HSIP Cycle 11 Silverado Trail Intersection Improvements

HSIPL-5921(090)

Initial Study/Mitigated Negative Declaration

Prepared by

Napa County Public Works Department

In Consultation with

DAVID J. POWERS & ASSOCIATES, INC.

ENVIRONMENTAL CONSULTANTS & PLANNERS

January 2026

A Tradition of Stewardship
A Commitment to Service

NAPA COUNTY
MITIGATED NEGATIVE DECLARATION

DESCRIPTION OF THE PROJECT

Project Title: HSIP CYCLE 11 SILVERADO TRAIL INTERSECTION IMPROVEMENTS/HSIPL-5921(090)

Project Location: The project proposes to improve three intersections on Silverado Trail at Oak Knoll Avenue, Zinfandel Lane, and the Strawberry Patch located adjacent to 2149 Silverado Trail.

Project Sponsor: Napa County Public Works Department

Project Description: Napa County was awarded the Highway Safety Improvement Program (HSIP) Cycle 11 grant to improve three critical intersections on Silverado Trail. The Proposed Project involves intersection safety improvements including the installation of flashing beacons, right-turn lanes, and left-turn lanes. The following intersections do not comply with current safety standards and need upgrades and/or installation of warning signage to improve overall visibility.

Silverado Trail at Oak Knoll Avenue: Improvements include the installation of flashing beacons on either end of the intersection on Silverado Trail, a new streetlight, widening the apron of the Oak Knoll Avenue intersection with Silverado Trail and installing a right-turn lane on eastbound Oak Knoll Avenue, restriping the median on Silverado Trail north of the intersection to extend the median closer to the intersection, and widening Silverado Trail on the southbound lane towards Oak Knoll Avenue to provide a right-turn lane.

Silverado Trail at Zinfandel Lane: Improvements include the installation of flashing beacons on either end of the intersection on Silverado Trail and a new streetlight.

Silverado Trail at the Strawberry Patch: Improvements include widening the northbound travel lane on Silverado Trail in front of the Napa Strawberry business located at 2149 Silverado Trail (Strawberry Patch) to provide room for a left-turn lane and acceleration lane.

DETERMINATION

In accordance with the Napa County procedures for compliance with the California Environmental Quality Act (CEQA), the County has completed an Initial Study to determine whether the proposed project may have a significant adverse effect on the environment. On the basis of that study, the County makes the following determination:

Although the project, as proposed, could have a significant effect on the environment, there will not be a significant effect in this case because mitigation measures are included in the project which will reduce all identified potential impacts to less than significant levels, and, therefore, this **MITIGATED NEGATIVE DECLARATION (MND)** has been prepared.

CONDITIONS (MITIGATION MEASURES)

Biological Resources:

MM BIO-1.1: If vegetation removal and/or initial ground disturbance occur during the general nesting bird season (February 1 to August 31), pre-construction surveys for nesting birds will be conducted by a qualified biologist to ensure that no nests will be disturbed during project implementation. These surveys shall be conducted no more than 14 days prior to the initiation of tree removal or ground disturbance. During this survey, a qualified biologist shall inspect all potential nesting habitats within 500 feet of impact areas for white-tailed kite, as accessible, and other raptor nests and within 100 feet of impact areas for nests of non-raptor species.

MM BIO-1.2: If active bird nests are found during the survey, an appropriate no-disturbance buffer will be established by the qualified biologist in consultation with CDFW. Buffer sizes may vary depending on bird species, location and setting of the nest, levels of ambient disturbance near the nest, and other factors. Once it is determined that the young have fledged (left the nest) or the nest otherwise becomes inactive (e.g., due to predation), the buffer may be lifted, and work may be initiated within the buffer.

MM BIO-2.1: To achieve consistency with General Plan Policy CON-24, replacement native oak trees shall be planted at a minimum 2:1 ratio, i.e., at least 12 trees planted to compensate for the six proposed for removal. The oaks shall be planted on the edge of the Valley Oak Woodland at the Strawberry Patch intersection, and in suitable location(s) at or in proximity to the Oak Knoll Avenue intersection. Given that space for planting may be limited at the Oak Knoll Avenue intersection, there shall be flexibility regarding planting location that allows for a greater (disproportionate) number of trees to be planted at the Strawberry Patch intersection. The replacement trees shall be of the same species as those removed. Container size shall be five-gallon, and caging, mulching, vertical support staking, and irrigation shall be deployed at the time of planting to increase the likelihood of survival. If after three years, 12 (or more) planted trees have survived, then the tree replacement effort will be considered a success; otherwise, additional oaks shall be installed to fulfill the minimum 2:1 requirement.

MM BIO-3.1: All construction activities shall be scheduled to occur during the dry season (April 1 through October 15). If rainfall is in the forecast, standard erosion control measures (e.g., straw waddles, bales) shall be deployed on the project area edge perpendicular to the stream. Construction personnel shall be informed of the location of the stream with both silt fencing and high visibility flagging or staking prior to construction. All materials and equipment shall be laid down as far from the stream as is feasible, and spill prevention materials will be on the ready and deployable for all construction equipment.

Cultural Resources:

MM CUL-1.1: Prior to the commencement of construction, the project sponsor shall secure the services of a qualified archaeologist. The qualified archaeologist shall prepare a workforce environmental awareness program (WEAP) to instruct construction workers of the obligation to protect and preserve valuable cultural resources. The WEAP shall be reviewed and approved by the County's Public Works Director, or the Director's designee, prior to any ground disturbance. This program shall be provided to all construction workers as a field training prior to the beginning of ground-disturbing activities, and shall include a discussion of applicable laws and penalties under the laws; samples or visual aids of resources that could be encountered in the project vicinity; instructions regarding the need to halt work in the vicinity of any potential archaeological and Native American resources encountered; and measures to notify their supervisor and the County.

MM CUL-1.2: A qualified archaeologist shall prepare a monitoring plan for the Oak Knoll Avenue and Strawberry Patch locations of the project. The monitoring plan shall be submitted to Napa County Public Works for review and approval prior to the start of any ground-disturbing activities associated with the project. Ground-disturbing activities (including, but not limited to, demolition / excavation, grading, tree removal, and utility trenching) shall be monitored by a qualified archaeologist and Native American tribal representative culturally

and geographically affiliated with the project vicinity. The qualified archaeologist and Native American tribal representative shall have authority to halt construction activities temporarily in the immediate vicinity of an unanticipated find until its significance can be assessed by the qualified archaeologist and Native American tribal representative.

After observing a representative sample of ground-disturbing activity with no cultural resources encountered, the archaeologist and Native American tribal representative may recommend that monitoring move to a part-time or intermittent schedule by mutual agreement with the County. A summary report of the monitoring results, including any protective measures implemented, shall be submitted to the County.

MM CUL-2.1: In the event of the accidental discovery or recognition of any human remains, steps would be taken in compliance with the CCR Section 15064.5. All construction activities shall cease in the immediate area, and the County Coroner would be contacted, in accordance with 14 CCR Section 15064.5(e). If the coroner determines that the human remains are of Native American origin, the Native American Heritage Commission (NAHC) shall be notified to determine the most likely descendant (MLD) for the area. The MLD would make recommendations for the arrangements for the human remains per PRC Section 5097.98.

Hazards and Hazardous Materials:

MM HAZ-1.1: Prior to any ground disturbance, a soil investigation shall be conducted to determine whether aerially-deposited lead (ADL) has affected soils that will be disturbed by the proposed project. The analytical results shall be compared against applicable hazardous waste criteria. Based on analytical results, the investigation will provide recommendations regarding management and disposal of affected soils including the reuse potential of ADL-affected soil on the project site.

MM HAZ-1.2: Testing for the presence of lead-based paint and asbestos-containing materials, on the existing roadway and roadway paint to be removed shall occur. If these substances are found to be present, applicable regulations pertaining to their removal and disposal shall be followed.

FINDING

Napa County hereby finds that the proposed project could have a significant effect on the environment; however, there would not be a significant effect in this case because mitigation measures summarized above and described in the Initial Study are included in the project which will reduce all identified potential impacts to less than significant levels.

LEAD AGENCY REPRESENTATIVE

Sydney Barclay February 10, 2026

Sydney Barclay, Associate Engineer Date

For additional information regarding the project, please contact Sydney Barclay, Associate Engineer, Napa County Public Works Department at (707) 253-4351.

Written comments may be sent to Sydney Barclay via email at sydney.barclay@countyofnapa.org or via regular mail to Sydney Barclay, Associate Engineer, Napa County Public Works Department, 1195 Third Street, Suite 101, Napa, California.

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Appendix A: Biological Resources Reconnaissance Survey

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Appendix C: Summary Floodplain Evaluation Memorandum

All appendices are incorporated herein by reference.

Section 1.0 Introduction and Purpose

1.1 Purpose of the Initial Study

The County of Napa, as the Lead Agency, has prepared this Initial Study for the Highway Safety and Improvement Program (HSIP) Cycle 11 Silverado Trail Intersection Improvements Project in compliance with the California Environmental Quality Act (CEQA), the CEQA Guidelines (California Code of Regulations §15000 et. seq.) and the regulations and policies of the County of Napa, California.

The project proposes to improve three intersections on Silverado Trail at Oak Knoll Avenue, Zinfandel Lane, and the Strawberry Patch located adjacent to 2149 Silverado Trail. This Initial Study evaluates the environmental impacts that might reasonably be anticipated to result from implementation of the proposed project.

1.2 Public Review Period

Publication of this Initial Study marks the beginning of a 30-day public review and comment period. During this period, the Initial Study will be available to local, state, and federal agencies and to interested organizations and individuals for review. Written comments concerning the environmental review contained in this Initial Study during the 30-day public review period should be sent to:

Sydney Barclay, Associate Engineer
Napa County Public Works Department
1195 Third Street, Suite 101
Napa, CA 94559

1.3 Consideration of the Initial Study and Project

Following the conclusion of the public review period, the Napa County Board of Supervisors will consider the adoption of the Initial Study/Mitigated Negative Declaration (MND) for the project at a regularly scheduled meeting. The Board shall consider the Initial Study/MND together with any comments received during the public review process. Upon adoption of the MND, the County may proceed with project approval actions.

1.4 Notice of Determination

If the project is approved, the County of Napa will file a Notice of Determination (NOD), which will be available for public inspection and posted within 24 hours of receipt at the County Clerk's Office for 30 days. The filing of the NOD starts a 30-day statute of limitations on court challenges to the approval under CEQA (CEQA Guidelines Section 15075(g)).

Section 2.0 Project Information

2.1 Project Title

HSIP Cycle 11 Silverado Trail Intersection Improvements [HSIPL-5921(090)]

2.2 Lead Agency Contact

Sydney Barclay, Associate Engineer
Napa County Public Works Department
1195 Third Street, Suite 101
Napa, CA 94559
sydney.barclay@countyofnapa.org
(707) 253-4351

2.3 Project Sponsor

Napa County Public Works Department

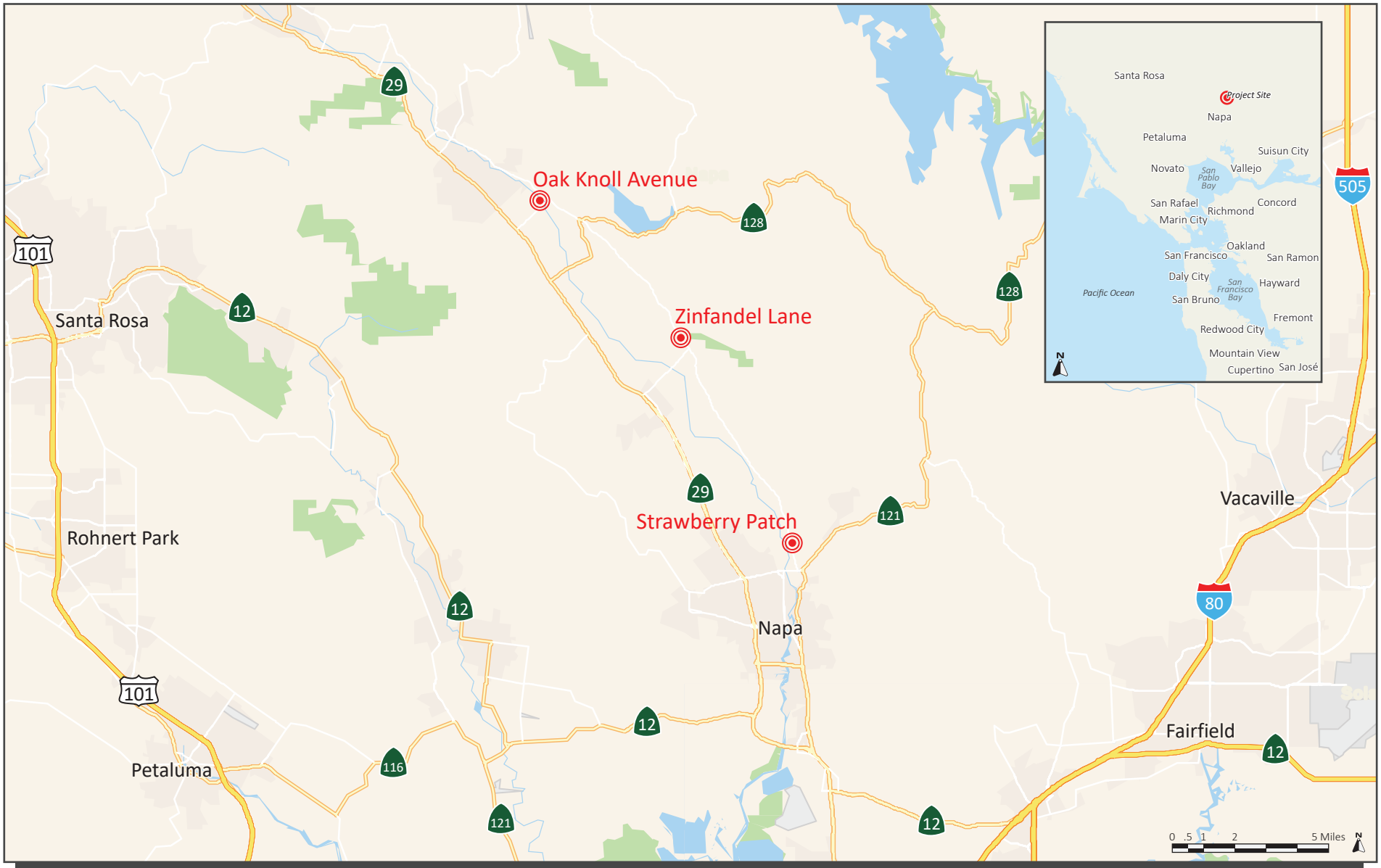
2.4 Project Location

The project proposes to improve three intersections on Silverado Trail at Oak Knoll Avenue, Zinfandel Lane, and the Strawberry Patch located adjacent to 2149 Silverado Trail. Regional and vicinity maps are shown below in Figure 2.4-1 and Figure 2.4-2, respectively. Aerial photographs of the project site and the surrounding land uses are shown in Figure 2.4-3 through Figure 2.4-4.

2.5 General Plan Land Uses and Zoning Districts

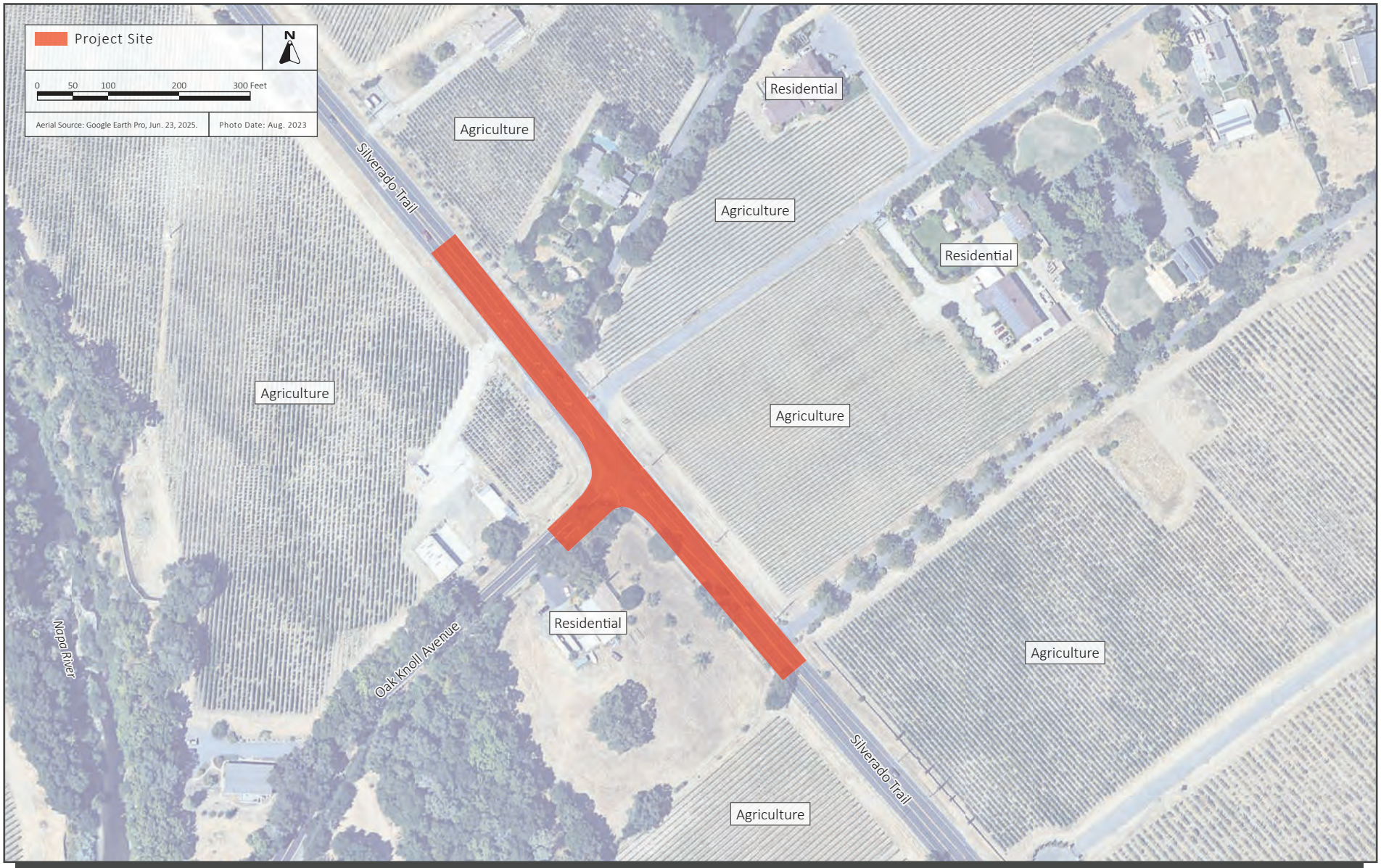
General Plan: Agricultural Resource
Agriculture, Watershed, and Open Space

Zoning: Agriculture Preserve
Agricultural Watershed



VICINITY AND REGIONAL MAP

FIGURE 2.4-1



AERIAL PHOTOGRAPH AND SURROUNDING LAND USES – OAK KNOLL AVENUE | FIGURE 2.4-2

AERIAL PHOTOGRAPHY AND SURROUNDING LAND USES – ZINFANDEL LANE | FIGURE 2.4-3

AERIAL PHOTOGRAPH AND SURROUNDING LAND USES – STRAWBERRY PATCH | FIGURE 2.4-4

Section 3.0 Project Description

3.1 Project Background and Overview

Napa County was awarded the Highway Safety Improvement Program (HSIP) Cycle 11 grant to improve three critical intersections on Silverado Trail. Intersection safety improvements include the installation of flashing beacons, right-turn lanes, and left-turn lanes. The following intersections do not comply with current safety standards and need upgrades and/or installation of warning signage to improve overall visibility.

Silverado Trail at Oak Knoll Avenue: Improvements include the installation of flashing beacons on either end of the intersection on Silverado Trail, a new streetlight, widening the apron of the Oak Knoll Avenue intersection with Silverado Trail and installing a right-turn lane on eastbound Oak Knoll Avenue, restriping the median on Silverado Trail north of the intersection to extend the median closer to the intersection, and widening Silverado Trail on the southbound lane towards Oak Knoll Avenue to provide a right-turn lane.

Silverado Trail at Zinfandel Lane: Improvements include the installation of flashing beacons on either end of the intersection on Silverado Trail and a new streetlight.

Silverado Trail at the Strawberry Patch: Improvements include widening the northbound travel lane on Silverado Trail in front of the Napa Strawberry business located at 2149 Silverado Trail (Strawberry Patch) to provide room for a left-turn lane and acceleration lane.

3.2 Proposed Improvements

Further details on each of the proposed improvements are summarized below:

- The project will include signing and striping improvements at three locations: Silverado Trail and Zinfandel Lane, Silverado Trail and Oak Knoll Avenue, and Silverado Trail near Strawberry Patch. Striping improvements would include high visibility bike lane green pavement markings along Silverado Trail across the intersections.
- Two new intersection flashing beacon warning signs will be installed at Oak Knoll Avenue and Zinfandel Lane. The flashing beacons will be mounted on two-inch square posts, which will be mounted in an anchor system directly embedded in soil 30 inches below ground surface (bgs).
- New signs will be mounted on two-inch square type posts set 30 inches bgs.
- New solar powered streetlights will be installed at the Silverado Trail/Zinfandel Lane and Silverado Trail/Oak Knoll Avenue intersections. The solar-powered streetlights will be set in up to six-inch, six-foot-deep concrete foundations.

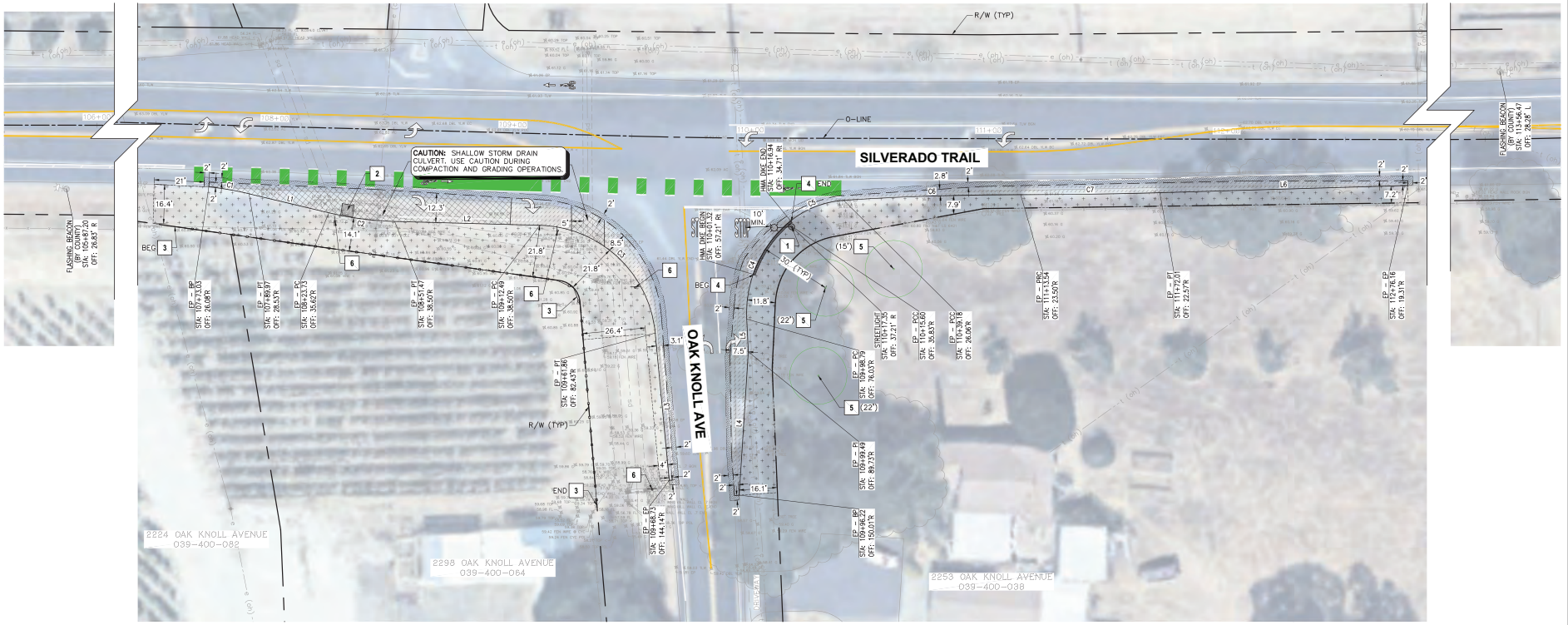
- Roadway widening is proposed at the Silverado Trail/Oak Knoll Avenue intersection to accommodate a new right-turn lane onto Oak Knoll Avenue from Silverado Trail and a right turn lane from Oak Knoll Avenue onto southbound Silverado Trail.
    - Roadway widening is proposed on the northwest corner of Silverado Trail/Oak Knoll Avenue. The road is being widened by approximately 10 feet with a three-foot wide shoulder and grading back to existing grade to provide a drainage swale.
        - The roadway widening will require adjustment to grade of one existing storm drain inlet.
    - Roadway widening will occur on the southwest corner of Silverado Trail/Oak Knoll Avenue. The road will be widened by approximately two to five feet with a three-foot wide fill slope back to existing grade.
- Roadway widening is proposed at the Silverado Trail/Strawberry Patch intersection to accommodate a left-turn from Silverado Trail into the Strawberry Patch parking lot.
    - Roadway widening is proposed on the east side of the Strawberry Patch/ Silverado Trail intersection. The road is being widened by approximately four to nine feet with an approximately 13 to 28-foot wide fill slope back to existing grade.

The project would remove three existing oak trees on the east side of the Silverado Trail/Strawberry Patch intersection and three trees on the southwest corner of the Silverado Trail/Oak Knoll Avenue intersection, resulting in a total of six existing trees proposed for removal. The project is anticipated to be constructed over a 12-week period.

The proposed improvement plans at each intersection location are shown in Figure 3.3-1 through Figure 3.3-3. Cross-Sections of the proposed roadway widening are shown in Figure 3.3-4.

3.3 Right of Way

The Project is proposed to occur entirely within existing County right-of-way (ROW). The Project would not require any ROW acquisition. Temporary construction easements are not anticipated to be required.



LEGEND:

- ROADWAY SECTION: 8" THICK HMA TYPE A (INCLUDING FINAL LIFT OF 2" THICK HMA FILL) OVER 12" THICK CLASS 2 AB. SEE DETAIL 4 ON SHEET C6.1.
- ROADWAY SECTION: 8" THICK HMA TYPE A (INCLUDING FINAL LIFT OF 2" THICK HMA FILL) OVER 12" THICK SLURRY BACKFILL AT CONCRETE CULVERT; INSTALL 2" THICK FOAM MATERIAL AND REDUCE SLURRY BACKFILL TO 6" THICK. SEE DETAIL 5 ON SHEET C6.1.
- 2" THICK HMA TYPE A INLAY.
- HYDROSEED
- SAWCUT LINE
- RELOCATED WIRE FENCE AND POSTS
- ADJUST EX CULVERT ACCESS, FRAME, AND GRATE TO GRADE. SEE DETAIL 3 ON SHEET C6.1.
- SOLAR POWERED STREETLIGHT. POTHOLE PRIOR TO EXCAVATION.
- FLASHING BEACON (FURNISHED & INSTALLED BY COUNTY)
- INSTALL NEW TREE: QUERCUS LOBATA/ VALLEY OAK. SEE SPECIFICATIONS FOR PLANTING AND WATERING REQUIREMENTS.

IMPROVEMENT NOTES:

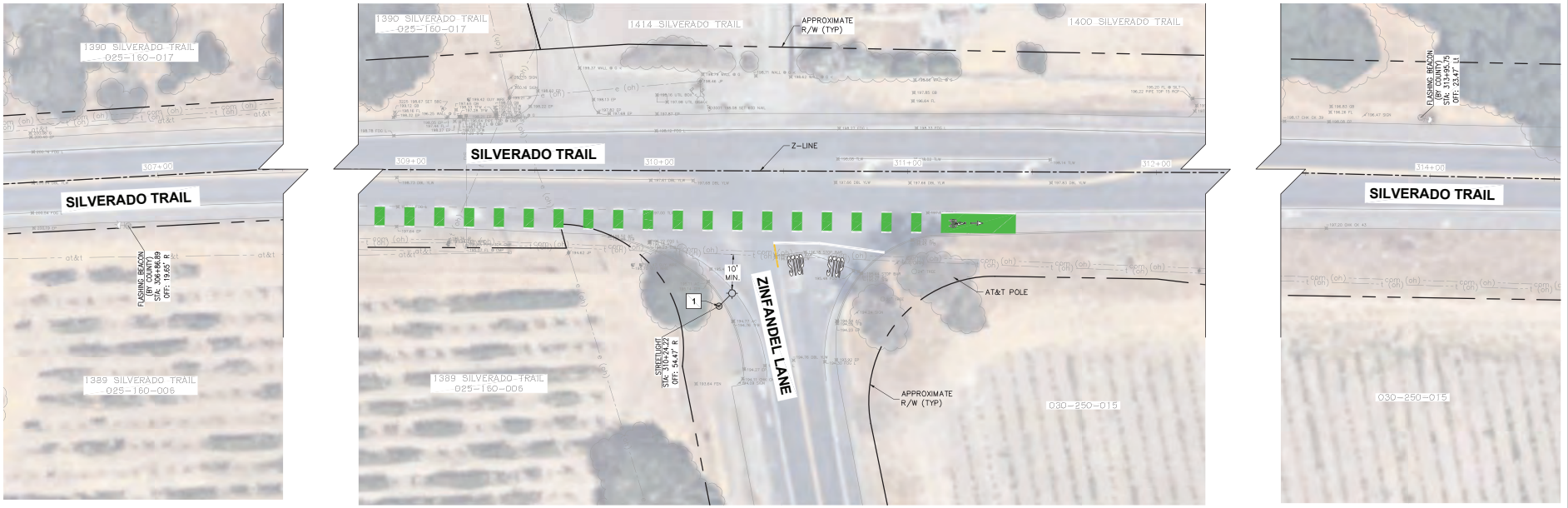
1. INSTALL SOLAR STREETLIGHT, SEE SPECIFICATIONS. MOUNT SOLAR STREETLIGHT ON TYPE 15 POLE WITH 6' MAST ARM PER CALTRANS STD PLAN ES-6A.
2. ADJUST EX CULVERT ACCESS, FRAME, AND GRATE TO GRADE. SEE DETAIL 3 ON SHEET C6.1.
3. INSTALL WIRE FENCE AND POSTS ALONG RIGHT-OF-WAY LINE. TIE-IN TO EXISTING FENCE TO REMAIN.
4. INSTALL NEW TYPE A HMA DIKE PER CALTRANS STD PLAN A87B.
5. INSTALL NEW MATURE TREE AT SIZE SHOWN, COORDINATE WITH COUNTY ARBORIST.
6. INSTALL NEW TYPE L-1 REFLECTOR PER CALTRANS STD PLAN A73A.

0 10 20 40 80 Feet

Source: Sanbell, November 3, 2025.

IMPROVEMENT PLAN – OAK KNOLL AVENUE

FIGURE 3.3-1



LEGEND:

SOLAR POWERED STREETLIGHT. POTHOLE PRIOR TO EXCAVATION.

FLASHING BEACON (FURNISHED & INSTALLED BY COUNTY)

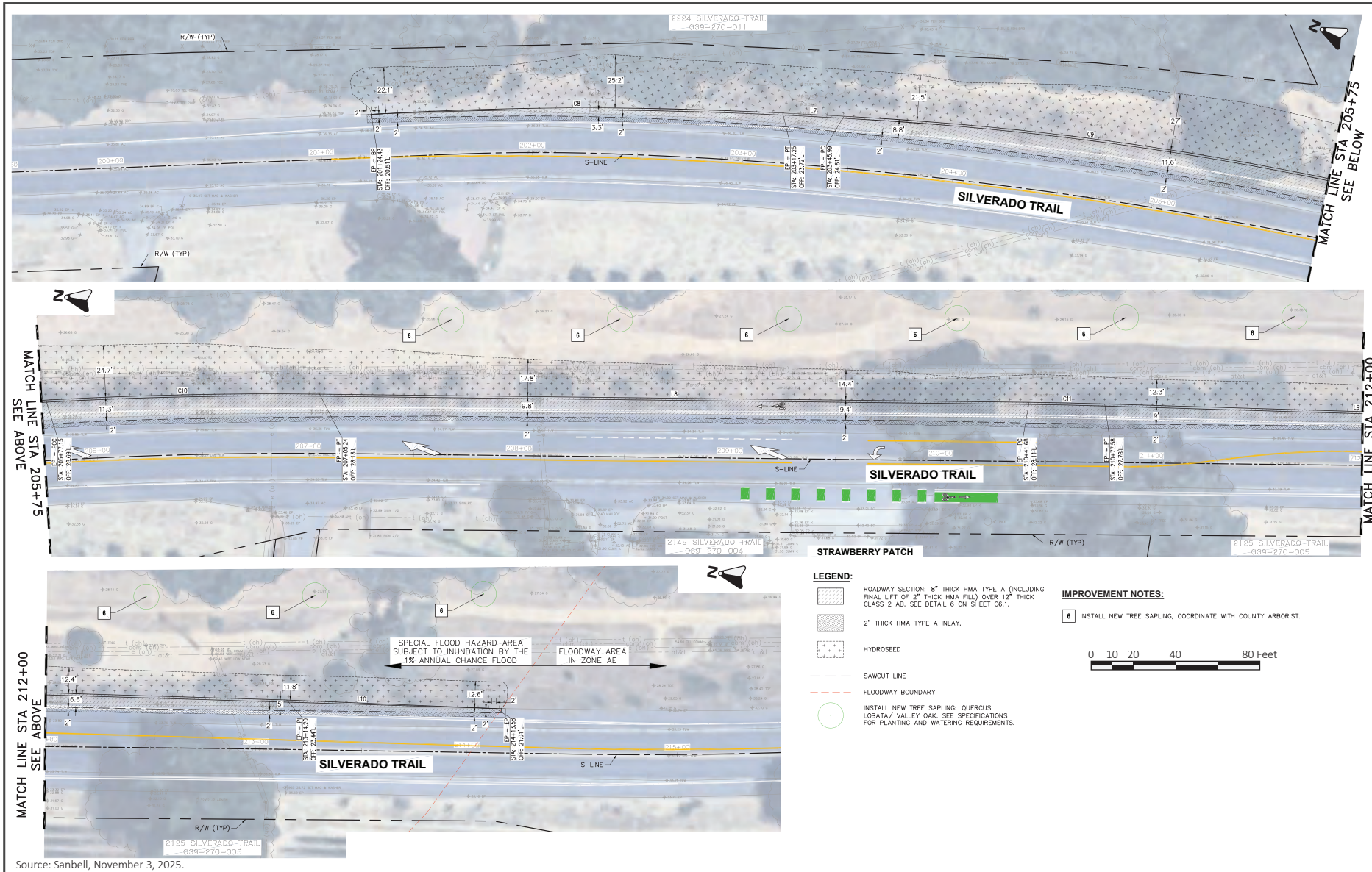
IMPROVEMENT NOTES:

1 INSTALL SOLAR STREETLIGHT, SEE SPECIFICATIONS. MOUNT SOLAR STREETLIGHT ON TYPE 15 POLE WITH 6' MAST ARM PER CALTRANS STD PLAN ES-6A.

Source: Sanbell, November 3, 2025.

IMPROVEMENT PLAN – ZINFANDEL LANE

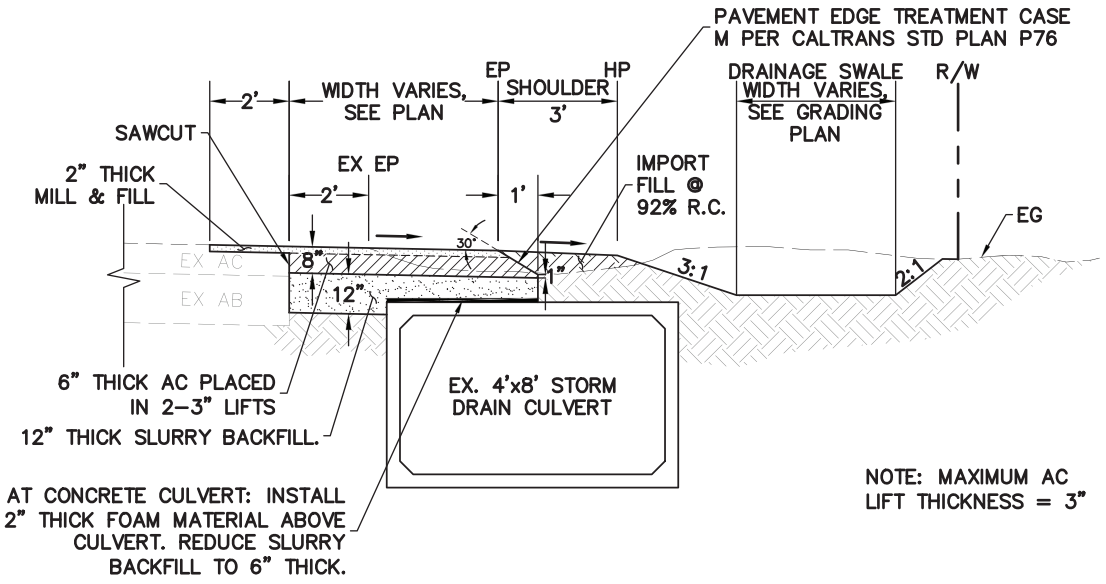
FIGURE 3.3-2



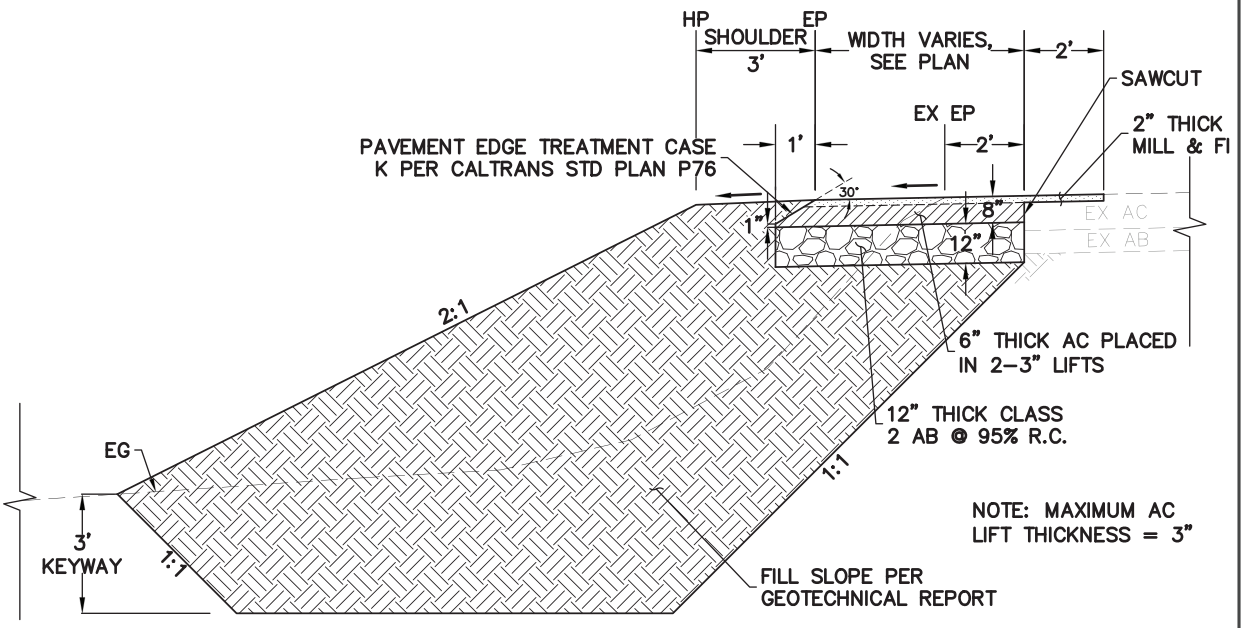
Source: Sanbell, November 3, 2025.

IMPROVEMENT PLAN – STRAWBERRY PATCH

FIGURE 3.3-3



OAK KNOLL AVENUE - ROADWAY WIDENING
CULVERT WITHIN ROADWAY LIMITS SCALE: NTS



STRAWBERRY PATCH - ROADWAY WIDENING
SCALE: NTS

Source: Sanbell, November 3, 2025.

ROADWAY WIDENING CROSS-SECTIONS | FIGURE 3.3-4

Section 4.0 Environmental Setting, Checklist, and Impact Discussion

This section presents the discussion of impacts related to the following environmental subjects in their respective subsections:

4.1	Aesthetics	4.12	Mineral Resources
4.2	Agriculture and Forestry Resources	4.13	Noise
4.3	Air Quality	4.14	Population and Housing
4.4	Biological Resources	4.15	Public Services
4.5	Cultural Resources	4.16	Recreation
4.6	Energy	4.17	Transportation
4.7	Geology and Soils	4.18	Tribal Cultural Resources
4.8	Greenhouse Gas Emissions	4.19	Utilities and Service Systems
4.9	Hazards and Hazardous Materials	4.20	Wildfire
4.10	Hydrology and Water Quality	4.21	Mandatory Findings of Significance
4.11	Land Use and Planning		

The discussion for each environmental subject includes the following subsections:

- **Environmental Setting** – This subsection 1) provides a brief overview of relevant plans, policies, and regulations that compose the regulatory framework for the project and 2) describes the existing, physical environmental conditions at the project site and in the surrounding area, as relevant.
- **Impact Discussion** – This subsection 1) includes the recommended checklist questions from Appendix G of the CEQA Guidelines to assess impacts and 2) discusses the project's impact on the environmental subject as related to the checklist questions. For significant impacts, feasible mitigation measures are identified. "Mitigation measures" are measures that will minimize, avoid, or eliminate a significant impact (CEQA Guidelines Section 15370). Mitigation measures are numbered to correspond to the impact they address. For example, MM BIO-1.3 refers to the third mitigation measure for the first impact in the Biological Resources section.

4.1 Aesthetics

4.1.1 Environmental Setting

4.1.1.1 *Regulatory Framework*

State

Streets and Highway Code Sections 260 through 263

The California Scenic Highway Program (Streets and Highway Code, Sections 260 through 263) is managed by the California Department of Transportation (Caltrans). The program is intended to protect and enhance the natural scenic beauty of California highways and adjacent corridors through special conservation treatment. While there are several eligible scenic highways in Napa County including State Route (SR) SR 29, SR 221, 20, and 121 there are no officially designated scenic highways in Napa County.

Local

Napa County General Plan

The Napa County General Plan (General Plan) identifies aesthetics as an important factor contributing to the County's "community character," and includes goals and policies that directly influence proposed projects within the County. In addition, the County has adopted a Viewshed Protection Ordinance that has been established to protect aesthetic quality for both visitors and residents of the County.

Policy	Description
CC-8	Scenic roadways which shall be subject to the Viewshed Protection Program are those shown in Figure CC-3 or designated by the Board of Supervisors in the future.
CC-13	The County's roadway construction and maintenance standards and other practices shall be designed to enhance the attractiveness of all roadways and in particular scenic roadways. New roadway construction or expansion shall retain the current landscape characteristics of County-designated scenic roadways, including retention of existing trees to the extent feasible and required re-vegetation and re-contouring of disturbed areas. In addition: • The development of hiking trails and bicycle lanes should be coordinated, when possible, with scenic roadway corridors and should provide access for the elderly and disabled in accordance with the Americans with Disabilities Act. • A program to replant trees and shrubbery should be implemented in cases where they are removed during new roadway alignment. • Opportunities should be explored for joint public/private participation in developing locations for roadside rests, picnic areas and vista points. • Installation of landscaping shall be required in conjunction with major roadway improvements where necessary to screen existing residences from glare generated by vehicle headlights.
CC-32	Street lighting on County roadways shall be limited to the minimum amount needed for public safety and shall be designed to focus light only where it is needed.

CIR-7	Roadway improvements shall be designed to conform to existing landforms and shall include landscaping and/or other treatments to ensure that aesthetics and rural character are preserved.

Napa County Road and Street Standards

The Napa County Road and Street Standards were adopted April 27, 1991, and most recently updated on April 18, 2023 (Napa County, 2023). The standards were developed to meet the interests of several agencies, with objectives that include, but are not limited to, preserving natural landscapes and aesthetic features; providing adequate safety and service; providing low maintenance cost road facilities; and minimizing impacts on environmentally sensitive areas and water quality. The standards include design criteria and requirements for roadways and roadway structures.

Napa County Conservation Regulations

Chapter 18.108 of the County's Municipal Code implements regulations to protect the public health, safety and community welfare, and to otherwise preserve the natural resources of the County. The regulations include provisions for: vegetation retention and removal, setbacks for earthmoving activity near waterways, slopes, and erosion control.

4.1.1.2 *Existing Conditions*

The project is located in a rural area of Napa County. The project area and its surroundings are comprised of rural residential properties and agricultural fields at all three locations. A roadside commercial strawberry stand is located at the Strawberry Patch intersection. The three locations share similar visual characteristics as they all generally consist of flat topography, trees and vegetation lining Silverado Trail, agricultural fields, and rural structures. The Zinfandel Lane intersection is adjacent to a hillside on the east side of Silverado Trail. The Zinfandel Lane and Oak Knoll Avenue intersections generally have open views of adjacent vineyards, rural properties, and surrounding hills. The Strawberry Patch location contains similar views that are somewhat constrained by large trees adjacent to the roadway.

Silverado Trail is an eligible state scenic highway south of its intersection with Trancas Street and Monticello Road, approximately 0.5-miles south of the Strawberry Patch location. The nearest officially designated state scenic highway is SR 12 in the Sonoma Valley, located approximately 11 miles west of Silverado Trail.[1] The project locations are not visible from any officially designated state scenic highway.

The entirety of Silverado Trail is designated as a Scenic Roadway in the Napa County General Plan. Photos of existing conditions at the three project intersections are shown in Photos 1 through 6.

[1] Caltrans. California State Scenic Highway System Map. Accessed June 24, 2025. https://caltrans.maps.arcgis.com/apps/webappviewer/index.html?id=465dfd3d807c46cc8e8057116f1aacaa

Photo 1: View looking north along Silverado Trail from Zinfandel Lane.

Photo 2: View looking south along Silverado Trail from Zinfandel Lane.

Source: Archaeological/Historical Consultants.

PHOTOS 1 & 2

Photo 3: View along Oak Knoll Avenue, looking east towards Silverado Trail

Photo 4: View looking south from northern end of project limits at Oak Knoll Avenue.

Source: Archaeological/Historical Consultants.

PHOTOS 3 & 4

Photo 5: View looking north along Silverado Trail, south of Strawberry Patch.

Photo 6: View looking south from the northeast end of project limits near Strawberry Patch.

Source: Archaeological/Historical Consultants.

PHOTOS 5 & 6

4.1.2 Impact Discussion

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
Except as provided in Public Resources Code Section 21099, would the project:				
a) Have a substantial adverse effect on a scenic vista?	☐	☐	☒	☐
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	☐	☐	☒	☐
c) In non-urbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings?[2] If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?	☐	☐	☒	☐
d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	☐	☐	☒	☐

a) Would the project have a substantial adverse effect on a scenic vista?

The project locations are along relatively flat segments of Silverado Trail that do not contain scenic vistas. The project would include roadway widening and striping improvements. Vertical elements would be limited to the installation of streetlights, flashing beacons, and signs. The project elements would not obstruct views from the roadway, nor would they substantially affect views from scenic vistas in the vicinity. **(Less than Significant Impact)**

b) Would the project substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?

The project is not located on an officially designated state scenic highway. Silverado Trail is designated as a Scenic Roadway in the County's General Plan. The project would remove a total of approximately six oak trees. Replacement trees would be planted as required by the Napa Landscaping Ordinance. The planting of replacement trees at 2:1 ratio in compliance with County General Plan Policy CON-24 would ensure that impacts to the scenic quality of Silverado Trail are minimized. The project would not result in the damage of any other scenic resources and would not

[2] Public views are those that are experienced from publicly accessible vantage points.

affect Silverado Trail's designation as a locally designated Scenic Roadway. **(Less than Significant Impact)**

c) In non-urbanized areas, would the project substantially degrade the existing visual character or quality of public views of the site and its surroundings? If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?

The project is located in a non-urbanized area. Public views of the site and its surroundings are limited to views available to those traveling along Silverado Trail. There are no public viewing areas in the vicinity of the project locations for travelers to stop and enjoy the scenery. As previously discussed, the project would include limited roadway widening and striping improvements to accommodate turning lanes. These improvements would be visually consistent with the existing roadway and would not degrade the existing visual character. Vertical elements would be limited to the installation of streetlights, flashing beacons, and signs. Replacement trees would be planted as required by General Plan Policy CON-24 to replace approximately six trees removed by the project. The planting of replacement trees would ensure that impacts to the existing visual character and views from Silverado Trail are minimized.

Construction activities would also result in temporary impacts to the visual character and quality of public views due to the presence of construction vehicles and equipment. However, construction impacts would be limited to an approximately 12-week period, after which views would largely return to existing conditions. For these reasons, the project would not substantially degrade the existing visual character or quality of public views of the site and its surroundings. **(Less than Significant Impact)**

d) Would the project create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?

The project would include new streetlights, flashing beacons, signs, and striping. Consistent with General Plan Policy CC-32, the proposed street lighting would be adequate for improving public safety but would be designed to focus light only where it is needed. Similarly, the proposed flashing beacons and signs would be installed to improve public safety and would not include excessive amounts of light that would adversely affect views in the area. The proposed striping would produce similar amounts of glare as existing striping along Silverado Trail. For these reasons, the project would not create a new source of substantial light or glare that would adversely affect views in the area. **(Less than Significant Impact)**

4.2 Agriculture and Forestry Resources

4.2.1 Environmental Setting

4.2.1.1 *Regulatory Framework*

State

Farmland Mapping and Monitoring Program

The California Department of Conservation's Farmland Mapping and Monitoring Program (FMMP) assesses the location, quality, and quantity of agricultural land and conversion of these lands over time. Agricultural land is rated according to soil quality and irrigation status. The best quality land is identified as Prime Farmland. In CEQA analyses, the FMMP classifications and published county maps are used, in part, to identify whether agricultural resources that could be affected are present on-site or in the project area.[3]

California Land Conservation Act

The California Land Conservation Act (Williamson Act) enables local governments to enter into contracts with private landowners to restrict parcels of land to agricultural or related open space uses. In return, landowners receive lower property tax assessments. In CEQA analyses, identification of properties that are under a Williamson Act contract is used to also identify sites that may contain agricultural resources or are zoned for agricultural uses.[4]

Fire and Resource Assessment Program

The California Department of Forestry and Fire Protection (CAL FIRE) identifies forest land, timberland, and lands zoned for timberland production that can (or do) support forestry resources.[5] Programs such as CAL FIRE's Fire and Resource Assessment Program are used to identify whether forest land, timberland, or timberland production areas could be affected are located on or adjacent to a project site.[6]

4.2.1.2 *Existing Conditions*

The project site is located within a rural area of Napa County. Agricultural lands are present within the project vicinity. The land surrounding the Oak Knoll Avenue intersection is classified as other

[3] California Department of Conservation. "Farmland Mapping and Monitoring Program." Accessed June 17, 2025. http://www.conservation.ca.gov/dlrp/fmmp/Pages/Index.aspx.
[4] California Department of Conservation. "Williamson Act." Accessed June 17, 2025. http://www.conservation.ca.gov/dlrp/lca.
[5] Forest Land is land that can support 10 percent native tree cover and allows for management of forest resources (California Public Resources Code Section 12220(g)); Timberland is land not owned by the federal government or designated as experimental forest land that is available for, and capable of, growing trees to produce lumber and other products, including Christmas trees (California Public Resources Code Section 4526); and Timberland Production is land used for growing and harvesting timber and compatible uses (Government Code Section 51104(g)).
[6] California Department of Forestry and Fire Protection. "Fire and Resource Assessment Program." Accessed June 17, 2025. http://frap.fire.ca.gov/.

land and farmland of statewide importance.[7] The land surrounding the Zinfandel Lane intersection is classified as urban and built-up land, unique farmland, other land, and unique farmland.[8] Prime farmland and other land surrounds the project area around the Strawberry Patch intersection.[9]

4.2.2 Impact Discussion

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
Would the project:				
a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?	☐	☐	☒	☐
b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?	☐	☐	☒	☐
c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code Section 12220(g)), timberland (as defined by Public Resources Code Section 4526), or timberland zoned Timberland Production (as defined by Government Code Section 51104(g))?	☐	☐	☐	☒
d) Result in a loss of forest land or conversion of forest land to non-forest use?	☐	☐	☐	☒
e) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland to non-agricultural use or conversion of forest land to non-forest use?	☐	☐	☒	☐

a) Would the project convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance, as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?

The project is limited to improvements to existing roadways that would not change land use patterns in the project area. The project would not extend into any agricultural fields and agricultural operations on adjacent parcels would not be substantially adversely affected. The project would not require any permanent right of way acquisition and thus would not convert any

[7] California Department of Conservation. "California Important Farmland Finder." Accessed June 17, 2025. https://maps.conservation.ca.gov/DLRP/CIFF.
[8] Ibid.
[9] Ibid.

existing farmlands to non-agricultural use. The project, therefore, would not result in significant impacts to Prime Farmland, Unique Farmland, or Farmland of Statewide Importance. **(Less than Significant Impact)**

b) Would the project conflict with existing zoning for agricultural use, or a Williamson Act contract?

As aforementioned, the improvements made by the project would be limited to the roadways and would therefore not conflict with existing zoning for agricultural use.[10] While there are parcels under Williamson Act contracts adjacent to the Oak Knoll Avenue intersection, the project would not convert existing agricultural uses or otherwise conflict with these contracts.[11] **(Less than Significant Impact)**

c) Would the project conflict with existing zoning for, or cause rezoning of, forest land, timberland, or timberland zoned Timberland Production?

The project site and surrounding vicinity do not contain any lands zoned as forest land, timberland, or timberland production. **(No Impact)**

d) Would the project result in a loss of forest land or conversion of forest land to non-forest use?

The project site and surrounding vicinity do not contain any forest land. **(No Impact)**

e) Would the project involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?

As previously discussed, the project would not impact agricultural fields or otherwise cause a substantial adverse effect on agricultural land. No impacts to designated farmland are anticipated. Therefore, the project would not result in other changes to the environment that could, in turn, result in an impact on agricultural resources. **(Less than Significant Impact)**

[10]Napa County. "Napa County Online Public Map." Accessed June 17, 2025. https://gis.countyofnapa.org/portal/apps/webappviewer/index.html?id=0bbafe490c58430da719ff851c78b7fa.
[11] California Department of Conservation. "Williamson Act Enrollment Finder." Accessed June 17, 2025. https://maps.conservation.ca.gov/dlrp/WilliamsonAct/.

4.3 Air Quality

4.3.1 Environmental Setting

4.3.1.1 *Background Information*

Criteria Pollutants

Criteria air pollutants are pollutants that have established federal or State standards for outdoor concentrations to protect public health. Pursuant with the federal and State Clean Air Acts, the United States Environmental Protection Agency (EPA) and the California Air Resources Board (CARB) have established and enforced the National Ambient Air Quality Standards (NAAQS) and California Ambient Air Quality Standards (CAAQS), respectively. The NAAQS and CAAQS address the following criteria air pollutants: ozone (O_3), nitrogen dioxide (NO_2), carbon monoxide (CO), particulate matter with a diameter of 10 microns or less (PM_{10}), particulate matter with a diameter of 2.5 micros or less ($PM_{2.5}$), sulfur dioxide (SO_2), and lead. The CAAQS also includes visibility reducing particles, sulfates, hydrogen sulfide, and vinyl chloride.

Toxic Air Contaminants

Toxic air contaminants (TACs) include airborne chemicals that are known to have short- and long-term adverse health effects. TACs are found in ambient air, especially in urban areas, and are caused by industry, agriculture, diesel fuel combustion, and commercial operations (e.g., dry cleaners). TACs are typically found in low concentrations, even near their source (e.g., diesel particulate matter [DPM] near a freeway). Unlike criteria air pollutants, which have a regional impact, TACs are highly localized and regulated at the individual emissions source level.

DPM is the predominant TAC in urban air and is estimated to represent about three-quarters of the cancer risk from TACs. DPM is comprised of diesel exhaust which is a complex mixture of gases, vapors, and fine particles. Medium- and heavy-duty diesel trucks represent the bulk of DPM emissions from California highways. The majority of DPM is small enough to be inhaled into the lungs. Most inhaled particles are subsequently exhaled, but some deposit on the lung surface or are deposited in the deepest regions of the lungs (i.e., areas most susceptible to injury).[12] Chemicals in diesel exhaust, such as benzene and formaldehyde, are also TACs identified by the CARB.

An overview of the sources of criteria pollutants and TACs, as well as their associated health effects, is provided in Table 4.3-1.

[12] California Air Resources Board. "Overview: Diesel Exhaust and Health." Accessed June 19, 2025. https://ww2.arb.ca.gov/resources/overview-diesel-exhaust-and-health.

Table 4.3-1: Sources and Health Effects of Criteria Air Pollutants and Toxic Air Contaminants

Pollutants	Description and Sources	Primary Effects
Ozone (O_3)	O_3 is a secondary criteria air pollutant that is the result of a photochemical (sunlight) reaction between reactive organic gases (ROG) and nitrogen oxides (NO_x). Pollutants emitted by motor vehicles, power plants, industrial boilers, refineries, and chemical plants are the common sources for this reaction. High O3 levels are caused by the cumulative emissions of ROG and NOX. These precursor or primary pollutants react under certain meteorological conditions to form high O_3 levels. Commons sources of ROG and NO_x are vehicles, industrial plants, and consumer products.	• Aggravation of respiratory and cardiovascular diseases • Irritation of eyes • Cardiopulmonary function impairment
Nitrogen Dioxide (NO_2)	NO_2 is a reactive gas that combines with nitric oxide (NO) to form NO_x. NO_2 is the byproduct of fuel combustion, with common sources of NO_2 being emissions from cars, trucks, buses, power plants, and off-road equipment. Other sources of NO_2 include high temperature stationary combustion and atmospheric reactions.	• Aggravation of respiratory illness • Reduced visibility
Carbon Monoxide (CO)	CO is a colorless, odorless, and toxic gas that is the product of incomplete combustion of carbon-containing substances (e.g., when something is burned). Common outdoor sources of CO include mobile vehicles (passenger cars and trucks) and machinery that burn fossil fuels.	• Interferes with oxygen delivery to the body's organ due to binding with the hemoglobin in the blood • Fatigue, headaches, confusion, and dizziness
Fine Particulate Matter ($PM_{2.5}$) and Coarse Particulate Matter (PM_{10})	Particulate Matter (PM) is any material that is emitted as liquid or solid particles or a gaseous material, such as dust, soot, aerosols, and fumes. PM_{10} and $PM_{2.5}$ are both small enough particulates to be inhaled into the human lungs, and $PM_{2.5}$ is small enough to deposit into the lungs, which poses an increased health risk compared to PM_{10}. Typical sources of PM include stationary combustion of solid fuels, construction activities, vehicles, industrial processes, and atmospheric chemical reactions.	• Reduced lung function, especially in children • Aggravation of respiratory and cardiorespiratory diseases • Increased cough and chest discomfort • Reduced visibility
Sulfur Dioxide (SO_2)	SO_2 is a pungent and colorless gaseous pollutant. SO_2 is part of the sulfur oxides (SO_x) group and is the pollutant of greatest concern in the SO_x group. SO_x can react with other compounds in the atmosphere to form small particles. These particles contribute to pollution. SO_2 is primarily formed from fossil fuel combustion at power plants and other industrial facilities. Sources of SO_2 include motor vehicles, locomotives, ships, and off-road diesel equipment that are operated with fuels that contain high levels of sulfur. Industrial processes, such as natural gas and petroleum extraction, oil refining, and metal processing.	• Aggravation of respiratory illness • Respiratory irritation such as wheezing, shortness of breath and chest tightness • Increased incidence of pulmonary symptoms and disease, decreased pulmonary function

Pollutants	Description and Sources	Primary Effects
Lead	Lead is a naturally occurring element that can be found in all parts of the environment including the air, soil, and water. As an air pollutant, lead is present in small particles. The most common historic source of lead exposure was the past use of leaded gasoline in motor vehicles. The exhaust resulting from use of leaded gasoline would release lead emissions into the air. Now, major sources of lead in the air are from ore and metals processing plants and piston-engine aircraft operating on leaded aviation fuel. Other sources are waste incinerators, utilities, and lead-acid battery manufacturers. The highest air concentrations of lead are usually found near lead smelters.	• Adversely affect the nervous system, kidney function, immune system, reproductive and developmental systems and the cardiovascular system
Toxic Air Contaminants (TACs)	TACs include certain air pollutants known to increase the risk of cancer and/or a range of other serious health effects. Sources of TAC include, but are not limited to, cars and trucks, especially diesel-fueled; industrial sources, such as chrome platers; dry cleaners and service stations; and building materials and products.	• Cancer • Chronic eye, lung, or skin irritation • Neurological and reproductive disorders

Sensitive Receptors

Some groups of people are more affected by air pollution than others. CARB has identified the following groups who are most likely to be affected by air pollution: children under 16, the elderly over 65, athletes, and people with cardiovascular and chronic respiratory diseases. These groups are classified as sensitive receptors. Locations that may contain a high concentration of these sensitive population groups include residential areas, hospitals, daycare facilities, elder care facilities, and elementary schools.

Worker Receptors

In addition to the sensitive receptors mentioned above, the Bay Area Air District (Air District) considers worker receptors when reviewing impacts from air pollution and TACs. Worker receptors are adults (16 years and older) that work indoors and/or outdoors at off-site locations zoned for commercial and industrial uses. Typical developments that include worker receptors are offices, retail shops, manufacturing uses, light industrial uses, or heavy industrial uses.[13]

[13] Bay Area Air Quality Management District. *California Environmental Quality Act Air Quality Guidelines Appendix E: Recommended Methods for Screening and Modeling Local Risks and Hazards*. Page E-14.

4.3.1.2 *Regulatory Framework*

Federal and State

Clean Air Act

At the federal level, the EPA is responsible for overseeing implementation of the Clean Air Act and its subsequent amendments. The federal Clean Air Act requires the EPA to set national ambient air quality standards for the six common criteria pollutants, discussed previously; PM, O_3, CO, SO_2, NO_2, and lead.[14]

CARB is the state agency that regulates mobile sources throughout the state and oversees implementation of the state air quality laws and regulations, including the California Clean Air Act. The EPA and the CARB have adopted ambient air quality standards establishing permissible levels of these pollutants to protect public health and the climate. Violations of ambient air quality standards are based on air pollutant monitoring data and are determined for each air pollutant. Attainment status for a pollutant means that a given air district meets the standard set by the EPA and/or CARB.

Diesel Risk Reduction Plan

To address the issue of diesel emissions in the state, CARB developed the Risk Reduction Plan to Reduce Particulate Matter Emissions from Diesel-Fueled Engines and Vehicles. In addition to requiring more stringent emission standards for new on-road and off-road mobile sources and stationary diesel-fueled engines to reduce particulate matter emissions by 90 percent, this plan involves the application of emission control strategies to existing diesel vehicles and equipment to reduce DPM and other pollutants. Implementation of this plan, in conjunction with stringent federal and CARB-adopted emission limits for diesel fueled vehicles and equipment, including off-road equipment, will significantly reduce emissions of DPM and NO_X.

Regional

2017 Clean Air Plan

The Air District is the agency primarily responsible for assuring that the federal and state ambient air quality standards are maintained in the San Francisco Bay Area, which includes the project area. Regional air quality management districts, such as the Air District, must prepare air quality plans specifying how federal and state air quality standards will be met. The Air District's most recently adopted plan is the Bay Area 2017 Clean Air Plan. The 2017 Clean Air Plan focuses on the following two related Air District goals and how to achieve them:

- Protect air quality and health at the regional and local scale by attaining all state and national air quality standards and eliminating disparities among Bay Area communities in cancer health risk from TAC; and

[14] NO_x is the group of nitrogen compounds (NO_2 and nitric oxide [NO]) that typically represents NO_2 emissions because NO_2 emissions contribute the majority of NO_x exhaust emissions emitted from fuel combustion.

- Protect the climate by reducing Bay Area greenhouse gas (GHG) emissions 40 percent below 1990 levels by 2030 and 80 percent below 1990 levels by 2050.[15]

CEQA Air Quality Guidelines

The Air District CEQA Air Quality Guidelines are intended to serve as a guide for those who prepare or evaluate air quality impact analyses for projects and plans in the San Francisco Bay Area. Jurisdictions in the San Francisco Bay Area Air Basin utilize the thresholds and methodology for assessing air quality impacts developed by the Air District within their CEQA Air Quality Guidelines. The guidelines include information on legal requirements, Air District rules, methods of analyzing impacts, and recommended mitigation measures. The latest CEQA Air Quality Guidelines are the 2022 CEQA Air Quality Guidelines adopted on April 20, 2023, by the Air District's Board of Directors.

4.3.1.3 *Existing Conditions*

The San Francisco Bay Area (Bay Area) Air Basin is designated a nonattainment area for the federal O_3 and $PM_{2.5}$ standards and for the state O_3, PM_{10}, and $PM_{2.5}$ standards.[16,17] The Bay Area is designated as an attainment area for both the NAAQS and CAAQS for CO, SO_2, and NO_2. The Air District is responsible for attaining the NAAQS and CAAQS for these pollutants within the Bay Area. As part of an effort to attain and maintain ambient air quality standards for O_3, PM_{10}, and $PM_{2.5}$, the Air District has established thresholds of significance for these air pollutants and their precursors that apply to both construction period and operational period impacts. Controlling the emissions of these precursor pollutants is the focus of the Air District attempts to reduce O_3 levels. The highest O_3 levels in the Bay Area occur in the eastern and southern inland valleys where temperatures are higher, there is less wind circulation, and sources of the precursor pollutants (i.e., ROG and NO_x) are prominent. In the Bay Area, most particulate matter is generated from the following activities: combustion, factories, construction, grading, demolition, agriculture, and motor vehicles. Elevated concentrations of PM_{10} and $PM_{2.5}$ are the result of both region-wide emissions and localized emissions.

Existing sources of emissions in the project area include vehicular traffic on Silverado Trail and the connecting roadways and surrounding agricultural activities. Sensitive receptors in the proposed areas of work include residences adjacent to the project intersections and agricultural workers. The residential receptors generally range from 50 to 100 feet from the project work limits. Agricultural workers, such as those in the Strawberry Patch stand or working in adjacent fields could be as close as 15 to 30 feet from the project work limits.

[15] Bay Area Air Quality Management District. *Final 2017 Clean Air Plan.* April 19, 2017. Chapter 1. Page 2.
[16] Bay Area Air Quality Management District. "Air Quality Standards and Attainment Status." Last Updated January 5, 2017. Accessed June 19, 2025. https://www.baaqmd.gov/about-air-quality/research-and-data/air-quality-standards-and-attainment-status.
[17] The area has attained both state and federal ambient air quality standards for CO. The project does not include substantial new emissions of SO_2 or lead. These criteria pollutants are not discussed further.

4.3.2 Impact Discussion

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
Would the project:				
a) Conflict with or obstruct implementation of the applicable air quality plan?	☐	☐	☒	☐
b) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard?	☐	☐	☒	☐
c) Expose sensitive receptors to substantial pollutant concentrations?	☐	☐	☒	☐
d) Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?	☐	☐	☒	☐

Note: Where available, the significance criteria established by the applicable air quality management district or air pollution control district may be relied upon to make the determinations.

a) Would the project conflict with or obstruct implementation of the applicable air quality plan?

Over the long-term (i.e., operational phase), the project will have no effect on air quality as it is limited to safety and operational improvements at three existing intersections. The number of vehicle trips at the project locations will not change with implementation of the project as it is not introducing any new land uses or increasing roadway capacity. The project would not include any stationary sources of operational pollutant emissions, such as a generator.

During the short-term (i.e., construction phase), equipment at the project site may include vehicles such as long flat-bed trucks for delivering materials to the site, drilling equipment, compaction equipment, loaders, haulers, and striping/painting equipment. This equipment would temporarily emit particulate matter (PM_{10}) and exhaust. The project construction phase is anticipated to last for approximately 12 weeks. Given the relatively small scale of the project and short construction period, the project would not generate a significant amount of criteria air pollutants. For these reasons, the project would not conflict with the 2017 CAP. **(Less than Significant Impact)**

b) Would the project result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard?

Per the Air District CEQA Air Quality Guidelines, air pollution by its nature is largely a cumulative impact. No single project is sufficient in size, by itself, to result in nonattainment of ambient air quality standards. If a project exceeds the identified significance thresholds, its emissions would be cumulatively considerable, resulting in significant adverse air quality impacts to the region's existing air quality conditions. As discussed above, the project would not, by itself, result in any air pollutant emissions exceeding the Air District's significance thresholds. The number of vehicle trips in the area will not change with implementation of the project. As a result, the project would not result in a cumulatively considerable net increase of any criteria pollutant for which the region is non-attainment. **(Less than Significant Impact)**

c) Would the project expose sensitive receptors to substantial pollutant concentrations?

Dust Generation

Construction activities, particularly during site preparation and grading, would temporarily generate fugitive dust in the form of PM_{10} and $PM_{2.5}$. Sources of fugitive dust would include disturbed soil at the construction site and trucks carrying uncovered loads of soil. Unless properly controlled, vehicles leaving the site would deposit mud on local streets, which could be an additional source of airborne dust after it dries. The Air District CEQA Air Quality Guidelines consider these impacts to be less than significant if best management practices (BMPs) are implemented to reduce these emissions. These BMPs shall be implemented during all demolition, grading, and construction activities to reduce construction-related particulate emissions:

- Exposed surfaces (e.g., parking areas, staging areas, soil piles, graded areas, and unpaved access roads) shall be watered two times per day or covered.
- Haul trucks transporting soil, sand, or other loose material off-site shall be covered.
- Visible mud or dirt track-out onto adjacent public roads shall be removed using wet power vacuum street sweepers at least once per day. The use of dry power sweeping is prohibited.
- Vehicle speeds on unpaved roads shall be limited to 15 miles per hour.
- Roadways, driveways, and sidewalks to be paved shall be completed as soon as possible.
- Idling times shall be minimized either by shutting equipment off when not in use or reducing the maximum idling time to five minutes (as required by the California airborne toxics control measure Chapter 13, Section 2485 of California Code of Regulations [CCR]). Clear signage explaining this rule shall be provided for construction workers at all access points.
- Construction equipment shall be maintained and properly tuned in accordance with the manufacturer's specifications. Equipment shall be checked by a certified mechanic and determined to be running in proper condition prior to operation.

- A publicly visible sign shall be posted with the telephone number and name of an individual working for the construction contractor who can be contacted regarding dust complaints. This person shall respond and take corrective action within 48 hours. The Air District's phone number shall also be visible to ensure compliance with applicable regulations.

Implementation of these Air District-recommended BMPs during construction are standard measures that are required for all projects. Implementation of these measures would ensure that the project's fugitive dust impacts are less than significant.

Project Community Health Risks

As discussed under Checklist Question a), the project would not result in any increase in long-term pollutant emissions and, therefore, would not expose sensitive receptors to substantial pollutant concentrations during its operational phase.

In a 2018 decision (*Sierra Club v. County of Fresno*), the state Supreme Court determined CEQA requires that when a project's criteria air pollutant emissions would exceed applicable thresholds and contribute a cumulatively considerable contribution to a significant cumulative regional criteria pollutant impact, the potential for the project's emissions to affect human health in the air basin must be disclosed. State and federal ambient air quality standards are health-based standards, and exceedances of those standards result in continued unhealthy levels of air pollutants. As stated in the Air District's 2022 CEQA Air Quality Guidelines, air pollution by its nature is largely a cumulative impact. No single project is sufficient in size, by itself, to result in nonattainment of ambient air quality standards. Instead, a project's individual emissions contribute to existing cumulatively significant adverse air quality impacts. In developing thresholds of significance for air pollutants, the Air District considered the emission levels for which a project's individual emissions would be cumulatively considerable. If a project has a less than significant impact for criteria pollutants, it is assumed to have no adverse health effect. As discussed under checklist question a), the project would have a less than significant impact for criteria pollutants and, therefore, the project would also result in no adverse health effect. **(Less than Significant Impact)**

d) Would the project result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?

The project would not include any odor-causing operations, and any odors emitted by diesel equipment during construction would be temporary and localized. **(Less than Significant Impact)**

4.4 Biological Resources

The following discussion is based, in part, on a Biological Resources Reconnaissance Survey prepared for the project by WRA in December 2025, an Arborist Report prepared for the project by American Tree Medics in June 2025, and an Arborist Report Addendum prepared in December 2025. Copies of these reports are included in Appendix A and Appendix B, respectively.

4.4.1 Environmental Setting

4.4.1.1 *Regulatory Framework*

Federal and State

Endangered Species Act

Individual plant and animal species listed as rare, threatened, or endangered under state and federal Endangered Species Acts are considered special-status species. Federal and state endangered species legislation has provided the United States Fish and Wildlife Service (USFWS) and the California Department of Fish and Wildlife (CDFW) with a mechanism for conserving and protecting plant and animal species of limited distribution and/or low or declining populations. Permits may be required from both the USFWS and CDFW if activities associated with a proposed project would result in the take of a species listed as threatened or endangered. To "take" a listed species, as defined by the State of California, is "to hunt, pursue, catch, capture, or kill, or attempt to hunt, pursue, catch, capture, or kill" these species. Take is more broadly defined by the federal Endangered Species Act to include harm of a listed species.

In addition to species listed under state and federal Endangered Species Acts, Sections 15380(b) and (c) of the CEQA Guidelines provide that all potential rare or sensitive species, or habitats capable of supporting rare species, must be considered as part of the environmental review process. These may include plant species listed by the California Native Plant Society and CDFW-listed Species of Special Concern.

Migratory Bird Treaty Act

The federal Migratory Bird Treaty Act (MBTA) prohibits killing, capture, possession, or trade of migratory birds except in accordance with regulations prescribed by the Secretary of the Interior. Hunting and poaching are also prohibited. This includes direct and indirect acts, except for harassment and habitat modification, which are not included unless they result in direct loss of birds, nests, or eggs. The CDFW also protects migratory and nesting birds under California Fish and Game Code Sections 3503, 3503.5, and 3800. The CDFW defines taking as causing abandonment and/or loss of reproductive efforts through disturbance.

Sensitive Habitat Regulations

Wetland and riparian habitats are considered sensitive habitats under CEQA. They are also afforded protection under applicable federal, state, and local regulations, and are generally subject to regulation by the United States Army Corps of Engineers (USACE), Regional Water Quality Control Board (RWQCB), CDFW, and/or the USFWS under provisions of the federal Clean Water Act (e.g., Sections 303, 304, 404) and State of California Porter-Cologne Water Quality Control Act.

Fish and Game Code Section 1602

Streambeds and banks, as well as associated riparian habitat, are regulated by the CDFW per Section 1602 of the Fish and Game Code. Work within the bed or banks of a stream or the adjacent riparian habitat requires a Streambed Alteration Agreement from the CDFW.

Oak Woodlands Preservation Act

The Oak Woodlands Preservation Act (California Code, PRC 21083.4) requires that a lead agency evaluate potential impacts on native oak woodlands and must determine if a project would result in a significant impact on oak woodlands. If it is determined that a project may result in a significant impact on oak woodlands, then the lead agency must complete one or more of the following: conserve oak woodlands through the use of conservation easements; plant an appropriate number of trees, including maintenance of plantings and replacement of failed plantings; contribute funds to the Oak Woodlands Conservation Fund for the purpose of purchasing oak woodlands conservation easements; and/or other mitigation measures.

Local

Napa County General Plan

The General Plan contains the following applicable goals and policies that pertain to the protection of biological resources.

Policy	Description
Goal CON-3	Protect the continued presence of special-status species, including special-status plants, special-status wildlife, and their habitats, and comply with all applicable state, federal, or local laws or regulations.
Policy CON-24	Maintain and improve oak woodland habitat to provide for slope stabilization, soil protection, species diversity, and wildlife habitat through appropriate measures including one or more of the following: a) Preserve, to the extent feasible, oak trees and other significant vegetation that occur near the heads of drainages or depressions to maintain diversity of vegetation type and wildlife habitat as part of agricultural projects.

b) Comply with the Oak Woodlands Preservation Act (PRC Section 21083.4) regarding oak woodland preservation to conserve the integrity and diversity of oak woodlands, and retain, to the maximum extent feasible, existing oak woodland and chaparral communities and other significant vegetation as part of residential, commercial, and industrial approvals.

c) Provide replacement of lost oak woodlands or preservation of like habitat at a 2:1 ratio when retention of existing vegetation is found to be infeasible. Removal of oak species limited in distribution shall be avoided to the maximum extent feasible.

d) Support hardwood cutting criteria that require retention of adequate stands of oak trees sufficient for wildlife, slope stabilization, soil protection, and soil production be left standing.

e) Maintain, to the extent feasible, a mixture of oak species which is needed to ensure acorn production. Black, canyon, live, and brewer oaks as well as blue, white, scrub, and live oaks are common associations.

f) Encourage and support the County Agricultural Commission's enforcement of state and federal regulations concerning Sudden Oak Death and similar future threats to woodlands.

Stream and Wetland Setbacks

Napa County Code (NCC) 18.108.025 requires stream and wetland setbacks for new land clearings:

- "Stream" is defined by NCC (18.108.030) as: (1) a watercourse designated as a "blue-line" stream by the U.S. Geological Survey; (2) any watercourse which has a well-defined channel with a depth greater than four feet and banks steeper than 3:1 and contains hydrophilic, riparian and/or woody-vegetation; or (3) those watercourses listed in Resolution No. 94-19
- Specified stream setbacks correspond to slope, and range from 35 feet (< 1 percent slope) to 150 feet (60-70 percent slope)
- A minimum 35-foot setback is required for ephemeral or intermittent streams not meeting Napa County's criteria for a stream
- A minimum 50-foot setback is required from the delineated edge of a wetland boundary

Vegetative Canopy Protection

The Water Quality and Tree Protection Ordinance (2019) modified NCC 18.108 to strengthen existing protections for woodland/forest canopy:

- In Agricultural Watershed zoning districts, 70 percent canopy retention is required based on vegetation that existed within the parcel in June 2016
- In Agricultural Watershed zoning districts, trees within oak woodland and coniferous forest land covers must be preserved or otherwise mitigated for at a minimum 3:1 ratio (as measured in acreage)
- Alternatively, the removal of any vegetation canopy cover may be mitigated by permanent replacement at a minimum 2:1 ratio, where the project includes substantial public benefits as determined by the Director

4.4.1.2 *Existing Conditions*

Habitat

The biological study area for the project comprised a total of five acres across the three project intersections. There are four land cover types within the biological study area; developed area, ruderal grassland, valley oak woodland, and ephemeral stream. The majority of the study area is made up of developed area (2.5 acres) and ruderal grassland (2.1 acres). The developed area is comprised of existing roadway surfaces, vineyards, and landscaping. Ruderal grasslands are a non-sensitive habitat located throughout California. In the project vicinity, ruderal grasslands are located adjacent to the paved roadways and feature a low diversity of native plant species.

At the Strawberry Patch location, 0.4 acres of valley oak woodland is located east of Silverado Trail. The canopy is continuous and is dominated by valley oak (*Quercus lobata*), with subdominant coast live oak (*Q. agrifolia*), and California bay (*Umbellularia californica*). The understory is comprised of a mix of native and non-native species. Valley oak woodland is considered sensitive by CDFW and General Plan Policy CON-24.

At the Oak Knoll Avenue intersection, the study area contains a portion of an ephemeral water course on the north edge of Oak Knoll Avenue, west of Silverado Trail. The ephemeral typically only flows during and immediately following substantial rainfalls, though it may flow longer in wetter years. The stream flows approximately 0.4 miles where it enters the Napa River; therefore, it is likely jurisdictional under Section 404/401 of the CWA and Section 1602 of the California Fish and Game Code (CFGC). Likewise, it appears to meet the Napa County stream definition pursuant to NCC 18.108.025.

Special-Status Plant Species

A total of 46 special-status plant species have been documented in the vicinity of the project area and recorded in existing biological resource databases. However, no special-status plant species were observed at the project site during the May and June 2025 site visits. None of the previously documented special-status plant species are anticipated to occur within or adjacent to the project site due to a lack of suitable habitat.

Special-Status Wildlife Species

A total of 58 special-status wildlife species have been documented in Napa County. All but one species were determined to be unlikely or have no potential to occur within or adjacent to the project site due to a lack of suitable habitat. The white-tailed kite (*Elanus leucurus*) is a CDFW fully protected species and has a high potential to occur at the project site. The study area, at all three project intersections, provides suitable year-round habitat for white-tailed kites, including stands and rows of trees for nesting and open areas in proximity for foraging. Trees along Silverado Trail are unlikely to be used for nesting given routine ambient disturbances, though other trees within approximately 500 feet may be used. No indication of on-site nesting was observed during WRA's site visits, but the potential remains for such to occur in the future.

The study area is not within a wildlife corridor as mapped by Caltrans or CDFW.

Trees

A total of ten trees were surveyed in the vicinity of the Oak Knoll Avenue and Strawberry Patch intersections. Out of the ten trees, six are located at the Oak Knoll Avenue intersection and four are located at the Strawberry Patch intersection. The species of the existing trees surveyed include five coast live oak, four valley oak, and one interior live oak (*Quercus wislizeni*).

4.4.2 Impact Discussion

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
Would the project:				
a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife (CDFW) or United States Fish and Wildlife Service (USFWS)?	☐	☒	☐	☐
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations, or by the CDFW or USFWS?	☐	☒	☐	☐
c) Have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	☐	☒	☐	☐
d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, impede the use of native wildlife nursery sites?	☐	☒	☐	☐
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	☐	☒	☐	☐
f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?	☐	☐	☐	☒

a) Would the project have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the CDFW or USFWS?

Special-Status Plant Species

The project area does not have the potential to support special-status plant species. No special-status plant species were observed on-site during WRA's site visits in May and June 2025. For these reasons, the project would not have a substantial adverse effect on special-status plant species.

Special-Status Wildlife Species

The project area has potential to support white-tailed kite due to the presence of suitable nesting trees and open areas for foraging. The project would remove three existing trees from the Silverado Trail/Strawberry Patch intersection and three trees from the Silverado Trail/Oak Knoll Avenue intersection, resulting in a total of six existing trees proposed for removal. Tree and vegetation removal during construction could adversely affect white-tailed kites as well as non-status migratory nesting birds protected under the MBTA and CFGC.

Construction of the project during the breeding season could result in the incidental loss of fertile eggs or nestlings, or otherwise lead to nest abandonment. Disturbance that causes abandonment and/or loss of reproductive effort is considered a taking by the CDFW. Any loss of fertile eggs, nesting white-tailed kites, or any activities resulting in nest abandonment would constitute an impact. Construction activities such as tree removal and site grading that disturb a nesting bird or white-tailed kite on-site or immediately adjacent to the construction zone would also constitute an impact.

Impact BIO-1: Construction and demolition activities, including the removal of trees, could impact white-tailed kites and migratory nesting birds. **(Significant Impact)**

Mitigation Measures: The project sponsor shall implement the following measures to reduce impacts to white-tailed kites and nesting birds to a less than significant level.

MM BIO-1.1: If vegetation removal and/or initial ground disturbance occur during the general nesting bird season (February 1 to August 31), pre-construction surveys for nesting birds will be conducted by a qualified biologist to ensure that no nests will be disturbed during project implementation. These surveys shall be conducted no more than 14 days prior to the initiation of tree removal or ground disturbance. During this survey, a qualified biologist shall inspect all potential nesting habitats within 500 feet of impact areas for white-tailed kite, as accessible, and other raptor nests and within 100 feet of impact areas for nests of non-raptor species.

MM BIO-1.2: If active bird nests are found during the survey, an appropriate no-disturbance buffer will be established by the qualified biologist in consultation with CDFW. Buffer sizes may vary depending on bird species, location and setting of the nest, levels of ambient disturbance near the nest, and other factors. Once it is determined that the young have fledged (left the nest) or the nest otherwise becomes inactive (e.g., due to predation), the buffer may be lifted, and work may be initiated within the buffer.

Implementation of MM BIO-1.1 through MM BIO-1.2 would reduce potential impacts to white-tailed kites and other nesting birds to a less than significant level. **(Less than Significant Impact with Mitigation Incorporated)**

b) Would the project have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations, or by the CDFW or USFWS?

The majority of the study area consists of non-sensitive habitats of developed land and ruderal grassland. However, the Strawberry Patch study area supports valley oak woodland, and the Oak Knoll Avenue study area contains an ephemeral stream, which are considered sensitive habitats.

Valley Oak Woodland and Native Oaks

The Strawberry Patch Study Area supports valley oak woodland, which is considered sensitive by CDFW and is also subject to Napa County's protective measures for oak woodland. The project would remove three existing oak trees in this area. The valley oak woodland habitat would continue to provide value for local wildlife, particularly birds and small mammals, and would not be substantially altered by the project. Additionally, the project would remove three individual native oaks, not part of any oak woodland, at the Oak Knoll Avenue intersection.

Impact BIO-2: The project would remove three existing oak trees from valley oak woodland habitat at the Strawberry Patch, which is considered sensitive by CDFW, and an additional three oaks at the Oak Knoll Avenue intersection. **(Significant Impact)**

Mitigation Measures: The project shall implement the following measures to reduce impacts to the valley oak woodland habitat adjacent to the Strawberry Patch intersection and provide for tree replacement for native oaks.

MM BIO-2.1: To achieve consistency with General Plan Policy CON-24, replacement native oak trees shall be planted at a minimum 2:1 ratio, i.e., at least 12 trees planted to compensate for the six proposed for removal. The oaks shall be planted on the edge of the Valley Oak Woodland at the Strawberry Patch intersection, and in suitable location(s) at or in proximity to the Oak Knoll Avenue intersection. Given that space for planting may be limited at the Oak Knoll Avenue

intersection, there shall be flexibility regarding planting location that allows for a greater (disproportionate) number of trees to be planted at the Strawberry Patch intersection. The replacement trees shall be of the same species as those removed. Container size shall be five-gallon, and caging, mulching, vertical support staking, and irrigation shall be deployed at the time of planting to increase the likelihood of survival. If after three years, 12 (or more) planted trees have survived, then the tree replacement effort will be considered a success; otherwise, additional oaks shall be installed to fulfill the minimum 2:1 requirement.

As required by MM BIO-2.1, the project would be required to provide replacement trees in compliance with the Oak Woodlands Preservation Act and General Plan Policy CON-24. With implementation of MM BIO-2.1, the woodland habitat would remain intact and would continue to provide habitat value for local wildlife. Therefore, with implementation of MM BIO-2.1, impacts on the valley oak woodland habitat and native oaks would be reduced to a less than significant level.

Ephemeral Stream

The Oak Knoll Avenue study area contains an ephemeral/intermittent stream. The project area of work is located less than 10 feet from the stream, but the project would not fill, dredge, or otherwise disrupt the bed or bank of the stream. However, project construction could indirectly result in impacts to the ephemeral stream via stormwater runoff.

Impact BIO-3: Project construction could result in indirect impacts to an ephemeral stream adjacent to the Oak Knoll Avenue intersection. **(Significant Impact)**

Mitigation Measure: The project sponsor shall implement the following measures to reduce impacts to the ephemeral stream adjacent to the Oak Knoll Avenue intersection.

MM BIO-3.1: All construction activities shall be scheduled to occur during the dry season (April 1 through October 15). If rainfall is in the forecast, standard erosion control measures (e.g., straw waddles, bales) shall be deployed on the project area edge perpendicular to the stream. Construction personnel shall be informed of the location of the stream with both silt fencing and high visibility flagging or staking prior to construction. All materials and equipment shall be laid down as far from the stream as is feasible, and spill prevention materials will be on the ready and deployable for all construction equipment.

With implementation of MM BIO-2.1 through MM BIO-3.1, impacts to the valley oak woodland and ephemeral stream would be reduced to a less than significant impact. **(Less than Significant Impact with Mitigation Incorporated)**

c) Would the project have a substantial adverse effect on state or federally protected wetlands through direct removal, filling, hydrological interruption, or other means?

As previously described, there is an ephemeral stream within the Oak Knoll Avenue study area. This stream has not been formally delineated but appears to be jurisdictional under Section 404/401 of the CWA and Section 1602 of the CFGC. The project would not fill, dredge, or otherwise disrupt the bed or bank of the stream. With implementation of MM BIO-3.1 and the construction stormwater control measures described in Section 4.10 Hydrology and Water Quality, indirect construction impacts to the ephemeral stream would be reduced to a less than significant level. There are no other potential wetlands within the study area. Therefore, the project would not have a substantial adverse effect on state or federally protected wetlands. **(Less than Significant Impact with Mitigation Incorporated)**

d) Would the project interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?

The study area consists primarily of paved roads and the surrounding land uses consist of agriculture and low density residential. The study area is not within a wildlife corridor mapped by Caltrans or CDFW and there are no known wildlife nursery sites within the study area. The ephemeral stream in the Oak Knoll Avenue study area is dry for most of the year and does not provide a significant migratory corridor for fish or other aquatic species. As described under Checklist Question a), impacts to migratory nesting birds would be reduced to a less than significant level with implementation of MM BIO-1.1 through MM BIO-1.2. For these reasons, the project would not interfere substantially with the movement of migratory species or with an established wildlife corridor or impede the use of a wildlife nursery site. **(Less than Significant Impact with Mitigation Incorporated)**

e) Would the project conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?

As previously described, the project would remove a total of six native oak trees. As required by MM BIO-2.1, the project would provide replacement trees in accordance with Policy CON-24.

Additionally, project work would occur within 35 feet of the ephemeral stream in the Oak Knoll Avenue intersection, in conflict with NCC section 18.108.025. However, the project would implement MM BIO-3.1 and the construction stormwater control measures described in Section 4.10 Hydrology and Water Quality to reduce indirect construction impacts to the stream to a less than significant level. Therefore, the project would not conflict with any local policies or ordinances protecting biological resources. **(Less than Significant Impact with Mitigation Incorporated)**

f) Would the project conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?

No Habitat Conservation Plans (HCPs) or Natural Community Conservation Plans (NCCPs) exist in the County of Napa. Therefore, the project would have no impact related to conflicting with provisions of an adopted HCP or NCCP. **(No Impact)**

4.5 Cultural Resources

The following discussion is based upon an Archaeological Survey Report prepared by Archaeological/Historical Consultants in December 2025. A copy of the Archaeological Survey Report, which is a confidential report, is on file at the County of Napa Department of Public Works and is available upon request with appropriate credentials.

4.5.1 Environmental Setting

4.5.1.1 *Regulatory Framework*

Federal and State

National Historic Preservation Act

Federal protection is legislated by the National Historic Preservation Act of 1966 (NHPA) and the Archaeological Resource Protection Act of 1979. These laws maintain processes for determination of the effects on historical properties eligible for listing in the National Register of Historic Places (NRHP). Section 106 of the NHPA and related regulations (36 Code of Federal Regulations [CFR] Part 800) constitute the primary federal regulatory framework guiding cultural resources investigations and require consideration of effects on properties that are listed or eligible for listing in the NRHP. Impacts to properties listed in the NRHP must be evaluated under CEQA.

California Register of Historical Resources

The California Register of Historical Resources (CRHR) is administered by the State Office of Historic Preservation and encourages protection of resources of architectural, historical, archeological, and cultural significance. The CRHR identifies historic resources for state and local planning purposes and affords protections under CEQA. Under Public Resources Code Section 5024.1(c), a resource may be eligible for listing in the CRHR if it meets any of the NRHP criteria.[18]

Historical resources eligible for listing in the CRHR must meet the significance criteria described previously and retain enough of their historic character or appearance to be recognizable as historical resources and to convey the reasons for their significance. A resource that has lost its historic character or appearance may still have sufficient integrity for the CRHR if it maintains the potential to yield significant scientific or historical information or specific data.

The concept of integrity is essential to identifying the important physical characteristics of historical resources and, therefore, in evaluating adverse changes to them. Integrity is defined as "the authenticity of a historical resource's physical identity evidenced by the survival of characteristics that existed during the resource's period of significance." The processes of determining integrity are similar for both the CRHR and NRHP and use the same seven variables or aspects to define integrity

[18] California Office of Historic Preservation. "CEQA Guidelines Section 15064.5(a)(3) and California Office of Historic Preservation Technical Assistance Series #6." Accessed July 3, 2025. https://ohp.parks.ca.gov/pages/1069/files/technical%20assistance%20bulletin%206%202011%20update.pdf.

that are used to evaluate a resource's eligibility for listing. These seven characteristics include 1) location, 2) design, 3) setting, 4) materials, 5) workmanship, 6) feeling, and 7) association.

California Native American Historical, Cultural, and Sacred Sites Act

The California Native American Historical, Cultural, and Sacred Sites Act applies to both state and private lands. The act requires that upon discovery of human remains, construction or excavation activity must cease and the County coroner be notified.

Public Resources Code Section 5097.98

Section 15064.5 of the CEQA Guidelines specifies procedures to be used in the event of an unexpected discovery of Native American human remains on non-federal land. These procedures are outlined in Public Resources Code Section 5097.98. These codes protect such remains from disturbance, vandalism, and inadvertent destruction, establish procedures to be implemented if Native American skeletal remains are discovered during construction of a project, and establish the Native American Heritage Commission (NAHC) as the authority to resolve disputes regarding disposition of such remains.

Pursuant to Public Resources Code Section 5097.98, in the event of human remains discovery, no further disturbance is allowed until the County coroner has made the necessary findings regarding the origin and disposition of the remains. If the remains are of a Native American, the County coroner must notify the NAHC. The NAHC then notifies those persons most likely to be related to the Native American remains. The code section also stipulates the procedures that the descendants may follow for treating or disposing of the remains and associated grave goods.

Local

Napa County General Plan

The General Plan contains the following applicable goals, policies, and action items that pertain to the protection of cultural resources.

Goal/Policy	Description
Goal CC-4	Identify and preserve Napa County's irreplaceable cultural and historic resources for present and future generations to appreciate and enjoy.
Policy CC-23	The County supports continued research into and documentation of the County's history and prehistory and shall protect significant cultural resources from inadvertent damage during grading, excavation, and construction activities.
Action Item CC-23.2	Impose the following conditions on all discretionary projects in areas which do not have a significant potential for containing archaeological or paleontological resources:

- "The Planning Department shall be notified immediately if any prehistoric, archaeologic, or paleontological artifact is uncovered during construction. All construction must stop and an archaeologist meeting the Secretary of the Interior's Professional Qualifications Standards in prehistoric or historical archaeology shall be retained to evaluate the finds and recommend appropriate action."
- "All construction must stop if any human remains are uncovered, and the County Coroner must be notified according to Section 7050.5 of California's Health and Safety Code. If the remains are determined to be Native American, the procedures outlined in CEQA Section 15064.5 (d) and (e) shall be followed."

4.5.1.2 *Existing Conditions*

Archaeological/Historical Consultants (A/HC) conducted a record search in May 2025 and a field survey in June 2025 of the project area. The record search covered the project area limits and a 0.25-mile radius around it. One archaeological site was recorded within the project area limits but the researchers who surveyed and tested the site concluded that the soil matrix and artifacts observed were likely brought to the project area as road fill. During the field survey, no evidence of archaeological resources was identified within the project area. Additionally, there are no structures in the project area limits over 50 years old. The archaeological and historical resources recorded within the vicinity of each project intersection are summarized below.

Oak Knoll Avenue Intersection

One archaeological resource site has been recorded within the 0.25-mile radius of the Oak Knoll Avenue intersection. The Oak Knoll Avenue over Napa River Overflow Bridge is a masonry arch bridge eligible for the NRHP, that is located approximately 190 feet southwest of the Oak Knoll Avenue intersection.

The Oak Knoll Avenue intersection is on a gentle slope. The nearest large sources of freshwater are the Napa River (630 feet away) and a floodplain slough (165 feet away). Given these factors and the recorded resources in the vicinity, the Oak Knoll Avenue intersection is sensitive for both surface and buried Native American archaeological resources.

Zinfandel Lane Intersection

The Zinfandel Lane over Napa River Bridge is a masonry arch bridge eligible for the NRHP located approximately 690 feet southwest of the Zinfandel Lane intersection. Other potentially historic structures including a residence, barn, wire fence, cable and basket system, and rock fence located at 1389 Silverado Trail have been recorded but were not evaluated for the CRHR or NRHP. The residence is located approximately 30 feet from the Zinfandel Lane intersection, while the other structures on the property range from 50 to 800 feet away from the intersection.

The Zinfandel Lane intersection originally had a 15 to 20 percent slope from east to west before the Silverado Trail was cut into the hillside. The Napa River is located approximately 425 feet away. The Zinfandel Lane intersection has a moderate sensitivity for surface archaeological resources and a low sensitivity for buried archaeological resources.

Strawberry Patch Intersection

Archaeological resources have been recorded within the 0.25-mile radius of the Strawberry Patch intersection. Additionally, a residence at 2125 Silverado Trail appears to have been constructed in 1902, though it has not been formally evaluated for the CRHR or NHRP. The driveway to the property is within the Strawberry Patch intersection area of work. The Trancas Street over Milliken Creek Bridge is a masonry arch bridge eligible for the NRHP located approximately 0.22 miles southeast of the Strawberry Patch intersection. A former single-family residence at 1000 Monticello Road was built circa 1926 and has since been converted into the Rosemont Assisted Living Facility. This resource has been recorded but its eligibility status for listing as a historic resource is unknown.

The Strawberry Patch intersection is on a gentle slope. The nearest freshwater sources include the Napa River (815 feet away), Milliken Creek (875 feet away), and a floodplain slough immediately adjacent to the east side of the project area. Given these factors and the recorded resources in the vicinity, the Strawberry Patch intersection is highly sensitive for both surface and buried archaeological resources.

While there are residential and commercial parcels in the vicinity of all three project locations that could contain stratified deposits of historic-era artifacts, such deposits are unlikely to form in the public roadway. Additionally, any deposits found within the roadway would not be readily associated with specific households or individuals. As such, all three project intersections appear to have low sensitivity for historic-era archaeological resources.

Native American Coordination

The NAHC completed a search of its Sacred Lands File for the project area in May 2025. The results were positive and the NAHC recommended contacting the Mishewal-Wappo Tribe of Alexander Valley for further information. Pursuant to Assembly Bill (AB) 52, consultation letters were sent on June 26, 2025, by mail and email to 11 individuals representing five tribal organizations, including the Mishewal-Wappo Tribe of Alexander Valley. Requests for consultation were received by the County from the Mishewal-Wappo Tribe of Alexander Valley and the Yocha Dehe Wintun Nation. In September 2025, the County met with both tribes to discuss the project and findings of the archaeological survey. The tribes agreed with the recommendations for monitoring as described in Checklist Question b), below.

4.5.2 Impact Discussion

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
Would the project:				
a) Cause a substantial adverse change in the significance of a historical resource pursuant to CEQA Guidelines Section 15064.5?	☐	☐	☐	☒
b) Cause a substantial adverse change in the significance of an archaeological resource as pursuant to CEQA Guidelines Section 15064.5?	☐	☒	☐	☐
c) Disturb any human remains, including those interred outside of dedicated cemeteries?	☐	☒	☐	☐

a) Would the project cause a substantial adverse change in the significance of a historical resource pursuant to CEQA Guidelines Section 15064.5?

There are no historical resources within the project limits of work. While there are historic and potential historic structures within the vicinity of each intersection, the project would not result in any changes to these resources because it would not result in any physical impacts to the structures and would not substantially change the existing setting. Therefore, the project would not cause a substantial adverse change in the significance of a historical resource. **(No Impact)**

b) Would the project cause a substantial adverse change in the significance of an archaeological resource pursuant to CEQA Guidelines Section 15064.5?

There are no known archaeological resources within the project limits of work. The project area largely consists of the Silverado Trail roadway and adjacent residential and agricultural uses, therefore, there has been previous ground disturbance within the project area. However, given that the project would involve ground-disturbing activities within areas sensitive and highly sensitive to archaeological resources at the Oak Knoll Avenue intersection and Strawberry Patch intersection, there is potential that the project could impact unknown archaeological resources on-site.

Impact CUL-1: Project construction activities could disturb previously undiscovered buried archaeological resources. **(Significant Impact)**

Mitigation Measures: The project sponsor shall implement the following measures in the event of an inadvertent discovery to reduce potential impacts to buried archaeological resources to a less than significant level.

MM CUL-1.1: Prior to the commencement of construction, the project sponsor shall secure the services of a qualified archaeologist. The qualified archaeologist shall prepare a workforce environmental awareness program (WEAP) to instruct construction workers of the obligation to protect and preserve valuable cultural resources. The WEAP shall be reviewed and approved by the County's Public Works Director, or the Director's designee, prior to any ground disturbance. This program shall be provided to all construction workers as a field training prior to the beginning of ground-disturbing activities, and shall include a discussion of applicable laws and penalties under the laws; samples or visual aids of resources that could be encountered in the project vicinity; instructions regarding the need to halt work in the vicinity of any potential archaeological and Native American resources encountered; and measures to notify their supervisor and the County.

MM CUL-1.2: A qualified archaeologist shall prepare a monitoring plan for the Oak Knoll Avenue and Strawberry Patch locations of the project. The monitoring plan shall be submitted to Napa County Public Works for review and approval prior to the start of any ground-disturbing activities associated with the project. Ground-disturbing activities (including, but not limited to, demolition / excavation, grading, tree removal, and utility trenching) shall be monitored by a qualified archaeologist and Native American tribal representative culturally and geographically affiliated with the project vicinity. The qualified archaeologist and Native American tribal representative shall have authority to halt construction activities temporarily in the immediate vicinity of an unanticipated find until its significance can be assessed by the qualified archaeologist and Native American tribal representative.

After observing a representative sample of ground-disturbing activity with no cultural resources encountered, the archaeologist and Native American tribal representative may recommend that monitoring move to a part-time or intermittent schedule by mutual agreement with the County. A summary report of the monitoring results, including any protective measures implemented, shall be submitted to the County.

With implementation of MM CUL-1.1 and MM CUL-1.2, any undiscovered archaeological resources would be properly documented and handled, and impact would be reduced to a less than significant level **(Less than Significant Impact with Mitigation Incorporated)**

c) Would the project disturb any human remains, including those interred outside of dedicated cemeteries?

The project is in a rural portion of the County and is not near or within a dedicated cemetery. However, project construction would include ground-disturbing activities that could unearth previously undiscovered human remains.

Impact CUL-2: Project construction activities could disturb previously undiscovered buried human remains. **(Significant Impact)**

Mitigation Measures: The project sponsor shall implement the following measures in the event of an inadvertent discovery to reduce potential impacts to buried human remains to a less than significant level.

MM CUL-2.1: In the event of the accidental discovery or recognition of any human remains, steps would be taken in compliance with the CCR Section 15064.5. All construction activities shall cease in the immediate area, and the County Coroner would be contacted, in accordance with 14 CCR Section 15064.5(e). If the coroner determines that the human remains are of Native American origin, the Native American Heritage Commission (NAHC) shall be notified to determine the most likely descendant (MLD) for the area. The MLD would make recommendations for the arrangements for the human remains per PRC Section 5097.98.

With implementation of MM CUL-2.1, any undiscovered human remains would be properly handled, reducing impacts to a less than significant level. **(Less than Significant Impact with Mitigation Incorporated)**

4.6 Energy

4.6.1 Environmental Setting

4.6.1.1 *Regulatory Framework*

Napa County General Plan

The General Plan contains the following applicable goals, policies, and action items that pertain to energy resources.

Goal/Policy	Description
Goal CON-26	Promote the economic and environmental health of Napa County by conserving energy, increasing the efficiency of energy use, and producing renewable energy locally.

4.6.1.2 *Existing Conditions*

The existing roadways at the project intersections do not result in any operational energy use. There is no existing street lighting or signage that results in electricity use in the vicinity of the project intersections. The consumption of energy related to the roadways is primarily associated with vehicle trips that are a function of other land uses in the vicinity of the project intersections and larger region.

4.6.2 Impact Discussion

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
Would the project:				
a) Result in a potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?	☐	☐	☒	☐
b) Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?	☐	☐	☒	☐

a) Would the project result in a potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?

Energy Efficiency During Construction

The anticipated construction schedule assumes that the project will be built over a period of approximately 12 weeks. The construction phase would require energy for the manufacture and

transportation of materials, site preparation, grading and excavation, trenching, paving, and striping. Petroleum-based fuels such as diesel fuel and gasoline would be the primary sources of energy during construction. Energy would not be wasted or used inefficiently by construction equipment, as the project would include several measures to improve efficiency of the construction (e.g., limiting idling and using properly maintained equipment) per the Air District standard construction BMPs identified in Section 4.3 Air Quality.

Energy Use During Project Operation

The project would not introduce any new land uses or increase capacity of the existing roadways. Therefore, the project would not result in any changes in the number of vehicle trips through the project intersections. The project would include new energy-consuming features including flashing beacon warning signs and streetlights. However, both the beacons and streetlights are proposed to be solar-powered and would not connect to the existing electrical system. Therefore, the project would not result in an increase in operational energy use and would not result in a wasteful, inefficient, or unnecessary consumption of energy resources. **(Less than Significant Impact)**

b) Would the project conflict with or obstruct a state or local plan for renewable energy or energy efficiency?

As described under Checklist Question a), the project would not result in wasteful, inefficient, or unnecessary consumption of energy resources and therefore, would not conflict with or obstruct a state or local plan for renewable energy or energy efficiency. **(Less than Significant Impact)**

4.7 Geology and Soils

4.7.1 Environmental Setting

4.7.1.1 *Regulatory Framework*

State

Alquist-Priolo Earthquake Fault Zoning Act

The Alquist-Priolo Earthquake Fault Zoning Act was passed following the 1971 San Fernando earthquake. The act regulates development in California near known active faults due to hazards associated with surface fault ruptures. Alquist-Priolo maps are distributed to affected cities, counties, and state agencies for their use in planning and controlling new construction. Areas within an Alquist-Priolo Earthquake Fault Zone require special studies to evaluate the potential for surface rupture to ensure that no structures intended for human occupancy are constructed across an active fault.

Seismic Hazards Mapping Act

The Seismic Hazards Mapping Act (SHMA) was passed in 1990 following the 1989 Loma Prieta earthquake. The SHMA directs the California Geological Survey (CGS) to identify and map areas prone to liquefaction, earthquake-induced landslides, and amplified ground shaking. CGS has completed seismic hazard mapping for the portions of California most susceptible to liquefaction, landslides, and ground shaking, including the central San Francisco Bay Area. The SHMA requires that agencies only approve projects in seismic hazard zones following site-specific geotechnical investigations to determine if the seismic hazard is present and identify measures to reduce earthquake-related hazards.

California Division of Occupational Safety and Health Regulations

Excavation, shoring, and trenching activities during construction are subject to occupational safety standards for stabilization by the California Department of Industrial Relations, Division of Occupational Safety and Health (Cal/OSHA) under Title 8 of the California Code of Regulations and Excavation Rules. These regulations minimize the potential for instability and collapse that could injure construction workers on the site.

Public Resources Code Section 5097.5

Paleontological resources are the fossilized remains of organisms from prehistoric environments found in geologic strata. They range from mammoth and dinosaur bones to impressions of ancient animals and plants, trace remains, and microfossils. These materials are valued for the information they yield about the history of the earth and its past ecological settings. California Public Resources Code Section 5097.5 specifies that unauthorized removal of a paleontological resource is a misdemeanor. Under the CEQA Guidelines, a project would have a significant impact on

paleontological resources if it would disturb or destroy a unique paleontological resource or site or unique geologic feature.

Local

Napa County General Plan

The General Plan contains the following applicable policies regarding geology and soils.

Policy	Description
CON-48	Proposed developments shall implement project-specific sediment and erosion control measures (e.g., erosion control plans and/or stormwater pollution prevention plans) that maintain pre-development sediment erosion conditions or at minimum comply with state water quality pollution control (i.e., Basin Plan) requirements and are protective of the County's sensitive domestic supply watersheds. Technical reports and/or erosion control plans that recommend site-specific erosion control measures shall meet the requirements of the County Code and provide detailed information regarding site specific geologic, soil, and hydrologic conditions and how the proposed measure will function.
CC-23.2	Impose the following conditions on all discretionary projects in areas which do not have a significant potential for containing archaeological or paleontological resources: • "The Planning Department shall be notified immediately if any prehistoric, archaeologic, or paleontologic artifact is uncovered during construction. All construction must stop and an archaeologist meeting the Secretary of the Interior's Professional Qualifications Standards in prehistoric or historical archaeology shall be retained to evaluate the finds and recommend appropriate action."

4.7.1.2 *Existing Conditions*

California is divided into 11 geomorphic provinces, which are naturally defined geologic regions that display a distinct landscape or landform. The project area is in the northern portion of the Coast Ranges Geomorphic Province, which is a series of low mountain ranges and northwest-trending valleys that run nearly parallel to the San Andreas Fault.[19] The Zinfandel Lane intersection area is primarily underlain by Cortina very gravelly loam, the Oak Knoll Avenue intersection area is primarily underlain by Haire loam, and the Strawberry Patch area is primarily underlain by Yolo loam.[20]

Geologic Hazards

Earthquakes

The San Francisco Bay Area is one of the most seismically active areas of North America and is influenced by the San Andreas fault system, which spans the Coast Ranges from the Pacific Ocean to the San Joaquin Valley and includes the West Napa fault. The closest active fault to the project site

[19] California Geological Survey. California Geomorphic Provinces. 2002. Accessed June 25, 2025. https://www.conservation.ca.gov/cgs/documents/publications/cgs-notes/CGS-Note-36.pdf
[20] United States Department of Agriculture. Web Soil Survey. Accessed June 25, 2025. https://websoilsurvey.nrcs.usda.gov/app/WebSoilSurvey.aspx

is the West Napa fault, located approximately three miles to the west of Silverado Trail. The project site is susceptible to strong earthquake-induced ground shaking. However, the site is not located within an Alquist-Priolo Fault Zone and thus, is not susceptible to fault rupture.[21]

Liquefaction and Lateral Spreading

Liquefaction occurs when saturated cohesionless soils are subject to a temporary but essentially total loss of shear strength under the reversing, cyclic shear stresses associated with earthquake shaking. The project intersections are within zones of moderate to high liquefaction susceptibility on the General Plan's Liquefaction Hazard Zones map.

A consequence of seismic liquefaction in sloping ground areas is lateral spreading, which is the movement of ground laterally after the loss of support due to liquefaction. For this to occur, the liquefied soils must be close to a free face (e.g., an unsupported, vertical, or sloping face) such as a road cut or stream/riverbank. The project intersections are generally located in areas of flat topography and are not adjacent to free faces that would be subject to lateral spreading.

Landslides

The Oak Knoll Avenue and Strawberry Patch intersections are located in areas of generally flat topography. These project intersections are within areas of low landslide susceptibility on the General Plan's Landslide Susceptibility map. However, the Zinfandel Lane intersection is located next to a hillside on the east side of Silverado Trail with moderate to high landslide susceptibility.

Expansive Soils

The expansive potential is the ability of soils with a high clay content to change volume with moisture content. According to the U.S. Geological Survey's (USGS) Swelling Clays Map of the Conterminous United States, Napa County is located in an area that has a high swelling potential because part of the unit (generally less than 50 percent) consists of clay.[22]

4.7.2 Impact Discussion

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
Would the project:				
a) Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:				

[21] California Department of Conservation. Earthquake Zones of Required Investigation. Accessed June 25, 2025. https://maps.conservation.ca.gov/cgs/informationwarehouse/eqzapp/

[22] USGS. Swelling Clays Map of the Conterminous United States. April 25, 1989. Accessible at: https://ngmdb.usgs.gov/Prodesc/proddesc_10014.htm

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
Would the project:				
- Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault (refer to Division of Mines and Geology Special Publication 42)?	☐	☐	☒	☐
- Strong seismic ground shaking?	☐	☐	☒	☐
- Seismic-related ground failure, including liquefaction?	☐	☐	☒	☐
- Landslides?	☐	☐	☒	☐
b) Result in substantial soil erosion or the loss of topsoil?	☐	☐	☒	☐
c) Be located on a geologic unit or soil that is unstable, or that will become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?	☐	☐	☒	☐
d) Be located on expansive soil, as defined in the current California Building Code, creating substantial direct or indirect risks to life or property?	☐	☐	☒	☐
e) Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?	☐	☐	☐	☒
f) Directly or indirectly destroy a unique paleontological resource or site or unique geological feature?	☐	☐	☒	☐

a) Would the project directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault; strong seismic ground shaking; seismic-related ground failure, including liquefaction; or landslides?

The project site is located within the seismically active San Francisco Bay region, but it is not located within an Alquist-Priolo Fault Zone. There are no known earthquake faults crossing the project limits; therefore, the site is not subject to ground rupture. The project site would be subject to strong ground-shaking in the event of an earthquake, particularly from one located along the West

Napa Fault. Portions of the project site may also be susceptible to liquefaction and landslides. The project would not introduce any new structures to the project intersections, with the exception of signs, streetlights, and flashing beacons. The project would also widen the roadway at the Oak Knoll Avenue and Strawberry Patch intersections. The new roadway surface would be designed in accordance with current County, state, and federal seismic standards to minimize risks associated with geologic hazards. The project, therefore, would not cause substantial adverse effects associated with geologic hazards. **(Less than Significant Impact)**

b) Would the project result in substantial soil erosion or the loss of topsoil?

Project construction activities would include grading for roadway widening and excavation for installation of streetlights, signs, and flashing beacons. These activities could result in the loss of topsoil. As required by General Plan Policy CON-48, the project would be required to implement construction sediment and erosion control measures to ensure no increase in erosion or sediment in runoff (see Section 4.10 Hydrology and Water Quality). Through the implementation of these measures, the project would avoid soil erosion and would not cause a significant loss of topsoil. **(Less than Significant Impact)**

c) Would the project be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse?

As previously discussed, portions of the project site may be susceptible to landslide and liquefaction. The project would not introduce any new structures to the project intersections, with the exception of signs, streetlights, and flashing beacons. The project would also widen the roadway at the Oak Knoll Avenue and Strawberry Patch intersections. The new roadway surface would be designed in accordance with current County, state, and federal seismic standards to minimize risks associated with geologic hazards. **(Less than Significant Impact)**

d) Would the project be located on expansive soil, as defined in the current California Building Code, creating substantial direct or indirect risks to life or property?

The project is located in an area generally considered to have a high expansion potential by the USGS. The project would not introduce any new structures to the project intersections, with the exception of signs, streetlights, and flashing beacons. The project would also widen the roadway at the Oak Knoll Avenue and Strawberry Patch intersections. The new roadway surface would be designed in accordance with current County, state, and federal seismic standards to minimize risks associated with expansive soils. The project would not create substantial risk to life or property. **(Less than Significant Impact)**

e) Would the project have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?

The project would not include the use of septic tanks or alternative wastewater disposal systems. **(No Impact)**

f) Would the project directly or indirectly destroy a unique paleontological resource or site or unique geological feature?

Paleontological resources include fossils, which are the preserved remains or traces of animals, plants, and other organisms from prehistoric time (i.e., the period before written records). Fossils and traces of fossils are preserved in sedimentary rock units (formed by the deposition of material at the Earth's surface); and are more likely to be preserved subsurface, where they have not been damaged or destroyed by previous ground disturbance or natural causes, such as erosion by wind or water. Soils in the project area have been previously disturbed by roadway construction and agricultural activities. Soil disturbance from the project would include grading for roadway widening and excavation for installation of streetlights, signs, and flashing beacons.

Although unlikely, ground-disturbing activities during project construction could result in the disturbance of paleontological resources or geological features. Consistent with General Plan Policy CC-23.2, the project would be required to implement the following standard conditions of approval in the event a paleontological resource is encountered during ground-disturbing activities.

Standard Condition of Approval

GEO-1: Should a unique paleontological resource or site or unique geological feature be identified at the project site during any phase of construction, all ground disturbing activities within 25 feet shall cease and the County shall be notified immediately. A qualified paleontologist shall evaluate the find and prescribe measures to avoid impacts to the resource. Work may proceed on other parts of the project site while an assessment and treatment plan for paleontological resources or geologic features is implemented. Upon completion of the paleontological assessment, a report shall be submitted to the County and, if paleontological materials are recovered, a paleontological repository, such as the University of California Museum of Paleontology.

With implementation of the standard condition of approval described above, impacts to undiscovered paleontological resources would be less than significant. **(Less than Significant Impact)**

4.8 Greenhouse Gas Emissions

4.8.1 Environmental Setting

4.8.1.1 *Existing Conditions*

The existing intersections do not result in any operational greenhouse gas (GHG) emissions. GHG emissions related to use of the intersections are primarily associated with vehicle trips that are a function of other land uses in the vicinity of the intersections and larger region.

4.8.2 Impact Discussion

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
Would the project:				
a) Generate greenhouse gas (GHG) emissions, either directly or indirectly, that may have a significant impact on the environment?	☐	☐	☒	☐
b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of GHGs?	☐	☐	☒	☐

a) Would the project generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment?

Construction Emissions

Sources of GHG emissions during project construction would include on-site operation of construction equipment, vendor and hauling truck trips, and worker trips. Neither the County nor the Air District have an adopted threshold of significance for construction related GHG emissions. The Air District encourages the incorporation of BMPs to reduce GHG emissions during construction where feasible and applicable. As previously described in Section 4.3 Air Quality, the project would be required to implement construction BMPs that would reduce GHG emissions.

Operational Emissions

The project would not include any new sources of GHG emissions. The project would not result in any land use changes that would alter the number of vehicle trips along Silverado Trail and the connecting roadways and would not increase capacity of the existing roadways. The proposed flashing beacons and streetlights would be solar-powered, and thus, the project would not include any new operational features that would consume energy derived from sources that produce GHGs. Therefore, the project would not directly or indirectly generate a significant amount of GHG emissions. **(Less than Significant Impact)**

b) Would the project conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of GHGs?

As discussed under Checklist Question a), the project would not result in any net new operational GHG emissions and would comply with the Air District's recommendation to implement construction BMPs. Therefore, the project would not conflict with any plan, policy, or regulation adopted for the purpose of reducing GHG emissions. **(Less than Significant Impact)**

4.9 Hazards and Hazardous Materials

4.9.1 Environmental Setting

4.9.1.1 *Regulatory Framework*

Overview

The storage, use, generation, transport, and disposal of hazardous materials and waste are highly regulated under federal and state laws. In California, the EPA has granted most enforcement authority over federal hazardous materials regulations to the California Environmental Protection Agency (CalEPA). In turn, local agencies have been granted responsibility for implementation and enforcement of many hazardous materials regulations under the Certified Unified Program Agency (CUPA) program.

Worker health and safety and public safety are key issues when dealing with hazardous materials. Proper handling and disposal of hazardous material is vital if it is disturbed during project construction. Cal/OSHA enforces state worker health and safety regulations related to construction activities. Regulations include exposure limits, requirements for protective clothing, and training requirements to prevent exposure to hazardous materials. Cal/OSHA also enforces occupational health and safety regulations specific to lead and asbestos investigations and abatement.

Federal and State

Comprehensive Environmental Response, Compensation, and Liability Act

The Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), commonly known as Superfund, was enacted by Congress on December 11, 1980. This law created a tax on the chemical and petroleum industries and provided broad federal authority to respond directly to releases or threatened releases of hazardous substances that may endanger public health or the environment. Over five years, $1.6 billion was collected and the tax went to a trust fund for cleaning up abandoned or uncontrolled hazardous waste sites. CERCLA accomplished the following objectives:

CERCLA also enabled the revision of the National Contingency Plan (NCP). The NCP provided the guidelines and procedures needed to respond to releases and threatened releases of hazardous substances, pollutants, or contaminants. The NCP also established the National Priorities List. CERCLA was amended by the Superfund Amendments and Reauthorization Act on October 17, 1986.[23]

[23] United States Environmental Protection Agency. “Superfund: CERCLA Overview.” Accessed June 25, 2025. https://www.epa.gov/superfund/superfund-cercla-overview.

Resource Conservation and Recovery Act

The Resource Conservation and Recovery Act (RCRA), enacted in 1976, is the principal federal law in the United States governing the disposal of solid waste and hazardous waste. RCRA gives the EPA the authority to control hazardous waste from the "cradle to the grave." This includes the generation, transportation, treatment, storage, and disposal of hazardous waste. RCRA also sets forth a framework for the management of non-hazardous solid wastes.

The Federal Hazardous and Solid Waste Amendments (HSWA) are the 1984 amendments to RCRA that focused on waste minimization, phasing out land disposal of hazardous waste, and corrective action for releases. Some of the other mandates of this law include increased enforcement authority for the EPA, more stringent hazardous waste management standards, and a comprehensive underground storage tank program.[24]

Government Code Section 65962.5

Section 65962.5 of the Government Code requires CalEPA to develop and update a list of hazardous waste and substances sites, known as the Cortese List. The Cortese List is used by state and local agencies and developers to comply with CEQA requirements. The Cortese List includes hazardous substance release sites identified by the Department of Toxic Substances Control (DTSC) and State Water Resources Control Board (SWRCB).[25]

Toxic Substances Control Act

The Toxic Substances Control Act (TSCA) of 1976 provides the EPA with authority to require reporting, record-keeping and testing requirements, and restrictions relating to chemical substances and/or mixtures. Certain substances are generally excluded from TSCA, including, among others, food, drugs, cosmetics, and pesticides. The TSCA addresses the production, importation, use, and disposal of specific chemicals including polychlorinated biphenyls (PCBs), asbestos, radon, and lead-based paint.

California Accidental Release Prevention Program

The California Accidental Release Prevention (CalARP) Program aims to prevent accidental releases of regulated hazardous materials that represent a potential hazard beyond the boundaries of a property. Facilities that are required to participate in the CalARP Program use or store specified quantities of toxic and flammable substances (hazardous materials) that can have off-site consequences if accidentally released. The Napa County Division of Environmental Health (DEH) reviews CalARP risk management plans as the CUPA.

[24] United States Environmental Protection Agency. "Summary of the Resource Conservation and Recovery Act." Accessed June 25, 2025. https://www.epa.gov/laws-regulations/summary-resource-conservation-and-recovery-act.
[25] California Environmental Protection Agency. "Cortese List Data Resources." Accessed June 25, 2025. https://calepa.ca.gov/sitecleanup/corteselist/.

Asbestos-Containing Materials

Friable asbestos is any asbestos-containing material (ACM) that, when dry, can easily be crumbled or pulverized to a powder by hand, allowing the asbestos particles to become airborne. Common examples of products that have been found to contain friable asbestos include acoustical ceilings, plaster, wallboard, and thermal insulation for water heaters, and pipes. Common examples of non-friable ACMs are asphalt roofing shingles, vinyl floor tiles, and transite siding made with cement. The EPA began phasing out use of friable asbestos products in 1973 and issued a ban in 1978 on manufacture, import, processing, and distribution of some asbestos-containing products and new uses of asbestos products.[26] The EPA is currently considering a proposed ban on on-going use of asbestos.[27] National Emission Standards for Hazardous Air Pollutants (NESHAP) guidelines require that potentially friable ACMs be removed prior to building demolition or remodeling that may disturb the ACMs.

CCR Title 8, Section 1532.1

The United States Consumer Product Safety Commission banned the use of lead-based paint in 1978. Removal of older structures with lead-based paint is subject to requirements outlined by the Cal/OSHA Lead in Construction Standard, CCR Title 8, Section 1532.1 during demolition activities. Requirements include employee training, employee air monitoring, and dust control. If lead-based paint is peeling, flaking, or blistered, it is required to be removed prior to demolition.

Napa County General Plan

The General Plan contains the following applicable policies regarding hazards and hazardous materials.

Policy	Description
SAF-1.3	**Evaluate safety hazards.** The County shall evaluate potential safety hazards when considering General Plan Amendments, rezoning, or other project approvals (including but not limited to new residential developments, roads, or highways, and all structures proposed to be open to the public and serving 50 persons or more) in areas characterized by any of the following: 1) Slopes over 15 percent 2) Identified landslides 3) Floodplains 4) Medium, high, or very high fire hazard severity 5) Former marshlands 6) Fault zones

[26] United States Environmental Protection Agency. "EPA Actions to Protect the Public from Exposure to Asbestos." Accessed June 25, 2025. https://www.epa.gov/asbestos/epa-actions-protect-public-exposure-asbestos
[27] Ibid.

SAF-8.4	**Review and remedy sites suspected or known to be contaminated by hazardous materials.** All development projects proposed on sites that are suspected or known to be contaminated by hazardous materials and/or are identified in a hazardous material/waste search shall be reviewed, tested, and remediated for potential hazardous materials in accordance with all local, state, and federal regulations.
SAF-10.6	**Meet or exceed fire safety standards for Napa County buildings and roads**. The County should set a good example and meet or exceed fire safety standards and defensible space requirements for all Napa County buildings and roads.

4.9.1.2 *Existing Conditions*

Sources of Contamination

The project site is not located within, or directly adjacent to, a Cortese List site.[28] Aerially deposited lead (ADL) is a common hazardous material found along roadways and highways due to vehicle tailpipe exhaust when lead was formerly a constituent of gasoline. It is likely that ADL is present on and adjacent to the existing roadway. There is also potential for the presence of ACMs and lead based paint (LBP) in the existing roadway materials.

Airports

The closest public airport with commercial flights near the project site is the Angwin-Parrett Field Airport, located approximately five miles from the Zinfandel Lane intersection project limits. The Strawberry Patch intersection is located approximately seven miles from the Napa County Airport. The project site is located outside of the airport impact areas for both airports.[29]

Wildfire

The project intersection locations vary in their fire hazard risk. The Oak Knoll Avenue intersection is partially in a moderate fire hazard severity zone, with the other portions designated as NonWildland per the Napa County Fire Hazard Severity Zone/Wildland Urban Interface (WUI) GIS layer. The Zinfandel Lane intersection is in a high fire hazard severity zone. The Strawberry Patch intersection is identified as NonWildland per the Napa County GIS layer.[30,31]

[28] California Environmental Protection Agency. "Cortese List Data Resources." Accessed June 25, 2025. https://calepa.ca.gov/sitecleanup/corteselist/.
[29] Napa County Airport Land Use Commission. *Napa Countywide Airport Land Use Compatibility Plan.* December 4, 2024. Pages 5-19 and 6-13.
[30] CalFire. "Find your Fire Hazard Severity Zone (FHSZ) and local public contacts." Accessed June 18, 2025. https://osfm.fire.ca.gov/what-we-do/community-wildfire-preparedness-and-mitigation/fire-hazard-severity-zones.
[31] Napa County Community Wildfire Protection Plan. "WUI Map." Accessed December 15, 2025. https://cwpp.napafirewise.org/maps/760813e443ba40e09c5e984843d660be/explore?location=38.495658%2C-122.419719%2C16&path=

4.9.2 Impact Discussion

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
Would the project:				
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	☐	☐	☒	☐
b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	☐	☒	☐	☐
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	☐	☐	☐	☒
d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, will it create a significant hazard to the public or the environment?	☐	☐	☐	☒
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, result in a safety hazard or excessive noise for people residing or working in the project area?	☐	☐	☐	☒
f) Impair implementation of, or physically interfere with, an adopted emergency response plan or emergency evacuation plan?	☐	☐	☐	☒
g) Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires?	☐	☐	☒	☐

a) Would the project create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?

The proposed project would not involve the use, storage, or disposal of hazardous materials following construction. Therefore, no long-term impacts involving the release of hazardous materials into the environment would occur as a result of project implementation.

Project construction would require the temporary use of heavy equipment. Construction would also require the use of hazardous materials such as petroleum products, lubricants, cleaners, paints, and solvents. These materials would be used in accordance with all federal, state, and local laws and

regulations. When used as directed, these materials would not pose a hazard to the environment or workers or persons in the vicinity. Thus, hazardous materials used during construction would not pose a hazard to workers or persons in the vicinity.

Similar to existing conditions, hazardous materials could be transported by commercial and/or private vehicles along the project roadways. Vehicles operating on public roads are subject to all local, state, and federal regulations governing the transport of hazardous materials. This includes, but is not limited to, the Hazardous Materials Transportation Act. Additionally, all public roadways constructed within the County of Napa are required to adhere to all applicable roadway design standards and regulations. For these reasons, the proposed project would not result in a significant impact related to the routine transport, use, and disposal of hazardous materials. **(Less than Significant Impact)**

b) Would the project create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?

As discussed above there is the potential for the presence of ACM, LBP, and ADL to be present at the site. These materials would be disturbed during project construction and could potentially impact workers, area residents, and the environment. Exposure to these hazardous substances at levels exceeding regulatory levels by construction workers could lead to adverse health effects.

Impact HAZ-1: Ground-disturbing activities during project construction could release asbestos and lead, creating a hazard to construction workers and nearby receptors. **(Significant Impact)**

Mitigation Measures: The project sponsor shall implement the following measures to reduce impacts associated with the release of asbestos and lead to a less than significant level.

MM HAZ-1.1: Prior to any ground disturbance, a soil investigation shall be conducted to determine whether aerially-deposited lead (ADL) has affected soils that will be disturbed by the proposed project. The analytical results shall be compared against applicable hazardous waste criteria. Based on analytical results, the investigation will provide recommendations regarding management and disposal of affected soils including the reuse potential of ADL-affected soil on the project site.

MM HAZ-1.2: Testing for the presence of lead-based paint and asbestos-containing materials, on the existing roadway and roadway paint to be removed shall occur. If these substances are found to be present, applicable regulations pertaining to their removal and disposal shall be followed.

With implementation of MM HAZ-1.1 and MM HAZ-1.2, impacts to workers, area residents, and the environment as a result of exposure to hazardous materials during project construction would be reduced to a less than significant level. **(Less than Significant Impact with Mitigation Incorporated)**

c) Would the project emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?

There are no schools within a quarter-mile of the project site. The nearest school to the Oak Knoll Avenue intersection is Willow Elementary school, which is 2.27 miles southwest of the project site. The closest school to the Strawberry Patch intersection is McPherson Elementary school which is 1.19 miles southwest from the project site. The closest school to the Zinfandel Lane intersection is St. Helena Elementary school which is 1.67 miles east of the project area. Therefore, the project would not emit hazardous emissions or handle hazardous materials within one quarter mile of a school. **(No Impact)**

d) Would the project be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?

As discussed earlier, the project site is not located within or near a Cortese List site. **(No Impact)**

e) If located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard or excessive noise for people residing or working in the project area?

The Angwin-Parrett Field Airport is located approximately five miles from the Zinfandel Lane and Silverado Trail intersection project limits, the northernmost project location. The Strawberry Patch intersection, the southernmost project location, is approximately seven miles from the Napa County Airport. The project is located outside of the airport impact area for both airports.[32] Therefore, the project would not result in any noise or safety hazards associated with airports. **(No Impact)**

f) Would the project impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?

The project would result in improved safety features at the three intersection locations. As a result, roadway conditions would improve, potentially leading to improved emergency response times. Therefore, the project would not impair implementation of an adopted emergency response plan or emergency evacuation plan. **(No Impact)**

[32] Napa County Airport Land Use Commission. *Napa Countywide Airport Land Use Compatibility Plan.* December 4, 2024. Pages 5-19 and 6-13.

g) Would the project expose people or structures, either directly or indirectly, to a significant risk of loss, injury, or death involving wildland fires?

While portions of the project are mapped to be in moderate and high fire hazard severity zones, the proposed roadway improvements would not exacerbate any existing conditions related to wildfire risk and would not introduce any new residents or structures to the project area. Therefore, the project would not expose people or structures to significant risk involving wildland fires. **(Less than Significant Impact)**

4.10 Hydrology and Water Quality

The following discussion is based, in part, on a Summary Floodplain Evaluation Memorandum prepared by Sanbell in December 2025. A copy of this report is included in Appendix C.

4.10.1 Environmental Setting

4.10.1.1 *Regulatory Framework*

Federal and State

The federal Clean Water Act and California's Porter-Cologne Water Quality Control Act are the primary laws related to water quality in California. Regulations set forth by the Environmental Protection Agency (EPA) and the State Water Resources Control Board (SWRCB) have been developed to fulfill the requirements of this legislation. EPA regulations include the National Pollutant Discharge Elimination System (NPDES) permit program, which controls sources that discharge pollutants into the waters of the United States (e.g., streams, lakes, bays, etc.). These regulations are implemented at the regional level by the Regional Water Quality Control Boards (RWQCBs). The project site is within the jurisdiction of the San Francisco Bay RWQCB.

Under Section 303(d) of the federal Clean Water Act, the SWRCB and RWQCBs are required to identify impaired surface water bodies that do not meet water quality standards and develop total maximum daily loads (TMDLs) for contaminants of concern. The list of the state's identified impaired surface water bodies, known as the "303(d) list" can be found on the on the SWRCB's website.[33]

National Flood Insurance Program

The Federal Emergency Management Agency (FEMA) established the National Flood Insurance Program (NFIP) to reduce impacts of flooding on private and public properties. The program provides subsidized flood insurance to communities that comply with FEMA regulations protecting development in floodplains. As part of the program, FEMA publishes Flood Insurance Rate Maps (FIRMs) that identify Special Flood Hazard Areas (SFHAs). An SFHA is an area that would be inundated by the one-percent annual chance flood, which is also referred to as the base flood or 100-year flood.

Statewide Construction General Permit

The SWRCB has implemented an NPDES General Construction Permit for the State of California (Construction General Permit). For projects disturbing one acre or more of soil, a Notice of Intent (NOI) must be filed with the RWQCB by the project sponsor, and a Storm Water Pollution Prevention Plan (SWPPP) must be prepared by a qualified professional prior to commencement of

[33] California State Water Resources Control Board. "2020-2022 California Integrated Report (Clean Water Act Section 303(d) List and 305(b) Report)." May 11, 2022. Accessed July 14, 2025. https://www.waterboards.ca.gov/water_issues/programs/water_quality_assessment/2020_2022_integrated_report.html.

construction and filed with the RWQCB by the project sponsor. The Construction General Permit includes requirements for training, inspections, record keeping, and, for projects of certain risk levels, monitoring. The general purpose of the requirements is to minimize the discharge of pollutants and to protect beneficial uses and receiving waters from the adverse effects of construction-related storm water discharges.

Regional and Local

San Francisco Bay Basin Plan

The San Francisco Bay RWQCB regulates water quality in accordance with the Water Quality Control Plan for the San Francisco Bay Basin (Basin Plan). The Basin Plan lists the beneficial uses that the San Francisco Bay RWQCB has identified for local aquifers, streams, marshes, rivers, and the San Francisco Bay, as well as the water quality objectives and criteria that must be met to protect these uses. The San Francisco Bay RWQCB implements the Basin Plan by issuing and enforcing waste discharge requirements, including permits for nonpoint sources such as the urban runoff discharged by a City's stormwater drainage system. The Basin Plan also describes watershed management programs and water quality attainment strategies.

Construction Dewatering Waste Discharge Requirements

Each of the RWQCBs regulate construction dewatering discharges to storm drains or surface waters within its Region under the NPDES program and Waste Discharge Requirements.

Napa County Stormwater Management and Discharge Control Ordinance

The RWQCB administers the NPDES stormwater permitting program under Section 402(p) of the CWA. Under Section 402 of the CWA, a NPDES permit is required for any point source discharge of pollutants into waters of the U.S. and establishes monitoring and reporting requirements. There are two NPDES permits that regulate runoff from construction sites: NPDES Construction General Permit and NPDES Municipal General Permit. Construction activities that involve disturbance of more than one acre require compliance with the statewide NPDES stormwater general permit for construction activities. Construction activity that results in soil disturbances of less than one acre is subject to this permit if there is potential for substantial water quality impairment resulting from the activity as determined by the RWQCB.

The County was issued a Phase II NPDES Municipal General Permit (Municipal General Permit) by the SWRCB in 2003 and renewed in 2013. All incorporated and unincorporated areas within the Napa River watershed are covered under the Municipal General Permit. Under this permit, partners of the Napa Countywide Stormwater Pollution Prevention Plan (NCSPPP) are required to develop, implement, and enforce a program to reduce pollutants from construction sites.

Chapter 16.28 of Napa County Code of Ordinances (County Code) is the Napa County Stormwater Management and Discharge Control Ordinance, which implements conditions set in the Municipal

General Permit.[34] Purposes include protecting fish and wildlife habitat, protect and improve water quality, implement use of management practices to reduce the effects of polluted runoff discharges, and to ensure compliance with state and federal law.

Phase II Small Municipal Separate Storm Sewer System (MS4) Program

The State Water Board adopted the Phase II Small MS4 General Permit Water Quality Order (WQO) 2013-0001-DWQ on February 5, 2013. Since then, six amendments have been adopted. The MS4 Program requires Napa County and its cities to implement a stormwater management program to control pollutants in stormwater discharged from its municipal separate storm sewer system.

Provision E.12 requires that development projects be regulated to control pollutants in runoff from newly created or replaced impervious surfaces. There are two options for handling runoff from impervious areas:

1. Limits the ratio of impervious to pervious area to 2:1 maximum.
2. Route runoff to bioretention facilities.

Napa Countywide Stormwater Pollution Prevention Plan

The NCSPPP is a joint effort by the County, cities of American Canyon, Napa, St. Helena, and Calistoga, and the town of Yountville. The purpose is to prevent stormwater pollution, protect and enhance water quality in creeks and wetlands, preserve beneficial uses of local waterways, and comply with state and federal laws. The NCSPPP provides for coordination and consistency of approaches between the individual participants and documents efforts in an annual report. The plan also provides basic guidelines on BMPs for construction projects, including erosion and sediment control BMPs.[35]

4.10.1.2 *Existing Conditions*

Hydrology and Drainage

The project site is located in the Napa Valley within the Napa River watershed.[36] As previously discussed in Section 4.4 Biological Resources, there is an ephemeral stream within the vicinity of the Oak Knoll Avenue intersection, on the north edge of Oak Knoll Avenue, west of Silverado Trail. The stream typically only flows during and immediately following substantial rainfalls, though it may flow longer in wetter years. The stream flows approximately 0.4 miles to where it enters the Napa River. The Zinfandel Lane and Strawberry Patch intersection project limits are not directly adjacent to any waterway.

[34] Napa County. Code of Ordinances Chapter 16.28 – Stormwater Management and Discharge Control. Adopted April 21, 2015.
[35] Napa County. "Stormwater". Accessed October 15, 2025. https://www.napacounty.gov/1351/Stormwater-Program
[36] Watershed Information & Conservation Council. "WICC Interactive Map." Accessed July 14, 2025. https://www.napawatersheds.org/maps.

The project site currently consists of approximately 8,828 square feet of impervious surface area and 35,802 square feet of pervious surface area, a 1:4 ratio of impervious to pervious surface area.

Flooding

The Zinfandel Lane intersection is not located within a floodplain. It is within an area designated as Zone X, an area of minimal flood hazard.[37] The Oak Knoll Avenue intersection and Strawberry Patch intersection are both within floodplains. The Oak Knoll Avenue intersection is within Zone AE with a base flood elevation of approximately 61 feet[38] and the Strawberry Patch intersection is within Zone AE with a base flood elevation range of 31 to 34 feet.[39] The Zone AE designation indicates a special flood hazard area subject to inundation by the one percent annual chance flood (100-year flood).

4.10.2 Impact Discussion

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
Would the project:				
a) Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?	☐	☒	☐	☐
b) Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?	☐	☐	☒	☐
c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would:	☐	☐	☒	☐
- result in substantial erosion or siltation on- or off-site;	☐	☐	☒	☐
- substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site;	☐	☐	☒	☐

[37] FEMA. Flood Insurance Rate Map No. 06055C0385E. Effective September 26, 2008.
[38] FEMA. Flood Insurance Rate Map No. 06055C0510F. Effective September 29, 2010.
[39] FEMA. Flood Insurance Rate Map No. 06055C0509F. Effective September 29, 2010.

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
Would the project:				
- create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or	☐	☐	☒	☐
- impede or redirect flood flows?	☐	☐	☒	☐
d) In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?	☐	☐	☒	☐
e) Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?	☐	☐	☒	☐

a) Would the project violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?

Construction of the project would require excavation for signal pole and utility pole installations, trenching, grading, and paving. In addition, construction materials and equipment would be moved on- and off-site as necessary for the duration of construction. These construction activities would temporarily increase the amount of unconsolidated materials on-site, and grading activities could increase erosion and sedimentation that could be carried by runoff into the Napa River.

Standard Conditions of Approval

HYD-1: Because construction activities could temporarily increase sedimentation and pollutant loads, the project sponsor shall develop and implement BMPs to control erosion and sedimentation during construction. The project sponsor shall comply with the state's Construction General Permit for Storm Water Discharges Associated with Construction Activity. This entails filing a Notice of Intent, paying a filing fee, and preparing and implementing a site-specific SWPPP. Preparation of and compliance with a SWPPP as part of the NPDES program is mandated by state and federal statutes.

Additionally, the project would implement MM BIO-3.1 to further protect the ephemeral stream adjacent to Oak Knoll Avenue and reduce potential impacts to a less than significant level.

With implementation of the project, the site would consist of approximately 26,524 square feet of impervious surface area and 18,106 square feet of pervious surface area, a 1.5:1 ratio of impervious to pervious surface area. The project would result in less than a 2:1 ratio of impervious to pervious surface area and, therefore, would be in compliance with Provision E.12 of the MS4 Permit and would not be required to implement bioretention facilities. For these reasons, impacts to water

quality during construction would be less than significant as a result. **(Less than Significant Impact with Mitigation Incorporated)**

b) Would the project substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?

The project would include roadway widening at the Oak Knoll Avenue and Strawberry Patch intersections, increasing the impervious surfaces on-site. However, the amount of net new impervious surfaces would be relatively minor and would not substantially interfere with groundwater recharge. The project would not utilize or otherwise deplete existing groundwater supplies. For these reasons, the project would not impede sustainable groundwater management of the basin. **(Less than Significant Impact)**

c) Would the project substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would result in substantial erosion or siltation on- or off-site; substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site; create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or impede or redirect flood flows?

The Zinfandel Lane intersection is not located within a floodplain, however, both the Oak Knoll Avenue and Strawberry Patch intersections are within a 100-year floodplain. No work would be performed within the regulatory floodway, with the exception of some minor roadway restriping at the Strawberry Patch intersection. The project meets the conditions established in Caltrans' Floodplain Encroachment Location Hydraulic Study Memo – No Significant Encroachment, indicating that the project is low risk and would have minimal impact to the existing floodplain conditions.

The project would not alter the course of a stream or river. The project would result in a net increase in impervious surfaces due to the roadway widening. However, the amount of net new impervious surfaces would be relatively minor and would not result in substantial erosion, flooding, additional pollution, or exceed the capacity of existing stormwater drainage systems. **(Less than Significant Impact)**

d) Would the project risk release of pollutants due to project inundation in flood hazard, tsunami, or seiche zones?

The Zinfandel Lane intersection is not located within a floodplain, however, both the Oak Knoll Avenue and Strawberry Patch intersections are within a 100-year floodplain. As previously discussed, the risk of pollutants would be temporarily increased during project construction,

however, the project would incorporate BMPs and SWPPP requirements to reduce pollution risk during construction. The project would not introduce new sources of pollutants during operation.

The project site is not located within a tsunami hazard area[40] and is not subject to seiches due to its distance from the shoreline of the San Francisco Bay. For these reasons, the project would not risk release of pollutants due to inundation in flood hazard, tsunami, or seiche zones. **(Less than Significant Impact)**

e) Would the project conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?

As previously discussed, the project would be in compliance with the Construction General Permit. The project would not utilize or otherwise deplete groundwater resources or interfere substantially with groundwater recharge. For these reasons, the project would not conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan. **(Less than Significant Impact)**

[40] California Department of Conservation. California Tsunami Maps. Accessed August 11, 2025. https://www.conservation.ca.gov/cgs/tsunami/maps

4.11 Land Use and Planning

4.11.1 Environmental Setting

4.11.1.1 *Regulatory Framework*

Local

Napa County General Plan

The General Plan contains the following applicable policies regarding land use.

Goal/Policy	Description
Goal CIR-1	The County's transportation system shall complement the policies of the Agricultural Preservation and Land Use Element to protect the County's rural character.
Policy CIR-18	Roadways outside the urbanized areas of the County shall reflect the rural character of the County.
Policy CIR-19	The County's roadway modifications and capacity expansion should minimize disruption to and safety impacts on neighborhoods, communities, and all roadway users, including agriculture.
Policy CIR-31	The County seeks to provide a roadway system that maintains current roadway capacities in most locations and is efficient in providing local access. The following list of improvements, illustrated as the County's ultimate road network in Figure CIR-1, has been supported by policy makers within the County and all five incorporated cities/town. Some of these routes are controlled by other agencies (such as Caltrans or a city); in those cases, the County will coordinate with the other agencies to plan and implement these improvements. • Explore opportunities for operational improvements along SR 29, Silverado Trail, and connecting crossroads to improve traffic flow and reduce conflicts for vehicles, bicyclists and pedestrians; examples may include center two-way left-turn lanes, additional turn lanes at intersections, roundabouts, and other measures that could reduce conflicts. • Consistent with the Countywide Pedestrian Plan and the Countywide Bicycle Plan, construct multimodal facilities and install safety-related improvements on rural roads and highways, such as new signals, bike lanes, multi-use paths, shoulder widening, or softening sharp curves.

4.11.1.2 *Existing Conditions*

The project site is located in a rural/agricultural area of Napa County. The surrounding land uses at the three project intersections include rural residential, vineyards, and wineries.

4.11.2 Impact Discussion

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
Would the project:				
a) Physically divide an established community?	☐	☐	☒	☐
b) Cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?	☐	☐	☒	☐

a) Would the project physically divide an established community?

Examples of projects that have the potential to physically divide an established community include new freeways and highways, major arterial streets, and railroad lines. In the project area, Silverado Trail currently provides access to rural properties on the eastern side of the Napa Valley. The project would make roadway improvements within the existing County right-of-way. The project would not introduce a new highway or other feature that would physically divide the established community. **(Less than Significant Impact)**

b) Would the project cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?

The purpose of the project is to improve safety at the three project locations. The project would not require re-designation of land uses or rezonings and would be consistent with the existing land use designations included in the General Plan. The project would be entirely within the County right-of-way. The project would preserve the agricultural and rural character of the project intersections, consistent with General Plan Goal CIR-1 and Policies CIR-18 to CIR-19. Consistent with General Plan Policy CIR-31, the project would improve safety conditions at the project intersections by constructing new turn lanes, bike crossing striping, and installing new lighting, signs, and beacons. The project would not conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect. **(Less than Significant Impact)**

4.12 Mineral Resources

4.12.1 Environmental Setting

4.12.1.1 *Regulatory Framework*

State

Surface Mining and Reclamation Act

The Surface Mining and Reclamation Act (SMARA) was enacted by the California legislature in 1975 to address the need for a continuing supply of mineral resources, and to prevent or minimize the negative impacts of surface mining to public health, property, and the environment. As mandated under SMARA, the State Geologist has designated mineral land classifications in order to help identify and protect mineral resources in areas within the state subject to urban expansion or other irreversible land uses which would preclude mineral extraction. SMARA also allowed the State Mining and Geology Board (SMGB), after receiving classification information from the State Geologist, to designate lands containing mineral deposits of regional or statewide significance.

Local

Napa County General Plan

The General Plan contains the following applicable policies regarding land use.

Goal/Policy	Description
Goal CON-7	Identify and conserve areas containing significant mineral deposits for future use and promote the reasonable, safe, and orderly operation of mining and extraction and management activities, where environmental, aesthetic, and adjacent land use compatibility impacts can be adequately addressed.

4.12.1.2 *Existing Conditions*

Per the County's General Plan, the opportunity for future mineral extraction within the County is not well known. The cities of Napa and St. Helena (near where the intersections are located) are mainly mapped to be in mineral resource zone (MRZ) three, MRZ-3.[41] MRZ-3 denotes areas containing mineral occurrences of undetermined resource significance. Portions of the cities are also mapped as being in MRZ-1 which indicates that there is little likelihood that significant minerals are present. There are three active quarries in Napa County. The nearest of which, Napa Quarry, is located approximately five miles south of the Strawberry Patch intersection.

[41] Busch, Lawrence & Miller, Russell. "Updated Mineral Land Classification Map for Asphalt Concrete-Grade Aggregate in the North San Francisco Bay Production-Consumption Region, Marin, Napa, Sonoma, and Southwestern Solano Counties, California." 2013.

There were historically four mines and three quarries in Napa County, most of which have closed or are in reclamation. The four historic mines are McLaughlin Mine (closed in 2002), Silverado Mine (closed in 1941), Palisades Mine (closed in 1941), and Knoxville Mine (closed in 1941). Of the historic quarries within Napa County (Pope Creek, American Canyon, and Napa) only the Napa Quarry (owned and operated by Vulcan Materials) is still active, with the other two in the process of becoming, or already, reclaimed.[42]

4.12.2 Impact Discussion

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
Would the project:				
a) Result in the loss of availability of a known mineral resource that will be of value to the region and the residents of the state?	☐	☐	☐	☒
b) Result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?	☐	☐	☐	☒

a) Would the project result in the loss of availability of a known mineral resource that would be of value to the region and residents of the state?

There are no known mineral resources within or adjacent to the project intersections. Therefore, the project would not impact mineral resources. **(No Impact)**

b) Would the project result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan?

There are no mineral resource recovery sites delineated on the General Plan within the vicinity of the project intersections. Therefore, the project would not impact mineral resources. **(No Impact)**

[42] Napa County Planning, Building, and Environmental Services Department. *Baseline Data Report*. November 30, 2005.

4.13 Noise

4.13.1 Environmental Setting

4.13.1.1 *Background Information*

Noise

Factors that influence sound as it is perceived by the human ear, include the actual level of sound, period of exposure, frequencies involved, and fluctuation in the noise level during exposure. Noise is measured on a decibel scale, which serves as an index of loudness. The zero on the decibel scale is based on the lowest sound level that the healthy, unimpaired human ear can detect. Each 10 decibel increase in sound level is perceived as approximately a doubling of loudness. Because the human ear cannot hear all pitches or frequencies, sound levels are frequently adjusted or weighted to correspond to human hearing. This adjusted unit is known as the A-weighted decibel, or dBA.

Since excessive noise levels can adversely affect human activities and human health, federal, state, and local governmental agencies have set forth criteria or planning goals to minimize or avoid these effects. Noise guidelines are generally expressed using one of several noise averaging methods, including L_{eq}, Day-Night Level (DNL), or Community Noise Equivalent Level (CNEL).[43] These descriptors are used to measure a location's overall noise exposure, given that there are times when noise levels are higher (e.g., when a jet is taking off from an airport or when a leaf blower is operating) and times when noise levels are lower (e.g., during lulls in traffic flows on freeways or in the middle of the night). L_{max} is the maximum A-weighted noise level during a measurement period.

Vibration

Ground vibration consists of rapidly fluctuating motions or waves with an average motion of zero. Vibration amplitude can be quantified using Peak Particle Velocity (PPV), which is defined as the maximum instantaneous positive or negative peak of the vibration wave. PPV has been routinely used to measure and assess ground-borne construction vibration. Studies have shown that the threshold of perception for average persons is in the range of 0.008 to 0.012 inches/second (in/sec) PPV.

4.13.1.2 *Regulatory Framework*

State

<u>Caltrans Standards</u>

Noise associated with construction is controlled by Caltrans Standard Specification Section 14-

[43] L_{eq} is a measurement of average energy level intensity of noise over a given period of time. DNL is a 24-hour average of noise levels, with a 10 dB penalty applied to noise occurring between 10:00 PM and 7:00 AM. CNEL includes an additional five dB applied to noise occurring between 7:00 PM and 10:00 PM. Where traffic noise predominates, the CNEL and DNL are typically within two dBA of the peak-hour L_{eq}.

8.02, “Noise Control,” which states the following:

- Do not exceed 86 dBA L_{max} at 50 feet from the job site activities from 9:00 p.m. to 6:00 a.m.
- Equip an internal combustion engine with the manufacturer recommended muffler. Do not operate an internal combustion engine on the job site without the appropriate muffler.

Typically, work taking place within the Caltrans right of way is not subject to local noise ordinances; however, Caltrans will work with the contractor to meet local requirements where feasible. If construction noise level is expected to exceed the contract specification criteria or construction noise levels is expected to exceed the ambient (baseline) noise levels, and there are sensitive receptors near the project site construction noise control measures should be considered.

The Transportation and Construction Vibration Guidance Manual (Manual) was published by Caltrans in April 2020 and includes guidance for construction vibration assessment. Table 4.13-1 and Table 4.13-2 summarize the effects on buildings and human reaction, respectively, expected for different vibration levels, as described in the Manual. For structural damage, Caltrans recommends a vibration limit of 0.5 in/sec PPV for new residential structures and modern industrial/commercial buildings, 0.3 in/sec PPV for older residential structures, and 0.25 in/sec PPV for historic and some old buildings.

Table 4.13-1: Guideline Vibration Damage Potential Threshold Criteria

Structure and Condition	Maximum PPV (in/sec), Transient Sources	Maximum PPV (in/sec), Continuous/Frequent Intermittent Sources
Extremely fragile historic buildings, ruins, ancient monuments	0.12	0.08
Fragile buildings	0.2	0.1
Historic and some old buildings	0.5	0.25
Older residential structures	0.5	0.3
New residential structures	1.0	0.5
Modern industrial/commercial buildings	2.0	0.5
Note: Transient sources create a single isolated vibration event, such as blasting or drop balls. Continuous/frequent intermittent sources include impact pile drivers, pogo-stick compactors, crack-and-seat equipment, vibratory pile drivers, and vibratory compaction equipment. Source: Transportation and Construction Vibration Guidance Manual, California Department of Transportation, April 2020.		

Table 4.13-2 Guideline Vibration Annoyance Potential Criteria

Human Receptor	Maximum PPV (in/sec), Transient Sources	Maximum PPV (in/sec), Continuous/Frequent Intermittent Sources
Barely perceptible	0.035	0.01
Distinctly perceptible	0.24	0.04
Strongly perceptible	0.9	0.10
Severe	2.0	0.4
Note: Transient sources create a single isolated vibration event, such as blasting or drop balls. Continuous/frequent intermittent sources include impact pile drivers, pogo-stick compactors, crack-and-seat equipment, vibratory pile drivers, and vibratory compaction equipment. Source: Transportation and Construction Vibration Guidance Manual, California Department of Transportation, April 2020.		

Local

Napa County General Plan

The General Plan identifies the following applicable policies regarding noise.

Policy	Description
CC-49	Consistent with the County's Noise Ordinance, ensure that reasonable measures are taken such that temporary and intermittent noise associated with construction and other activities does not become intolerable to those in the area. Construction hours shall be limited per the requirements of the Noise Ordinance. Maximum acceptable noise limits at the sensitive receptor are defined in Policies CC-35, CC-36, and CC-37.

Napa County Noise Ordinance

Acceptable noise levels in unincorporated areas of the county are established in Title 8 of the County Code of Ordinances. The standards, as applicable to construction activities, are described below in Table 4.13-3. The County Noise Ordinance further prohibits the use of equipment used in construction, drilling, repair, alteration, or demolition work between the hours of 7:00 p.m. and 7:00 a.m. to prevent construction-related noise from disturbing residential or commercial property owners.

Table 4.13-3: Napa County Noise Ordinance

Time Period	Residential	Commercial	Industrial
Day (7am – 7pm)	75 dBA	80 dBA	85 dBA
Night (7pm – 7 am)	60 dBA	65 dBA	70 dBA
Source: Napa County, Noise Control Regulations, 2013c			

4.13.1.3 *Existing Conditions*

The project intersections are in a rural area in Napa County. Existing noise levels are primarily associated with vehicles driving along Silverado Trail. Other sources of noise at the project intersections may include farm equipment. Sensitive receptors at the project intersections are limited to residences. In the vicinity of the Oak Knoll Avenue location, the nearest residences west of Silverado Trail are approximately 100 to 130 feet away from the Silverado Trail and the nearest residence east of Silverado Trail is approximately 200 feet away. There is one residence in the vicinity of the Zinfandel Lane location, approximately 60 feet from the roadway. In the vicinity of the Strawberry Patch location, two residential buildings are located north and south of the strawberry patch stand, both approximately 100 feet west of Silverado Trail.

4.13.2 Impact Discussion

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
Would the project result in:				
a) Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	☐	☐	☒	☐
b) Generation of excessive groundborne vibration or groundborne noise levels?	☐	☐	☒	☐
c) For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?	☐	☐	☐	☒

a) Would the project result in generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?

The proposed roadway improvements would not result in any permanent noise increases. The project would not alter any land uses and would not increase the number of vehicles traveling along Silverado Trail. The project would not require any noise-generating operational equipment. The project would, however, result in a temporary noise increase during construction.

Construction Noise

Construction is anticipated to last for approximately 12 weeks. Construction would take place Monday through Friday between the hours of 6:00am and 3:00pm, no night work is anticipated. Construction noise would primarily result from the operation of heavy construction equipment and arrival and departure of heavy-duty trucks. The project would not require any pile-driving, a particularly loud construction activity.

Noise impacts resulting from construction depend upon the noise generated by various pieces of construction equipment, the timing and duration of noise-generating activities, and the distance between construction noise sources and noise-sensitive areas. Construction noise impacts primarily result when construction activities occur during noise-sensitive times of the day (e.g., early morning, evening, or nighttime hours), the construction occurs in areas immediately adjoining noise-sensitive land uses, or when construction lasts over extended periods of time.

Construction noise levels vary on a day-to-day basis, depending on the type and amount of equipment operating on-site and the specific task that is being completed on a particular day. Construction activities generate considerable amounts of noise, especially during earth-moving activities when heavy equipment is used. Table 4.13-4 summarizes the maximum instantaneous noise levels generated by typical construction equipment at a distance of 50 feet from the noise source. Typical hourly average construction-generated noise levels for various types of projects are summarized in Table 4.13-4 at a distance of 50 feet from the center of the site during busy construction periods (e.g., earth moving equipment, impact tools, etc.).

Table 4.13-4: Construction Equipment, 50-foot Noise Emission Limits

Equipment Category	L_{max} Level (dBA)[1,2]	Impact/Continuous
Arc Welder	73	Continuous
Auger Drill Rig	85	Continuous
Backhoe	80	Continuous
Bar Bender	80	Continuous
Boring Jack Power Unit	80	Continuous
Chain Saw	85	Continuous
Compressor[3]	70	Continuous
Compressor (other)	80	Continuous
Concrete Mixer	85	Continuous
Concrete Pump	82	Continuous
Concrete Saw	90	Continuous
Concrete Vibrator	80	Continuous
Crane	85	Continuous
Dozer	85	Continuous
Excavator	85	Continuous
Front End Loader	80	Continuous

Equipment Category	L_{max} Level (dBA)[1,2]	Impact/Continuous
Generator	82	Continuous
Generator (25 KVA or less)	70	Continuous
Gradall	85	Continuous
Grader	85	Continuous
Grinder Saw	85	Continuous
Horizontal Boring Hydro Jack	80	Continuous
Hydra Break Ram	90	Impact
Impact Pile Driver	105	Impact
Insitu Soil Sampling Rig	84	Continuous
Jackhammer	85	Impact
Mounted Impact Hammer (hoe ram)	90	Impact
Paver	85	Continuous
Pneumatic Tools	85	Continuous
Pumps	77	Continuous
Rock Drill	85	Continuous
Scraper	85	Continuous
Slurry Trenching Machine	82	Continuous
Soil Mix Drill Rig	80	Continuous
Street Sweeper	80	Continuous
Tractor	84	Continuous
Truck (dump, delivery)	84	Continuous
Vacuum Excavator Truck (vac-truck)	85	Continuous
Vibratory Compactor	80	Continuous
Vibratory Pile Driver	95	Continuous
All other equipment with engines larger than 5 HP	85	Continuous

Notes: [1] Measured at 50 feet from the construction equipment, with a "slow" (1 sec.) time constant.

[2] Noise limits apply to total noise emitted from equipment and associated components operating at full power while engaged in its intended operation.

[3]Portable Air Compressor rated at 75 cfm or greater and that operates at greater than 50 psi.

Source: Mitigation of Nighttime Construction Noise, Vibrations and Other Nuisances, National Cooperative Highway Research Program, 1999.

As shown in Table 4.13-4, the highest maximum noise levels generated by project construction would typically range from about 80 to 90 dBA L_{max} at a distance of 50 feet from the noise source. As previously mentioned, extreme noise generating construction methods such as pile driving are not expected for the proposed project. As shown in Table 4.13-5, below, the hourly average noise level for roadway projects typically ranges from approximately 78 to 88 dBA.

Table 4.13-5: Hourly Average Noise Levels for Construction Equipment at 50 feet, L_{eq} (dBA)

	Domestic Housing		Office Building, Hotel, Hospital, School, Public Works		Industrial Parking Garage, Religious Amusement & Recreations, Store, Service Station		Public Works Roads & Highways, Sewers, and Trenches	
	I	II	I	II	I	II	I	II
Ground Clearing	83	83	84	84	84	83	84	84
Excavation	88	75	89	79	89	71	88	78
Foundations	81	81	78	78	77	77	88	88
Erection	81	65	87	75	84	72	79	78
Finishing	88	72	89	75	89	74	84	84

I – All pertinent equipment present at site.

II – Minimum required equipment present at site.

Source: United States Environmental Protection Agency, 1973, Legal Compilation on Noise, Vol. 1, p. 2-104.

Construction-generated noise levels drop off at a rate of about six dBA per doubling of the distance between the source and the receptor. Given that the nearest residences at the Oak Knoll Avenue and Strawberry Patch locations are located approximately 100 feet or more from the roadway, twice the 50-foot distance assumed in the tables above, noise levels would drop off by approximately six dBA or more at these residences. Therefore, maximum noise levels generated by individual pieces of equipment would range from approximately 74 to 84 dBA L_{max} and hourly average noise levels would range from approximately 72 to 82 dBA at the residences in the vicinity of the Oak Knoll Avenue and Strawberry Patch locations.

The residence in the vicinity of the Zinfandel Lane intersection is approximately 60 feet from the roadway, however, work at this location is limited to signing and streetlight improvements. No roadway widening is proposed at this location, and therefore, the construction period at Zinfandel Lane would be shorter and would involve less equipment. Project construction would only occur during daytime hours allowed in the Napa County Noise Ordinance. Therefore, temporary noise generated by the project would be less than significant. **(Less than Significant Impact)**

b) Would the project result in generation of excessive groundborne vibration or groundborne noise levels?

The construction of the project may generate perceptible vibration when heavy equipment or impact tools (e.g., jackhammers, hoe rams) are used. The proposed project would not require pile driving, which can cause excessive vibration. Critical factors pertaining to the impact of construction vibration on sensitive receptors include the proximity of the existing structures to the project site, the soundness of the structures, and the methods of construction used.

For structural damage, the California Department of Transportation recommends a vibration limit of 0.5 in/sec PPV for new residential structures and modern industrial/commercial buildings, 0.3 in/sec PPV for older residential structures, and 0.25 in/sec PPV for historic and some old buildings. No known historical buildings adjoin the project area. Therefore, groundborne vibration levels exceeding 0.3 in/sec PPV would have the potential to result in cosmetic damage to residential buildings in the project vicinity.

Table 4.13-6 presents typical vibration levels that could be expected from construction equipment at a distance of 25 feet. Project construction activities, such as drilling, the use of jackhammers, rock drills and other high-power or vibratory tools, and rolling stock equipment (tracked vehicles, compactors, etc.) may generate substantial vibration in the immediate vicinity. Vibration levels perceived at receptors would vary depending on soil conditions, construction methods, and equipment used. Table 4.13-6 also summarizes the distances to the 0.3 in/sec PPV threshold for conventional buildings.

Table 4.13-6: Vibration Source Levels for Construction Equipment

Equipment		**PPV at 25 ft. (in/sec)**	**Minimum Distance to Meet 0.3 in/sec PPV (feet)**
Clam shovel drop		0.202	18
Hydromill (slurry wall)	in soil	0.008	1
	in rock	0.017	2
Vibratory roller		0.210	19
Hoe ram		0.089	9
Large bulldozer		0.089	9
Caisson drilling		0.089	9
Loaded trucks		0.076	8
Jackhammer		0.035	4
Small bulldozer		0.003	<1
Source: Transit Noise and Vibration Impact Assessment Manual, Federal Transit Administration, Office of Planning and Environment, U.S. Department of Transportation, September 2018, as modified by Illingworth & Rodkin, Inc., May 2022.			

The furthest distance from the project site that would exceed the 0.3 in/sec PPV threshold for typical construction equipment would be approximately 19 feet, as shown in Table 4.13-6. The nearest residential structure to the project site at any of the three intersections is approximately 60 feet from Silverado Trail. At this distance, vibrations generated during project construction would not exceed 0.3 in/sec PPV.

Groundborne vibration is generated by road vehicles. However, the project would not change any land uses or increase capacity of the existing roadway and, therefore, would not result in an

increase in vehicle traffic along Silverado Trail. The project would not include any vibration-generating equipment during operation. For these reasons, the project would not result in generation of excessive groundborne vibration or groundborne noise levels. **(Less than Significant Impact)**

c) For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?

The project would make roadway improvements along Silverado Trail. The project would not construct or indirectly result in the construction of noise sensitive land uses in the vicinity of an airstrip or airport. For these reasons, the project would not expose people residing or working in the project area to excessive noise levels associated with an airstrip or airport. **(No Impact)**

4.14 Population and Housing

4.14.1 Environmental Setting

4.14.1.1 *Regulatory Framework*

Housing-Element Law

State requirements mandating that housing be included as an element of each jurisdiction's general plan is known as housing-element law. The Regional Housing Need Allocation (RHNA) is the state-mandated process to identify the total number of housing units (by affordability level) that each jurisdiction must accommodate in its housing element. California housing-element law requires cities to: 1) zone adequate lands to accommodate its RHNA; 2) produce an inventory of sites that can accommodate its share of the RHNA; 3) identify governmental and non-governmental constraints to residential development; 4) develop strategies and a work plan to mitigate or eliminate those constraints; and 5) adopt a housing element and update it on a regular basis.[44] The County of Napa' Housing Element and related land use policies were adopted on January 24, 2023 and revised on December 19, 2023.

4.14.1.2 *Existing Conditions*

In 2020, Napa County had a population of 139,000 persons and unincorporated areas of Napa County had a population of 24,925 persons.[45] From 2000 to 2020, the number of households in Napa County grew while the number of households declined in unincorporated Napa County. The projected population for Napa County for 2030 is estimated to be between 150,000 and 200,000 persons.[46] In the project vicinity, there are low-density rural residences.

4.14.2 Impact Discussion

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
Would the project:				
a) Induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?	☐	☐	☐	☒
b) Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	☒

[44] California Department of Housing and Community Development. "Regional Housing Needs Allocation and Housing Elements" Accessed June 23, 2025. http://hcd.ca.gov/community-development/housing-element/index.shtml.
[45] Napa County. *Napa County General Plan*. June 2008. Page 76.
[46] Ibid. Page AG/LU–6.

a) Would the project induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?

The proposed intersection improvements would not directly induce population growth by proposing new homes or businesses. The project would improve safety features of the existing intersections and would not extend the existing roadway or construct other infrastructure that would indirectly induce population growth. **(No Impact)**

b) Would the project displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?

The project does not involve any right of way acquisition and would not displace any existing people or housing. Therefore, the project would not necessitate the construction of replacement housing elsewhere. **(No Impact)**

4.15 Public Services

4.15.1 Environmental Setting

4.15.1.1 *Regulatory Framework*

No federal or state plans, policies, regulations, or laws related to public services are applicable to the project.

Local

Napa County General Plan

The General Plan contains the following applicable policies regarding public services.

Goal/Policy	Description
Action Item SAF-2.10a	Update municipal and street codes to utilize minimum standards of fire safety codes and measures for access/evacuation routes.
Action Item SAF-2.10b	Establish mitigation measures and improvement plans for inadequate evacuation routes.
Policy SAF-2.18	Prioritize capital improvements on evacuation or emergency access routes needing repair, maintenance, or replacement, especially in WUI areas.

4.15.1.2 *Existing Conditions*

Police and Fire Services

Fire and police services for the project area are provided by the Napa County Fire Department and Napa County Sheriff's Office, respectively. The Napa County Sheriff's Office is located at 1535 Airport Boulevard, approximately 8.7 miles south of the Strawberry Patch intersection, and there are several substations located throughout the County including in Angwin, City of Napa, Lake Berryessa, and Yountville.

The Napa County Fire Department operates 20 fire stations in the unincorporated County of Napa which are made up of volunteer and career firefighters.[47] The closest fire station to the Zinfandel Lane intersection is Station 15-Rutherford, approximately 2.6 miles south of the project site. The closest fire station to the Oak Knoll Avenue intersection is Station 13-Soda Canyon, 2.8 miles northeast of the project site. The closest fire station to the Strawberry Patch intersection is Station 24-Napa, approximately one mile east of the project site.

[47] Napa County. "Fire Stations." Accessed June 24, 2025. https://www.countyofnapa.org/392/Fire-Stations.

Schools

The project area is located in the Napa Valley Unified School District and the Saint Helena School District.[48] Schools serving the Strawberry Patch and Oak Knoll project areas include Vichy Elementary School, Silverado Middle School, and Vintage High School. Schools serving the Zinfandel project area include Saint Helena Primary School, Robert Louis Intermediate School, and Saint Helena High School.

Parks

In 2006, the Napa County Regional Park and Open Space District was established. One of its duties is to improve and operate a system of public parks, trails, and outdoor recreational facilities.[49] Approximately 90 percent, or 450,000 acres, of Napa County is categorized as open space.[50] Both the federal and state governments own land within the County. The County offers a variety of recreational attractions and activities such as open space, parks, and trails.

4.15.2 Impact Discussion

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, the need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:				
a) Fire Protection?	☐	☐	☐	☒
b) Police Protection?	☐	☐	☐	☒
c) Schools?	☐	☐	☐	☒
d) Parks?	☐	☐	☐	☒
e) Other Public Facilities?	☐	☐	☐	☒

[48] GreatSchools.org. "Find Your School District and Nearby Schools." Accessed June 24, 2025. https://www.greatschools.org/school-district-boundaries-map/.
[49] Napa County Regional Park & Open Space District. "About the District." Accessed June 24, 2025. https://napaoutdoors.org/about/.
[50] Napa County. *Napa County General Plan*. June 2008. Page ROS-13.

a) Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for fire protection services?

The project proposes intersection improvements at three intersections within the County. The project is not a land use project. Therefore, the project would not result in any new residents or employees in the area that would increase demand upon fire protection services. Project operation would improve traffic circulation and safety at the site intersections, resulting in a long-term benefit to fire response times. Vehicular access through each project intersection would be maintained throughout construction. For these reasons, the project would result in no impact to fire protection services. **(No Impact)**

b) Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for police protection services?

As discussed under checklist question a) the project would not directly introduce any new residents or employees to the area. Consequently, the project would not result in any increase in demand upon police services. The improved safety and circulation improvements from the project would benefit police response times. Vehicular access through each project intersection would be maintained throughout construction. For these reasons, the project would result in no impact to police protection services. **(No Impact)**

c) Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for schools?

As discussed under checklist question a) the project would not directly introduce any new residents to the area. Consequently, the project would not result in any increase in population that would increase demand upon schools. For these reasons, the project would result in no impact on schools. **(No Impact)**

d) Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for parks?

As discussed under checklist question a) the project would not directly introduce any new residents or workers to the area. Therefore, the project would not directly increase demand on parks. **(No Impact)**

e) Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for other public facilities?

As discussed under checklist question a) the project would not directly introduce any new residents or employees to the area. Therefore, the project would not directly increase demand on other public facilities, such as libraries. **(No Impact)**

4.16 Recreation

4.16.1 Environmental Setting

4.16.1.1 *Existing Conditions*

Approximately 90 percent, or 450,000 acres, of Napa County is categorized as open space.[51] Both the federal and state governments own land within the County. The County offers a variety of recreational attractions and activities such as open space, parks, and trails.

In 2006, the Napa County Regional Park and Open Space District was established. The Napa County Regional Park and Open Space District is comprised of five wards and has constructed and/or operates over 75 miles of recreational trails.[52] One of its duties is to improve and operate a system of public parks, trails, and outdoor recreational facilities.[53] Trancas Crossing Park is the nearest park to the project area, and is located 0.3 miles west of the Strawberry Patch and Silverado Trail intersection.

4.16.2 Impact Discussion

		Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
a)	Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility will occur or be accelerated?	☐	☐	☐	☒
b)	Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?	☐	☐	☐	☒

a) Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?

The project proposes intersection improvements and is not a land use project. As previously discussed in Section 4.15, the project would not introduce any new residents or employees to the area that would increase demand upon existing parks or other recreational facilities. **(No Impact)**

[51] Napa County. *Napa County General Plan*. June 2008. Page ROS-13.
[52] Napa County Regional Park & Open Space District. "About the District." Accessed June 24, 2025. https://napaoutdoors.org/about/.
[53] Ibid.

b) Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?

The project does not include any recreational facilities. As noted in checklist question b), the project would not require the construction or expansion of existing recreational facilities. **(No Impact)**

4.17 Transportation

4.17.1 Environmental Setting

4.17.1.1 *Regulatory Framework*

State

Senate Bill 743

Senate Bill (SB) 743 establishes criteria for determining the significance of transportation impacts using a vehicle miles traveled (VMT) metric intended to promote the reduction of GHG emissions, the development of multimodal transportation networks, and a diversity of land uses. Specifically, SB 743 requires analysis of VMT in determining the significance of transportation impacts. Local jurisdictions were required by the Governor's Office of Land Use and Climate Innovation (LCI)[54] to implement a VMT policy by July 1, 2020.

SB 743 did not authorize OPR to set specific VMT impact thresholds, but it did direct OPR to develop guidelines for jurisdictions to utilize. Specifically, CEQA Guidelines Section 15064.3(b)(2) provides that projects that reduce VMT, such as pedestrian, bicycle, and transit projects, would have a less than significant impact. This section further provides that lead agencies have discretion to evaluate roadway capacity projects (including highways), provided that any such analysis is consistent with the requirements of CEQA. Recognizing that roadway capacity projects may be analyzed at a programmatic level, subdivision (b)(2) states that lead agencies may be able to tier from a programmatic analysis that adequately addresses the effects of roadway capacity projects.

Local

Napa County General Plan

The General Plan identifies the following applicable goals and policies regarding transportation.

Goal/Policy	Description
Goal CIR-2	The County's transportation system shall provide for safe and efficient movement on well-maintained roads throughout the County, meeting the needs of Napa County residents, businesses, employees, visitors, special needs populations, and the elderly.
Policy CIR-6	The County's roadway improvements should minimize disruption to residential neighborhoods, communities, and agriculture.
Policy CIR-31	The County seeks to provide a roadway system that maintains current roadway capacities in most locations and is efficient in providing local access. The following list of improvements, illustrated as the County's ultimate road network in Figure CIR-1, has been supported by policy makers within the County and all five incorporated cities/town. Some of these routes are controlled by other agencies (such as Caltrans or a city); in those cases, the County will coordinate with the other agencies to plan and implement these improvements.

[54] Formerly known as the Governor's Office of Planning and Research (OPR).

- Explore opportunities for operational improvements along SR 29, Silverado Trail, and connecting crossroads to improve traffic flow and reduce conflicts for vehicles, bicyclists, and pedestrians; examples may include center two-way left-turn lanes, additional turn lanes at intersections, roundabouts, and other measures that could reduce conflicts.
- Consistent with the Countywide Pedestrian Plan and the Countywide Bicycle Plan, construct multimodal facilities and install safety-related improvements on rural roads and highways, such as new signals, bike lanes, multi-use paths, shoulder widening, or softening sharp curves.

4.17.1.2 *Existing Conditions*

The General Plan classifies Silverado Trail as an arterial roadway, which is a roadway designed primarily for longer-distance travel between major centers of activity, and often with limited direct driveway access. In the vicinity of the project intersections, Silverado Trail is a two-lane roadway with designated left-turn lanes onto Oak Knoll Avenue and Zinfandel Lane from the northbound direction. There are bike lanes on either side of Silverado Trail in the vicinity of the project intersections. There are no sidewalks, crosswalks, or other pedestrian facilities in the vicinity of the project intersections.

4.17.2 Impact Discussion

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
Would the project:				
a) Conflict with a program, plan, ordinance, or policy addressing the circulation system, including transit, roadways, bicycle lanes, and pedestrian facilities?	☐	☐	☒	☐
b) Conflict or be inconsistent with CEQA Guidelines Section 15064.3, subdivision (b)?	☐	☐	☒	☐
c) Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible land uses (e.g., farm equipment)?	☐	☐	☒	☐
d) Result in inadequate emergency access?	☐	☐	☒	☐

a) Would the project conflict with a program, plan, ordinance, or policy addressing the circulation system, including transit, roadways, bicycle lanes, and pedestrian facilities?

Consistent with General Plan Goal CIR-2 and Policy CIR-31, the project would improve traffic flow, reduce conflict points, and install safety-related improvements along Silverado Trail by widening the roadway at two intersection locations, adding turn lanes, installing signs and beacons, and adding bike lane striping across the project intersections. Consistent with Policy CIR-6, these improvements

would be made with minimal disruption to the surrounding residential and agricultural land uses. For these reasons, the project would not conflict with a program, plan, ordinance, or policy addressing the circulation system. **(Less than Significant Impact)**

b) Would the project conflict or be inconsistent with CEQA Guidelines Section 15064.3, subdivision (b)?

Section 15064.3(b) of the CEQA Guidelines states that transportation projects that reduce, or have no impact on, VMT should be presumed to have a less than significant transportation impact. LCI's Technical Advisory on Evaluating Transportation Impacts in CEQA lists types of projects that are not likely to lead to a substantial or measurable increase in vehicle travel including safety projects to improve the condition of existing transportation assets, transportation management system field elements (such as message signs, signals, etc.), installation or reconfiguration of traffic lanes that are not for through traffic (such as left and right turn lanes), and more. Based on LCI's Technical Advisory, the project would not increase vehicular travel and, therefore, would result in a less than significant VMT impact. The project would not conflict with or be inconsistent with CEQA Guidelines Section 15064.3. **(Less than Significant Impact)**

c) Would the project substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?

The design of the proposed roadway improvements will comply with all current design criteria, which would improve the safety of the project intersections. The project, therefore, would not substantially increase hazards due to a geometric design feature. The project does not propose any new uses that would be incompatible with the existing roadway or surrounding land uses. **(Less than Significant Impact)**

d) Would the project result in inadequate emergency access?

Vehicular access would be maintained throughout construction and emergency vehicles would not be obstructed. After project implementation, safety conditions would be improved at the project intersections. The project would not result in any temporary or permanent impacts to emergency access. **(Less than Significant Impact)**

4.18 Tribal Cultural Resources

4.18.1 Environmental Setting

4.18.1.1 *Regulatory Framework*

State

Assembly Bill 52

AB 52, effective July 2015, established a new category of resources for consideration by public agencies called Tribal Cultural Resources (TCRs). AB 52 requires lead agencies to provide notice of projects to tribes that are traditionally and culturally affiliated with the geographic area if they have requested to be notified. Where a project may have a significant impact on a TCR, consultation is required until the parties agree to measures to mitigate or avoid a significant effect on a TCR or until it is concluded that mutual agreement cannot be reached.

Under AB 52, TCRs are defined as follows:

- Sites, features, places, cultural landscapes, sacred places, and objects with cultural value to a California Native American tribe that are also either:
    - Included or determined to be eligible for inclusion in the California Register of Historic Resources, or
    - Included in a local register of historical resources as defined in Public Resources Code Section 5020.1(k).
- A resource determined by the lead agency to be a TCR.

4.18.1.2 *Existing Conditions*

As previously discussed in Section 4.5 Cultural Resources, no known TCRs exist within or adjacent to the project limits. However, TCRs have been discovered in the vicinity of the project locations. The Oak Knoll Avenue intersection is sensitive for both surface and buried TCRs. The Zinfandel Lane intersection has a moderate sensitivity for surface TCRs and a low sensitivity for buried TCRs. The Strawberry Patch intersection is highly sensitive for both surface and buried TCRs.

AB 52 Consultation

The NAHC completed a search of its Sacred Lands File for the project area in May 2025. The results were positive and the NAHC recommended contacting the Mishewal-Wappo Tribe of Alexander Valley for further information. Pursuant to Assembly Bill (AB) 52, consultation letters were sent on June 26, 2025, by mail and email to 11 individuals representing five tribal organizations, including the Mishewal-Wappo Tribe of Alexander Valley. Requests for consultation were received by the County from the Mishewal-Wappo Tribe of Alexander Valley and the Yocha Dehe Wintun Nation. In September 2025, the County met with both tribes to discuss the project and findings of the archaeological survey. The tribes agreed with the recommendations for monitoring as described in MM CUL-1.2.

4.18.2 Impact Discussion

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code Section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:				
a) Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code Section 5020.1(k)?	☐	☒	☐	☐
b) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1? In applying the criteria set forth in subdivision (c) of Public Resources Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.	☐	☒	☐	☐

a) Would the project cause a substantial adverse change in the significance of a tribal cultural resource that is listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code Section 5020.1(k)?

There are no known TCRs within the project limits of work. The project area largely consists of the Silverado Trail roadway and adjacent residential and agricultural uses, therefore, there has been previous ground disturbance within the project area. However, given that the project would involve ground-disturbing activities within areas sensitive and highly sensitive for the presence of TCRs, there is potential that the project could impact unknown archaeological resources on-site. As described in Section 4.5 Cultural Resources, impacts to potential buried TCRs would be reduced to a less than significant level with incorporation of MM CUL-1.1 and 1.2, which would require construction crews to receive cultural awareness training and require a Native American tribal representative to monitor ground-disturbing activities during project construction. As previously discussed, representatives of the Mishewal-Wappo Tribe of Alexander Valley and the Yocha Dehe Wintun Nation have agreed that these measures are adequate to reduce impacts to a less than significant level. For these reasons, the project would not cause a substantial adverse change in the significance of tribal cultural resources. **(Less than Significant Impact with Mitigation Incorporated)**

b) Would the project cause a substantial adverse change in the significance of a tribal cultural resource that is determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1?

Please see response to checklist question a), above. **(Less than Significant Impact with Mitigation Incorporated)**

4.19 Utilities and Service Systems

4.19.1 Environmental Setting

4.19.1.1 *Existing Conditions*

There are overhead utility lines in the vicinity of the project intersections and storm drain inlets along Silverado Trail. The project intersections are located outside of the County's sewer service area and are not served by any water district.[55] Waste and recycling services are provided by the County of Napa.

4.19.2 Impact Discussion

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
Would the project:				
a) Require or result in the relocation or construction of new or expanded water, wastewater treatment or stormwater drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?	☐	☐	☒	☐
b) Have insufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?	☐	☐	☐	☒
c) Result in a determination by the wastewater treatment provider which serves or may serve the project that it does not have adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?	☐	☐	☐	☒
d) Generate solid waste in excess of state or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?	☐	☐	☒	☐
e) Be noncompliant with federal, state, and local management and reduction statutes and regulations related to solid waste?	☐	☐	☒	☐

[55] Napa County. "Napa County Online Public Map." Accessed July 1, 2025. https://gis.countyofnapa.org/portal/apps/webappviewer/index.html?id=0bbafe490c58430da719ff851c78b7fa.

a) Would the project require or result in the relocation or construction of new or expanded water, wastewater treatment or stormwater drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?

The project would not require utility relocations and replacement as a result of the proposed roadway widening. The project would adjust an existing storm drain inlet to grade at the Oak Knoll Avenue intersection. Construction impacts associated with utility adjustments would not cause significant environmental effects, as discussed throughout this Initial Study. **(Less than Significant Impact)**

b) Would the project have insufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?

Project construction would use a minimal amount of water (typically limited to water applied for dust control and concrete wash out) and there are sufficient water supplies available to serve these needs. The project would not involve the construction of any structures or facilities that would require additional water supplies during the operation phase. **(No Impact)**

c) Would the project result in a determination by the wastewater treatment provider which serves or may serve the project that it does not have adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?

The project would not generate any wastewater. **(No Impact)**

d) Would the project generate solid waste in excess of state or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?

Solid waste would be generated during construction. Existing roadway materials and utilities would be demolished and require disposal. The disposal of solid waste during construction would be short-term and would be accommodated by the existing infrastructure capacities. Operation of the project would not result in the generation of any solid waste. **(Less than Significant Impact)**

e) Would the project be noncompliant with federal, state, or local management and reduction statutes and regulations related to solid waste?

Solid waste generated during project construction would be disposed of in accordance with federal, state, and local laws and policies. Project operation would not result in solid waste generation. Therefore, the project would be compliant with statutes and regulations related to solid waste. **(Less than Significant Impact)**

4.20 Wildfire

4.20.1 Environmental Setting

4.20.1.1 *Regulatory Framework*

State

Fire Hazard Severity Zones

CAL FIRE is required by law to map areas of significant fire hazards based on fuels, terrain, weather, and other relevant factors. Referred to as Fire Hazard Severity Zones (FHSZs), these maps influence how people construct buildings and protect property to reduce risk associated with wildland fires. FHSZs are divided into areas where the state has financial responsibility for wildland fire protection, known as state responsibility areas (SRAs), and areas where local governments have financial responsibility for wildland fire protection, known as local responsibility areas (LRAs). Homeowners living in an SRA are responsible for ensuring that their property is in compliance with California's building and fire codes. Only lands zoned for very high fire hazard are identified within LRAs.

California Fire Code Chapter 47

Chapter 47 of the California Fire Code sets requirements for wildland-urban interface fire areas that increase the ability of buildings to resist the intrusion of flame or burning embers being projected by a vegetation fire, in addition to systematically reducing conflagration losses through the use of performance and prescriptive requirements.

California Public Resources Code (PRC) Section 4442 through 4431

The California Public Resources Code includes fire safety regulations that restrict the use of equipment that may produce a spark, flame, or fire; require the use of spark arrestors on construction equipment that uses an internal combustion engine; specify requirements for the safe use of gasoline-powered tools on forest-covered land, brush-covered land, or grass-covered land; and specify fire suppression equipment that must be provided onsite for various types of work in fire-prone areas. These regulations include the following:

- Earthmoving and portable equipment with internal combustion engines would be equipped with a spark arrestor to reduce the potential for igniting a wildland fire (PRC Section 4442);
- Appropriate fire suppression equipment would be maintained during the highest fire danger period, from April 1 to December 1 (PRC Section 4428);
- On days when a burning permit is required, flammable materials would be removed to a distance of 10 feet from any equipment that could produce a spark, fire, or flame, and the construction contractor would maintain appropriate fire suppression equipment (PRC Section 4427); and

- On days when a burning permit is required, portable tools powered by gasoline-fueled internal combustion engines would not be used within 25 feet of any flammable materials (PRC Section 4431).

California Code of Regulations Title 14

The California Board of Forestry and Fire Protection has adopted regulations, known as SRA Fire Safe Regulations, which apply basic wildland fire protection standards for building, construction, and development occurring in SRAs. The future design and construction of structures, subdivisions and developments in SRAs are required to provide for the basic emergency access and perimeter wildfire protection measures discussed in Title 14.

Fire Management Plans

CAL FIRE has developed an individual Unit Fire Management Plan for each of its 21 units and six contract counties. CAL FIRE has developed a strategic fire management plan for the Sonoma-Lake-Napa Unit, which covers the project area and addresses citizen and firefighter safety, watersheds and water, timber, wildlife and habitat (including rare and endangered species), unique areas (scenic, cultural, and historic), recreation, range, structures, and air quality. The plan includes stakeholder contributions and priorities and identifies strategic areas for pre-fire planning and fuel treatment as defined by the people who live and work with the local fire issues.

4.20.1.2 *Existing Conditions*

The Oak Knoll Avenue intersection is partially in a moderate fire hazard severity zone, with the other portions designated as NonWildland per the Napa County Fire Hazard Severity Zone/Wildland Urban Interface GIS layer. The Zinfandel Lane intersection is in a high fire hazard severity zone. The Strawberry Patch intersection is identified as NonWildland per the Napa County GIS layer.

4.20.2 Impact Discussion

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project:				
a) Substantially impair an adopted emergency response plan or emergency evacuation plan?	☐	☐	☒	☐
b) Due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?	☐	☐	☒	☐

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project:				
c) Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?	☐	☐	☒	☐
d) Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?	☐	☐	☒	☐

a) Would the project substantially impair an adopted emergency response plan or emergency evacuation plan?

The project would implement intersection improvements, improving safety at the project intersections, which would not conflict with an emergency response plan or evacuation plan. Vehicle access would be maintained throughout construction and emergency vehicles would not be obstructed. **(Less than Significant Impact)**

b) Would the project, due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?

The proposed roadway improvements would not exacerbate wildfire risks due to slope or prevailing winds. The project would not introduce any new occupants to the area. Construction equipment may require the use of combustible engines that could create sparks that could temporarily exacerbate wildfire risks. Consistent with State law, BMPs including site vegetation maintenance would be implemented to reduce the potential for fire hazards in the project area. **(Less than Significant Impact)**

c) Would the project require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines, or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?

The project would not require utility relocations and replacement as a result of the proposed roadway widening. The project would adjust an existing storm drain inlet to grade at the Oak Knoll Avenue intersection. Construction equipment may require the use of combustible engines that

could create sparks that could temporarily exacerbate wildfire risks. Consistent with State law, BMPs including site vegetation maintenance would be implemented to reduce the potential for fire hazards in the project area. Project operation would not exacerbate fire risk. **(Less than Significant Impact)**

d) Would the project expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?

The project would not introduce any new structures, residents, or employees in the vicinity of the project intersections. The project would result in a minor increase in impervious surface areas due to the proposed roadway widening, however, the project would not substantially alter drainage patterns at the project locations or exacerbate flooding or landslide risk. **(Less than Significant Impact)**

4.21 Mandatory Findings of Significance

		Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
a)	Does the project have the potential to substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of a rare or endangered plant or animal, or eliminate important examples of the major periods of California history or prehistory?	☐	☒	☐	☐
b)	Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects.)	☐	☒	☐	☐
c)	Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?	☐	☒	☐	☐

a) Does the project have the potential to substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of a rare or endangered plant or animal, or eliminate important examples of the major periods of California history or prehistory?

As described in Section 4.4 Biological Resources, the project has the potential to impact white-tailed kite and migratory nesting birds. However, with implementation of MM BIO-1.1 through MM BIO-1.2, impacts to these species would be reduced to a less than significant level. As described in Section 4.5 Cultural Resources, the project has the potential to impact undiscovered buried archaeological resources that could be examples of major periods of California history or prehistory. The project would implement MM CUL-1.1, MM CUL-1.2, and MM CUL-2.1 as applicable in the event of a discovery to ensure that impacts to archaeological resources are reduced to a less than significant level. **(Less than Significant Impact with Mitigation Incorporated)**

b) Does the project have impacts that are individually limited, but cumulatively considerable?

According to 14 CCR § 15355, "Cumulative impacts" refers to two or more individual effects which, when considered together, are considerable or which compound or increase other environmental impacts. The cumulative impact from several projects is the change in the environment which results from the incremental impact when added to other closely related past, present, and probable future projects. Table 4.21-1 provides a summary of projects within two miles of the project area.

Table 4.21-1: Cumulative Projects List

Project Name	Location	Description	Proximity to Project Site
2025 Annual Guardrail Repair, RDS 25-04	Various roadways throughout Napa County, including Silverado Trail.	The work for the project consists of repairs to guardrail infrastructure throughout Napa County.	The Annual Guardrail Repair project is located on various roads throughout Napa County, including segments along Silverado Trail.
HSIP Cycle 11 Guardrail and End Treatment Upgrades, RDS 22-26	Various roadways throughout Napa County, including Silverado Trail.	Napa County has received funding through Caltrans' Highway Safety Improvement Program (HSIP) grant program to provide improvements at thirteen (13) guardrail sections throughout the County, which include sections on: Deer Park Road, Howell Mountain Road, White Cottage Road, Tubbs Lane, Petrified Forest Road, and Silverado Trail.	The HSIP Cycle 11 Guardrail and End Treatment Upgrades project is located on various roads throughout Napa County, including segments along Silverado Trail.
Napa Valley Vine Trail from Yountville through St. Helena, RDS 23-19	The proposed trail alignment would generally follow the alignment of the Napa Valley Wine Train tracks between California Drive in Yountville and Whitehall Lane south of St. Helena.	The Napa Valley Vine Trail (Vine Trail) is a proposed 47-mile multi-use paved trail that will extend from the City of Calistoga to the Vallejo Ferry Terminal and connect to the San Francisco Bay Trail and Bay Area Ridge Trail. Many sections of the Vine Trail have been completed in the cities of Calistoga, Napa, American Canyon, Vallejo, and the Town of Yountville. The Yountville through St. Helena	Approximately 1.4 miles west of the Zinfandel Lane intersection at its nearest to the project site.

Project Name	Location	Description	Proximity to Project Site
		Segment remains a significant 11-mile-long gap between the existing 12.5-mile segment from Napa to Yountville and the nine-mile-long path under construction from Calistoga to St. Helena. The Project will provide a safe route to schools, jobs, services, and shopping.	
Verizon Gelow Site Telecommunication Facility Modification, P25-00092	1810 Monticello Road, Napa	Modification to an existing telecommunication facility.	Approximately one mile east of the Strawberry Patch intersection.
Patland Estate Vineyards – Use Permit, P24-00251	5017 Silverado Trail, Napa	Use Permit to establish a new 20,000-gallon winery and Exception to the Napa County Road and Street Standards.	Approximately 0.25-mile northeast of the Oak Knoll Avenue intersection.
Gonzales Vineyard Track I, P22-00220	1037 Loma Vista Drive, Napa	New Track I Erosion Control Plan (10.75 new gross acres; 6.4 gross acres of existing vineyard approved under permit #99404).	Approximately 0.7-mile east of the Oak Knoll Avenue intersection.
The Terraces Minor Modification, P20-00162	APN 030-060-018-000	Minor Modification for an increase in employees, number of visitors and marketing events. Conversion of portion of building to hospitality.	Approximately 0.28-mile east of the Zinfandel Lane intersection.
Schlatter Family Estate – Micro Winery Use Permit	1111 Conn Valley Road, St. Helena	Construct a new cave with two portal entries that will house production and hospitality, an exterior path connecting the two portals, and improvements to the existing driveway from Conn Valley Road.	Approximately 0.88-mile northeast of the Zinfandel Lane intersection.

Project Name	Location	Description	Proximity to Project Site
Benjamin Ranch Winery (formerly Frank Family), P13-00371	APN 030-120-016-000	Benjamin Ranch Winery seeks to construct a new winery (475,000 gallons per year) with 82,350 square feet of improvements including covered crush pad, with approximately 72,700 square feet dedicated to production and 9,650 square feet for accessory uses.	Approximately 1.28 miles southeast of the Zinfandel Lane intersection.

These projects would primarily result in environmental impacts during the construction phase. Construction-related environmental impacts would be limited, temporary, and reduced to a less than significant level with incorporation of the mitigation measures and conditions of approval described throughout this Initial Study. For these reasons, the projects would not make a considerable contribution toward a cumulative construction-related impact. The projects would not result in any permanent impacts that would contribute toward a cumulative impact. **(Less than Significant Impact with Mitigation Incorporated)**

c) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?

The project would have the potential to cause adverse effects on human beings during the construction phase via air pollutant emissions, release of hazardous materials, and noise. As described in Section 4.3 Air Quality, project construction would last approximately 12 weeks and the project would incorporate the Air District's BMPs to reduce emissions and dust generated, resulting in a less than significant adverse health impact. As described in Section 4.9 Hazards and Hazardous Materials, the project would implement MM HAZ-1.1 and MM HAZ-1.2 to test soil and roadway materials prior to ground-disturbing activities and would properly dispose of any hazardous materials present, reducing impacts to construction workers and nearby residents and agricultural workers to a less than significant level. As described in Section 3.14 Noise, construction noise impacts are anticipated to be less than significant due to the limited nature of the project and the distance of the closest sensitive receptors from the Silverado Trail roadway. For these reasons, the project would not cause substantial adverse effects on human beings. **(Less than Significant Impact with Mitigation Incorporated)**

Section 5.0 References

The analysis in this Initial Study is based on the professional judgement and expertise of the environmental specialists preparing this document, based upon review of the site, surrounding conditions, site plans, and the following references:

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Section 6.0 Lead Agency and Consultants

6.1 Lead Agency

Napa County Public Works Department

Sydney Barclay, Associate Engineer

6.2 Consultants

David J. Powers & Associates, Inc.

Environmental Consultants and Planners

Will Burns, Vice President & Principal Project Manager
Connor Tutino, Project Manager
Kishann Rai, Assistant Project Manager
Ryan Osako, Graphic Artist

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Sanbell

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Emma Schoenthal, PE, Associate Engineer

WRA, Inc.

Biological Resources Consultants

Jason Yakich, Senior Biologist

Section 7.0 Acronyms and Abbreviations

AB	Assembly Bill
ACM	asbestos-containing material
ADL	aerially deposited lead
Air District	Bay Area Air District
Bay Area	San Francisco Bay Area
bgs	below ground surface
CAAQS	California Ambient Air Quality Standard
CAL FIRE	California Department of Forestry and Fire Protection
Cal/OSHA	California Department of Industrial Relations, Division of Occupational Safety and Health
CalARP	California Accidental Release Prevention
CalEPA	California Environmental Protection Agency
Caltrans	California Department of Transportation
CARB	California Air Resources Board
CDFW	California Department of Fish and Wildlife
CEQA	California Environmental Quality Act
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
CFR	Code of Federal Regulations
CGS	California Geological Survey
CLUP	Comprehensive Land Use Plan
CNEL	Community Noise Equivalent Level
CO	carbon monoxide
CRHR	California Register of Historical Resources
dBA	A-weighted decibel
DEH	Division of Environmental Health
DTSC	Department of Toxic Substances Control
DNL	Day/Night Average Sound Level
DPM	diesel particulate matter
EPA	Environmental Protection Agency
FAA	Federal Aviation Administration
FAR	Federal Aviation Regulations

FHSZ	Fire Hazard Severity Zone
FMMP	Farmland Mapping and Monitoring Program
General Plan	Napa County General Plan
GHG	greenhouse gas
HSIP	Highway Safety and Improvement Program
HSWA	Hazardous and Solid Waste Amendments
ibid	Same source as previous footnote
L_{eq}	Energy-Equivalent Sound/Noise Descriptor
L_{max}	Maximum A-weighted noise level during a measurement period
LBP	lead-based paint
LESA	California Land Evaluation and Site Assessment
LRA	Local Responsibility Area
MBTA	Migratory Bird Treaty Act
MND	Mitigated Negative Declaration
MRZ	mineral resource zone
NAAQS	National Ambient Air Quality Standard
NAHC	Native American Heritage Commission
NCP	National Contingency Plan
NESHAP	National Emission Standards for Hazardous Air Pollutants
NO_2	nitrogen dioxide
NOD	Notice of Determination
NO_x	nitrogen oxides
NRHP	National Register of Historic Places
O_3	ozone
PCB	polychlorinated biphenyls
PM	particulate matter
PM_{10}	particulate matter with a diameter of 10 microns or less
$PM_{2.5}$	particulate matter with a diameter of 2.5 microns or less
PPV	Peak Particle Velocity
RCRA	Resource Conservation and Recovery Act
RHNA	Regional Housing Need Allocation
ROG	reactive organic gases

ROW	right-of-way
RTP	Regional Transportation Plan
RWQCB	Regional Water Quality Control Board
SB	State Bill
SHMA	Seismic Hazards Mapping Act
Strawberry Patch	Napa Strawberry business located at 2149 Silverado Trail
SMARA	Surface Mining and Reclamation Act
SMGB	State Mining and Geology Board
SO_x	sulfur oxides
SR	State Route
SRA	State Responsibility Area
SWRCB	State Water Resources Control Board
TACs	Toxic Air Contaminants
TSCA	Toxic Substances Control Act
USACE	United States Army Corps of Engineers
USFWS	United States Fish and Wildlife Service
VMT	vehicle miles traveled
Williamson Act	California Land Conservation Act

Appendix A: Biological Resources Reconnaissance Survey

December 15, 2025

Attn: Will Burns
David J. Powers & Associates, Inc.
1736 Franklin, Suite 400
Oakland, CA 94612
wburns@davidjpowers.com

Subject: Biological Resources Reconnaissance Survey – Silverado Trail Intersection Improvements Project, Napa County, California

Dear Will:

This letter provides the results of a Biological Resources Reconnaissance Survey (BRRS) in support of the proposed Silverado Trail Intersection Improvements Project (Project) located at three discrete sites along Silverado Trail in Napa County, California. Specifically, this report evaluates the potential for the Project Area to support special-status species, sensitive vegetation communities and aquatic features, as well as the potential for the Project to impact these resources. Both site visits and a desktop review were used for this assessment.

The greater area of evaluation includes the Project's disturbance footprint (Project Area) and a surrounding 25-foot buffer (Study Area). A summary of the three Project sites along Silverado Trail and the proposed work at each is as follows:[1]

- Strawberry Patch: Widening both lanes on Silverado Trail to provide room for a left-turn lane and acceleration lane in front of the Strawberry Patch (northbound).

- Oak Knoll Avenue: Widening the apron of the Oak Knoll Avenue intersection with Silverado Trail and installing a right turn lane; widening Silverado Trail on the southbound lane to provide a right turn lane. Flashing beacons and a new streetlight would also be installed along Silverado Trail.

- Zinfandel Lane: Flashing beacons and a new streetlight would be installed along Silverado Trail.

[1] *The work described does not include Project elements restricted entirely to existing hardscape (e.g., restriping, painting).*

Figures, including those showing land covers, are included as Attachment A. A list of plant species and wildlife species observed is included as Attachment B. Representative photographs of the Study Area are included as Attachment C.

SUMMARY OF RESULTS

The approximately 5-acre Study Area is composed primarily of development (existing paved roads and associated disturbed areas) and non-native ruderal grassland. Oak woodland intergrades a portion of the Study Area at the Strawberry Patch site. No aquatic features (e.g., wetlands, streams) are present within the Study Area except for a portion of one roadside stream at the Oak Knoll Avenue Study Area, which is being avoided by the Project.

Special-status plants known from the vicinity are assessed to have no potential to occur within the Study Area, and none were observed during site visits. One special-status bird, as well as non-status birds with baseline legal protections, have the potential to occur in and adjacent to the Study Area, including nesting. The Project will also necessarily remove six native oak trees (total) at two of the Study Area sites. Recommended mitigation/avoidance measures and best management practices have been developed and provided herein to address impacts to these resources.

METHODS

On May 29 and June 24, 2025, WRA, Inc. biologists Jason Yakich (author) and Aaron Arthur (plant and wetland biologist) visited and assessed all portions of the Study Area. Prior to the site visit, the WRA biologists reviewed literature resources and performed database searches to assess the potential for sensitive biological communities (e.g., wetlands) and special-status species (e.g., endangered plants), including:

- Soil Survey of Napa County (USDA 1978, USDA 2015)
- Napa 7.5-minute U.S. Geological Survey (USGS) quadrangle (USGS 2015)
- Contemporary aerial photographs (Google Earth 2025)
- National Wetlands Inventory (USFWS 2025)
- CNDDB (CDFW 2025a)
- CNPS Inventory (CNPS 2025a)
- Consortium of California Herbaria (CCH1, CCH2 2025)
- A Manual of California Vegetation, Online Edition (CNPS 2025b)
- Preliminary Descriptions of the Terrestrial Natural Communities (Holland 1986)
- California Natural Community List (CDFW 2025b)

Database searches (i.e., CNDDB, CNPS) focused on the Rutherford, Yountville, and Napa USGS 7.5-minute quadrangles for special-status plants. The special-status wildlife evaluation was based on database searches for the entirety of Napa County.

Following the remote assessment, the WRA biologists completed a field review to document: (1) land cover types (e.g., terrestrial communities, aquatic resources), (2) existing conditions and to determine if such provided suitable habitat for any special-status plant or wildlife species, (3) if

and what type of aquatic natural communities (e.g., wetlands, streams) were present, and (4) if special-status species were present.

Land Cover Types

During the site visits, WRA evaluated the species composition and area occupied by distinct vegetation communities, aquatic communities, and other land cover types. Aerial imagery was also used in the mapping of these classifications.

Terrestrial Land Covers

Terrestrial land cover types were mapped and evaluated across the entire Study Area. In most instances, communities are delineated based on distinct shifts in plant assemblage (vegetation) and follow the *California Natural Community List* (CDFW 2023), *Preliminary Descriptions of the Terrestrial Natural Communities of California* (Holland 1986), and *A Manual of California Vegetation, Online Edition* (CNPS 2025b). In some cases, it may be necessary to identify variants of community types or to describe non-vegetated areas that are not described in the literature; should an undescribed variant be used, it will be noted in the description.

Vegetation alliances (natural communities) with a CDFW Rank of 1 through 3 (globally critically imperiled (S1/G1), imperiled (S2/G2), or vulnerable (S3/G3), were evaluated as sensitive as part of this evaluation.[2] Additionally, any sensitive natural communities as described in the Napa County Baseline Data Report (NCBDR; Napa County 2005) or General Plan (Napa County 2008) were considered.

Aquatic Resources

Aquatic resources include Waters of the U.S., Waters of the State, and Streams, Lakes, and Riparian Habitat as defined in the CWA, Porter-Cologne Act, and CFGC, respectively. Napa County mandates setbacks from these aquatic resources and therefore requires mapping of the outward extent of such features. This site assessment does not constitute a formal wetland delineation; however, the surveys looked for superficial indicators of wetlands such as hydrophytic vegetation (i.e., plant communities dominated by wetland species), evidence of inundation or flowing water, saturated soils and seepage, and topographic depressions/swales. If sample points were taken, WRA followed the *Corps of Engineers Wetlands Delineation Manual* (Environmental Laboratory 1987) and the *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region* (Corps 2008).

If streams potentially jurisdictional under the CWA and/or the CFGC are noted on a site, they are delineated using a mix of surveyed topography data, high resolution aerial photographs, and a sub-meter GPS unit. The OHWM would be used to determine the extent of potential Section 404 jurisdiction, while the top-of-bank would be used to determine the extent of CFGC Section 1602 and 401. Streams with associated woody vegetation were assessed to determine if these areas would be considered riparian habitat by the CDFW following *A Field Guide to Lake and Streambed Alteration Agreements, Section 1600-1607, California Fish and Game Code* (CDFG 1994). Finally, all streams were assessed to determine if they meet the Napa County definition of “stream” pursuant to Napa County Code 18.108.030.

[2] *Ranking of CDFW List of Vegetation Alliances is based on NatureServe Rankings (NatureServe 2025).*

Special-status Species

General Assessment

Potential occurrence of special-status species in the Study Area was evaluated by first determining which special-status species occur in the greater vicinity through a literature and database review. Database searches for known occurrences of special-status species focused on the 7.5-minute USGS quadrangles mentioned above for special-status plants and the entirety of Napa County for special-status wildlife.

Suitable habitat conditions are based on physical and biological conditions of the site, as well as the professional expertise of the investigating biologists. The potential for each special-status species to occur in the Study Area was then determined according to the following criteria:

- No Potential. Habitat on and adjacent to the site is clearly unsuitable for the species requirements (foraging, breeding, cover, substrate, elevation, hydrology, plant community, site history, disturbance regime).
- Unlikely. Few of the habitat components meeting the species requirements are present, and/or the majority of habitat on and adjacent to the site is unsuitable or of very poor quality. The species is not likely to be found on the site.
- Moderate Potential. Some of the habitat components meeting the species requirements are present, and/or only some of the habitat on or adjacent to the site is unsuitable. The species has a moderate probability of being found on the site.
- High Potential. All of the habitat components meeting the species requirements are present and/or most of the habitat on or adjacent to the site is highly suitable. The species has a high probability of being found on the site.
- Present. Species is observed on the site or has been recorded (i.e. CNDDB, other reports) on the site in the recent past.

Special-status Plants

To determine the presence or absence of special-status plant species, focused surveys were conducted within Study Area on May 29 and June 24, 2025. The surveys correspond to the period sufficient to observe and identify those special-status plants determined to have the potential to occur. The field surveys were conducted by a botanist familiar with the flora of Napa and surrounding counties. The surveys were performed in accordance with those outlined by Napa County (2016b), which follow those described by resource experts and agencies (CNPS 2001, CDFW 2018b, USFWS 1996). Plants were identified using *The Jepson Manual, 2nd Edition* (Baldwin et. al. 2012) and Jepson Flora Project (eFlora 2025), to the taxonomic level necessary to determine whether they were sensitive. Plant names follow those of Jepson Flora Project (eFlora 2025), unless otherwise noted.

Special-status Wildlife

A general wildlife assessment was performed on May 29 and June 24, 2025. This assessment consisted of traversing the entirety of the 5-acre Study Area and directly adjacent areas. Habitat elements required or associated with certain species (e.g., California red-legged frog) or species groups (e.g., bats, anadromous fish) were searched for and noted. Such habitat elements include, but are not limited to plant assemblages and vegetation structure; stream depth, width,

hydro-period, slope, and bed-and-bank structure; rock outcrops, caves, cliffs, overhangs, and substrate texture and rock content; history of site alteration and contemporary disturbances; etc.

Wildlife Corridors

To account for potential impacts to wildlife movement/migratory corridors, biologists reviewed maps from the California Essential Connectivity Project (CECP) by Caltrans (2010) and CDFW's Biogeographic Information and Observation System (BIOS) (CDFW 2025b), as well as the NCBDR (Napa County 2005). The CECP maps both 1) "Natural Landscape Blocks," or discrete areas of mostly natural land covers that support biodiversity, and 2) "Essential Connectivity Areas" that provide ecological connectivity between the former. Additionally, aerial imagery (Google 2025) for the local area was referenced to assess if local core habitat areas were present within or connected to the Study Area. This assessment was refined based on observations of on-site physical and/or biological conditions.

REGULATORY SETTING

The following natural resources are protected under one or more federal, state and/or local (County) regulations, or are otherwise considered sensitive under the California Environmental Quality Act (CEQA). They are addressed in subsequent sections of the report as relevant.

Federal and State –Land Cover Types

Waters of the U.S.: protected under the Clean Water Act (CWA), administered by the Environmental Protection Agency and U.S. Army Corps of Engineers (Corps):

- Includes wetlands, streams, rivers, and other aquatic habitats meeting the guidance issued by the Corps
- Projects that would impact such features would require a Section 404 permit from the Corps

Waters of the State: protected under the Porter-Cologne Act, administered by the Regional Water Quality Control Board (RWQCB):

- Includes surface water or groundwater, including saline waters, within the boundaries of the state, and are generally delineated following the guidance issued by the Corps
- Projects that would impact such features would require Waste Discharge Requirements issued by the RWQCB

Streams, Lakes, and Riparian Habitat: protected under the California Fish and Game Code (CFGC), administered by the California Department of Fish and Wildlife (CDFW):

- Includes creeks and rivers (bodies where water flows at least periodically or intermittently through a bed or channel having banks and supports fish or other aquatic life), and vegetation adjacent to associated with such (riparian habitat)
- Projects that would impact such features would require a Lake and Streambed Alteration Agreement with the CDFW

Sensitive Natural Communities: include land cover types that fulfill special functions or have special values and must be considered and evaluated under CEQA (CCR Title 14, Div. 6, Chap. 3, Appendix G):

- Vegetation communities ranked as "threatened" or "very threatened" by CDFW (2022b)

- Vegetation alliances ranked globally (G) or statewide (S) as 1 through 3 in the CNDDB based on NatureServe's (2020) methodology
- Sensitive natural communities identified in local or regional plans, policies, or regulations (e.g., see canopy retention requirements below)

Wildlife Movement Corridors: Movement and migratory corridors for native wildlife (including aquatic corridors) as well as wildlife nursery sites are given special consideration under CEQA.

Federal and State – Special-Status Species

Listed Plant and Wildlife Species including Critical Habitat: protected under one or more of the Federal Endangered Species Act (ESA), California Endangered Species Act (CESA), CFGC, and/or California Native Plant Protection Act (CNPPA) administered by the U.S. Fish and Wildlife Service (USFWS), and/or CDFW:

- Includes plants listed under the ESA, CESA, and/or CNPPA
- Includes wildlife listed under the ESA and/or CESA
- Projects that would impact such species require consultation with the USFWS and/or CDFW
- Projects conducted by, funded by, or permitted by the federal government in designated critical habitat (for federal listed species) require consultation with USFWS

Other Special-status Plant and Wildlife Species: considered for protection through CEQA:

- Includes plants ranked 1, 2, or 3 on the California Native Plant Society's (CNPS) inventory[3]
- Includes Species of Special Concern (SSC) listed by CDFW, and wildlife listed as Fully Protected Species by the CFGC
- Bat species assigned a "High" or "Medium-high" conservation priority ranking by the Western Bat Working Group (WBWG; 2025)
- Projects subject to CEQA would be analyzed to determine if impacts to such species are potentially "significant"

Nesting Birds: baseline protections provided under the federal Migratory Bird Treaty Act (MBTA) and CFGC:

- Includes the nest, eggs, young, and adults of most native species (MBTA, CFGC) and some non-native species (CFGC; i.e., sections 3503, 3503.5 and 3513)
- Projects that would impact breeding birds would require avoidance (typically setbacks) to allow the birds to complete their reproductive life cycle

Napa County Regulations

The Study Area is within unincorporated Napa County and is subject to the Napa County General Plan (Napa County 2008). Conditions in the General Plan relevant to the Study Area and proposed project include species of local concern (named "Locally Rare"), stream and wetland protections, forest/woodland canopy retention, and wildlife corridors (as defined above).

[3] *Rank 4 species are typically only afforded protection under CEQA when such species are particularly unique to the locale (e.g., range limit, low abundance/low frequency, limited habitat) or are otherwise considered locally rare; this is applicable to some Rank 4 plants in Napa County.*

Stream and Wetland Setbacks: Napa County Code (NCC) 18.108.025 requires stream and wetland setbacks for new land clearings:

- "Stream" is defined by NCC (18.108.030) as: (1) a watercourse designated as a "blue-line" stream by the U.S. Geological Survey; (2) any watercourse which has a well-defined channel with a depth greater than four feet and banks steeper than 3:1 and contains hydrophilic, riparian and/or woody-vegetation; or (3) those watercourses listed in Resolution No. 94-19
- Specified stream setbacks correspond to slope, and range from 35 feet (< 1 percent slope) to 150 feet (60-70 percent slope)
- A minimum 35-foot setback is required for ephemeral or intermittent streams not meeting Napa County's criteria for a stream
- A minimum 50-foot setback is required from the delineated edge of a wetland boundary

Vegetative Canopy Protection: The Water Quality and Tree Protection Ordinance (2019) modified NCC 18.108 to strengthen existing protections for woodland/forest canopy:

- In Agricultural Watershed zoning districts, 70 percent canopy retention is required based on vegetation that existed within the parcel in June 2016
- In Agricultural Watershed zoning districts, trees within oak woodland and coniferous forest land covers must be preserved or otherwise mitigated for at a minimum 3:1 ratio (as measured in acreage)
- Alternatively, the removal of any vegetation canopy cover may be mitigated by permanent replacement at a minimum 2:1 ratio, where the project includes substantial public benefits as determined by the director

Additionally, Policy CON-24 in the General Plan requires that oak woodland impacts be mitigated (including via preservation) at a minimum 2:1 ratio.

RESULTS

Land Cover Types

As shown in Figure A-2 (Attachment A) and summarized in Table 1, WRA observed two non-sensitive land cover types within the Study Area, ruderal grassland and developed, and two sensitive land cover types of valley oak woodland and ephemeral stream.

Table 1. Vegetation Community and Land Cover Types

LAND COVER TYPE	ACRES WITHIN STUDY AREA			
	ZINFANDEL LN.	OAK KNOLL AVE.	STRAWBERRY PATCH	TOTAL
Non-Sensitive				
Developed	0.5	0.8	1.2	2.5
Ruderal grassland	0.4	0.5	1.2	2.1
Sensitive				
Valley oak woodland	--	--	0.4	0.4
Ephemeral stream	--	<0.01	--	<0.01
Total Study Area	**0.9**	**1.3**	**2.8**	**5.0**

Terrestrial Land Covers

Developed areas (no vegetation type). Non-sensitive. CDFW Rank: None. The Study Area contains a total of 2.5 acres of developed area. Most of this acreage is comprised of existing paved road surfaces including the compacted shoulders, and other associated hardscape such as driveway entrances. Other developed substrates include vineyards and landscaping. Vegetation consists of overhanging trees, landscape species, and disturbance-affiliated annual herbs. Dominant species include coast live oak (*Quercus agrifolia*), valley oak (*Quercus lobata*), olive (*Olea europaea*), Queen Anne's lace (*Daucus carota*), prickly lettuce (*Lactuca serriola*), red sandspurry (*Spergularia rubra*), and English plantain (*Plantago lanceolata*).

Ruderal grassland (no vegetation alliance). CDFW Rank: None. Ruderal grasslands are located throughout California, on all aspects and topographic positions. They are underlain by soils that are still intact/native but have been degraded to an extent that the vegetation is dominated by disturbance-adapted non-native plants. Within the Study Area, this community is located adjacent to paved road footprints and otherwise at the margins of the three sites. These ruderal grasslands feature a low diversity of native plant species and are otherwise influenced by historic and potential repeated soil management.

The Study Area contains 2.1 acres of ruderal grassland. This land cover type is similar at all three sites and dominated by non-native herbs including slim oat (*Avena barbata*), soft chess (*Bromus hordeaceus*), ripgut brome (*Bromus diandrus*), Harding grass (*Phalaris aquatica*), wild radish (*Raphanus sativus*), and spring vetch (*Vicia sativa*). Late-summer forbs include chicory (*Cichorium intybus*), field bindweed (*Convolvulus arvensis*), Queen Anne's lace (*Daucus carota*), fennel (*Foeniculum vulgare*), and bristly ox-tongue (*Helminthotheca echioides*). Napa County, CDFW, and other resource agencies do not consider these grasslands sensitive.

Valley oak woodland (*Quercus lobata* Woodland Alliance); CDFW Rank G3S3. Valley oak woodland is typically situated on deep, poorly drained clay soils in valley bottoms, alluvial floodplains, and lower slopes (Sawyer et al. 2009, CNPS 2025b). These woodlands range

throughout the Coast Ranges, Sierra Nevada Foothills, Transverse Ranges, and Peninsular Ranges, from Mendocino County south to San Diego County (CNPS 2025b).

The Study Area contains 0.4 acre of valley oak woodland with is entirely situated east of Silverado Trail in the Strawberry Patch Study Area (Attachment A). The canopy is continuous and dominated by valley oak (*Quercus lobata*), with subdominant coast live oak (*Q. agrifolia*) and California bay (*Umbellularia californica*). The understory is dominated by a mix of native and non-native species including poison oak (*Toxicodendron diversilobum*), upright snowberry (*Symphoricarpos albus*), California rose (*Rosa californica*), endive daisy (*Rhagadiolus stellatus*), Pacific sanicle (*Sanicula crassicaulis*), and mugwort (*Artemisia douglasiana*). The CDFW considers valley oak woodland sensitive, as does Napa County under the General Plan Conservation Element Policy CON-24 (oak woodland retention).

Aquatic Resources

Ephemeral (to Intermittent) Stream. CWA Section 404/401. Rank: None. The Study Area contains a portion of one stream on the north edge of Oak Knoll Avenue, west of Silverado Trail. This stream contains an ephemeral to intermittent hydroperiod with flows typically only during and immediately following substantial rainfalls, though it may flow longer in wetter years; it was dry during both of WRA's site visits. The bed is a mix of sediments, gravel, and cobble, while the banks are a mix of finer sediments and cobbles and contain woody non-riparian vegetation. This stream's reach within and adjacent to (west of) the Oak Knoll Study Area appears to have been straightened to accommodate Oak Knoll Avenue, but it returns to a natural sinuosity downstream and off-site. It is not mapped on the Napa 7.5-minute quadrangle (USGS 2015), but is mapped, albeit inaccurately, as Riverine in the National Wetlands Inventory (NWI; USFWS 2025a) and as Fluvial in the California Aquatic Resources Inventory (CARI; SFEI 2025). The stream flows approximately 0.4 river miles where it enters the Napa River; therefore, it is likely jurisdictional under Section 404/401 of the CWA and Section 1602 of the CFGC. Likewise, it appears to meet the Napa County stream definition pursuant to Napa County Code 18.108.025.

Special-status Plant Species

Based upon a review of the resources and databases (CNPS [2025] and CNNDB [CDFW 2025]) for the Rutherford, Yountville, and Napa 7.5-minute USGS quadrangles, a total of 46 special-status plant species have been documented in the vicinity of the Study Area.[4] All 46 special-status plants documented from the greater vicinity are unlikely or have no potential to occur for one or more of the following:

- Hydrologic conditions (e.g., wetland, tidal, riverine) necessary to support the special-status plant species are not present in the Study Area.
- Edaphic (soil) conditions (e.g., volcanic tuff, serpentine) necessary to support the special-status plant species are not present in the Study Area.
- Topographic conditions (e.g., north-facing slope, montane) necessary to support the special-status plant species are not present in the Study Area.
- Unique pH conditions (e.g., alkali scalds, acidic bogs) necessary to support the special-status plant species are not present in the Study Area.

[4] *As per these databases, there are no documented occurrences of special-status mosses, bryophytes or lichens in Napa County.*

- Associated natural communities (e.g., interior chaparral, tidal marsh) necessary to support the special-status plant species are not present in the Study Area.
- The Study Area is geographically isolated (e.g., below elevation, coastal environ) from the documented range of the special-status plant species.
- Land use history and contemporary management (e.g., absence of mowing or grazing) has degraded the localized habitat necessary to support the special-status plant species.

As anticipated given the conditions present, no special-status plants were observed during the May 29 and June 24, 2025 site visits.

Special-status Wildlife Species

A total of 58 special-status wildlife species have been documented in Napa County (CDFW 2025a, Napa County 2005). One species has the potential to occur within and adjacent to the Study Area. The remaining 57 species are unlikely or have no potential to occur due to one or more of the following reasons:

- Aquatic habitats (e.g., perennial aquatic features- ponds, rivers, estuaries) necessary to support the special-status wildlife species are not present in the Study Area.
- Vegetation habitats (e.g., coast redwood forest, coastal prairie, dense emergent marsh) that provide nesting and/or foraging resources necessary support the special-status wildlife species are not present in the Study Area.
- Physical structures and vegetation (e.g., trees, mines/caves, riparian forest) necessary to provide nesting, cover, and/or foraging habitat to support the special-status wildlife species are not present in the Study Area.
- Host plants (e.g., dog violet, harlequin lotus) necessary to provide larval and nectar resources for the special-status wildlife species are not present in the Study Area.
- The Study Area is outside (e.g., north of, west of) of the special-status wildlife species documented local range (including breeding range for birds).

Special-status Wildlife with Potential to Occur

White-tailed kite (*Elanus leucurus*). CDFW Fully Protected Species. High Potential. The white-tailed kite is resident year-round in open to semi-open habitats throughout the lower elevations of California, including grasslands, savannahs, woodlands, agricultural areas, and wetlands. Vegetative structure and prey availability seem to be more important habitat elements than associations with specific plants or vegetative communities (Dunk 1995). Nests are constructed mostly of twigs and placed in trees, often at habitat edges. Nest trees are highly variable in size, structure, and immediate surroundings, ranging from shrubs to trees greater than 150 feet tall (Dunk 1995). This species preys upon a variety of small mammals, as well as other vertebrates and invertebrates.

The Study Area (all three sites) and surrounds provide suitable year-round habitat for white-tailed kites, including stands and rows of trees for nesting and open areas in proximity for foraging. Trees along Silverado Trail itself are unlikely to be used for nesting given routine ambient disturbances, though other trees within approximately 500 feet may be used. Although no indication of on-site nesting was observed during WRA's site visits, there is still potential for such to occur in the future.

No special-status wildlife species were observed in the Study Area during WRA's site visits, including white-tailed kite.

Wildlife Corridors

The Study Area (all three components) is not within a wildlife corridor as mapped by Caltrans (2010) and CDFW (2025b) and does not provide any landscape-level corridor functions. The Study Area and surrounds are situated within predominantly developed viticultural and low-density residential land on the eastern side of Napa Valley. The Project consists of road widening and other relatively minor modifications to existing paved roads that will not alter local land covers in any meaningful way, resulting in no impacts to local wildlife movement. Nearby water courses with riparian woodland and associated understory vegetation presumably provide local movement habitat for wildlife, and all such areas will be fully avoided by the Project.

ANALYSIS AND RECOMMENDATIONS

Terrestrial Land Covers

The bulk of the Study Area consists of the non-sensitive land cover types of developed and ruderal grassland. The Strawberry Patch Study Area supports valley oak woodland, which is considered sensitive by CDFW and is also subject to Napa County's protective measures for oak woodland; the relevant portions of the Study Area are within the County's Agricultural Preserve zoning district. According to the Project's Arborist Report by American Tree Medics (2025) and a subsequent addendum (December 2025), three oak trees along Silverado Trail in this area (within a County right-of-way) will necessarily be removed to accommodate the Project. However, this woodland will remain unimpacted overall and will continue to provide habitat value for local wildlife, particularly birds and small mammals. Additionally, three oak trees on private property (not mapped as a woodland component) at the Oak Knoll Avenue Study Area will be necessarily removed. While the County will presumably ultimately decide how to offset these removals in the context of its policies, the following is recommended as means to sufficiently offset the loss of these six trees.

> Recommendation 1: As per Policy CON-24 in the General Plan, replacement native oak trees should be planted at a minimum 2:1 ratio, i.e., at least 12 trees planted to compensate for the six removed. The oaks should be planted on the edge of the Valley Oak Woodland in the Strawberry Patch Study Area, and in suitable location(s) at or in proximity to the Oak Knoll Study Area. Given that space for planting may be limited at the Oak Knoll Study Area, there should be flexibility regarding planting location that allows for a greater (disproportionate) number of trees to be planted at the Strawberry Patch Study Area. The replacement trees should be of the same species as those removed. Container size should be at least 5-gallon, and for smaller oak plantings caging, mulching, vertical support staking, and irrigation should be deployed at the time of planting to increase the likelihood of survival. If after three years 12 (or more) planted trees have survived, then the tree replacement effort will be considered a success; otherwise, additional oaks should be installed to fulfill the minimum 2:1 requirement.

Aquatic Features

As noted above, the Oak Knoll Avenue Study Area contains an ephemeral/intermittent stream. The Project Area is located less than 10 feet from this stream, but the Project will not fill, dredge,

or otherwise disrupt the bed or bank of the stream. The following recommendation would protect the integrity of this stream and water quality.

> Recommendation 2: To the extent feasible, construction activities should occur during the dry season (April 1 through October 15). If rainfall is in the forecast, standard erosion control measures (e.g., straw waddles, bales) should be deployed on the Project Area edge perpendicular to the stream. Construction personnel should be informed of the location of the stream with both silt fencing and high visibility flagging or staking prior to construction. All materials and equipment should be laid down as far from the stream as is feasible, and spill prevention materials should be on the ready and deployable for all construction equipment.

Special-Status Plants

The Study Area does not have the potential to support special-status plants, and no such species were observed during site visits in May and June of 2025. Therefore, the Project will not result in impacts to special-status plants and no further actions related to these species are warranted.

Special-Status Wildlife

The Study Area has the potential to support one special-status wildlife species, as well as non-status birds protected under the MBTA and CFGC. The following measures are recommended to avoid or otherwise minimize potential impacts to these species.

White-tailed Kite and Other Nesting Birds: In addition to white-tailed kite, various non-status bird species with baseline protections under the MBTA and CFGC may use vegetation within and adjacent to the Study Area for nesting. It is WRA's understanding that vegetation removal and initial ground disturbance will necessarily occur during the general nesting bird season (from February 1 to August 31). Pre-construction surveys are recommended to ensure that the implementation of the Project would not impact any nesting birds.

> Recommendation 3: If vegetation removal and/or initial ground disturbance occur during the general nesting bird season (February 1 to August 31), a pre-construction nesting bird survey should be performed by a qualified biologist no more than 14 days prior to the initiation of tree removal or ground disturbance. The survey should cover the Project Area (including tree removal areas) and surrounding areas within 500 feet, as accessible (to cover white-tailed kite and other raptors). If active bird nests are found during the survey, an appropriate no-disturbance buffer should be established by the qualified biologist. Buffer sizes may vary dependent on bird species, location and setting of the nest, levels of ambient disturbance near the nest, and other factors. Once it is determined that the young have fledged (left the nest) or the nest otherwise becomes inactive (e.g., due to predation), the buffer may be lifted, and work may be initiated within the buffer.

Wildlife Corridors

As outlined above, the Study Area consists primarily of paved roads and directly associated disturbed areas within a viticultural and low-density residential setting. No impacts to wildlife

movement are anticipated due to the Project, and no further actions related to such movement are warranted.

Please contact me with any questions.

Sincerely,

Jason Yakich
Senior Biologist

ENCLOSURES:

Attachment A. Figures
Figure 1 – Project Location
Figure 2 – Land Covers
Attachment B. Observed Species
Attachment C. Representative Photographs

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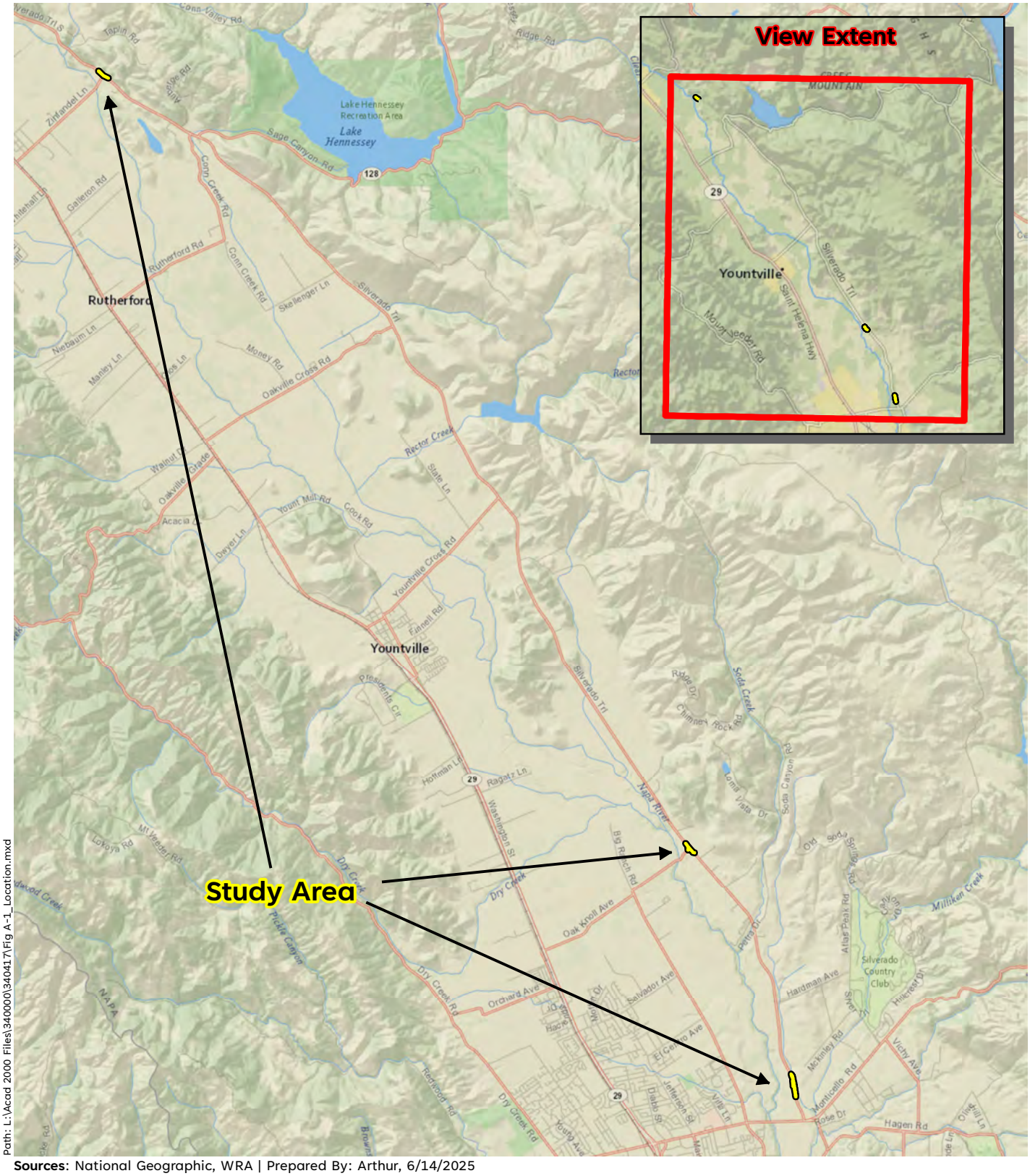
ATTACHMENT A – FIGURES



Path: L:\Acad 2000 Files\340000\340417\Fig A-1_Location.mxd

Sources: National Geographic, WRA | Prepared By: Arthur, 6/14/2025

Figure A-1. Study Area (x3) Locations

Silverado Trail Intersection Improvement Project
Napa County, CA

N

0 2 4 Miles

wra Environmental Consultants

Path: L:\Acad 2000 Files\340000\340417\Fig A-2c_Strawberry.mxd

Sources: DigitalGlobe 2016 Aerial, WRA | Prepared By: Arthur, 6/23/2025

Figure A-2a. Land Cover: Study Area (Strawberry Patch)

Silverado Trail Intersection Improvement Project
Napa County, CA

0 100 200 Feet

N

wra Environmental Consultants

Path: L:\Acad 2000 Files\340000\340417\Fig A-2b_Oak Knoll.mxd

Sources: DigitalGlobe 2016 Aerial, WRA | Prepared By: Arthur, 6/23/2025

Figure A-2b. Land Cover: Study Area (Oak Knoll Ave.)

Silverado Trail Intersection Improvement Project
Napa County, CA

0 50 100 Feet

N

wra Environmental Consultants

Sources: DigitalGlobe 2016 Aerial, WRA | Prepared By: Arthur, 6/23/2025

Figure A-2c. Land Cover: Study Area (Zinfandel Lane)

Silverado Trail Intersection Improvement Project
Napa County, CA

0 50 100 Feet

N

wra Environmental Consultants

ATTACHMENT B – OBSERVED SPECIES

Table B-1. Plant species observed in the Study Area: May 29 and June 24, 2025

FAMILY	SCIENTIFIC NAME	COMMON NAME	LIFE FORM	ORIGIN	RARE STATUS[1]	INVASIVE STATUS[2]	WETLAND INDICATOR[3]	STUDY AREA[4]		
								ZL	OK	SP
Agavaceae	*Chlorogalum pomeridianum*	common soap plant	perennial forb	native	--	--	NL			x
Alismataceae	*Alisma triviale*	water plantain	perennial forb	native	--	--	OBL			x
Anacardiaceae	*Toxicodendron diversilobum*	poison oak	deciduous shrub	native	--	--	FACU			x
Apiaceae	*Daucus carota*	Queen Anne's lace	perennial forb	non-native	--	assessed	UPL	x	x	
Apiaceae	*Foeniculum vulgare*	fennel	perennial forb	non-native	--	high	NL			x
Apiaceae	*Sanicula crassicaulis*	Pacific sanicle	perennial forb	native	--	--	NL			x
Apiaceae	*Torilis arvensis*	hedge parsley	annual forb	non-native	--	moderate	NL			x
Araceae	*Zantedeschia aethiopica*	calla lily	perennial forb	non-native	--	limited	OBL		x	
Asteraceae	*Artemisia douglasiana*	mugwort	perennial forb	native	--	--	FAC			x
Asteraceae	*Baccharis pilularis*	coyote brush	evergreen shrub	native	--	--	NL			x
Asteraceae	*Calendula arvensis*	field marigold	annual forb	non-native	--	--	NL	x		x
Asteraceae	*Carduus pycnocephalus*	Italian thistle	annual forb	non-native	--	moderate	NL			x
Asteraceae	*Centaurea solstitialis*	yellow star thistle	annual forb	non-native	--	high	NL	x	x	x
Asteraceae	*Cichorium intybus*	chicory	perennial forb	non-native	--	--	FACU	x	x	x
Asteraceae	*Hypochaeris radicata*	rough cat's-ear	perennial forb	non-native	--	moderate	FACU	x	x	
Asteraceae	*Lactuca serriola*	prickly lettuce	annual forb	non-native	--	assessed	FACU	x	x	x
Asteraceae	*Leontodon saxatilis* ssp. *longirostris*	hawkbit	annual forb	non-native	--	--	FACU		x	
Asteraceae	*Rhagadiolus stellatus*	endive daisy	annual forb	non-native	--	--	NL			x
Asteraceae	*Sonchus oleraceus*	common sow thistle	annual forb	non-native	--	--	NL			x
Asteraceae	*Tragopogon porrifolius*	purple salsify	perennial forb	non-native	--	--	NL			x
Brassicaceae	*Brassica nigra*	black mustard	annual forb	non-native	--	moderate	NL	x	x	x
Brassicaceae	*Raphanus sativus*	wild radish	perennial forb	non-native	--	limited	NL		x	x
Caprifoliaceae	*Symphoricarpos albus*	upright snowberry	deciduous shrub	native	--	--	FACU			x
Caryophyllaceae	*Cerastium glomeratum*	mouse-ear chickweed	annual forb	non-native	--	--	UPL			x
Caryophyllaeae	*Spergularia rubra*	red sandspurry	perennial forb	non-native	--	--	FAC	x		

FAMILY	SCIENTIFIC NAME	COMMON NAME	LIFE FORM	ORIGIN	RARE STATUS[1]	INVASIVE STATUS[2]	WETLAND INDICATOR[3]	STUDY AREA[4]		
								ZL	OK	SP
Convolvulaceae	*Convolvulus arvensis*	field bindweed	perennial forb	non-native	--	assessed	NL			x
Cucurbitaceae	*Marah fabacea*	California manroot	perennial vine	native	--	--	NL			x
Cupressaceae	*Sequoia sempervirens*	coast redwood	evergreen tree	native	--	--	NL			x
Cyperaceae	*Cyperus eragrostis*	tall flat-sedge	perennial graminoid	native	--	--	FACW		x	x
Euphorbiaceae	*Croton setiger*	turkey mullein	annual forb	native	--	--	NL	x		
Euphorbiaceae	*Euphorbia lathyrism*	moleplant	perennial forb	non-native	--	assessed	NL		x	
Fabaceae	*Acmispon americanus*	American lotus	annual forb	native	--	--	NL	x	x	x
Fabaceae	*Trifolium hirtum*	rose clover	annual forb	non-native	--	moderate	NL		x	x
Fabaceae	*Vicia sativa*	garden vetch	annual forb	non-native	--	--	FACU			x
Fabaceae	*Vicia villosa*	woolly-pod vetch	annual forb	non-native	--	--	NL		x	x
Fagaceae	*Quercus agrifolia*	coast live oak	evergreen tree	native	--	--	NL		x	x
Fagaceae	*Quercus lobata*	valley oak	deciduous tree	native	--	--	FACU		x	x
Geraniaceae	*Geranium dissectum*	cutleaf geranium	annual forb	non-native	--	moderate	NL	x		x
Geraniaceae	*Geranium purpureum*	herb robert	perennial forb	non-native	--	--	NL			x
Hypericaceae	*Hypericum perforatum*	Klamath weed	perennial forb	non-native	--	moderate	FACU		x	
Juglandaceae	*Juglans hindsii*	black walnut	deciduous tree	native	--	--	FAC			x
Juncaceae	*Juncus patens*	common rush	perennial graminoid	native	--	--	FACW			x
Lauraceae	*Umbellularia californica*	California bay	evergreen tree	native	--	--	FAC			x
Myrsinaceae	*Lysimachia arvensis*	scarlet pimpernel	annual forb	non-native	--	--	NL			x
Oleaceae	*Fraxinus latifolia*	Oregon ash	deciduous tree	native	--	--	FACW			x
Oleaceae	*Olea europaea*	olive	evergreen tree	non-native	--	limited	NL			x
Onagraceae	*Epilobium brachycarpum*	annual willowherb	annual forb	native	--	--	FAC		x	x
Papaveraceae	*Eschscholzia californica*	California poppy	perennial forb	native	--	--	NL			x
Plantaginaceae	*Kickxia elatine*	sharpleaf cancerwort	perennial forb	non-native	--	--	UPL			x
Plantaginaceae	*Plantago lanceolata*	English plantain	perennial forb	non-native	--	limited	FAC	x	x	x
Poaceae	*Aira caryophyllea*	silver hairgrass	annual graminoid	non-native	--	assessed	FACU		x	
Poaceae	*Avena barbata*	wild oat	annual graminoid	non-native	--	moderate	NL	x	x	x

FAMILY	SCIENTIFIC NAME	COMMON NAME	LIFE FORM	ORIGIN	RARE STATUS[1]	INVASIVE STATUS[2]	WETLAND INDICATOR[3]	STUDY AREA[4]		
								ZL	OK	SP
Poaceae	*Briza minor*	little rattlesnake grass	annual graminoid	non-native	--	--	FAC		x	
Poaceae	*Bromus catharticus*	Chilean brome	perennial graminoid	non-native	--	--	NL			x
Poaceae	*Bromus diandrus*	rip-gut brome	annual graminoid	non-native	--	moderate	NL			x
Poaceae	*Bromus hordeaceus*	soft chess	annual graminoid	non-native	--	limited	FACU	x	x	x
Poaceae	*Cynosurus echinatus*	dogtail grass	annual graminoid	non-native	--	moderate	NL		x	
Poaceae	*Dactylis glomerata*	orchard grass	perennial graminoid	non-native	--	limited	FACU			x
Poaceae	*Danthonia californica*	California oat grass	perennial graminoid	native	--	--	FAC		x	
Poaceae	*Elymus glaucus*	blue wildrye	perennial graminoid	native	--	--	FACU			x
Poaceae	*Festuca perennis*	Italian rye grass	annual graminoid	non-native	--	moderate	FAC		x	x
Poaceae	*Hordeum brachyantherum*	meadow barley	perennial graminoid	native	--	--	FACW			x
Poaceae	*Hordeum marinum*	Mediterranean barley	annual graminoid	non-native	--	moderate	FAC		x	x
Poaceae	*Hordeum murinum*	mouse barley	annual graminoid	non-native	--	moderate	FAC	x		x
Poaceae	*Phalaris aquatica*	harding grass	perennial graminoid	non-native	--	moderate	FACU			x
Poaceae	*Polypogon monspeliensis*	rabbit's-foot grass	annual graminoid	non-native	--	limited	FACW			x
Polygonaceae	*Rumex crispus*	curly dock	perennial forb	non-native	--	limited	FAC	x	x	x
Rosaceae	*Prunus cerasifera*	cherry plum	deciduous tree	non-native	--	limited	NL			x
Rosaceae	*Rosa californica*	California rose	evergreen shrub	native	--	--	FAC			x
Rosaceae	*Rubus armeniacus*	Himalayan blackberry	evergreen shrub	non-native	--	high	FAC			x
Rosaceae	*Rubus leucodermis*	western raspberry	evergreen shrub	native	--	--	FACU		x	x
Scrophulariaceae	*Scrophularia californica*	bee plant	perennial forb	native	--	--	FAC			x
Vitaceae	*Vitis vinifera*	wine grape	deciduous vine	non-native	--	--	NL		x	x

All species identified using the *Jepson Manual, 2nd Edition* (Baldwin et al. 2012), *The Jepson Flora Project* (eFlora 2025), and *A Flora of Napa County* (Ruygt 2020); nomenclature follows *The Jepson Flora Project* (eFlora 2025) unless otherwise noted

Sp.: "species", intended to indicate that the observer was confident in the identity of the genus but uncertain which species
Cf.: "*confer*" or "compared with", intended to indicate a species appeared to the observer to be specific, but was not identified based on diagnostic characters

[1]Rare Status: The CNPS Inventory of Rare and Endangered Plants (CNPS 2025a)

FE:	Federal Endangered
FT:	Federal Threatened
SE:	State Endangered
ST:	State Threatened
SR:	State Rare
LR	Locally Rare
CRPR 1A:	Plants presumed extirpated in California and either rare or extinct elsewhere
CRPR 1B:	Plants rare, threatened, or endangered in California and elsewhere
CRPR 2A:	Plants presumed extirpated in California, but more common elsewhere
CRPR 2B:	Plants rare, threatened, or endangered in California, but more common elsewhere
CRPR 3:	Plants about which we need more information – a review list
CRPR 4:	Plants of limited distribution – a watch list

[2]Invasive Status: California Invasive Plant Inventory (Cal-IPC 2006)

High:	Severe ecological impacts; high rates of dispersal and establishment; most are widely distributed ecologically.
Moderate:	Substantial and apparent ecological impacts; moderate-high rates of dispersal, establishment dependent on disturbance; limited moderate distribution ecologically
Limited:	Minor or not well documented ecological impacts; low-moderate rate of invasiveness; limited distribution ecologically
Assessed:	Assessed by Cal-IPC and determined to not be an existing current threat

[3]Wetland Status: National List of Plant Species that Occur in Wetlands, Arid West Region (Corps 2022)

OBL:	Almost always a hydrophyte, rarely in uplands
FACW:	Usually a hydrophyte, but occasionally found in uplands
FAC:	Commonly either a hydrophyte or non-hydrophyte
FACU:	Occasionally a hydrophyte, but usually found in uplands
UPL:	Rarely a hydrophyte, almost always in uplands
NL:	Rarely a hydrophyte, almost always in uplands
NI:	No information; not factored during wetland delineation

[4]Study Area

ZL:	Zinfandel Lane
OK:	Oak Knoll Avenue
SP:	Strawberry Patch

Table B-2. Wildlife species observed in and around the Study Area: May 29 and June 24, 2025

SCIENTIFIC NAME	COMMON NAME	STUDY AREA[4]		
		ZL	OK	SP
Birds				
Aphelocoma californica	California scrub jay	x	x	
Buteo jamaicensis	red-tailed hawk			x
Callipepla californica	California quail			x
Cathartes aura	turkey vulture		x	x
Empidonax difficilis	western flycatcher			x
Haemorhous mexicanus	house finch			x
Junco hyemalis	dark-eyed junco			x
Melospiza melodia	song sparrow			x
Melozone crissalis	California towhee			x
Picoides nuttallii	Nuttall's woodpecker		x	x
Pipilo maculatus	spotted towhee			x
Psaltriparus minimus	bushtit			x
Sitta carolinensis	white-breasted nuthatch			x
Spinus psaltria	lesser goldfinch	x	x	x
Spizella passerina	chipping sparrow			x
Sturnus vulgaris	European starling (*non-native*)	x		
Tachycineta bicolor	tree swallow			x
Thryomanes bewickii	Bewick's wren			x
Reptiles and Amphibians				
Sceloporus occidentalis	western fence lizard	x	x	x

ATTACHMENT C – REPRESENTATIVE PHOTOGRAPHS

Valley oak woodland and ruderal grassland at the Strawberry Patch Study Area, on the east side of Silverado Trail. Facing north. (*May 29, 2025*)

Another view of valley oak woodland and ruderal grassland at the Strawberry Patch Study Area, on the east side of Silverado Trail. Facing south. (*May 29, 2025*)

Developed land cover at the Strawberry Patch Study Area, on the west side of Silverado Trail. Facing south. (*May 29, 2025*)

Ruderal grassland and developed land covers at the Oak Knoll Avenue Study Area, on the west side of Silverado Trail. Facing southeast. (*May 29, 2025*)

Ephemeral stream course (background) and ruderal grassland at Oak Knoll Avenue Study Area, on the west side of Silverado Trail. Facing southwest. (*June 24, 2025*)

Ruderal grassland and developed land covers at the Zinfandel Lane Study Area, on the south side of Silverado Trail. Facing southeast. (*May 29, 2025*)

Appendix B: Arborist Report and Addendum

AMERICAN TREE MEDICS INC | **1748 Miles Ct Suite A, Merced CA 95348 | (209) 303-8729**
AmericanTreeMedics.com | CA Contractors License #1028601

Arborist Report

Prepared by: American Tree Medics Inc
Date: 6 June 2025

Evaluator:	Clyde Eric Britt ("Eric"), ISA #WE-10169A
Dates of Evaluation:	1-2 May, 5-6 June 2025
Location:	Silverado Trail (two sites), Napa County
Client Contact:	Sydney Barclay, Assoc. Engineer County of Napa, Public Works sydney.barclay@countyofnapa.org (707) 253-4921

Dear Sydney,

Thank you for the opportunity to provide arborist consulting services for the HSIP Cycle 11 Silverado Trail roadway widening project. Per your request, my team and I were asked to complete a site inspection and tree survey at two locations: the "Strawberry Patch" fruit stand on Silverado Trail, and the intersection of Silverado Trail and Oak Knoll Avenue, in Napa, California. Napa County Public Works requested that American Tree Medics conduct tree assessments of all mature trees in the hatched areas of the County's project diagrams (Appendix E), to determine which trees need to be removed, protected and/or replaced as a result of the project.

Methods

ATM conducted Level 2 inspections of all trees with diameters at breast height (DBH) greater than 8 in (young to mature trees) located within or adjacent to the hatched areas of the roadway widening project diagrams (Appendix E). Trees or shrubs with diameters less than 8 in (shrubs) were excluded from the inventory and assessment and are expected to be removed during the construction phase of the project.

The Level 2 Basic assessment includes a detailed visual inspection of each tree and its surrounding site, with all variables synthesized. A Level 2 inspection includes a rating of each of the following variables: planting site, buttress roots, trunk and branches. Simple tools are used to gain information about the tree. This detailed inspection of each tree helps arborists to determine exact cause of health defects and stress factors of the tree. Because it is a ground-level inspection, internal factors, or factors affecting the crown or below ground may not be detected.

The tools used in the inspection were a diameter tape, construction measuring tape, mallet, range finder, binoculars and camera. The observations included a Level 2 inspection of each tree from the base of each tree with care taken to observe trunk and trunk flare, buttressing roots above ground, branch attachments, branches, crown shape and foliage. Additional inspection included assessing dripline measurements for construction damage mitigation and site management. Tree diameters were measured using an arborists diameter tape at approximately 4.5 feet above ground or diameter at breast height (dbh). As this was contracted as an "informal" assessment, no Tree Risk Assessment forms were completed.

Each tree greater than 8 in DBH was assigned an identification number and tagged with red/white striped tree flagging. No shrubs were identified and included in the database. Trees were numbered from "1" to "10". Trees 1-4 are located near the Strawberry Patch location, proceeding from #1 at the northern most area of the project heading south. All other trees are located at the Oak Knoll Avenue intersection (with Tree #5 starting on Oak Knoll Avenue and proceeding northeast, then continuing on Silverado Trail from north to south.

Based on the tree location in relation to the proposed construction site, and potential effects of construction on each identified tree's trunks or roots, mitigation options up to and including removal were identified.

No additional testing or examination was completed. No soil or water samples were taken.

Discussion

The trees assessed in this report are located in two separate areas: the Right of Way (ROW) adjacent and across the road from the Strawberry Patch fruit stand on Silverado Trail, and on private property adjacent to the ROW at the intersection of Silverado Trail and Oak Knoll Avenue. The only private property affected at this intersection is 2253 Oak Knoll Avenue.

STRAWBERRY PATCH

All trees identified to be affected by construction are located across the road from private property and within a ROW belonging to both the county and utility. These trees are located within the construction zone and all must be removed to complete the project as planned.

OAK KNOLL INTERSECTION

All trees identified to be affected by construction are located on private property along the northeast corner of the property located at 2253 Oak Knoll Avenue. These are trees are located within or immediately adjacent to the construction zone. Trees within the construction zone must be removed to complete the project as planned. Trees that are adjacent to the construction zone are recommended for removal due to the extent that construction will likely damage the trees' root zones, leading to imminent failure (death) of the tree. For these trees, creating root project zones is not feasible.

There are additional trees located on the property that are near the construction zone and closer to the driveway at 2253 Oak Knoll Avenue. These trees were not included in the survey as they

were not near enough to the construction zone to be affected. However, if any work extends beyond the hatched areas on the project diagrams (Appendix E), and any soil disturbance occurs outside of those areas, care should be taken to not destroy the root zones of these trees. If work does extend beyond the current planned areas, root protection zones should be established and fenced off by a certified arborist prior to start of work.

Recommendations

REMOVALS

Our team identified 10 trees greater than 8-inch dbh that should be removed immediately or prior to construction. These trees are located in or adjacent to the construction zone.

PROTECTION AND PRESERVATION

Our team did not find any trees located in or adjacent to the construction zone that could be reasonably protected during the construction phase. If the work zone increases or changes, tree protection zones should be established around each or any trees, not otherwise included in this inventory (Inventory of trees is located in Appendixes B, C, and D).

Fencing and signage should be erected in zones equal to one foot from the trunk of the tree per inch of trunk diameter (DBH).

If any nearby trees are located adjacent to areas where heavy equipment will be staged or driven, protection of the Critical Root Zone (CRZ) for these trees is recommended. Roots can be protected by applying a 6-inch or 1/2-foot-thick layer of mulch at least 1 ½ times the diameter of the crown around each tree prior to construction activity. This will provide a “cushion” for heavy equipment to mitigate damage caused by compaction in the root zones. Additionally, any excavation in the CRZ should be monitored and avoided (if possible) in the CRZ. If unavoidable, trenching in the root zone should not cut more than 25 percent of the tree’s roots. Damaging more than 25 percent of any tree’s major root system could result in health decline or death of the tree. If trenching does occur, roots should be cut by or monitored by a Certified Arborist. If roots are exposed during construction, roots should be kept moist. Trenching or excavation should not occur within the diameter of the Excavation Root Zone (calculated at five times the DBH). Do not cut any living tree root larger than 3 inches diameter.

Tree protection zones should be well marked, and all contractors and subcontractors should be made aware of how to avoid these areas. Heavy equipment and other vehicles should be parked and moved outside of these zones. A watering schedule for each tree (based on the current watering schedule for landscaped areas) should be established prior to construction, especially if the project is expected to last more than 30 days.

REPLACEMENT

Napa County Ordinance No. 2018-01 enacts the Napa County Watershed and Oak Woodland Protection Initiative of 2018, an amendment to the County’s General Plan and County Code. This ordinance restricts tree removal within certain agrarian and watershed zones. While this project

may not meet the qualifications for the restrictions outlined in this ordinance, it is good practice for Napa County to avoid removal of mature oak trees. When removal cannot be avoided in order to complete public works projects necessitated by community safety, as in this case, replacement of mature oak trees is recommended.

The trees recommended for removal are Valley oaks (Quercus lobata) and various species of live oaks. Both Valley and live oaks are relatively fast-growing species that thrive in this environment. Coastal live oaks (Quercus agrafolia) are indigenous or native to the area but are more susceptible to disease (such as sudden oak death) and pests (such as borers), both of which were identified and are present in other trees in the project area. Valley oaks will do well as replacements to all trees being removed and will thrive in the environment.

Replacement oaks should be planted at the appropriate distance from the end of pavement to ensure that trimming or maintenance in the ROW is minimized as the tree matures. In the ROW near the Strawberry Patch, it may be illogical to replace the trees being removed due to the utility lines that parallel the roadway. Planting trees in the utility ROW is not recommended. If tree replacements can be planted elsewhere, such as further down the highway at the intersection of Oak Knoll Avenue, replacement trees would have a higher likelihood of growing to maturity with minimum maintenance required by the County.

Additional Recommendations

We recommend that an ISA Certified arborist conduct assessment as needed during the construction phase to ensure proper protections occur at the correct time. We also recommend that a tree survey be conducted within six months after the construction phase is complete to assess tree root zone damage, tree health levels and identify new risk factors that may have occurred despite preventative measures put in place to protect the trees. The follow up assessment suggested would provide health recommendations and solutions to resolve inadvertent damage caused by construction and or identify new necessary removals.

Thank you for the opportunity to provide consulting arborist services to your agency. It has been a pleasure providing these services to you. If there are any questions or concerns regarding this report, please feel free to call our office at (209) 303-8729.

Signed,

Clyde Eric Britt, Certified Arborist
ISA Certification # WE-10169A

CB:ht

Appendix A: Arborist Disclaimer Statement

Arborists are tree specialists who use their education, knowledge, training and experience to examine trees, recommend measures to enhance the beauty and health of trees, and attempt to reduce the risk of living near trees. The arborists at American Tree Medics Inc are certified through the International Society of Arboriculture (ISA) and acquire annual continuing education units (CEUs) to maintain knowledge in the field. It is highly recommended that you follow the arborist recommendations. However, you may choose to disregard these recommendations or seek a second opinion.

Arborists cannot detect every condition that can lead to the structural failure of a tree. Trees are living organisms that fail in ways we do not fully understand. Conditions are often hidden within trees and underground. Environmental factors may also contribute and are subject to change without notice. Arborists cannot guarantee that a tree will be healthy or safe under all circumstances, present or future, or for a specific period of time. Likewise, remedial treatments performed cannot be guaranteed.

Any recommendations and/or performed treatments (including but not limited to removal) of trees may involve considerations beyond the scope of the arborist's services. These considerations may include property boundaries, property ownership, site lines, and disputes between neighbors, underground utilities, overhead utility lines, non-visible construction features, and any other related issues. Arborists cannot take these issues into consideration without comprehensive, complete and accurate information regarding all such considerations is disclosed to the arborist.

Care has been taken to obtain all information from reliable sources. All data has been verified insofar as possible. However, the arborist can neither guarantee nor be responsible for the accuracy of information provided by others. The arborist or any staff at American Tree Medics Inc will not be required to give testimony or to attend court by reason of this report unless additional contractual arrangements are made, including payment of an additional fee for such services as described in the fee schedule and contract of engagement.

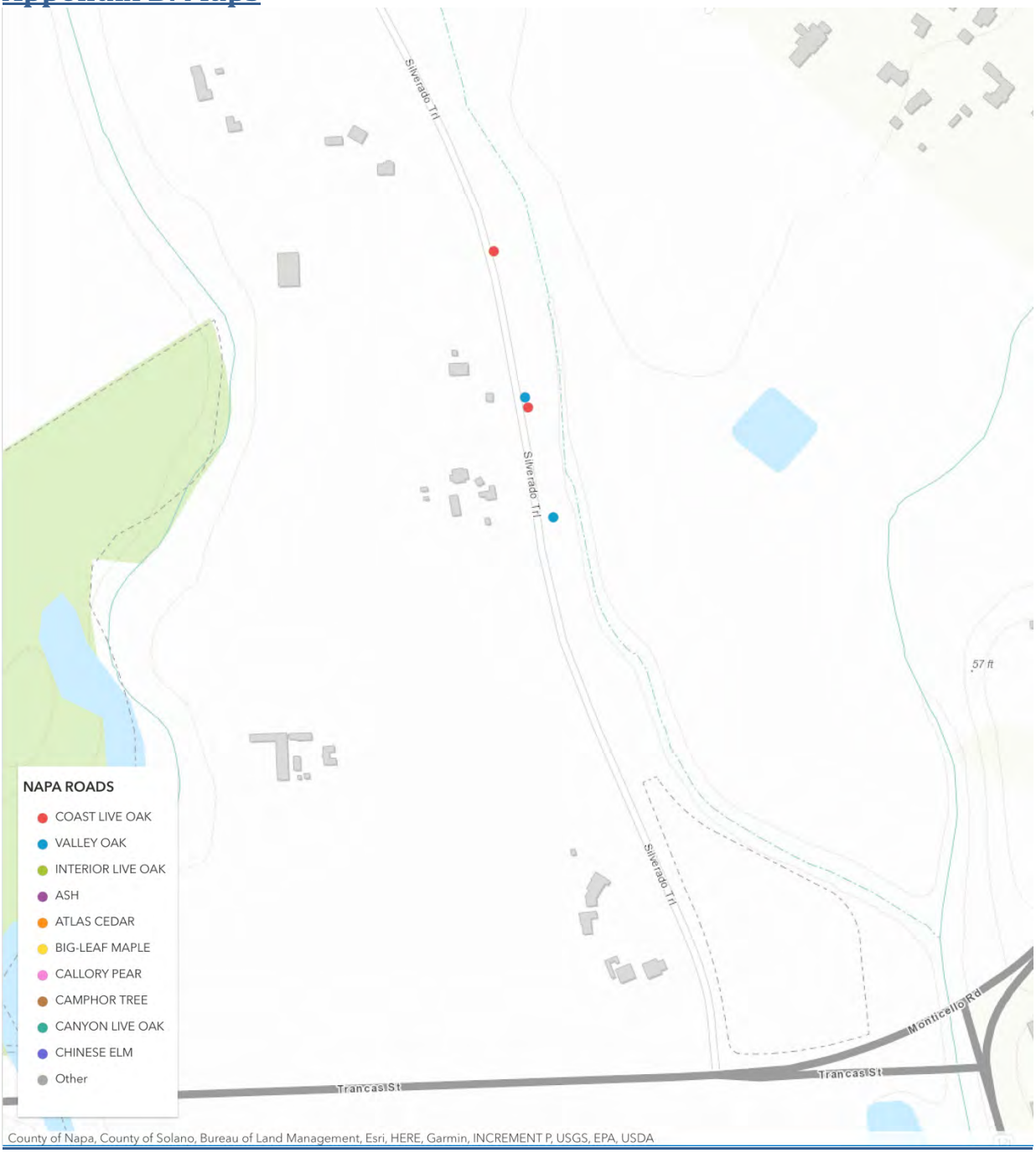
Loss or alternation of any part of this report invalidates the entire report. Possession of this report or a copy thereof does not imply right of publication or use for any purpose by any other person to whom it is addressed, without written consent from the arborist or American Tree Medics Inc.

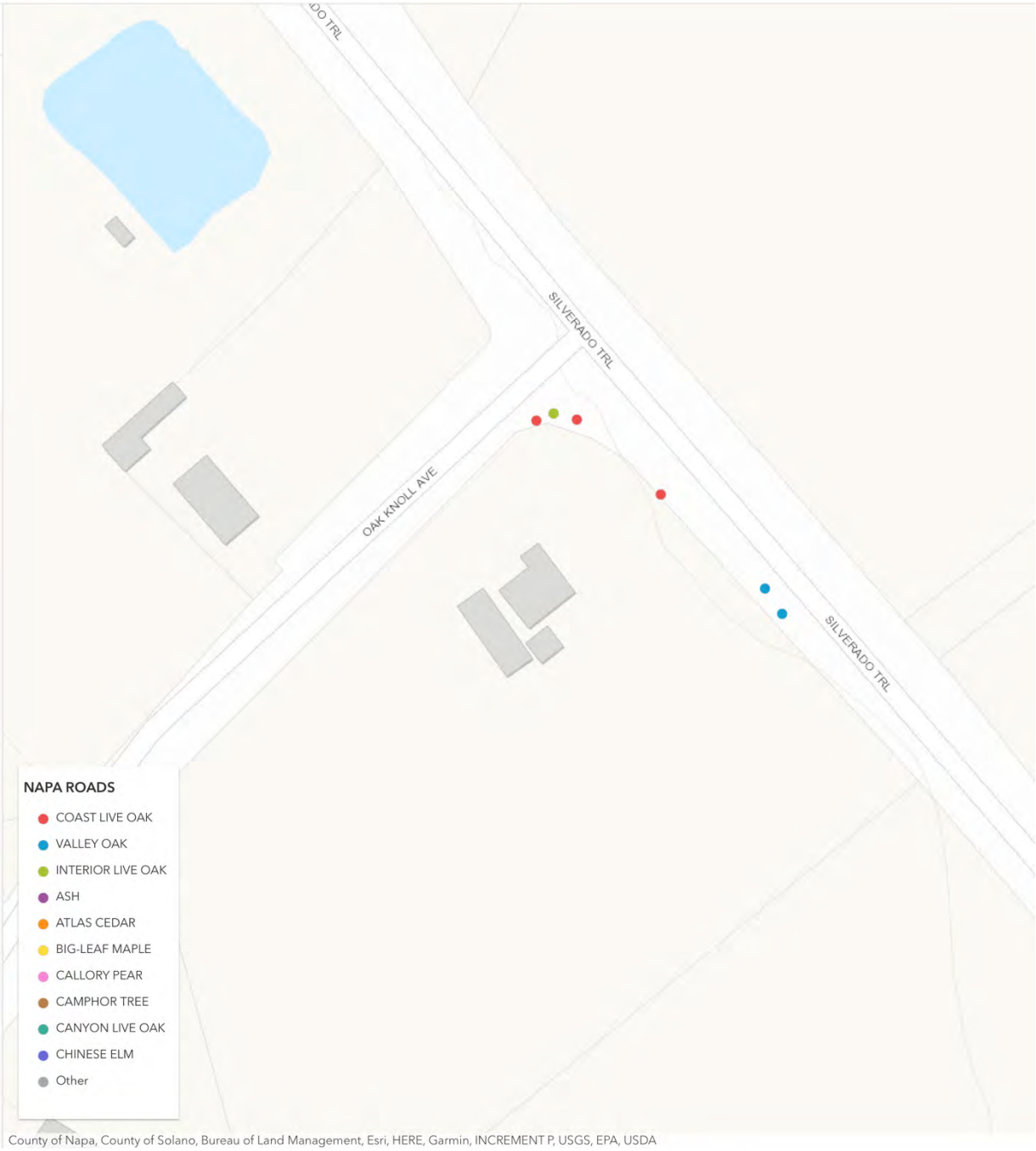
This report and any values expressed herein represent the opinion of the arborist, and the arborist's fee is in no way contingent upon the reporting of a stipulated result, a specified value, the occurrence of a subsequent event, nor upon any finding to be reported.

Finally, trees can be managed, but they cannot be controlled. To live near trees is to accept some degree of risk. Trees carry risk. The only way to eliminate all risks associated with trees is to eliminate all trees.

END DISCLAIMER.

Appendix B: Maps




SILVERADO TRL
OAK KNOLL AVE
SILVERADO TRL
NAPA ROADS
COAST LIVE OAK
VALLEY OAK
INTERIOR LIVE OAK
ASH
ATLAS CEDAR
BIG-LEAF MAPLE
CALLORY PEAR
CAMPHOR TREE
CANYON LIVE OAK
CHINESE ELM
Other
County of Napa, County of Solano, Bureau of Land Management, Esri, HERE, Garmin, INCREMENT P, USGS, EPA, USDA

Appendix C: Photos

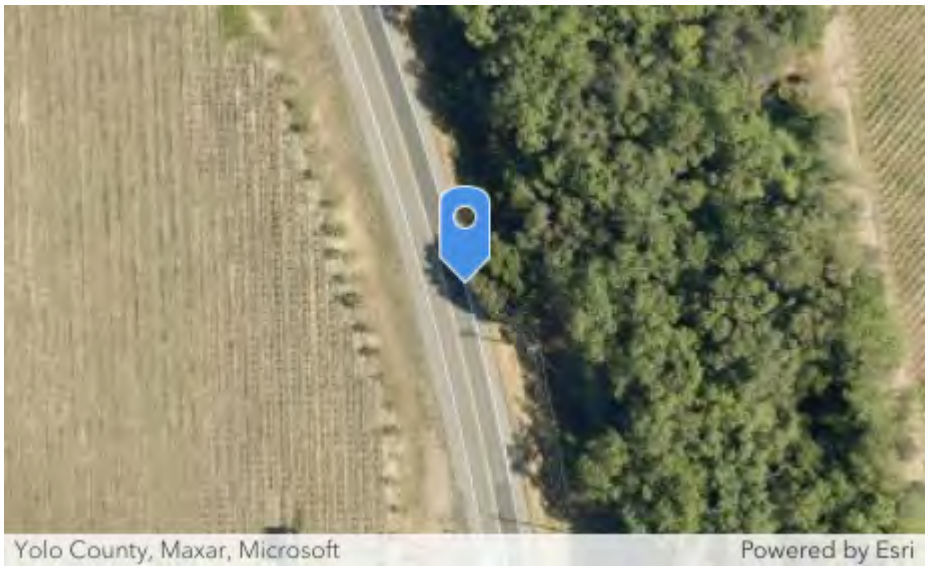
NAPA TREE ASSESSMENT

Submitted By: kyler_atminc

Submitted Time: June 6, 2025 12:12 PM

Creation Time: June 13, 2025 12:14 PM

LOCATION



ARBORIST

CLYDE BRITT

TREE ID NUMBER

1

SPECIES

COAST LIVE OAK

HEIGHT

36’

DBH

52”

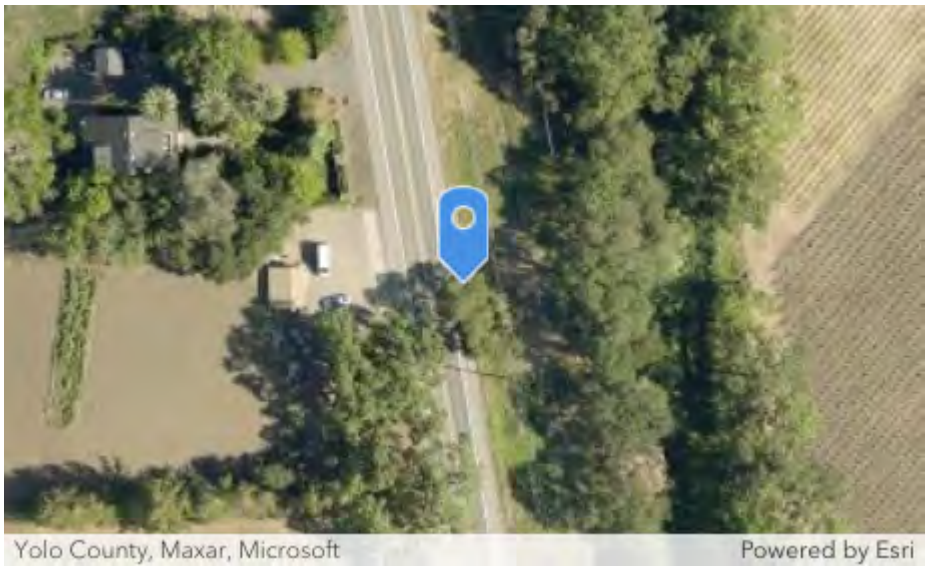
NAPA TREE ASSESSMENT

Submitted By: kyler_atminc

Submitted Time: June 6, 2025 12:19 PM

Creation Time: June 13, 2025 12:14 PM

LOCATION



ARBORIST

CLYDE BRITT

TREE ID NUMBER

2

SPECIES

VALLEY OAK

HEIGHT

42’

DBH

20’

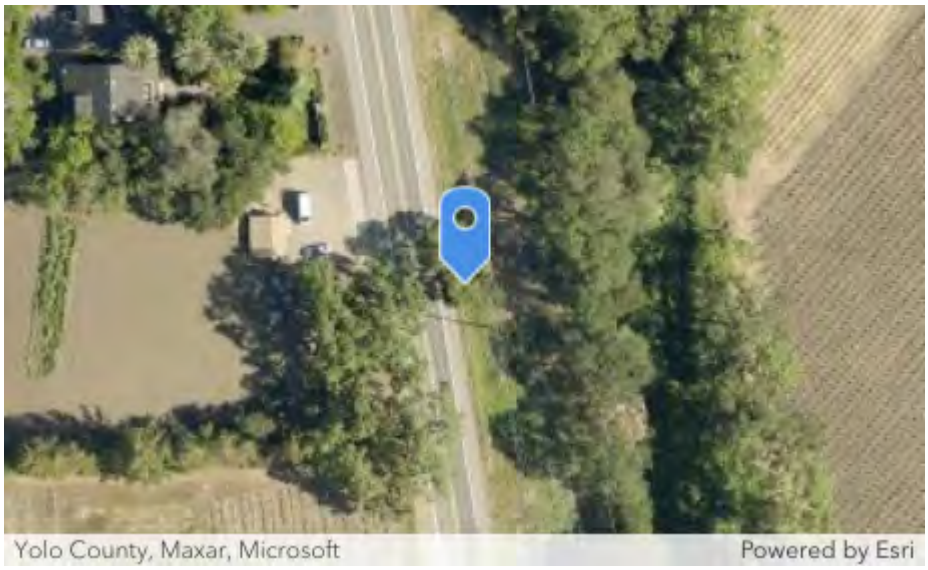
NAPA TREE ASSESSMENT

Submitted By: kyler_atminc

Submitted Time: June 6, 2025 12:23 PM

Creation Time: June 13, 2025 12:14 PM

LOCATION



ARBORIST

CLYDE BRITT

TREE ID NUMBER

3

SPECIES

COAST LIVE OAK

HEIGHT

35’

DBH

46’

NAPA TREE ASSESSMENT

Submitted By: kyler_atminc

Submitted Time: June 6, 2025 12:30 PM

Creation Time: June 13, 2025 12:14 PM

LOCATION

ARBORIST

CLYDE BRITT

TREE ID NUMBER

4

SPECIES

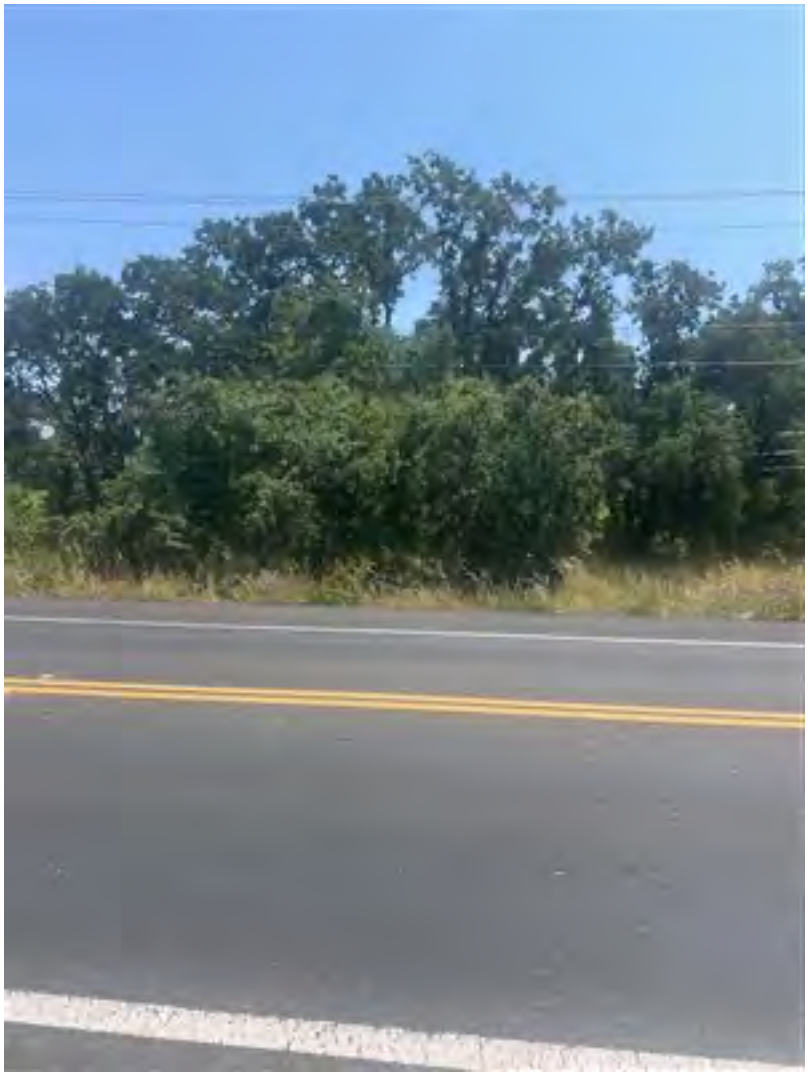
VALLEY OAK

HEIGHT

33’

DBH

44’



NAPA TREE ASSESSMENT

Submitted By: kyler_atminc

Submitted Time: June 6, 2025 12:53 PM

Creation Time: June 13, 2025 12:14 PM

LOCATION

ARBORIST

CLYDE BRITT

TREE ID NUMBER

5

SPECIES

COAST LIVE OAK

HEIGHT

28’

DBH

37’

NAPA TREE ASSESSMENT

Submitted By: kyler_atminc

Submitted Time: June 6, 2025 12:58 PM

Creation Time: June 13, 2025 12:14 PM

LOCATION

ARBORIST

CLYDE BRITT

TREE ID NUMBER

6

SPECIES

INTERIOR LIVE OAK

HEIGHT

15’

DBH

9”

NAPA TREE ASSESSMENT

Submitted By: kyler_atminc

Submitted Time: June 6, 2025 1:34 PM

Creation Time: June 13, 2025 12:14 PM

LOCATION

ARBORIST

CLYDE BRITT

TREE ID NUMBER

7

SPECIES

COAST LIVE OAK

HEIGHT

22’

DBH

26’

NAPA TREE ASSESSMENT

Submitted By: kyler_atminc

Submitted Time: June 6, 2025 1:38 PM

Creation Time: June 13, 2025 12:14 PM

LOCATION

ARBORIST

CLYDE BRITT

TREE ID NUMBER

8

SPECIES

COAST LIVE OAK

HEIGHT

33’6

DBH

24

NAPA TREE ASSESSMENT

Submitted By: kyler_atminc

Submitted Time: June 6, 2025 1:43 PM

Creation Time: June 13, 2025 12:14 PM

LOCATION

ARBORIST

CLYDE BRITT

TREE ID NUMBER

9

SPECIES

VALLEY OAK

HEIGHT

38’

DBH

37’

NAPA TREE ASSESSMENT

Submitted By: kyler_atminc

Submitted Time: June 6, 2025 1:46 PM

Creation Time: June 13, 2025 12:14 PM

LOCATION

ARBORIST

CLYDE BRITT

TREE ID NUMBER

10

SPECIES

VALLEY OAK

HEIGHT

28’

DBH

18

Appendix D: Tree ID List

TREE ID	SPECIES	HEIGHT	DBH	DISTANCE TO EDGE OF PAVEMENT	REMOVAL (YES OR NO)	NOTES	Longitude	Latitude
1	COAST LIVE OAK	36’	52”	12’9”	YES	3 stem coastal live oak ya	-122.2792924	38.33200735
2	VALLEY OAK	42’	20’	16’	YES	Remove	-122.2789618	38.33078399
3	COAST LIVE OAK	35’	46’	16’7	YES	3x stem	-122.2789223	38.33070036
4	VALLEY OAK	33’	44’	21’	YES	5x stem	-122.2786607	38.32977881
5	COAST LIVE OAK	28’	37’	8’7	YES	3x stem. Trunk is at the limit of the new EP and will be adversely affected by construction, and likely impede work. In decline due to repeated topping by utility work. Unlikely to survive construction activity.	-122.3010266	38.36983057
6	INTERIOR LIVE OAK	15’	9”	12’	YES	2x stem. Root zone is 9’ circumference from trunk. Construction will affect root zone. Removal recommended.	-122.3009815	38.3698448
7	COAST LIVE OAK	22’	26’	13’	YES	3x stem.Root zone extends into construction zone, shallow roots in ROW , location of tree will obstruct view. Recommend removal.	-122.3009218	38.36983203
8	COAST LIVE OAK	33’6	24	8’6	YES	Trunk within construction zone. Must remove.	-122.3006979	38.36967667
9	VALLEY OAK	38’	37’	8’	YES	2x stem. Trunk within construction zone. Must remove.	-122.300421	38.36948077
10	VALLEY OAK	28’	18	8’	YES	Trunk within construction zone. Must remove.	-122.300376	38.36942918

Appendix E: Project Specification Maps


16' from EP starting 53' from edge of driveway entrance to private property
23' from EP adjacent to this OH pole
23'-3" from EP adjacent to this OH pole
21'-6" from EP adjacent to this OH pole
21'-10" from EP adjacent to this OH pole
LIMITS OF ROADWAY WIDENING/GRADING
18'-9" from EP adjacent to this OH pole
15' from EP across from this set of 2 trees
SILVERADO TRAIL
DRIVEWAY
LIMITS OF ROADWAY WIDENING/GRADING
STRAWBERRY PATCH


3' from EP starting adjacent to this OH pole
LIMITS OF ROADWAY WIDENING/GRADING
LIMITS OF ROADWAY WIDENING/GRADING
SILVERADO TRAIL
108+00
109+00
110+00
111+00
112+00
113+00
Widens to 15'-10" widening adjacent to this OH pole
9'-3" from EP adjacent to this inlet
5'-4" from EP adjacent to the stop sign
16'-4" from EP at 37'-8" from tree
3' from EP starting adjacent to this OH pole
8'-7" from EP adjacent to this tree
3' from EP starting at 56.5' from beginning of the white stripe
3' from EP starting at 43' from OH pole
OAK KNOLL AVENUE
37'-8"
16'-4"
15'-10"
9'-3"
5'-4"
8'-7"
56'-6"
43'-0"
3'-0"
3'-0"

END REPORT.

AMERICAN TREE MEDICS INC
1748 Miles Court, Suite A, Merced CA 95348 | (209) 303-8729
AmericanTreeMedics.com

18 December 2025

TO: Sydney Barclay
Napa County Public Works Department

RE: Napa Silverado Trail Certified Arborist Report Addendum 2:
HSIP Cycle 11 Silverado Trail – Strawberry Stand Turning Lane Improvements

This document provides additional information regarding the two questions posed below from NCPWD on November 20, 2025:

1. *Tree ID number 1, the 36' tall coast live oak seems to be outside of the grading limits for the project, as we've shifted the left turn lane widening to move the project improvements outside of the County's floodplain. It seems we no longer need to remove this tree, but we'd like to confirm your team also agrees.*

The tree in question has been confirmed to be TREE #4 of the original report, the southern-most tree of the project, a Valley Oak (33 in Height, 44 in DBH). This tree is confirmed to be OUTSIDE the new project area. This tree should not be removed. The tree may need to be side-trimmed or have limb(s) removed to support to provide clearance for construction, but that activity is unlikely to be detrimental to the health of the tree.

TREE #1 (the Northern-most tree in the Strawberry Patch region) will still be affected by construction, and recommendation to remove remains in place. Image 1 below shows the revised construction zone.

AMERICAN TREE MEDICS INC
1748 Miles Court, Suite A, Merced CA 95348 | (209) 303-8729
AmericanTreeMedics.com

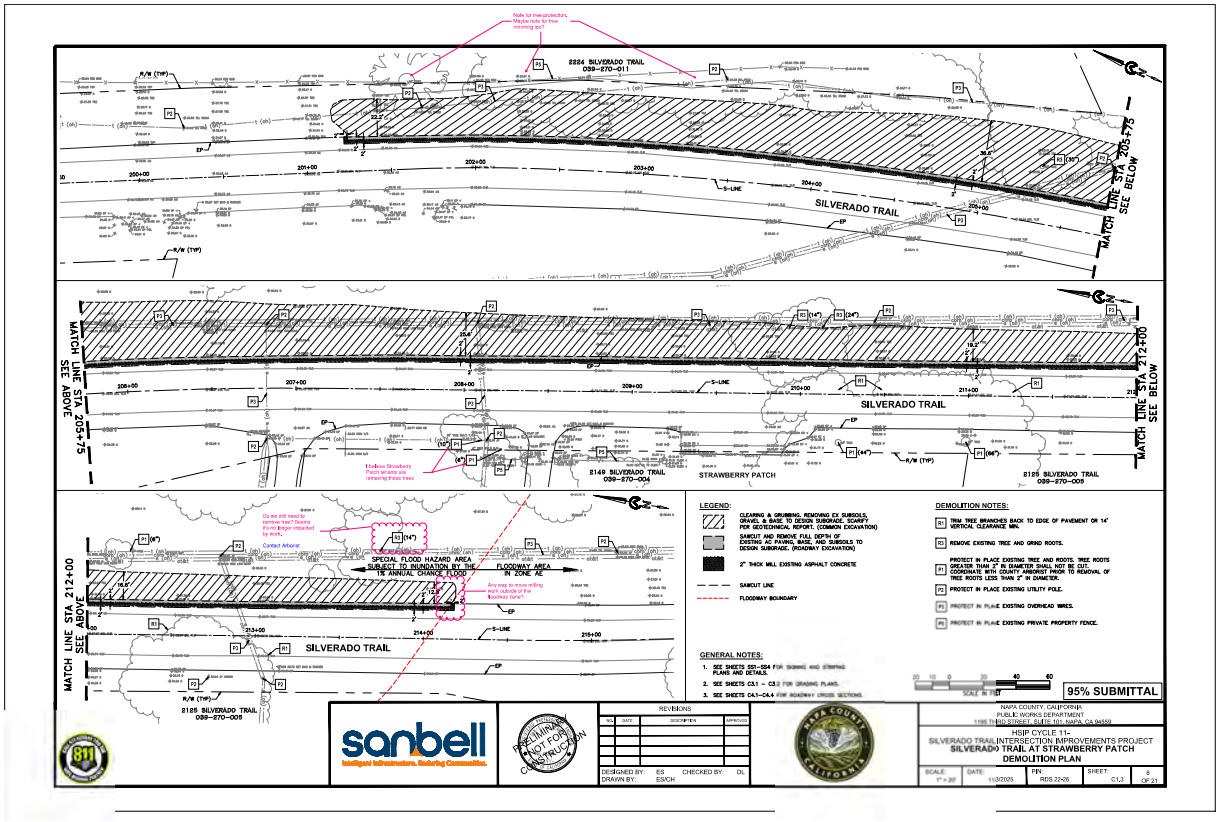


Image 1 Source: Napa County Public Works

2. *Review Section 20 "Landscape and Irrigation" which addresses the new oak tree replacement plantings we're proposing with this project and confirm these provisions are sufficient for the proposed plantings?*

Section 20 of the Technical Specifications for the project are sufficient. One note of concern is detailed below.

The County will be replacing trees removed under a powerline in the utility right of way. As a result, native oaks may not be the best option, given the utility's requirement to trim trees annually if needed to minimize height to avoid risk to the power facilities. We are recommending the County consider alternative tree species to replace the

removed trees, if the County can do so. The following are recommended replacement species, and additional information on each. The first species is an oak species, if regulation requires County must plant oaks.

OAK SPECIES REPLACEMENT RECOMMENDATIONS

Coastal Live Oak

- Plant in full sunlight, spaced at least 20 feet apart.
- Water soil deeply before planting.
- Water soil occasionally (at least once every two weeks, until established). Water at the drip line, not the trunk or base of the tree.
- A wire cage can be utilized to protect the tree from rodents and deer for the first 2 years until the tap root is developed.
- Trees should be planted in late fall or early winter.
- Liquid vitamin B1 and a liquid multi-vitamin supplement should be used at the time of planting, as well as one bag of mulch and fertilizer per tree (containing bat guano, and mycorrhizae) per tree.

Valley Oak

- Plant in full sunlight, spaced at least 20 feet apart.
- Water soil deeply before planting.
- Use native soil only.
- Requires deep watering at the drip line every two weeks for the first two to three years.
- Must be watered regularly during the first two summers.
- A wire cage can be utilized to protect the tree from rodents and deer for the first 2 years until the tap root is developed.
- Trees should be planted in late fall or early winter.
- Liquid vitamin B1 and a liquid multi-vitamin supplement should be used at the time of planting.
- Avoid touching the trunk of the tree with mulch or water to avoid root rot.
- Mulch should consist of leaves wood chips, other organic material.

- Keep the tree free of weeds within two to three feet radius of its trunk for the first two years. This reduces competition between tree and weeds or grass during establishment.
- No fertilizer should be required.

POWERLINE-FRIENDLY ALTERNATIVES

While these trees are not members of the oak family, they thrive in oak woodlands, are a part of a healthy diverse oak woodland environment, are native to the Napa County area and do very well in this environment.

Redbud

- Must be watered weekly the first year and until established.
- Plant in full sunlight, spaced at least 8 to 10 feet apart.
- Trees should be planted in late fall or early winter.
- Liquid vitamin B1 and a liquid multi-vitamin supplement should be used at the time of planting, as well as one half-bag of mulch and fertilizer (containing bat guano, and mycorrhizae) per tree.
- Do not allow mulch to abut the trunk of the tree.
- A wire cage can be utilized to protect the tree from rodents and deer for the first 2 years until the tap root is developed.

California Buckeye

- Must be watered weekly the first year and until established.
- Plant in full sunlight, spaced at least 15 to 20 feet apart.
- Trees should be planted in late fall or early winter.
- Liquid vitamin B1 and a liquid multi-vitamin supplement should be used at the time of planting, as well as one bag of mulch and fertilizer (containing bat guano, and mycorrhizae) per tree.
- Mulch consisting of wood chips, leaves and other organic material should be placed 1 foot from trunk to about 8 to 10 feet from tree, and be three inches deep.
- Do not allow mulch to abut the trunk of the tree.
- A wire cage can be utilized to protect the tree from rodents and deer for the first 2 years until the tap root is developed.

Toyon

- Must be watered weekly for the first one to two years and spaced 8 to 10 feet apart.
- Plant in full sunlight.
- Fire-resistant species that produces flowers that attract bees and butterflies, and berries that feed birds through winter.
- Trees should be planted in late fall or early winter.
- A wire cage can be utilized to protect the tree from rodents and deer for the first 2 years until the tap root is developed.

As always, my firm and I are available to answer additional questions, support the County's vegetation removal and replacement projects, and provide additional support as needed. Thank you for including ATM in your project!

Signed,

Clyde Britt
ISA Arborist WE10169A

Appendix C: Summary Floodplain Evaluation Memorandum

Subject: **Summary Floodplain Evaluation Memorandum**
Project: HSIPSL – 5291 (090) – Silverado Trail Intersection Improvements
Agency: Napa County
Date: December 15, 2025
Prepared By: Sanbell – Bay Area

Project Overview

The Silverado Trail Intersection Improvements project includes improvements at three (3) locations on Silverado Trail in Napa County: Zinfandel Lane, Oak Knoll Avenue, and the Strawberry Patch. All three project locations will have upgraded signage and modified striping. In addition, the work at Oak Knoll Avenue will involve new roadway widening for right turn pockets at the southbound Silverado Trail approach to Oak Knoll Avenue and at the eastbound Oak Knoll Avenue approach to Silverado Trail. The Strawberry Patch location will also involve roadway widening on the east side of Silverado Trail for new left turn pocket and northbound acceleration lane. The roadway widening at the Strawberry Patch includes regrading the eastern side slope of Silverado Trail for approximately 1,300 lineal feet, per recommendations from the project geotechnical report. New flashing beacons and solar-powered streetlights will be installed at the Zinfandel and Oak Knoll locations. Minor storm drain catch basin modifications will be made at the Oak Knoll intersection.

Summary Floodplain Evaluation

Based on available Federal Emergency Management Agency (FEMA) flood maps associated with the Napa River area, the project locations are within the following flood areas:

- Location 1: Silverado Trail/ Zinfandel Lane intersection
  - Outside of floodplain
- Location 2: Silverado Trail/Oak Knoll Avenue intersection
  - Zone AE – base flood elevation approximately 61’
- Location 3: The Strawberry Patch (2149 Silverado Trail)
  - Zone AE – base flood elevation range of 31’-34’

The Zone AE designation indicates Locations 2 and 3 are located within a special flood hazard area and are subject to inundation by the 1% annual chance flood (100-year flood), with base flood elevations determined. Refer to Exhibit A for the detailed flood maps:

- Zinfandel: FIRM – Map Number 06055C0385E
- Oak Knoll: FIRM – Map Number 06055C0510F
- Strawberry Patch: FIRM – Map Number 06055C0509F

Location 2: At Location 2 there are project improvements that encroach in the floodplain, which includes widening for new right turn pockets both on the northwest side of the Oak Knoll intersection and on the southwest side of the intersection. The proposed project improvements are within the floodplain, but remain outside of the regulatory floodway.

Location 3: At Location 3 there are project improvements that encroach in the floodplain, which includes widening on the east side of Silverado Trail. This encroachment is within the floodplain but remains outside of the regulatory floodway. Minor roadway restriping will take place within the regulatory floodway, but no roadway widening or excavation will occur in the floodway limits.

Location Hydraulic Study – No Significant Encroachment

The California Department of Transportation (Caltrans) prepared a memorandum for low-risk projects to the regulatory floodway and base floodplain entitled "Floodplain Encroachment Location Hydraulic Study (LHS) Memo – No Significant Encroachment" (Exhibit B). The document states that if a project is subject to the following conditions, then the memo is sufficient for floodplain encroachment documentation:

- The Project includes an encroachment as defined under 23 CFR 650.105(e) using the process described under 650.111(a)
    - *The Project does include an encroachment within the base floodplain as defined under 23 CFR 650.105(e).*
- The Project either: (i) will not have a longitudinal encroachment (parallel to the direction of flow); or (ii) if including a longitudinal encroachment, does not have practicable alternatives to such encroachment (consistent with policy at 23 CFR 650.103(b) and requirement at 650.111(b);
    - *The Project does have a longitudinal encroachment at Strawberry Patch, and there are no practicable alternatives to this design. The roadway is being widened at this location for the installation of a left turn pocket in order to reduce traffic collisions. Per geotechnical recommendations, the side slope needs to be regraded for earthwork stability.*
- The Project does not support base flood-plain development as defined under in 23 CFR 650.105(r).
    - *The Project will not "encourage, allow, serve, or otherwise facilitate additional base flood-plain development" as described by 23 CFR 650.105(r).*
- The Project will not have a significant encroachment as defined in 23 CFR 650.105(q).
    - *The Project will not:*

    - *Have significant potential for interruption or termination of a transportation facility which is needed for emergency vehicles or provides a community's only evacuation route*
    - *Be a significant risk*
    - *Have a significant adverse impact on natural and beneficial floodplain values as described by 23 CFR 650.105(q).*
- The Project will not have significant impacts to natural and beneficial floodplain values as defined under 23 CFR 650.105(i)
    - *The Project does not have a significant impact to natural and beneficial floodplain values, including fish, wildlife, plants, open space, natural beauty, scientific study, outdoor recreation, agriculture, aquaculture, forestry, natural moderation of floods, water quality maintenance, and groundwater recharge as described by 23 CFR 650.105(i).*
- The Project will not require mitigation measures necessary to minimize impacts or restore and preserve (as defined in 23 CFR 650.105 (n) and (l)) natural and beneficial floodplain values.
    - *The Project will not require mitigation measures necessary to minimize impacts or restore and preserve natural and beneficial floodplain values.*

Per the Caltrans Floodplain Encroachment Location Hydraulic Study (LHS) Memo – No Significant Encroachment, this project is low risk and will have minimal impact to the existing floodplain conditions.

Conclusion

The Silverado Trail Intersection Improvements Project will have no significant encroachment to the Napa River floodplain area. The Project adheres to the Caltrans Floodplain Encroachment Location Hydraulic Study (LHS) Memo – No Significant Encroachment and no additional floodplain encroachment documentation is required.

Please feel free to contact me at 925.685.4569 with any questions or comments regarding this memorandum.

Sincerely,

Daniel Leary, PE PTOE QSD

EXHIBIT A

NFIP FLOOD INSURANCE RATE MAPS (FIRMs)

NOTES TO USERS

This map is for use in administering the National Flood Insurance Program. It does not necessarily identify all areas subject to flooding, particularly from local drainage sources of small size. The **community map repository** should be consulted for possible updated or additional flood hazard information.

To obtain more detailed information in areas where **Base Flood Elevations** (BFEs) and/or **floodways** have been determined, users are encouraged to consult the Flood Profiles and Floodway Data and/or Summary of Stillwater Elevations tables contained within the Flood Insurance Study (FIS) report that accompanies this FIRM. Users should be aware that BFEs shown on the FIRM represent rounded whole-foot elevations. These BFEs are intended for flood insurance rating purposes only and should not be used as the sole source of flood elevation information. Accordingly, flood elevation data presented in the FIS report should be utilized in conjunction with the FIRM for purposes of construction and/or floodplain management.

Coastal Base Flood Elevations shown on this map apply only landward of 0.0' North American Vertical Datum of 1988 (NAVD 88). Users of this FIRM should be aware that coastal flood elevations are also provided in the Summary of Stillwater Elevations tables in the Flood Insurance Study report for this jurisdiction. Elevations shown in the Summary of Stillwater Elevations tables should be used for construction and/or floodplain management purposes when they are higher than the elevations shown on this FIRM.

Boundaries of the **floodways** were computed at cross sections and interpolated between cross sections. The floodways were based on hydraulic considerations with regard to requirements of the National Flood Insurance Program. Floodway widths and other pertinent floodway data are provided in the Flood Insurance Study report for this jurisdiction.

Certain areas not in Special Flood Hazard Areas may be protected by **flood control structures**. Refer to Section 2.4 "Flood Protection Measures" of the Flood Insurance Study report for information on flood control structures for this jurisdiction.

The **projection** used in the preparation of this map was California State Plane II zone. The **horizontal datum** was NAD 83, GRS80. Differences in datum, spheroid, projection or State Plane zones used in the production of FIRMs for adjacent jurisdictions may result in slight positional differences in map features across jurisdiction boundaries. These differences do not affect the accuracy of this FIRM.

Flood elevations on this map are referenced to the North American Vertical Datum of 1988. These flood elevations must be compared to structure and ground elevations referenced to the same **vertical datum**. For information regarding conversion between the National Geodetic Vertical Datum of 1929 and the North American Vertical Datum of 1988, visit the National Geodetic Survey website at http://www.ngs.noaa.gov or contact the National Geodetic Survey at the following address:

NGS Information Services
NOAA, N/NGS12
National Geodetic Survey
SSMC-3, #9202
1315 East-West Highway
Silver Spring, Maryland 20910-3282
(301) 713-3242

To obtain current elevation, description, and/or location information for **bench marks** shown on this map, please contact the Information Services Branch of the National Geodetic Survey at **(301) 713-3242**, or visit its website at http://www.ngs.noaa.gov.

Base map information shown on this FIRM was provided in digital format by Napa County Information Technology Services Department. This information was derived from digital orthophotos produced at a scale of 1:4,800 with 1-foot ground sample distance from photography dated April 2002.

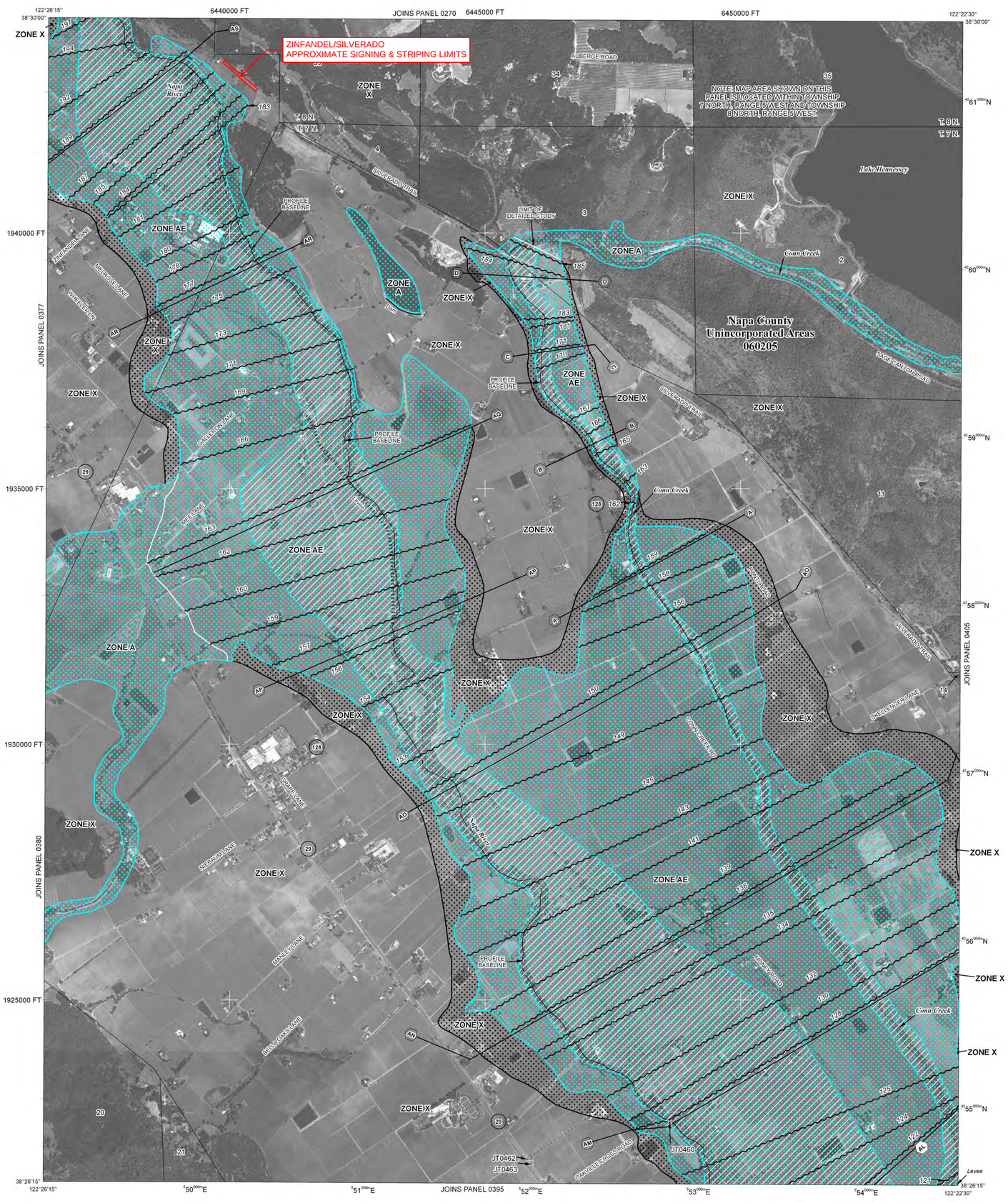
This map reflects more detailed and up-to-date **stream channel configurations** than those shown on the previous FIRM for this jurisdiction. The floodplains and floodways that were transferred from the previous FIRM may have been adjusted to conform to these new stream channel configurations. As a result, the Flood Profiles and Floodway Data tables in the Flood Insurance Study Report (which contains authoritative hydraulic data) may reflect stream channel distances that differ from what is shown on this map.

Corporate limits shown on this map are based on the best data available at the time of publication. Because changes due to annexations or de-annexations may have occurred after this map was published, map users should contact appropriate community officials to verify current corporate limit locations.

Please refer to the separately printed **Map Index** for an overview map of the county showing the layout of map panels; community map repository addresses; and a Listing of Communities table containing National Flood Insurance Program dates for each community as well as a listing of the panels on which each community is located.

Contact the **FEMA Map Service Center** at 1-800-358-9616 for information on available products associated with this FIRM. Available products may include previously issued Letters of Map Change, a Flood Insurance Study report, and/or digital versions of this map. The FEMA Map Service Center may also be reached by Fax at 1-800-358-9620 and its website at http://msc.fema.gov.

If you have **questions about this map** or questions concerning the National Flood Insurance Program in general, please call **1-877-FEMA MAP** (1-877-336-2627) or visit the FEMA website at http://www.fema.gov.



LEGEND

SPECIAL FLOOD HAZARD AREAS SUBJECT TO INUNDATION BY THE 1% ANNUAL CHANCE FLOOD

The 1% annual flood (100-year flood), also known as the base flood, is the flood that has a 1% chance of being equaled or exceeded in any given year. The Special Flood Hazard Area is the area subject to flooding by the 1% annual chance flood. Areas of Special Flood Hazard include Zones A, AE, AH, AO, AR, A99, V, and VE. The Base Flood Elevation is the water-surface elevation of the 1% annual chance flood.

ZONE A	No Base Flood Elevations determined.
ZONE AE	Base Flood Elevations determined.
ZONE AH	Flood depths of 1 to 3 feet (usually areas of ponding); Base Flood Elevations determined.
ZONE AO	Flood depths of 1 to 3 feet (usually sheet flow on sloping terrain); average depths determined. For areas of alluvial fan flooding, velocities also determined.
ZONE AR	Special Flood Hazard Area formerly protected from the 1% annual chance flood by a flood control system that was subsequently decertified. Zone AR indicates that the former flood control system is being restored to provide protection from the 1% annual chance or greater flood.
ZONE A99	Area to be protected from 1% annual chance flood by a Federal flood protection system under construction; no Base Flood Elevations determined.
ZONE V	Coastal flood zone with velocity hazard (wave action); no Base Flood Elevations determined.
ZONE VE	Coastal flood zone with velocity hazard (wave action); Base Flood Elevations determined.

FLOODWAY AREAS IN ZONE AE

The floodway is the channel of a stream plus any adjacent floodplain areas that must be kept free of encroachment so that the 1% annual chance flood can be carried without substantial increases in flood heights.

OTHER FLOOD AREAS

ZONE X	Areas of 0.2% annual chance flood; areas of 1% annual chance flood with average depths of less than 1 foot or with drainage areas less than 1 square mile; and areas protected by levees from 1% annual chance flood.

OTHER AREAS

ZONE X	Areas determined to be outside the 0.2% annual chance floodplain.
ZONE D	Areas in which flood hazards are undetermined, but possible.

COASTAL BARRIER RESOURCES SYSTEM (CBRS) AREAS

OTHERWISE PROTECTED AREAS (OPAs)

CBRS areas and OPAs are normally located within or adjacent to Special Flood Hazard Areas.

- 1% annual chance floodplain boundary
- 0.2% annual chance floodplain boundary
- Floodway boundary
- Zone D boundary
- CBRS and OPA boundary
- Boundary dividing Special Flood Hazard Area Zones and boundary dividing Special Flood Hazard Areas of different Base Flood Elevations, flood depths or flood velocities.
- 513 — Base Flood Elevation line and value; elevation in feet*
- (EL. 987) — Base Flood Elevation value where uniform within zone; elevation in feet*

* Referenced to the North American Vertical Datum of 1988

- A — A — Cross section line
- 23 — — — 23 — Transect line
- 87°07'45", 32°22'30" — Geographic coordinates referenced to the North American Datum of 1983 (NAD 83), Western Hemisphere
- 4276000 N — 1000-meter Universal Transverse Mercator grid values, zone 10
- 600000 FT — 5000-foot grid ticks: California State Plane coordinate system, zone II (FIPSZONE 0402), Lambert Conformal Conic projection
- DX5510 × — Bench mark (see explanation in Notes to Users section of this FIRM panel)
- ●M1.5 — River Mile

MAP REPOSITORY
Refer to listing of Map Repositories on Map Index

EFFECTIVE DATE OF COUNTYWIDE FLOOD INSURANCE RATE MAP
September 26, 2008

EFFECTIVE DATE(S) OF REVISION(S) TO THIS PANEL

For community map revision history prior to countywide mapping, refer to the Community Map History table located in the Flood Insurance Study report for this jurisdiction.

To determine if flood insurance is available in this community, contact your Insurance agent or call the National Flood Insurance Program at 1-800-638-6620.

MAP SCALE 1" = 1000'
500 0 1000 2000 FEET
300 0 300 600 METERS

NFIP
NATIONAL FLOOD INSURANCE PROGRAM

PANEL 0385E

FIRM
FLOOD INSURANCE RATE MAP

NAPA COUNTY, CALIFORNIA AND INCORPORATED AREAS

PANEL 385 OF 650
(SEE MAP INDEX FOR FIRM PANEL LAYOUT)

CONTAINS:

COMMUNITY	NUMBER	PANEL	SUFFIX
NAPA COUNTY	060205	0385	E

Notice to User: The **Map Number** shown below should be used when placing map orders; the **Community Number** shown above should be used on insurance applications for the subject community.

MAP NUMBER
06055C0385E

EFFECTIVE DATE
SEPTEMBER 26, 2008

Federal Emergency Management Agency

NOTES TO USERS

This map is for use in administering the National Flood Insurance Program. It does not necessarily identify all areas subject to flooding, particularly from local drainage sources of small size. The **community map repository** should be consulted for possible updated or additional flood hazard information.

To obtain more detailed information in areas where **Base Flood Elevations** (BFEs) and/or **floodways** have been determined, users are encouraged to consult the Flood Profiles and Floodway Data and/or Summary of Stillwater Elevations tables contained within the Flood Insurance Study (FIS) report that accompanies this FIRM. Users should be aware that BFEs shown on the FIRM represent rounded whole-foot elevations. These BFEs are intended for flood insurance rating purposes only and should not be used as the sole source of flood elevation information. Accordingly, flood elevation data presented in the FIS report should be utilized in conjunction with the FIRM for purposes of construction and/or floodplain management.

Coastal Base Flood Elevations shown on this map apply only landward of 0.0' North American Vertical Datum of 1988 (NAVD 88). Users of this FIRM should be aware that coastal flood elevations are also provided in the Summary of Stillwater Elevations tables in the Flood Insurance Study report for this jurisdiction. Elevations shown in the Summary of Stillwater Elevations tables should be used for construction and/or floodplain management purposes when they are higher than the elevations shown on this FIRM.

Boundaries of the **floodways** were computed at cross sections and interpolated between cross sections. The floodways were based on hydraulic considerations with regard to requirements of the National Flood Insurance Program. Floodway widths and other pertinent floodway data are provided in the Flood Insurance Study report for this jurisdiction.

Certain areas not in Special Flood Hazard Areas may be protected by **flood control structures**. Refer to Section 2.4 "Flood Protection Measures" of the Flood Insurance Study report for information on flood control structures for this jurisdiction.

The **projection** used in the preparation of this map was California State Plane II zone. The **horizontal datum** was NAD 83, GRS80. Differences in datum, spheroid, projection or State Plane zones used in the production of FIRMs for adjacent jurisdictions may result in slight positional differences in map features across jurisdiction boundaries. These differences do not affect the accuracy of this FIRM.

Flood elevations on this map are referenced to the North American Vertical Datum of 1988. These flood elevations must be compared to structure and ground elevations referenced to the same **vertical datum**. For information regarding conversion between the National Geodetic Vertical Datum of 1929 and the North American Vertical Datum of 1988, visit the National Geodetic Survey website at http://www.ngs.noaa.gov or contact the National Geodetic Survey at the following address:

NGS Information Services
NOAA, N/NGS12
National Geodetic Survey
SSMC-3, #9202
1315 East-West Highway
Silver Spring, Maryland 20910-3282
(301) 713-3242

To obtain current elevation, description, and/or location information for **bench marks** shown on this map, please contact the Information Services Branch of the National Geodetic Survey at **(301) 713-3242**, or visit its website at http://www.ngs.noaa.gov.

Base map information shown on this FIRM was provided in digital format by Napa County Information Technology Services Department. This information was derived from digital orthophotos produced at a scale of 1:4,800 with 1-foot ground sample distance from photography dated April 2002.

This map reflects more detailed and up-to-date **stream channel configurations** than those shown on the previous FIRM for this jurisdiction. The floodplains and floodways that were transferred from the previous FIRM may have been adjusted to conform to these new stream channel configurations. As a result, the Flood Profiles and Floodway Data tables in the Flood Insurance Study Report (which contains authoritative hydraulic data) may reflect stream channel distances that differ from what is shown on this map.

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Please refer to the separately printed **Map Index** for an overview map of the county showing the layout of map panels; community map repository addresses; and a Listing of Communities table containing National Flood Insurance Program dates for each community as well as a listing of the panels on which each community is located.

Contact the **FEMA Map Service Center** at 1-800-358-9616 for information on available products associated with this FIRM. Available products may include previously issued Letters of Map Change, a Flood Insurance Study report, and/or digital versions of this map. The FEMA Map Service Center may also be reached by Fax at 1-800-358-9620 and its website at http://msc.fema.gov.

If you have **questions about this map** or questions concerning the National Flood Insurance Program in general, please call **1-877-FEMA MAP** (1-877-336-2627) or visit the FEMA website at http://www.fema.gov.

LEGEND

SPECIAL FLOOD HAZARD AREAS SUBJECT TO INUNDATION BY THE 1% ANNUAL CHANCE FLOOD

The 1% annual flood (100-year flood), also known as the base flood, is the flood that has a 1% chance of being equaled or exceeded in any given year. The Special Flood Hazard Area is the area subject to flooding by the 1% annual chance flood. Areas of Special Flood Hazard include Zones A, AE, AH, AO, AR, A99, V, and VE. The Base Flood Elevation is the water-surface elevation of the 1% annual chance flood.

ZONE A	No Base Flood Elevations determined.
ZONE AE	Base Flood Elevations determined.
ZONE AH	Flood depths of 1 to 3 feet (usually areas of ponding); Base Flood Elevations determined.
ZONE AO	Flood depths of 1 to 3 feet (usually sheet flow on sloping terrain); average depths determined. For areas of alluvial fan flooding, velocities also determined.
ZONE AR	Special Flood Hazard Area formerly protected from the 1% annual chance flood by a flood control system that was subsequently decertified. Zone AR indicates that the former flood control system is being restored to provide protection from the 1% annual chance or greater flood.
ZONE A99	Area to be protected from 1% annual chance flood by a Federal flood protection system under construction; no Base Flood Elevations determined.
ZONE V	Coastal flood zone with velocity hazard (wave action); no Base Flood Elevations determined.
ZONE VE	Coastal flood zone with velocity hazard (wave action); Base Flood Elevations determined.

FLOODWAY AREAS IN ZONE AE

The floodway is the channel of a stream plus any adjacent floodplain areas that must be kept free of encroachment so that the 1% annual chance flood can be carried without substantial increases in flood heights.

OTHER FLOOD AREAS

ZONE X	Areas of 0.2% annual chance flood; areas of 1% annual chance flood with average depths of less than 1 foot or with drainage areas less than 1 square mile; and areas protected by levees from 1% annual chance flood.

OTHER AREAS

ZONE X	Areas determined to be outside the 0.2% annual chance floodplain.
ZONE D	Areas in which flood hazards are undetermined, but possible.

COASTAL BARRIER RESOURCES SYSTEM (CBRS) AREAS

OTHERWISE PROTECTED AREAS (OPAs)

CBRS areas and OPAs are normally located within or adjacent to Special Flood Hazard Areas.

- 1% annual chance floodplain boundary
- 0.2% annual chance floodplain boundary
- Floodway boundary
- Zone D boundary
- CBRS and OPA boundary
- Boundary dividing Special Flood Hazard Area Zones and boundary dividing Special Flood Hazard Areas of different Base Flood Elevations, flood depths or flood velocities.
- Limit of Moderate Wave Action
- 513 — Base Flood Elevation line and value; elevation in feet*
- (EL 987) — Base Flood Elevation value where uniform within zone; elevation in feet*

* Referenced to the North American Vertical Datum of 1988

- A — A — Cross section line
- 23 — 23 — Transect line
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MAP REPOSITORY
Refer to listing of Map Repositories on Map Index

EFFECTIVE DATE OF COUNTYWIDE
FLOOD INSURANCE RATE MAP
September 26, 2008

EFFECTIVE DATE(S) OF REVISION(S) TO THIS PANEL
September 29, 2010 - to update corporate limits, to change Base Flood Elevations and Special Flood Hazard Areas, to update map format, to add roads and road names, and to incorporate previously issued Letters of Map Revision.

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500 0 1000 2000 FEET

300 0 300 600 METERS

NFIP
NATIONAL FLOOD INSURANCE PROGRAM

PANEL 0510F

FIRM

FLOOD INSURANCE RATE MAP

NAPA COUNTY, CALIFORNIA AND INCORPORATED AREAS

PANEL 510 OF 650

(SEE MAP INDEX FOR FIRM PANEL LAYOUT)

CONTAINS:

COMMUNITY	NUMBER	PANEL	SUFFIX
NAPA COUNTY	060205	0510	F
NAPA, CITY OF	060207	0510	F

Notice to User: The **Map Number** shown below should be used when placing map orders; the **Community Number** shown above should be used on insurance applications for the subject community.

MAP NUMBER
06055C0510F

MAP REVISED
SEPTEMBER 29, 2010

Federal Emergency Management Agency

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- Limit of Moderate Wave Action
- 513 — Base Flood Elevation line and value; elevation in feet*
- (EL 987) — Base Flood Elevation value where uniform within zone; elevation in feet*

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- 600000 FT — 5000-foot grid values: California State Plane coordinate system, zone II (FIPSZONE 0402), Lambert Conformal Conic projection
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- M1.5 — River Mile

MAP REPOSITORY
Refer to listing of Map Repositories on Map Index

EFFECTIVE DATE OF COUNTYWIDE FLOOD INSURANCE RATE MAP
September 26, 2008

EFFECTIVE DATE(S) OF REVISION(S) TO THIS PANEL
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250'-(MAP SCALE 1" = 500'

250		500	1000	FEET
150	0	150	300	METERS

NFIP
NATIONAL FLOOD INSURANCE PROGRAM

PANEL 0509F

FIRM
FLOOD INSURANCE RATE MAP

NAPA COUNTY, CALIFORNIA AND INCORPORATED AREAS

PANEL 509 OF 650

(SEE MAP INDEX FOR FIRM PANEL LAYOUT)

CONTAINS:

COMMUNITY	NUMBER	PANEL	SUFFIX
NAPA COUNTY	060205	0509	F
NAPA, CITY OF	060207	0509	F

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MAP NUMBER 06055C0509F

MAP REVISED SEPTEMBER 29, 2010

Federal Emergency Management Agency

EXHIBIT B

CALTRANS FLOODPLAIN ENCROACHMENT LOCATION HYDRAULIC STUDY (LHS) MEMO – NO SIGNIFICANT ENCROACHMENT

Memorandum

Making Conservation California Way of Life.

To: DISTRICT Environmental Branch Chiefs

Date: September 20, 2021

From: KELLY J. HOBBS, Chief
Office of Environmental Compliance and Outreach
Division of Local Assistance

Subject: **Floodplain Encroachment Location Hydraulic Study (LHS) Memo – No Significant Encroachment**

There have been an increasing number of Local Assistance projects eligible for federal-aid funding that are low risk or have no impact to the regulatory floodway or base floodplain. These projects are typically NEPA CE projects and may include: installation or replacement of pavement, striping, signs, cameras, traffic signals, roundabouts, curb, gutter, bicycle facilities, pedestrian facilities, in-kind maintenance activities and other related projects. If the federal aid project falls under one of these project types, and clearly meets the definitions below, Caltrans has determined that no additional analysis pursuant to 23 CFR 650 Subpart A is necessary, and this memo will suffice for floodplain encroachment documentation under Subpart A to file.

- The Project includes an encroachment as defined under 23 CFR 650.105(e) using the process described under 650.111(a).
- The Project either: (i) will not have a longitudinal encroachment (parallel to the direction of flow); or (ii) if including a longitudinal encroachment, does not have practicable alternatives to such encroachment (consistent with policy at 23 CFR 650.103(b) and requirement at 650.111(b);
- The Project does not support base flood-plain development as defined under in 23 CFR 650.105(r).
- The Project will not have a significant encroachment as defined in 23 CFR 650.105(q).
- The Project will not have significant impacts to natural and beneficial floodplain values as defined under 23 CFR 650.105(i); and
- The Project will not require mitigation measures necessary to minimize impacts or restore and preserve (as defined in 23 CFR 650.105 (n) and (l)) natural and beneficial floodplain values.

District Planners should work closely with Local Agency staff when determining the commensurate level of floodplain encroachment documentation required for these project types. If the statements above cannot be clearly answered without further analysis, the standard Caltrans local assistance floodplain encroachment process must be followed.