Draft Preferred Alternative for the Murphys Complete Streets Plan

The Murphys State Route 4 (SR 4) Complete Streets Project evaluates the SR 4 corridor through Murphys, California, and identifies improvements to provide safe connectivity by all modes, including walking and biking, throughout the community and to key destinations.

The Project Team – PlaceWorks, Fehr & Peers and ActiveWayz Engineering, working with Calaveras Council of Governments (CCOG), Calaveras County and Caltrans – previously developed two alternatives for the study area. The alternatives were presented to an Advisory Committee on June 18, 2018 and then at a community workshop on June 27, 2018. They were also available for review on the website (www.murphyscompletestreets.com) and at a project field office in Murphys.

This Draft Preferred Alternative was developed using input from the community workshop and the other input venues listed above. The concepts in the preferred alternative have been shared in a meeting with Caltrans and the County of Calaveras but more detailed review by Caltrans and the County will be required before any of the concepts can move forward to the next steps of finding funding, developing detailed plans, and implementation.

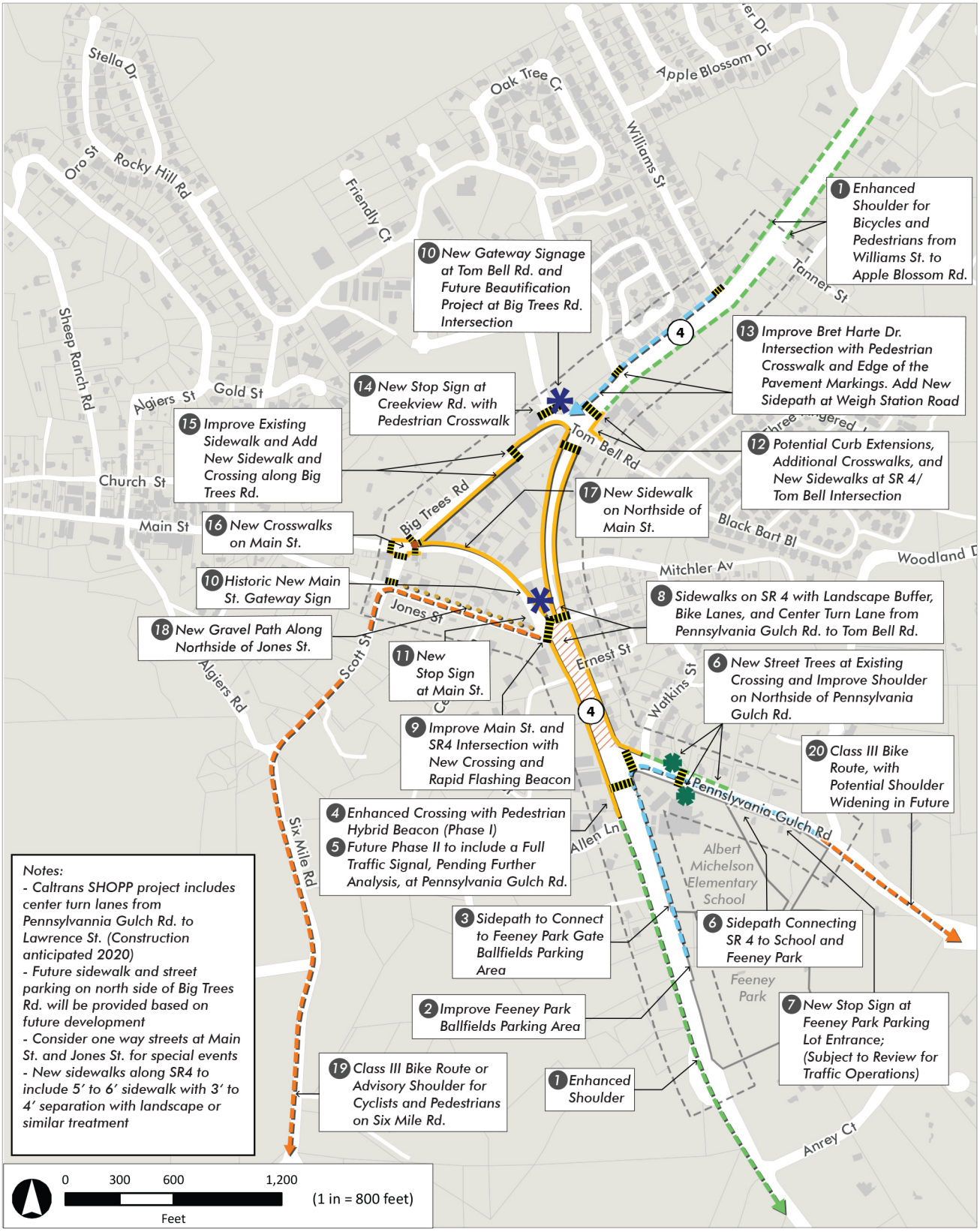
The Draft Preferred Alternative is described as a set of concepts for improvements in the Study Area, as shown in the following descriptions and diagrams. They describe a vision for improvements and are therefore still conceptual in nature. They will be presented to the community at a workshop on October 24, 2018, at which we will guide the community through a discussion to prioritize the concepts in the order of importance to community members.

A note on orientation: SR 4 does not pass through Murphys in a clear east-west or north-south direction. Because most people think of SR 4 as running generally east-west (connecting the valley to the mountains or vice-versa) this report uses “east” and “west” when referring to SR 4.

The Project Team welcomes your input on these concepts to improve pedestrian and bicycle safety, comfort and convenience in Murphys!

10/23/2018

MURPHYS COMPLETE STREETS – 10/23/18	
DESCRIPTION OF ISSUES	**PREFERRED ALTERNATIVE**
State Route 4 through Murphys is a challenging corridor to navigate for pedestrians and bicyclists. There is a need for improvement due to a high percentage of seniors, a lower than county average median income, and the presence of the Albert Michelson Elementary School across the highway from downtown Murphys and nearby residential development. In meetings with an Advisory Committee and at community outreach events, community members supported the goal of improvements for pedestrians and bicyclists. The project team used input from these meetings and events to review alternative ideas for improvements and refine those ideas into this preferred alternative.	Overall Description. The Draft Preferred Alternative envisions a high visibility pedestrian crossing of SR 4 at Pennsylvania Gulch Road, and significant multimodal improvements along SR 4 in the central section from Pennsylvania Gulch Road to Tom Bell Road, using Caltrans Context Sensitive Solutions. Here are the key elements of the Draft Preferred Alternative, with more detail provided on the following pages. In the central section of SR 4 from Pennsylvania Gulch Road to Tom Bell Road: + 5' to 6' wide sidewalks on both sides of SR 4, allowing safe circulation for users on both sides, with a buffer (with landscaping or other treatment) to separate pedestrians from traffic and match the rural character of Murphys + Class II buffered bike lanes on both sides of SR 4 + New street lighting limited to key intersections only + The central turn lanes proposed for the Caltrans SHOPP project should extend from Pennsylvania Gulch Road to Tom Bell Road to make this central section of SR 4 a consistent and safe corridor for autos, bicycles and pedestrians Outside the central section of SR 4: + An 8' wide sidepath (a separated pathway for use by pedestrians and bicyclists) to be provided in key locations See Draft Preferred Alternative Study Area Diagram and Street Sections, immediately following the Glossary and Menu of Improvements on the next pages.



Source:ESRI, 2017; Calaveras County, 2017; PlaceWorks, 2018.

SR 4 Complete Streets Corridor
Buildings
Proposed SHOPP project
Enhanced Crossing
Sidepath
Class II or Enhanced Shoulder
Class III Bike Route or Advisory Shoulder
Sidewalk
Gravel Path or Alternative
Trees
Gateway Signage

PLACEWORKS

Draft Preferred Alternative Study Area Diagram

GLOSSARY AND MENU OF IMPROVEMENTS

Improvements for pedestrians, bicyclists, transit, and vehicles are defined here, including photos of existing facilities in other locations for reference.

Multimodal Improvements. Multimodal improvements are those that benefit all modes of travel: pedestrian, bicycle, transit and vehicle. Multimodal facilities are also referred to as complete streets.

Sidewalk with Buffer. Sidewalks provide dedicated space intended for use by pedestrians that is safe, comfortable, and accessible to all. Sidewalks are physically separated from the roadway by a curb or buffer space. Buffers can be filled with landscaping or other materials that contrast with the sidewalk, such as gravel or colored paving.

Class II Buffered Bike Lanes. Class II bike lanes designate an exclusive space for bicyclists through the use of pavement markings and optional signs. A bike lane is located directly adjacent to motor vehicle travel lanes and follows the same direction as motor vehicle traffic. Bike lanes may be enhanced with a longitudinal marked buffer area for more separation distance. This treatment is appropriate for bike lanes on roadways with high motor vehicle traffic volumes and speed, adjacent to parking lanes, or on roadways with high volumes of truck or oversized vehicle traffic.

Central Turn Lanes. A continuous vehicle lane in the center of a street that allows turning movements for vehicles. Turning movements are allowed in both directions.

Separated Sidepath. A sidepath is a bidirectional shared use path located immediately adjacent and parallel to a roadway. Sidepaths can offer a high-quality experience for users of all ages and abilities as compared to on-roadway facilities in heavy traffic environments, allow for reduced roadway crossing distances, and maintain rural and small town community character.

Sidewalk with Buffer

Buffered Bike Lanes and Central Turn Lane

Separated Sidepath

Enhanced Shoulders. Paved shoulders on the edge of roadways can be enhanced to serve as a functional space for bicyclists and pedestrians to travel in the absence of other facilities with more separation. The recommended minimum width for a roadway with a 45 MPH speed limit is 6.5 feet.

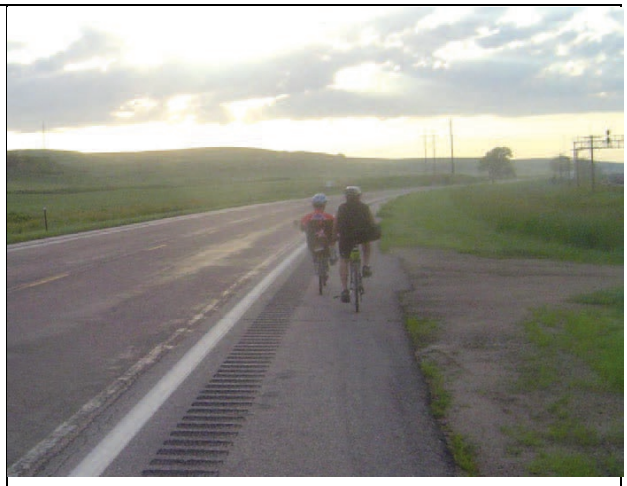
Warrants. Caltrans requires an engineering study of traffic conditions, pedestrian characteristics, and physical characteristics of a location to determine whether installation of a traffic control signal is justified at a particular location. Warrants are investigations of the need for a traffic control signal that include an analysis of factors related to the existing operation and safety at the study location, and the potential to improve these conditions.

High Visibility Pedestrian Crossing. Marked crosswalks are at intersections or midblock crossings. The minimum width for a marked crosswalk is 6 feet. For improved visibility, the preferred crosswalk marking pattern is the high-visibility "continental" crosswalk marking.

Pedestrian Crossing Beacon. (Also called a Pedestrian Hybrid Beacon.) A traffic control device designed to help pedestrians safely cross busy or higher-speed roadways at midblock crossings and uncontrolled intersections. The beacon head consists of two red lenses above a single yellow lens. The lenses remain "dark" until a pedestrian desiring to cross the street pushes the call button to activate the beacon. The signal then initiates a yellow to red lighting sequence consisting of steady and flashing lights that directs motorists to slow and come to a stop. The pedestrian signal then flashes a WALK display to the pedestrian. Once the pedestrian has safely crossed, the hybrid beacon again goes dark.

Full Traffic Signal. An intersection with an overhead traffic signal that controls movement of vehicles.

Class III Bike Route. Class III bikeways, or bike routes, designate a preferred route for bicyclists on streets shared with motor traffic not served by dedicated bikeways to provide continuity to the bikeway



Enhanced Shoulder

High Visibility Pedestrian Crossing and Pedestrian Crossing Beacon

Class III Bike Route

network. Bike routes are established by placing bike route signs and optional shared roadway markings (sharrow) along roadways.

Mountable Curbs. Mountable curbs, sometimes referred to as roll curbs, have sloping faces that allow vehicles to encroach on them without damaging tires and wheels; they are sometimes required by emergency service providers.

Gravel Sidewalk. A lower cost alternative to a concrete sidewalk, but typically requires more maintenance than a concrete sidewalk. Providing accessibility can be a challenge. Gravel materials should include a stabilizer to reduce maintenance.

Gateway Signage. Decorative signage that welcomes visitors. When done well and placed appropriately, they can create a sense of place, convey an image, and help visitors find their way. For Murphys, gateway signage would be appropriate at the Main Street and Big Trees Road turnoffs. Overhead signage could be considered at Main Street, but not SR 4.

Painted Curb Extensions. Curb extensions visually and physically narrow the roadway, creating safer and shorter crossings for pedestrians and calming (slowing) vehicle turning speeds. Curb extensions can be implemented using painted striping and if desired, additional materials such as bollards or planters.

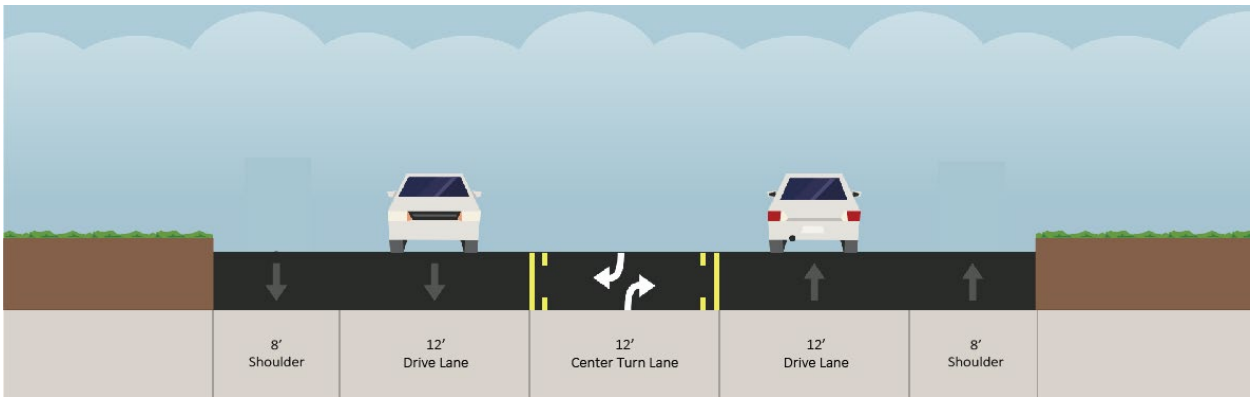
Advisory Shoulders. Advisory shoulders create usable shoulders for bicyclists on a roadway that is otherwise too narrow to accommodate one. The shoulder is delineated by pavement marking and optional pavement color. Motorists may only enter the shoulder when no bicyclists are present and must overtake these users with caution due to potential oncoming traffic.

Gravel Sidewalk

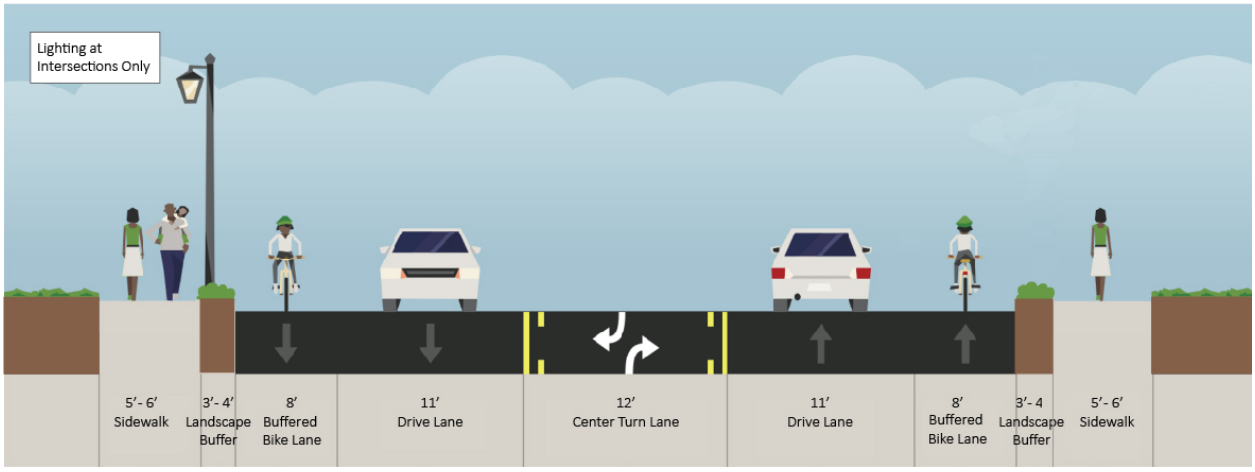
Gateway Signage

Advisory Shoulders

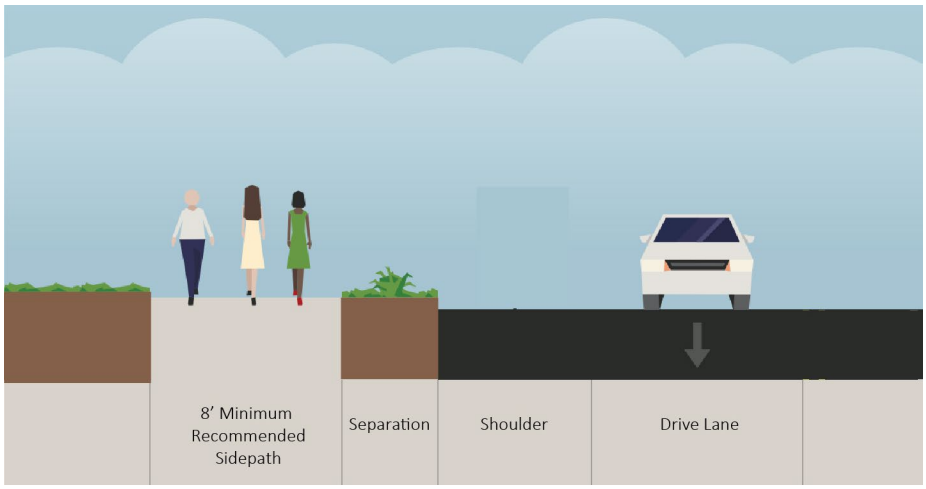
STREET SECTIONS AT SR 4



STREET SECTION OF PROPOSED CALTRANS SHOPP PROJECT – CONSTRUCTION ANTICIPATED 2020



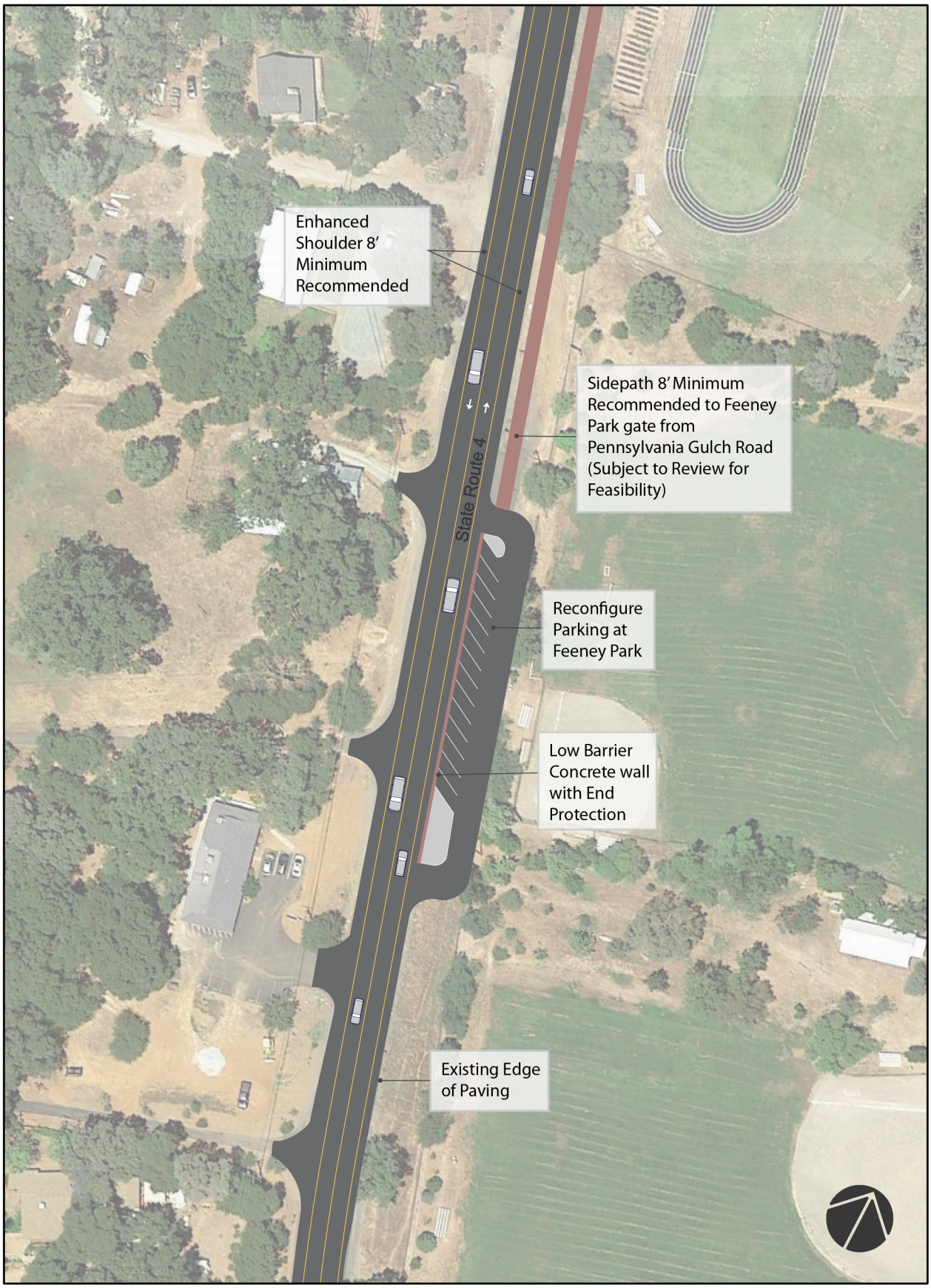
A. STREET SECTION – CENTRAL SECTION FROM PENNSYLVANIA GULCH ROAD TO TOM BELL ROAD



B. STREET SECTION – SIDEPATH OUTSIDE CENTRAL SECTION

DESCRIPTION OF ISSUES	DRAFT PREFERRED ALTERNATIVE
<u>1. SR 4 West of Pennsylvania Gulch Road to Feeney Park</u> This is the gateway into Murphys from the west. Existing pedestrian or bicycle access to this area is by using the shoulder of SR 4. Pedestrian and bicycle level of traffic stress (LTS) is ranked at 4 (i.e., walking is "very uncomfortable or impossible" and biking is only for "strong and fearless" riders). Traffic speeds are high, and collision history indicates higher collision rates in this area compared to the majority of the study area (except at Pennsylvania Gulch Road). A contributing factor to this cluster of collision incidents may be the use of an informal parking area on the south side of SR 4 to access the Feeney Park ballfields. There are multiple "welcome to Murphys" signs in this area, but all are located outside of the Caltrans right-of-way, meaning they are set far from the road, limiting their effectiveness.	A separated sidepath on the south side of SR 4 should lead from the intersection of Pennsylvania Gulch Road and SR 4 to the Feeney Park gate and associated parking lot. A minimum width of 8' for the sidepath is recommended. It appears there is space to provide the sidepath along the top of the bluff, but the rise and fall in elevation at this location will require further review to ensure it meets accessibility standards. Enhanced shoulders on SR 4 west of Pennsylvania Gulch Road should be provided to accommodate bikes and pedestrians. These shoulders may require additional paving. The shoulders could be lined on the traffic side with mumble strips (i.e., quieter than "rumble strips"), a series of depressions that make noise to alert drivers they are encroaching, subject to Caltrans review and approval. The parking lot for Feeney Park south of Pennsylvania Gulch Road should be improved with a single-in and a single-out access. The parking should also be separated from the highway by using an approved barrier. Depending on property boundaries, a maintenance agreement between Caltrans and the County may be required. After discussion with community members, the priority for new signage is to add more visible "Historic Main Street Murphys" signage at the SR 4 and Main Street intersection, rather than at this location. See Drawing 1

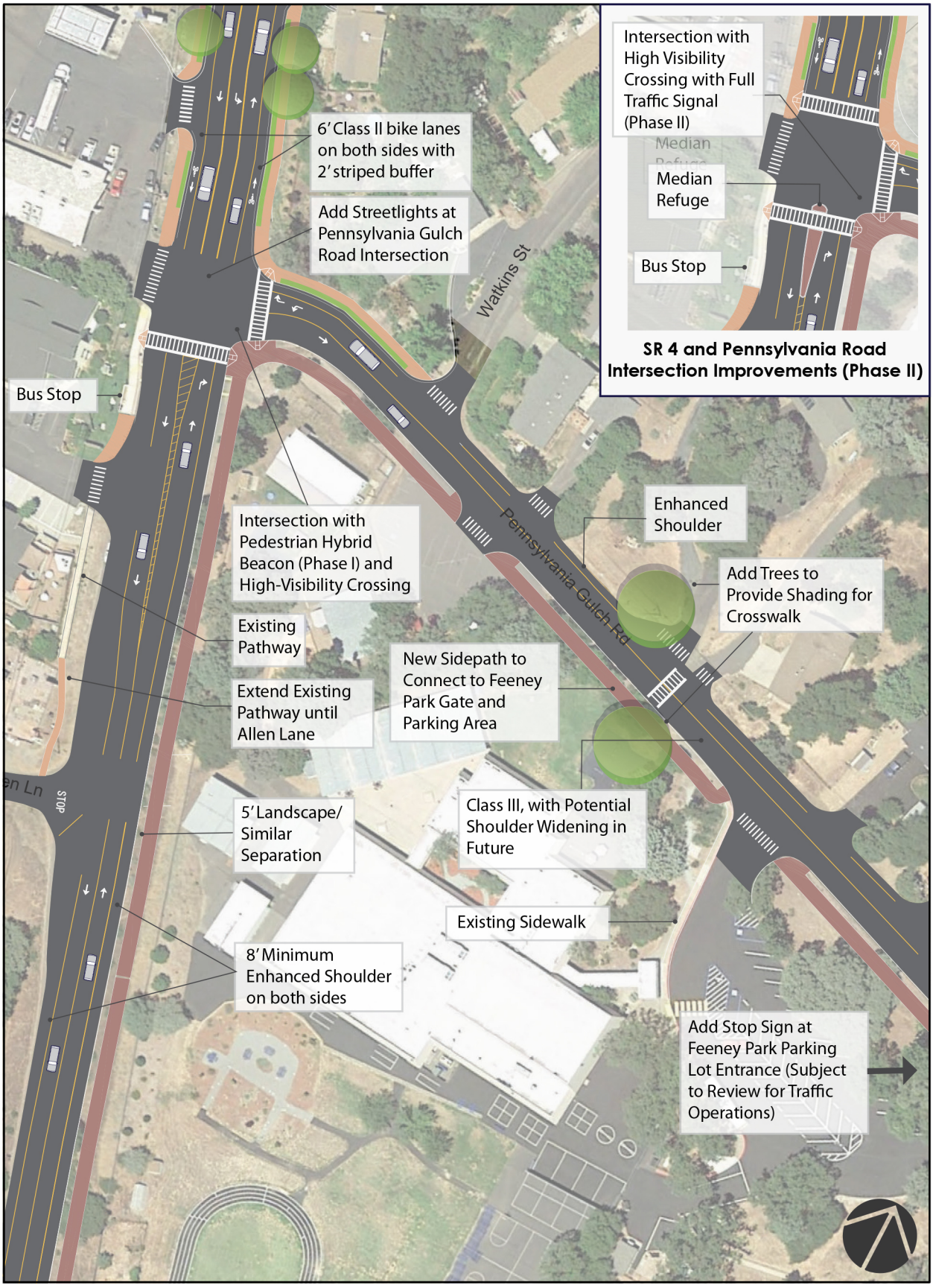
MURPHYS SR4 COMPLETE STREETS PLAN- DRAFT PREFERRED ALTERNATIVE



1. SR 4 West of Pennsylvania Gulch Road (1"=100')

DESCRIPTION OF ISSUES	DRAFT PREFERRED ALTERNATIVE
2 Pennsylvania Gulch Road. Overall, there are limited pedestrian and no bicycle facilities for students to get to Michelson Elementary School, and yet the school reports that 10 percent of students walk to school. The existing school crossing across SR 4 is very challenging; the school does not recognize it as a school crossing, and does not encourage its use. The largest cluster of collision incidents within the Study Area occurred at the SR 4 and Pennsylvania Gulch Road intersection. Residents report high traffic speeds, especially during drop-off and pick-up times, and the wide intersection doesn't help to slow traffic. Meanwhile, this is also the transit stop for westbound bus service. On Pennsylvania Gulch Road, there are not continuous sidewalks connecting from the SR 4 intersection to the school entry. Data shows many students live on the south side of SR 4 (across Pennsylvania Gulch Road from the school) but there are few facilities to walk or bike to school. Where there is a crosswalk across Pennsylvania Gulch Road, community members report sun glare impeding visibility at the crosswalk during the morning drop-off time; in addition, there is no clear pedestrian path of travel on the north side of this crosswalk. East of Feeney Park, Pennsylvania Gulch Road has a very narrow shoulder and vehicle speeds are high, creating a challenging pedestrian and bicycle environment. Meanwhile, high school students get dropped off at Michelson Elementary by the bus system; so many students walk this corridor every day.	At the Pennsylvania Gulch Road / SR 4 intersection, the improvements may need to be made in phases, due to Caltrans requirements that certain warrants regarding pedestrian use need to be met to justify the improvement. The Project Team anticipates that with other Complete Street improvements in Murphys, the warrants will eventually be met. For Phase I (short-term), a high visibility crosswalk on the south side of the intersection with a pedestrian hybrid beacon to stop traffic on demand should be provided. For Phase II (longer-term), a full traffic signal is anticipated with high visibility crosswalks on all three sides of the intersection. On Pennsylvania Gulch Road, a new sidepath for pedestrians and bicycles on the south side should be provided from SR 4 to the Feeney Park parking lot on Pennsylvania Gulch Road, which is used as the school drop-off/pick-up spot. In addition, some have asked for a stop sign on Pennsylvania Gulch Road, at the parking lot. This is a potential improvement that could be installed if it meets warrants. On the north side of Pennsylvania Gulch Road, pedestrian markings leading to the crosswalk across Pennsylvania Gulch Road to the school should be provided. New street trees should be planted on both sides of Pennsylvania Gulch Road, eventually overhanging the road to provide shade and block sun glare in the morning and evening hours. East of Feeney Park, a Class III bike route (bikes share the road with cars) should be provided on Pennsylvania Gulch Road. In a future phase, consideration should be given to widening the shoulders along Pennsylvania Gulch Road to provide more space for pedestrians and bicycles. On SR 4 in this area, an existing pathway on the north side should be extended to Allen Lane. See Drawing 2 and Visual Simulation

MURPHYS SR4 COMPLETE STREETS PLAN- DRAFT PREFERRED ALTERNATIVE



2. Pennsylvania Gulch Road (1"=100')

DRAFT VISUAL SIMULATION SHOWING IMPROVEMENTS AT PENNSYLVANIA GULCH ROAD AND SR 4

VIEW FROM PENNSYLVANIA GULCH ROAD

DESCRIPTION OF ISSUES	DRAFT PREFERRED ALTERNATIVE
<u>3. Central SR 4 and Main Street Intersection</u> Even though many important destinations are within a ¼-mile or ½-mile walking distance from residential areas, pedestrians and cyclists are not encouraged to walk or bike due to a lack of safe facilities, particularly along this central section of the Study Area. The pedestrian LTS is ranked at 4, and bicycle LTS is ranked at 3 (i.e., only for "confident" bicyclists). Community members strongly support adding sidewalks or a sidepath along SR 4, as well as adding more opportunities to safely cross SR 4, especially given the 2,000' distance between the two existing crosswalks at Pennsylvania Gulch Road and Tom Bell Road. Community members also support providing safe bicycle facilities along SR 4 given the active biking population and its importance of recreational cycling to tourism and the economy. The Main Street/Jones Street/SR 4 intersection is confusing for vehicular traffic, and there are no clear pedestrian paths of travel. Meanwhile, many tourists staying at the Murphys Suites prefer to walk to Main Street for wine tasting, which requires walking along the shoulder of SR 4 and then navigating this confusing intersection. In addition, this intersection is the main entrance to Main Street Murphys, yet travelers passing by often do not realize the charming historic center of Murphys is nearby. The intersection lacks gateway signage or wayfinding. Note – there was mixed interest from community members for a roundabout at this location. For review purposes, the project team evaluated a roundabout concept, and determined that a roundabout presents difficulties due to driveway access and property acquisition. Coupled with the lack of strong community support, this concept was not made part of the Draft Preferred Alternative.	Along SR 4 in this central section from Pennsylvania Gulch Road to Tom Bell Road, a 5' to 6' sidewalk should be provided on both sides. They should be separated from the roadway by a 3' to 4' buffer and standard curb and gutter. The buffer could be landscape planting, mulch, gravel or decorative paving. Maintenance needs to be considered. Street trees are shown in key locations, and the size and species will need to be selected to be appropriate to the location. 6' Class II bike lanes along the curb should be provided on both sides of SR 4. There should also be a 2' buffer for a total of 8'. These bike lanes could be colored green at areas of potential conflict or even along the entire stretch between Pennsylvania Gulch Road and Tom Bell Road. Street lighting at key intersections only should be provided. Street light fixtures should match the historic character of Murphys. A new pedestrian crossing of the SR 4 highway near Main Street should be provided. It should include high visibility crosswalks and pedestrian crossing beacons. In addition, a new high-visibility pedestrian crosswalk across Main Street at SR 4 should also be provided with a pedestrian refuge island that includes mountable curbs to provide adequate truck turning space. A new stop sign on Main Street where it intersects with Jones Street (to replace the existing yield sign) should help improve safety. A new sidewalk should be provided around the corner of Main Street and Jones Street, connecting to a future gravel sidewalk along the north side of Jones Street. A new gateway sign at the Main Street turnoff of SR 4 should point the way to the historic center of Murphys for eastbound travelers on SR 4. The design of the sign should reflect the historic character of Murphys. See Drawing 3 and Visual Simulation

MURPHYS SR4 COMPLETE STREETS PLAN- DRAFT PREFERRED ALTERNATIVE

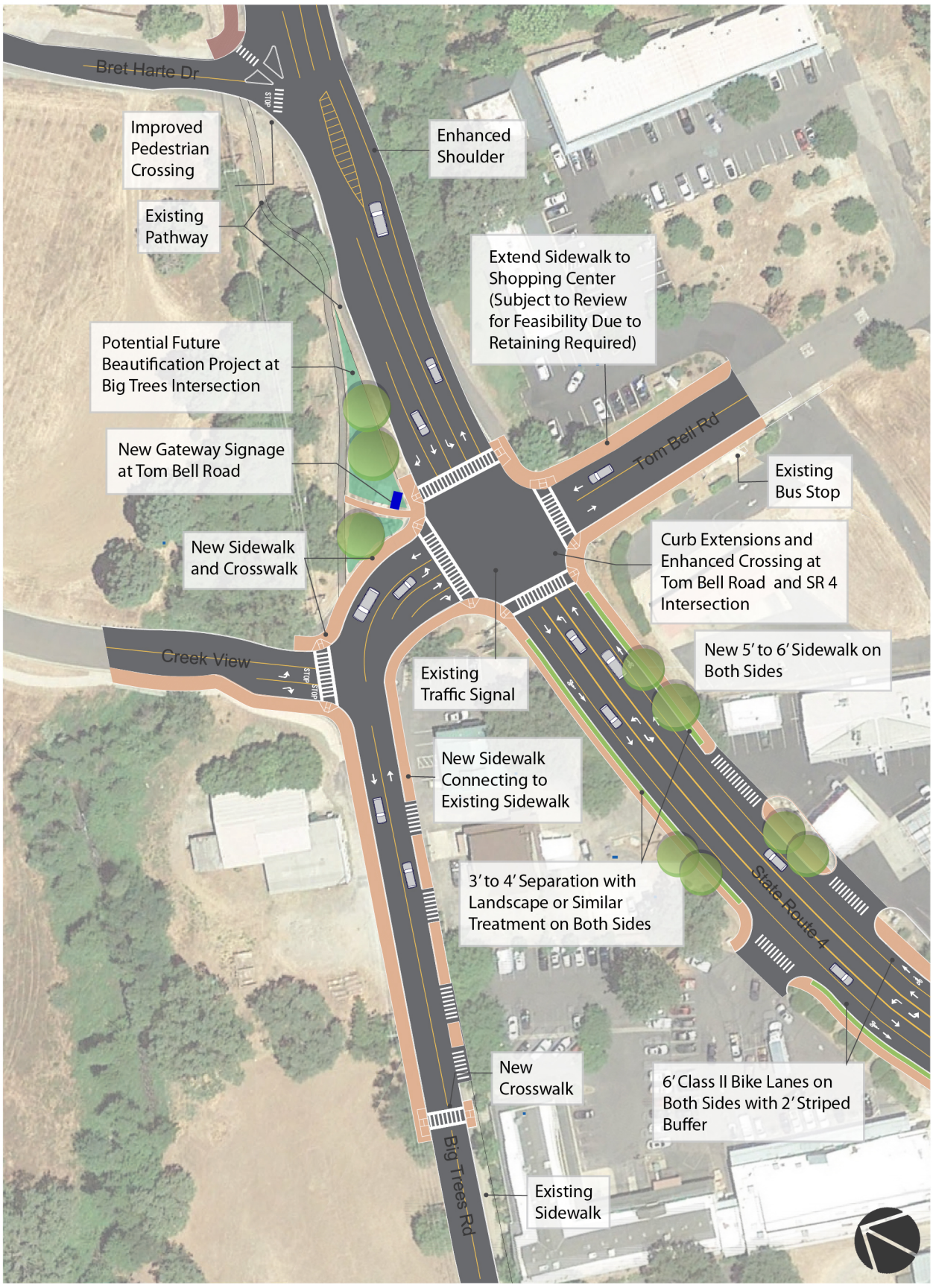
3. Central and Main Street (1"=100')

DRAFT VISUAL SIMULATION SHOWING IMPROVEMENTS AT MAIN STREET AND SR 4

VIEW FROM SR 4 LOOKING TOWARD MAIN STREET

DESCRIPTION OF ISSUES	DRAFT PREFERRED ALTERNATIVE
4. Big Trees Road Intersection This intersection serves as a key entry to the historic Main Street of Murphys for westbound traffic. It also provides access to the 55+ Diggins community, the bank, and other important services, and is the connection to the bus transit stop for eastbound bus service for Murphys. However, only one side of the intersection provides a crosswalk for pedestrian access, and there is no sidewalk on the southeast corner. Meanwhile, the wide radius at the corners allows turning vehicles to travel at high speeds (especially for westbound traffic turning right onto Big Trees Road), a common issue for intersections designed to accommodate large trucks where passenger vehicles can take the same corners at high speeds. Just north of this intersection, the Creek View Road/Big Trees Road intersection, which serves a large residential area, poses significant challenges for pedestrians. Once pedestrians walk from Creek View Road onto Big Trees Road, they have no safe connection and no safe crossing of Big Trees Road to access the services on Tom Bell Road across SR 4 and on the other side of Big Trees Road. As mentioned, this intersection is the entrance to Main Street Murphys for westbound traffic, yet it lacks gateway signage and wayfinding for tourists, and the design does not represent the character of the community,	The central turn lane that is proposed in the Caltrans SHOPP project from Pennsylvania Gulch Road to Lawrence Street should be extended up to the Tom Bell Road intersection, along with sidewalks, buffer strip, and bike lanes. The crossing of SR 4 at Tom Bell Road should be enhanced with painted curb extensions and crosswalks on all four sides, connecting to a new sidewalk installed at the southeast corner leading to the shopping center. New crosswalks may affect traffic signal operations, and will need to undergo operations analysis before they are implemented. The painted curb extensions will slow down turning traffic, making the intersection safer for pedestrians, while allowing large trucks to still make the turn when necessary. Creek View Road should have a new stop sign and a crosswalk across Creek View Road at Big Trees Road, leading south down a new sidewalk to a new mid-block crossing of Big Trees Road near the Sierra Hills Market shopping center, thereby connecting to existing sidewalks leading to Main Street. The intersection at Big Trees Road and SR 4 should also be improved aesthetically. This should include new landscaping along the north side of SR 4, and new gateway signage indicating the turnoff to the historic center of Murphys. The design of the sign should reflect the historic character of Murphys. See Drawing 4

MURPHYS SR4 COMPLETE STREETS PLAN- DRAFT PREFERRED ALTERNATIVE



4. Big Trees Road (1"=100')

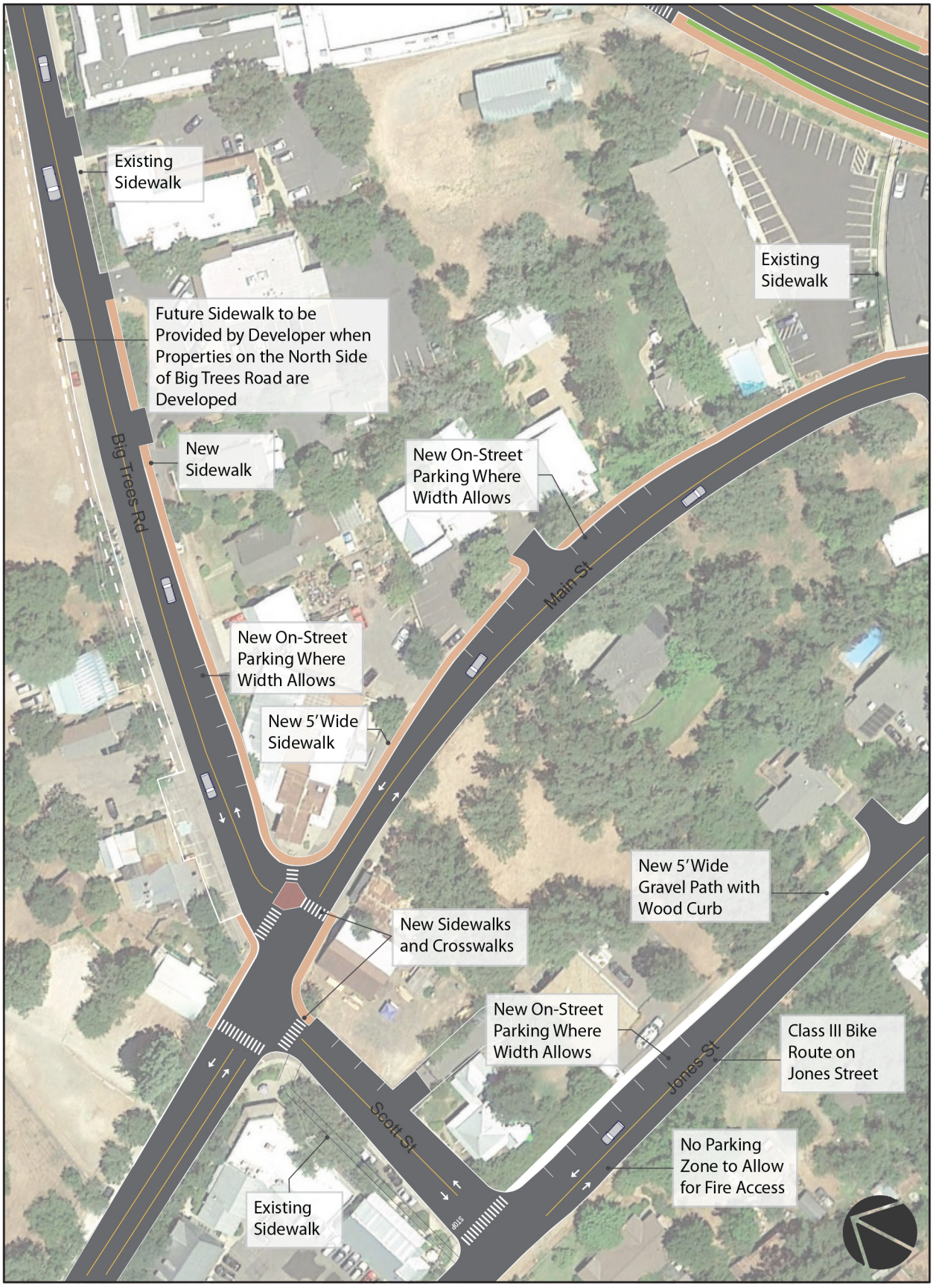
DESCRIPTION OF ISSUES	PREFERRED ALTERNATIVE
5. SR 4 East of Tom Bell Road East of Tom Bell Road, vehicle speeds on SR 4 are higher, especially for westbound traffic coming down from the mountains, but there are no facilities for bicycles or pedestrians. Meanwhile, this portion of SR 4 serves a large residential area to the north. Pedestrian LTS is ranked at 4; bicycle LTS is ranked at 3 east of Williams Street and 4 west of Williams Street. The California Highway Patrol (CHP) operates a weigh station on the north side of SR 4. The configuration means that there is a narrowing of the shoulder to an unsafe dimension for pedestrian or bicycle use at that location. The Bret Harte Drive turnoff from SR 4 could be improved to increase pedestrian visibility and safety. In addition, some community members have said that the edge of paving at the turnoff is not very visible to westbound drivers turning into Bret Harte Drive. Although there is no clear gateway into Murphys for westbound travelers, community members expressed a preference to put gateway signage closer to the turn-off at Big Trees Road.	Enhanced shoulders on SR 4 east of the central section should be provided to accommodate bikes and pedestrians up to Apple Blossom Drive. These shoulders may require additional paving. The shoulders could be lined on the traffic side with mumble strips (i.e., quieter than "rumble strips"), a series of depressions that make noise to alert drivers they are encroaching, subject to Caltrans review and approval. Where the proposed bike lanes west of Tom Bell Road changes to enhanced shoulders in this area, signage and lane markings will need to be provided to indicate the change to cyclists. At the existing CHP weigh station on the north side of SR 4, where there is no space for enhanced shoulders, a sidepath paralleling the weigh station frontage road should be provided in a 10' utility easement, passing behind the weigh station building. The minimum recommended width for the sidepath is 8'. At Bret Harte Drive, a crosswalk across Bret Harte Drive at SR 4 should be provided to connect an existing path to the west with the new sidepath to the east, and the edge of paving on Bret Harte Drive at the turnoff should be well marked with additional striping. See Drawing 5

MURPHYS SR4 COMPLETE STREETS PLAN- DRAFT PREFERRED ALTERNATIVE

5. SR 4 East of Tom Bell Road (1"=100')

DESCRIPTION OF ISSUES	PREFERRED ALTERNATIVE
6. Main/Scott/Big Trees Intersection This is a key intersection for Main Street Murphys, and it has significant pedestrian traffic. However, only one leg of the intersection has a crosswalk. Main Street, Jones Street and Big Trees Road provide key connections to the historic center of Murphys and experience significant pedestrian traffic, yet they either have no sidewalks (i.e., Jones Street) or there are gaps in the sidewalk (i.e., Main Street and Big Trees Road). On Main Street, the rolled curb used for some sidewalk sections encourages vehicles to park on the sidewalk. On Big Trees Road, portions of the sidewalk are not ADA compliant. Existing parking on these roadways is important to community members to maintain. Scott Street and Six Mile Road provide access to Ironstone Winery, a major destination for wine tasting and large events that attract significant amounts of people to Murphys. The existing shoulder is very narrow, and the road is a one-lane road in sections, so there is limited space for pedestrians and bicyclists.	Main/Scott/Big Trees Intersection. At the Main Street/Scott Street/Big Trees Road intersection, new pedestrian crosswalks should be provided. At the south side of the intersection (where there is an existing barn), a new sidewalk should be provided to link the crosswalks together. Main Street. A new continuous 5' sidewalk should be provided on the north side of Main Street from SR 4 to Big Trees Road. Main Street should be striped and parallel parking allowed on the north side where there is enough width to provide spaces. Jones Street. On Jones Street, a Class III shared bike route should be provided. A 4' wide gravel sidewalk along the north side of Jones Street that allows parallel parking where there is enough road width should also be provided. Clear road width for emergency vehicle access must be maintained, and no parking should be allowed where emergency access would be impeded. Big Trees Road. The existing sidewalk should be improved and connected with new sections to extend from the new mid-block crossing of Big Trees near the Sierra Hills Market shopping center (see Section 4 above) down to the Main Street intersection. Sidewalks on the north side of Big Trees Road will be required if and when the neighboring property is developed. See Drawing 6 Scott Street/Six Mile Road. To Ironstone Winery, a Class III shared bike route (cars share the road with bikes) or Advisory Shoulders (dashed shoulder striping) should be provided. See Study Area Diagram

MURPHYS SR4 COMPLETE STREETS PLAN- DRAFT PREFERRED ALTERNATIVE



6. Main Street/Jones Street (1"=100')