

PROJECT APPROACH

Task 1: Draft and Final Existing Conditions Report

1.1. Kick-Off Meeting

The Green DOT project team will meet with the TCTC to refine the project scope and schedule. During this meeting, we will discuss regional issues and background information pertinent to the development of the RTP with TCTC staff. We will also use this time to set up communication protocols, TCTC staff participation expectations and document format.

1.2. Review Existing Data and Plans

The project team will work closely with existing planning and technical documents through collection, reviews and incorporation of relevant data. We will utilize the existing baseline data that has been developed over the last few years. Technical data collection will include existing safety, traffic volumes, collision data, and pavement condition. Documents will include but are not limited to: Tuolumne County Recreation Master Plan, Summerville Trail Feasibility Study, Tuolumne County Bikeways and Trails Plan, Tuolumne County ATP applications, SR 49 Jamestown to Columbia Complete Streets Plan, Regional Transportation Plan (2017, Six County Inter-Regional Bicycle Tourism planning project (In-progress), 10 Year SHOPP, Transportation Concept Reports, Strategic Highway Safety Plan, circulation element, local jurisdiction housing elements, Pavement Management System reports and any pertinent planning documents from other entities.

1.3. Community and Demographics Profile

The project team will compile, analyze, and project existing demographic and economic conditions information such as population, land use, proposed developments, population growth, connectivity to neighboring counties, and regional characteristics. Data will be collected from the most current census data, the American Community Survey and any other relevant and helpful sources. Demographic and economic information is necessary for both the Tuolumne Active Transportation Plan as well as future ATP grant applications. Consistent with ATP grant guidelines and other grant program requirements, Green DOT will identify disadvantaged communities within Tuolumne County.

1.4. Safety Study

For competitive grant programs such as the Active Transportation Program and the Highway Safety Improvement Program, collision data is especially powerful. Our project team will gather the last 10 years of available traffic collision data and assemble it in the existing and future conditions chapter. Our goal is to not only tell the story of roadways and intersections in the region, but to have easily accessible and extractable data during grant application development periods. The Safety Study will include a collision analysis of incidents involving people walking or people on a bicycle and will focus on intersection safety and safety within school zones.

1.5. Develop Priorities, Goals, and Objectives

The Green DOT team will look at the priorities, goals and objectives developed in the 2017 Regional Transportation Plan update and other relevant regional documents as a starting point to develop consistent goals for the ATP. In addition, draft priorities, goals and objectives will be presented at the community workshops detailed in *Task 3: Public Participation* to gauge the community reaction and collect any relevant input.

Task 2: Active Transportation Infrastructure Gap Analysis

2.1. Inventory Existing Non-Motorized Travel and Infrastructure Data

The project team will begin our existing conditions report by reviewing existing plans and projects to identify useful information to use in the ATP and future ATP grant applications as well as to identify remaining data gaps. The Green DOT team will use a combination of document review, remote analysis and field visits to compile an inventory of existing active transportation infrastructure and travel demands in Tuolumne County. We will inventory existing bicycle and pedestrian infrastructure, existing transit stops, school routes, and other routes connecting significant origin and destination points.

Remote Analysis

First, we will utilize remote technology to inventory significant existing pedestrian infrastructure. We will use a combination of ESRI ArcMap, Google Earth, and Google Maps Streetview to assess the presence of sidewalks, ADA compliant curb ramps, obstructions or hazards to pedestrians, traffic lights, signage, transit stops, schools and school zones, and crosswalks. Each category will be mapped and displayed in a visually-appealing manner, as well as catalogued in a digital database. From this point, we will create base maps as well as maintain a digital database for future use by the TCTC.

Field Analysis

Walking audits will be performed at up to 20 locations considered by the TCTC to be significant pedestrian areas (current and planned). We will use our existing data collected in the remote analysis to field check the data and visually inspect areas that prove challenging to map in the remote exercise. We will utilize Trimble TerraFlex in the field to capture data. We have pedestrian infrastructure audit forms prepared in TerraFlex and will use this application to test our map exercise and collect more accurate real data.

Travel Behavior

The project team is experienced with conducting bicycle and pedestrian counts consistent with accepted guidelines and standards. Bicycle and pedestrian counts will aid in determining key routes and destinations/origins accessed by active transportation users and is also a key component of acquiring future funding. Bicycle and pedestrian counts can be taken at up to six locations, as determined by the TCTC. This count effort could be expanded as well if the TCTC wants to get community organizations or schools involved. Green DOT would provide training to all counting groups.

Regional and city-wide travel patterns will also be analyzed and summarized for this ATP document. The Green DOT team will analyze existing traffic censuses, major employer sites, recreational and tourist destinations within the County, schools, residential points of origin, and other origin and destination points throughout the County to develop a series of travel flow maps.

Prepare Maps

The Green DOT team will prepare GIS based maps using ESRI ArcMap that display both the existing infrastructure and to identify infrastructure gaps for each jurisdiction in Tuolumne County at a constant scale. The maps and digital database will include features such as existing infrastructure and infrastructure gaps, projected active transportation and vehicle traffic volumes, vehicle traffic flows, bicycle and pedestrian travel flows, collision location and severity, and other layers as deemed appropriate by the TCTC.

Task 3: Public Participation

3.1. Outreach Materials

We will develop all outreach and meeting materials with a cohesive design theme. We have the in-house ability to develop a project-specific logo and a design theme including a color scheme in a cost-efficient manner. Materials for meeting advertisement will be developed and distributed under the guidance of the TCTC, including newspaper ads, paper and digital flyers, and media to be shared via social media, a project specific website, and/or tuolumnecountytransportationcouncil.org. We will also design all meeting materials in a consistent theme, including sign-in sheets, project infographics, comment cards, surveys, project maps, County base maps, existing conditions maps, and any other materials as approved by the TCTC.

3.2. Community Workshops

The Green DOT team will plan, prepare for, and facilitate up to 6 community workshops for this ATP. We suggest holding two sets of meetings – one set to act as an introductory meeting in communities throughout the County, and a second set to act as a “final” meeting to present the draft Project List. The Green DOT team suggests the following Workshop schedule:

1. Introductory Workshops – Inform public and solicit input
 - i. Sonora
 - ii. Groveland
 - iii. Tuolumne Rancheria
2. Final Workshops – Present Draft Project List
 - i. Sonora
 - ii. Groveland
 - iii. Tuolumne Rancheria

The Introductory Meetings will introduce the ATP project to the community and will provide interactive exercises with the public to develop priority projects to include in the ATP. This meeting will narrow down the most important topics and issues the community feels are pertinent, prioritize the projects and provide any recommendations they may have. The project team will emphasize social equity with input from the community. To accomplish meaningful participation from the public, Green DOT will prepare

interactive exercises between the consultant and community. We will prepare large-format maps for people to write areas of concern directly on.

The Final Workshop will allow for further stakeholder input. The second community workshop will act as an update to present progress made since the first meeting back to the public. It will also serve as a forum for input on projects and project prioritization. By this point in the development of the Plan, we can present a full list of tentative projects to the community and conduct interactive exercises to have the community rank the known projects in order of priority.

3.3. Groveland Community Meeting

Host a community meeting following up on original meeting but with 1-2 Groveland ATP projects further developed. Present planning level project concepts and receive feedback.

3.4. Public Participation Report

The project team will conclude the workshops by drafting meeting minutes and eventually will include a full public outreach summary for inclusion in the final Active Transportation Plan, which will include meeting photos, turn out, and workshop findings. This compilation of community participation is critical for future grant applications, including the Active Transportation Program. The Active Transportation Program awards a significant amount of points for agencies that are able to fluently document community support for a project.

Task 4: Prioritize Active Transportation Projects

4.1. Prioritize Active Transportation Projects

Under direction of TCTC staff, the project team will create a draft list of priority projects based on the needs and wants of the community to be ready for Cycle Five (5) of the Active Transportation Program. The priority project list will be a section of the ATP that is focused on immediately upon project implementation to flush out obvious candidates for the upcoming ATP cycle.

Input received through the community outreach campaign will be heavily weighted and considered throughout the process of developing a project inventory. In addition, historical project needs as discovered through the review of existing documents in previous tasks will be included on the project inventory.

Create Regional List of Prioritized Projects

The feedback collected during the community workshops, and other forms of input collected during the development of the plan will aid in deciding which projects will ultimately be included in the final Active Transportation Plan. The Green DOT team will develop a scoring metric for project prioritization. This will include sidewalk improvements, connectivity improvements, gap closures, ADA access improvements, and street crossing projects identified in previous tasks. We will assist the TCTC in ranking projects based on cost-effectiveness, value to the community, and preparedness and alignment with funding programs such as the Active Transportation program.

Develop a Table Reflecting Preferred Facilities by Road Classification

The project team will develop a set of data tables that will include information such as areas of high concern (i.e. safety concerns for pedestrians and areas proximate to elementary schools), intersections or corridors identified as major hazards, and a quantified analysis of infrastructure gaps and needs. Tables will be broken down at the County and community level and broken down at the classification level. The data developed in the infrastructure audit will be analyzed using ArcGIS and exported to excel to create aesthetically-pleasing and informative tables. Criteria such as total length of sidewalks and total sidewalk gaps can easily be tabulated in ArcMap and included in data tables.

4.2. Conceptual Designs and Renderings of Active Transportation Projects

Based on the results of the project prioritization and feedback from the community, we will prepare preliminary, planning-level conceptual designs for the top eight ranked priority projects. The concept plans will include layout and plan view details, can be used in community workshops and ultimately in future grant application efforts.

4.3. Cost Estimates for Active Transportation Projects

The conceptual designs developed in *Task 4.2* will include measurements of distances and quantities of improvements to be used in developing cost estimates. Green DOT will work with TCTC engineers to develop project costs including general and preliminary engineering costs, right-of-way (ROW) acquisitions (if applicable), construction engineering costs, overhead construction costs, administrative costs, and all other items required by Active Transportation program cost estimates for each top priority project.

4.4. Prepare Project Descriptions

Project list development and community outreach results in Groveland identified 2-3 projects in the community that can be further developed in preparation of upcoming funding opportunities. Project team will prepare project descriptions for 2-3 projects in Groveland.

4.5. Project Site Visits

Facilitate site visits of 2-3 projects that includes project sponsors or champions. Draft field notes and outcomes of the site visits for inclusion in concept development.

4.6. Prepare Project Concepts

Prepare planning level project concepts of 1-2 projects in Groveland. This will include cross sections, plan view alignments of trail or sidewalk segments, and conceptual sketches of intersection improvements.

4.7. Transportation Planning Scoping Information Sheets for projects on State Highways

Prepare Transportation Planning Scoping Information Sheets for projects identified on State Highways. This information will include pedestrian, bike and transit needs and be prepared in the format requested by Caltrans. This task is intended to ensure the integration of projects from this Active Transportation Plan effort and the State's efforts to develop Active Transportation Plans for State Highways.

4.8. Systemic State Highway Improvements

Develop list and descriptions for systemwide improvements such as shoulder improvements and rumble strips. This would include gap fill location identification and shoulder standards.

4.9. TPSIS Anchor Projects

Provide consistent and direct guidance for complete streets projects on State Highways in Tuolumne County. This includes policy directives as well as benefits analysis for complete streets.

4.10. Mode Shift and VMT Benefits Analysis

Mode Shift Analysis

The project team will develop a mode shift analysis method based on the Active Transportation Grant application analysis method for consistency. The Green DOT team will leverage the bicycle and pedestrian counts conducted in *Task 2.1* as the baseline data for projecting the potential increase of active transportation users for top prioritized projects. The project team will collect other relevant data for projecting usership numbers, including projected Tuolumne County and City of Sonora populations, enrollment for schools in the County, and general trends favoring increased active transportation use. Current active transportation counts, population, and school enrollment numbers will be used in conjunction with the projection and cost/benefit tool provided by Caltrans to arrive at the estimated post-construction usership and the associated benefit.

VMT Benefits Analysis

A VMT cost-benefits analysis will be conducted for the top priority projects in alignment with accepted Active Transportation program methods. Potential for increased walking and bicycling will be based quantified by identifying routes to and from schools, major employment centers, transit stops, community centers, recreational destinations, existing active transportation facilities and residential areas. The benefits analysis will be based on cost savings related to reduces traffic congestion and shorter travel times, energy consumption savings, air pollution reductions, greenhouse gas emissions reductions, and improved health and lowered health costs.

4.11. Project Funding

Compile Funding Sources List

The project team will assist the TCTC in identifying and tracking potential funding sources. We will compile a list of state and federal funding programs from various agencies that are available for the projects included in the priority project list of the ATP. We will catalogue potential funding sources by what type of projects they fund of the projects on the ATP list. We will track deadlines, project call dates, minimum and maximum funding amounts, and key program requirements. We will create a draft funding sources list to be presented to the TCTC for eventual inclusion in the final Active Transportation Plan.

Develop Local Agency-Specific and Regional Funding Strategies

The Green DOT project team has extensive project management experience and is capable of developing an efficient way to help the TCTC track and pursue funding opportunities, as identified in the previous subtask. We are dedicated to incorporating as many elements as possible needed for grant opportunities into the development of the Active Transportation Program. We are especially familiar with the Active

Transportation Program, a large state program responsible for funding bicycle and pedestrian projects and will incorporate the necessary items into the Plan.

Develop an Implementation Plan

The Green DOT team will develop an Implementation Plan for inclusion in the draft Active Transportation Plan. The Implementation Plan will provide a set of strategies and a timeline for the TCTC to meet the objectives set in the Plan and to pursue funding opportunities. The Implementation Plan will specifically include a section on Caltrans ATP grant program preparedness.

Task 5: Active Transportation Plan

5.1. Admin Draft – Active Transportation Plan

The Green DOT team will compile a draft Active Transportation Plan. The initial draft ATP document will include but not be limited to the following sections:

- Introduction
 - Benefits of Active Transportation
 - Health and Fitness
 - Safety Environmental Awareness
- Existing Conditions
 - Demographic and economic data
 - Maps showing medium household income and disadvantaged communities by census track, consistent with Active Transportation Program requirements
 - Infrastructure audit
 - Infrastructure maps and gaps
 - Connectivity maps
 - Collision data and maps
- Goals and Objectives
- Performance Measures
- Priority Project List
 - List of projects
 - Design Standards
 - Conceptual Designs
 - Project Cost Estimates
- Funding Opportunities
- Implementation Plan

5.2. Public Draft Active Transportation Plan

After an administrative draft is presented to the TCTC and preliminary internal comments are addressed, Green DOT will develop a public Draft Active Transportation Plan.

Present the Draft Plan

The Green DOT team will organize a presentation of the Draft Active Transportation Plan during the final public workshop(s). The Draft ATP will be distributed online using the project specific website and tuolumnecountytransportationcouncil.org and will be promoted on social media.

Address Comments

Any comments received from the public or from stakeholders during public meetings, through the digital campaign, or during any other portion of the outreach process will be reviewed thoroughly and implemented into the Final ATP if applicable.

5.3. Final Draft ATP and Final TCTC Approved ATP

The Green DOT team will organize a presentation and deliver hard copies of the Final ATP to the TCTC during a regular public meeting.

Production of Final ATP incorporating all revisions, comments, and additional topics identified during the development of the plan will be presented to the TCTC. The Green DOT team will organize a presentation and deliver copies of the draft ATP to the TCTC during a regular public meeting. We will provide hard-copies and electronic copies of the Final RTP for review, and all associated root files will be delivered electronically for review as well.

COST SCHEDULE

The following proposed Cost Schedule includes all costs necessary for Green DOT to develop the Tuolumne County Active Transportation Plan.