INTRODUCTION

The physical character of our communities cannot be divorced from the values they respect. Sooner or later, these values manifest themselves in how our development decisions are made and how those decisions shape our communities. Where our values and actions are synchronized, our communities prosper; where they are in conflict, so are the communities.
(Riverside County Integrated Plan, 2002)

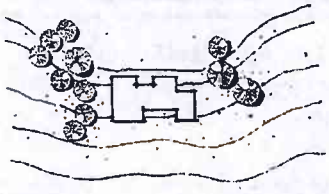
The Temecula Valley Wine Country Policy Area is a unique community of Riverside County that offers boutique wine country embedded within rural and equestrian character of the southwestern Riverside County. Approximately fifty wineries and other smaller wine operations, produce award-winning premium quality wines, made possible by a unique microclimate and well-drained decomposed granite soils of this region. In addition, this area offers rural lifestyle, horseback riding trails, stables and other equestrian amenities within the Valle de los Caballos community. It is with much pride in their ranches and horses that some of the equestrian facilities hold national and international competition events. The Temecula Valley Wine Country Policy Area Design Guidelines (hereinafter "Guidelines") are intended to encourage rural type of developments surrounded by large vineyards and equestrian facilities that enhance the winemaking, equestrian and rural residential atmosphere of the policy area.

These guidelines are provided to guide those property owners and project proponents that are submitting development applications to the County Planning Department. These guidelines are generalized statements, alternatives or illustrations of what is expected and encouraged for developments within the policy area. Upon approval, these guidelines will be applicable to all development proposals for a dwelling unit, subdivision, winery, equestrian facility, and/or incidental commercial facility unless otherwise specified in the following sections. Depending upon the site characteristics and nature of the proposal, the Planning Director will determine the degree of compliance to these guidelines.

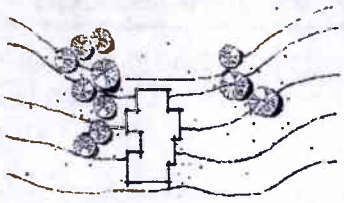
A. SITE DESIGN AND PLANNING.

The intent of this section is to ensure that unique site characteristics, such as natural topography, soil quality, drainage patterns, scenic vistas etc. are considered; that the created building pads, roads or driveways are blended into the natural terrain; and that any physical or visual impact is mitigated through site design and planning.

1. All buildings, building pads, roads, driveways, and hardscape should be located in existing disturbed areas and the least environmentally sensitive location, to minimize their impacts on natural terrain of the project site.

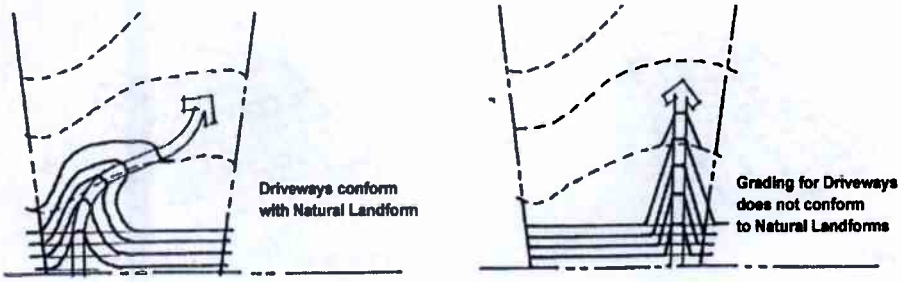


Do this



Don't do this

2. All buildings, building pads, roads, driveways, and hardscape should, to the fullest extent practicable, follow and utilize the natural contours of the land to minimize disturbance.

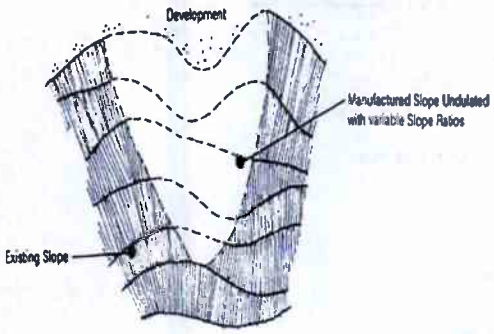


Do this

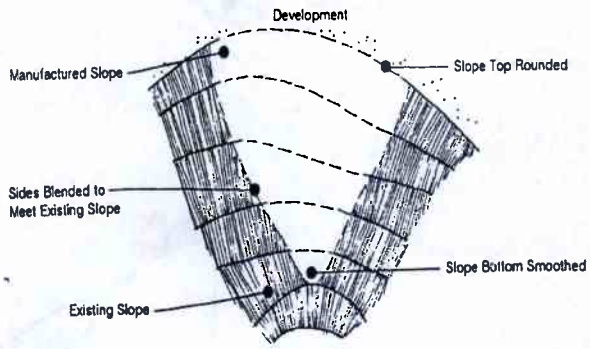
Don't do this

3. Any increase in runoff resulting from a site development should be directed away from any neighboring properties, into a newly improved street or public right-of-way that is designated to carry surface drainage run-off.

4. Mass grading should be avoided; however, if grading is necessary, contoured slopes or rounded slopes should be manufactured.

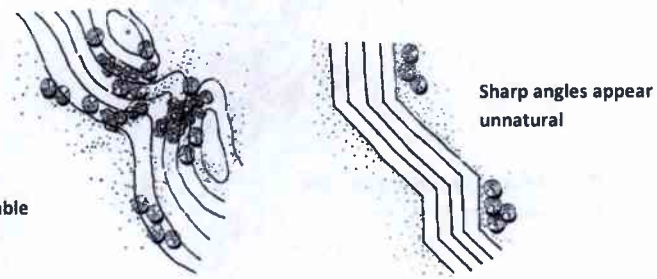


Contoured Slope



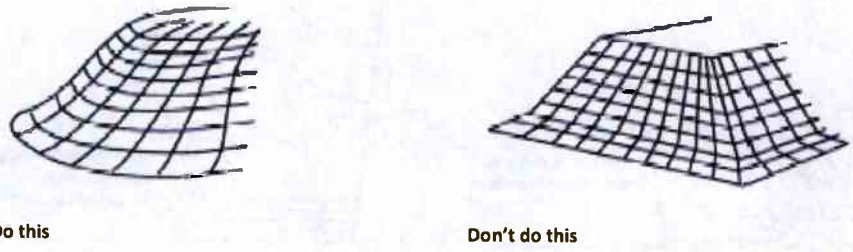
Rounded Slope

5. Graded slopes and/or building pads should provide a variety of both slope percentages and slope direction in a three-dimensional undulating pattern that is similar to the existing natural terrain rather than left at a constant angle and direction, which creates an unnatural and manufactured appearance for the site.



Varied slopes resemble
natural topography

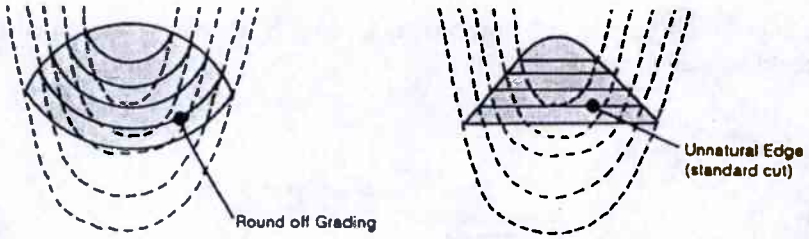
6. Graded slopes and/or building pads should be similar to the natural slopes of the site and the angle of any exposed slope should gradually transition to the angle of the natural slope to create a natural look.



Do this

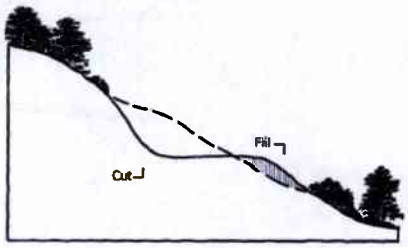
Don't do this

7. Graded slopes and/or building pads left by cut and fill operations should be given a rounded appearance (in plan and in elevation) that closely resembles the natural contours and landform of the project site.

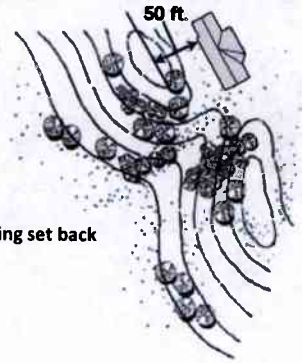


Do this

Don't do this



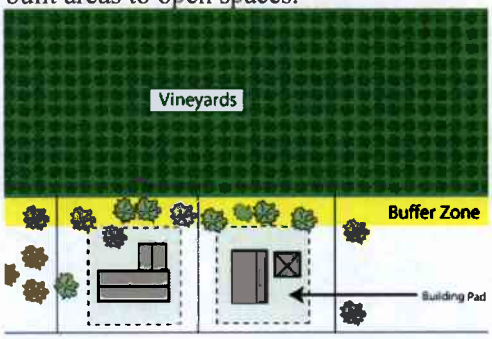
8. Graded slopes and/or building pads should not be allowed within fifty feet (50') of a natural peak or knoll.



Graded slope and building set back from peak or knoll

9. The vertical distance of any graded slope should not exceed fifteen feet (15') at a 3:1 ratio and ten feet (10') at a 2:1 ratio from the toe of the slope to the top of the slope.

10. A buffer zone should be provided between building pads and vineyards and equestrian lands for an easy transition from built areas to open spaces.



11. Due to their impact on natural terrain, off-highway vehicles shall not be operated on commercial or non-commercial basis within any portion of the project site within the policy area.

B. ARCHITECTURE

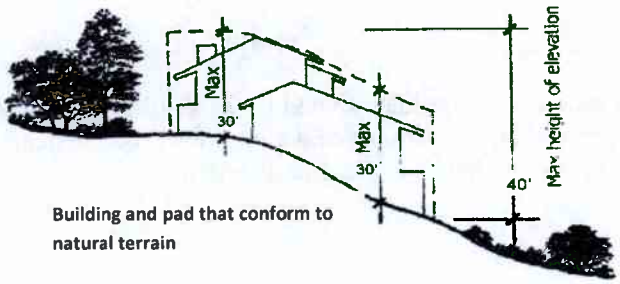
The intent of this section is to ensure that the visual impacts of proposed development is mitigated through architecture and building massing by compatible architectural styles, by varied roof-plains, by terraced building pad, or by encouraging architectural elements.

1. All new developments along Rancho California Road, and to a smaller degree, De Portola Road, should follow streetscapes as identified in the Design Guidelines and Signage Program (please refer to Appendix A).

2. All ancillary structures and incidental commercial uses should follow the architectural style of the primary use of the site (e.g. dwelling unit or winery or equestrian facility).

3. Exposed metal surfaces, contrasting color schemes, chain link fences, as well as mirrored glass should be prohibited, especially when they are visible from public view.

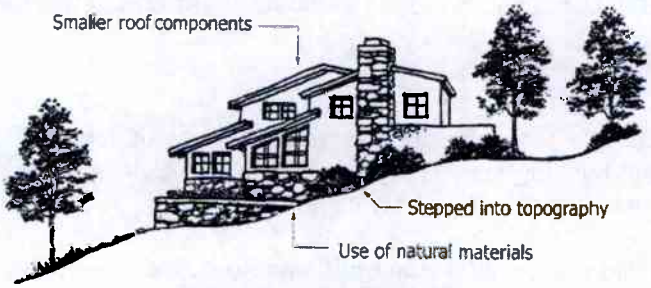
4. All buildings and their pads should be designed to conform to the natural topography and natural contours of the site. Their construction and configuration should use alternative techniques such as split-level and terraced building.



5. All buildings should be designed to minimize mass and volume. Architectural elements that increase visual prominence such as two-storied entries, large glass doors and windows, turrets, and large chimneys should be avoided; however, architectural elements that emphasize horizontal planes, such as overhangs, projections, alcoves, varied roof-plains, and building offsets should be used.

Do this **Don't do this**

6. All buildings should use material and color of natural or earthen tones. A variety of materials, textures, and architectural details compatible with winemaking or equestrian theme should be used to mitigate the visual impacts of building mass.



Compatible color, architecture and material

7. The slope of the main roof for all primary buildings (dwelling units or wineries or equestrian facilities) should generally be oriented in the same direction as the natural slope of the terrain.

Do this **Don't do this**

8. All building elevations and rooflines should be broken into smaller building elements to reflect the natural landform of the site. No residential roofline should extend forty feet (40') horizontally without an interruption or change in plane or direction.

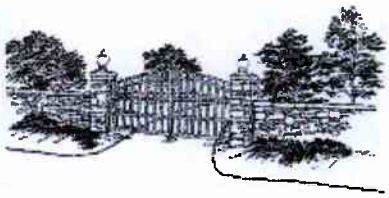
Roof forms should be kept small and reflect the surrounding topography

9. Landscaping for any project should carefully select plants that assure that the vineyards or equestrian operations are not impacted due to the invasion of urban exotics (please refer to Ordinance 859: Water Efficient Landscape Requirements Ordinance).

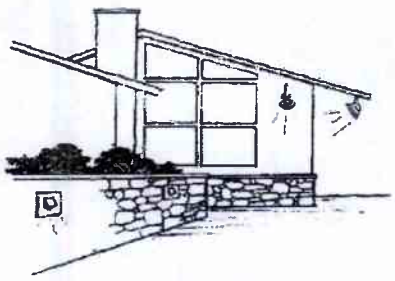
10. Arbors, trellises, or gazebos should be allowed in conjunction with a dwelling unit or a winery if they do not exceed ten feet (10') in height, forty feet (40') in length, and ten percent (10%) of the building pad.

11. Fencing should be encouraged only around the building pads to maintain the open and rural character of the wine country. If fencing on the perimeter of a property is desired, it should be compatible with the architectural style of the primary use and wine country atmosphere.

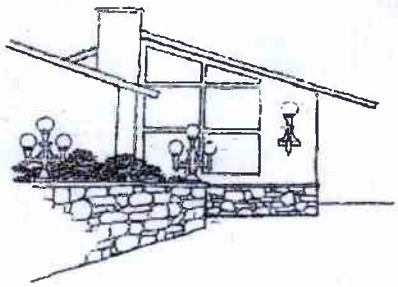
12. The height of any fence and/or wall should not exceed four feet (4') except for the swimming pool fences and retaining walls.



13. All exterior lighting fixtures should be directed downward and properly aimed on the targeted areas to maximize their effectiveness and minimize the total number of lighting fixtures.



Lighting should be directed downward



Lighting should not illuminate large areas

C. SPECIAL OCCASION FACILITIES

1. All residential subdivisions shall be conditioned to provide a Noise Disclosure Notice to prospective property buyers informing them about their noise exposure in the Wine Country. This notice should identify all nearby properties that may be a source of periodic noise from the outdoor special occasion facilities.

2. All indoor or outdoor special occasion facilities should be located and oriented away from neighboring residential units.

3. All indoor special occasion facilities should incorporate architectural solutions that reduce noise emitted from the events on a case-by-case basis as determined by the Planning and the Office of Industrial Hygiene Department. For noise management, locate special event facilities and other noise emitters away from neighboring residential units.

4. The Planning Department may require a Noise Management Plan on a case-by-case basis. This plan shall be in conformance with the County Ordinance No. 847 and provisions of the County General Plan. The Noise Management Plan shall include:
   a) The number of outdoor events per year, event dates, and hours of operation.
   b) A Noise Report to determine appropriate mitigation measures for stationary noise sources.
   c) Noise Disclosure Notice to property owners within a determined proximity of the facility.

Appendix A: Streetscape and Signage program for Rancho California Road and De Portola Road

PDS West

7-19-2010

Design Guidelines

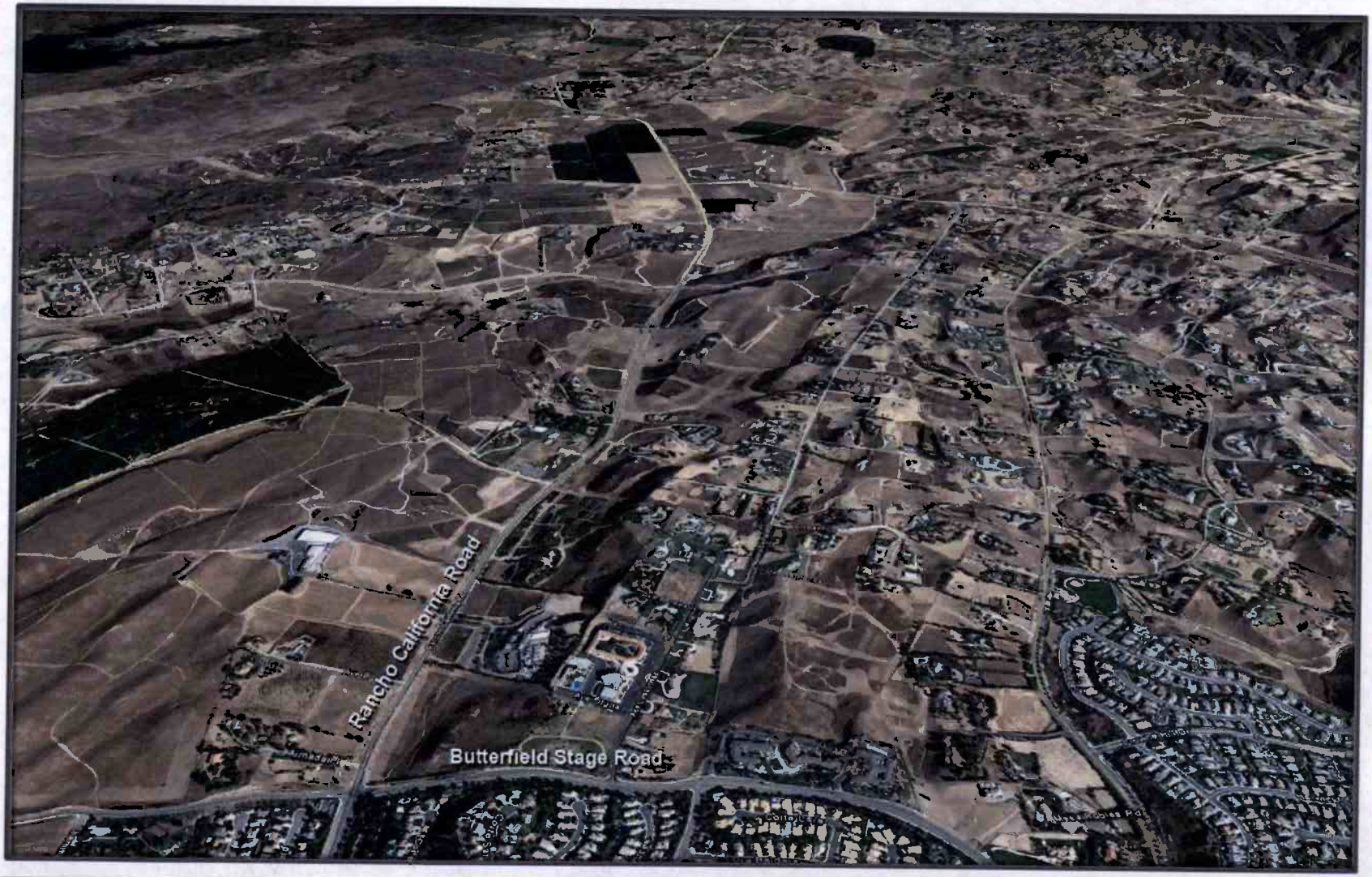
Temecula Valley
SOUTHERN CALIFORNIA
WINE COUNTRY

I. INTRODUCTION

This is the first phase of Design Guidelines for the Temecula Valley Wine Country, Southern California. It is limited to design standards, guidelines and signage program for the streetscapes on Rancho California Road and to a smaller degree, on De Portola Road. The purpose of the Temecula Valley Wine Country Design Guidelines is to reflect the Wine Country community's vision and to guide the property owners, winery owners, County planners and decision-makers toward accomplishing the vision.

As a first phase with limited budget, this Guidelines Booklet is primarily a printout of the PowerPoint slide presentation, with limited textual support. Future phases will include transferring graphics into a book format with ample textual support.

December 14, 2010
Prepared by PDS West



2 Aerial Photo of Wine Country Looking East

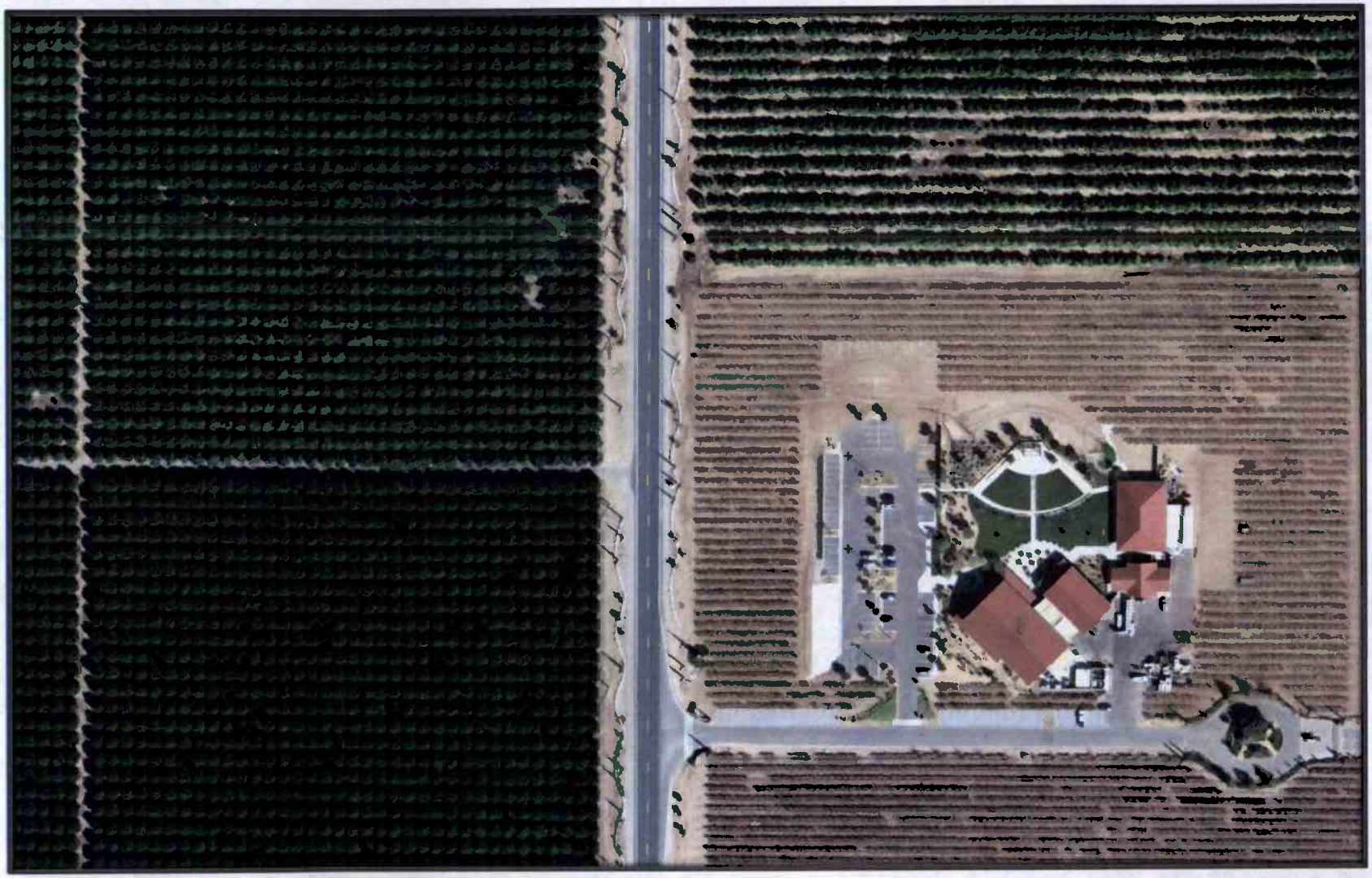
Aerial Photo of Rancho California Road
Looking East


Temecula Valley
Wine Country
Streetscapes

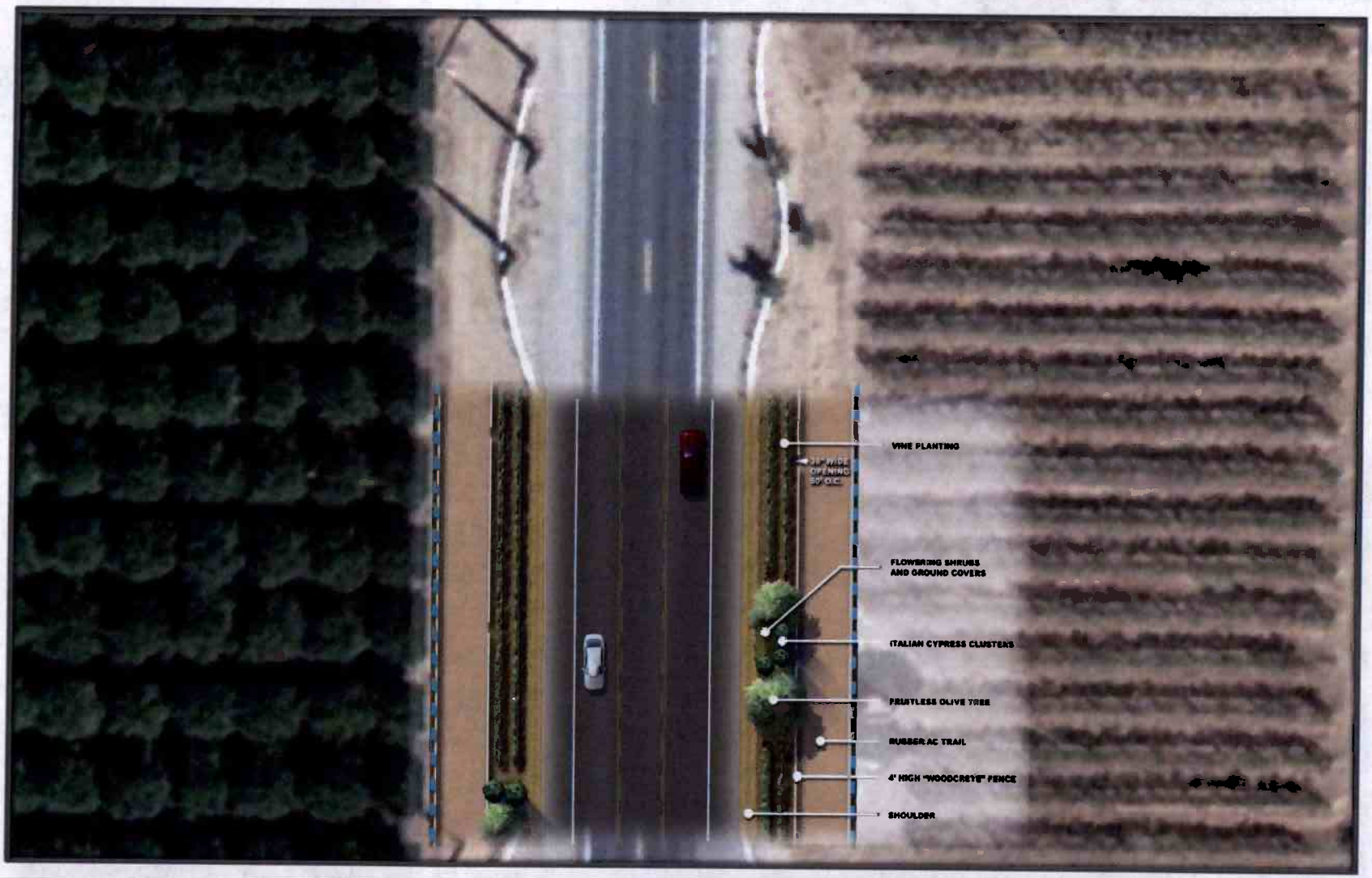
Trails Recommendations

- On Rancho Calif. Rd. There will be one Continuous Multi-Use Trail on the South Side with Second Multi-Use trail on other side, where Possible .
- Main Multi-Use Trail will be paved with Colored , Rubberized Asphalt – Works with Bikes and Horses
- Trails will be separated from Roadway by Planting and Rail Fence
- A design for ultimate De Portola Rd. Trails and Landscaping has been prepared, but must wait to install the improvements until Flooding Problems are Resolved and the Road Widened.

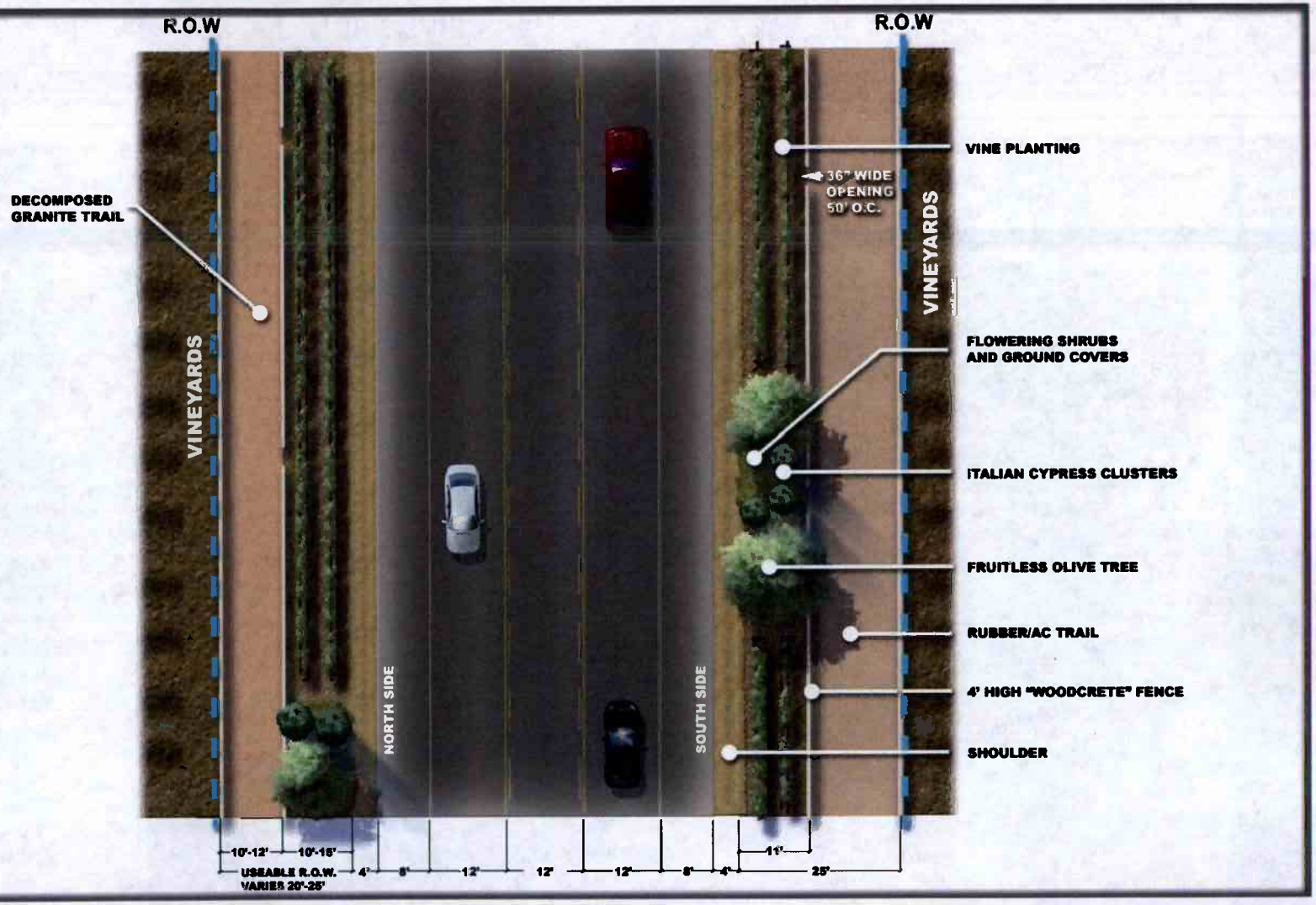
6 Road R.O.W. Level Both Sides



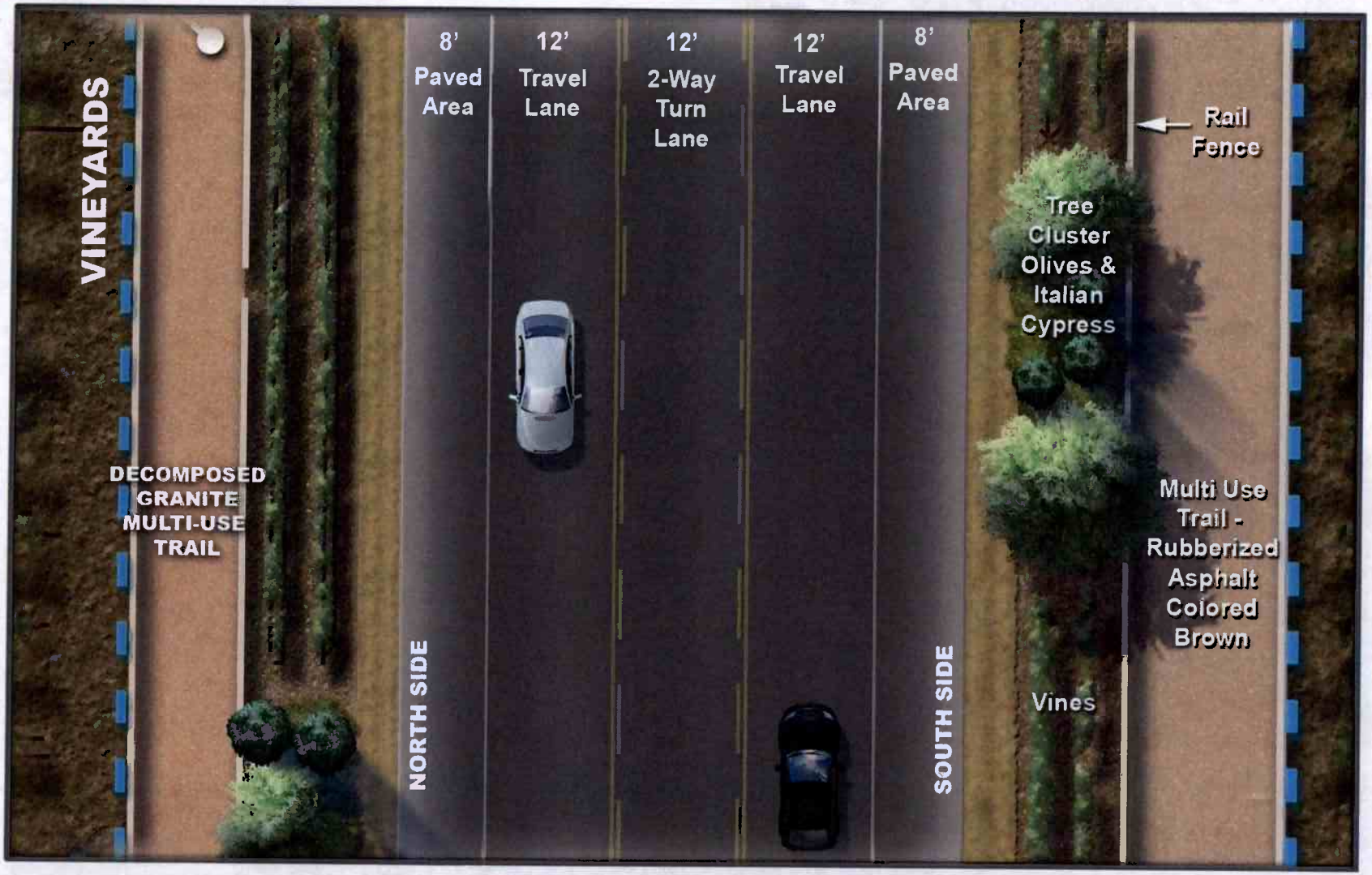
7 Road R.O.W. Level Both Sides



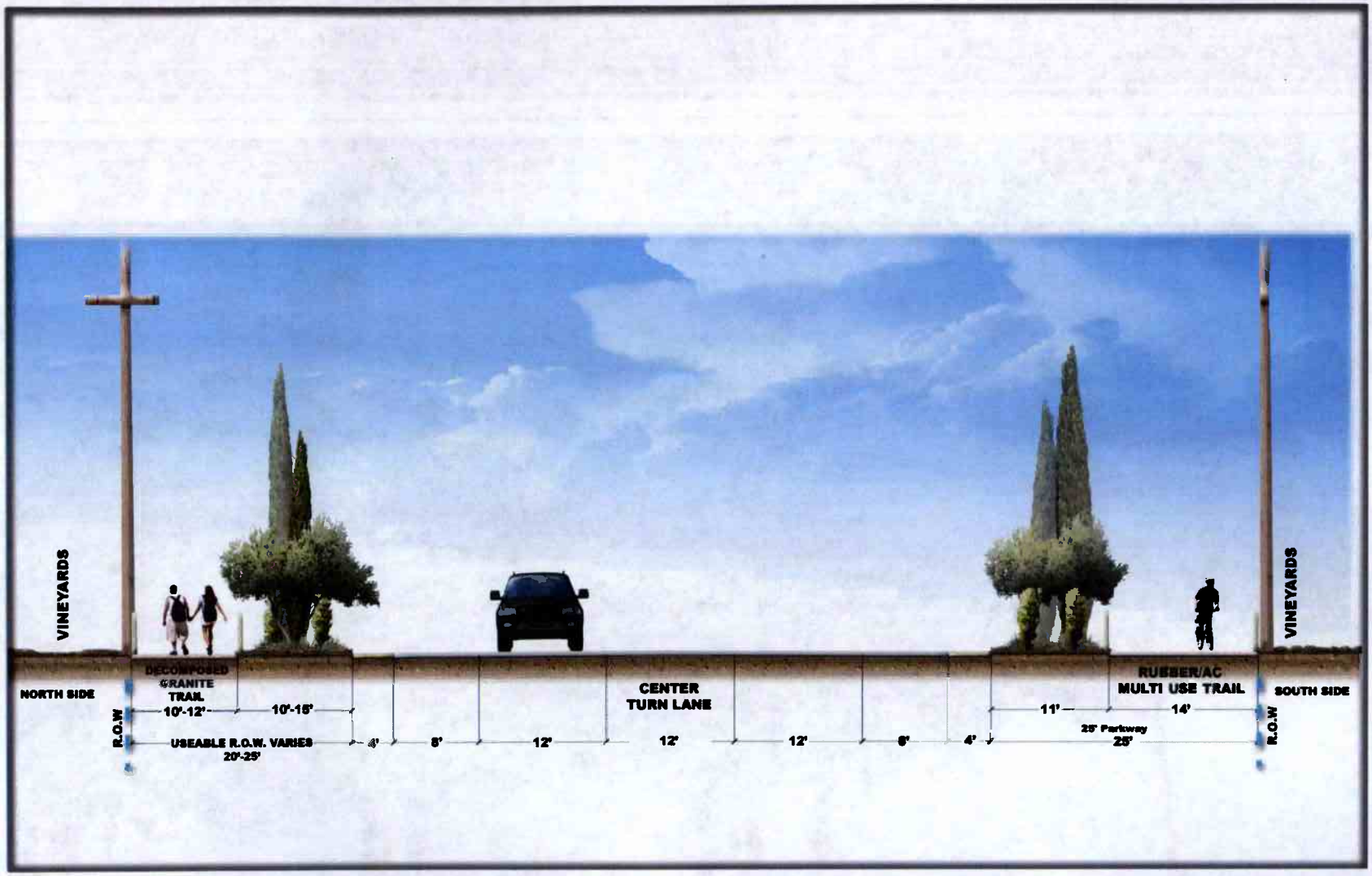
Proposed Roadway – MP Trails Both Sides



Proposed Roadway – MP Trails Both Sides



Proposed Roadway – MP Trails Both Sides



Proposed Roadway – MP Trails Both Sides

3D View of Proposed Roadway Section
Rancho California Road

Proposed Roadway – South side with Multi-Use Trails on Both Sides

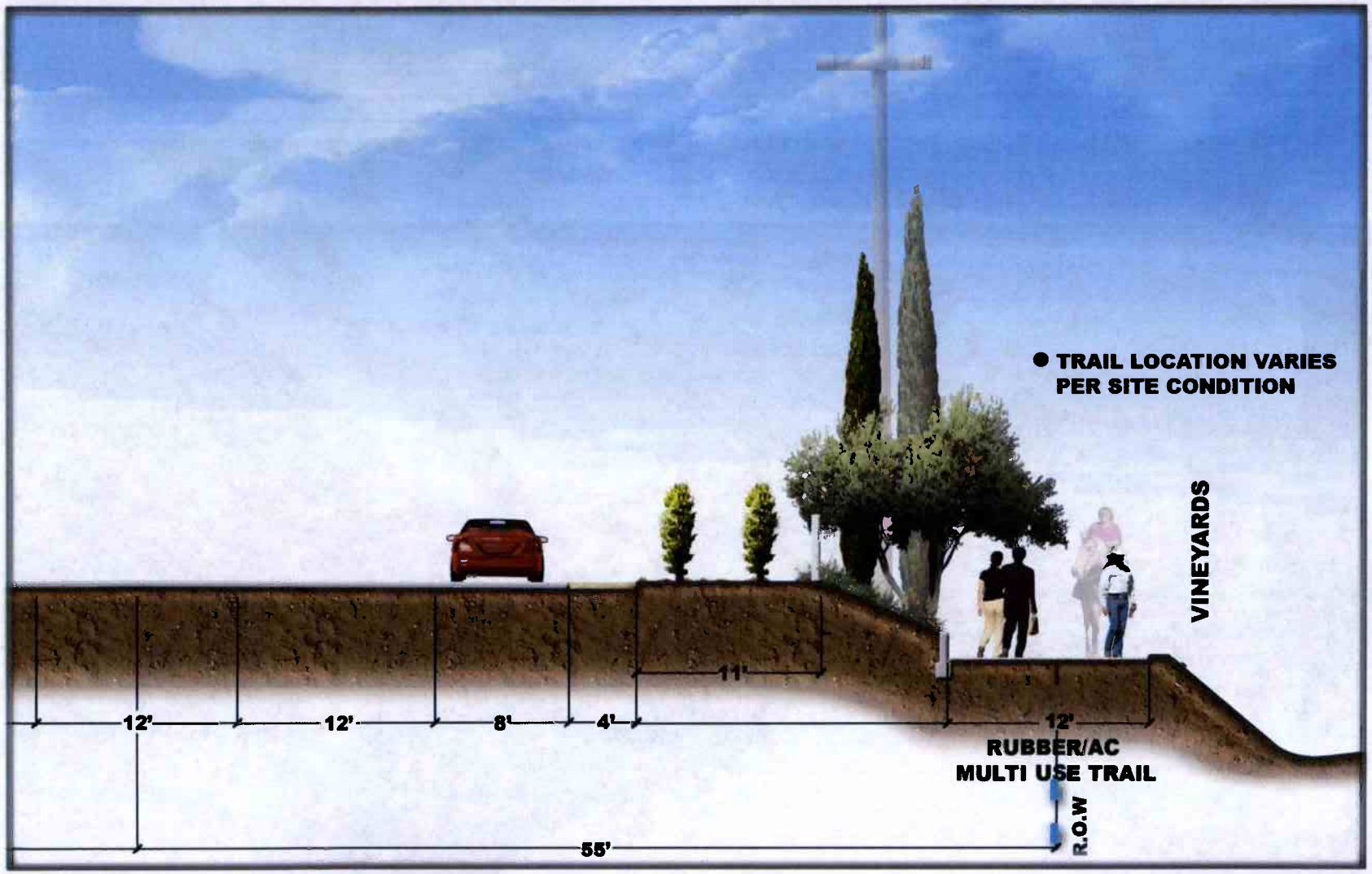
Proposed Roadway – North side with Multi-Use Trails on Both Sides

Proposed Roadway – North side with Multi-Use Trails on Both Sides

Proposed Roadway – North side with Multi-Use Trails on Both Sides

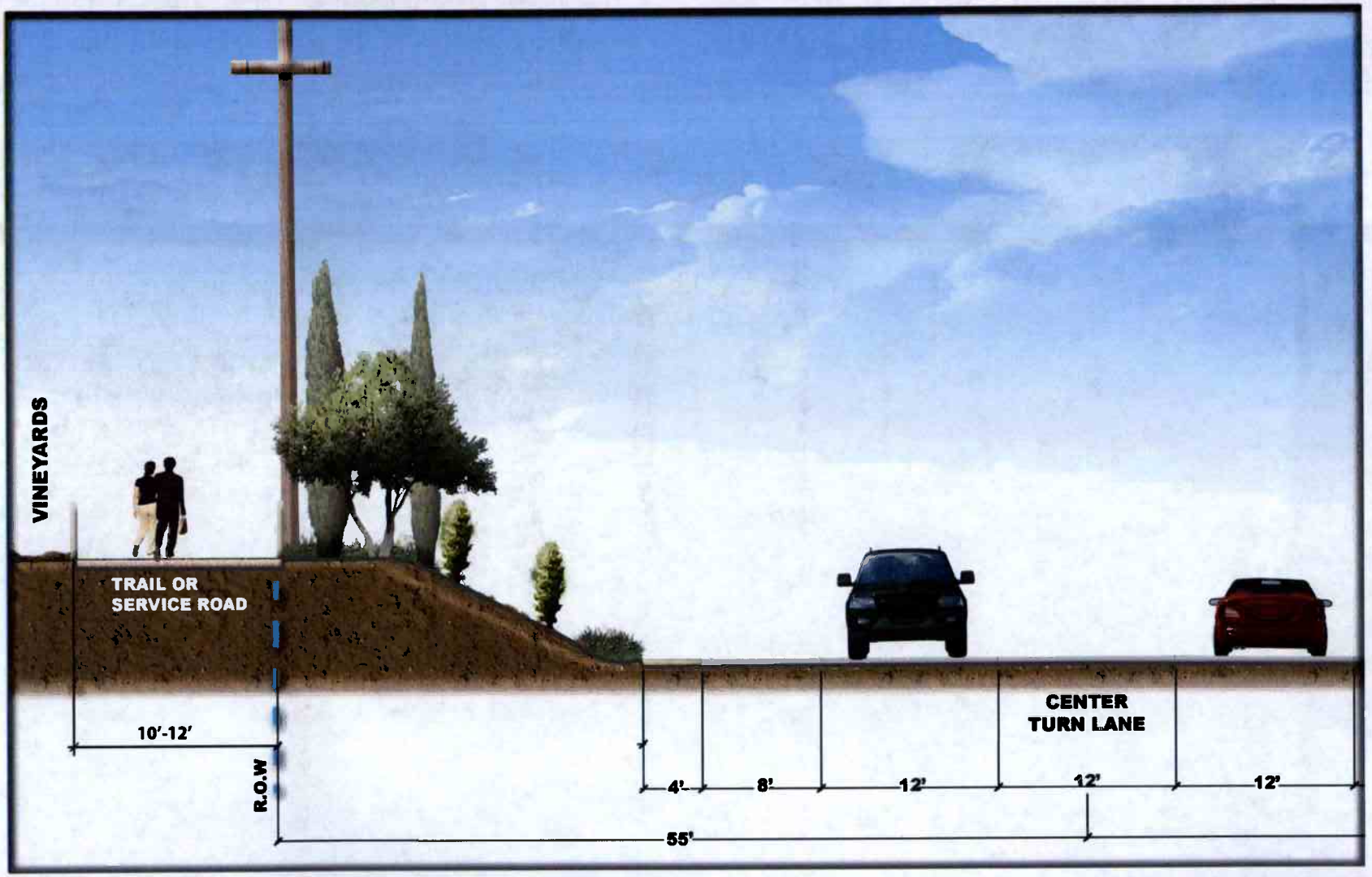
Condition 1 – Property Drops Off on Southeast

Condition 1 – Same Area Looking Back



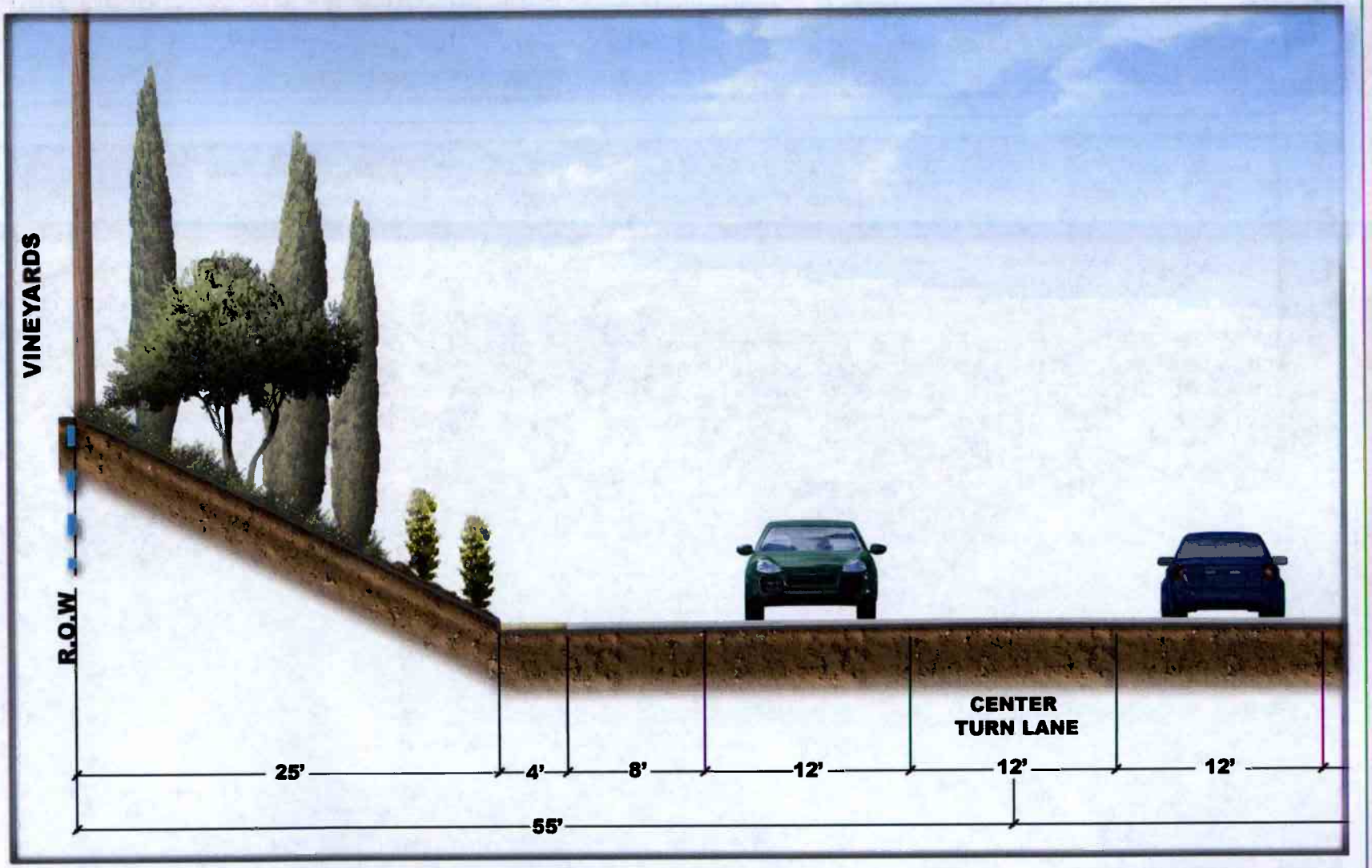
Condition 1 – Trail climbs along bank to top

Condition #2 – Slope Up on N. Side



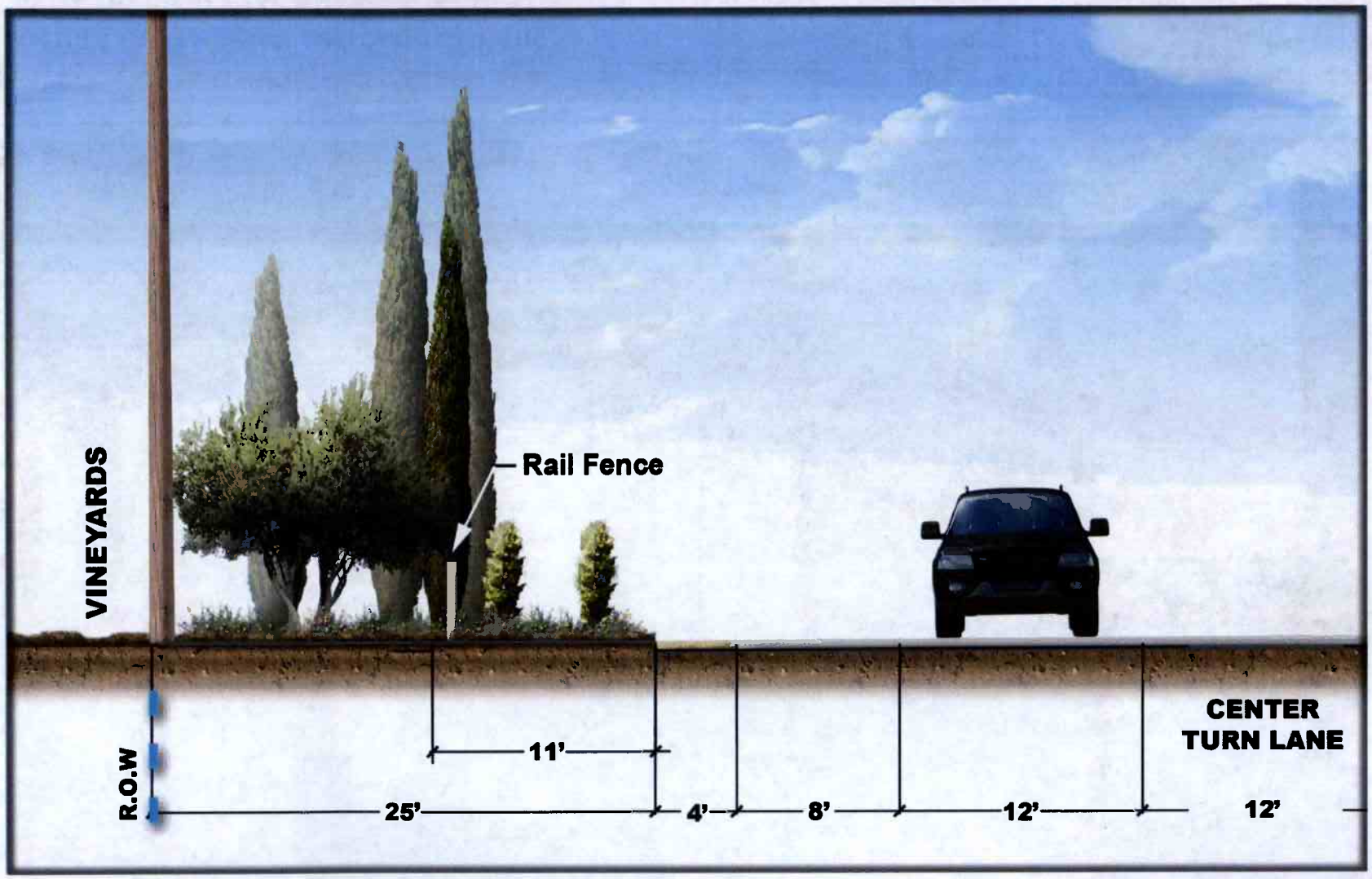
Condition 2 – Trail is constructed at top of bank

Condition 3 – No trail on Northwest Side of Rancho Calif. Rd. – Landscaping Only



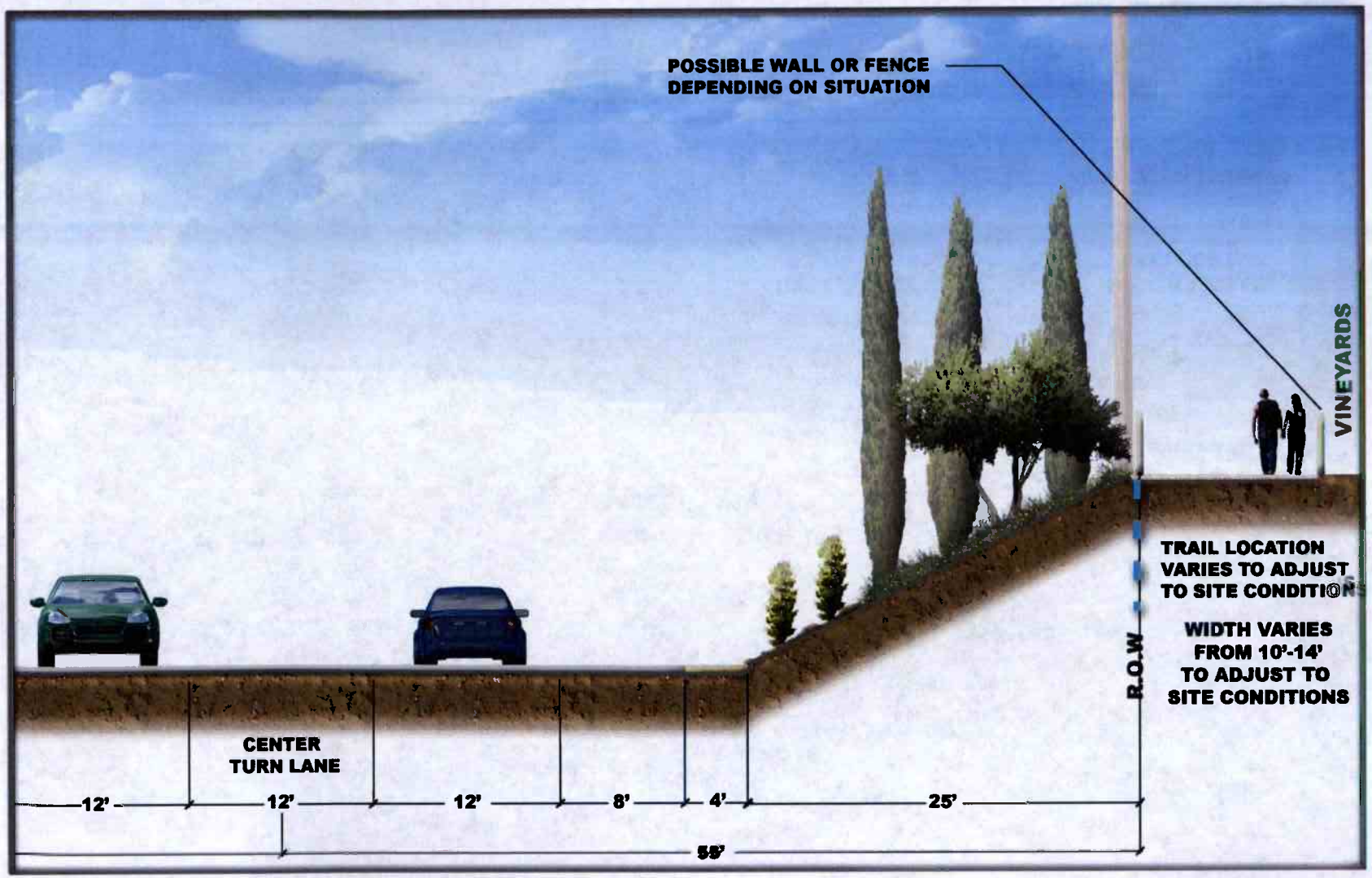
Condition 3 – No trail on Steep Northwest Side of Rancho Calif. Rd. – Landscaping Only

Condition 4 – No trail on Flat Northwest Side of Rancho Calif. Rd. – Landscaping Only

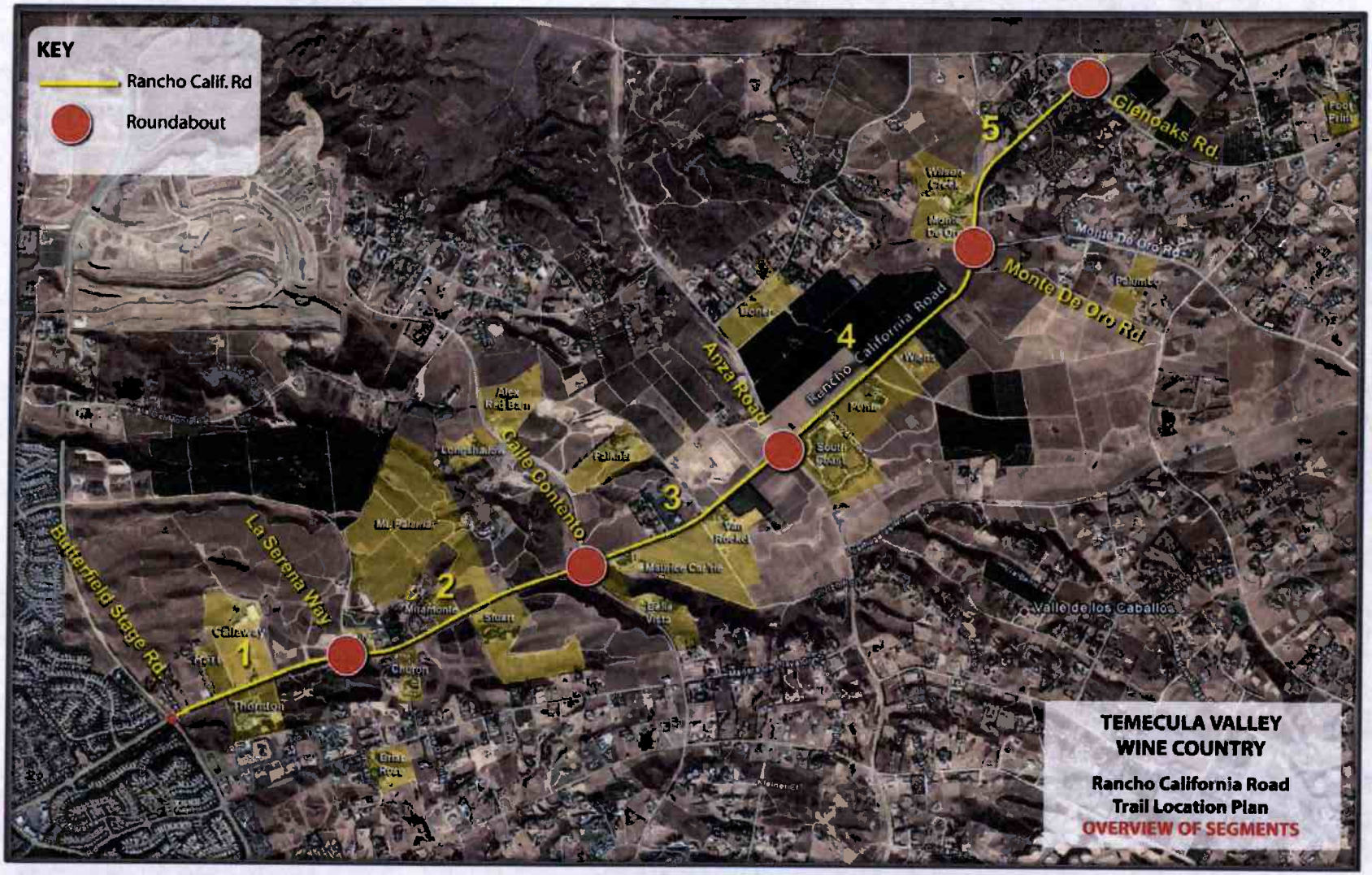


Condition 4 – No trail on Flat Northwest Side of Rancho Calif. Rd. – Landscaping Only

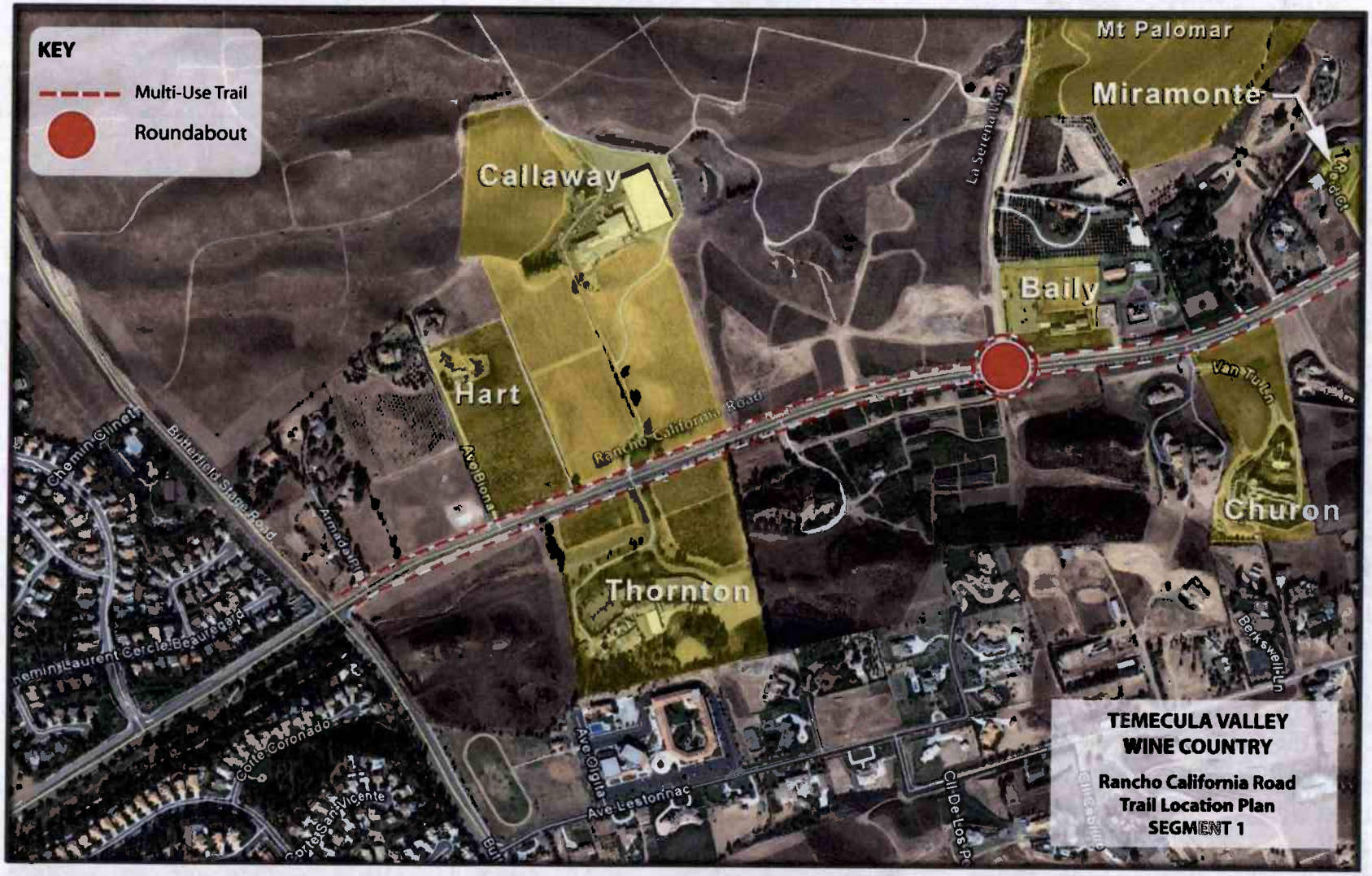
Condition 4 – Southeast Side of Rancho Calif. Rd. Climbs in Elevation in R.O.W.



Condition 4 – Southeast Side of Rancho Calif. Rd. Climbs in Elevation in R.O.W.

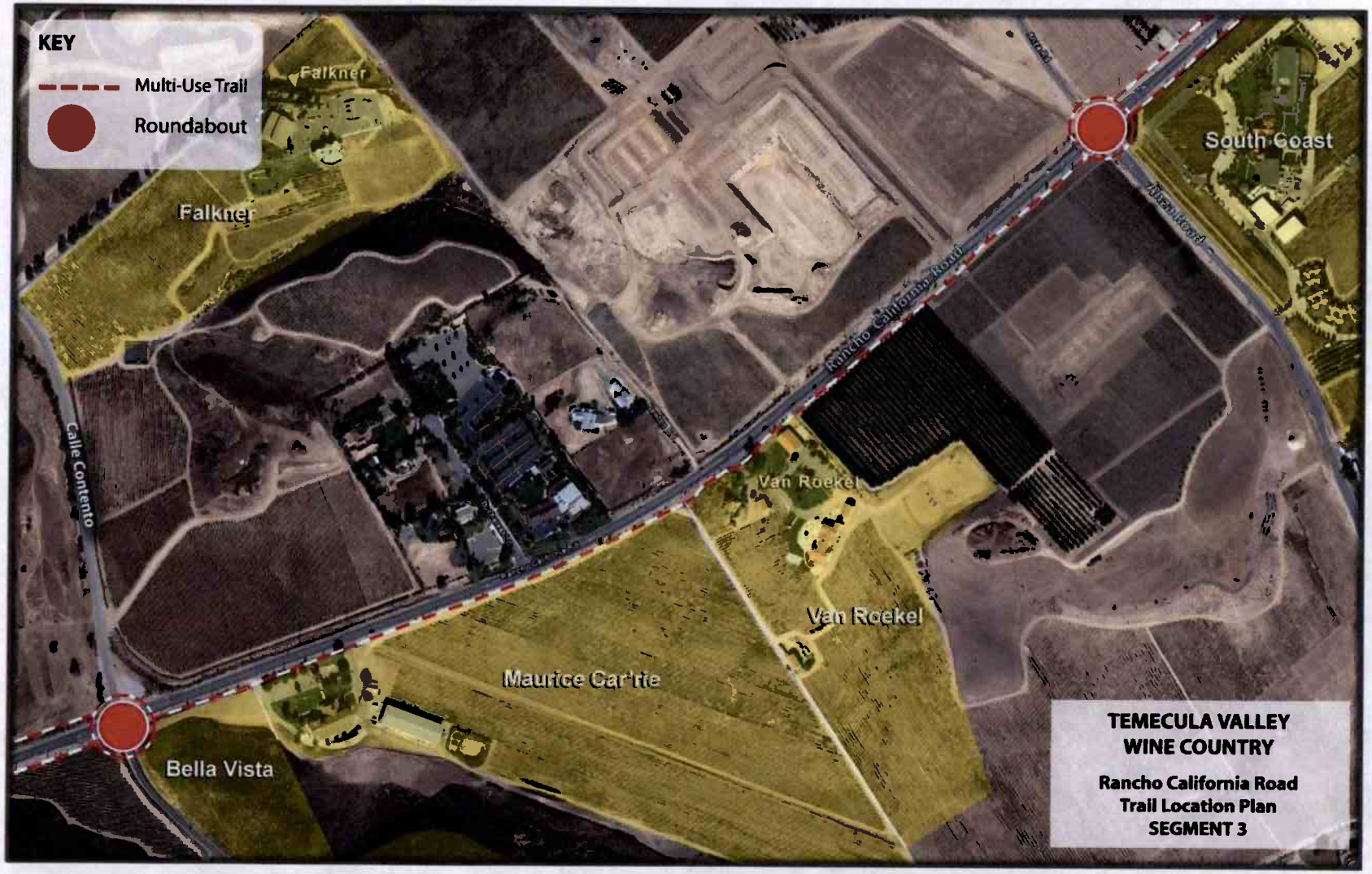

KEY
Rancho Calif. Rd
Roundabout
1
2
3
4
5
Butterfield Stage Rd
La Serena Way
Calle Contento
Anza Road
Rancho California Road
Monte De Oro Rd
Glenoaks Rd
Valle de los Caballos
TEMECULA VALLEY
WINE COUNTRY
Rancho California Road
Trail Location Plan
OVERVIEW OF SEGMENTS

Roundabout to Occur at Each Main Inter-Section along Rancho California Road

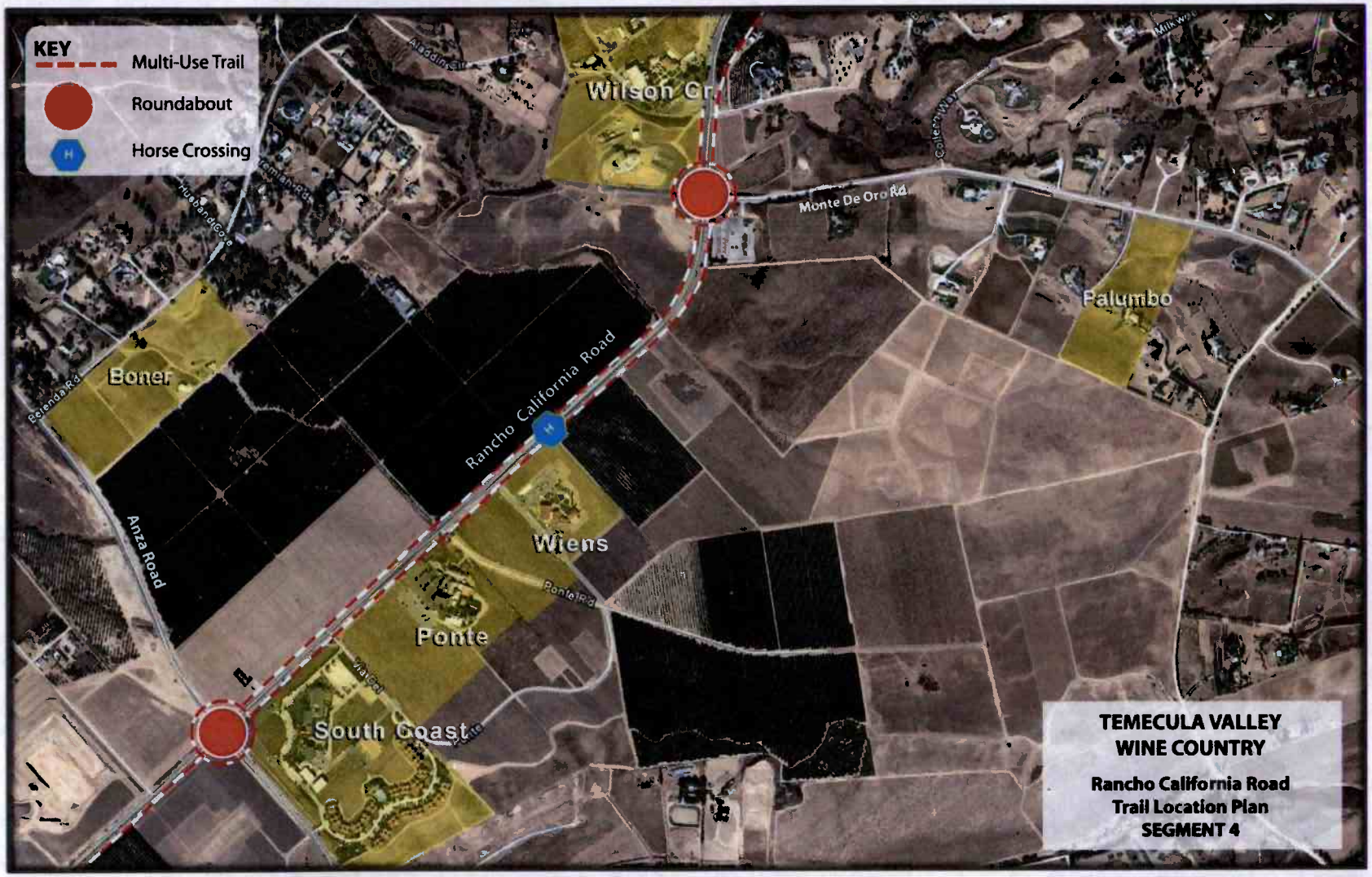


Trail Location Map – Segment 1
Butterfield Stage Rd. to La Serena Way

Trail Location Map – Segment 2
La Serena Way to Calle Contento



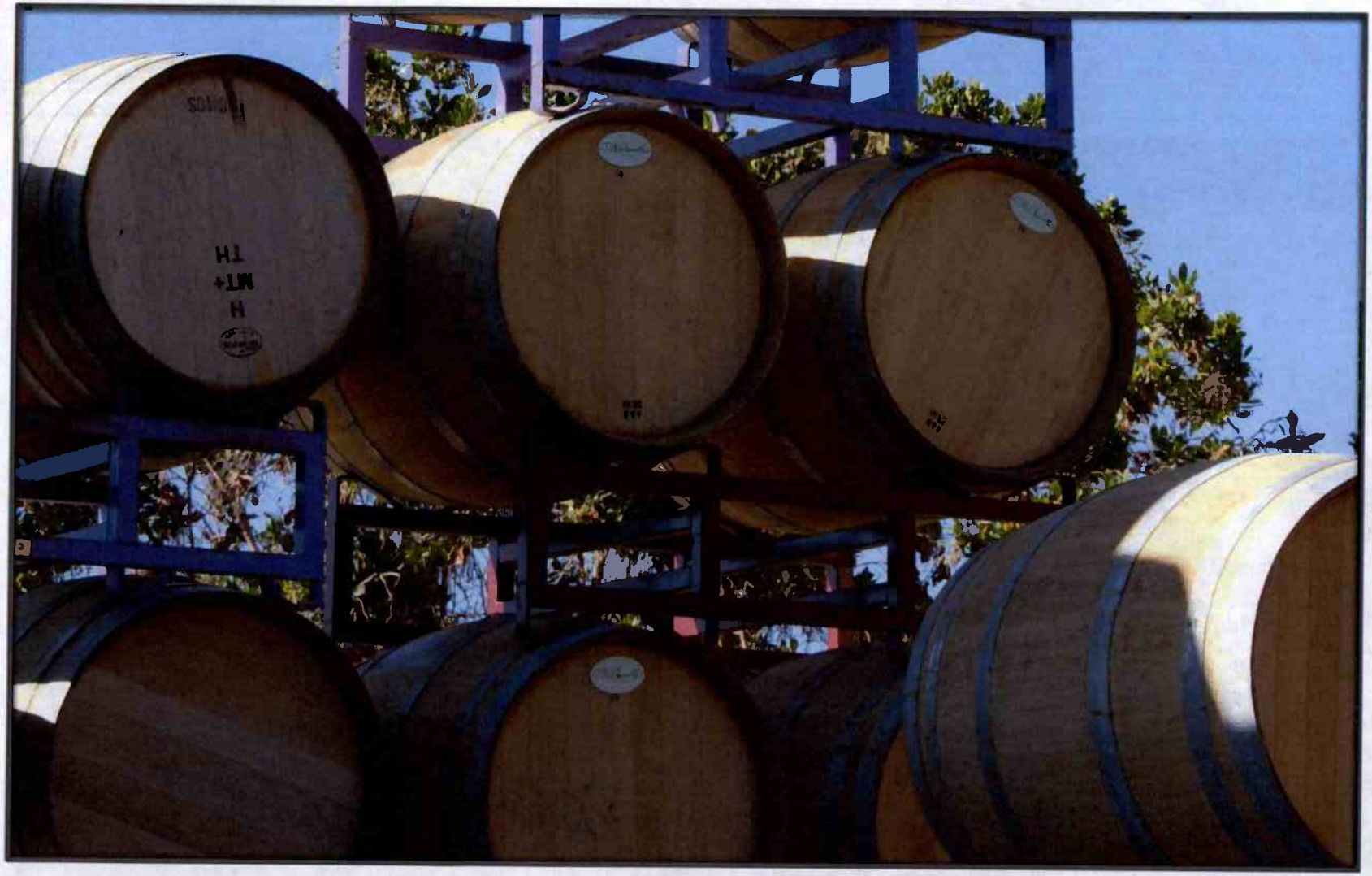
Trail Location Map – Segment 3
Calle Contento to Anza Road



Trail Location Map – Segment 4
Anza Road to Monte De Oro Road

Trail Location Map – Segment 5
Monte De Oro Road to Glen Oaks Road


Logo
Development



Icon 1 – The Wine Barrel

Icon 2 – The Grape Cluster with Leaves


Temecula Valley
SOUTHERN CALIFORNIA
WINE COUNTRY
Branding Guide
TEMECULA VALLEY CONVENTION AND VISITORS BUREAU

A

our logo

CONTINUED

A2

Color - one color

When the occasion calls for a one-color version of the Temecula Valley logo, one of the above options may be used. These colors are derived from the four-color logo.

LOGO REVERSED OUT ON BLACK BACKGROUND

A3

Black + white

When the occasion calls for a black + white application, such as a newspaper ad, select either black or white. Avoid grayscale interpretations.

Qualities of a Logo

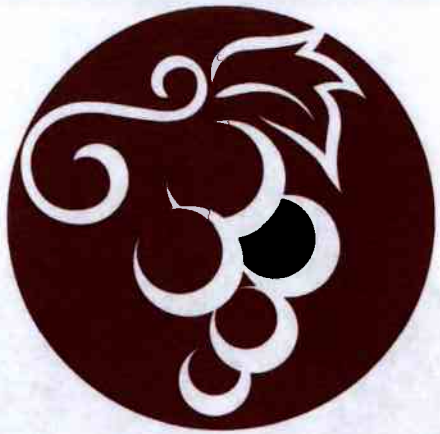
- Simple & Clean
- Distinctive Identity (Rural Wine Country)
- Symbolic & Stylized
- Iconic – High Visual Impact
- Easily Recognizable
- Adapt To Many Uses

Temecula Valley™

SOUTHERN CALIFORNIA

WINE COUNTRY

Bolder Version with Stylized Vine Added

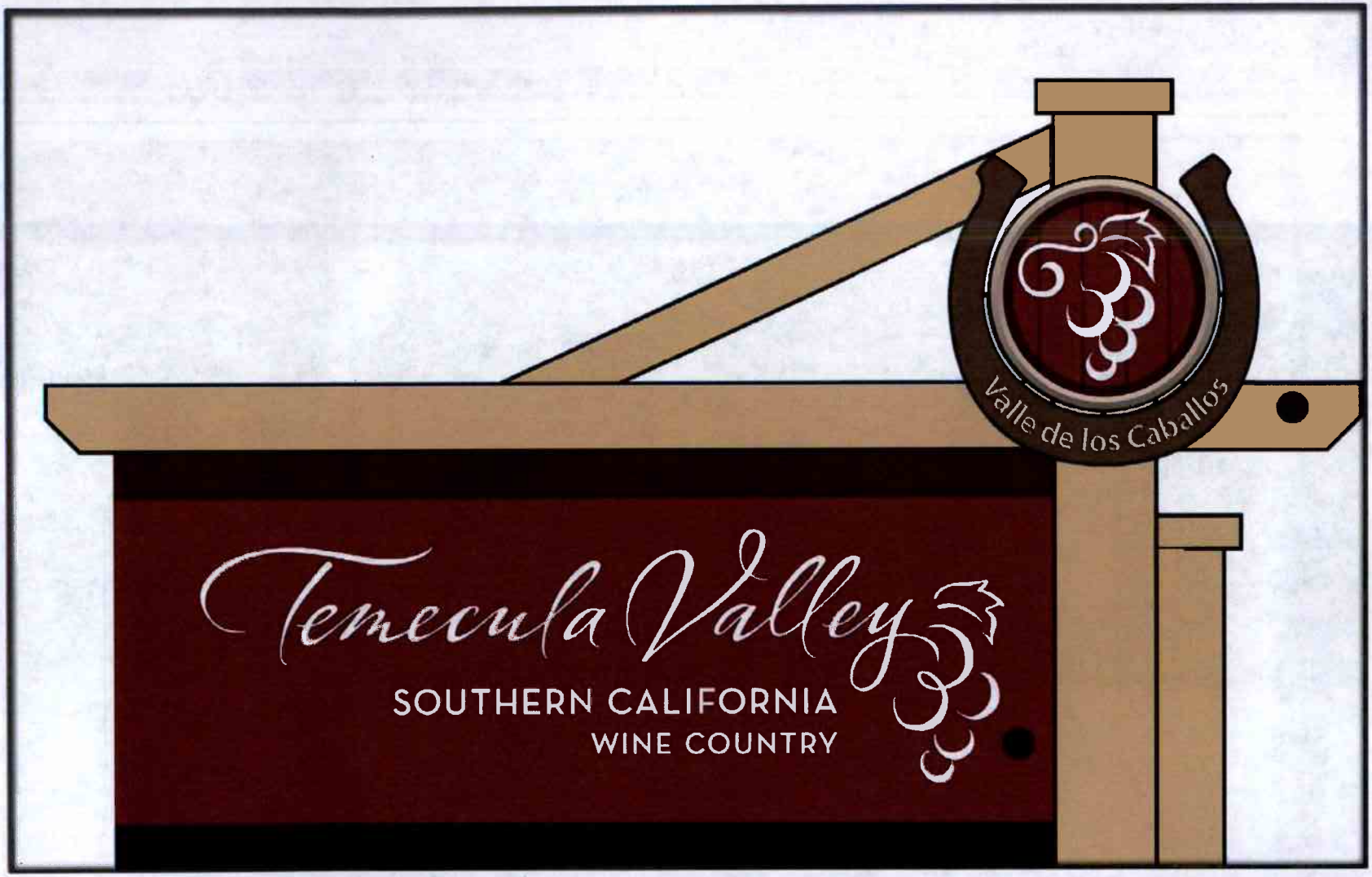


Reversed Figure-Ground for More Visual Impact

Barrel End Added

Evolved Logo with TVCVB Logotype

Signage with Logo and Logotype



Sign Logo to Have Horseshoe along De Portola Road and the Valley of the Horses


Temecula Valley
Wine Country
SIGNAGE
DO NOT PASS

Signage Issues

- Visual Clutter of Competing Signage
- Lack of Consistency among Sign Types
- Difficulty in Anticipating Upcoming Wineries & Commercial Destinations
- Difficulty in Finding Winery Drive & Decelerating to safely turn
- Advertizing and Event Banners/Signs add to Clutter and Overpower Winery Monuments

Approaching Baily Winery Entrance

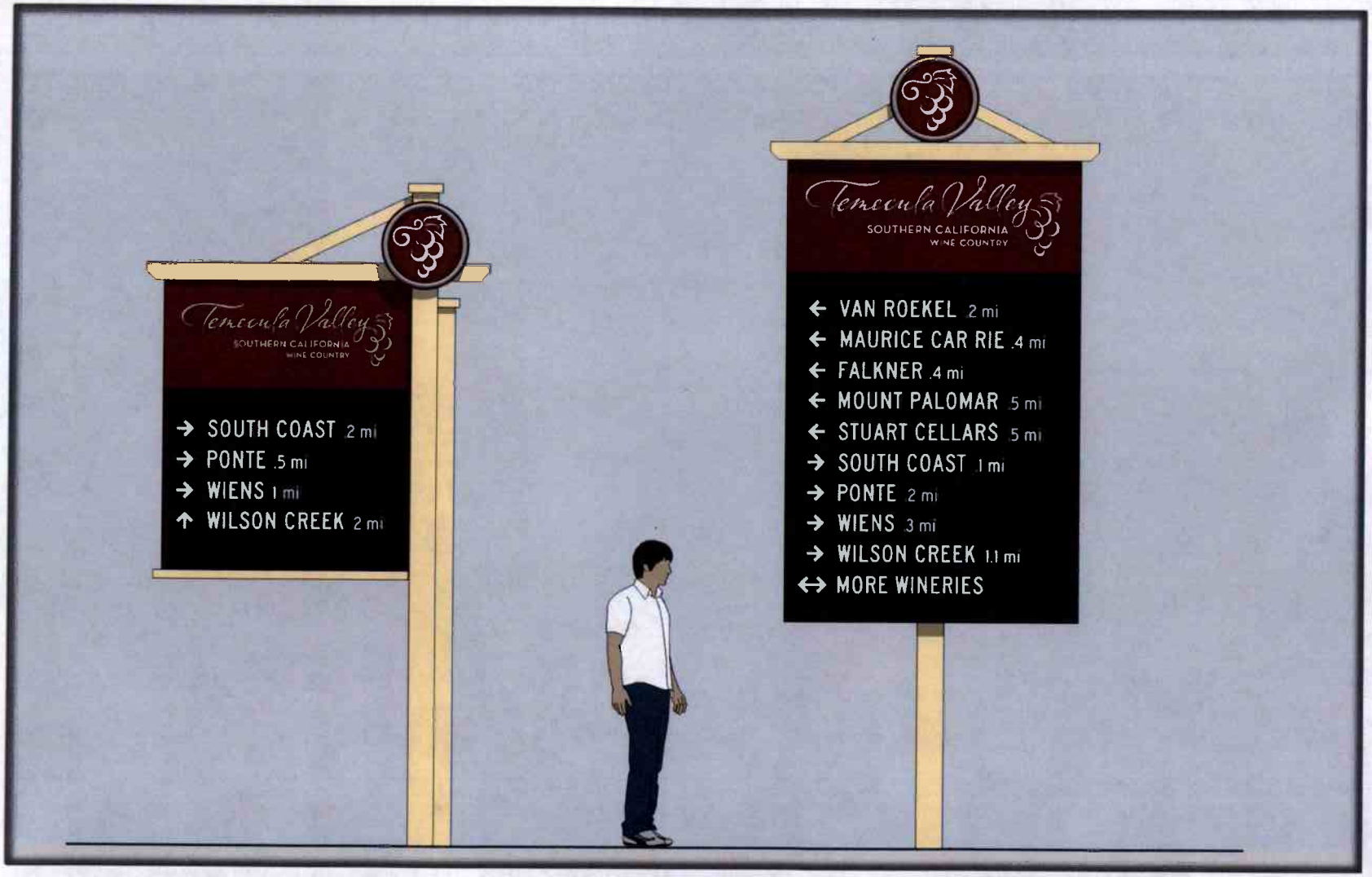
Sign Clutter at Baily Winery Entrance

Sign Clutter at Callaway Winery Entrance

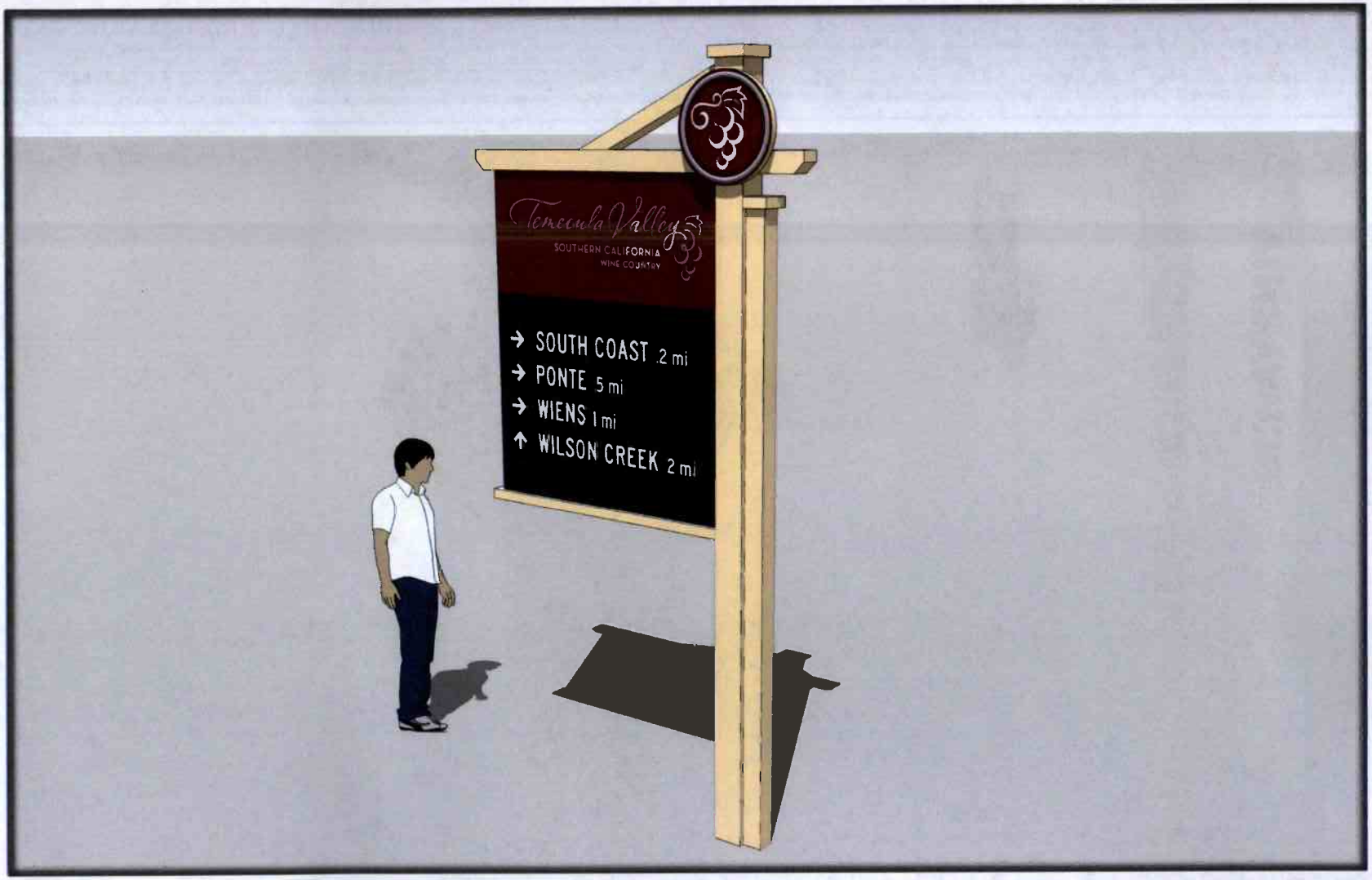
Attempt to Alert Visitor to Upcoming Entrance

Visual Clutter – Advertizing Sign Overpowers

Sign Clutter at Foote Print Winery Entrance



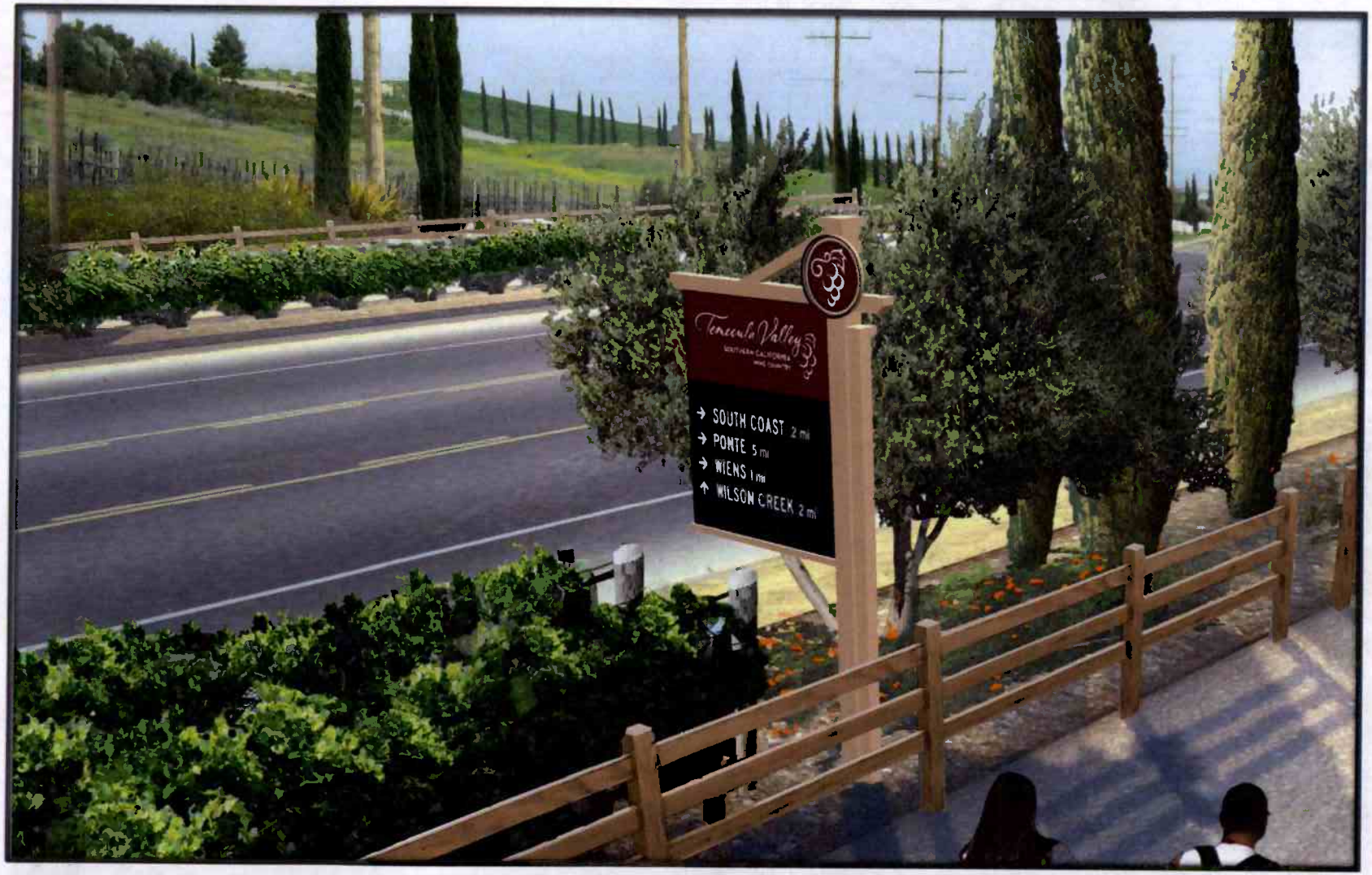
Wayfinding Sign and Winery Direction Sign



Wayfinding Sign

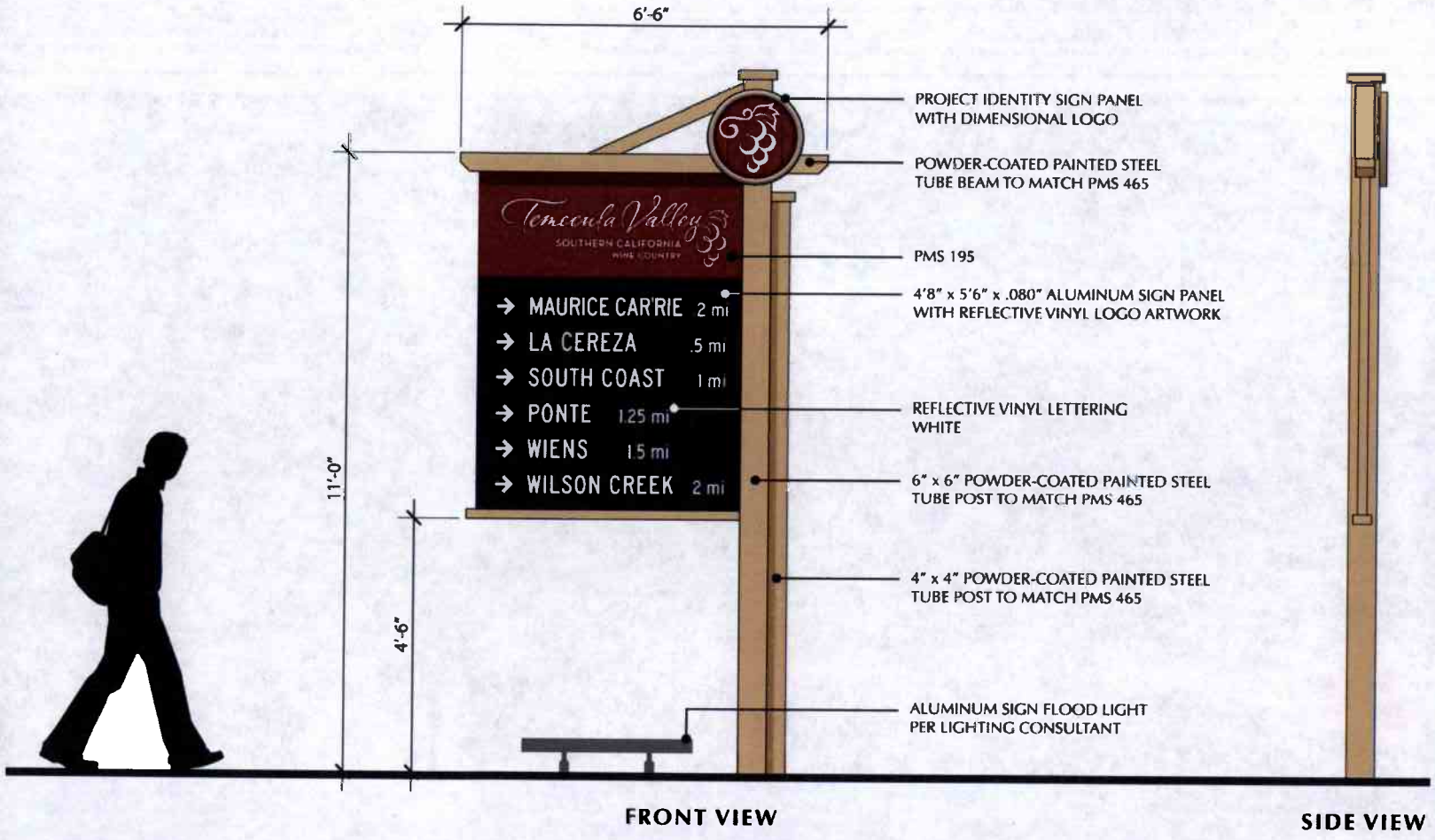
Section showing Wayfinding Sign Location

3-D View Showing Wayfinding Sign Location



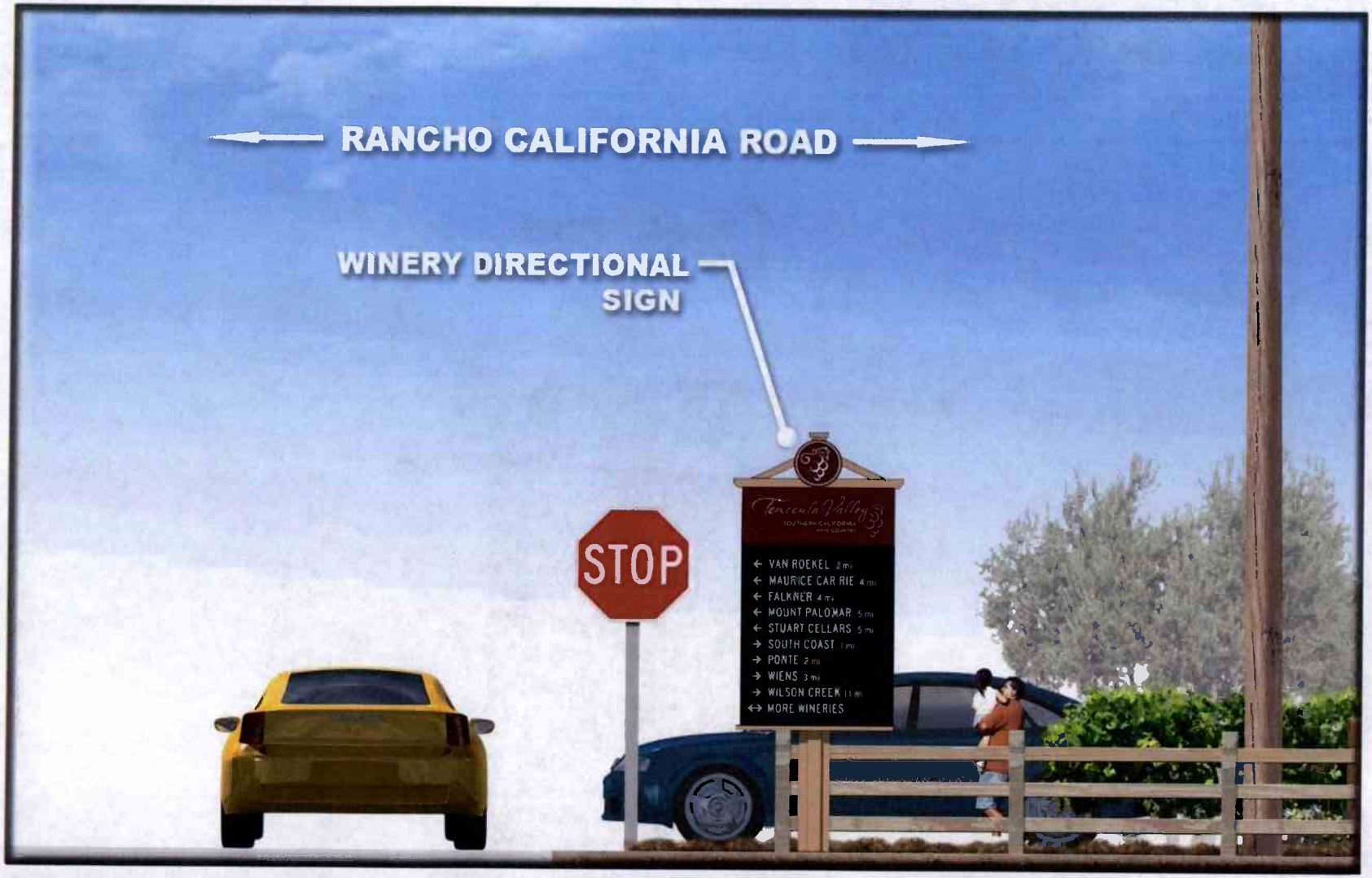
3-D View Showing Wayfinding Sign Location

View of Wayfinding Sign from North Side

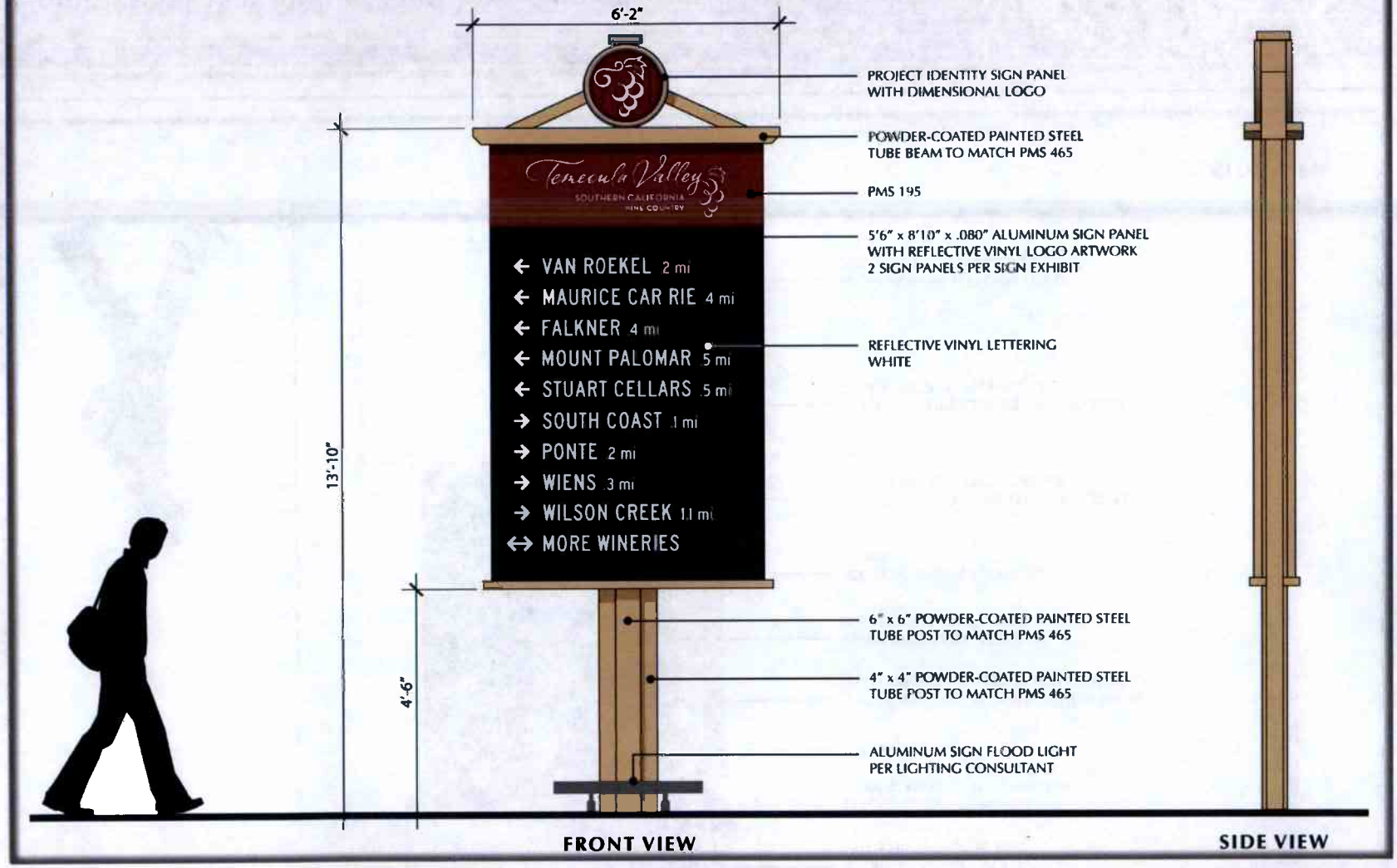


Winery Wayfinding Sign With Dimensions

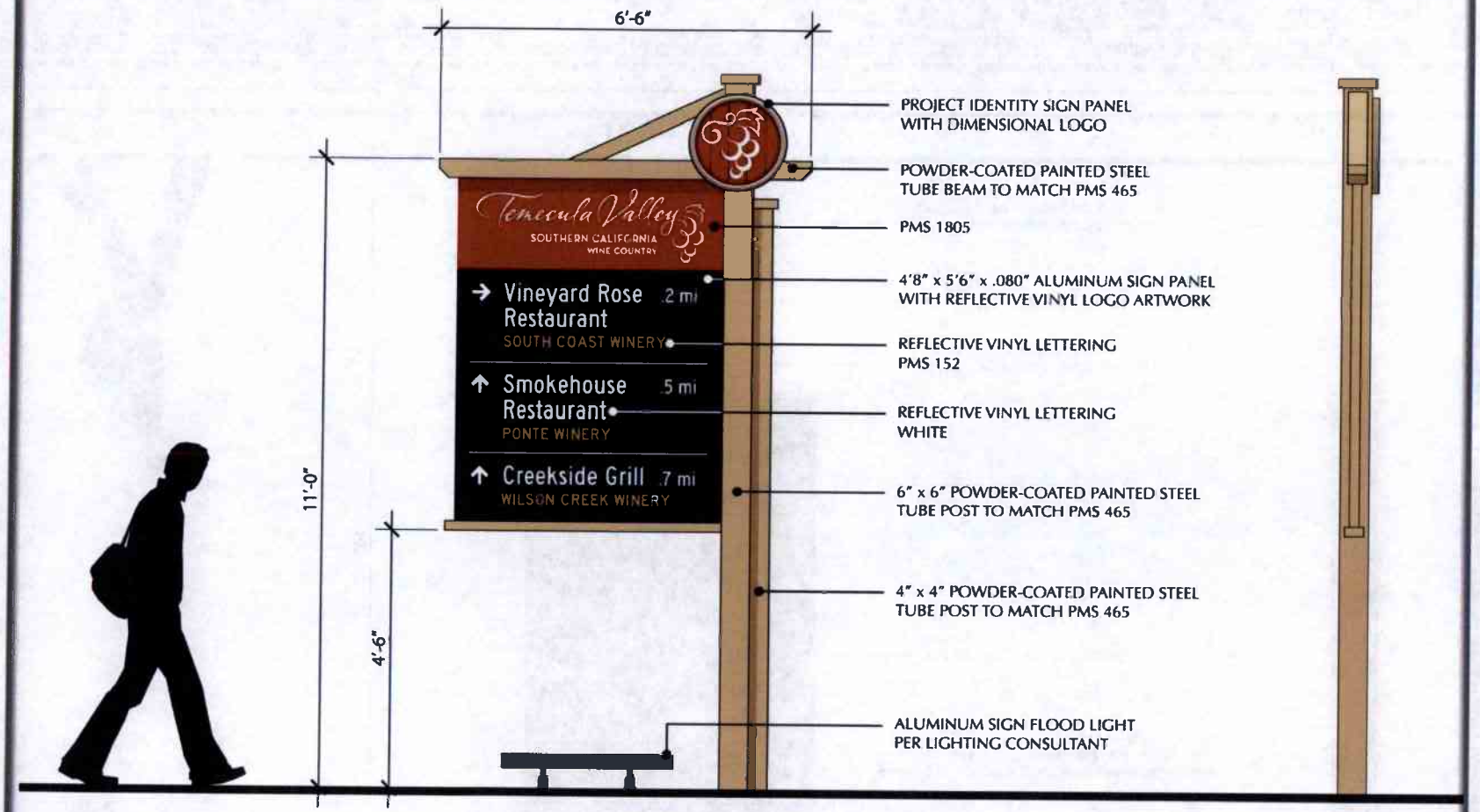
Winery Direction Sign



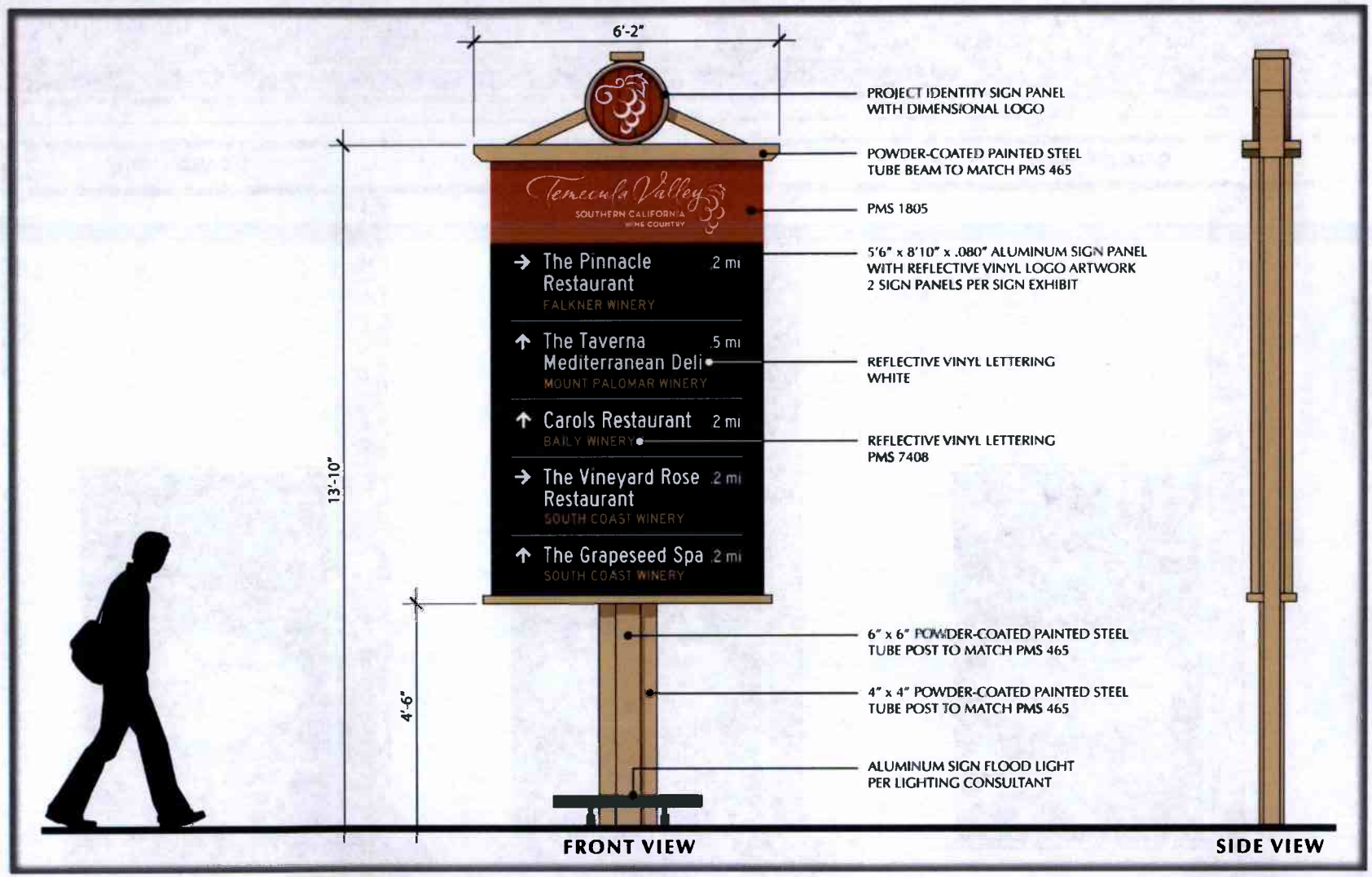
Winery Direction Sign on Anza at Intersection with Rancho California Road



Winery Direction Sign With Dimensions



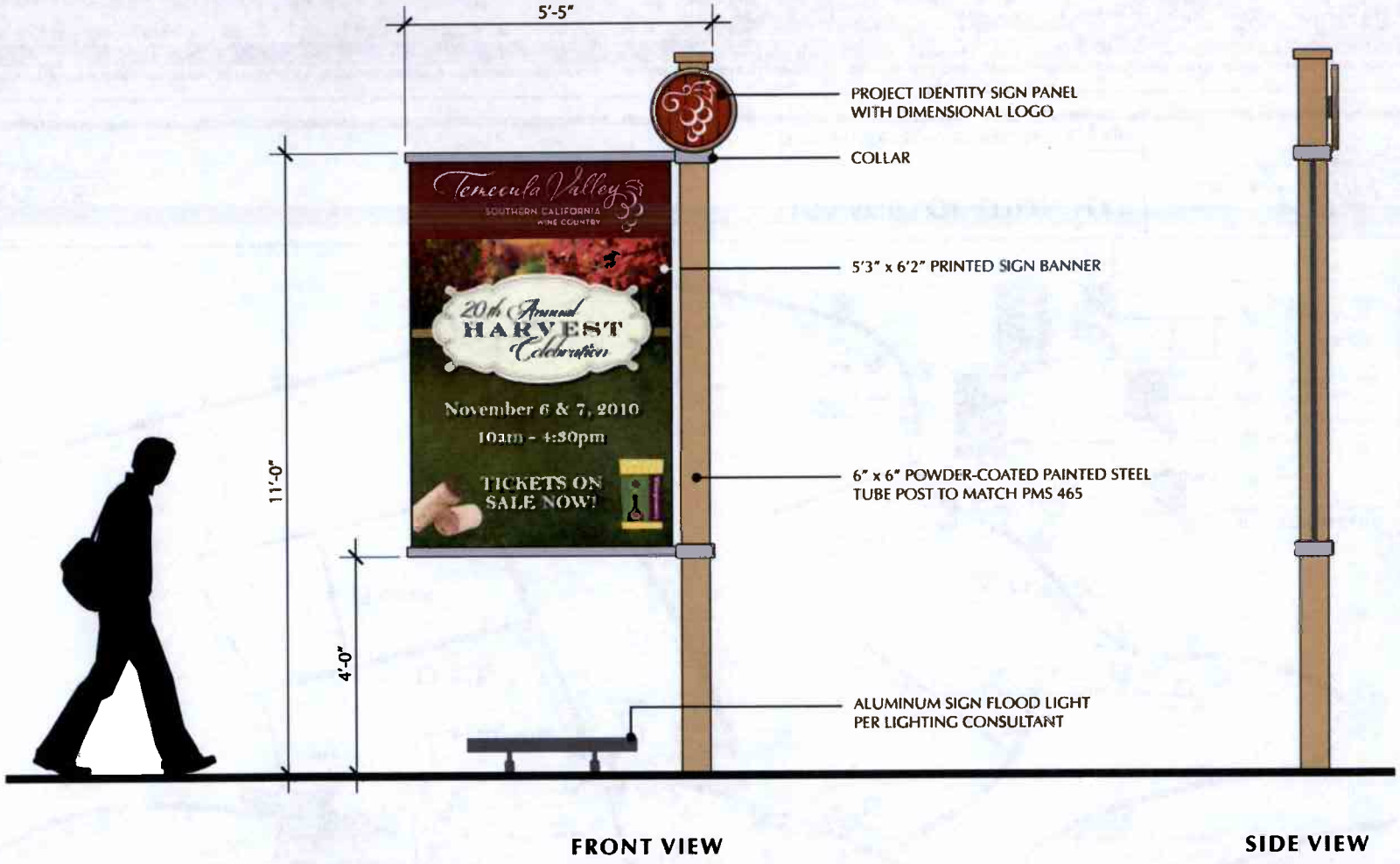
Commercial Wayfinding Sign With Dimensions



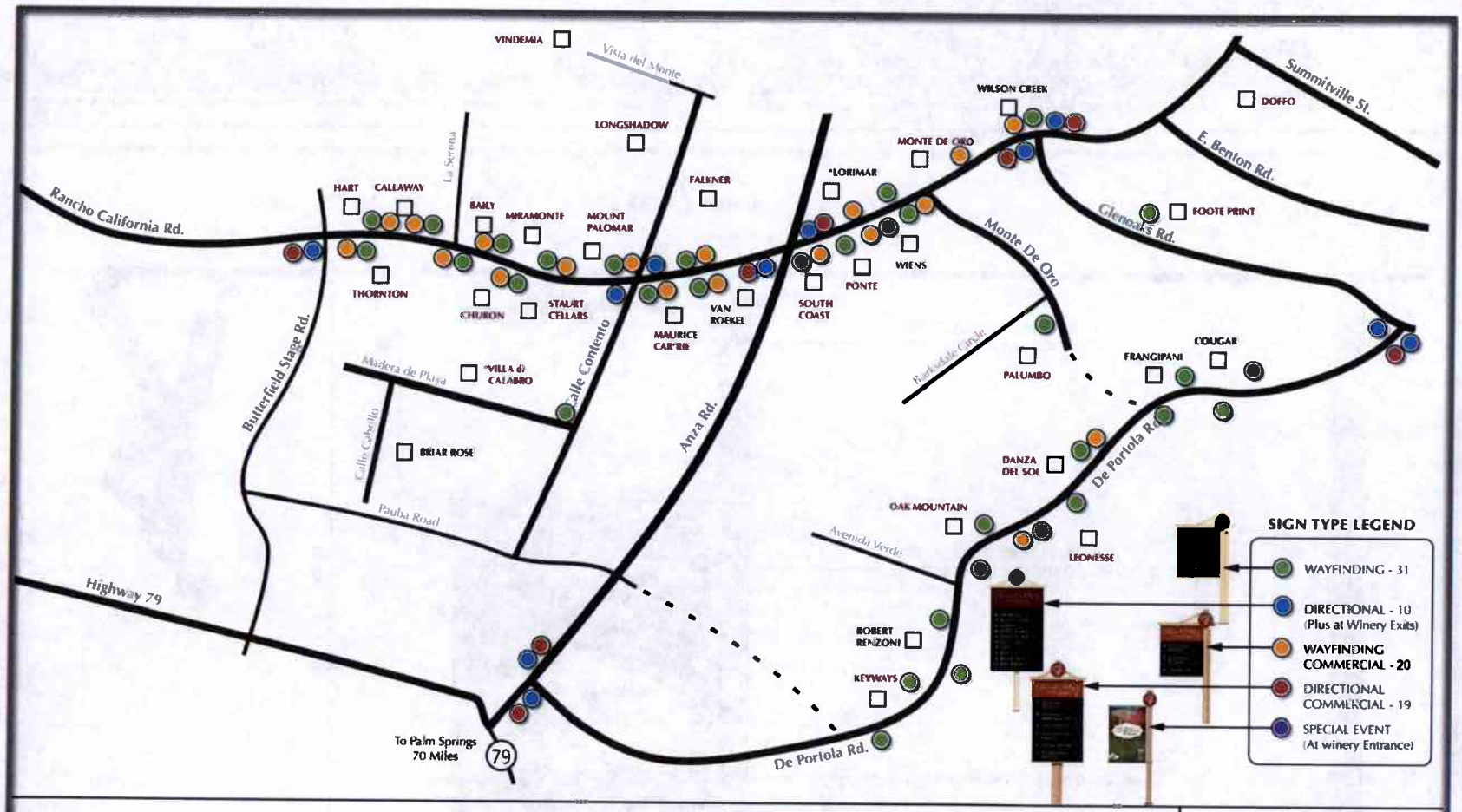
Commercial Direction Sign With Dimensions

Alternative 1 **Alternative 2** **Alternative 3**

Wine Country Event Banner Alternatives



Wine Country Event Banner

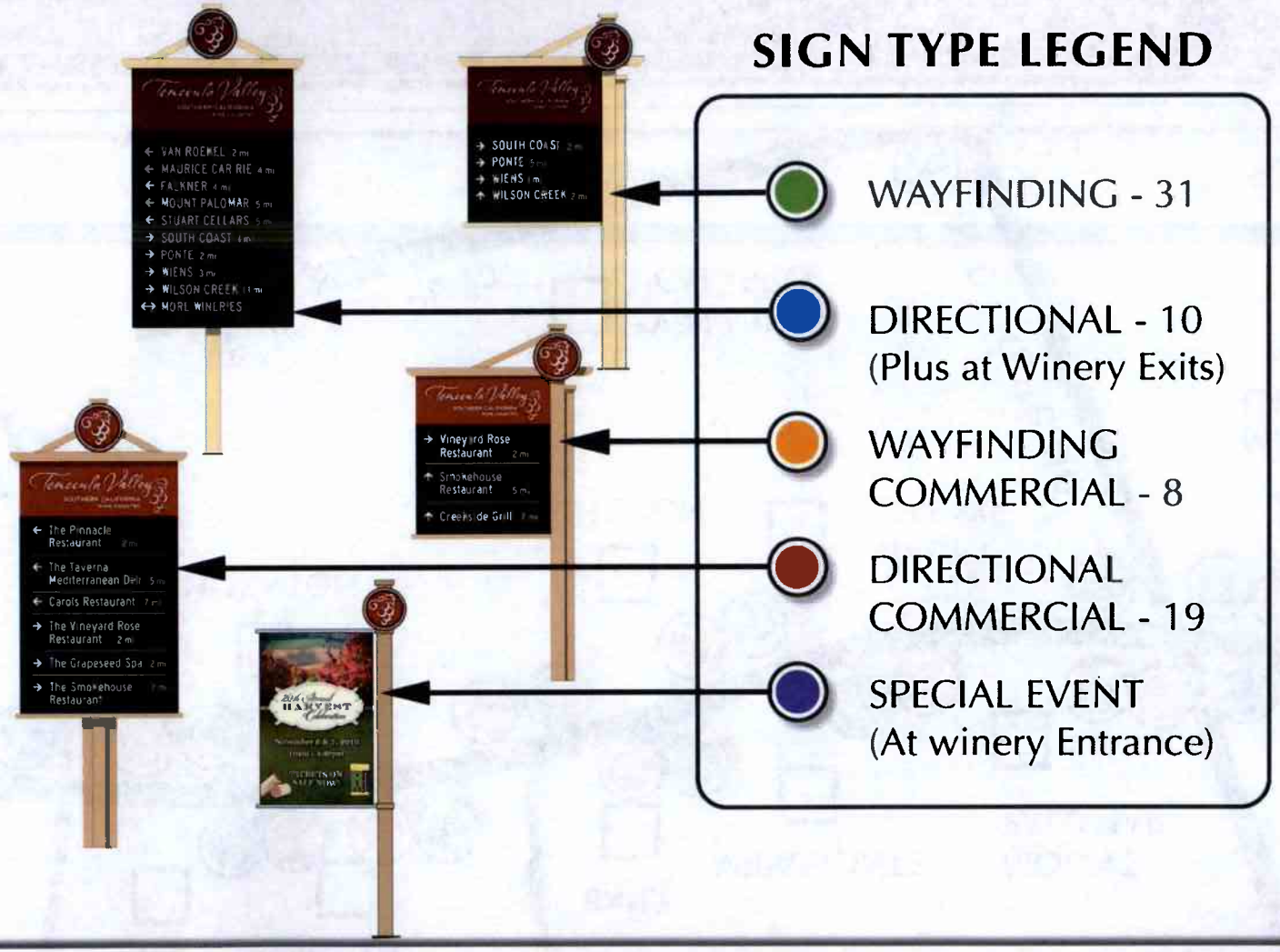


PDS West
PLANNING + DESIGN SOLUTIONS

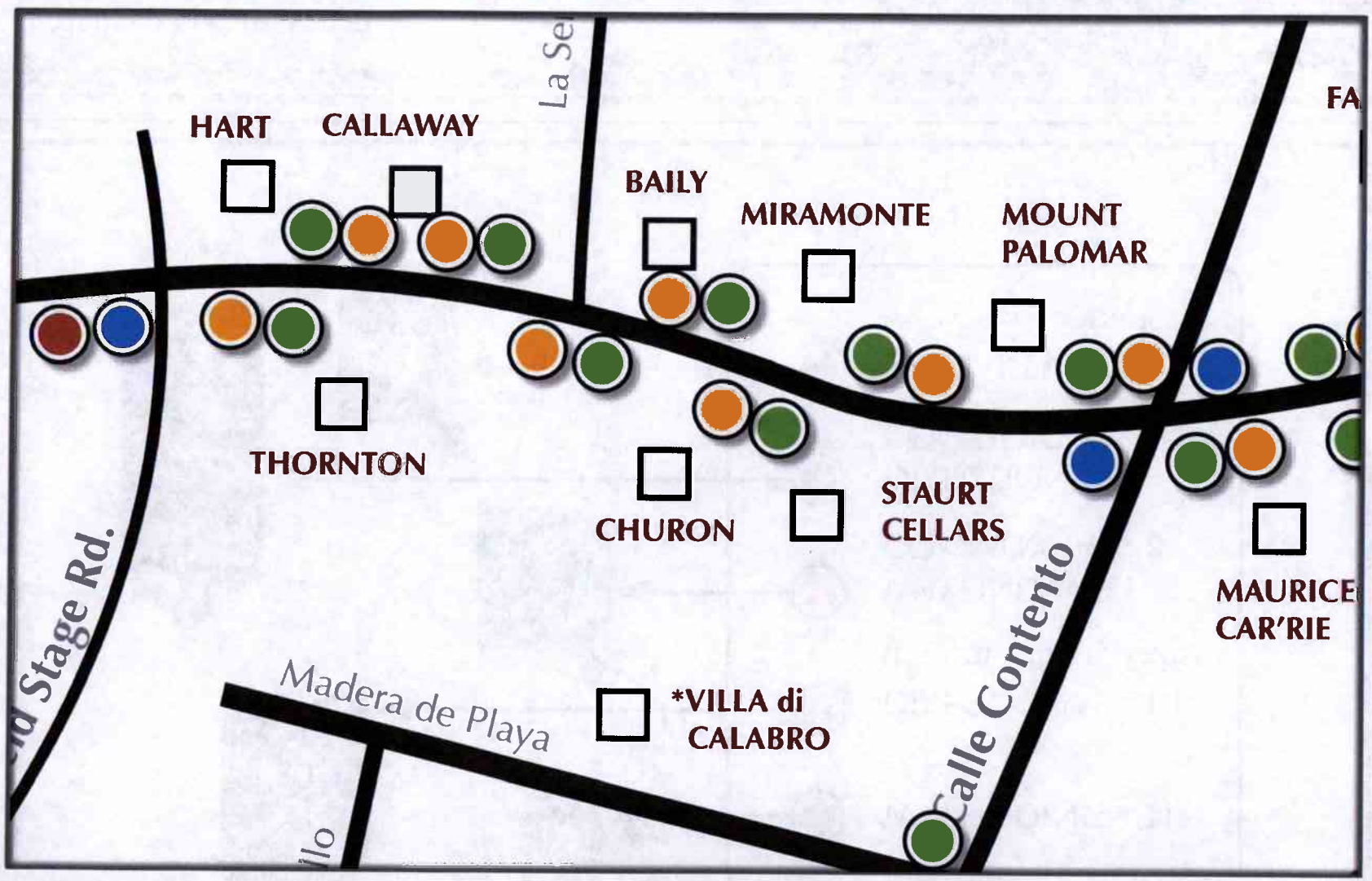
SIGNAGE LOCATION MAP

CONCEPTUAL SIGNAGE PROGRAM P.07

Temecula Valley
SOUTHERN CALIFORNIA WINE COUNTRY



Signage Location Map


HART
CALLAWAY
BAILY
MIRAMONTE
MOUNT PALOMAR
THORNTON
CHURON
STAURT CELLARS
MAURICE CAR'RIE
*VILLA di CALABRO
Madera de Playa
Calle Contento
Stage Rd.

TEMECULA VALLEY WINE COUNTRY SIGNAGE PROGRAM

The following Signage Program is a modified version of a sign ordinance that was approved by membership in the Temecula Valley Winegrowers Association. This program covers all road signage within the road Rights of Way within the Temecula Valley Wine Country boundaries.

Existing Road Signage

All existing road signage that is not specifically addressed in this section should be removed by the County. "Road Signage" is defined as all signs not specifically placed on roads for traffic and safety reason by the Riverside County Department of Transportation (DOT). This would include but not be limited to directional signs for business establishments such as wineries, restaurants, bed & breakfasts, hotels, real estate, land management, etc.

Existing signs that are placed on owner's property that state the name of the business establishment are allowed (subject to current and future DOT criteria). Each establishment will have the right to maintain up to two (2) such signs in front of their business establishment in order to make sure travelers are aware of their presence. Examples would include Winery Monument signage, Bed & Breakfast signage, nursery signage, Farm Produce signage, etc. Additional allowable signage would include, but no be limited to: a secondary name sign, an upcoming event banner, a restaurant on premise sign, etc. These signs must conform in size to the standards defining "Monument Signs."

New Road Signage

For purposes of visibility and attracting customers, new signs will be allowed in the DOT Right-of-Way, subject to approval by DOT. All new signage must conform to these guidelines or be deemed "unauthorized" and, as such, will be reported to

the County for removal. Allowable signs fall into two general categories: Winery wayfinding and directional signs and Incidental Commercial wayfinding and directional signs. These signs will be approved by Riverside County EDA and DOT before installation. Any new signs not following these approved designs will be deemed unauthorized. An exception is the existing directional signs for De Portola Wine Trail wineries. These existing wood signs may remain in place while they are good condition. No additional wood signs may be placed. When they are in need of repair or replacement, they must be replaced with approved signs. If they remain in place after their condition has deteriorated, they will be subject to removal by the County.

There are two series of signs allowed in the DOT Rights of Way: Winery Signs (Including only signs for TVWA wineries with tasting rooms) and Incidental Commercial Signs (For commercial and hospitality uses that are connected to wineries or commercial equestrian properties as defined and allowed by the Temecula Valley Wine Country Policy Zone).

Winery Wayfinding Sign - This is a sign meeting the approved design criteria shown on Pages 56-62. As can be seen, it includes the Temecula Valley Southern California Wine Country Logo and Logo Type on the top portion of the sign. Its purpose is to provide directional and distance advice to assist travelers in anticipating winery entrances and turnoffs. Each sign will have the capacity to list up to 6 wineries. Each winery will have its name, an arrow showing the side of the road the drive or turnoff will occur and the approximate distance to that point from the wayfinding sign location. If there are other wineries beyond the final winery on that sign, the last entry on the sign should be "Additional Wineries" with an arrow pointing ahead. Installation and maintenance of all signs is the shared responsibility of wineries whose names are listed on the sign.

Winery Directional Sign - This is a sign meeting the approved design criteria shown on Pages 63-65. This sign also includes the Temecula Valley Southern California Wine Country Logo and Logo Type on the top portion of the sign. The purpose

TEMECULA VALLEY WINE COUNTRY SIGNAGE PROGRAM

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New Road Signage

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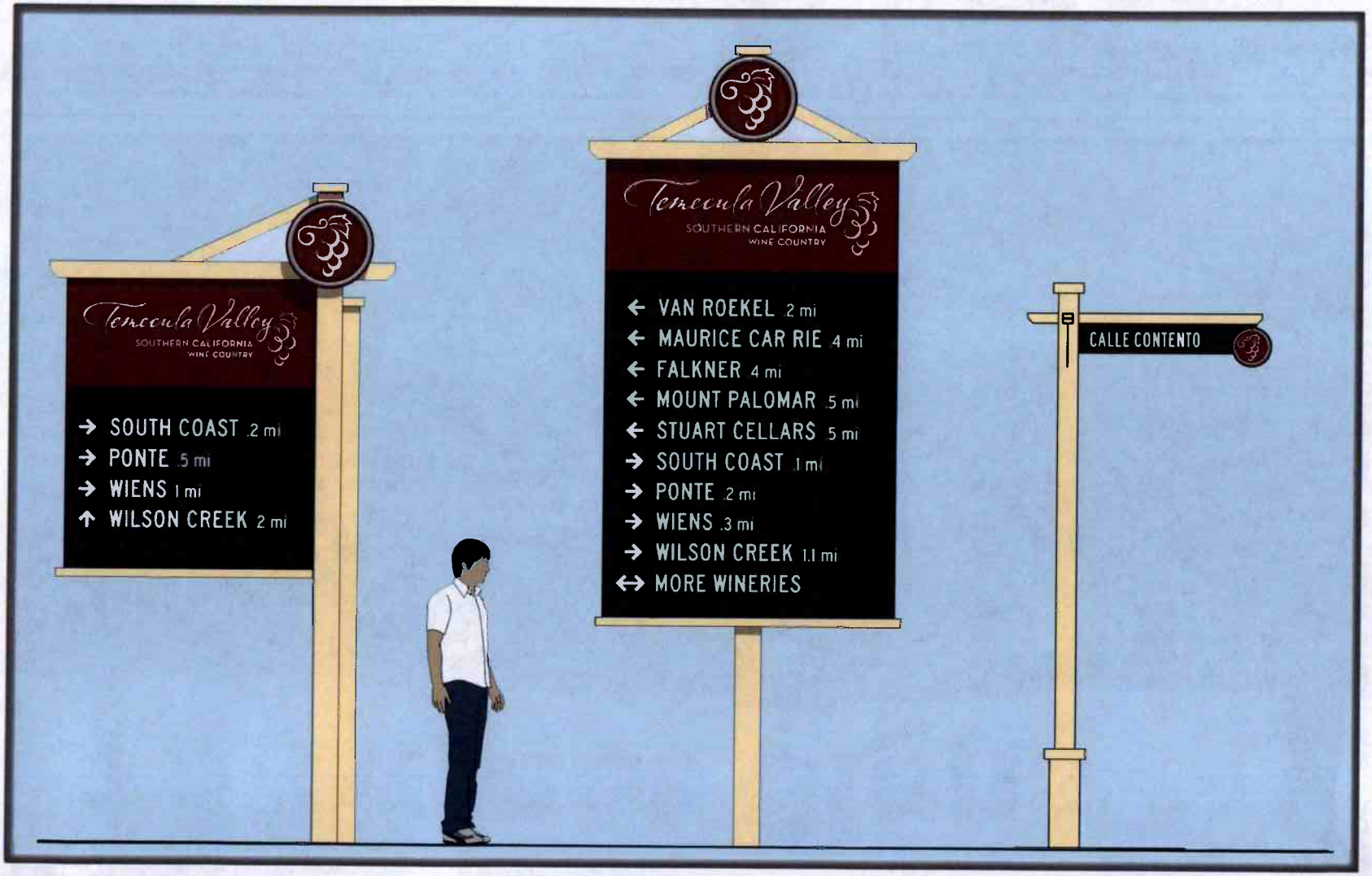
destination, the Wayfinding Signs will help them anticipate where they will turn into the establishment's drive. Installation and maintenance of all signs is the shared responsibility of Incidental Commercial establishments whose names are listed on the sign.

Sign Approval and Changes

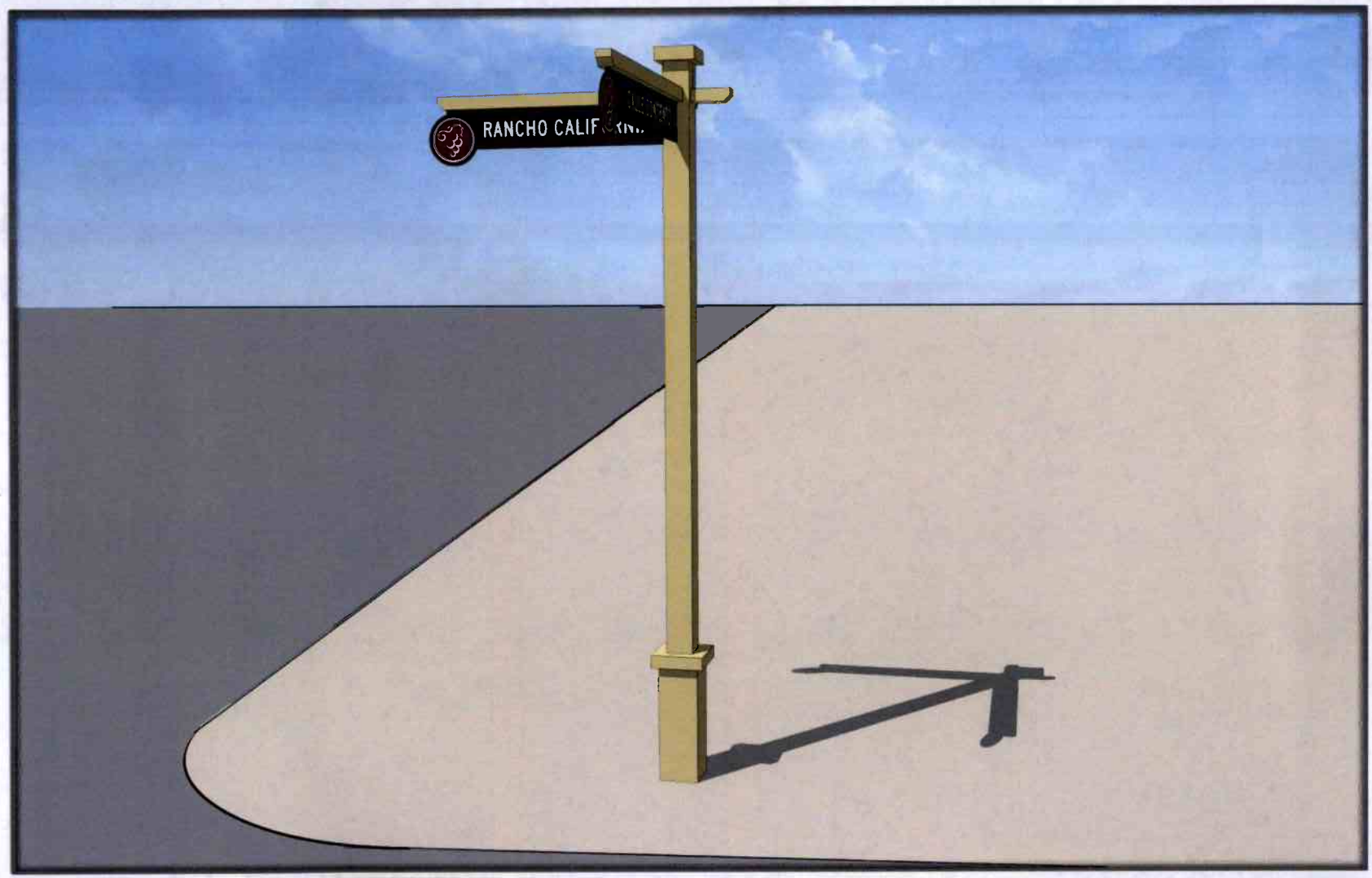
All wineries wishing to have their name on a Winery Sign must be members of the Temecula Valley Winegrowers Association (TVWA). Monument and other frontage signs for wineries must meet the standards established for such sings by Riverside County EDA and DOT. All costs associated with the construction, installation, and maintenance of such signs lies with the establishments listed except when TVWA, Riverside County EDA or DOT has approved otherwise. Any winery sign installed without proper approval will be placed on the "unauthorized" list and be subject to removal.

Incidental commercial establishments wishing to have their name on an Incidental Commercial Sign must be associated with a winery, and be located on that winery's property. All costs associated with the construction, installation, and maintenance of such signs lies with the establishments listed except when TVWA, Riverside County EDA or DOT has approved otherwise. Any winery sign installed without proper approval will be placed on the "unauthorized" list and be subject to removal.

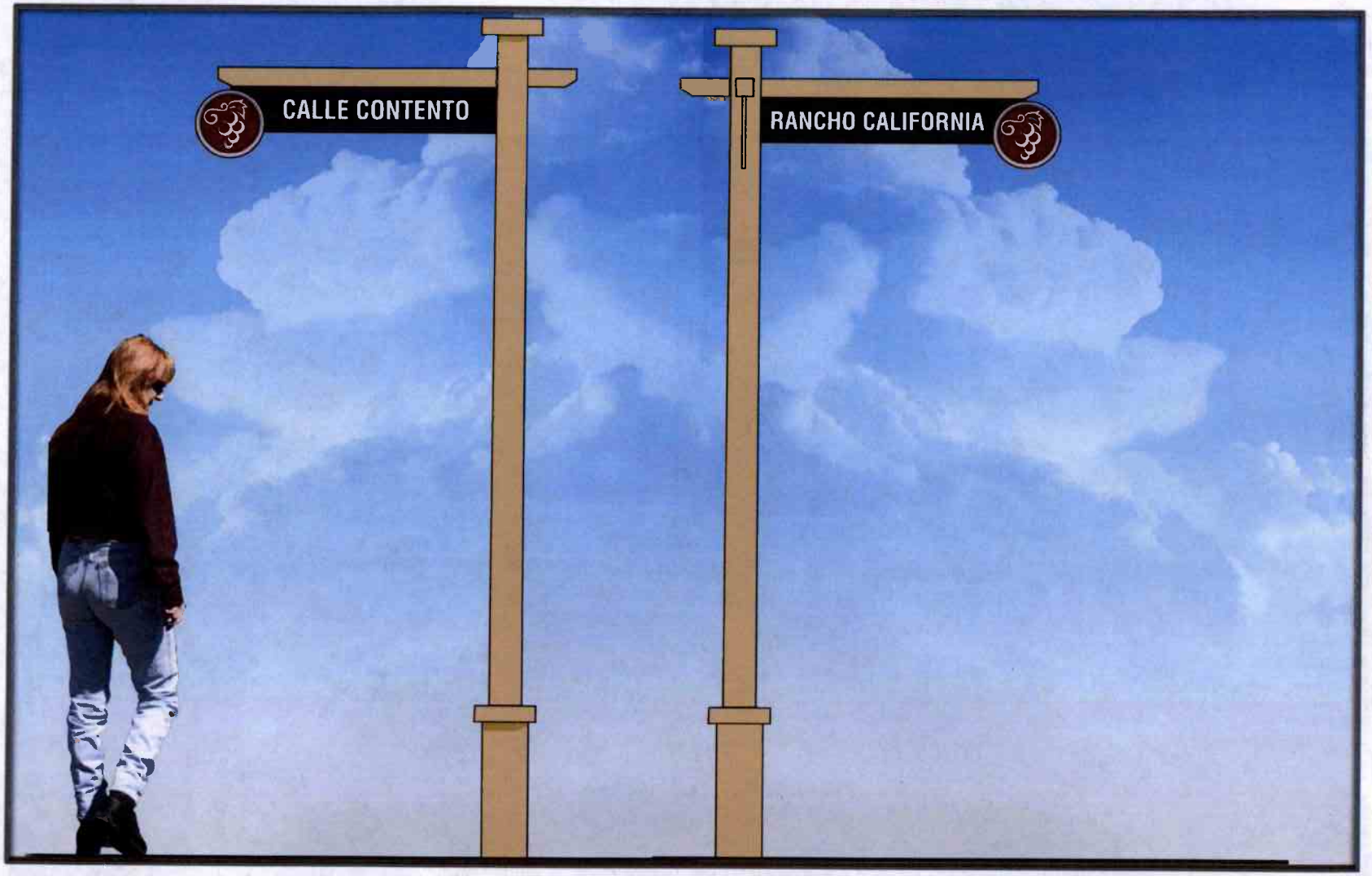
Street Signs



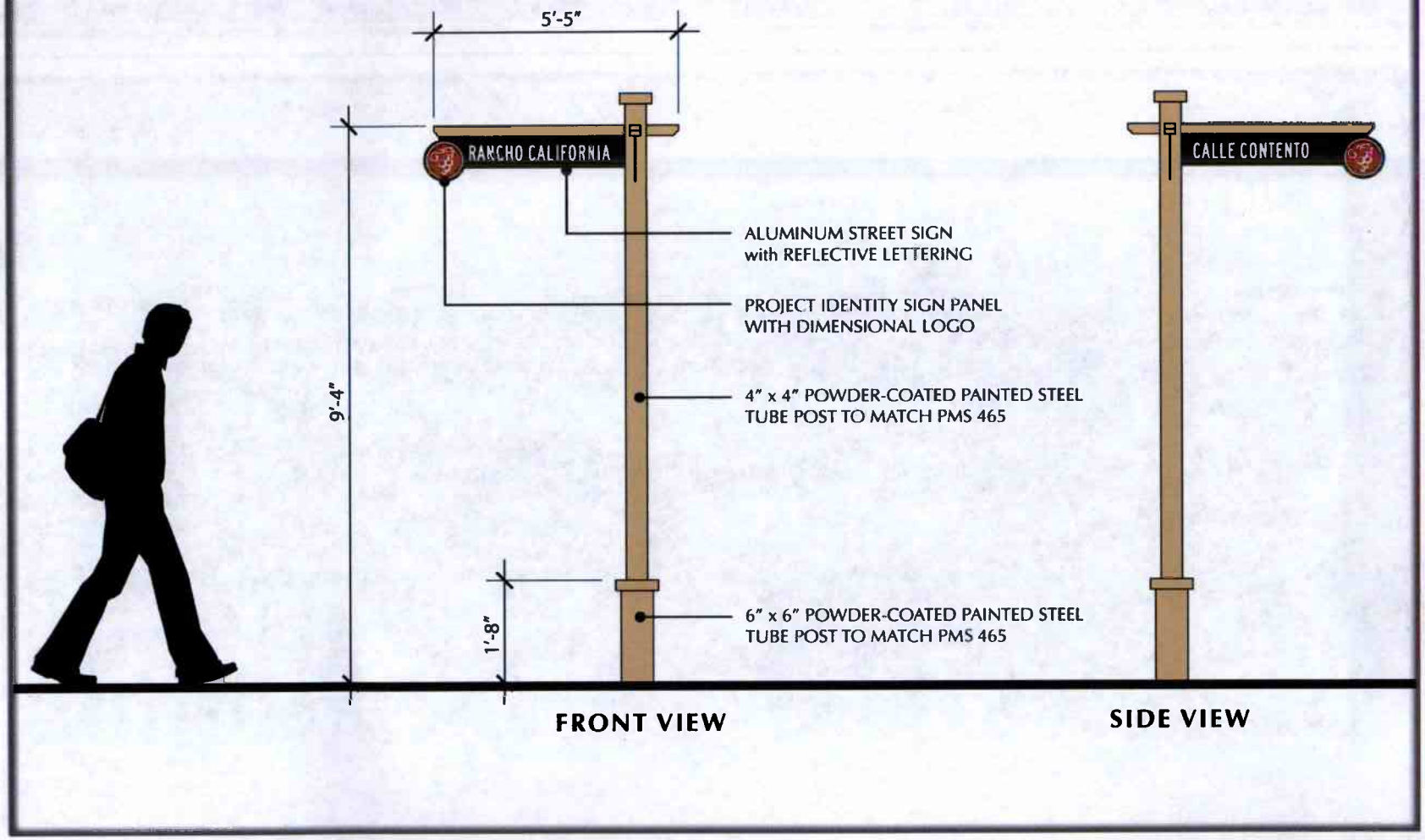
Proposed Street Sign is Consistent with Style



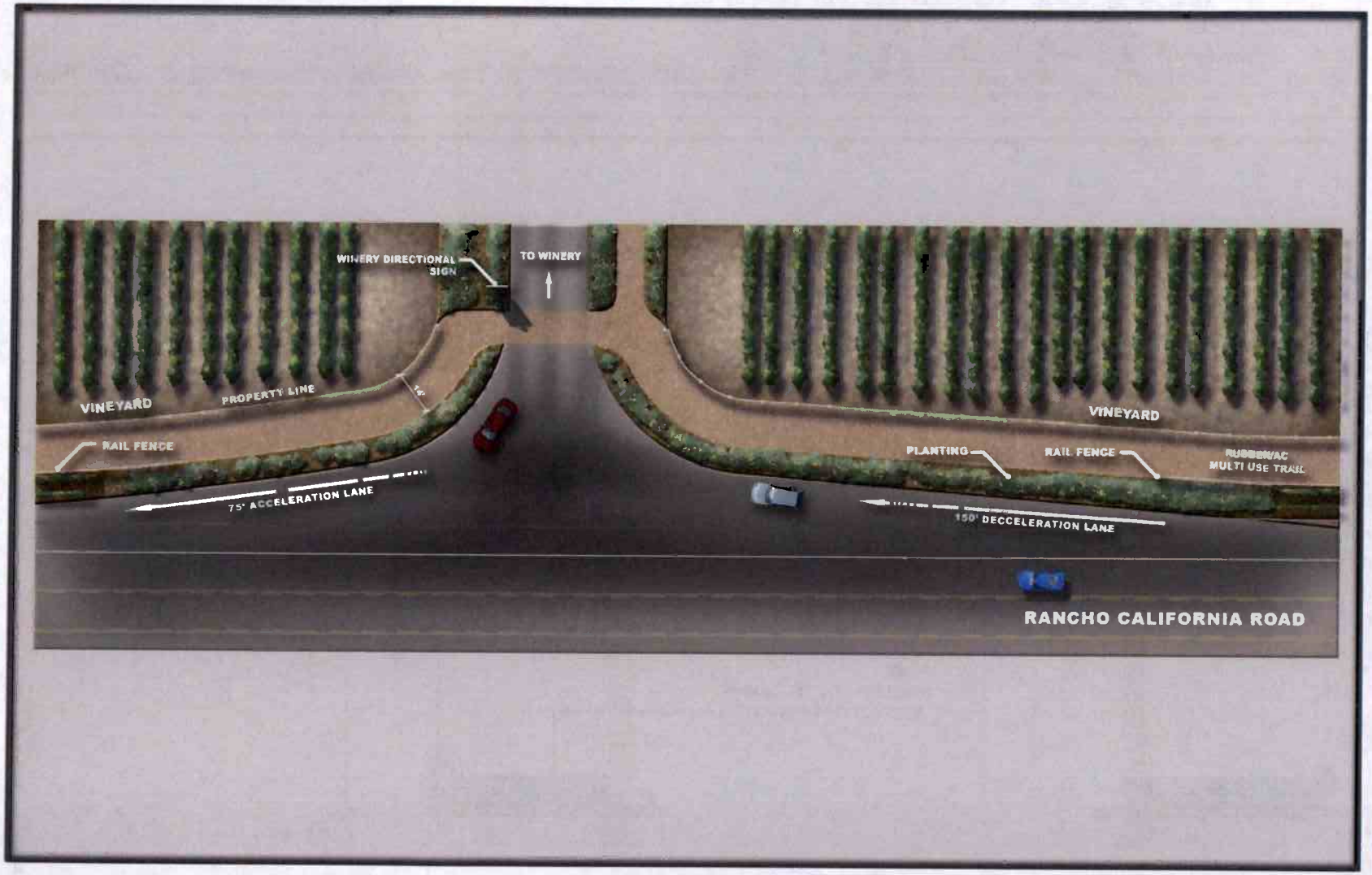
Wine Country Street Sign



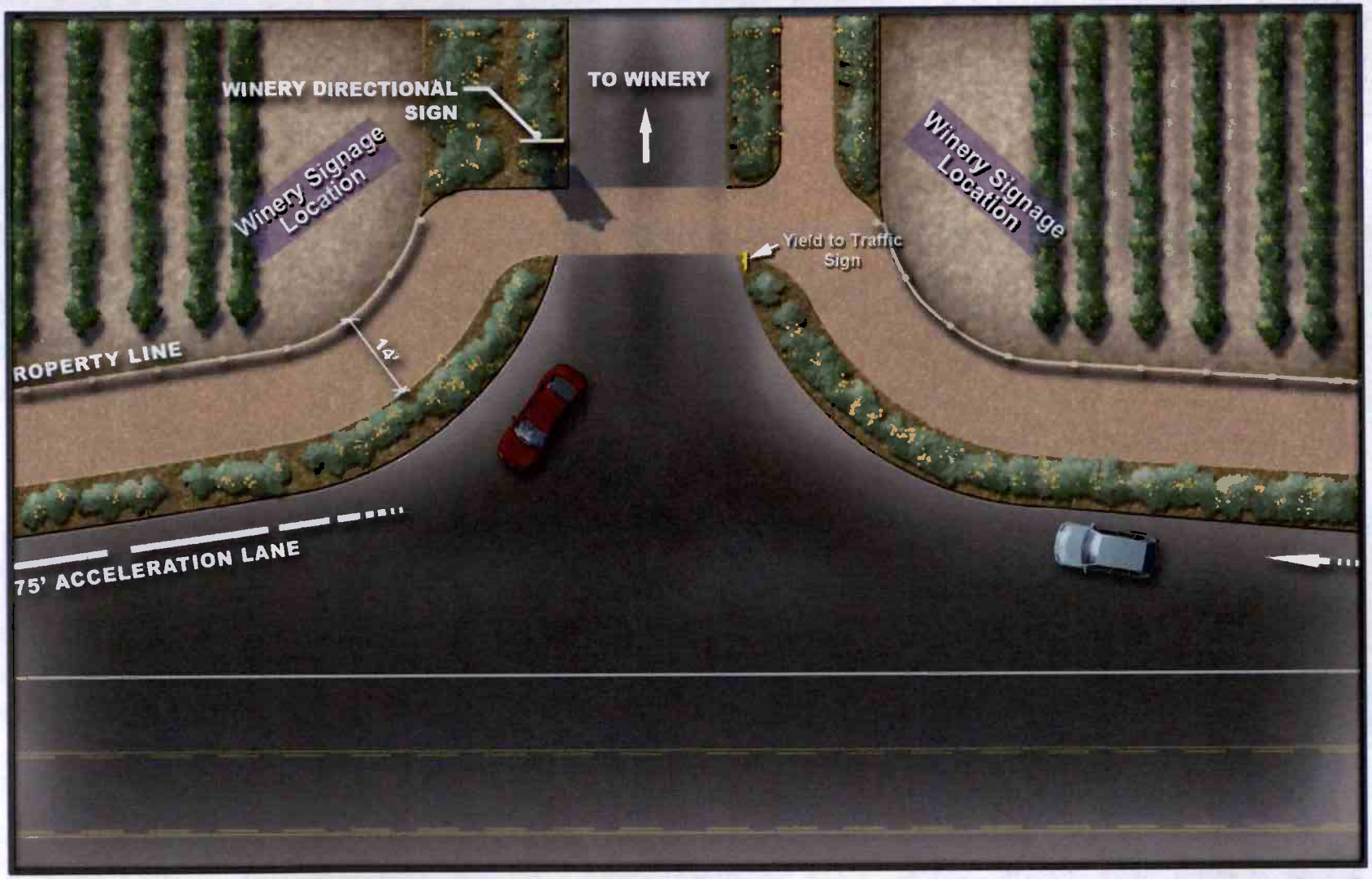
Wine Country Street Sign



Wine Country Street Sign

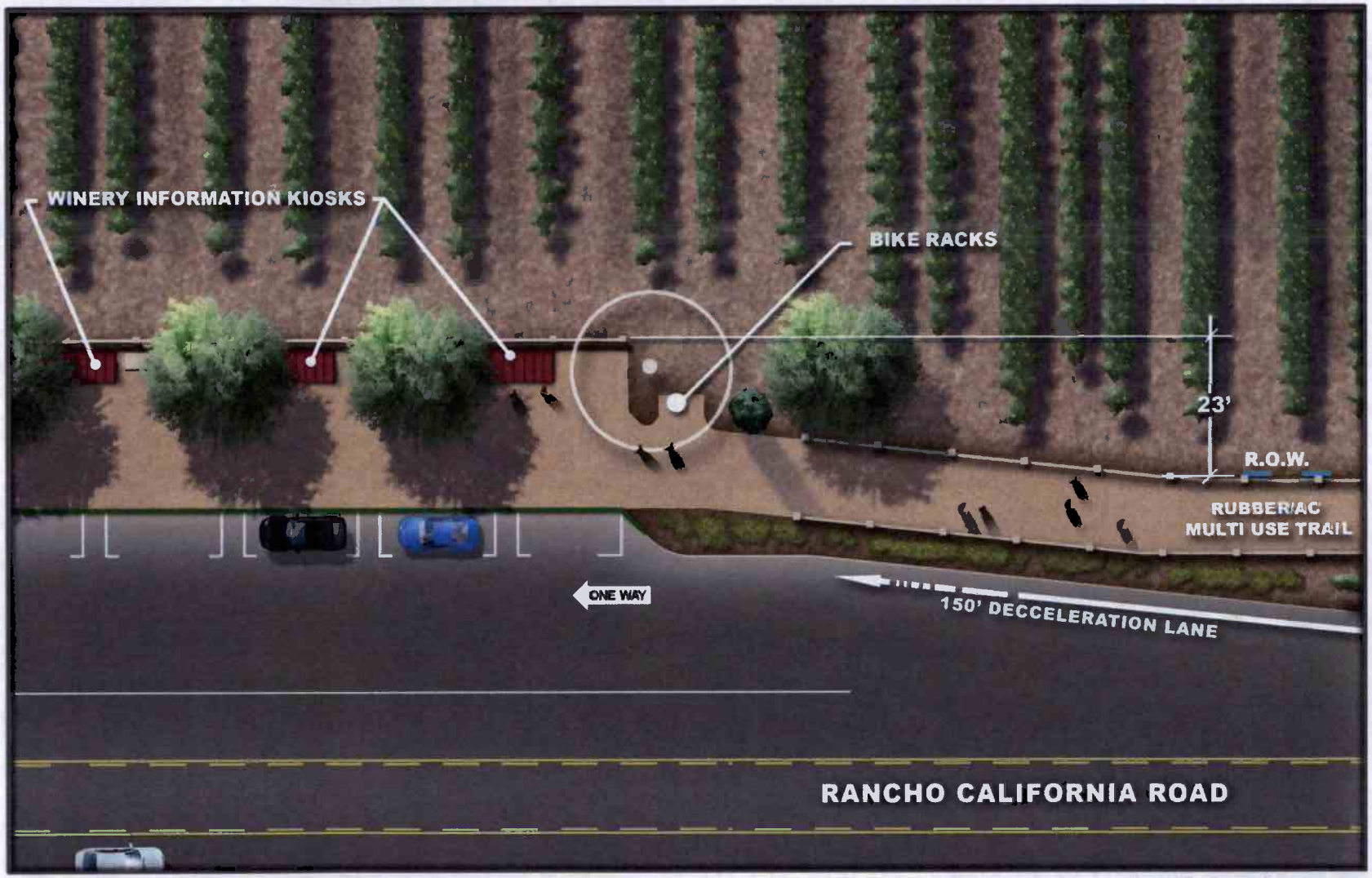


Typical Winery Entrance Requirements

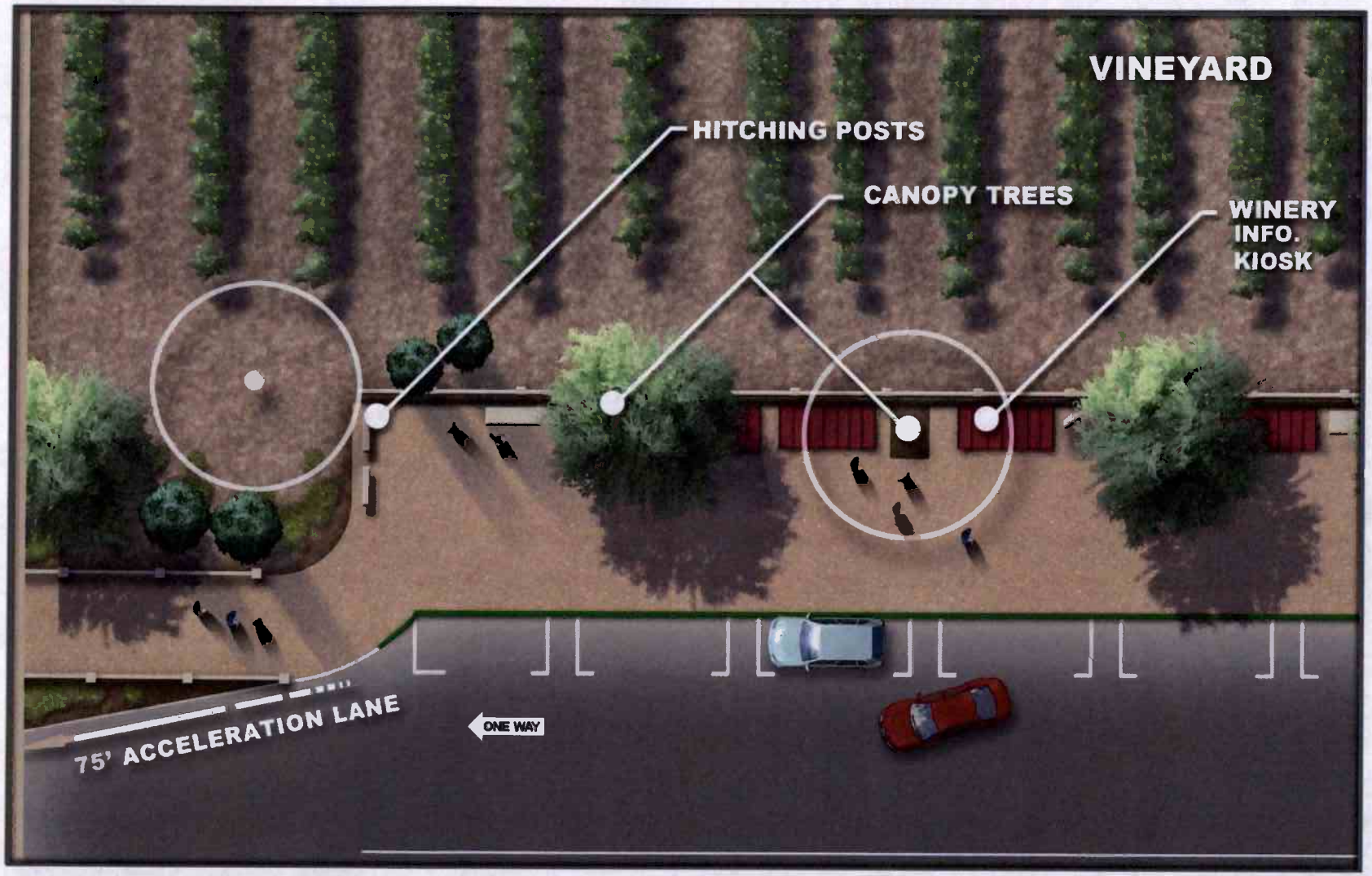


Typical Winery Entrance Requirements


VINEYARD
HITCHING POSTS
CANOPY TREES
WINERY INFORMATION KIOSKS
BIKE RACKS
23'
R.O.W.
RUBBERIZED
MULTI USE TRAIL
75' ACCELERATION LANE
150' DECCELERATION LANE
RANCHO CALIFORNIA ROAD

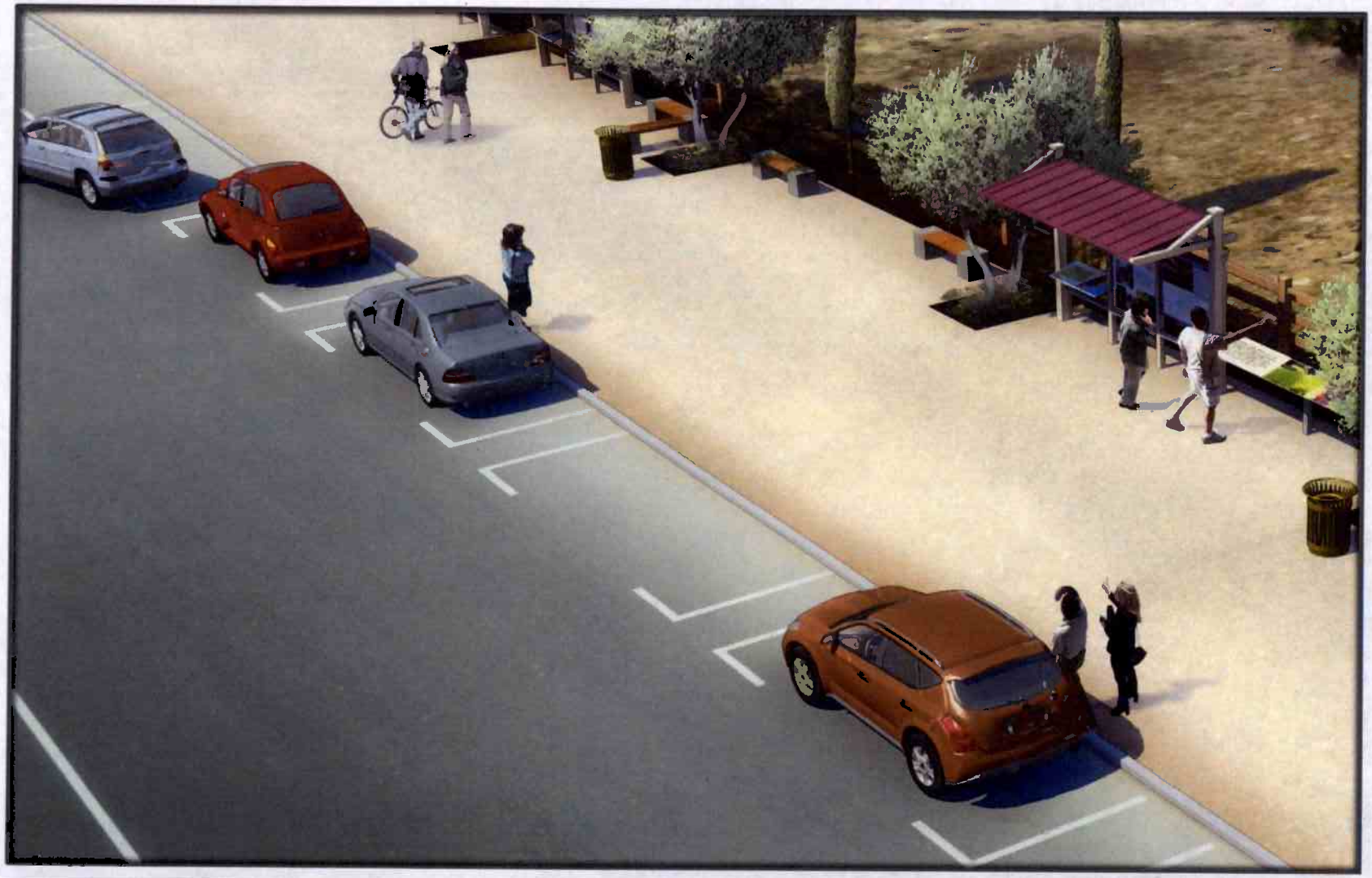


West Half of
Visitor Orientation and Information Center



East half of the
Visitor Orientation and Information Center

Bird's Eye View of the Proposed
Visitor Orientation and Information Center



Bird's Eye View of the Proposed
Visitor Orientation and Information Center

Bird's Eye View of the Proposed
Visitor Orientation and Information Center

Eye-Level View of the Proposed
Visitor Orientation and Information Center


Temecula Valley
WINE COUNTRY

Proposed Temecula Valley Wine Country Greenhouse Gas Reduction Workbook

Temecula Valley
SOUTHERN CALIFORNIA
WINE COUNTRY

Greenhouse Gas Reduction Workbook

RIVERSIDE COUNTY
PLANNING DEPARTMENT

TABLE OF CONTENTS

Chapter 1: Introduction

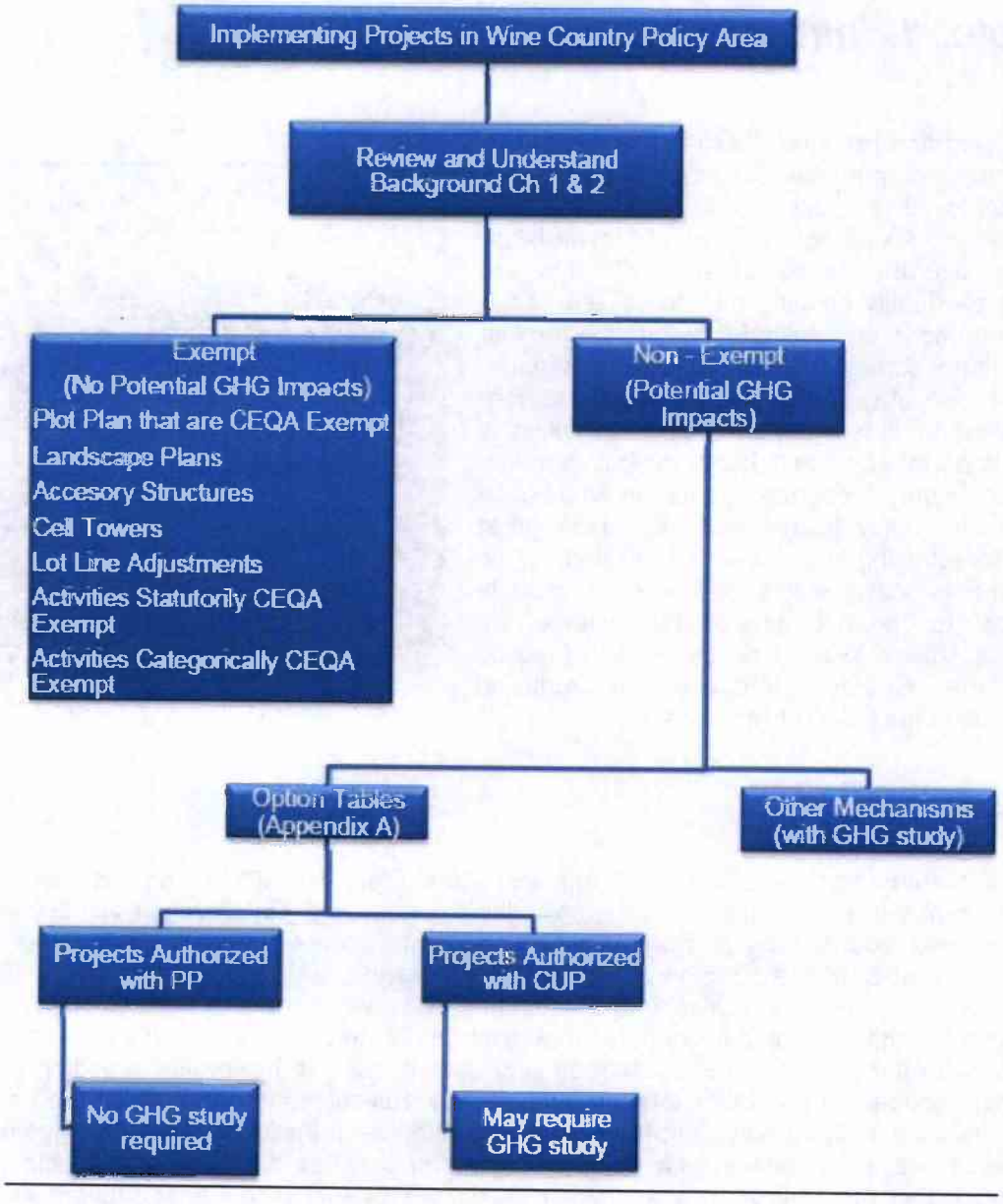
Air is a common resource that is essential to the health of our communities. It embodies essential components that support global ecosystem, economy and social equity. Without stewardship, an over overabundance of air pollutants will degrade air quality causing mild to severe health effect in humans and animals, lower visibility, lost of agricultural commodities, and property damage. The reduction of greenhouse gases emitted from combustion of fossil fuel and other activities is equally important as it is linked to global warming. Riverside County recognizes its role in addressing regional air quality issues and has made great strides in reducing its share of emissions. This document is designed specifically to provide guidance to project proponents within the Temecula Valley Wine Country Policy Area to further the County's progress in reducing Greenhouse Gas (GHG) Emissions.

Purpose

Riverside County has developed a Southwest Area Plan (SWAP) as an extension of the General Plan, which establishes policies for development and conservation within the entire unincorporated County. The purpose of this SWAP is to address the specific requirements of land uses in the Southwest region of the county with regard to long-term planning. Within the SWAP are policy areas, which take into account locales which have a special significance to residences in that part of the county. More specifically, the Temecula Valley Wine Country Policy Area of the SWAP seeks to address land uses specific to the region including wineries, equestrian, residential and other tourism related uses. Specific land use policies are contained in the Temecula Valley Wine Country Policy Area and are established to protect against land uses which are incompatible with existing uses and to allow for growth. Specific policies contained within the Policy Area address different topics including transportation, land use, population and employment, air quality and greenhouse gas emissions.

In order to ensure consistency with the General Plan and SWAP goals, the County has developed this workbook to provide guidance and streamline CEQA review for implementing projects within the Temecula Valley Wine Country Policy Area. This document serves to implement the greenhouse gas reduction policies and objectives of Riverside County.

How to use this Document*:



* Further details are available in Chapter 3. Nothing in this workbook shall be construed as limiting the County's authority to require a GHG study, to require an EIR, or adopt a statement of overriding consideration for a project due to its significant GHG impacts.

Chapter 2: Greenhouse Gases

Existing Conditions

The State of California recognized that anthropogenic (human-caused) greenhouse gas (GHG) emissions are contributing to changes in the global climate, and that such changes are having and will have adverse effects on the environment, the economy, and public health. These are cumulative effects of past, present, and future actions worldwide. While worldwide contributions of GHG emissions are expected to have widespread consequences, it is not possible to link particular changes to the environment of California or elsewhere to GHG emitted from a particular source or location. Thus, when considering a project's contribution to impacts from climate change, it is possible to examine the quantity of GHG emissions that would be emitted either directly from project sources or indirectly from other sources, such as production of electricity as a result of activities or land use development in the County. GHGs trap heat in the atmosphere, which in turn heats the surface of the Earth. Some GHGs occur naturally and are emitted to the atmosphere through natural processes, while others are created and emitted solely through human activities, primarily through the combustion of fossil fuels. The State of California has been at the forefront of developing solutions to address global climate change and reduce anthropogenic GHG emissions.

State law defines GHG to include the following compounds: carbon dioxide (CO2), methane (CH4), nitrous oxide (N2O), hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), and sulfur hexafluoride (SF6) (CEQA Guidelines, section 15364.5; Health and Safety Code, section 38505(g)). The most common GHG that results from human activity is carbon dioxide, followed by methane and nitrous oxide. Because GHGs have variable potencies, a common metric of carbon dioxide equivalents (CO2e) is used to report their combined potency. The potency each GHG has in the atmosphere is measured as a combination of the volume of its emissions and its global warming potential (GWP)[1], and is expressed as a function of the potency with respect to the same mass of CO2. Methane, for example has a GWP of 21, while nitrous oxide has a GWP of 310. Thus, by multiplying the amount in metric tons of each individual gas by their respective GWP, all GHGs can be reported in the common unit of metric tons[2] of CO2e (MT CO2e).

Due to the successful global bans on chlorofluorocarbons (primarily used as refrigerants, aerosol propellants and cleaning solvents), Riverside County does not generate significant emissions of these GHGs. The same has occurred for other synthesized gases such as hydrofluorocarbons (HFCs) and carbon tetrafluoride (CF4) which have been banned and are no longer available on the market. Because of the ban, Riverside County will not generate additional emissions of these GHGs.

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[1] *The potential of a gas or aerosol to trap heat in the atmosphere.*

[2] *One metric ton (MT) equals 1,000 kilograms or 2,204 pounds. Note, one 'short ton' is 2,000 pounds.*

Regulatory Discussion

Federal Regulations

a. Global Climate Change Programs

The United States Environmental Protection Agency (USEPA) is responsible for implementing federal policy to address global climate change. The federal government administers a wide array of public-private partnerships to reduce GHG intensity generated by the United States. These programs focus on energy efficiency, renewable energy, methane and other non-CO2 gases, agricultural practices, and implementation of technologies to achieve GHG reductions. The USEPA implements several voluntary programs that substantially contribute to the reduction of GHG emissions including:

- The State Climate and Energy Partner Network that allows for the exchange of information between federal and state agencies regarding climate and energy,
- The Climate Leaders program for companies, the Energy Star labeling system for energy-efficient products, and
- The Green Power Partnership for organizations interested in buying green power.

All of these programs play a significant role in encouraging voluntary reductions from large corporations, consumers, industrial and commercial buildings, and many major industrial sectors.

In Massachusetts v. Environmental Protection Agency (Docket No. 05–1120), the U.S. Supreme Court held in April of 2007 that the USEPA has authority to regulate greenhouse gases, and the USEPA's reasons for not regulating this area did not fit the statutory requirements. As such, the U.S. Supreme Court ruled that the USEPA should be required to regulate CO2 and other greenhouse gases as pollutants under Section 202(a)(1) of the federal Clean Air Act (CAA).

The USEPA issued a Final Rule for mandatory reporting of GHG emissions in October of 2009. This Final Rule applies to fossil fuel suppliers, industrial gas suppliers, direct GHG emitters, and manufactures of heavy-duty and off-road vehicles and vehicle engines, and requires annual reporting of emissions. The Final Rule was effective December 29, 2009, with data collection beginning January 1, 2010, and the first annual reports due in March 2011. This rule does not regulate the emission of GHGs; it only requires the monitoring and reporting of greenhouse gas emissions for those sources above certain thresholds (USEPA 2009). USEPA adopted a Final Endangerment Finding for the six defined GHGs on December 7, 2009. The Endangerment Finding is required before USEPA can regulate GHG emissions under Section 202(a)(1) of the CAA in fulfillment of the U.S. Supreme Court decision.

On May 13, 2010, the USEPA issued a Final Rule that establishes a common sense approach to addressing greenhouse gas emissions from stationary sources under the CAA permitting programs. In the first phase of the Rule (January 2011-June 2011), only sources currently subject to the New Source Review Prevention of Significant Deterioration (PSD) permitting program (i.e., those that are newly-constructed or modified in a way that significantly increases

emissions of a pollutant other than GHGs) are subject to permitting requirements for their GHG emissions under PSD. For these projects, only GHG increases of 75,000 tons per year (tpy) CO2e or more need to determine the Best Available Control Technology (BACT) for their GHG emissions. This final rule sets a threshold of 75,000 tons per year for GHG emissions. Similarly for the operating permit program, only sources currently subject to the program are subject to Title V requirements for GHG. In the second phase of the rule (July 2011-June 2013) new construction projects that exceed a threshold of 100,000 tpy and modifications of existing facilities that increase emissions by at least 75,000 tpy will be subject to permitting requirements. Additionally, operating facilities that emit at least 100,000 tpy will be subject to title V permitting requirements (USEPA 2010a). New and existing industrial facilities that meet or exceed that threshold will require a permit under the New Source Review Prevention of Significant Deterioration (PSD) and Title V Operating Permit programs. This rule took effect January 2, 2011.

b. Kyoto Protocol

The United States participated in the United Nations Framework Convention on Climate Change (UNFCCC) (signed on March 21, 1994). The Kyoto Protocol is a treaty made under the UNFCCC and was the first international agreement to regulate GHG emissions. It has been estimated that if the commitments outlined in the Kyoto Protocol are met, global GHG emissions could be reduced by an estimated 5 percent from 1990 levels during the first commitment period of 2008–2012 (UNFCCC 1997). It should be noted that although the United States is a signatory to the Kyoto Protocol, Congress has not ratified the Protocol and the United States is not bound by the Protocol's commitments.

In anticipation of providing an updated international treaty for the reduction of GHG emissions, representatives from 170 countries met in Copenhagen in December 2009 to ratify an updated UNFCCC agreement (Copenhagen Accord). The Copenhagen Accord, a voluntary agreement between the United States, China, India, and Brazil, recognizes the need to keep global temperature rise to below 2°C and obliges signatories to establish measures to reduce greenhouse gas emissions and to prepare to provide help to poorer countries in adapting to climate change. The countries met again in Cancun in December 2010 and adopted the Cancun Agreements, which reinforces and builds upon the Copenhagen Accord. The nations agreed to recognize country targets, develop low-carbon development plans and strategies, and report inventories annually. In addition, agreements were made regarding financing for developing countries and technology support and coordination among all nations. The next conference of the parties is scheduled for December 2011 in South Africa.

c. Climate Change Technology Program

The United States has opted for a voluntary and incentive-based approach toward emissions reductions in lieu of the Kyoto Protocol's mandatory framework. The Climate Change Technology Program (CCTP) is a multi-agency research and development coordination effort (which is led by the Secretaries of Energy and Commerce) that is charged with carrying out the President's National Climate Change Technology Initiative.

State Regulations

a. **California Air Resources Board**

The California Air Resources Board, a part of the California EPA (CalEPA), is responsible for the coordination and administration of both federal and state air pollution control programs within California. In this capacity, ARB conducts research, sets state ambient air quality standards (California Ambient Air Quality Standards, or CAAQS), compiles emission inventories, develops suggested control measures, and provides oversight of local programs. ARB establishes emissions standards for motor vehicles sold in California, consumer products (such as hairspray, aerosol paints, and barbecue lighter fluid), and various types of commercial equipment. It also sets fuel specifications to further reduce vehicular emissions. ARB has primary responsibility for the development of California's SIP, and works closely with the federal government and the local air districts.

b. Assembly Bill 32, The Global Warming Solutions Act of 2006

In 2006, the California State Legislature adopted Assembly Bill 32 (AB 32), the California Global Warming Solutions Act of 2006, focusing on reducing GHG emissions in California. GHGs as defined under AB 32 include carbon dioxide, methane, nitrous oxide, hydrofluorocarbons, perfluorocarbons, and sulfur hexafluoride. AB 32 required CARB to adopt rules and regulations directing State actions that would achieve greenhouse gas emissions equivalent to 1990 statewide levels by 2020. On or before June 30, 2007, CARB was required to publish a list of discrete early action GHG emission reduction measures that would be implemented to be made enforceable by 2010. The law further required that such measures achieve the maximum technologically feasible and cost effective reductions in GHGs from sources or categories of sources to achieve the statewide greenhouse gas emissions limit for 2020.

CARB published its Final Report for Proposed Early Actions to Mitigate Climate Change in California in October 2007. This report described recommendations for discrete early action measures to reduce GHG emissions as part of California's AB 32 GHG reduction strategy. Resulting from this are three new regulations proposed to meet the definition of "discrete early action greenhouse gas reduction measures," including the following: a low carbon fuel standard; reduction of HFC 134a emissions from non-professional servicing of motor vehicle air conditioning systems; and improved landfill methane capture (CARB 2007d). CARB estimates that by 2020, the reductions from those three measures would range from 13 to 26 million metric tons (MMT) CO_2e.

Under AB 32, CARB has the primary responsibility for reducing GHG emissions. In 2007, CARB released a report, California 1990 GHG Emissions Level and 2020 Emissions Limit (CARB 2007a), that determined the statewide levels of GHG emissions in 1990 to be 427 MMT CO_2e. Additionally, in December 2008, CARB adopted the Climate Change Scoping Plan, which outlines the State's strategy to achieve the 2020 GHG limit. This Scoping Plan proposes a comprehensive set of actions designed to reduce overall greenhouse gas emissions in California, improve the environment, reduce dependence on oil, diversify energy sources, save energy, create new jobs, and enhance public health. The plan emphasizes a cap-and-trade program, but also includes the discrete early actions (CARB 2008).

c. Senate Bill 97

Senate Bill 97 (SB 97), enacted in 2007, amended the California Environmental Quality Act (CEQA) to clearly establish that GHG emissions and the effects of GHG emissions are appropriate subjects for CEQA analysis. It directed the California Office of Planning and Research (OPR) to develop revisions to the State CEQA Guidelines "for the mitigation of GHG emissions or the effects of GHG emissions" and directed the Resources Agency to certify and adopt these revised State CEQA Guidelines by January 2010 (See PRC Section 21083.05). The revisions were codified into the California Code of Regulations and became fully effective by July 2010. These revisions provide regulatory guidance for the analysis and mitigation of the potential effects of GHG emissions.

d. Senate Bill 375

Senate Bill 375 (SB 375), which establishes mechanisms for the development of regional targets for reducing passenger vehicle greenhouse gas emissions, was adopted by the State on September 30, 2008. On September 23, 2010, CARB adopted the vehicular greenhouse gas emissions reduction targets that had been developed in consultation with the metropolitan planning organizations (MPOs); the targets require a 7 to 8 percent reduction by 2020 and between 13 to 16 percent reduction by 2035 for each MPO. SB 375 recognizes the importance of achieving significant greenhouse gas reductions by working with cities and counties to change land use patterns and improve transportation alternatives. Through the SB 375 process, MPOs, such as the Southern California Council of Governments (SCAG), which includes Riverside County, will work with local jurisdictions in the development of sustainable communities strategies (SCS) designed to integrate development patterns and the transportation network in a way that reduces greenhouse gas emissions while meeting housing needs and other regional planning objectives. The MPOs will prepare their first SCS according to their respective regional transportation plan (RTP) update schedule; to date, no region has adopted an SCS. The first of the RTP updates with SCS strategies are expected in 2012.

e. CALGreen

In November 2008, the California Building Standards Commission established the California Green Building Standards Code (CALGreen) which sets performance standards for residential and nonresidential development to reduce environmental impacts and encourage sustainable construction practices. When the CALGreen code went into effect in 2009, compliance through 2010 was voluntary. As of January 1, 2011, the CALGreen code is mandatory for all new buildings constructed in the State. The CalGreen code addresses energy efficiency, water conservation, material conservation, planning and design, and overall environmental quality.[3]

Regional Regulations

a. Southern California Association of Governments

SCAG is a council of governments for Imperial, Los Angeles, Orange, Riverside, San Bernardino, and Ventura Counties. It is a regional planning agency and serves as a forum for

[3] *California 2010 Green Building Standards Code, California Code of Regulations Title 24, Part 11.*