proposed - Paved	Middle Creek Trail	Old Shasta / State Route 299	Sacramento River Trail	1.86
Proposed - Paved	Palisades Trail	Hilltop Dr	North Bechelli Ln	1.43
Proposed - Paved	Riverside Trail	Sacramento River Trail	Center St	0.38
Proposed - Paved	Sacramento River Trail - Expansion	Cypress Av	Anderson River Park	11.50
Proposed - Paved	Sacramento River Trail - Hatchcover Spur	Hemstead Dr	Cypress Av	0.29
Proposed - Paved	Sacramento River Trail - Park Marina	State Route 299	Cypress Av	2.12
Proposed - Paved	Stillwater Creek Trail	Old Oregon Trail	Sacramento River	15.45
Proposed - Paved	Stillwater Plant Trail	State Route 44	Dersch Rd	1.85
Proposed - Paved	Sulpher Creek Trail - South	North Market St	Aboretum Perimeter	0.38
Proposed - Paved	Upper Churn Creek Trail	Pine Grove Av	Oasis Rd	1.75
Proposed - Paved	Wentz Creek Trail	Mistletoe School	Cypress Av	0.55
Proposed - Dirt	Avalon Trail	Shasta View Dr	Old Oregon Trail	1.00
Proposed - Dirt	China Dam Trail	Placer Rd	Texas Springs Rd	2.43
Proposed - Dirt	Greenwood Trail	Walnut Av	Sonoma St	0.83
Proposed - Dirt	Mercedes Trail	Arboretum Perimeter Trail	Mercedes Ln	0.21
Proposed - Dirt	Olney Creek Trail	Texas Springs Rd	Cascade Park	3.67
Proposed - Dirt	Ridgeview Trail	Ridgeview Park	Blue Gravel Mine Trail	0.65
Proposed - Dirt	Salt Creek Trail	Lower Springs Rd	Sacramento River Trail	2.00
Proposed - Dirt	Sulpher Creek Trail - North	Quartz Hill Rd	North Market St	3.30
TOTAL MULTI-USE TRAILS - EXISTING AND PROPOSED:				158.39

## APPENDIX C

# Legal Requirements and Related Planning Documents

### State of California Bicycle Transportation Act and Streets and Highways Code

The City of Redding *Bikeway Action Plan 2010-2015* has been prepared pursuant to the *California Bicycle Transportation Act* and is directed towards meeting the provisions of the Act and the *California Street and Highways Code Chapter 517, Article 3, Sections 890 – 894.2*. The Act outlines the required elements for inclusion in a bicycle transportation plan in order for cities or counties to be eligible for Bicycle Transportation Account (BTA) funds. The *Bicycle Transportation Act* provides state funds for city and county projects that improve safety and convenience for bicycle commuters. The City of Redding's *Bikeway Action Plan 2010-2015* addresses these requirements through narrative, tables, and maps.

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*Life is like a ten  
speed bicycle. Most  
of us have gears we  
never use.*

~Charles M. Shultz

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Reproduced below are the relevant section of the Code.

#### **California Streets and Highways Code Section 891.2:**

A city or county may prepare a bicycle transportation plan, which shall include, but not be limited to, the following elements:

*The estimated number of existing bicycle commuters in the plan area and the estimated increase in the number of bicycle commuters resulting from implementation of the plan.*

*A map and description of existing and proposed land use and settlement patterns which shall include, but not be limited to, locations of residential neighborhoods, schools, shopping centers, public buildings, and major employment centers.*

*A map and description of existing and proposed bikeways.*

*A map and description of existing and proposed end-of-trip bicycle parking facilities. These shall include, but not be limited to, parking at schools, shopping centers, public buildings, and major employment centers.*

*A map and description of existing and proposed bicycle transport and parking facilities for connections with and use of other transportation modes. These shall include, but not be limited to, parking facilities at transit stops, rail and transit terminals, park and ride lots, and provisions for transporting bicyclists and bicycles on transit or rail vehicles.*

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mented Bikeway Plan is necessary to identify existing deficiencies, recommend upgrades, and establish timing and funding priorities.

Until a Comprehensive Bikeway Plan is adopted, Figure 2-3 [map, not reproduced] should be used to plan for a well-integrated bikeway system. The system should include all classes of facilities as addressed in table 2-1 [not reproduced].

**GOAL T8**

**Make it Easier and Safer for People to Travel by Bicycle**

Policies to achieve this goal are to:

**T8A.** Develop and maintain a Comprehensive Bikeway Plan geared to establishing an integrated bicycle system.

**T8B.** Incorporate facilities suitable for bicycle use in the design of interchanges, intersections, and other street-improvement/maintenance projects.

**T8C.** Make improvements to streets, signs, and traffic signals as needed to improve bicycle travel.

**T8D.** Keep bikeways free of overhanging shrubbery, debris, and other obstacles.

**T8E.** Install bicycle parking in the Downtown area and at City parks, civic building, and other community centers.

**T8F.** Support the efforts of the Redding Area Buss Authority (RABA) to provide bicycle racks on all buses within the system.

**T8G.** Require new development to provide bicycle facilities or pay in-lieu fees based on the fair share of that development's impacts on the bikeway system and needs identified on the Comprehensive Bikeway Plan.

**City of Redding Parks, Trails and Open Space Master Plan 2004**

Between 2001-2004, the City of Redding's Community Services Department developed the *Parks Master Plan*, comprehensive planning document for the City's park system through 2024. Adopted in 2004, the *Parks Master Plan* provided additional policy guidance for the bikeway system in advance of a more specific plan.

**Bikeways**

**Goal TB4**

**Make it Easier and Safer for People to Travel by Bicycle**

Policies to achieve this goal include:

**TB4A Bicycle Plan.** Implement the goals and policies found in the "1998 Redding Bicycle Plan." Incorporate the bikeway components of this document into subsequent revisions of that Plan.

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*If constellations had been named in the 20th century, I suppose we would see bicycles.*

~Prof. Carl Sagan

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# Bike Challenge

a collaborative effort of the bicycling community



## 2015 Bike Challenge May 1 - 17th

### [Shasta Bike Challenge Stats](#)

Register now for the 2015 Shasta Bike Challenge! And check out the great Bike Month events throughout May.

## In the Lead

### 16-Apr-2015 Update

Team registration for the Shasta Bike Challenge is now open - team captains who register their team (with at least 5 participants) by **April 24th** will receive a **Free Team Captains** to help their team succeed. It will include posters, bike maps, water bottles, patch kits and more! [Register now.](#)

This year the Shasta Bike Challenge is also part of the National Bike Challenge, which offers a more interactive website, an option to log your trips with apps such as Strava and MapMyRide, and opportunities to win more prizes (May 1-17 locally; through September nationally). See how your team compares across the country! Another change is that recreational bicycling counts in addition to bicycling for transportation.

[Earlier Updates](#)

<http://>

### What is the Shasta Bike Challenge?

Dust off your bike and join the Shasta Bike Challenge! Get a free entry into a drawing for great prizes each day you ride your bicycle to work, school, or wherever you want to go! This year's Challenge runs May 1 to 17 and recreational bicycling counts as well as commutes. The more days you ride, the more likely you'll win a prize.

For even more fun, form a workplace or school based team and invite others to give bicycling a try. Workplaces often use the Challenge for team building, worksite wellness, or to create a bicycle friendly environment. Workplace teams compete for glory and a bike rack, while each student on the top school team will get t-shirts. The Challenge is designed to encourage more people to bicycle more often and appeals to bicyclists (and not yet bicyclists) of all levels.

New for 2015 - the Shasta Bike Challenge has merged with the National Bike Challenge so when you log trips and miles it counts double!

Join the fun! Even if you have not ridden a bicycle since childhood now is the time to get in gear and give it a try.

## How to take the Shasta Bike Challenge

1. Team captains can register their teams at the Team Sign-Up button on the right.
2. Individual participants can sign up at the [National Bike Challenge website](#) (you will automatically be added to the Shasta Bike Challenge when you use a Shasta County zip code).
3. Be sure to add your workplace or school to your 'profile' after you register so your team gets credit.
4. Get in gear and ride for transportation, sport and fun May 1 to 17.

## 2015 Bike Month Events

Mark your calendar for great 2015 Shasta Bike Month events!

[2015 Bike Month Calendar of Events with Full Details \(pdf\)](#)

[BIKE CHALLENGE HOMEPAGE](#)

[NEWS AND UPDATES](#)

[BIKING TIPS & RESOURCES](#)

[PAST WINNERS](#)

[Participant Sign-up](#)

At the National Bike Challenge Website

[Team Captain Sign-up Form](#)

For Team Captains creating a New Team Only

[Log Trips & Miles](#)

At the National Bike Challenge Website

## Contact Info

Email: [bike@healthyshasta.org](mailto:bike@healthyshasta.org)

Phone: (530) 229-8243

## Brought to you by...

Bike Month and the Bike Challenge is a collaborative effort of various organizations and volunteers. Thank you to the following who make it all possible:

Remember the Drive-In? Now you can "Bike-In" to enjoy an outdoor movie in celebration of Shasta Bike Month. The feature film will be the popular bicycling classic, *Breaking Away*. Friday, May 22nd at 8 pm (movie begins when it gets dark, around 8:30 pm) in the Market Street Promenade (north end on the lawn near the Shasta College downtown location). *Breaking Away* is rated PG and was nam.. [read more](#)

## Spring Spin Celebration

New event this year - the Spring Spin Celebration is a great opportunity to fuel your ride and mingle with other bicyclists in a fun and festive setting. A great place to stop on your evening commute or plan a group ride to this event after work for your Shasta Bike Challenge team! Friday, May 8th, from 4 pm - 7 pm Grab your bike and spin on over to the Quary Patio at Turtle Bay Explora.. [read more](#)

## Bike to School Day is May 6th!

Hey kids! Add more fun to your school day by riding your bike to school Wednesday, May 6th! Join students from all over the nation, including schools here in Shasta County in riding bikes to school. Live too far to bike? Choose a location closer to school, like a park or store, and meet up with friends, teachers and parents for a ride into school. Promote your event by using these flyers: B.. [read more](#)

## Kick Off Bike Month with Streets Alive!

Kick off Shasta Bike Month with Streets Alive! Family Bicycling Day in downtown Redding. This great 'open streets' event by Shasta Living Streets will take place Sunday, May 3rd, on California Street near Placer. California Street will be turned into a car-free zone with a variety of activities going on. More information at Shasta Living Streets website. (<http://shastalivingstreets.org/family-bicy..>) [read more](#)

## Win Great Prizes for Simply Riding Your Bike

Get entered into the free Shasta Bike Challenge drawing each day you ride your bicycle to work, home, school, errands, a coffee shop, the park or other destination! This year, recreational rides and mountain biking count, too. Simply log all your bicycle rides between May 1 and May 17, 2015. 2015 Shasta Bike Challenge Prizes - Full List of Local Prizes ([http://healthyshasta.org/bikechallenge/..](http://healthyshasta.org/bikechallenge/)) [read more](#)

## Fuel Your Ride with Free Pancakes

Free Pancake Breakfast & Valet Bicycle Parking Friday, May 15, 6-10 am, Roaring Gulch (downtown Redding) Secure valet bicycle parking and FREE pancake breakfast tickets for the first 150 people who bicycle to the Asphalt Cowboy's famous outdoor pancake breakfast (watch for bicycle corrals near Market and Placer intersection). Valet bicycle parking and breakfast tickets provided by the Sh.. [read more](#)

## Bikes-N-Books

What better way to celebrate Bike Month than to curl up with a great bicycling book after your next ride? Even better is to take the whole family for a ride followed by storytime! Reading at least 20 minutes a day with young children prepares them to be successful students and strong readers in the future. And regular physical activity helps students focus and be ready to learn. Book Lists .. [read more](#)

## A Special Thanks

Major sponsors and organizers of Bike Month 2015 & the Shasta Bike Challenge include: Shasta Wheelmen Shasta Safe Routes to School Healthy Shasta Caltrans District 2 Shasta Living Streets Owens Healthcare Turtle Bay Exploration Park Redding Electric Utility Redding Area Bus Authority - RABA The Bike Shop Sports LTD Chain Gang Village Cycle Ride On Race Serie.. [read more](#)

## Got a bike commute question? Need some advice?

Got a question? Shasta Living Streets is available to answer your bike commute questions! Contact them through Facebook (<https://www.facebook.com/shasta.streets>), Twitter (<https://twitter.com/ShastaLivingSts>), or email. Free! Bicycle Commute Coaching Take advantage of a Shasta Living Streets Commute Coach to help you integrate more bicycling and walking trips into your weekly routine. ... [read more](#)

# Turtle Bay School Avoids the Loop



Turtle Bay School in the City of Redding serves 720 students from kindergarten through eighth grade, sixty-two percent of whom live outside the school's attendance area. This means that by 7:40 am, there is a snarl of traffic on the school's one-way driveway during school drop-off.

A Turtle Bay School parent had been participating in the school's Parent Faculty Club when she heard about Shasta County Public Health Department's Safe Routes to School (SRTS) program. Pure frustration with traffic, a can-do attitude, the assistance of the SRTS program, and the ability to commit a morning each week propelled this parent champion to launch *Avoid the Loop*, a campaign to promote more walking and, therefore, less driving to school every Friday of the school year.

When the principal introduced *Avoid the Loop* to faculty, the art teacher offered to invite her students to make posters to promote the campaign. Other teachers offered extra credit for walkers. The school secretary included Walk to School Fridays in the weekly newsletter, posted *Avoid the Loop* reminders on the school's reader-board, and hung up posters with a band of students each Thursday.

Every Friday at 7:15 am, come rain or shine, fall, winter, and spring, this parent champion met eager walkers at the nearby Caldwell Park. "Its huge parking lot made it easy for parents to drive through. Even children at the nearby apartment complex who were eligible to use the district school bus often met us at the park." Back at the school, the principal recruited whichever teachers were available that day. Teachers hopped in the principal's car and headed to the park. "We had different teachers each week," the parent champion remarked. "Parents don't know me, but they knew the principal and the teachers. That made them trust the program. The children thought it was fun to walk with their teachers."

On nice days, the group swelled from 30 to 60 students and they chose the scenic one-mile river trail. On dark rainy mornings, they donned rain gear, popped open umbrellas, and took a shorter sidewalk route. "We were a walking advertisement when we took to the road. Parents and students would drive by and we'd wave. The children in the cars saw they were missing the fun."

*Avoid the Loop* has been a team effort. With strong support from the principal, staff, students, and one dedicated parent volunteer, there is a little less traffic congestion on Friday mornings at Turtle Bay School.

## KEYS TO TURTLE BAY'S SUCCESS:

- Having a parent champion
- Getting principal's buy-in early and using the principal to encourage teacher participation. Children love it when their teachers walk with them
- Promoting the program through a variety of approaches (e.g. involving students, making posters, doing announcements, etc.)