



Gold Rush Multi-Use Path

Phase 2 – Existing Conditions Report

June 24, 2025



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1.0 Existing Plans & Policies

This section describes the plans and policies related to transportation and mobility. The existing conditions report is informed by relevant plans described below to ensure compatibility among various regional initiatives and local measures. Other plans such as the County's General Plan, Active Transportation Plan, and studies are relevant to the Phase 2 Existing Conditions in understanding current conditions and guiding future transportation projects in the area. The following documents were reviewed to maintain consistency among various policies and programs.

1.1 Vision Sonora Plan (2013)

Vision Sonora is a vision plan for the study limits of SR 49 from SR 108 to Preston Place and S. Washington Street from SR 108 to SR 49. The Plan describes a community vision for the future character of Sonora that boosts economic vitality along main transportation corridors. Main components of the Plan describe design guidelines for corridor landscaping, multimodal circulation, wayfinding, and economic development. Design guidelines from this Plan is applicable to segment 2 of the Project Area. The Plan describes Washington Street, including a portion of the Project Area, as a gateway to downtown Sonora. Improvements would include new transit stops, drought-tolerant landscaping, entry-sign monument, and re-configuration of the Shaws Flat / School Street intersection to accommodate pedestrians from the Sonora High School.

1.2 Tuolumne Tomorrow: Tuolumne County Regional Blueprint Project Report (2012) and GHG Study (2012)

Tuolumne Tomorrow is a long-range plan providing a vision for future development in land use, transportation, housing, economic development, and ecological conservation, and is a joint effort between the City of Sonora, Tuolumne County, and Tuolumne County Transportation Council. As a regional effort, the report and GHG study considers the emissions for future growth scenarios that informs the Blueprint Program. The Program will provide a framework for agencies to promote mobility, increased housing and transportation choices, job accessibility, healthy communities, and economic development in the future.

1.3 General Plans

- 1.3.1 Tuolumne County General Plan (2018)*
- City of Sonora General Plan (2020)*

The City's general plan provides guidance for future development within the City's limits. Development standards are codified in Titles 10, 12, 15, and 17 of the municipal code



(https://library.municode.com/ca/sonora/codes/municipal_code). Standards from the City's general plan and zoning code apply to segment 2 of the project area.

1.4 Transportation Plans

1.4.1 Tuolumne County Active Transportation Plan (2020)

The County's Active Transportation Plan (ATP) is a strategic plan for prioritizing proposed pedestrian and bicycle networks that promote mobility and access equity. The ATP describes projects that meet the needs of local residents while accommodating regional growth. The ATP notes that 81% of residents drive alone in a personal vehicle to access resident-serving goods and services and analyzed needs based on anecdotal and computer data. The ATP further recommends infrastructure projects that are anticipated to meet the needs of the community.

1.4.2 Tuolumne County Airport Land Use Compatibility Plan (2025)

The County's Airport Land Use Compatibility Plan (ALUCP) describes allowable land uses that are compatible with federal aviation regulations surrounding the Columbia and Pine Mountain Lake airports. The Columbia airport is located approximately one mile northwest of the northern SR 49 segment. A portion of the Project Area lies within the airport influence zone which is described as areas that are routinely affected by aircraft operations at an airport and within which certain land use actions are subject to airport land use compatibility review.

1.4.3 Final Draft of 2024 Regional Transportation Plan

The 2022 Regional Transportation Plan is a 20-year plan prepared by TCTC and focuses on the facilitation of the movement of people and goods for work, shopping, education, recreation, and other purposes, utilizing a variety of transportation modes such as automobiles, trucks, buses, trains, planes, bicycles, and pedestrian pathways. The Plan describes the County's existing conditions, regional vision and goals, actions to achieve transportation measures, and financial feasibility.

1.4.4 2013 General Plan and Regional Transportation Plan Evaluation and Analysis

The 2013 General Plan and RTP Analysis Report provides an evaluation and analysis of the Tuolumne County Transportation Council's and the County's planning and policy documents to determine which General Plan and Regional Transportation Plan (RTP) goals, policies, and/or programs should be amended or added to align with the Distinctive



Communities growth scenario. The growth scenario is described in the *Tuolumne Tomorrow* plan as the preferred growth scenario within the region.

1.4.5 State Route 108/49 Multimodal Congested Corridor Plan (2021)

The multimodal study identifies transportation needs and opportunities to improve the state highway corridor. The Plan documented the existing and projected future multimodal conditions and assets of the SR 108/49 corridor. The study conducted performance assessments of facilities and traffic behavior, and presented and analyzed strategies' abilities to enhance safety, reduce congestion, reduce GHG emissions, and enhance multimodal opportunities. The outcome was to identify analyzed strategies eligible for funding that could address corridor deficiencies. Existing conditions data from this Plan is incorporated into the findings below.

1.4.6 Columbia Circulation Improvement Plan (2010)

The improvement plan provides guidance on the implementation of new land use and transportation coordinated strategies for growth and capital improvements. The CCIP supplements the Columbia Community Plan and identifies and evaluates various improvement projects for existing roadways, bike pathways, and trails that will help create a network of safe, comfortable, historically sensitive, pedestrian and bicycle-friendly routes. The improvement projects identified in this plan are considered in the segment analysis below.

2.0 Equity Analysis

2.1 Demographic Profile

The first recorded peoples to settle in the region were known as the Central Sierra Me-Wuk who have lived in the Sierra Nevada foothill region since time immemorial¹. Prior to European settlement, the Me-Wuk population totaled roughly 11,000 people in the mid-18th century and were located throughout central California². The Me-Wuk interacted with early explorers until the acquisition of the region by Mexico during the mid-19th century. Subsequently, the discovery of gold and western railroad development resulted in the migration of settlers to Tuolumne from around the world. The census found that the population tripled from 1847 to 1860 (308,000 residents) and since then has continued to

¹ 2018 Tuolumne County General Plan

² <https://www.cagenweb.org/tuolumne/his.htm>



grow due to the reliance on natural resources for economic development³. Currently, the City of Sonora and surrounding residents maintain its unique lifestyle with a desire to promote the natural environment and urban downtown as regional recreational attractions. The Tuolumne Band of Me-Wuk Indians and the Chicken Ranch Rancheria Me-Wuk Indians of California population is estimated to be 350⁴.

As a rural foothill community, the population surrounding the Project Area is relatively dispersed. **Table 1** below lists some demographic information for the block groups surrounding the project area. According to the 2023 ACS 5-Year Estimates, the population is estimated at 3,459. The population is predominantly White while approximately 14% identify as mixed race. Middle-aged groups have the largest demographic with about 13% of the population being 25 to 29 years old and represent the highest rate of population by age due to Columbia College residents. The median income averages about \$87,895. The housing in Columbia has maintained a vacancy rate of 11% based on 2020 Census State Redistricting Data.

2.2 Transit-Dependent Populations

Transit-dependent populations are households who rely on public transit or modes other than private vehicles to conduct daily life activities. Individuals with ambulatory difficulties and preexisting health conditions can be income constrained. According to Calenviroscreen, the communities east of SR 49 experience higher pollution burdens than communities west of SR 49 as shown in **Figure 1**. This is due to higher rates of ozone pollution, lead in housing, housing burden⁵, and sensitive populations with asthma and cardiovascular disease. In addition, Browns Flat and Shaws Flat around the Project Area are described as disadvantaged legacy communities in unincorporated County that are remote, lower income households with little to no utility services and whose median income was less than \$49,306⁶.

As shown in **Figure 2** below, the census tracts (06109001100 and 06109001200) surrounding the Phase 2 corridor as medium to high vulnerability based on factors related to socioeconomic status, household characteristics, racial & ethnic minority status, and housing type & transportation⁷. Both census tracts are rated as highly vulnerable due to low

³ <https://www.loc.gov/collections/california-first-person-narratives/articles-and-essays/early-california-history/>

⁴ 2020 US Census Bureau. Accessed on June 7, 2025 at <https://www.census.gov/tribal/?aianihh=4330> .

⁵ Housing burden means...

⁶ 2018 Tuolumne County General Plan, Technical Background Report.

⁷ https://www.atsdr.cdc.gov/place-health/php/svi/?CDC_AAref_Val=https://www.atsdr.cdc.gov/placeandhealth/svi/index.html



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housing quality, overcrowding, and lack of vehicles. The Tuolumne County Transit is the sole public transit operator in the area and provides fixed route, flex route, and on-demand services. Currently, there are no routes that serve the Phase 2 corridor. However, Route 2 provides public transit service on Shaw Flat Road just west of the project area.

Census Area		Population	Housing Tenure	Median Income HH	Calenviroscreen Percentile
11	Block Group 2	1114	64% owner-occ	\$85,714	35
12	Block Group 1,	795	39% owner-occ	\$91,875	57
	Block Group 2	899	31% owner-occ	\$70,125	
21.01	Block Group 2	651	90% owner-occ	\$103,864	36

Source: US Census 2023 ACS 5-Year Estimates, B25044; CalEnviroScreen 4.0



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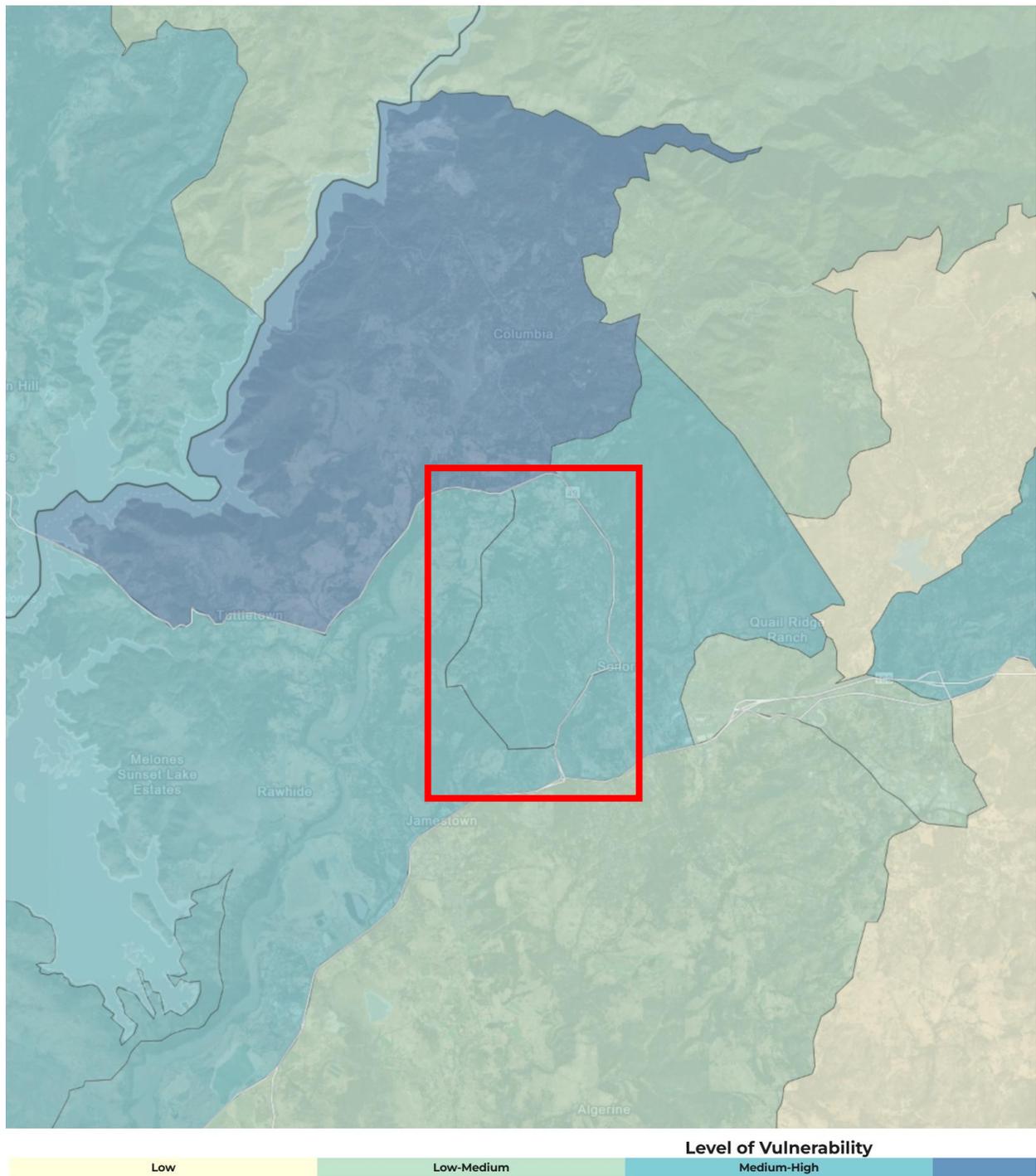


Figure 2. Overall Social Vulnerability Index per Census Tract⁸

⁸ Agency for Toxic Substances and Disease Registry (ATSDR). Accessed on June 2025 at <https://www.atsdr.cdc.gov/>.



3.0 Circulation & Mobility

3.1 Key Corridors and Intersections

SR 49 or “Golden Chain Highway”, which was named after the 1849 California gold rush, is a 295-mile State Highway that extends from Oakhurst in the south to Chilcoot-Vinton in the north and is part of the National Highway System. As the primary north-south corridor, SR 49 operates as a popular access route through the City’s Historic District. Local residents and visitors use SR 49 to access regional goods and services surrounding the project area.

SR 49 consists of a north-south, two-lane arterial, running from the City of Sonora limits in the south to the intersection of SR 49 and Parrotts Ferry Rd to the north. A two-way, left-turn lane is provided on SR 49 (Stockton Street) from approximately 1400’ south of Ponderosa Lane to approximately 1000’ south of S. Washington Street, except at intersections. Key intersections include the SR 49 (Washington St.)/Columbia Way/Shaws Flat Rd three-way intersection east of Sonora Union High School, and SR 49 & Parrotts Ferry Rd west of Columbia College. Other local arterials that connect surrounding rural residences and businesses to the SR 49 corridor include:

- Old Sonora Columbia Road
- Jack Page Road
- Preston Place
- Dossi Way
- Ohara Dr
- Pesce Way
- Dane Lane

Existing pedestrian accommodations are provided along portions of SR 49, primarily on SR 49 from Shaws Flat Road to Southgate Drive. SR 49 is the only state facility within phase 2 of the project limits. The posted speed limit on SR 49 within the project limits ranges from 25 MPH to 45 MPH.

S. Washington Street consists of a north-south, two-lane local collector, intersecting with SR 49 (Stockton Street) in the north and SR 108 in the south. Existing pedestrian accommodations are provided along S. Washington Street from SR 49 (Stockton Street) to Hospital Road. The posted speed limit on S. Washington Street within the project limits ranges from 25 MPH to 35 MPH.



3.2 Origins and Destination Analysis

Origin and destination data is typically measured in trips based on a mode of travel i.e., vehicle, bicycle, transit, and/or walking. According to Replica data from spring 2021, 1,510 total trips were made on a typical weekday that tend to begin in the counties of Stanislas (38.9%), San Joaquin (11.4%), Calaveras (11.2%), Merced (8.61%), and Mariposa (6.1%) (excluding Tuolumne County) and ended within the county for recreational purposes⁹. During the weekend, total trips almost doubled at 2,630. Commute patterns show that about 85% of adult residents near the Project Area use a car, van, or truck to commute to work with a majority traveling alone. Although most residents work in Tuolumne County, 16.4% work outside of the County and take about 31 minutes to get to work. About 51.8% of residents who don't work from home start their commutes from 6:30AM to 8:30AM. There is no data available for commuters originating from outside California.

Table 2. Origin and Destination for Commuters along SR 49 Phase 2 Corridor per Census Tract			
	Census tract 11	Census tract 12	Census tract 21.01
Works in County of residence	80.20%	86.40%	89.60%
Works outside County of residence	19.80%	13.60%	10.40%
Work from Home	32.30%	29.20%	32.90%
<i>Source: US Census Bureau ACS 5-Year Estimates, S0801</i>			

There are various attractions around the project area that consist of shopping centers, unique downtown experiences, nature trails, major employment facilities, and public institutions. The major destinations closest to the project area include Downtown Sonora and Columbia College. Columbia College is a significant regional destination for education and employment. Adventist Health employs over 1,000 people in Sonora, and the Corrections Department employs over 1,000 in Jamestown¹⁰. Most trip destinations occur in census block groups outside of the project area, which include destinations such as Black Oak Casino, Chicken Ranch Casino, Don Pedro Reservoir, Tuttletown Recreation Area/New Melones Lake, Pine Mountain Lake, and shopping retailers at Mono Village. Most traffic originates from neighboring counties: Stanislaus, San Joaquin, and Calaveras. Although there is more traffic during the weekend, trip destinations were the same during the weekend and weekday.

⁹ 2022 Tuolumne County Transportation Council (TCTC) Regional Transportation Plan.

¹⁰ 2020 TUOLUMNE COUNTY ACTIVE TRANSPORTATION PLAN.



3.2.1 Peak visitor times

Peak traffic times represent higher number of vehicles passing through roadway intersections at certain times of the day and year. Washington Street peak hour data is the south extent of the Phase 2 corridor whereas Columbia WYE is the northern extent. Data on the annual average daily traffic volume are shown in Table 3 below:

<i>Table 3. Average Annual Peak Hour at Key Intersections</i>		
	<i>Washington Street (SR 49) / Shaws Flat Road</i>	<i>Columbia WYE (SR 49 & Parrotts Ferry Rd)</i>
<i>BACK_PEAK_HOUR</i>	<i>1600</i>	<i>1350</i>
<i>BACK_AADT</i>	<i>16100</i>	<i>13300</i>
<i>AHEAD_PEAK_HOUR</i>	<i>1650</i>	<i>570</i>
<i>AHEAD_AADT</i>	<i>17700</i>	<i>4800</i>
<i>Note: Ahead and Back indicates approaching vehicular traffic and departing traffic, respectively, from a stationary object.</i>		
<i>Sources: Caltrans 2022 (AADT)</i>		

3.2.2 Potential queuing issues

Intersections have the greatest potential queuing issues, especially near Downtown Sonora and Columbia College. LOS analyses regarding AM and PM peak hours were conducted at high-volume intersections in the project area. The analyses were forecasted for the years 2030 and 2040. The 2022 TCTC Regional Transportation Plan has identified the SR 49 (N Washington St) & Columbia Way and SR 49 (N Washington St) & School St intersections to have Level-of-Service deficiencies, meaning that the intersections are known to experience high levels of congestion, or which had been forecasted to fail in the near future. This stretch of SR 49 has also been identified as a priority active transportation project for shared vehicle and bicycle uses.



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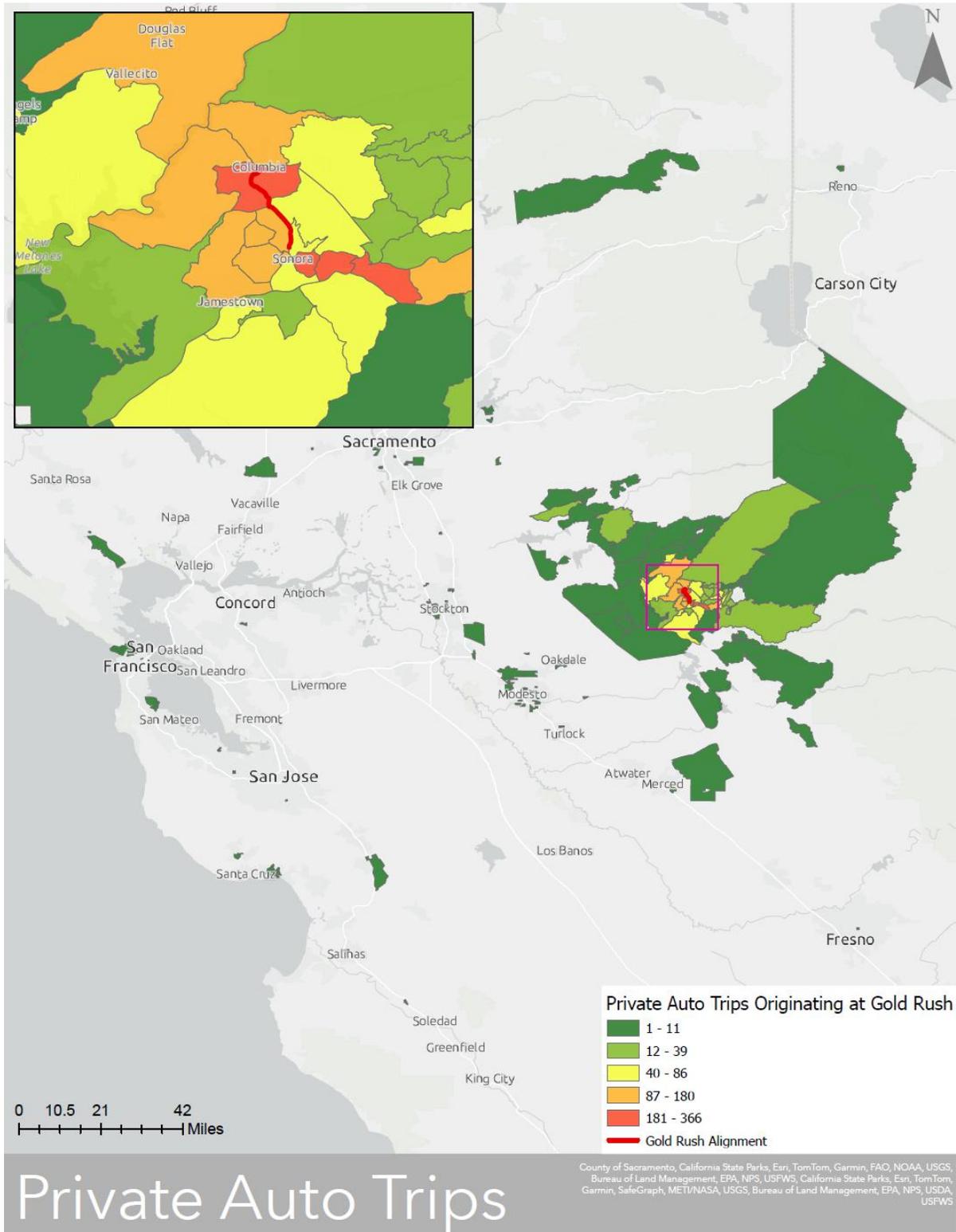


Figure 3. Vehicular Origins by Census Block Group at Phase 2 Corridor



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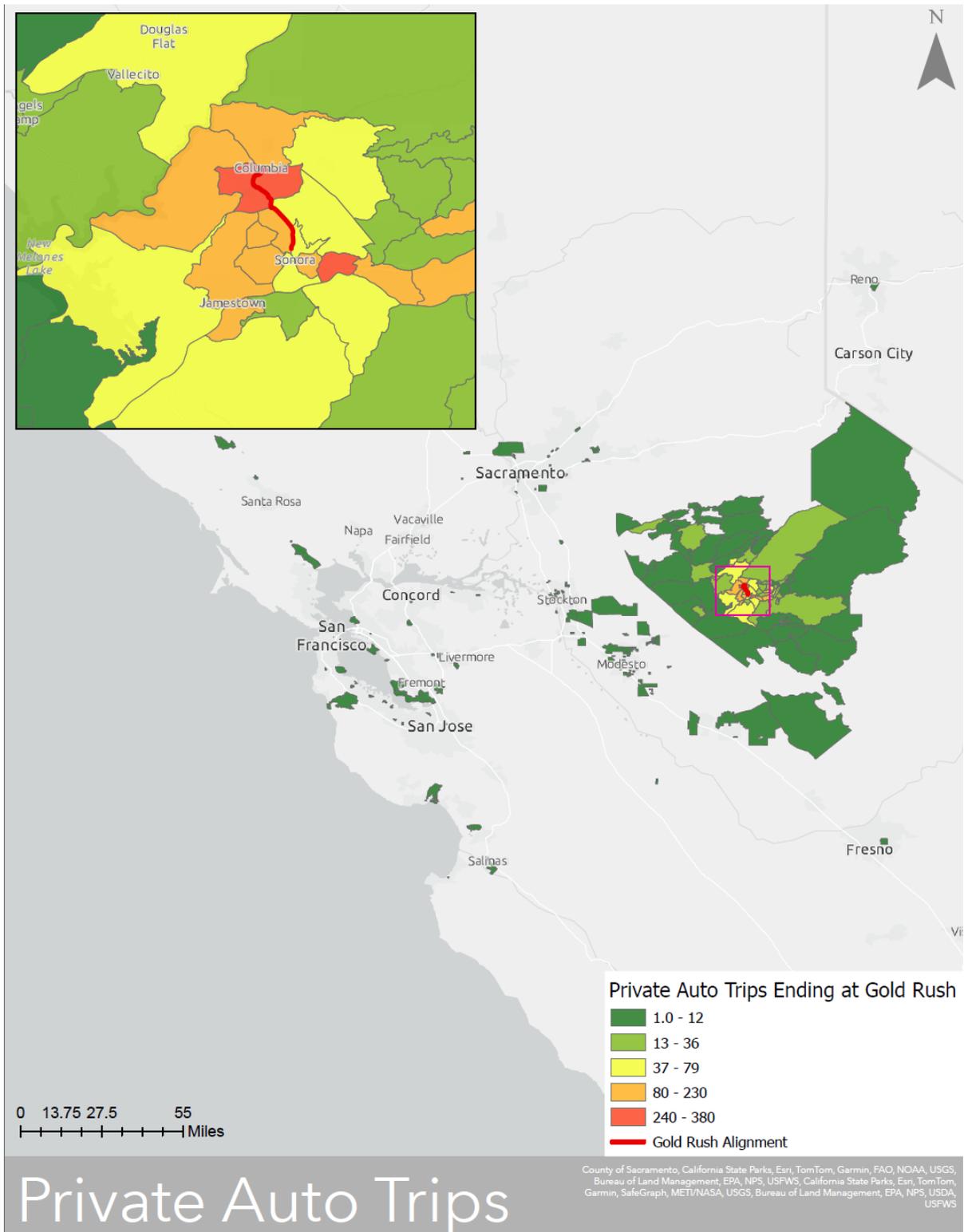


Figure 4. Vehicular Destinations by Census Block Group at Phase 2 Corridor



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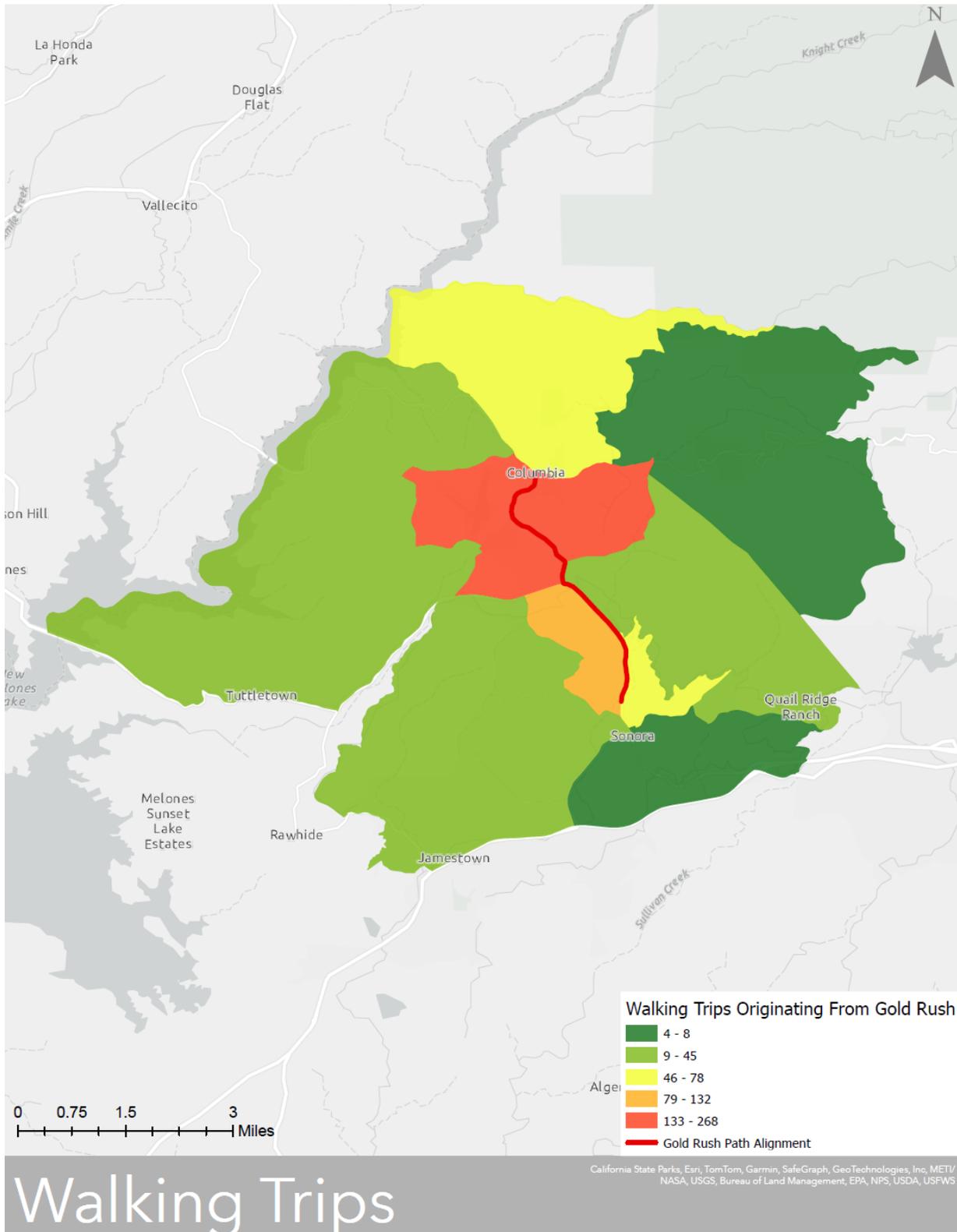


Figure 5. Pedestrian Origins from Phase 2 Corridor



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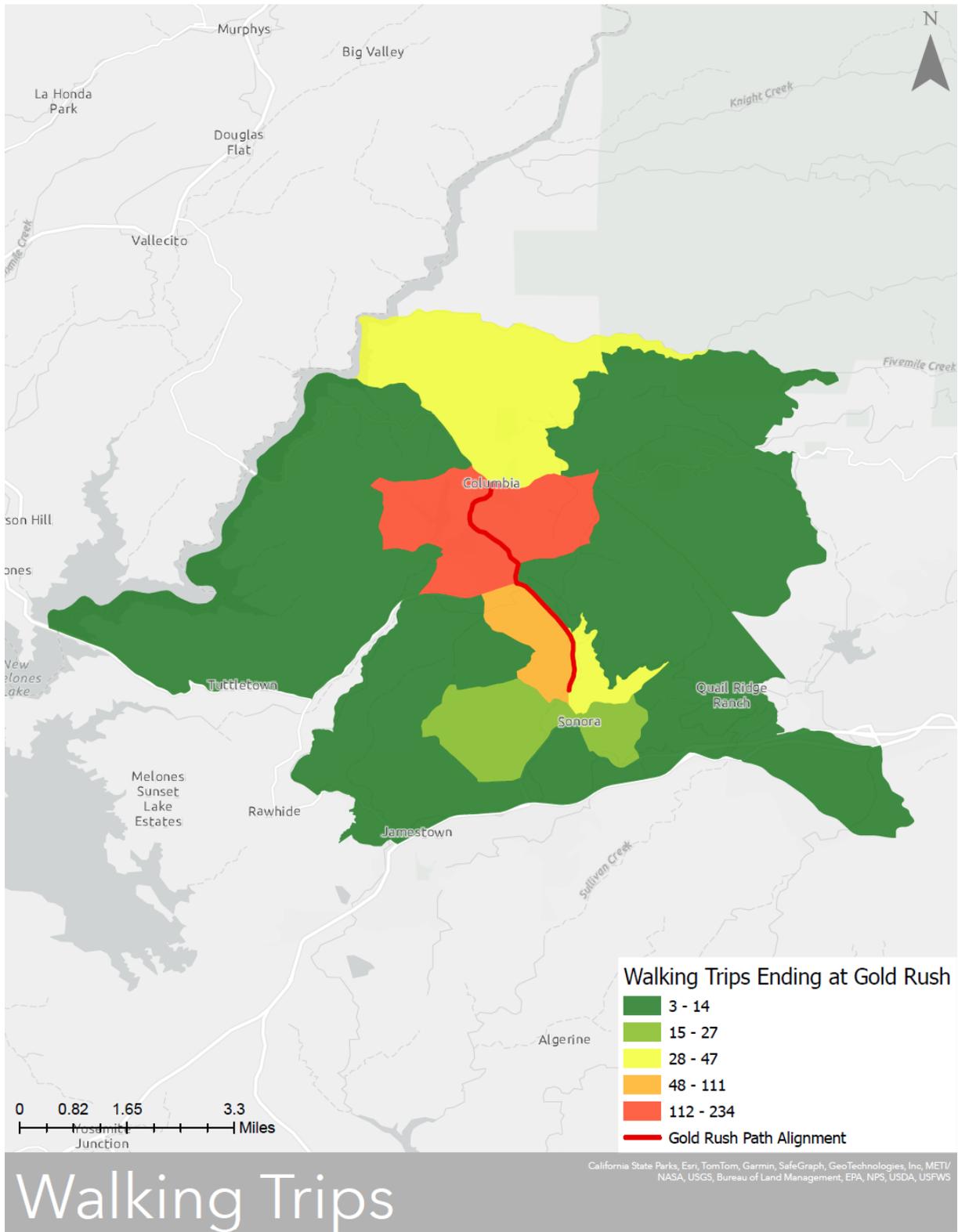


Figure 6. Pedestrian Destinations at Phase 2 Corridor



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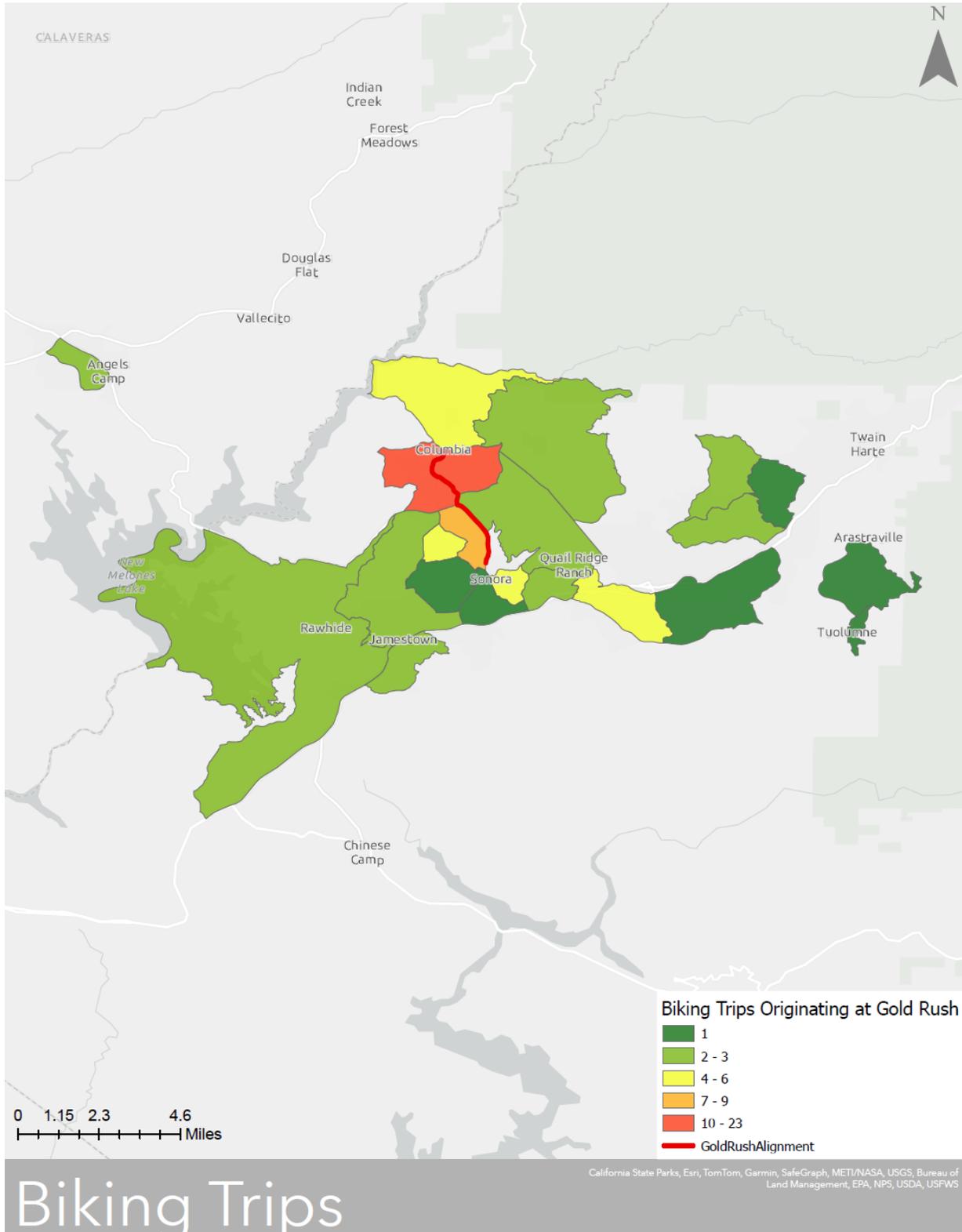


Figure 7. Bicycle Trip Origins by Block Group at Phase 2 Corridor



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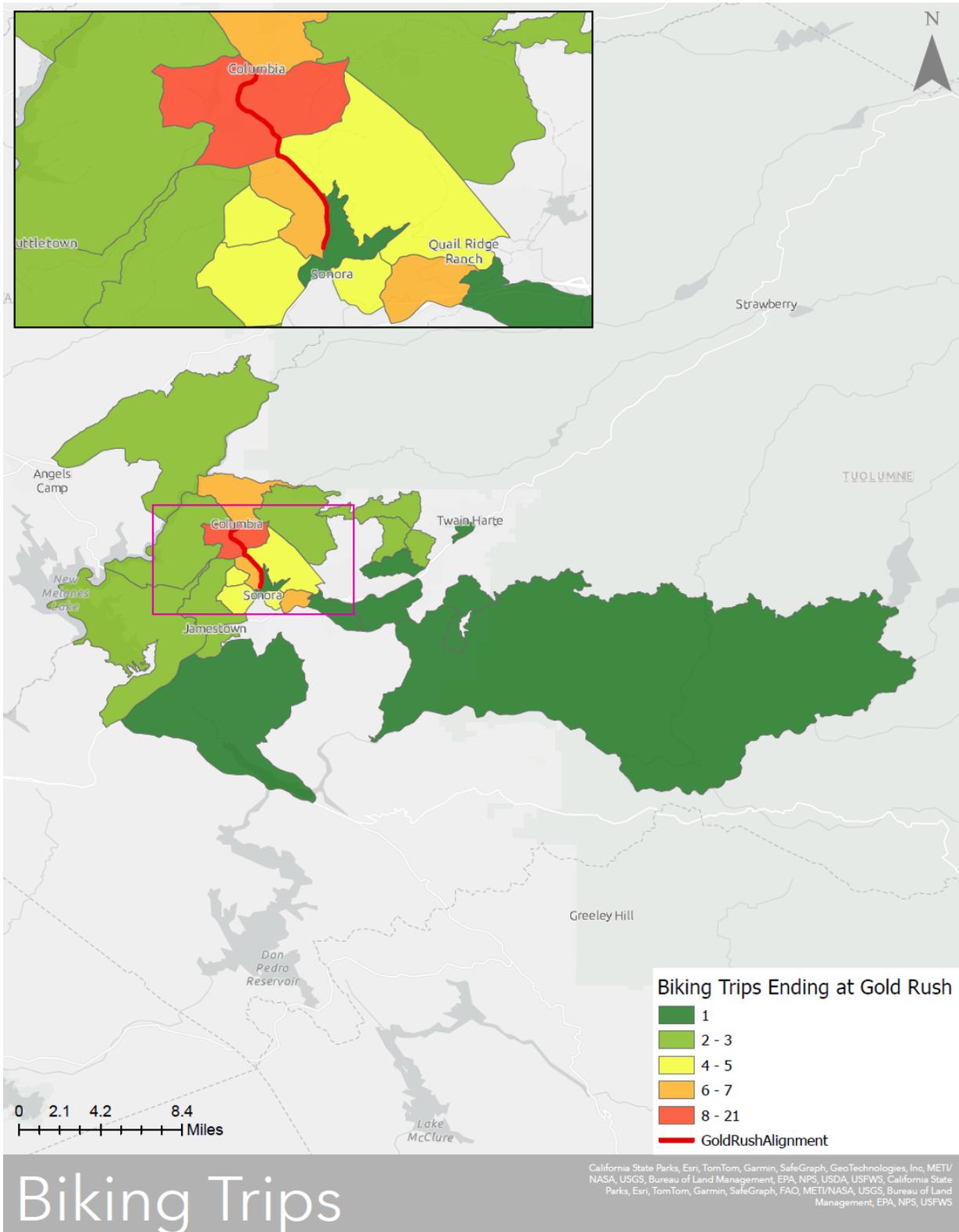


Figure 8. Bicycle Trip Destinations by Block Group at Phase 2 Corridor



3.3 Pedestrian

3.3.1 Walkshed and Sidewalks

About 4% of residents walk to work, which is higher than the percentage of residents who take public transportation, a bicycle, or taxicab/motorcycle to work, combined. According to the 2020 ATP, most pedestrian collisions occur within a one-mile radius of downtown Sonora. **Figure 5** and **Figure 6** shows that there are more pedestrians walking outside or away on the west of the project area than on the eastside. The westside of the project area has more residential development such as the Saratoga Acres and Shaws Flat communities.

3.4 Bicycle Facilities

3.4.1 3-mile Bike Shed Analysis

PENDING

3.4.2 Current Bicycle Facilities

Figure 7 and **Figure 8** shows that the number of cyclists coming from and to the adjacent communities are largely the same. Most cyclist activity occurs in the census tract north of the project area where Columbia College, downtown Columbia, and Columbia airport are located. There are bicycle routes along S Washington Street in downtown Sonora; however, no designated bicycle facilities are available.

3.4.3 Proposed Bicycle Facilities

The following projects have been proposed for multiple users:

- Construct improvements to improve pedestrian/bicycle safety at the Hwy 49, Shaws Flat Rd., Columbia Way and School St. intersection;
- Install bikeways with 4-8' shoulders and buffers on SR 49 where possible in Tuolumne County;

The Phase 2 corridor has also been identified as a priority active transportation project for the establishment of the Sonora to Columbia Regional Trail. The TCTC recognizes the existing narrow shoulders along this pathway and recommends a TUD easement to widen shoulders that can accommodate added bike lanes. The project would consist of a multi-use trail and Class II bicycle lanes connecting Sonora with Columbia College and would also serve as a regional extension of the Jamestown to Columbia Regional Trail.

3.5 Transit



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3.5.1 *Current Transit*

According to US Census data, less than 1% of residents take public transit to work. Tuolumne County Transit is the primary public transit provider that services the Project Area. There is only one route, Groveland Columbia Express, that utilizes the SR 49 Phase 2 corridor. Another route, Route 2, utilizes Shaws Flat Rd parallel to the corridor. There is a bus stop in Downtown Sonora that travels to Columbia College, however, no bus shelters or stops exist along the corridor. Based on current Replica data, no transit trip data is available for the corridor.

Existing transit services include Routes 1 and 2 that are year-round fixed routes with Dial-a-Ride service available during the week with general public service on Saturdays. There are also seasonal fixed route bus services - Pinecrest Bus, Adventure Trolley, and SkiBUS – available during winter and summer to accommodate recreational visitors.

3.6 Vehicular

3.6.1 *ROW Assessment*

Vehicle traffic along the right-of-way (ROW) is measured through annual average daily traffic (AADT). During spring 2022, the AADT for the north portion of the ROW segment ranges from 4,800 to 13,300 trips. There are more trips going westward out of the project area than towards it. AADT for the south portion of the ROW segment ranges from 16,100 to 17,700 trips for both directions. Origins and destinations via private vehicles show similar amount of trips leaving and coming to the project area, shown in **Figure 3** and **Figure 4**. The census tract north of the project area exhibits many originating and departing trips. This tract contains the Columbia College which is described as a point of interest or attraction near Sonora.

3.6.2 *Level of Service (LOS) Analysis*

The 2022 TCTC Regional Transportation Plan has identified the SR 49 (N Washington St) & Columbia Way and SR 49 (N Washington St) & School St intersections to have Level-of-Service deficiencies, meaning that the intersections are known to experience high levels of congestion, or which had been forecasted to fail in the near future.

3.6.3 *Collisions (past 5 years)*

PENDING

3.7 Parking

3.7.1 *On-Street*



PENDING

3.8 Utilities

3.8.1 Surveys

Utilities in the project area comprise of transmission lines, light and/or utility poles, manhole covers, street trees, sidewalks and curbs, catch basins, and retaining walls. Culverts also exist throughout the project area, especially along steep areas like Segment 3 that are prone to erosion.

4.0 Land Use

4.1 Current Land Use

Areas closer to the downtown core are generally denser with commercial and mixed-use designations whereas the northern areas surrounding the SR 49 corridor are residential. The south portion of the segment is designated Commercial (C), Single-family Residential (R-1), Limited Multi-family Residential (R-2), and Planned Development (PD) per the City of Sonora. The remaining portion of the segment is designated Low Density Residential (LDR), General Commercial (GC), Rural Residential (RR), Heavy Commercial (HC), Estate Residential (EC), Mixed Use (MU), and Large Lot Residential (LR).

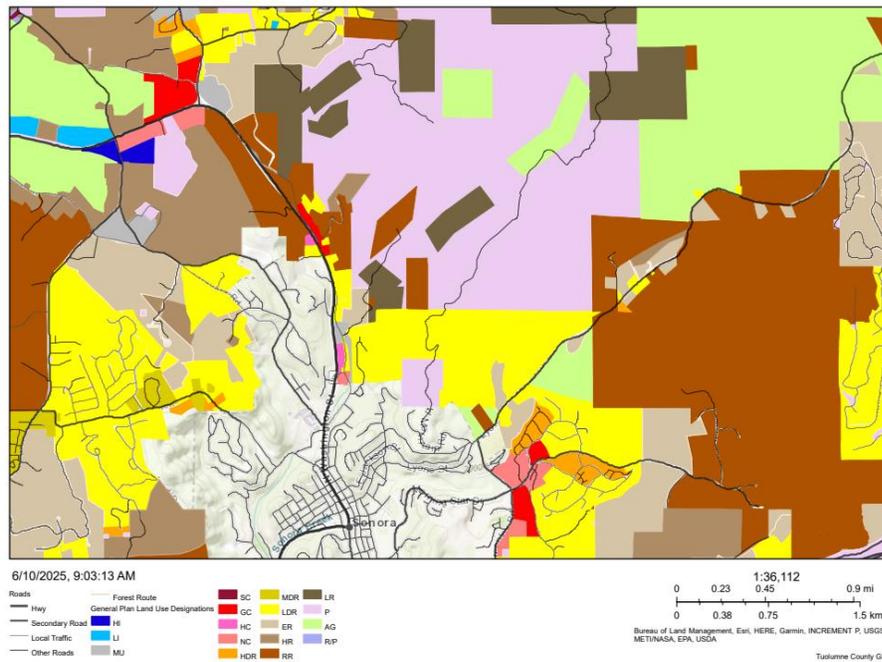


Figure 9. County of Tuolumne Land Use

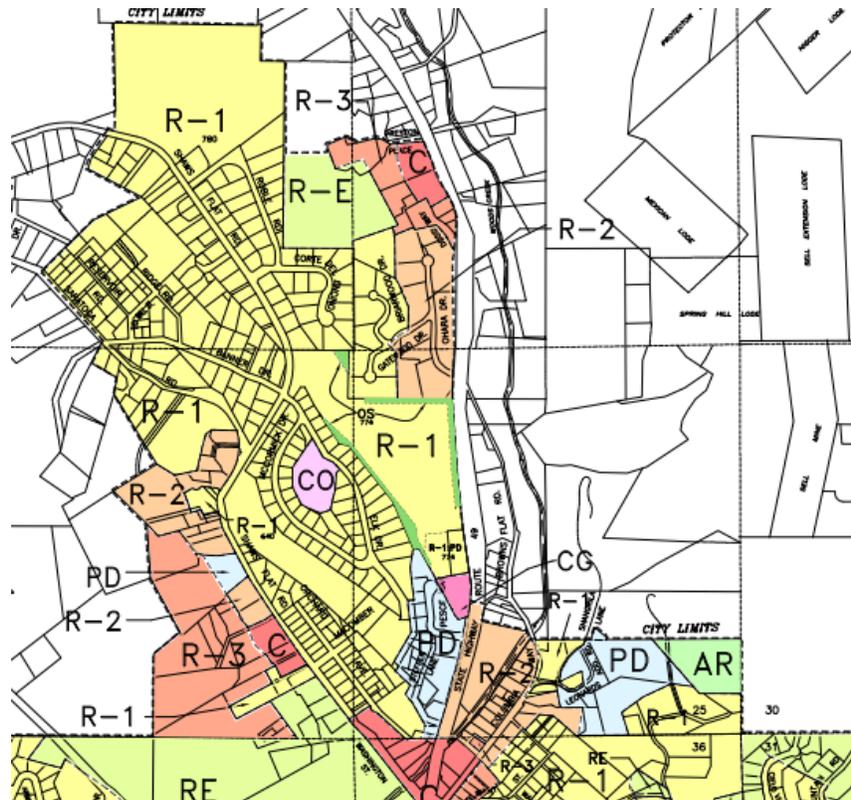


Figure 10. City of Sonora Land Use

4.2 Proposed Future Land Use

Land uses in unincorporated County are designated by private property and lot, whereas land uses in the City of Sonora are designated within a general area. Property owners can request land use changes and therefore zoning changes, otherwise known as “spot zoning”, as long as they are consistent with the General Plan. From 1986 to 2020 the distribution of land uses by number of parcels in Sonora has changed to less residential and more commercial/mixed uses. The rate of public, recreation, industrial, and rail uses have remained roughly the same.

4.2.1 Key Businesses within the Segment

Businesses that are within the SR 49 right-of-way are listed in **Table 4** are the businesses within proximity, however, not all might be impacted by the Gold Rush Multi-Use Path.



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Table 4. Businesses Impacted, Phase 2		
Businesses	Address	Business Type
Goodness Café	230 N Washington St Sonora, CA 95370	Coffee shop
Sonora High School	430 N Washington St Sonora, CA 95370	High school
City Shop	111 W School St Sonora, CA 95370	City government office
Kristin Frankhauser	207 S Washington St Sonora, CA 95370	Real estate agent
Sonora Pool	430 N Washington St Sonora, CA 95370	Public swimming pool
Creative Sounds	395 N Washington St Sonora, CA 95370	Car stereo store
ATCAA Amador Tuolumne Community Action Agency	427 CA-49 #302 Sonora, CA 95370	Non-profit organization
Tuolumne County District Attorney	423 N Washington St Sonora, CA 95370	County government office
Tuolumne County Victim/Witness	423 N Washington St Sonora, CA 95370	County government office
Good Stuff	10 Pesce Way #5659 Sonora, CA 95370	Thrift store
Sonora Express Lube	6 Pesce Way Sonora, CA 95370	Oil change service
Athena Bitcoin ATM	15 Pesce Way Sonora, CA 95370	Crypto ATM
Arco Gas Station	15 Pesce Way Sonora, CA 95370	Gas station
Sonora Custom Cycles	11994 CA-49 Sonora, CA 95370	Motorcycle repair shop
Provost & Pritchard Consulting Group	1194 CA-49 Suite B Sonora, CA 95370	Association / Organization
Barbershop 49	1916 CA-49 Sonora, CA 95370	Barber shop
Arise Tattoo	11914 CA-49 Sonora, CA 95370	Tattoo shop
Go Getter Builder	21033 Old Sonora Columbia Rd Sonora, CA 95370	Construction company



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Sonora Veterinary Group	21151 Old Sonora Columbia Rd Sonora, CA 95370	Veterinarian
Sonora Christian Life Center	21320 Old Sonora Columbia Rd Sonora, CA 95370	Pentecostal church
Union Hill Inn	21645 Parrotts Ferry Rd, Sonora, CA 95370	Wedding venue

4.3 Public Facilities

Public facilities are institutional, academic, governmental and community service uses that are publicly owned or operated by non-profit organizations. There are also quasi-public facilities that are privately owned open spaces that are open to the public for recreation. Public facilities provide critical services to the community, including education, administration, and public safety. Public facilities within the corridor consist of the Sonora High School on the south end, the City Shop within Sonora High School, the Sonora Pool, the Tuolumne County District Attorney office, and the Tuolumne County Victim/Witness office on the south end of the corridor.



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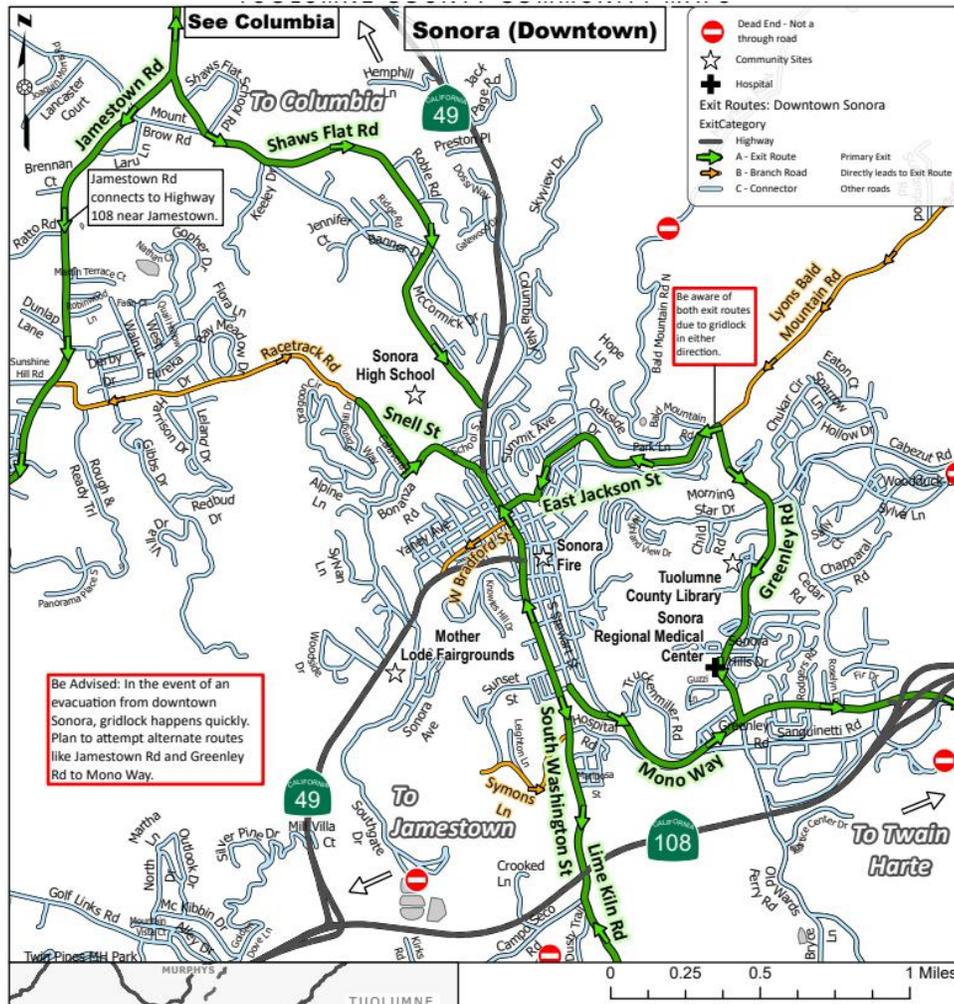


Figure 11. Public Facilities in Phase 2 SR 49 Corridor

5.0 Built Environment Analysis

Sonora's urban design is based on its rich history as a Gold Country and the “Queen of the Southern Mines.” The existing architecture is exemplified by the historic buildings, hilly topography, and continued success in the logging industry. As a small rural community, with a historic downtown core, Sonora celebrates its culture through arts, live theater, and a variety of events within walking distance of SR 49 (Washington Street) and S. Washington Street. The pedestrian-scaled environment creates an intimate environment that attracts locals and visitors alike.

Regionally, Sonora is located in the Sierra Nevada foothills with access to a few national parks such as Stanislaus National Forest and Yosemite National Park, and several state parks, including Railtown 1897 State Historic Park and Columbia State Park. This provides



ample opportunities for active recreation such as hiking, mountain biking, camping, golfing, and many other outdoor activities accessible within proximity to Sonora.

Some of the well-known businesses in the County are located in Sonora, which includes Sonora Regional Medical Center, County of Tuolumne, and Wal-Mart. Meanwhile, local destinations include the Mother Lode Fairgrounds, Dagoon Gulch Trail, Tuolumne County Courthouse, the Red Church (Saint James Historic Church), Sonora High School, and a variety of businesses along the commercial corridor along SR 49 (Washington Street).

5.1 Streetscape

The Phase 2 corridor has been segmented to show key features including roadway and shoulder width, contours, key businesses, trees/vegetation, utilities (i.e., drainage, powerlines, gas lines, manholes, catch basins, etc.), intersections, pavement conditions, and signage. Segment 1 streetscape is the southern extent of the corridor and Segment 8 is the northern extent of the corridor. Segment 2 has the most amount of development including 12 utility manholes, 9 street lights, one traffic signal, neighboring businesses, signs/billboards, ornamental palm trees, and sidewalks. Other segments exhibit minimal development due to steep topography. Segment 8 exhibits a wider right-of-way and shoulder width to accommodate a right-hand turning lane onto Parrotts Ferry Road.

5.1.1 Pavement Conditions

The pavement within Phase II generally consists of well-maintained roads. The most notable areas with a few pavement cracks and potholes are within the Mill's Garden Apartment area. Pavement striping also shows to be well maintained with an overall legible pavement striping throughout.

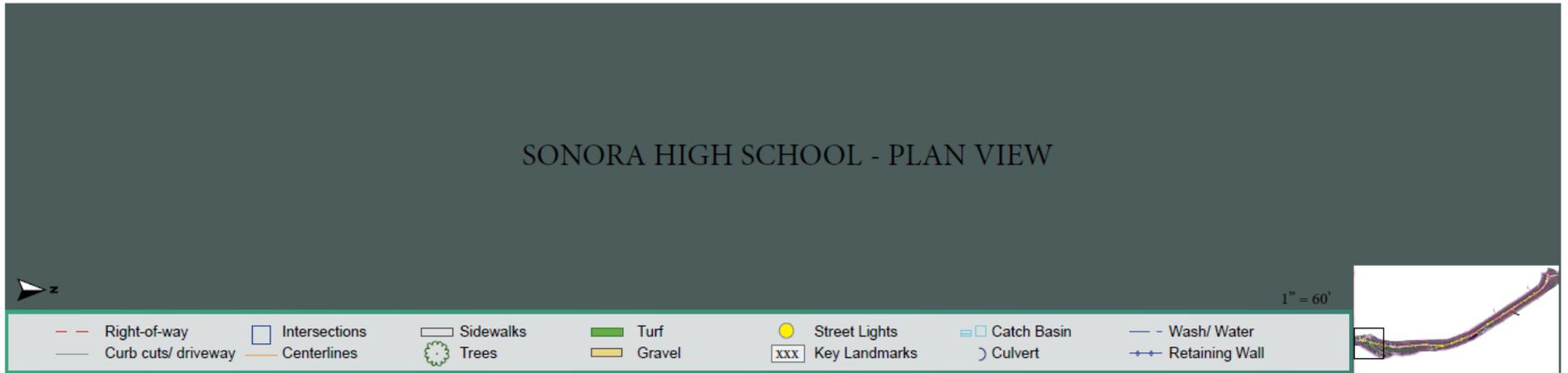
5.1.2 Placemaking Elements

The corridor has only a few placemaking elements. The most common types are monument or free-standing signages that have plaques to describe the history of the area. These generally are within bus bays to provide additional roadway space for stopping vehicles and buses for visitors and locals to enjoy. Other placemaking elements include retail signages, street signs, and mailboxes. Trees and ornamental vegetation can also be a placemaking element. Segments closer to downtown Sonora exhibit ornamental palm trees and native-species street trees near the N Washington St and Columbia Way intersection.

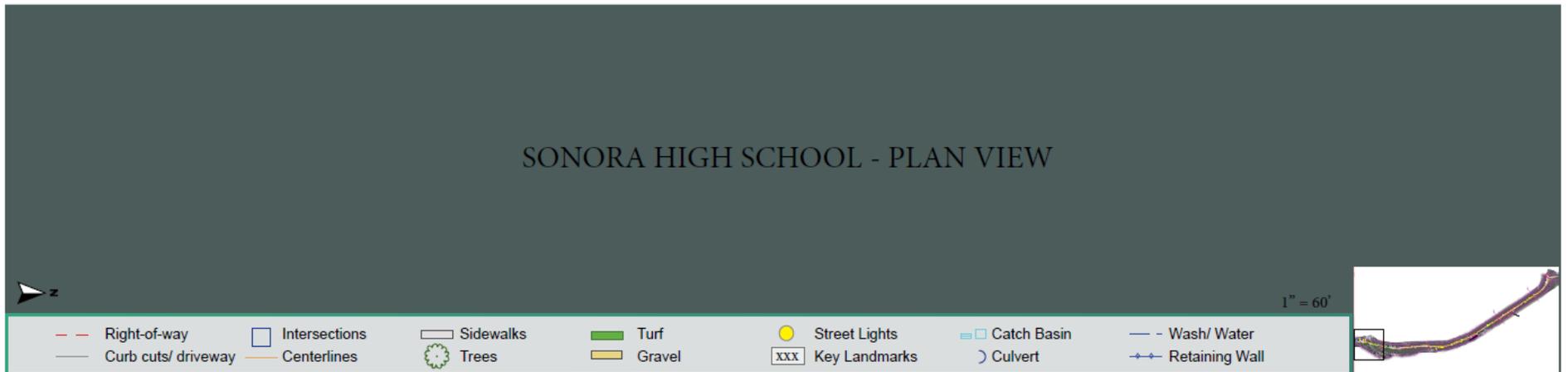


Tuolumne County Transportation Council (TCTC)
Existing Conditions Report

Segment 1a: Shaw Mills Flat to Arco Gas Station (11+00)

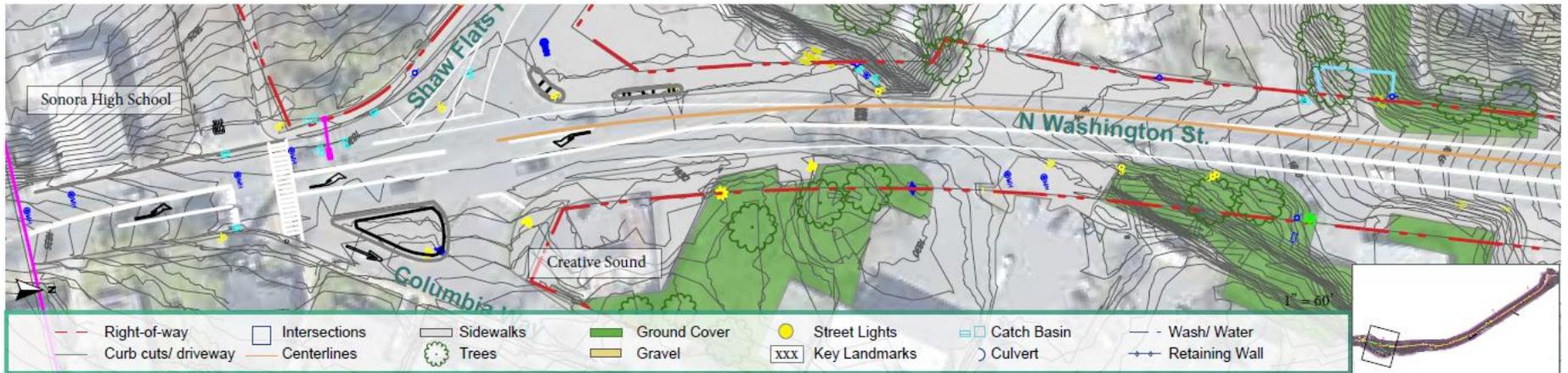


Segment 1b: Shaw Mills Flat to Arco Gas Station (11+00)

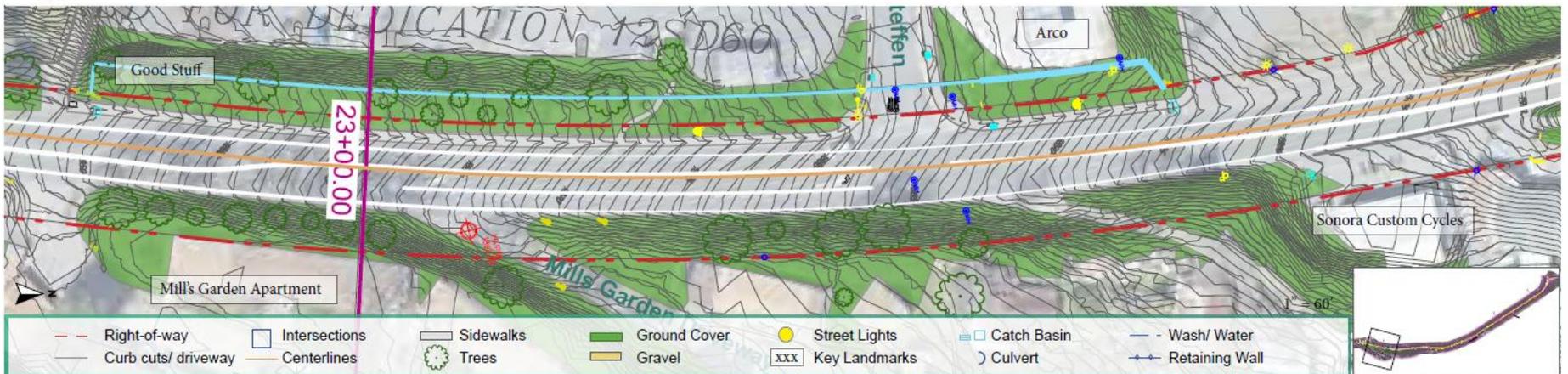


Tuolumne County Transportation Council (TCTC)
Existing Conditions Report

Segment 2a: Shaw Flat Road to Arco



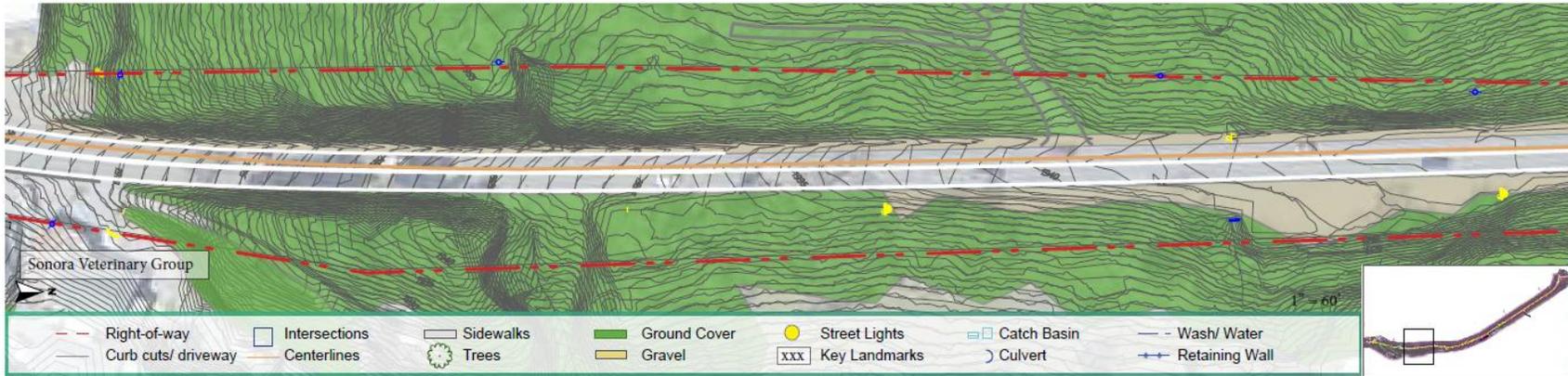
Segment 2b: Shaw Flat Road to Arco



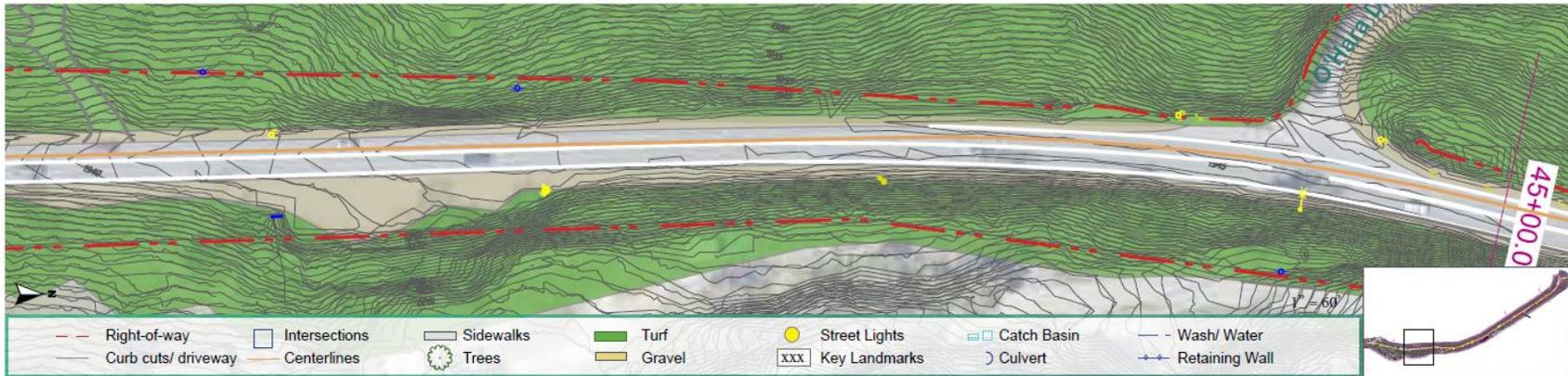


Tuolumne County Transportation Council (TCTC)
Existing Conditions Report

Segment 3a: Sonora Veterinary Group to O'Hara Drive



Segment 3b: Sonora Veterinary Group to O'Hara Drive

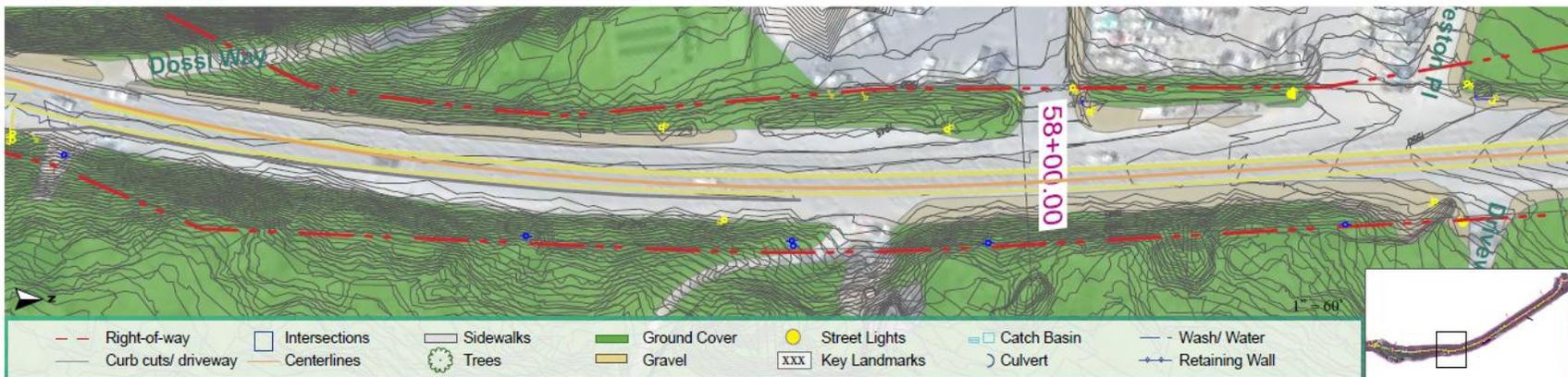


Tuolumne County Transportation Council (TCTC)
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Segment 4a: O'Hara Drive to Preston Place



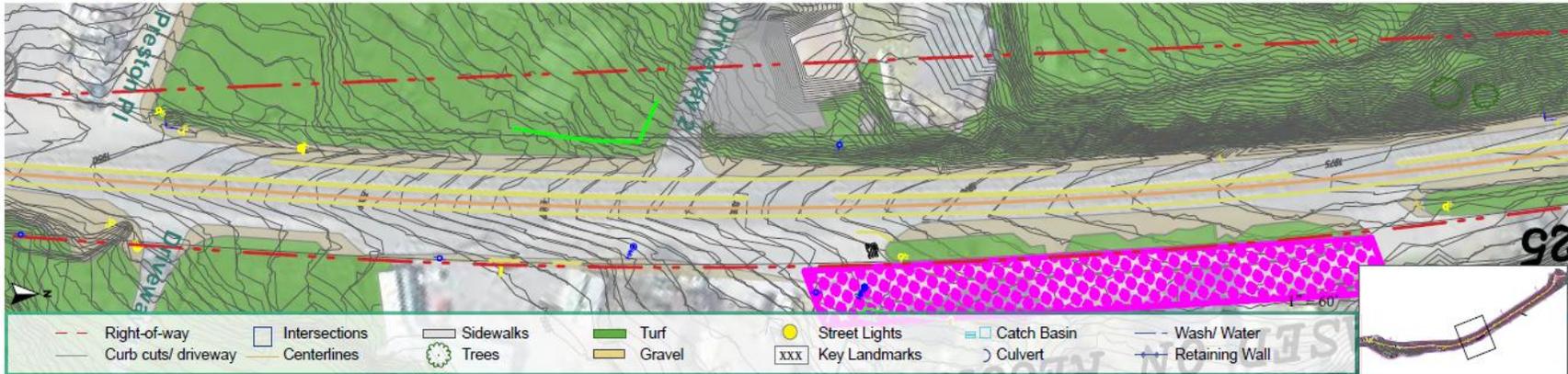
Segment 4b: O'Hara Drive to Preston Place



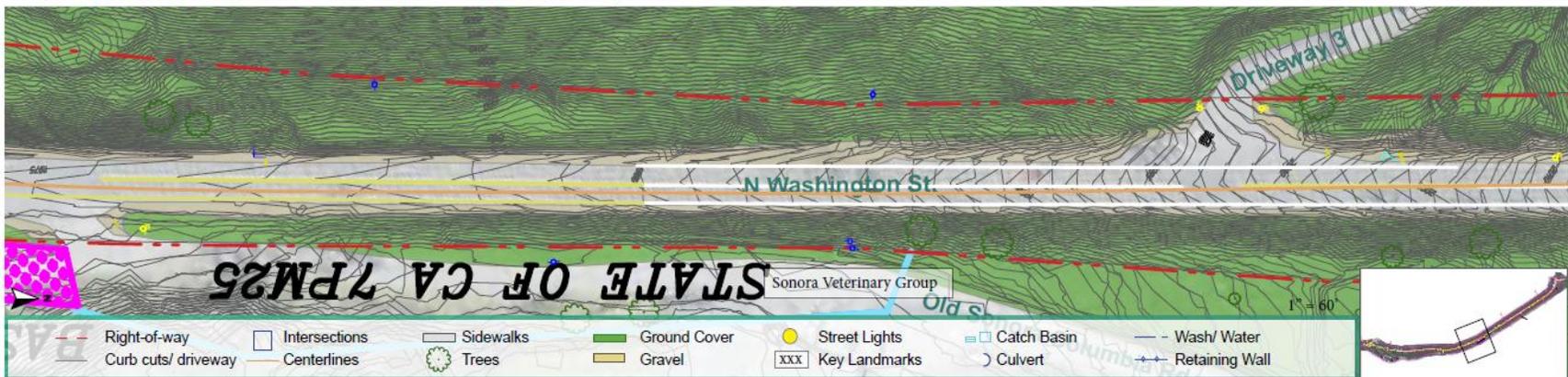


Tuolumne County Transportation Council (TCTC)
Existing Conditions Report

Segment 5a: Preston Place to Sonora Veterinary Group

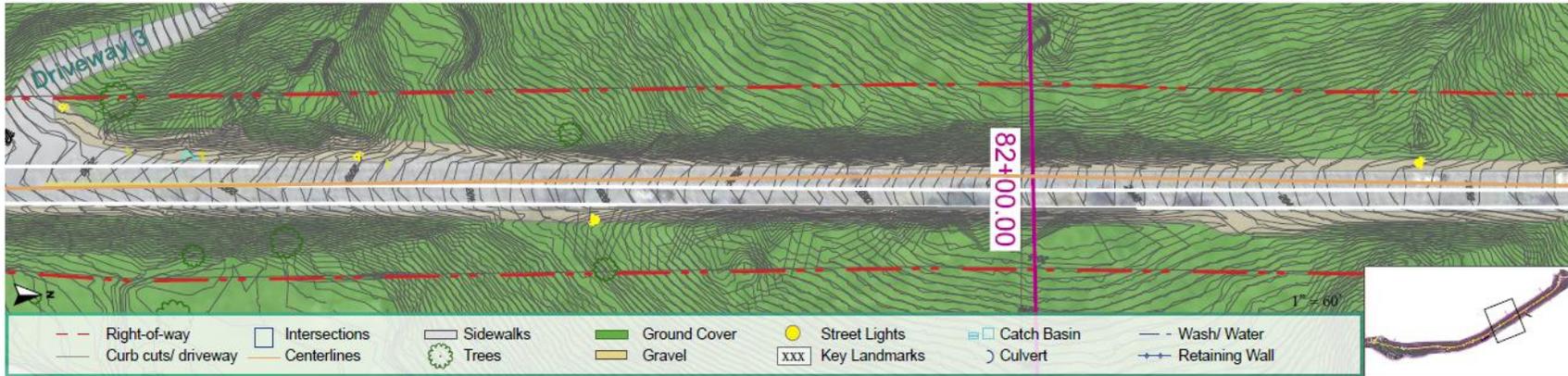


Segment 5b: Preston Place to Sonora Veterinary Group

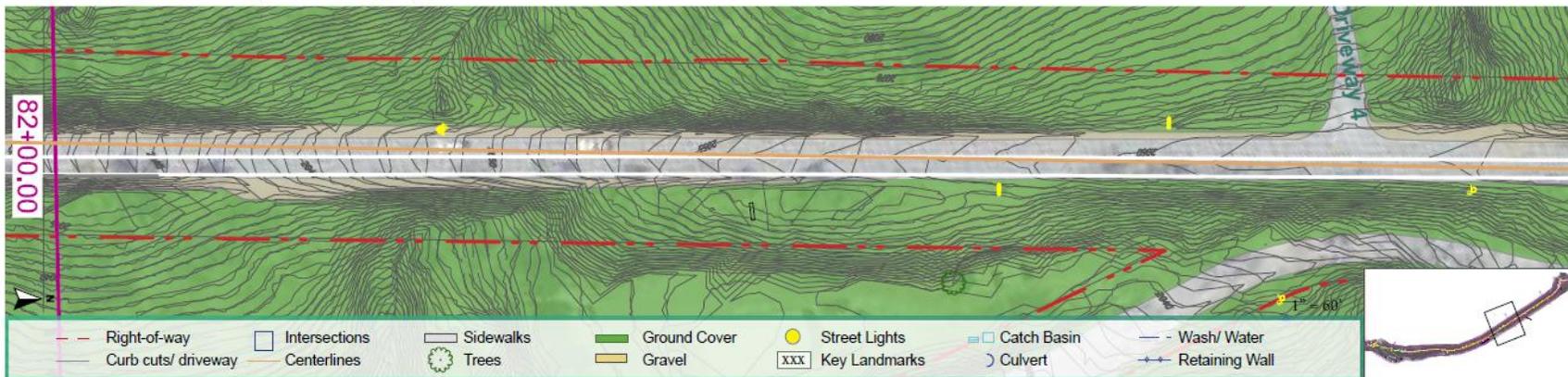


Tuolumne County Transportation Council (TCTC)
Existing Conditions Report

Segment 6a: Driveway 3 to Driveway 4

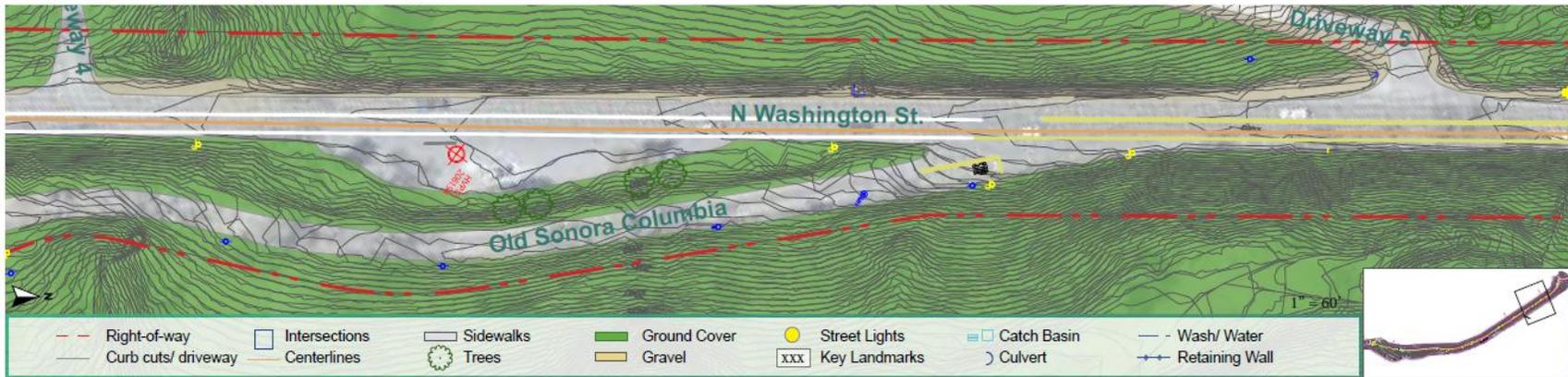


Segment 6b: Driveway 3 to Driveway 4

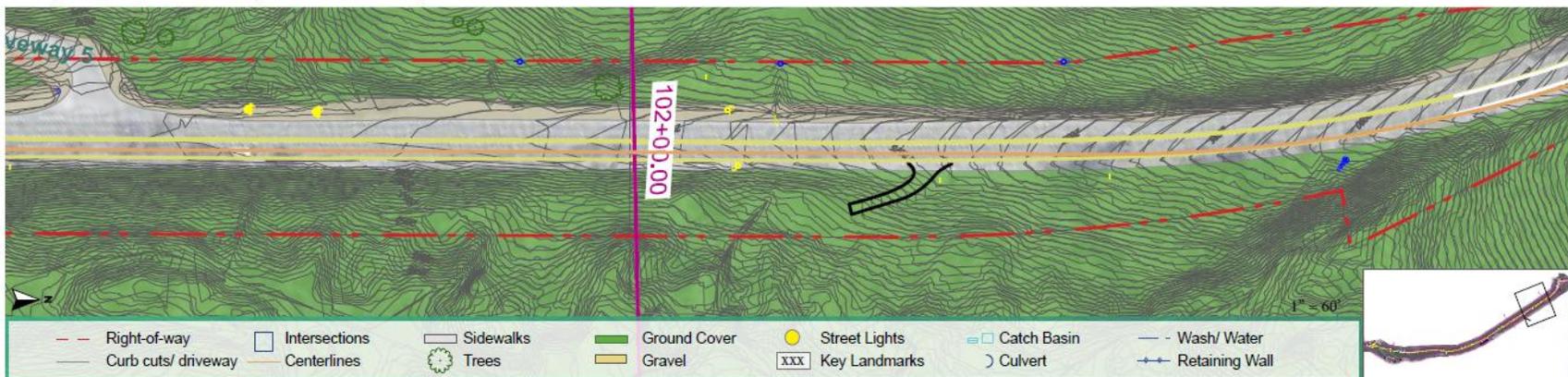


Tuolumne County Transportation Council (TCTC)
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Segment 7a: Driveway 4 to Driveway 5



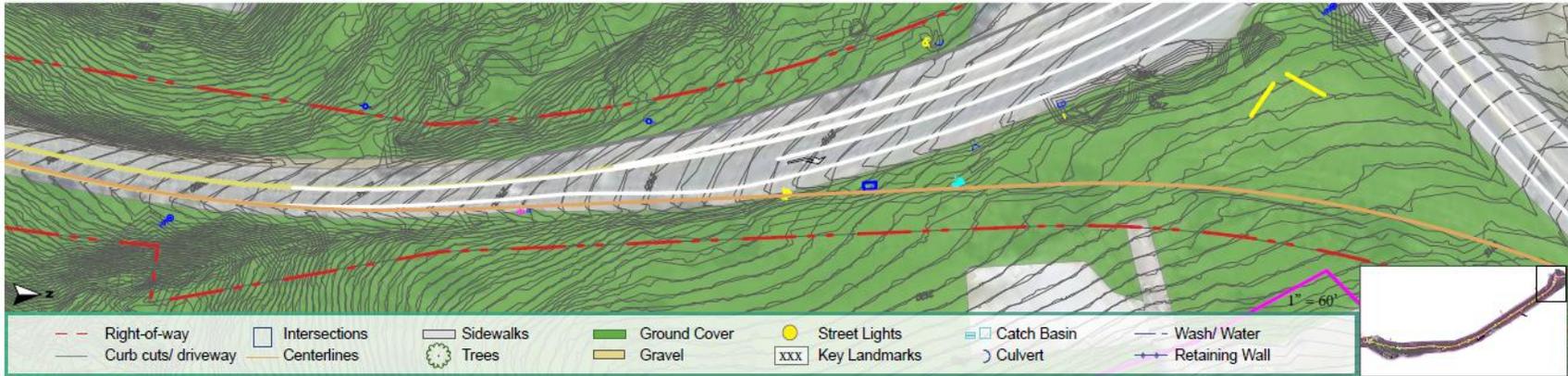
Segment 7b: Driveway 4 to Driveway 5



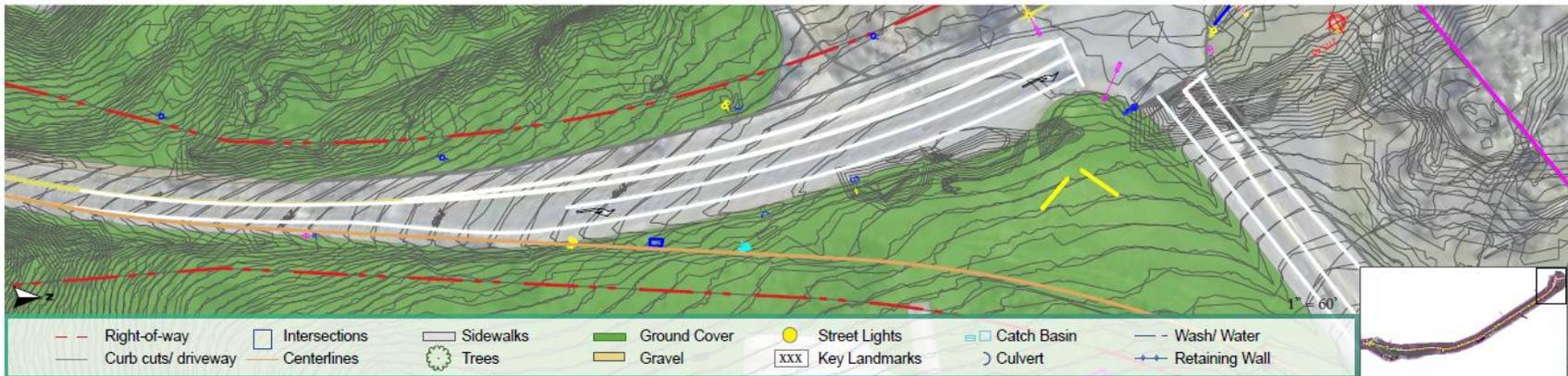


Tuolumne County Transportation Council (TCTC)
Existing Conditions Report

Segment 8a: Driveway 5 to Parrots Ferry Road



Segment 8b: Driveway 5 to Parrots Ferry Road



5.1.3 Typical Cross Sections

The typical cross sections of the corridor have been broken up into segments that best demonstrate the variety and most common condition throughout the corridor. Curb cuts for all segments within the corridor are mapped in **Figure 12** below.



Figure 12. Curb Cuts Bisecting SR 49 (Kimley-Horn, 2025)

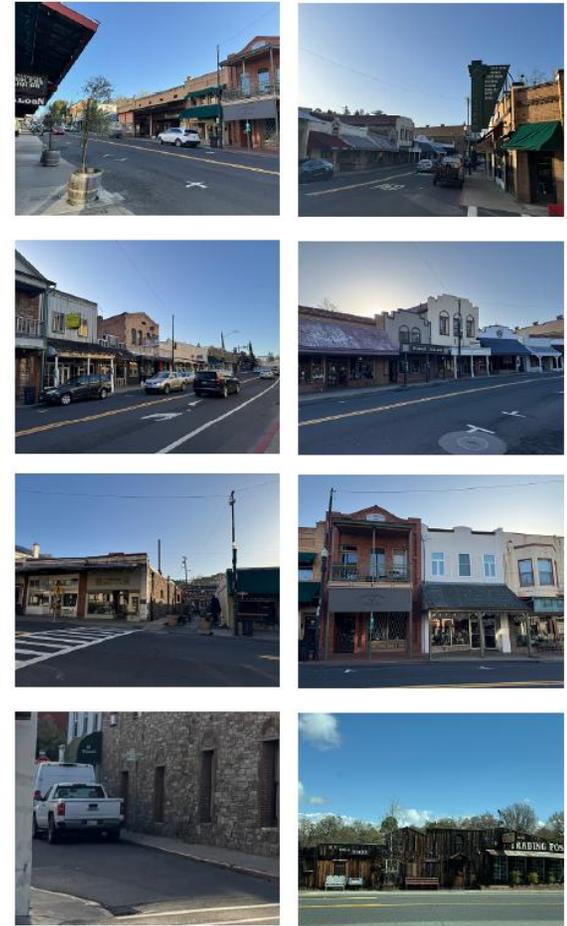
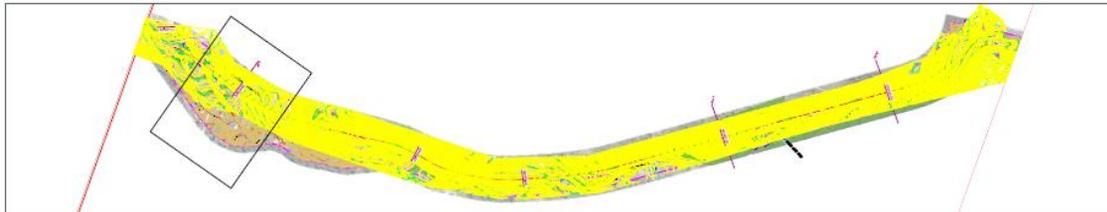


Cross Section – Segment 2: This is the southernmost segment of SR49 consisting of a 52-foot-wide right-of-way (ROW). The ROW includes an 8-foot sidewalk on one side, 12-foot lanes going both directions, a 12-foot center running median, and 4-foot shoulders on each side. This segment begins by Sonora Veterinary Group to the north and ends by Arco Gas Station to the south. The terrain within this segment is generally flat with a downward slope to the southern portion of the segment near Sonora High School. Main businesses surrounding this segment include Sonora Custom Cycles, Provost & Pritchard Consulting Group, Vic’s Towing yard, Arise Tattoo, and other visitor and resident serving uses that are nearby downtown Sonora. Vegetation consists mainly of chaparral communities such as scrub oak, coast live oak, and dry grassy areas typical of the Sierra Nevada foothills. Streetlights, utility manholes, fire hydrants, and water pipelines are prevalent at the southernmost portion of the segment around the three-way intersection. There are no dedicated bike lanes or sharrows along this segment of SR49. Speed limits are posted at 25 to 35 mph. There are 21 existing curb cuts that intersect SR 49 and where vehicles can access the main corridor. Streets that intersect SR 49 in this segment include:

- Shaws Flat Road
- Columbia Way
- Steffen Lane
- O’Hara Drive
- Dossi Way
- Preston Place
- Various unnamed private driveways

Tuolumne County Transportation Council (TCTC)
Existing Conditions Report

Existing Cross Section - Segment 2: Shaw Mills Flat to Arco Gas Station



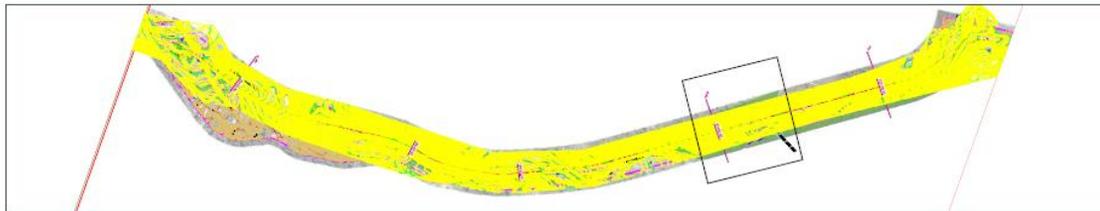
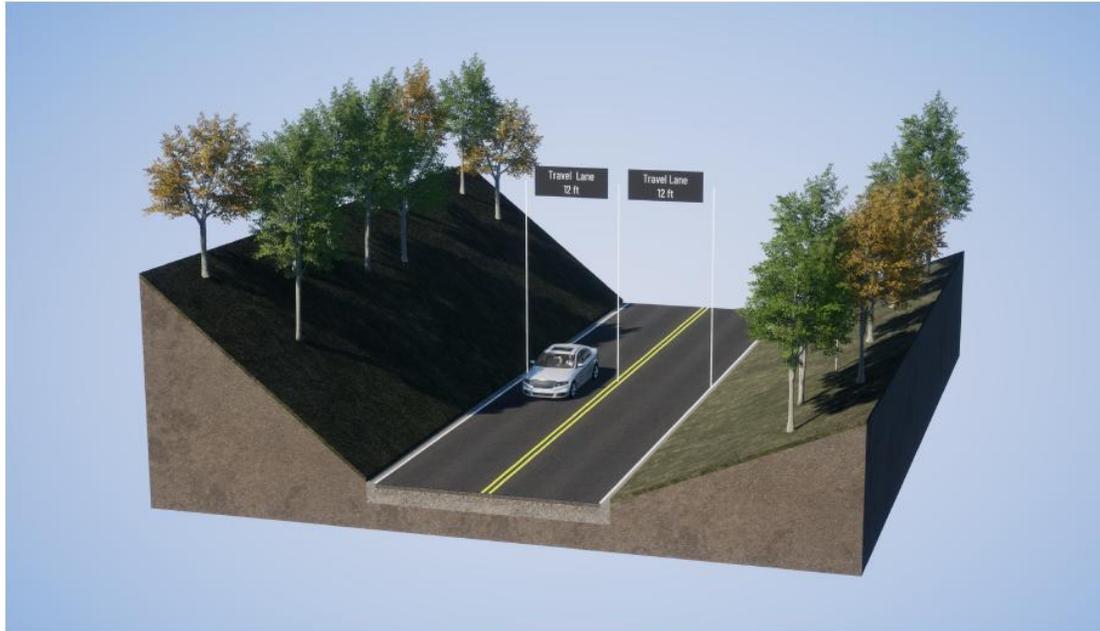


Cross Section – Segment 3: This segment has the narrowest and most constrained condition with a trenched topography. The southern portion of the segment spans about 29 feet wide and then narrows closer to the north portion of the segment where the right-of-way spans 24 feet in width with only two 12-foot lanes on both sides. The segment is generally flat with a slightly downward towards the south and is surrounded by thick rows of trees which slopes uphill on both sides. This segment begins by Old Sonora Columbia Road to the north and ends by Sonora Veterinary Group to the south. Sonora Christian Life Center is the main point of interest and is predominantly undeveloped. Existing vegetation comprises of dense oak trees and shrubs. There are no pedestrian sidewalks or demarcation for bicycles. ROW shoulders are narrow and covered with sediment from upslope. Utility manholes and streetlights are generally dispersed along SR49. There are four (4) curb cuts that intersect SR49, including:

- Old Sonora Columbia Road
- Jack Page Road
- Unnamed paved private driveways

Tuolumne County Transportation Council (TCTC)
Existing Conditions Report

Existing Cross Section - Segment 3: Arco Gas Station to Sonora Veterinary Group



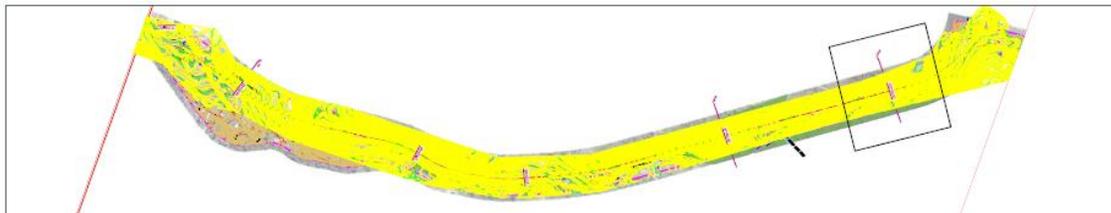
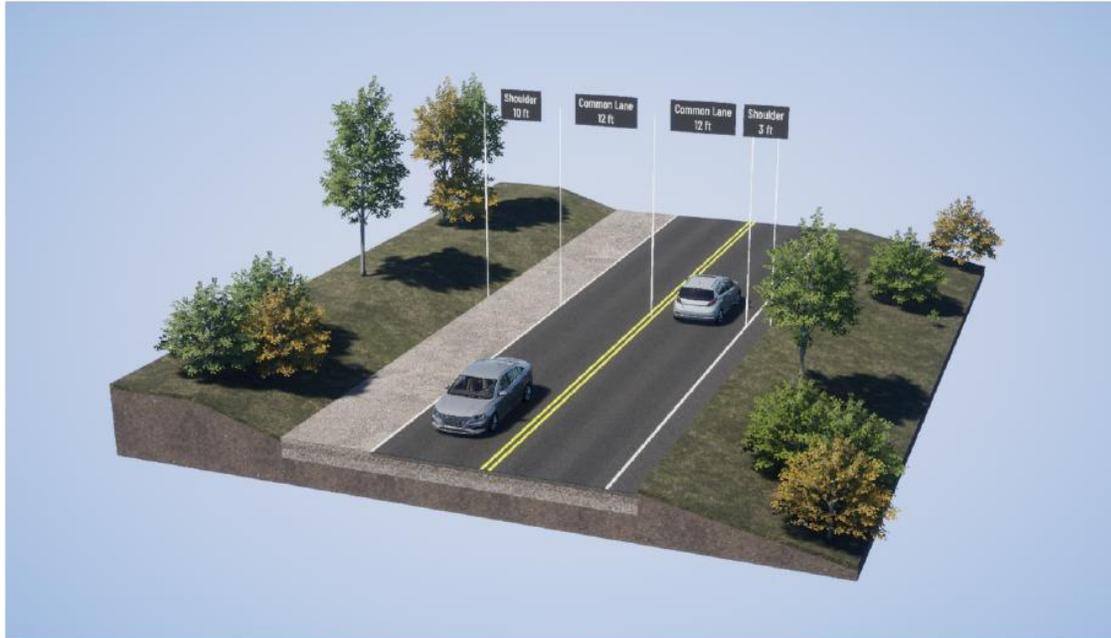


Cross Section – Segment 4: This segment consists of 37-foot right-of-way that includes two 12-foot travel lanes going both directions, a 3-foot shoulder on one side, and a 10-foot shoulder on the other side. Portions of the 3-foot shoulder are covered by upslope debris that constrains potential pedestrian or bicycle uses. Portions of the 10-foot shoulder are intersected with wide curb cuts that allow vehicles to park, load, or idle away from the main traffic along SR49. The topography on this area has a slight grade change with an upward terrain where the larger shoulder is and a downward terrain on the side with a smaller shoulder. This segment begins by Parrots Ferry Rd to the north and ends by Old Sonora Columbia Road to the south. There are no buildings or businesses along this segment of SR49 and is lacking utility improvements. There are no intersections that bisect or cross the segment, however, the northernmost portion of the SR49 segment is wider due to a dedicated right hand turn lane and center median.



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Existing Cross Section - Segment 4: Old Sonora Columbia Rd to Parrots Ferry Rd





5.2 Landscape & Cultural Heritage

Prior to European settlement in the early 19th century, the dominant land cover was a mosaic of oak woodland and oak savanna. Ponderosa pines (*Pinus ponderosa*) are also prevalent at elevations of about 1,500 feet to 2,500 feet and commonly found with California black oak (*Quercus kelloggii*) and is typical of the Sierra Nevada foothills. The Central Sierra Me-Wuks arrived between 2,000 and 600 years ago and had a significant influence on the natural landscape and vegetation on the area¹¹. Cultural practices such as prescribed burning resulted in reduced ground covering shrubs and thickets, reduced crown canopy cover, lower tree density, and dominance of fire-resistant tree species like ponderosa pine¹². Since European settlement, many of the Ponderosa pine trees have been cut for timber.

To aid the rapidly growing gold and timber industry, multiple roads were built and paved to increase the flow of supplies from the eastern Sierras to western foothills. The natural storage of water via lakes and reservoirs in the Sierra Nevada mountains resulted in the development of dams, water systems, and other utilities that stretched from the mountains to foothill towns to encourage economic growth in the region¹³. Natural water systems were also re-routed to aid with the second wave of gold mining in the 1880s that required moving water to separate gold ore from the surrounding sediment, also known as “placer mining”¹⁴. This resulted in a change in the vegetative landscape to decreased tree canopy and density and increased species richness. The amount of impervious surfaces has also increased as a result of buildings, roads, and other developments. Currently, the landscape within the corridor consists mostly of gravel, grass, sidewalk pavements, rows of trees, or a few street trees and shrubs in areas with building development.

The project area begins at higher elevations near Parrotts Ferry Rd and runs through the Browns Flat and Shaws Flat area, a relatively flat riverine valley (Woods Creek) that had significant mining activity during the mid-19th century and consisted of mining camps. The project area terminates to the south at lower elevations in downtown Sonora near Sonora High School. Sonorians, a term describing Spanish-speaking miners from Sonora, Mexico, settled in a camp along Woods Creek currently known as Sonora High School during the early 19th century¹⁵.

¹¹ 2018 Tuolumne County General Plan Updated EIR.

¹² https://pubs.usgs.gov/dds/dds-43/VOL_II/VII_C46.PDF.

¹³ <https://tchistory.org/up-in-the-hills/>.

¹⁴ <https://tusccountystories.com/2023/01/30/william-watson-gold-mining-and-a-california-tragedy/>.

¹⁵ <https://tchistory.org/sonora-crossroads-of-tuolumne-county/>.



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Drainage generally flows westerly downslope from the Sierra Nevada mountains through Sonora to lower elevation lakes and reservoirs. Sonora is generally south facing with tributaries such as Woods Creek, Portuguese Gulch, O'Neil Ditch, and Shaws Flat Ditch draining into Tuolumne River to the south. Prominent hillsides around the project area include Bald Mountain and Squabbletown to the east. **Figure XX** below shows the percent rise or inclination of slope for the project area. Areas with lower percent rise indicates a flatter terrain, where 0 is a flat surface, and higher percent rise indicates more vertical inclines, where 100 is a 45-degree angle.

Geologic surveys show that the project area consists of fine-loamy, alluvium or riverine deposits (Qa) and mixed soils¹⁶ and are classified in the late Paleozoic and early Mesozoic periods. The project area is primarily underlain by metasedimentary bedrock^{17,18}:

- Marble – white to gray-blue recrystallized limestone and dolomite (M_zP_zcm), and
- Calaveras Complex – mix of strongly foliated argillite, phyllite, quartzite, schist, chert, and extensive marble lenses and blocks (M_zP_zcc).

¹⁶ USDA. Natural Resources Conservation Science Web Soil Survey. Accessed at <https://websoilsurvey.nrcs.usda.gov/app/WebSoilSurvey.aspx>.

¹⁷ Spangler, E.R., Holland, P.J., Schweickert, R., and O'Neal, M.D., 2023, Preliminary geologic map of the Columbia 7.5' Quadrangle, Calaveras and Tuolumne counties, California, California Geological Survey, Preliminary Geologic Maps PGM-23-01, 1:24,000. Accessed at <https://ngmdb.usgs.gov/mapview/?center=-120.369,37.987&zoom=13>.

¹⁸ Wills, C.J., O'Neal, M.D., Holland, P.J., Parrish, B.M., and Delattre, M.P., 2021, Preliminary geologic map of the east half of the Oakdale 30' x 60' quadrangle, California [superseded by PGM 22-09], California Geological Survey, Preliminary Geologic Maps PGM-21-04, 1:100,000. Accessed at <https://ngmdb.usgs.gov/mapview/?center=-120.369,37.987&zoom=13>.



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TABLE 46.6

Wildlife habitats and vegetation and land-use types along Highway 49.

Wildlife Habitat	Vegetation or Land-Use Type
Blue oak woodland ^a	Blue oak woodland Blue oak savanna Maul oak woodland Maul oak savanna
Blue oak-foothill pine ^a	Regenerating blue oak woodland Blue oak-foothill pine woodland Blue oak-foothill pine woodland (recently burned) Black oak-foothill pine woodland Foothill pine woodland Maul oak-foothill pine woodland State historic park
Montane hardwood ^a	Mixed broadleaf forest
Valley oak woodland ^a	Valley oak savanna
Valley foothill riparian ^a	Riparian woodland
Ponderosa pine ^a	Ponderosa pine forest Ponderosa pine forest (recently burned) Maul oak-ponderosa pine woodland Black oak-ponderosa pine woodland
Mixed chaparral ^a	Foothill pine-chaparral Himalayan blackberry erosion-control planting Scotch broom scrub Christmas tree farm
Annual grassland ^a	Grassland Pasture Hayfield
Urban ^a	Industrial Urban residential (quarter-acre lot) Urban commercial Trailer park Institutional property
Rural residential	Rural residential (less-than-1-acre lot) Rural residential (1-3-acre lot)
Orchard	Orchard
Vineyard	Vineyard
Mine	Mine
Reservoir	Reservoir

^aCalifornia Wildlife Habitat Relationship Program type.

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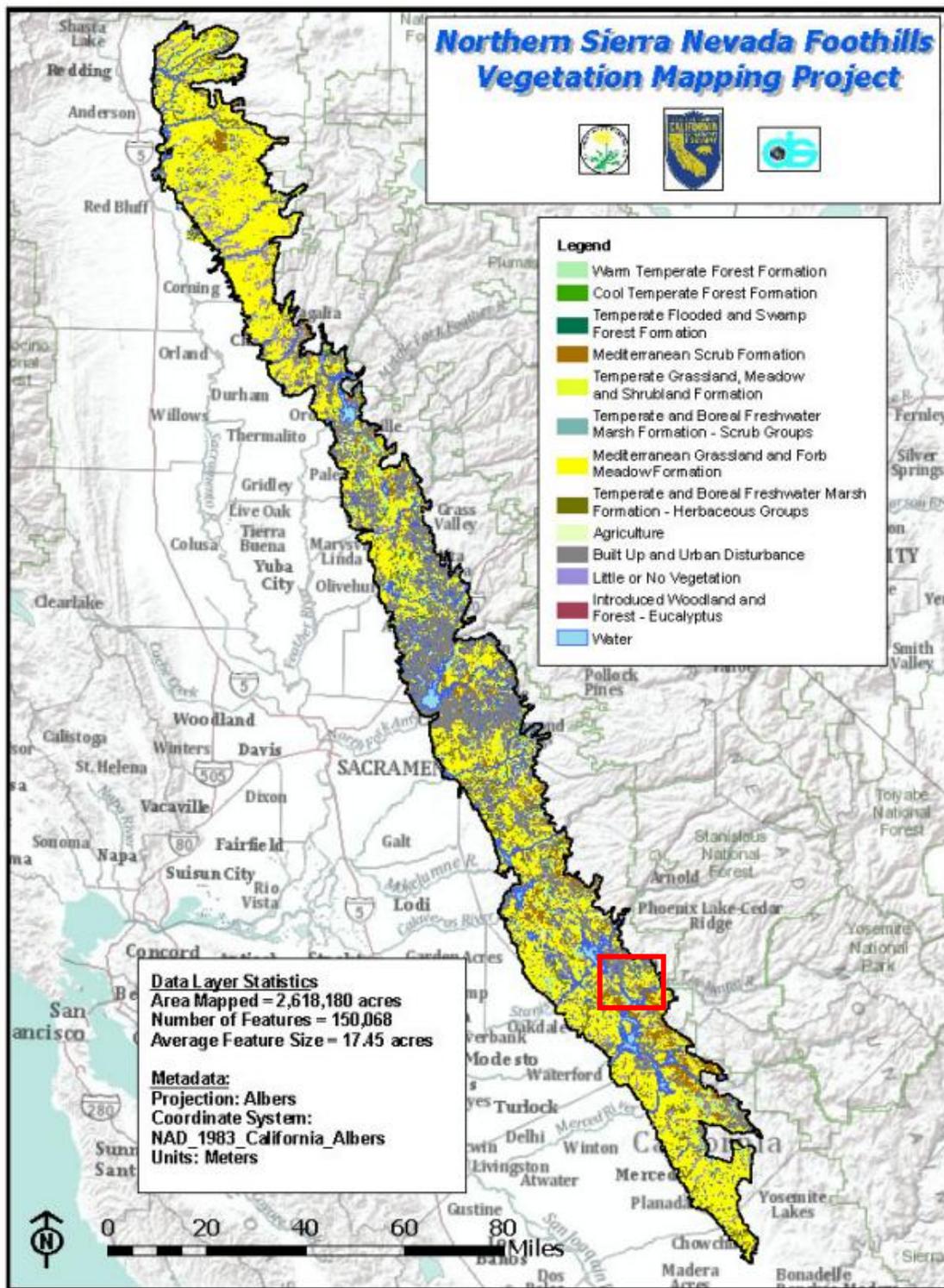
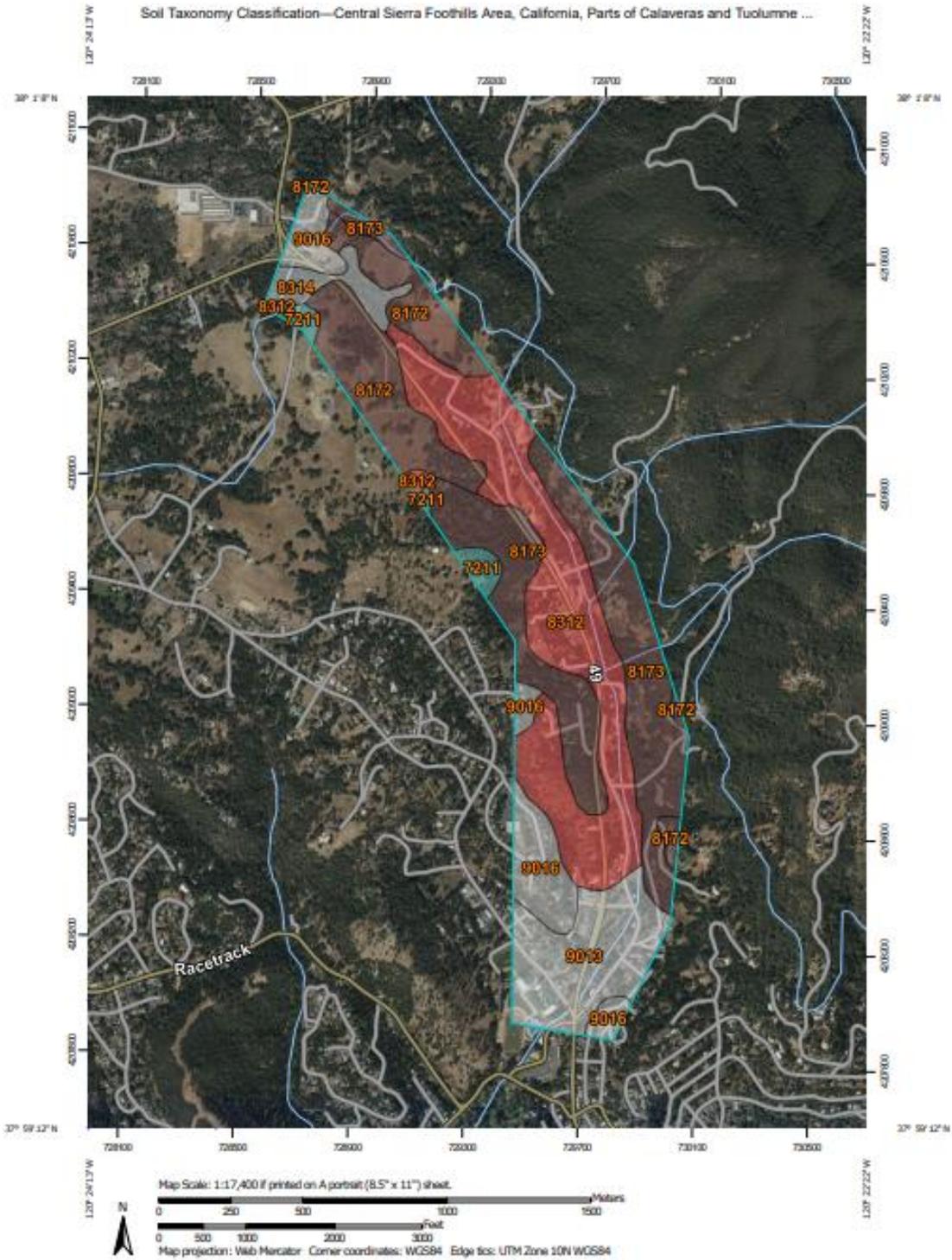


Figure 13. Vegetation Map of Northern Sierra Nevada Foothills (Source: 2011 [California Native Plant Society](#))



Tuolumne County Transportation Council (TCTC) Existing Conditions Report





Tuolumne County Transportation Council (TCTC)
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Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI
7211	Milvilla-Lucky mine complex, 15 to 30 percent slopes	Fine-loamy, mixed, active, thermic Ultic Haploxeralfs	7.6	2.0%
8172	Nedsgulch-Wallyhill-Arpatutu complex, 15 to 30 percent slopes	Fine-loamy, mixed, semiactive, mesic Ultic Palexeralfs	64.3	16.7%
8173	Nedsgulch-Wallyhill-Arpatutu complex, 30 to 60 percent slopes	Fine-loamy, mixed, semiactive, mesic Ultic Palexeralfs	103.0	26.8%
8312	Aquariusmine-Milvilla complex, 3 to 30 percent slopes	Fine-loamy, mixed, superactive, thermic Vertic Haploxeralfs	113.8	29.6%
8314	Rock outcrop-Tiger Creek-Vertic Haploxerepts complex, 1 to 45 percent slopes		11.3	3.0%
9013	Urban land-Milvilla complex, 1 to 25 percent slopes		49.3	12.9%
9016	Urban land-Nedsgulch-Wallyhill complex, 15 to 30 percent slopes		34.7	9.0%
Totals for Area of Interest			383.9	100.0%

5.3 Historical, Tribal, and Cultural Significance

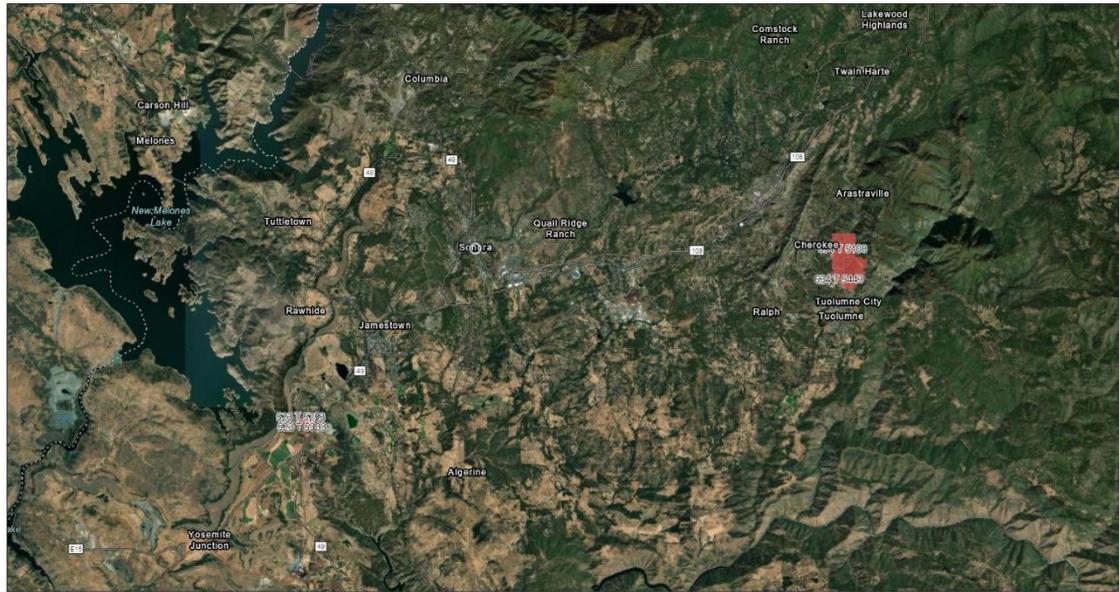
Tribal history goes back to time immemorial when the Me-Wuk peoples first settled in the Tuolumne region. Year-round Me-Wuk villages were usually located on ridges near a major spring or drainage confluence below the heavy snow line (about 3,500–4,000 feet in elevation). Seasonal and temporary camps occurred in higher elevations and floodplains that were convenient for hunting, gathering, and fishing. There was an estimated 35 pre-1848 villages in the County, indicating that the County was a significant residential and resource procurement area for the Central Sierra Me-Wuk¹⁹. The Sonora Pass that is now SR 108 was an important trading route with neighboring tribes located in the eastern Sierras. Since the development of the region after 1848, the Central Sierra Me-Wuk have consolidated under two federally recognized reservations, as shown in the figure below.

¹⁹ 2018 Tuolumne County General Plan Update Draft EIR.



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Tribal Reservation Land



The incorporation of Sonora dates back to 1851, as the 10th oldest city in California and was founded as a mining town during the California Gold Rush. The following places within the City of Sonora have been listed under the National Register of Historic Places:

- Cady House – 72 N. Norlin Street
- City Hotel – 145 S. Washington Street
- Sugg House – 37 Theall Street
- Tuolumne County Courthouse – 41 W. Yaney Avenue
- Courthouse Square
- Tuolumne County Jail – 156 W. Bradford Avenue

A historic landmark located within the City of Sonora boundaries resides St. James Anglican Church and is formally listed on the California Historical Landmarks (No. 139). Also known as the Red Church, named after the California Redwood, the historic building was built in 1859 and is one of the oldest Episcopal Church buildings in the state. It is located at the intersection of SR 49 (Washington Street) and Snell Street.



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Other historically significant buildings that represent the City's unique history include the following:

- Coffill Park
- Opera Hall
- Sonora Fire Museum
- Prospector Park
- Grigsby Park
- Dragoon Gulch Trail
- Shay Engine #3
- Morgan Mansion
- Bradford Building
- Wells Fargo Building
- City Hotel
- Sonora Inn
- Gunn House
- Tuolumne County Museum
- Tuolumne County Veterans Museum

6.0 Right-of-Way

6.1 Public Right-of-Way

PENDING

6.2 Ownership Patterns

Parcels surrounding the project area are primarily privately owned by individuals whereas commercial properties closer to downtown Sonora are privately owned by LLCs or organizations.