



VINEYARDS

Rail Fence

R.O.W.

CENTER
TURN LANE

12'

12'

8'

4'

11'

25'

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



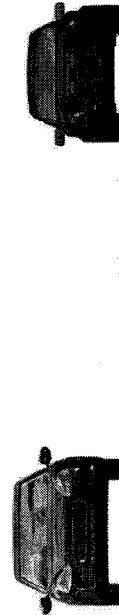
Condition 4 – Southeast Side of Rancho Calif.
Rd. Climbs in Elevation in R.O.W.

POSSIBLE WALL OR FENCE
DEPENDING ON SITUATION

VINEYARDS

TRAIL LOCATION
VARIES TO ADJUST
TO SITE CONDITION
WIDTH VARIES
FROM 10'-14'
TO ADJUST TO
SITE CONDITIONS

R.O.W.



CENTER
TURN LANE

12'

12'

12'

8'

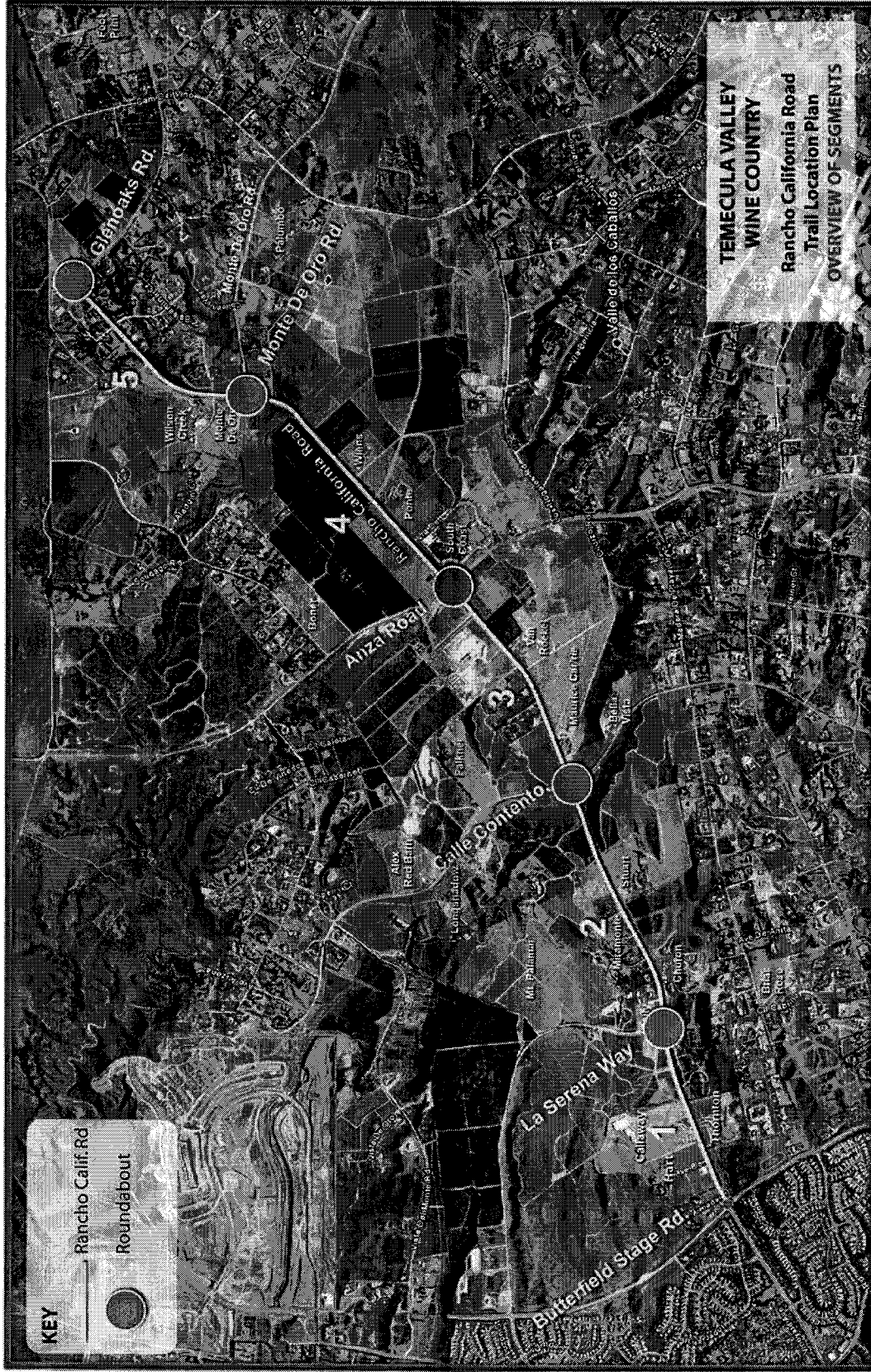
4'

25'

55'

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

TEMECULA VALLEY WINE COUNTRY
DESIGN GUIDELINES





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

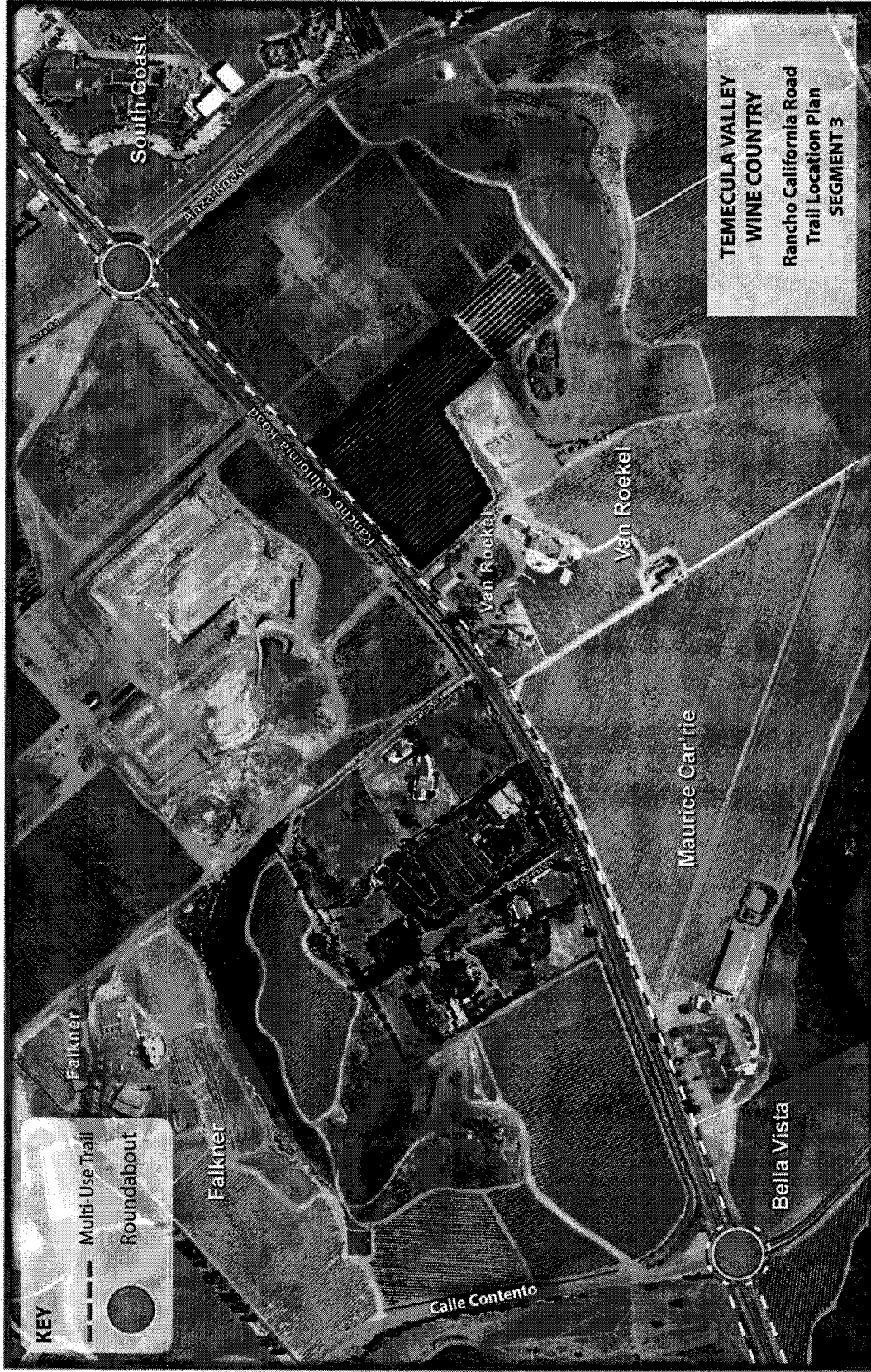


Trail Location Map – Segment 1
 Butterfield Stage Rd. to La Serena Way

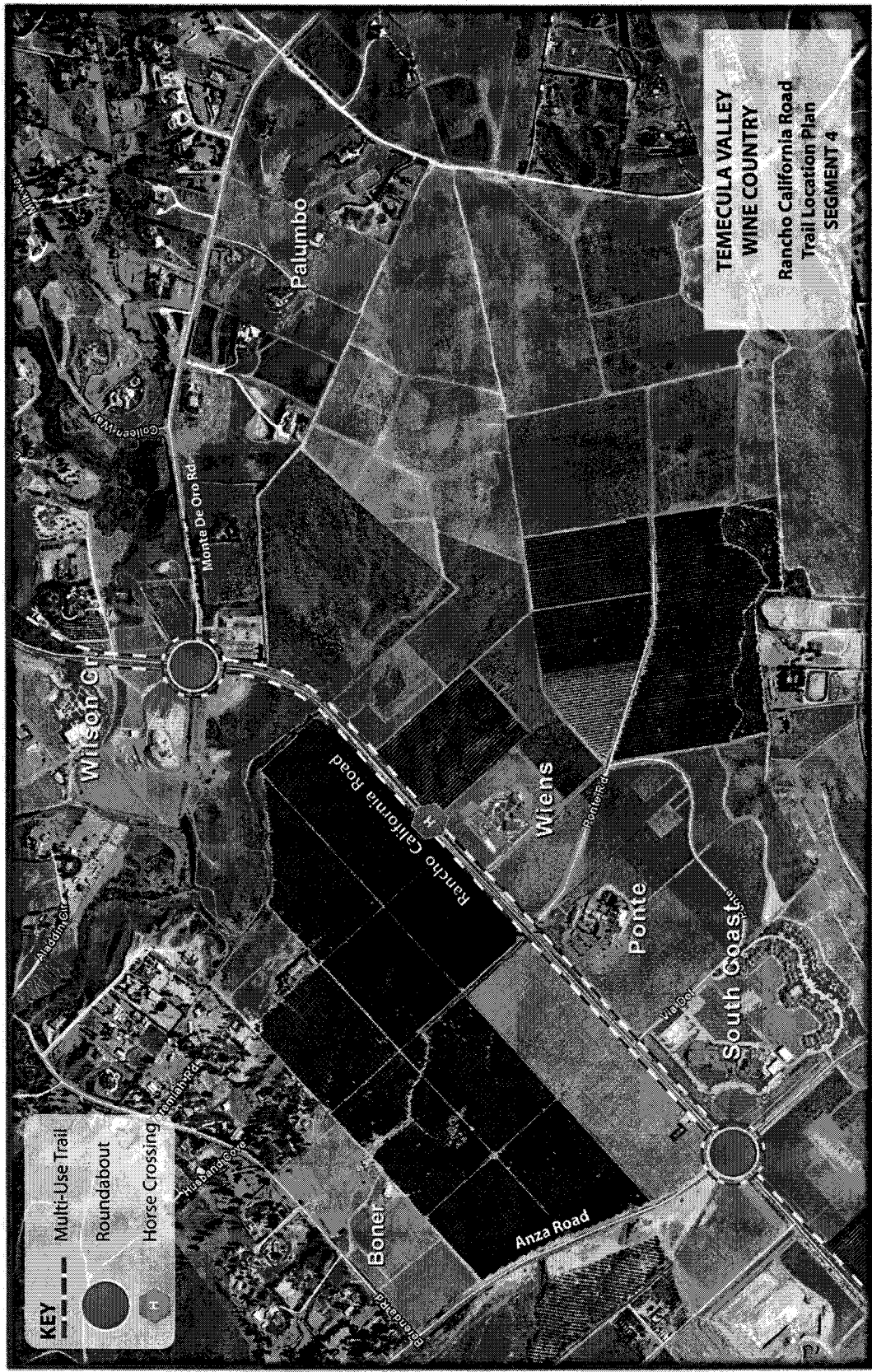
TEMECULA VALLEY WINE COUNTRY
 DESIGN GUIDELINES



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

TEMECULA VALLEY WINE COUNTRY
 DESIGN GUIDELINES



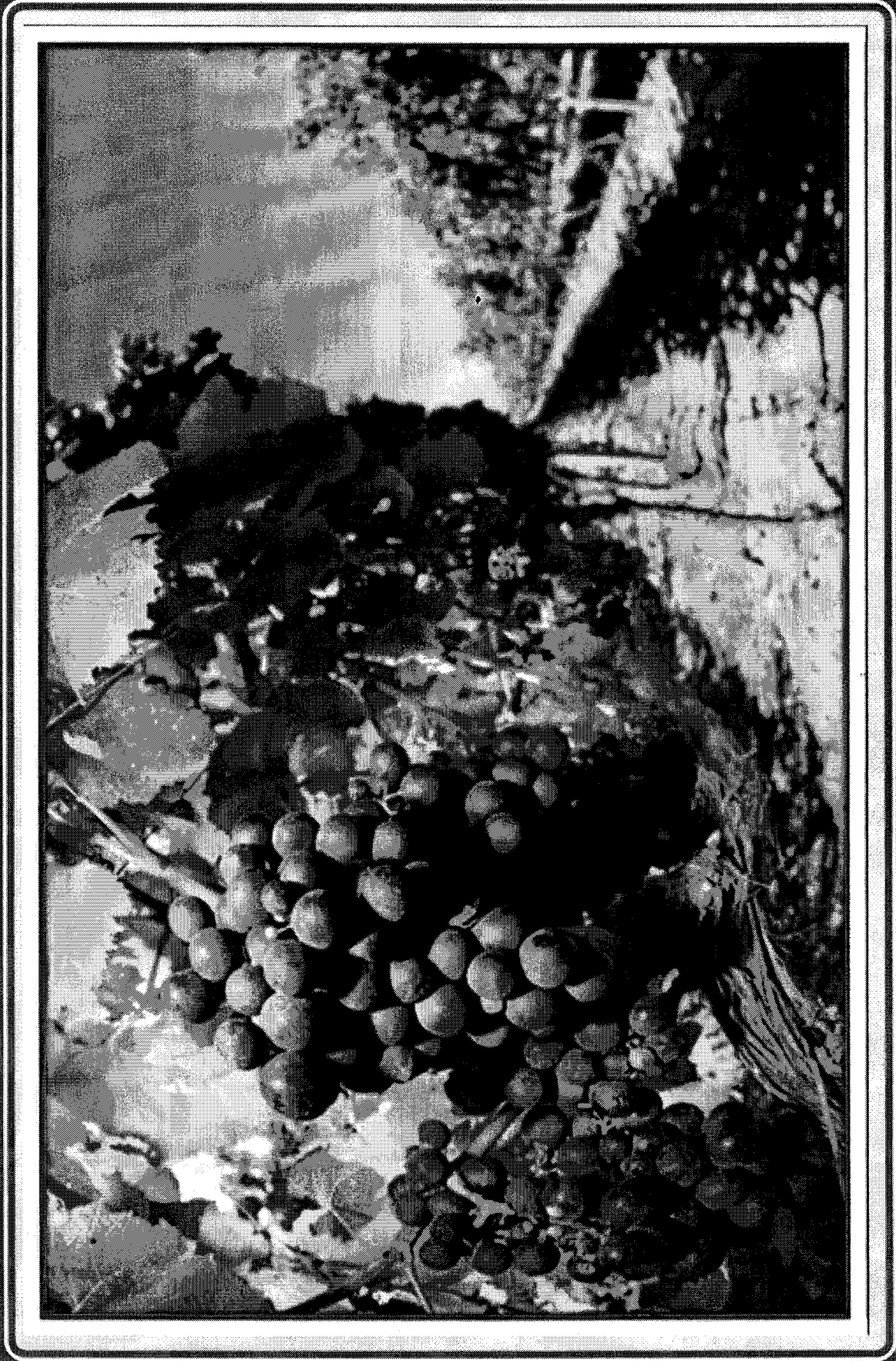
TEMECULA VALLEY WINE COUNTRY
DESIGN GUIDELINES

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

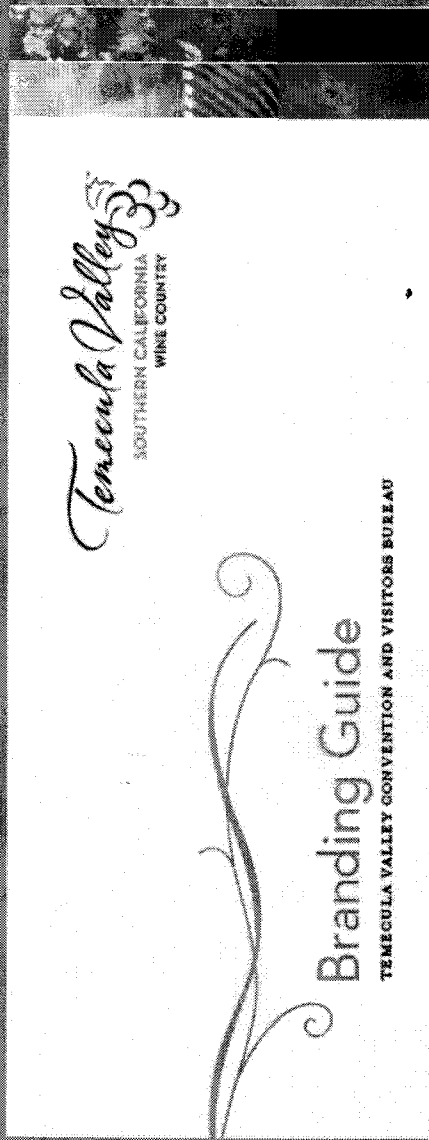




Icon 1 – The Wine Barrel



Icon 2 – The Grape Cluster with Leaves



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.

28

29

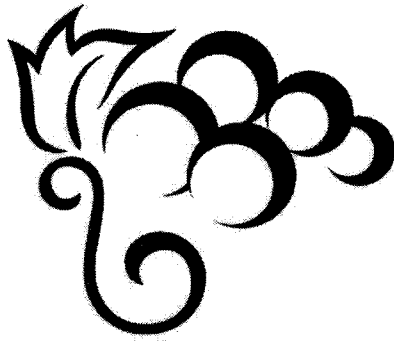
QUALITIES OF A LOGO

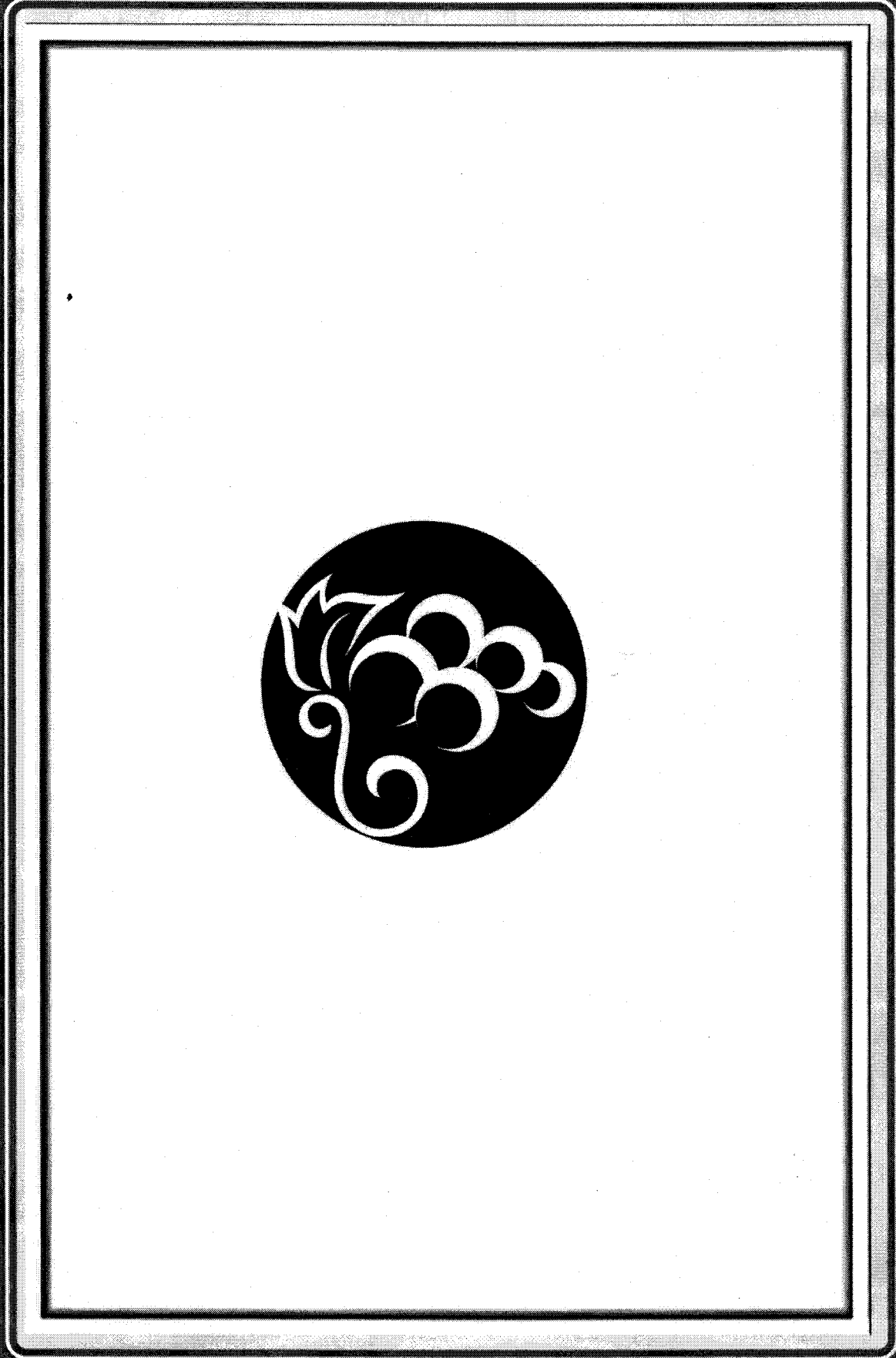
- **SIMPLE & CLEAN**
- **DISTINCTIVE IDENTITY (RURAL WINE COUNTRY)**
- **SYMBOLIC & STYLIZED**
- **ICONIC – HIGH VISUAL IMPACT**
- **EASILY RECOGNIZABLE**
- **ADAPT TO MANY USES**

Temecula Valley TM
SOUTHERN CALIFORNIA
WINE COUNTRY

Temecula Valley Convention & Visitors Bureau
Logotype

TEMECULA VALLEY WINE COUNTRY
DESIGN GUIDELINES





Reversed Figure-Ground for More Visual Impact

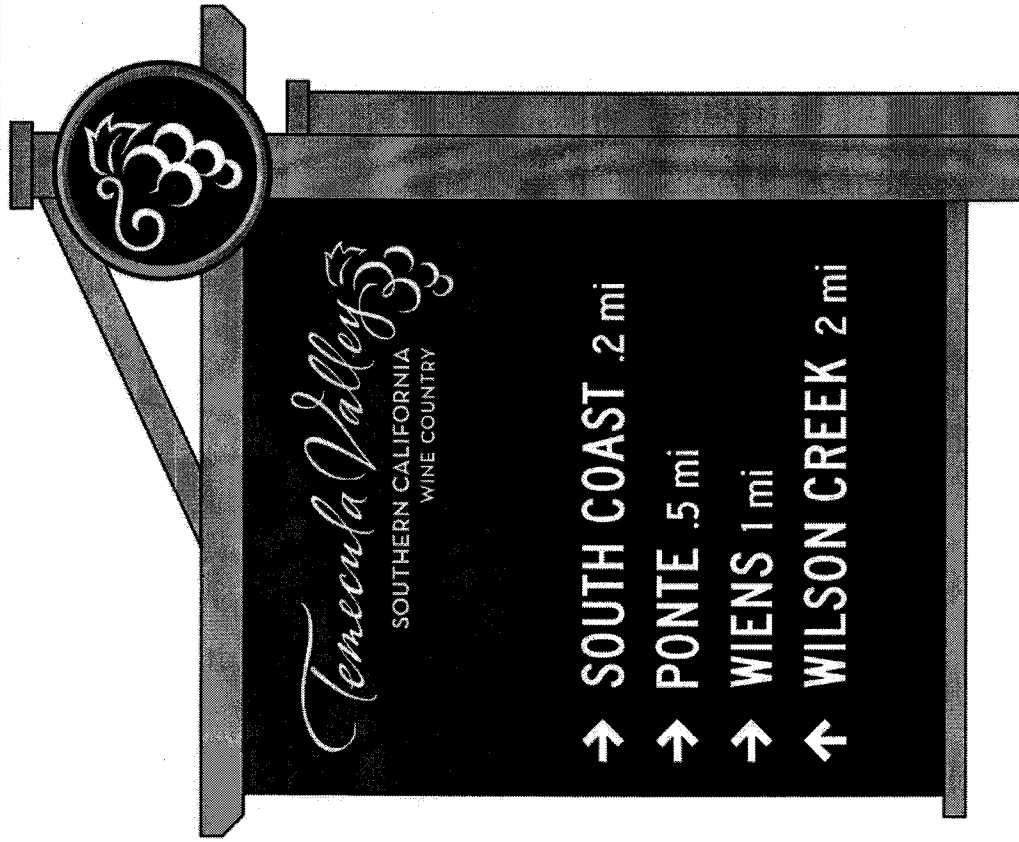




Temecula Valley
SOUTHERN CALIFORNIA
WINE COUNTRY

TEMECULA VALLEY WINE COUNTRY
DESIGN GUIDELINES

Evolved Logo with TVCVB Logotype



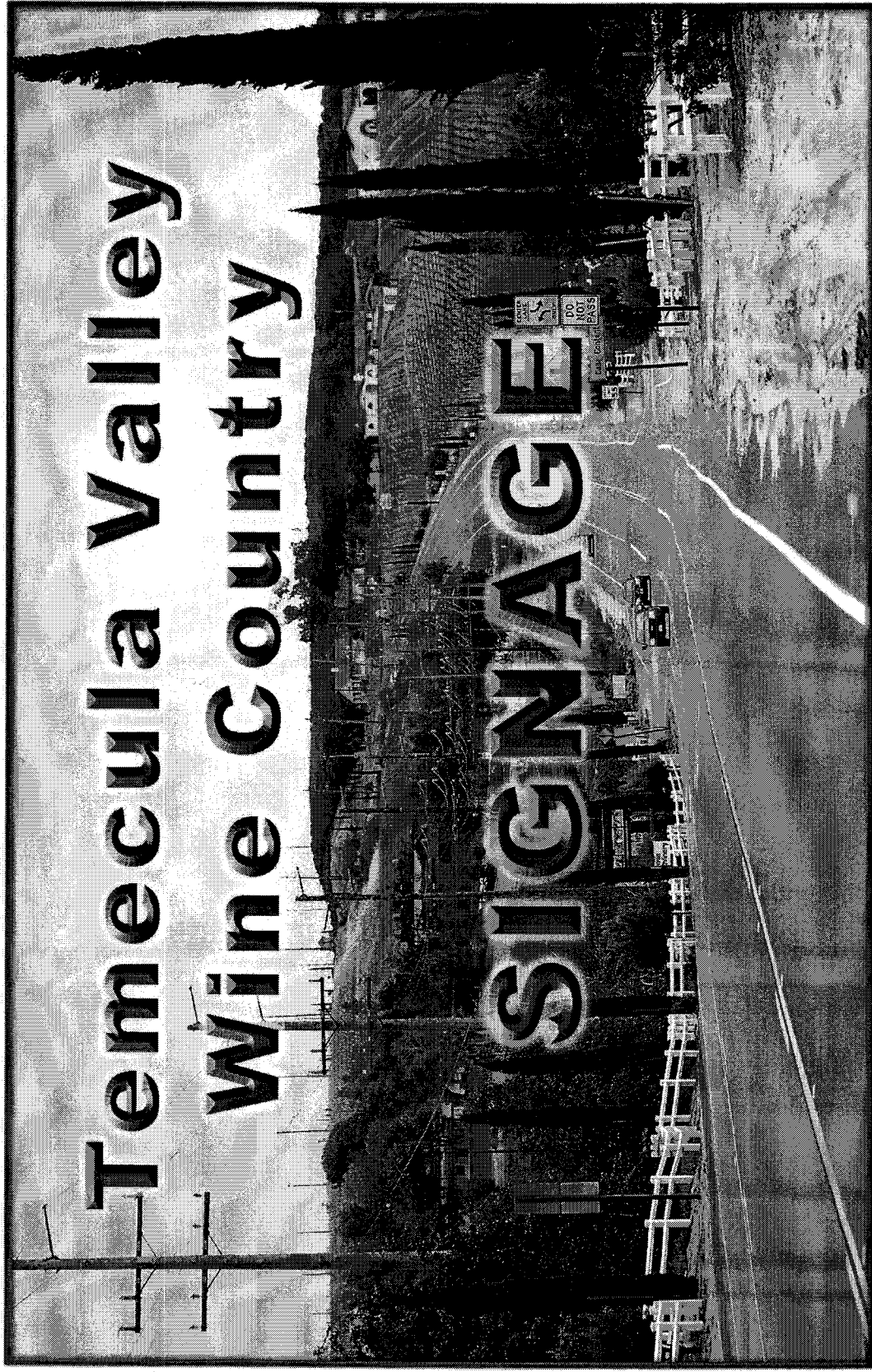


Sign Logo to Have Horseshoe along De
Portola Road and the Valley of the Horses

TEMECULA VALLEY WINE COUNTRY
DESIGN GUIDELINES

Temecula Valley Wine Country

SIGNAGE



SIGNAGE ISSUES

VISUAL CLUTTER OF COMPETING SIGNAGE

LACK OF CONSISTENCY AMONG SIGN TYPES

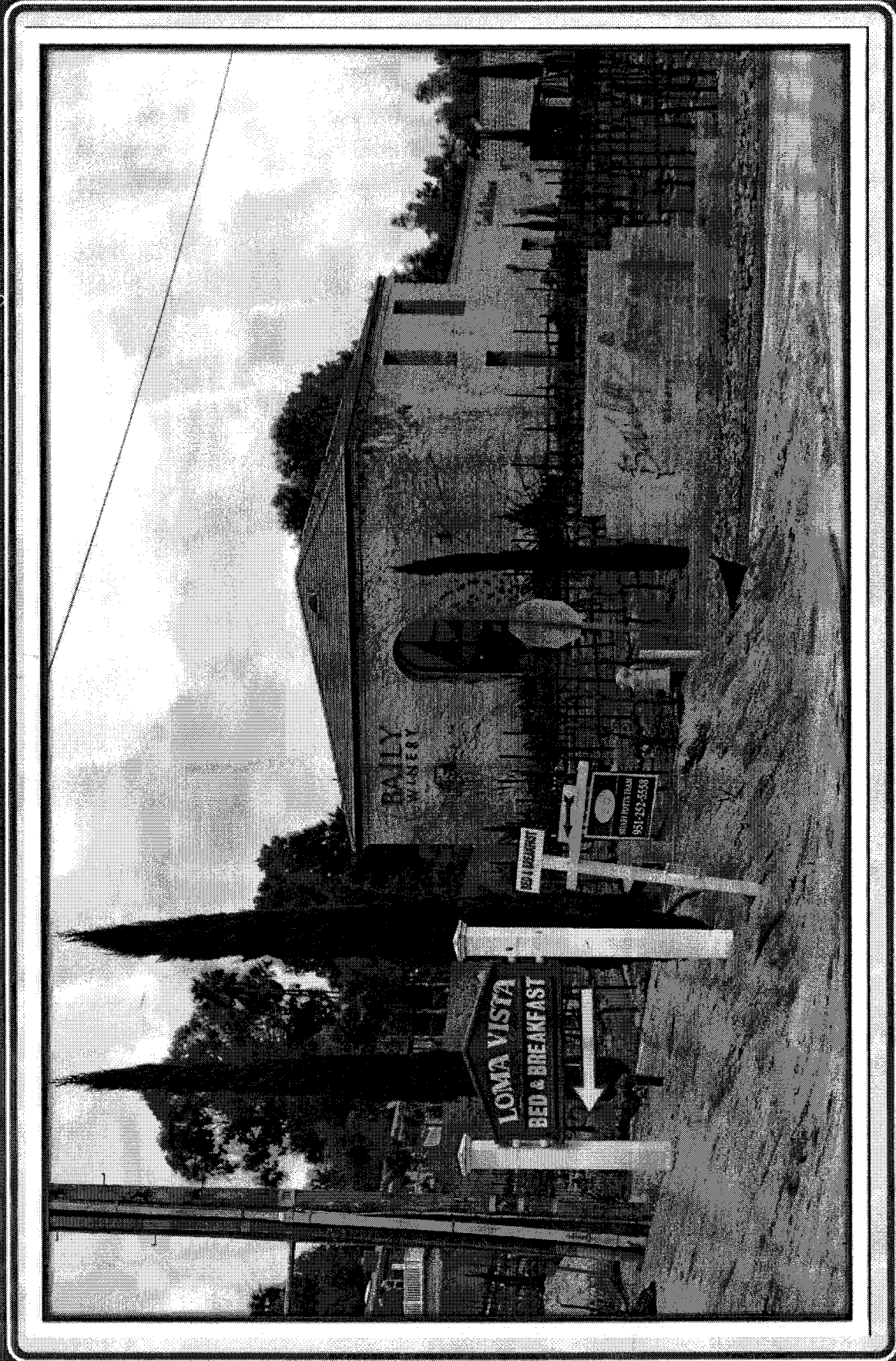
DIFFICULTY IN ANTICIPATING UPCOMING WINERIES & COMMERCIAL DESTINATIONS

DIFFICULTY IN FINDING WINERY DRIVE & DECELERATING TO SAFELY TURN

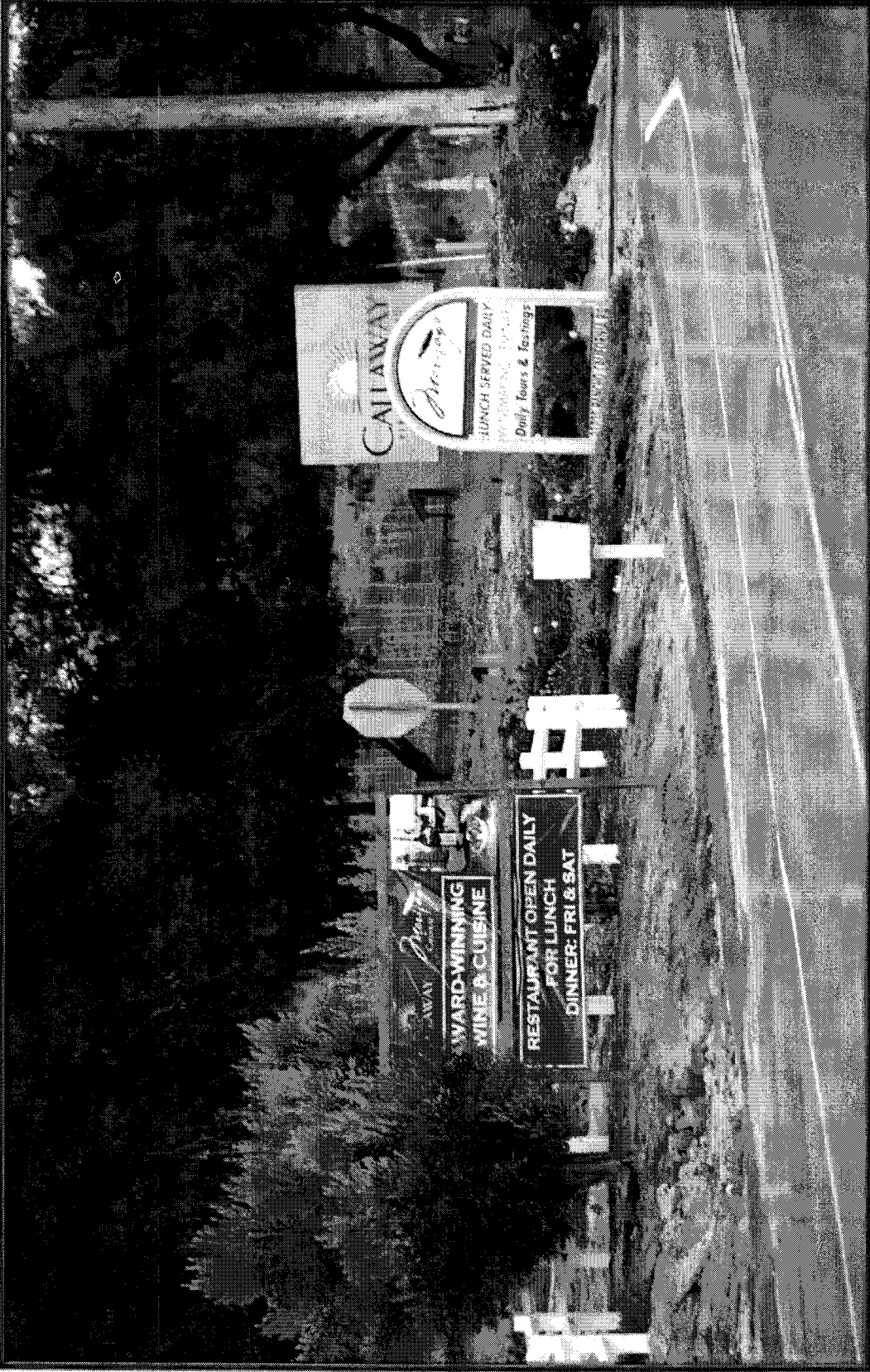
ADVERTIZING AND EVENT BANNERS/SIGNS ADD TO CLUTTER AND OVERPOWER WINERY MONUMENTS



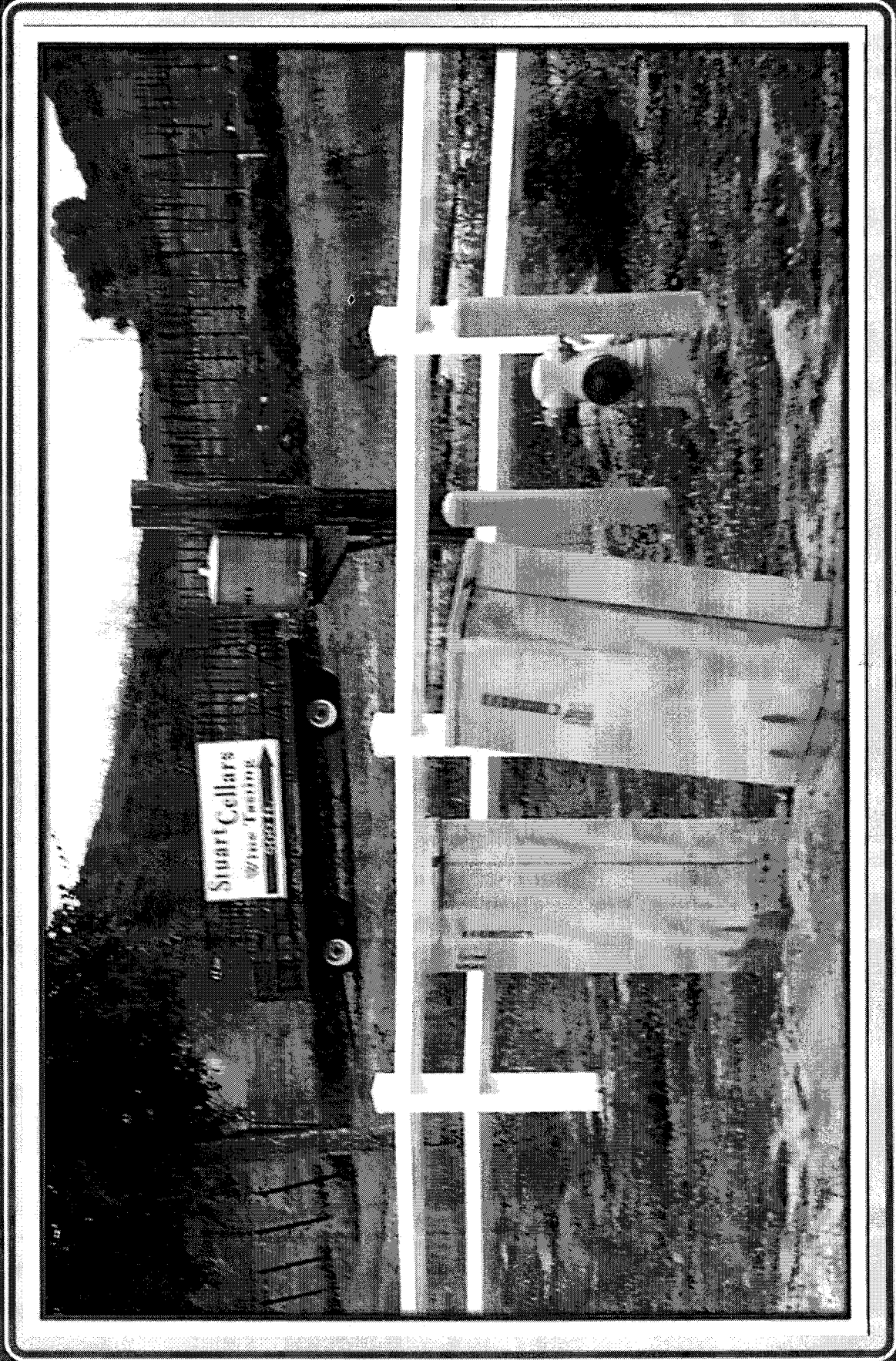
Approaching Baily Winery Entrance



Sign Clutter at Baily Winery Entrance



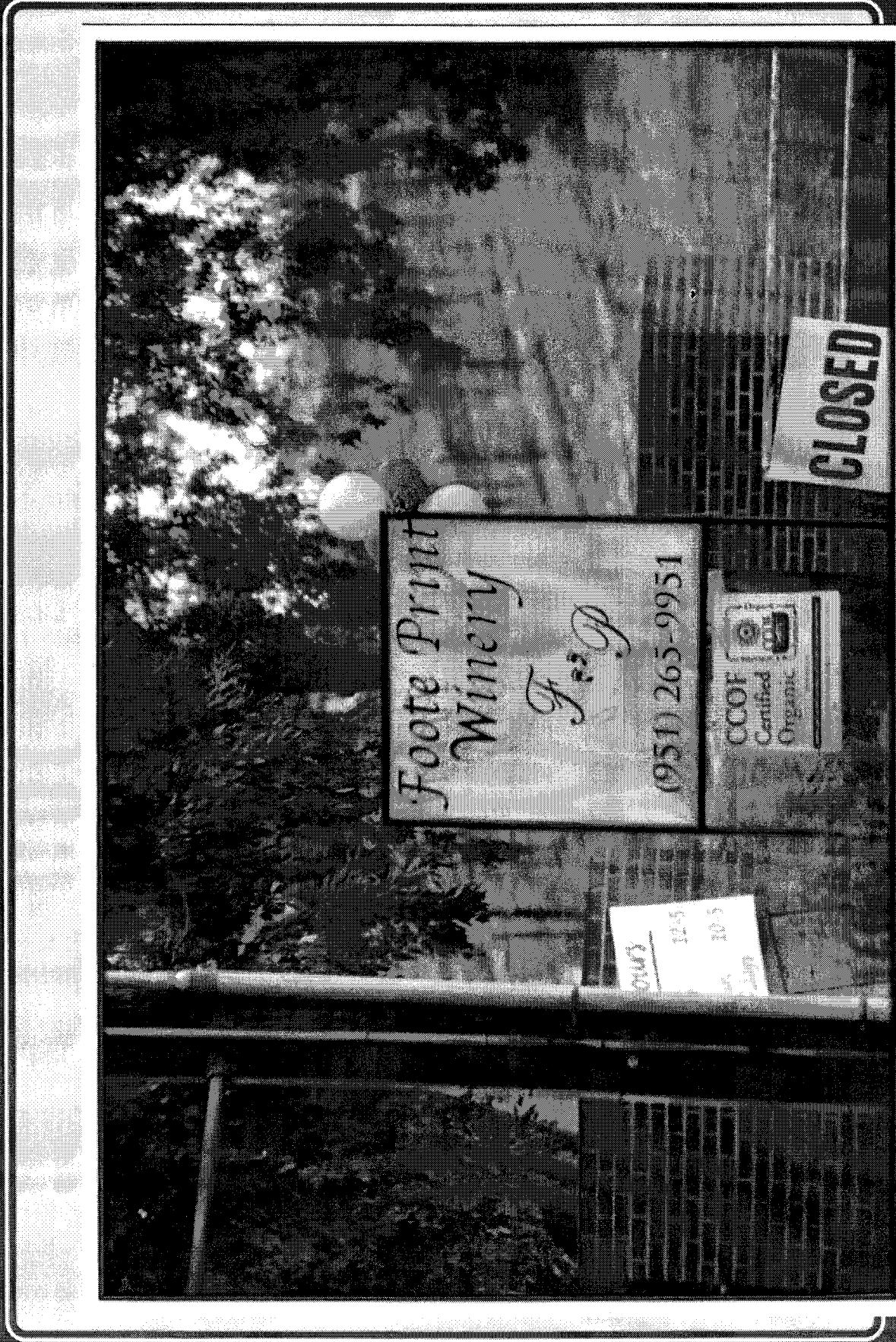
52 Sign Clutter at Callaway Winery Entrance



53 Attempt to Alert Visitor to Upcoming Entrance



Visual Clutter – Advertising Sign Overpowers



55 Sign Clutter at Foote Print Winery Entrance



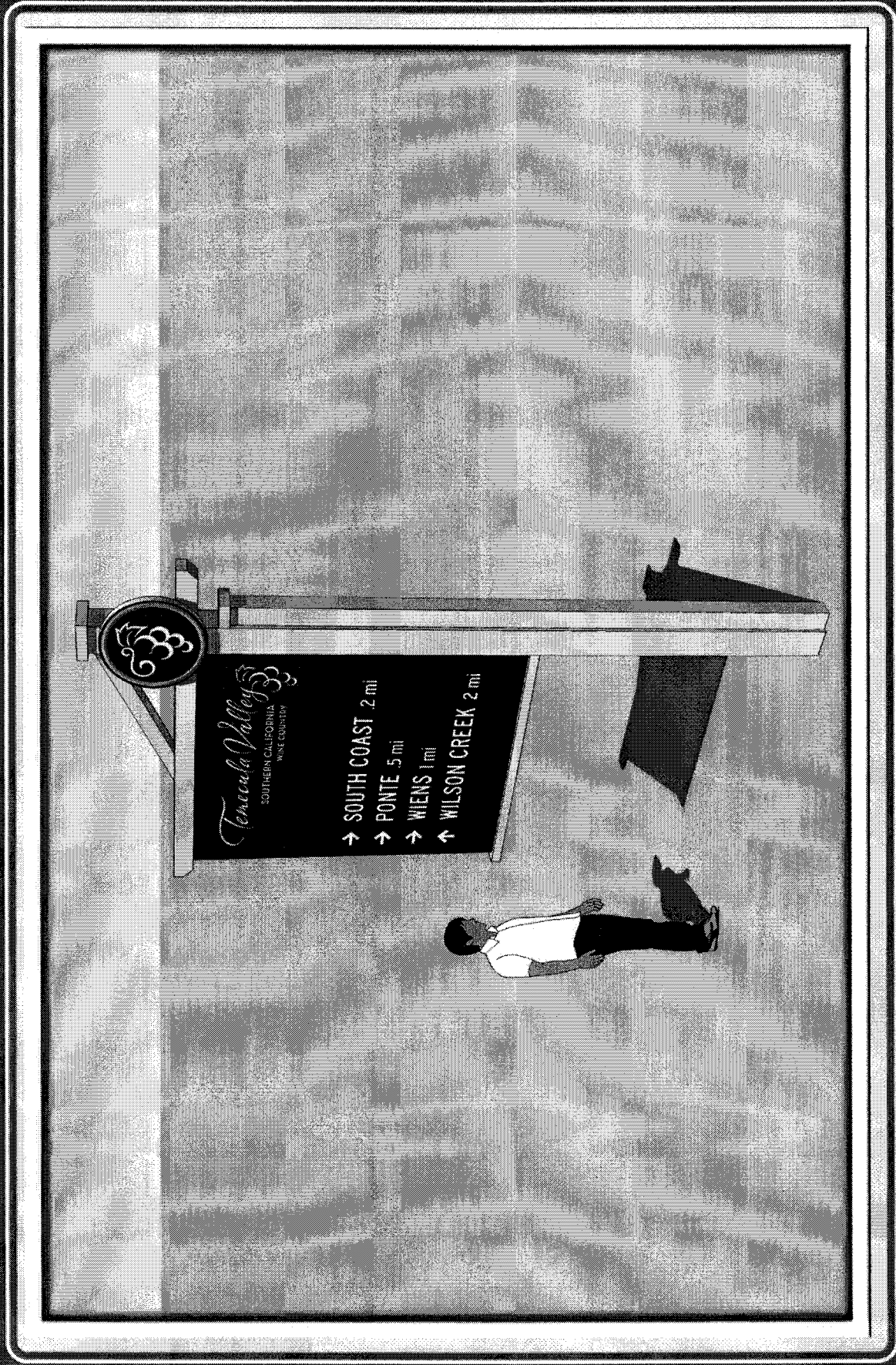
Temecula Valley
SOUTHERN CALIFORNIA WINE COUNTRY

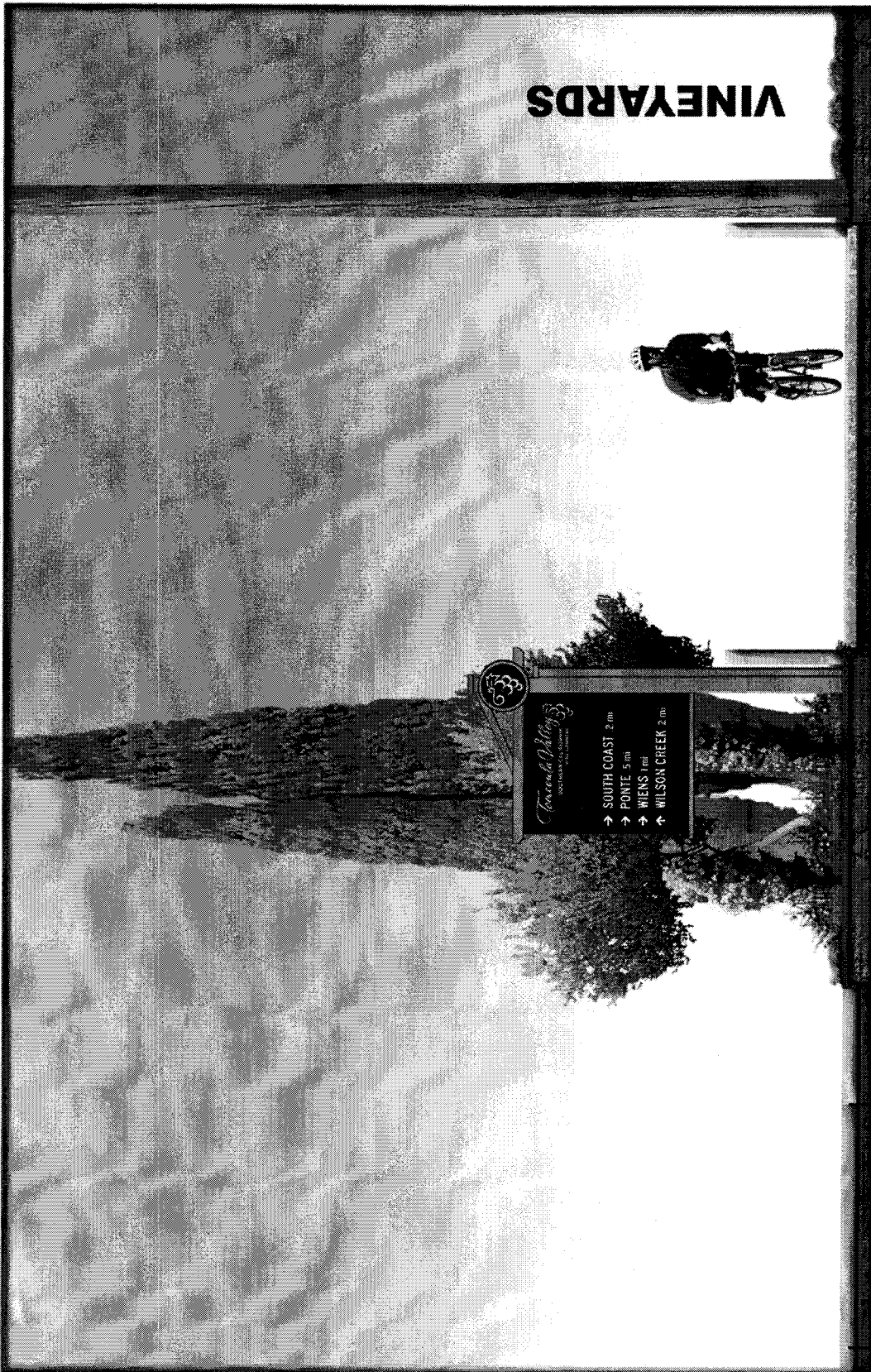
- ← VAN ROEKEL .2 mi
- ← MAURICE CAR RIE .4 mi
- ← FALKNER .4 mi
- ← MOUNT PALOMAR .5 mi
- ← STUART CELLARS .5 mi
- SOUTH COAST .1 mi
- PONTE .2 mi
- WIENS .3 mi
- WILSON CREEK 1.1 mi
- ↔ MORE WINERIES

Temecula Valley
SOUTHERN CALIFORNIA WINE COUNTRY

- SOUTH COAST .2 mi
- PONTE .5 mi
- WIENS 1 mi
- ← WILSON CREEK 2 mi

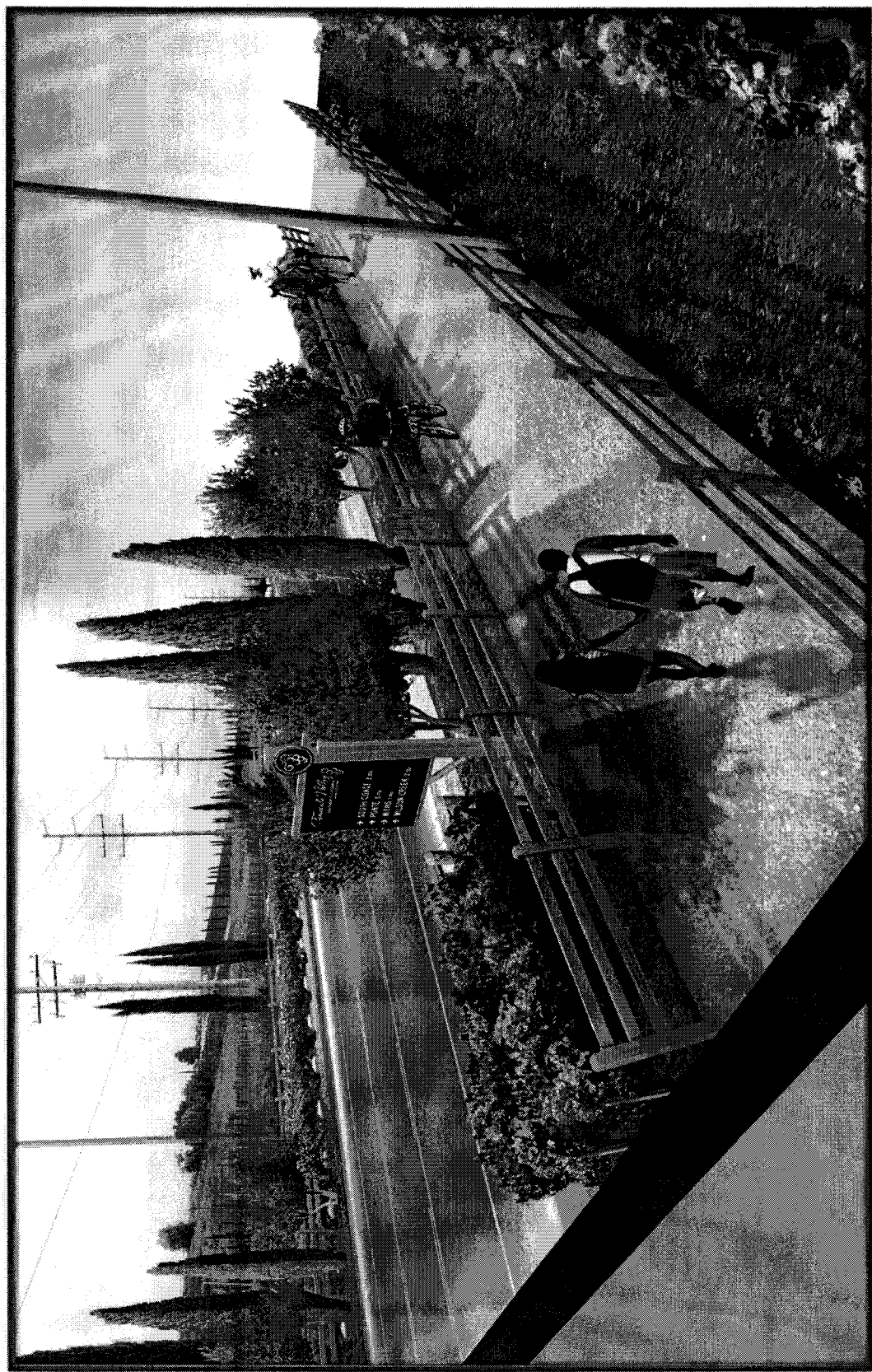
Wayfinding Sign and Winery Direction Sign





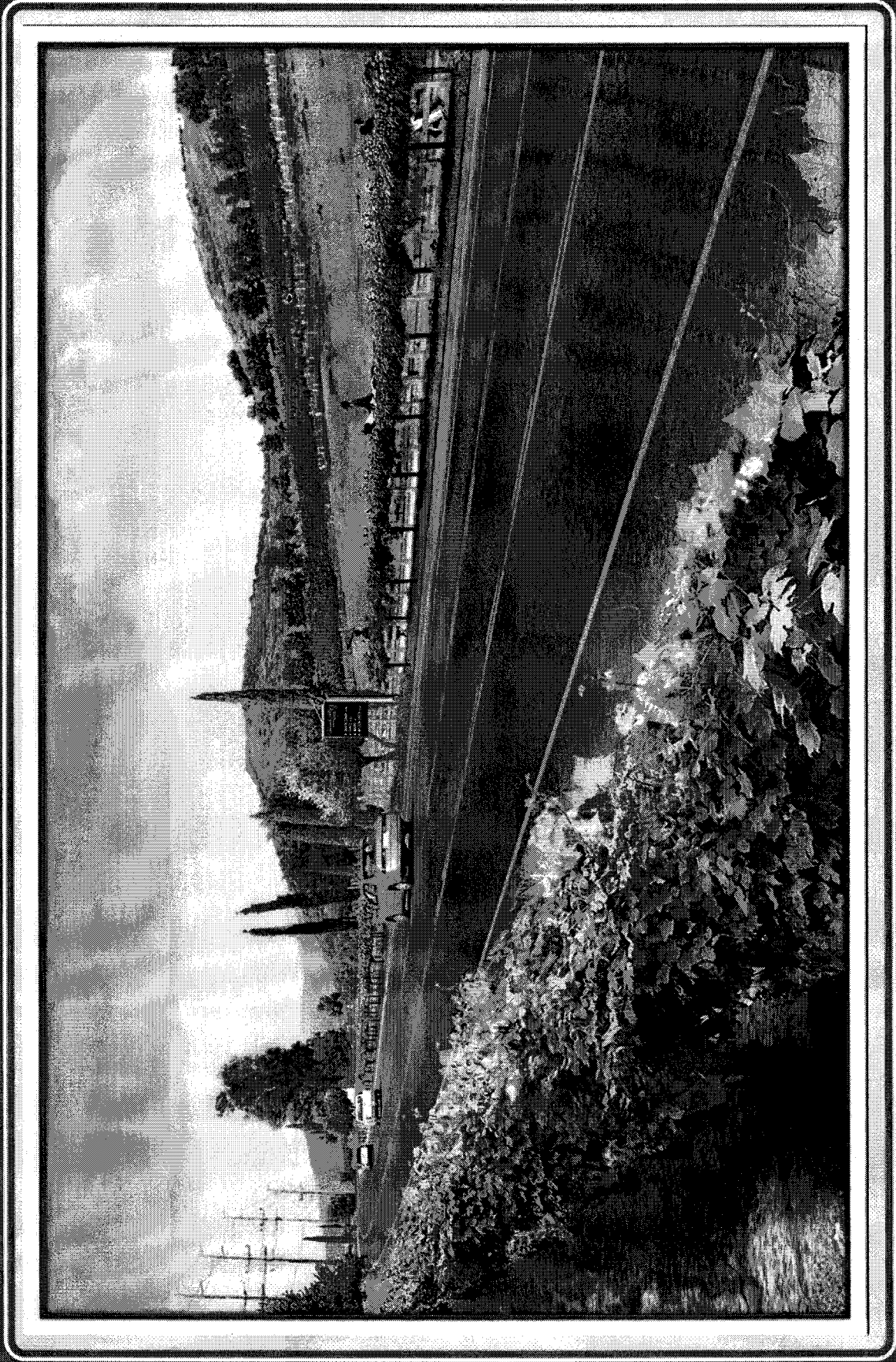
Section showing Wayfinding Sign Location

3-D View Showing Wayfinding Sign Location

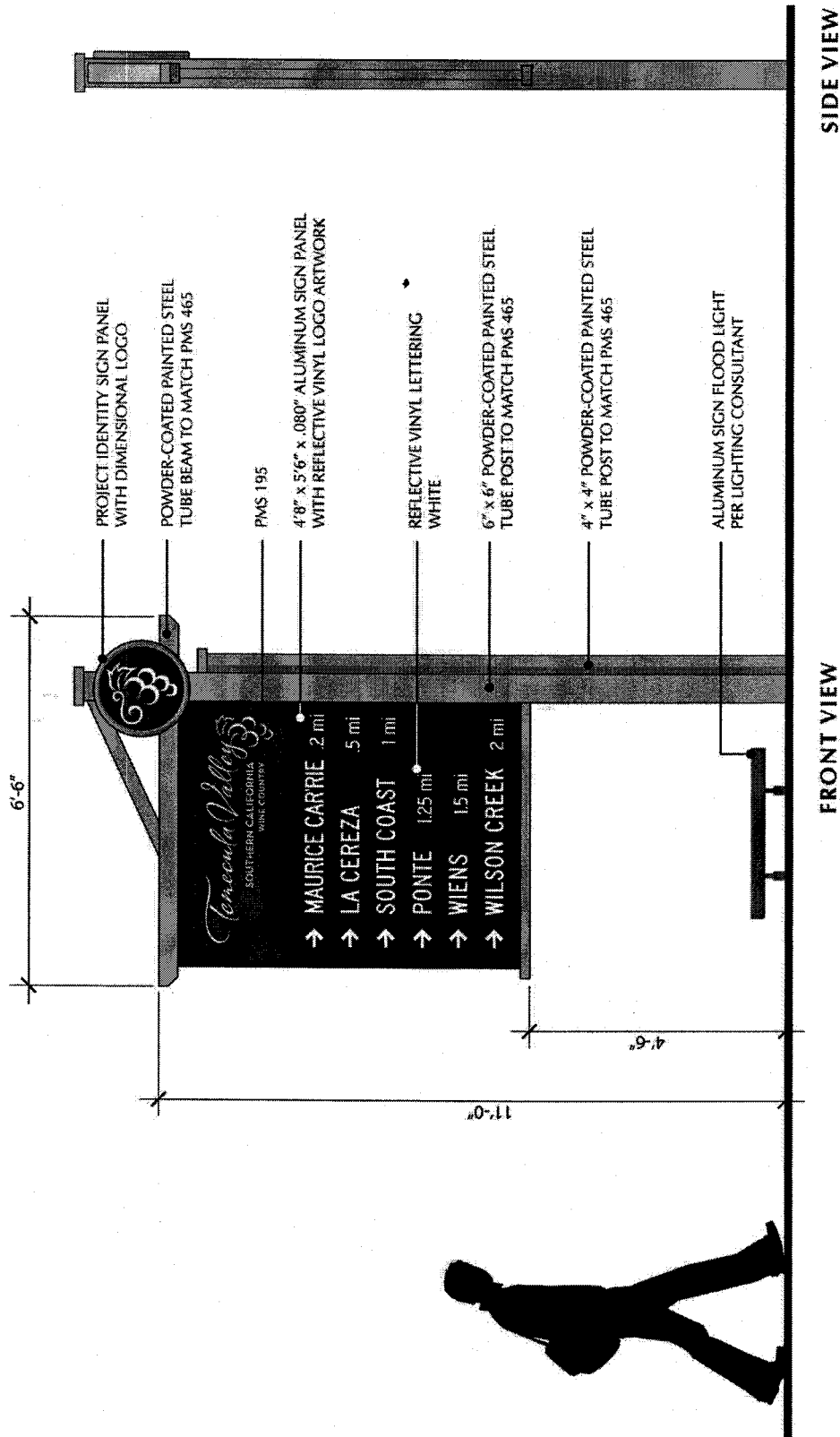




3-D View Showing Wayfinding Sign Location

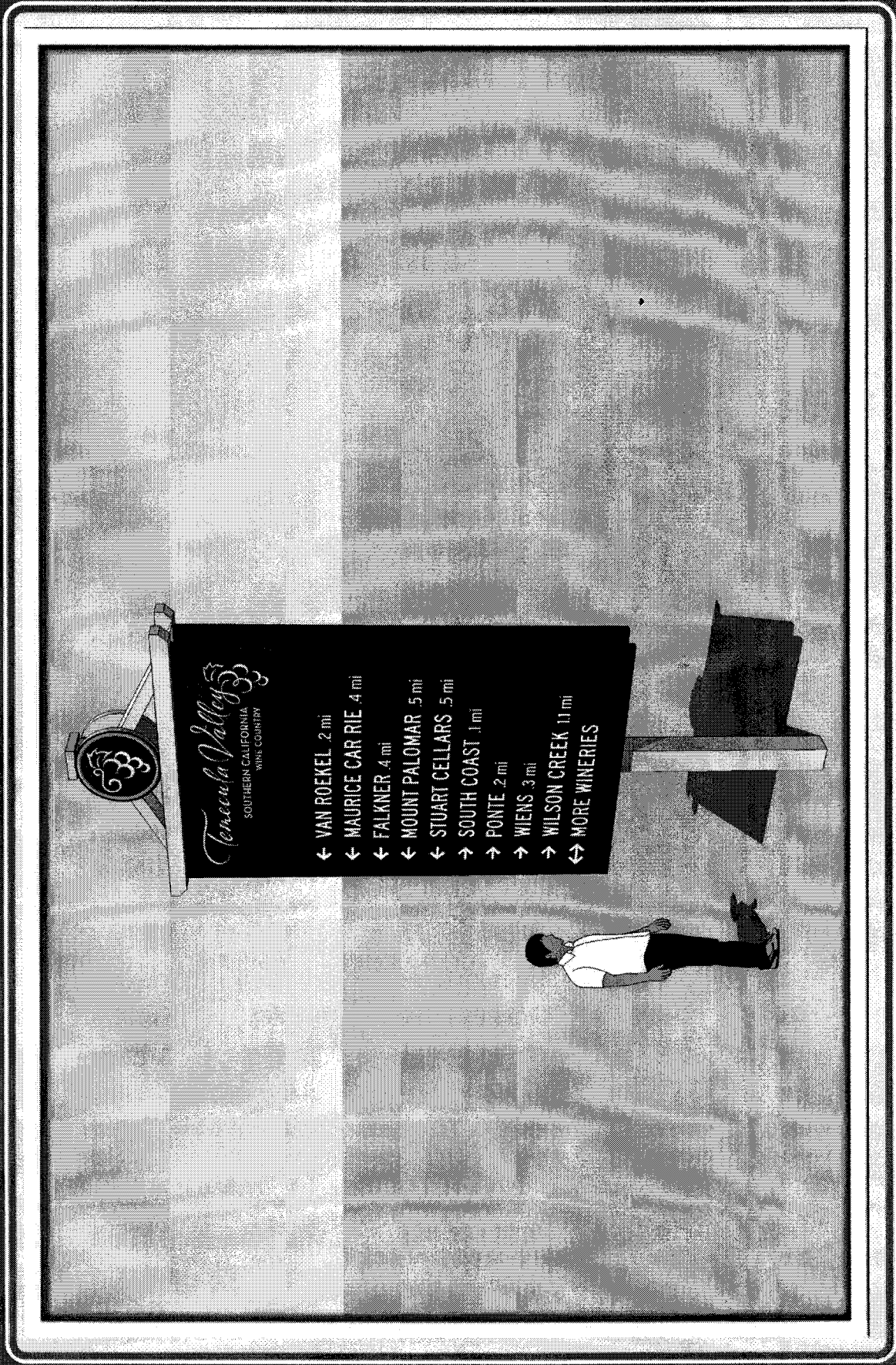


View of Wayfinding Sign from North Side

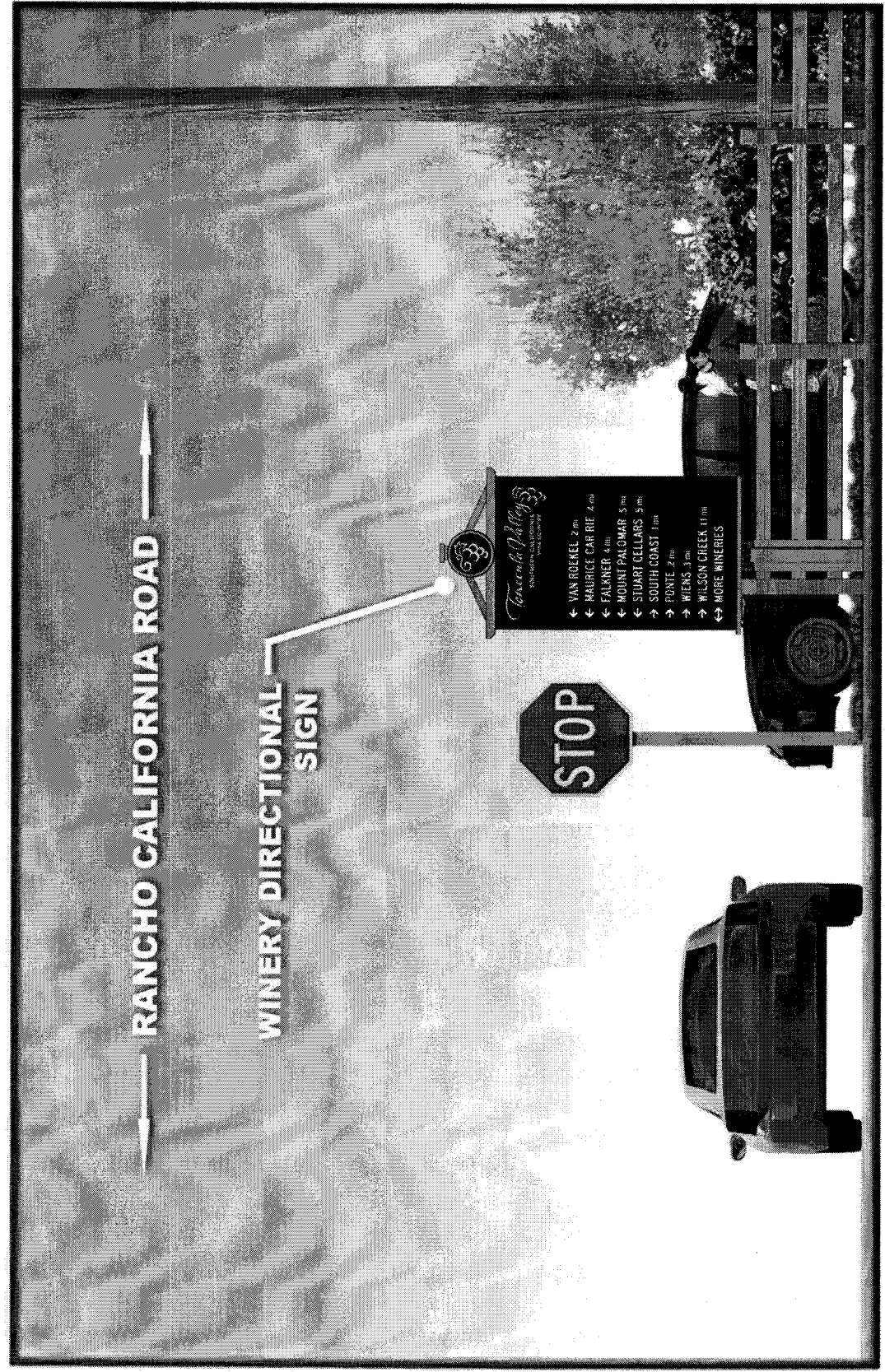


SIDE VIEW

FRONT VIEW



Winery Direction Sign



← RANCHO CALIFORNIA ROAD →

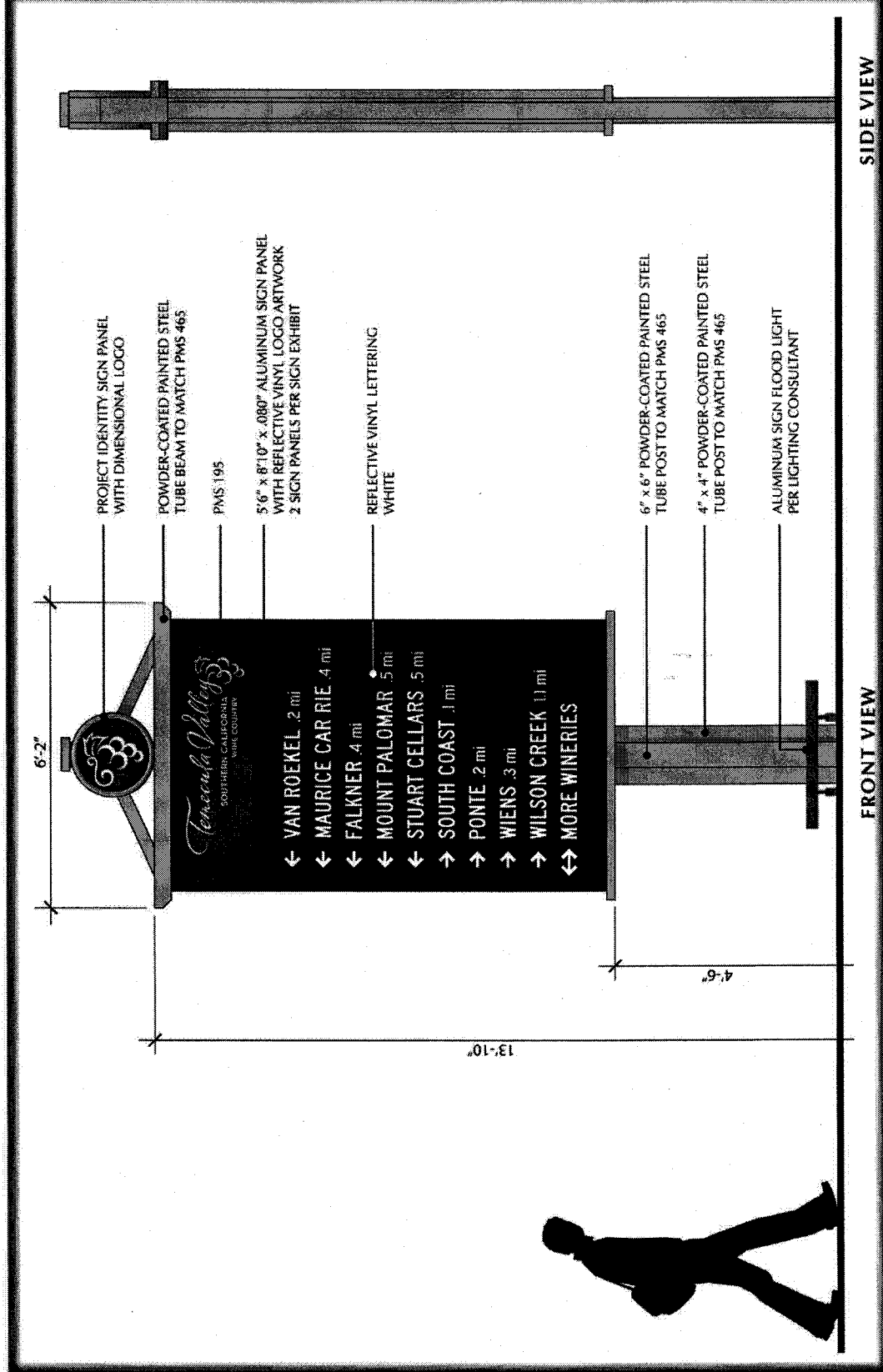
WINERY DIRECTIONAL SIGN

STOP

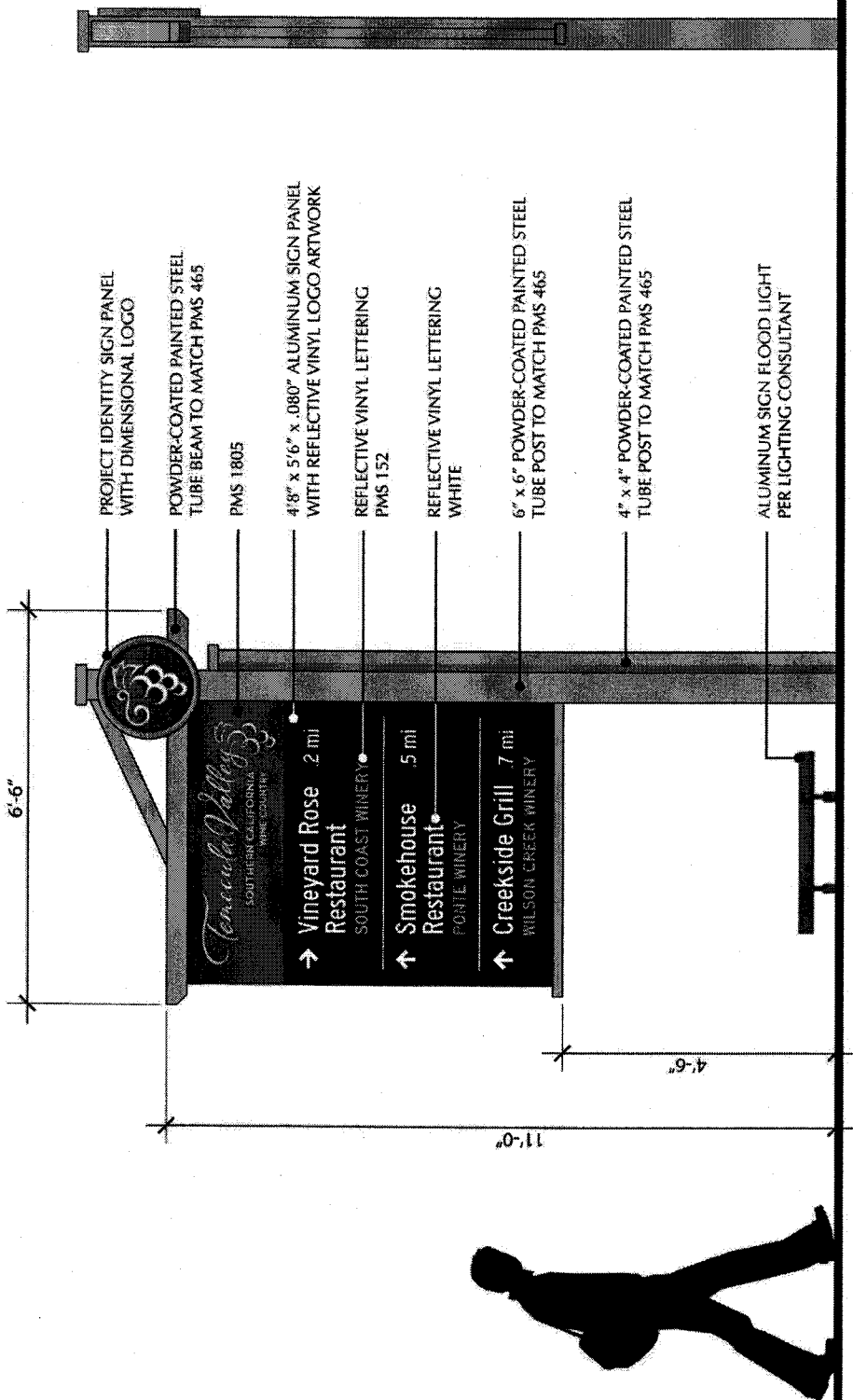
Temecula Valley
WINE COUNTRY

- ← VAN ROEMEL 2 mi
- ← MAURICE CARRIE 4 mi
- ← FALKNER 4 mi
- ← MOUNT PALOMAR 5 mi
- ← STUART CELLARS 5 mi
- SOUTH COAST 1 mi
- FONTE 2 mi
- WENS 3 mi
- WILSON CREEK 11 mi
- ↔ MORE WINERIES

Winery Direction Sign on Anza at Intersection with Rancho California Road

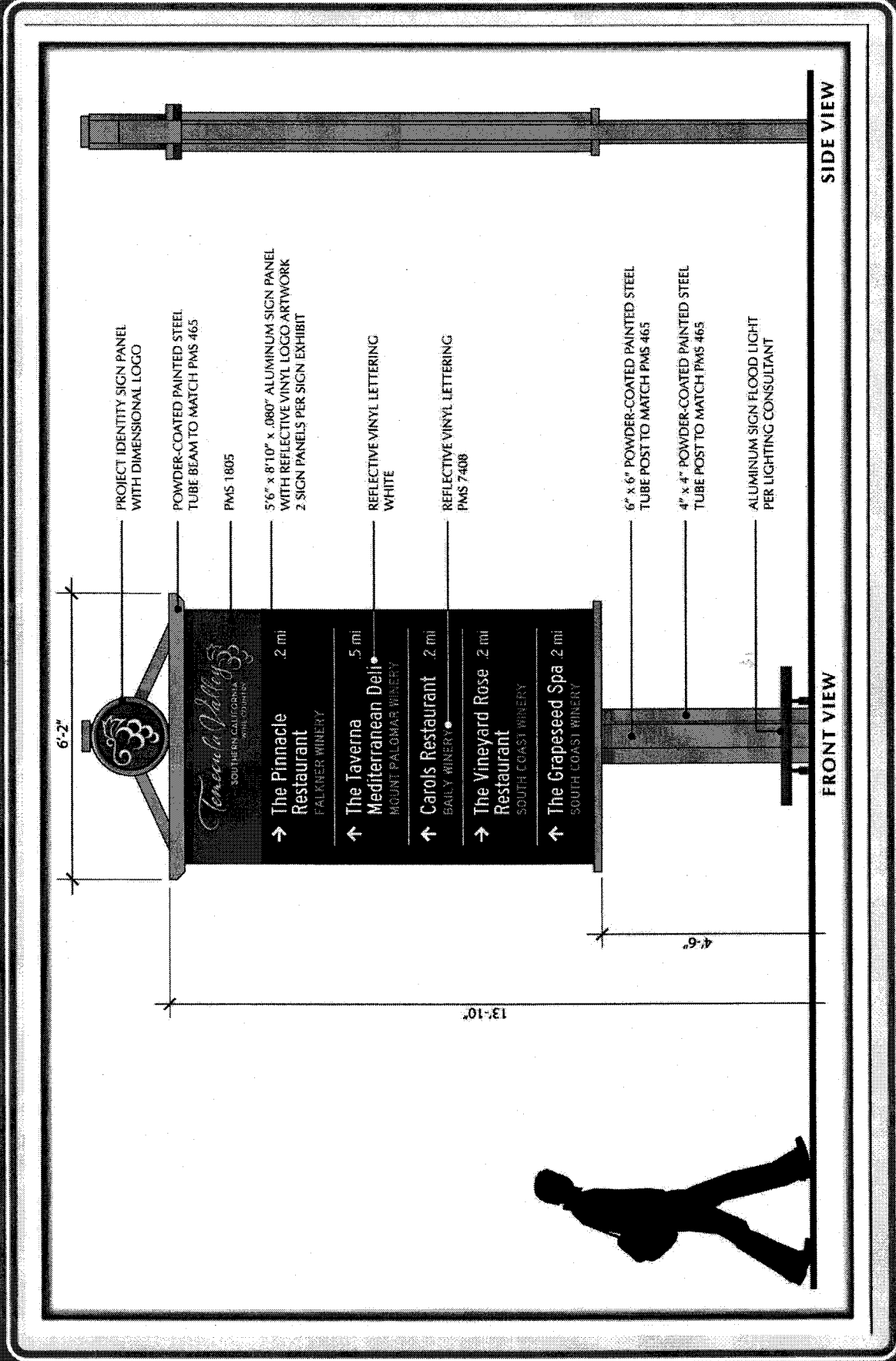


Winery Direction Sign With Dimensions

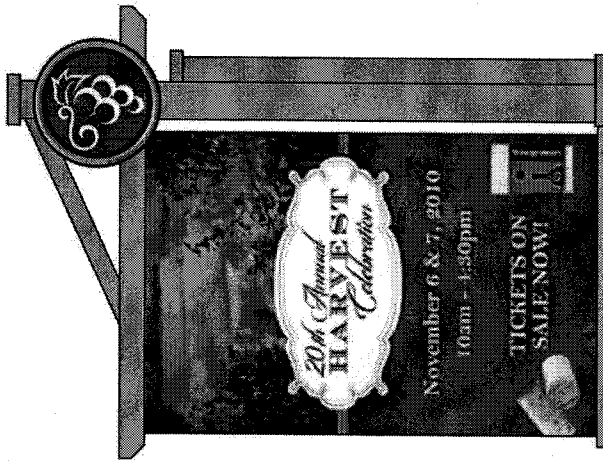


SIDE VIEW

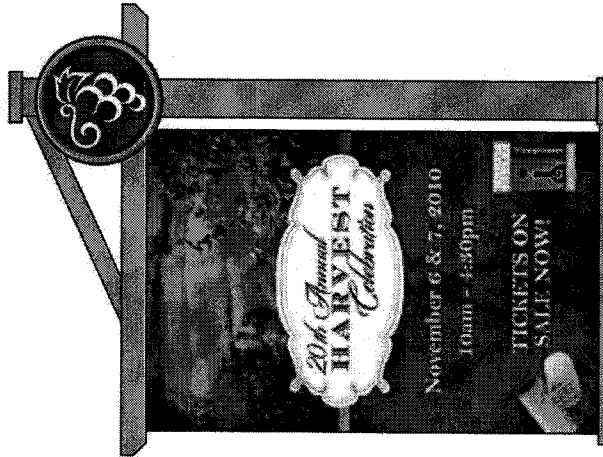
FRONT VIEW



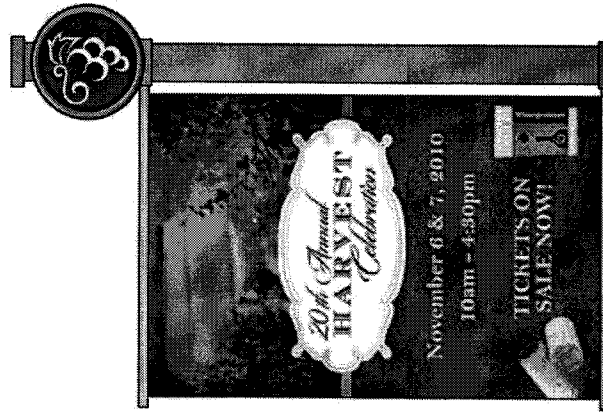
Commercial Direction Sign With Dimensions



Alternative 1



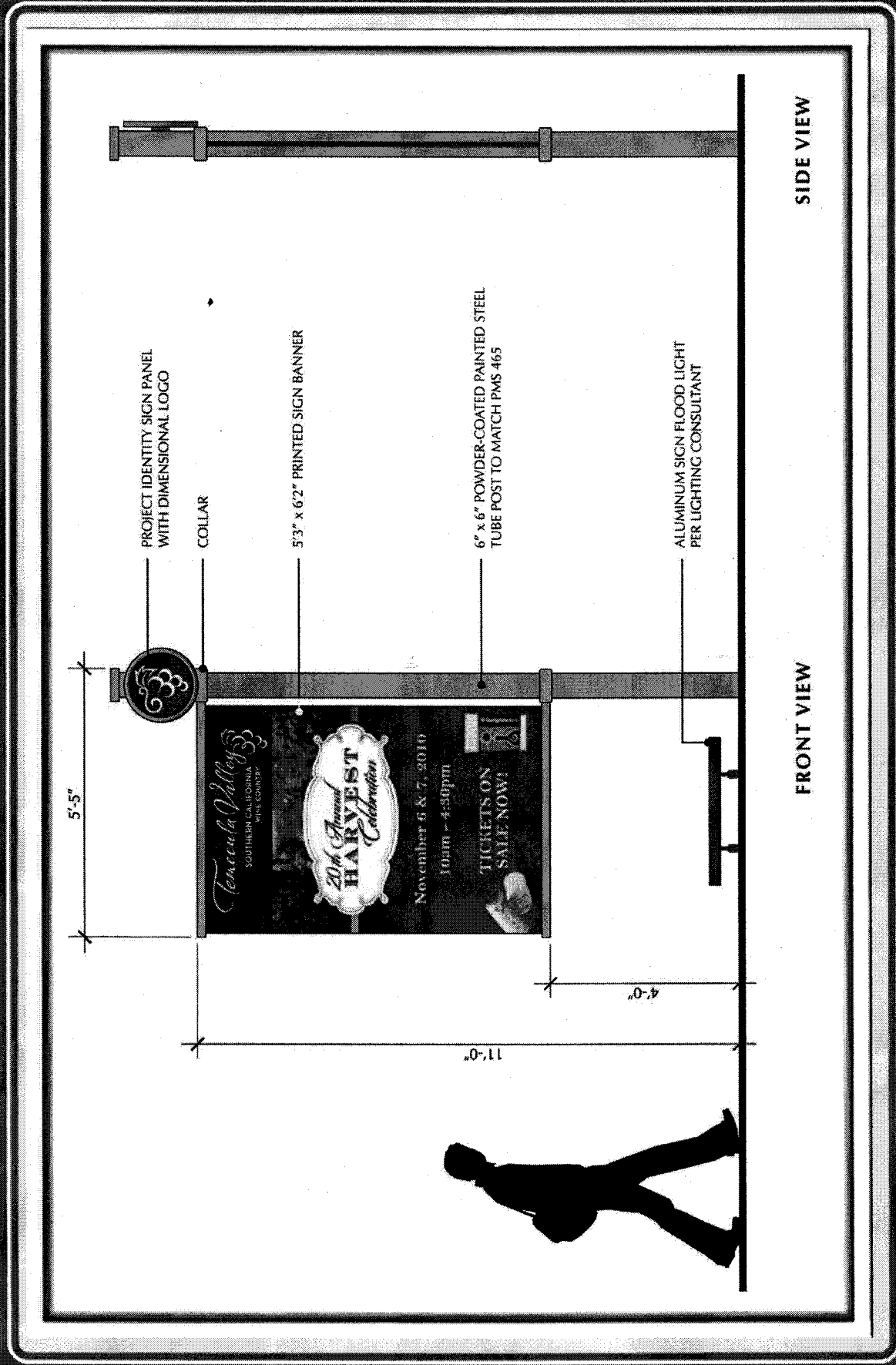
Alternative 2

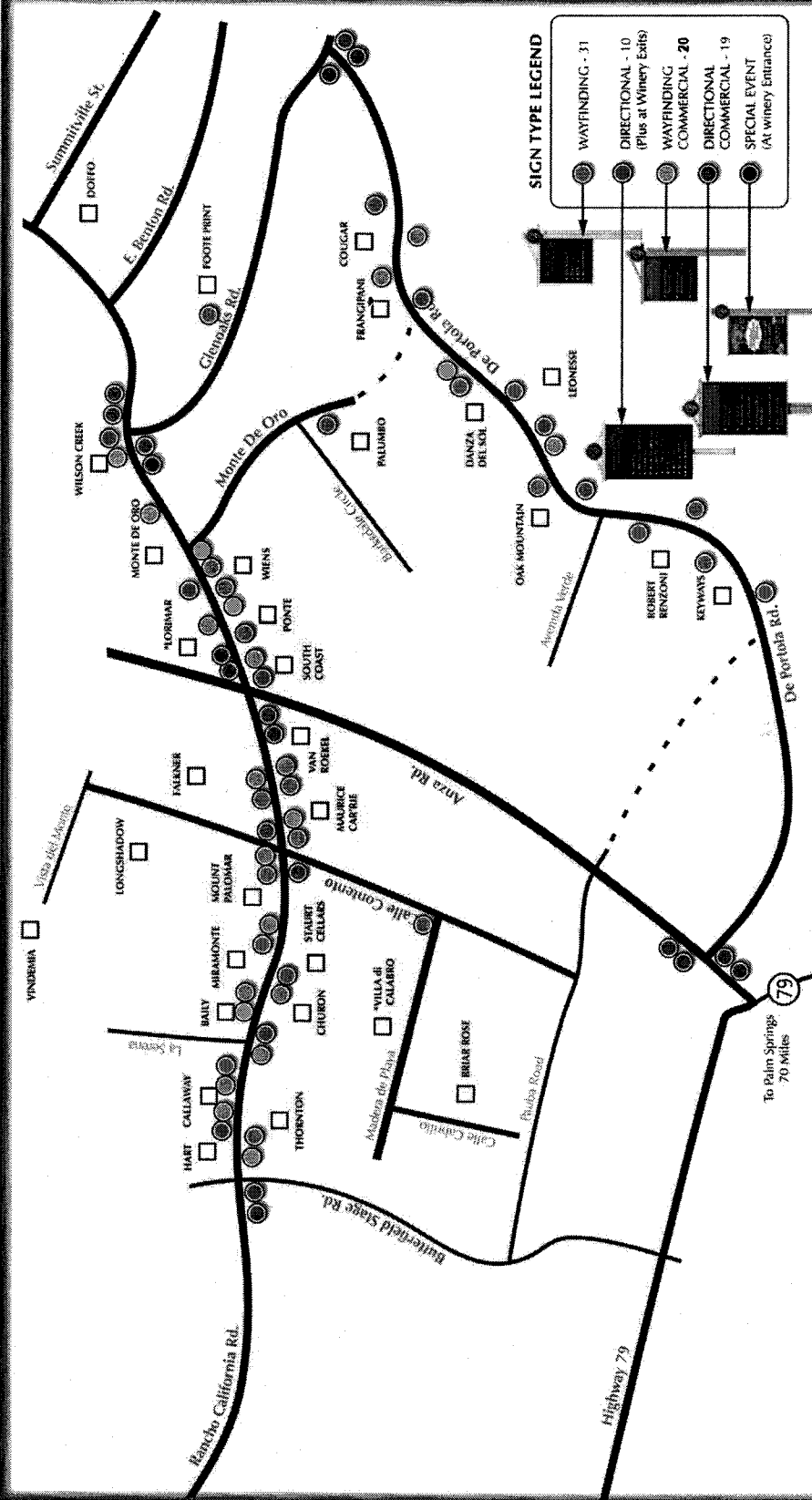


Alternative 3

Wine Country Event Banner Alternatives

TEMECULA VALLEY WINE COUNTRY DESIGN GUIDELINES





SIGNAGE LOCATION MAP

CONCEPTUAL SIGNAGE PROGRAM P.07



SIGN TYPE LEGEND

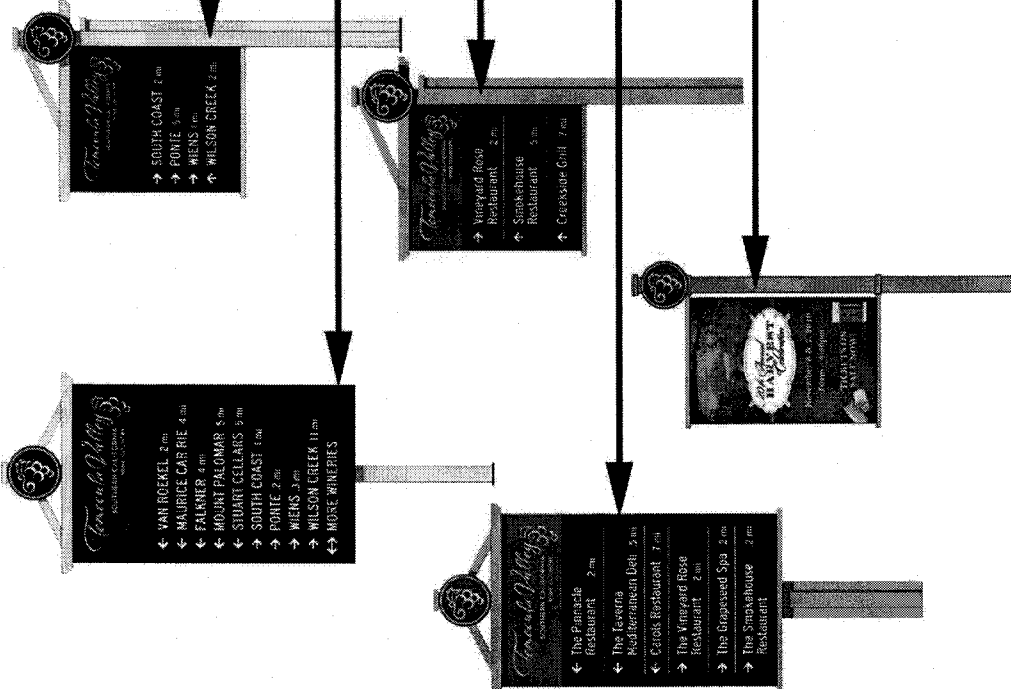
WAYFINDING - 31

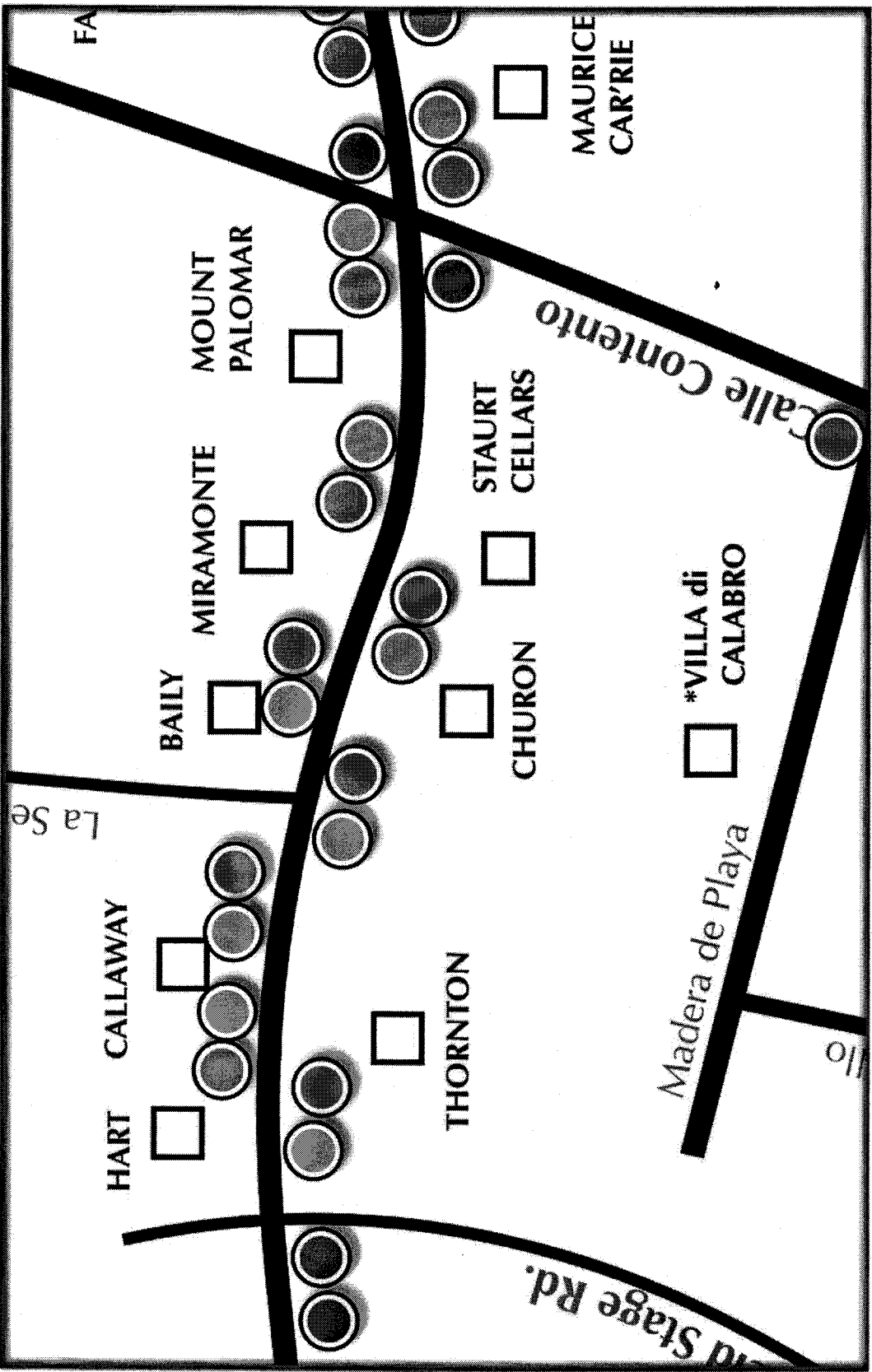
DIRECTIONAL - 10
(Plus at Winery Exits)

WAYFINDING
COMMERCIAL - 8

DIRECTIONAL
COMMERCIAL - 19

SPECIAL EVENT
(At winery Entrance)





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.

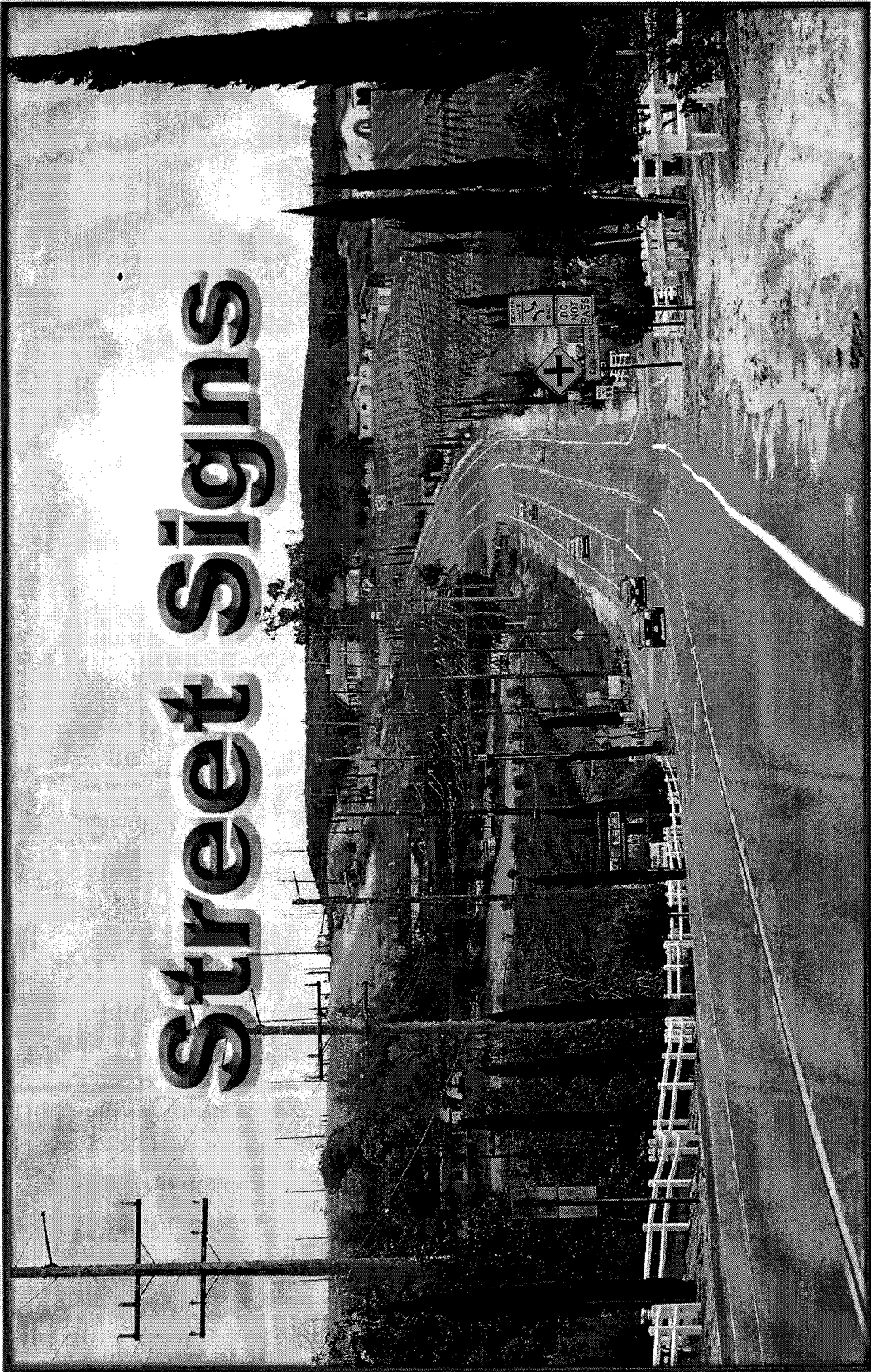
Sign Approval and Changes

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 signs 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.

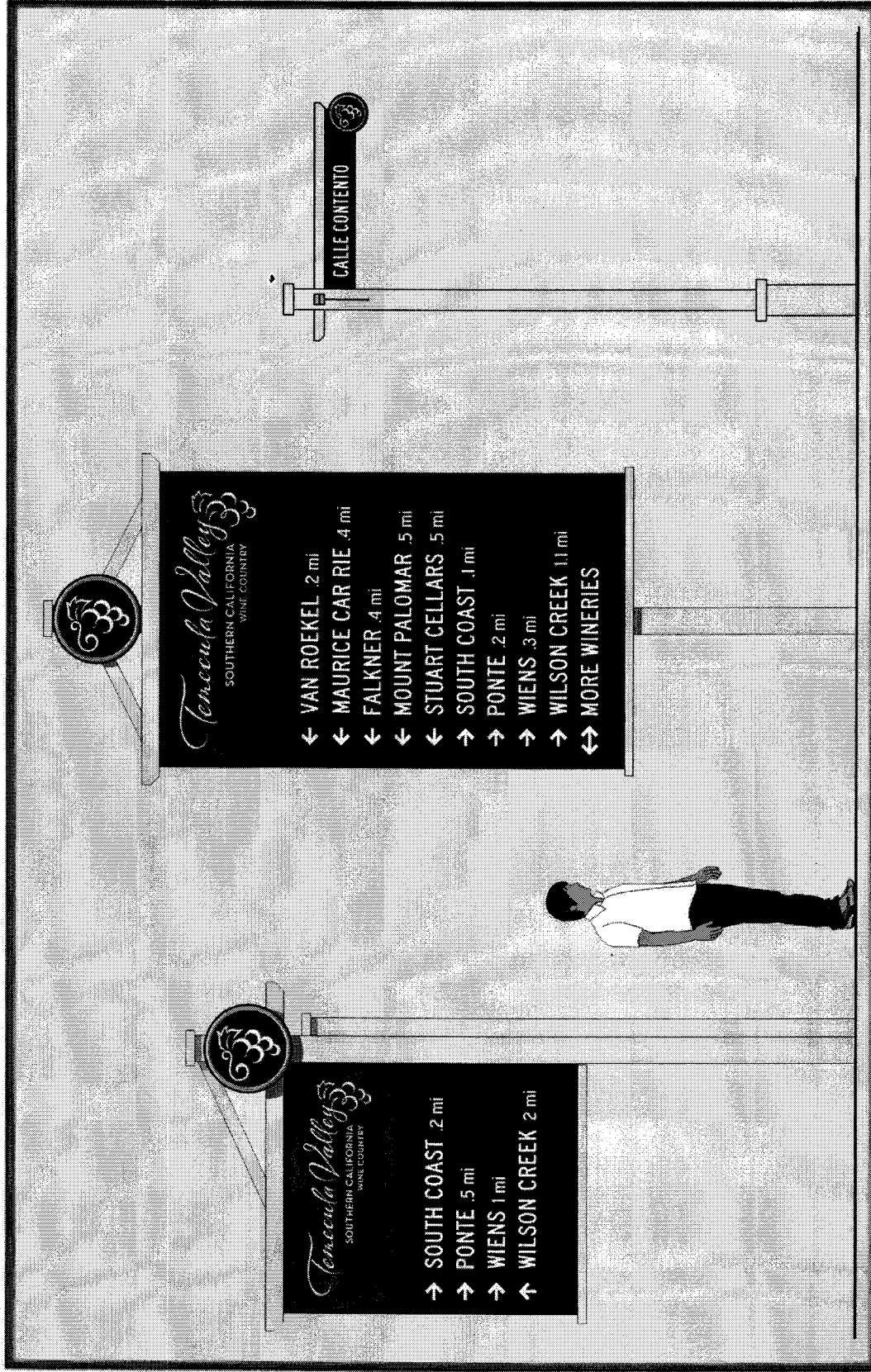
Incidental commercial establishments wishing to have their name on an Incidental Commercial Sign must be associated with a winery, and be located on that winery's property. All costs associated with the construction, installation, and maintenance of such signs lies with the establishments listed except 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.

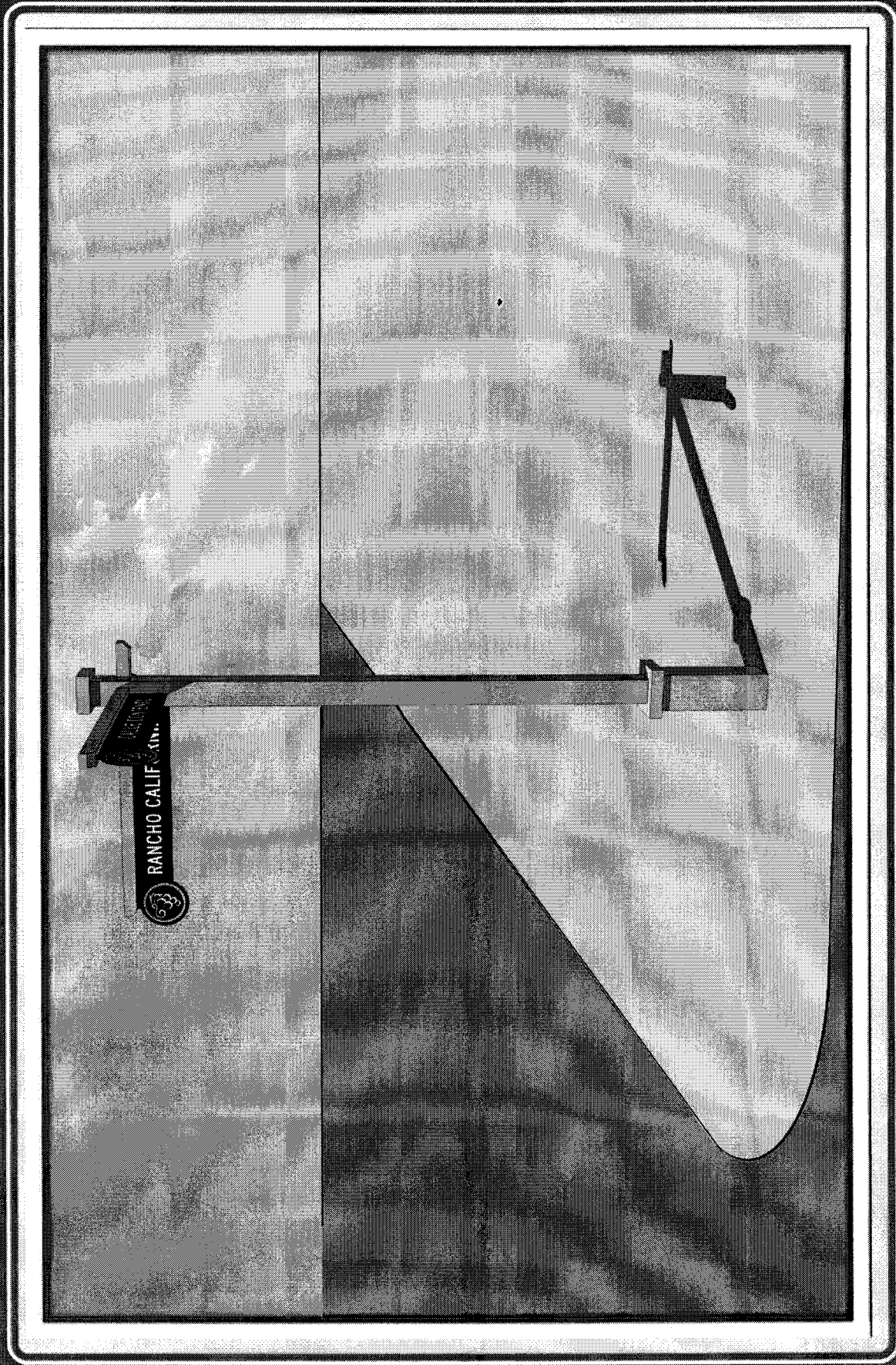


Street Signs

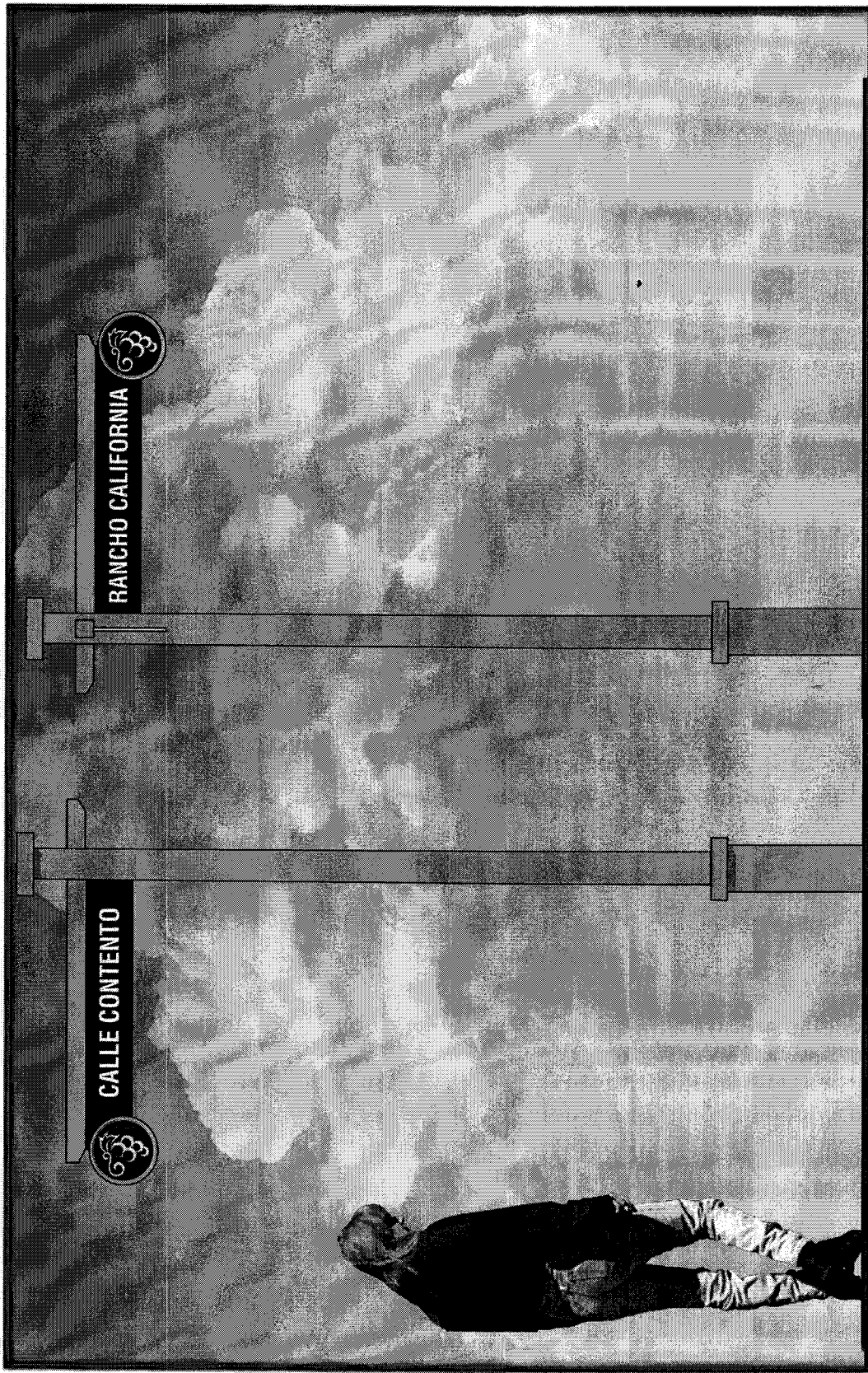


Proposed Street Sign is Consistent with Style

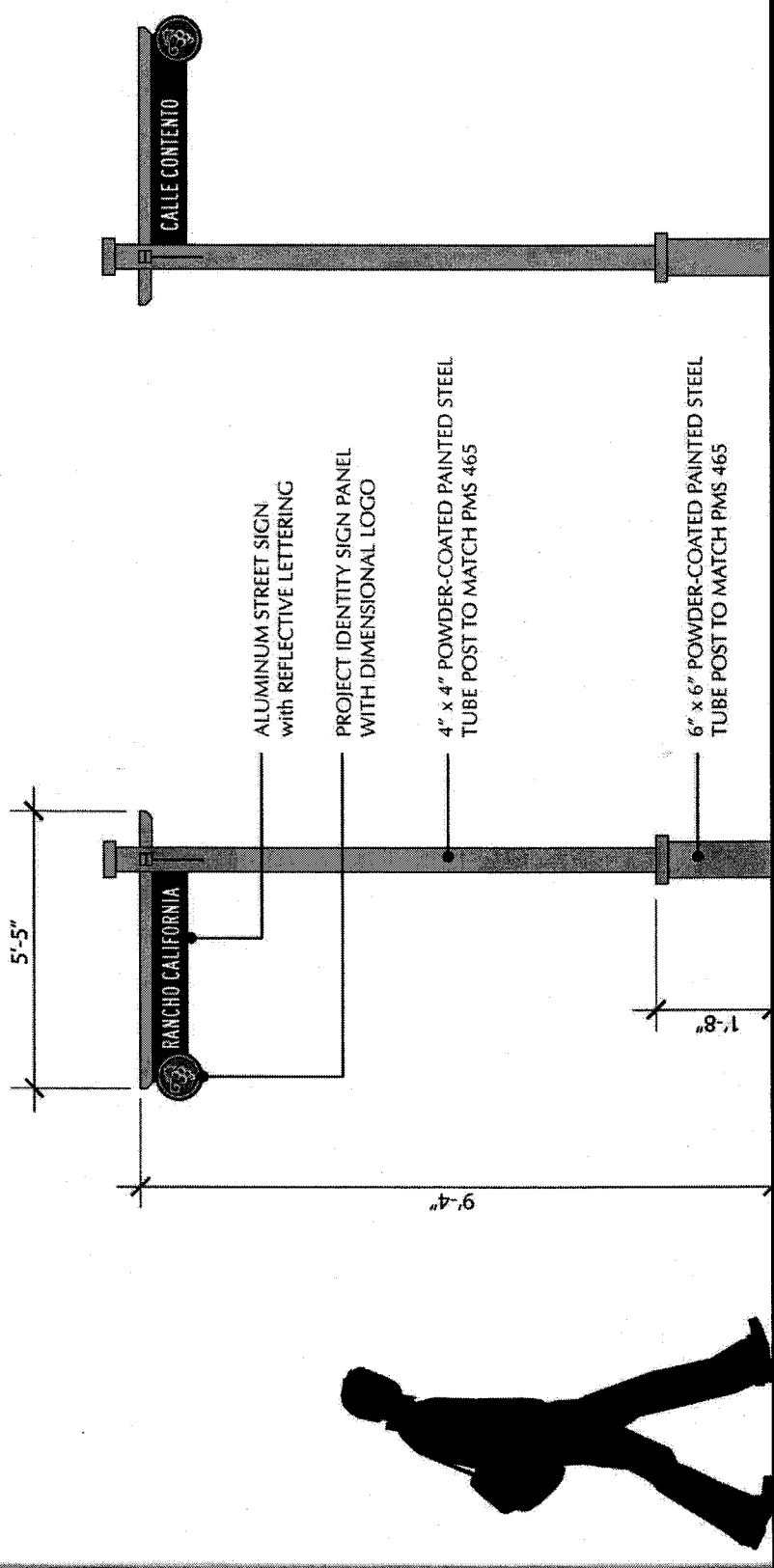




Wine Country Street Sign

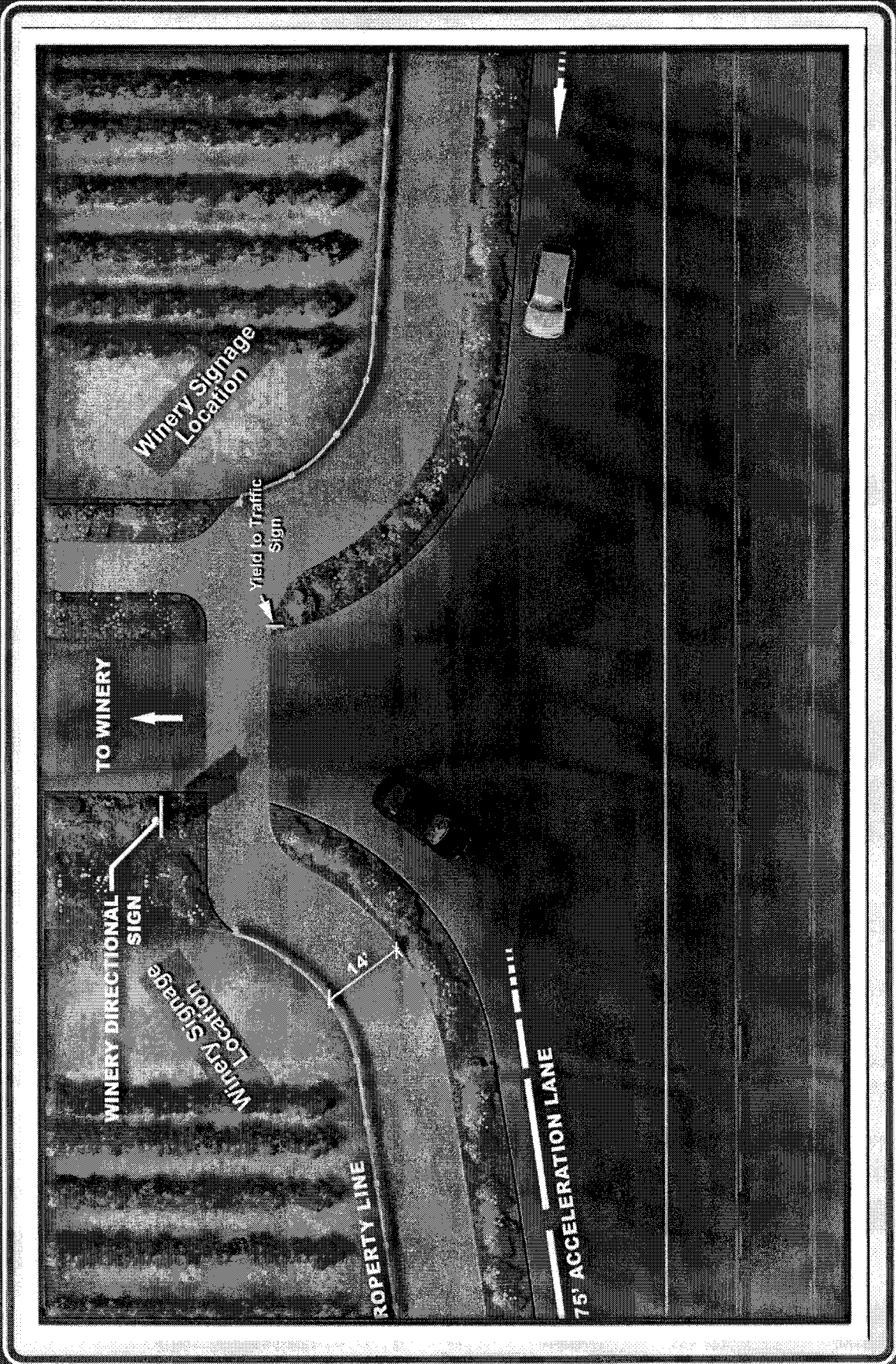


Wine Country Street Sign

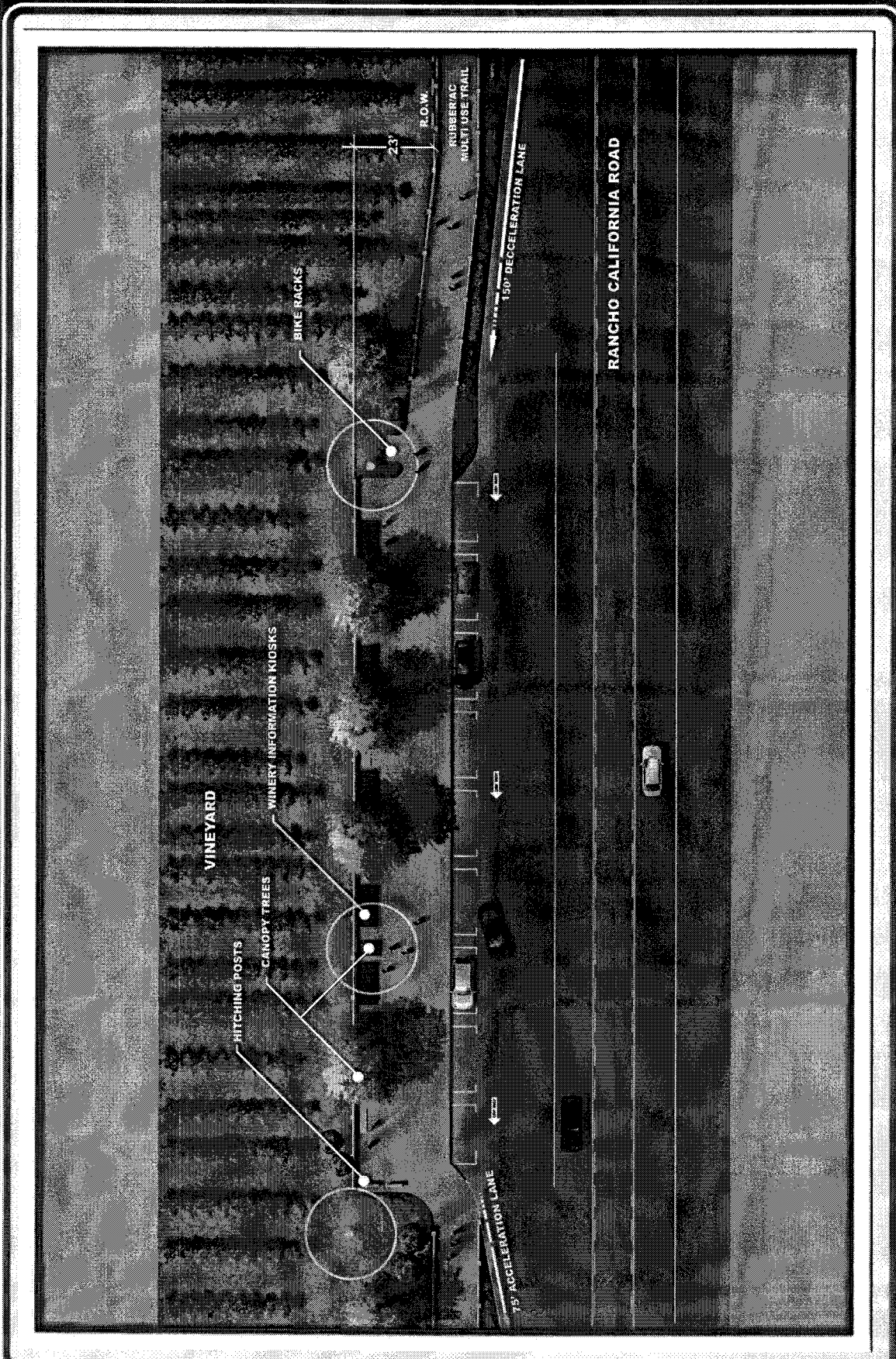




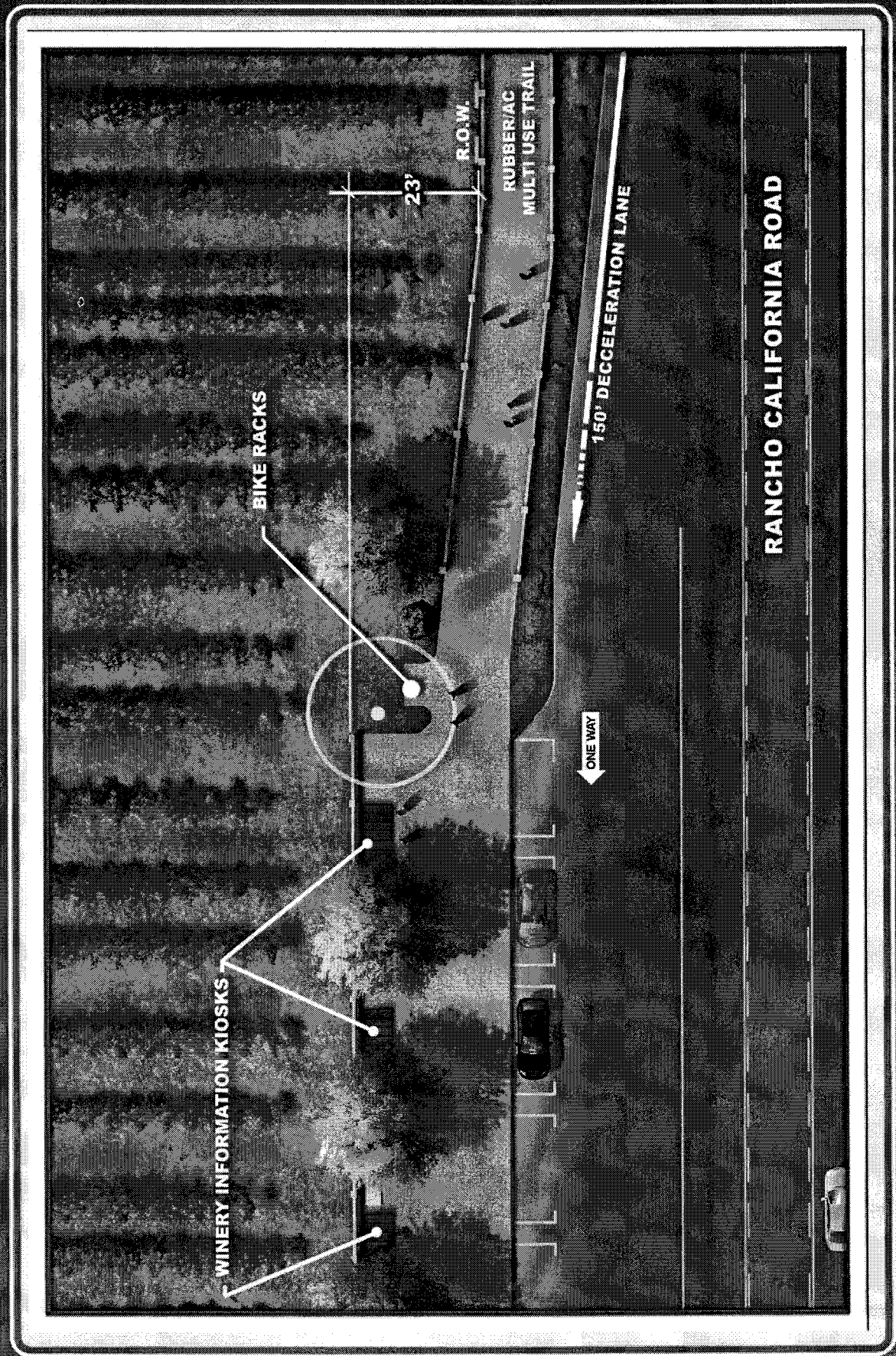
Typical Winery Entrance Requirements



Typical Winery Entrance Requirements



84 Visitor Orientation and Information Center



VINEYARD

HITCHING POSTS

CANOPY TREES

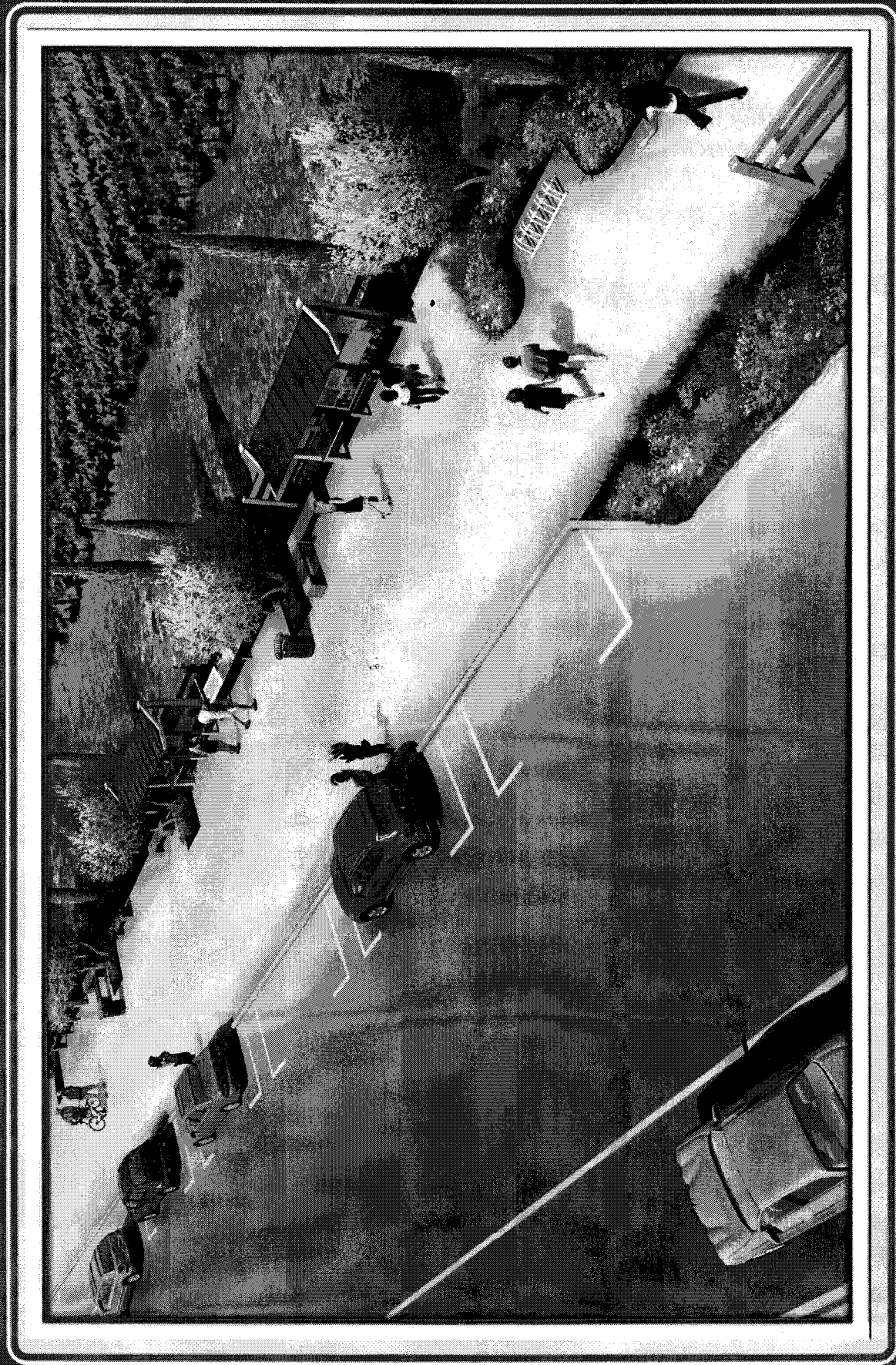
WINERY
INFO.
KIOSK

75' ACCELERATION LANE

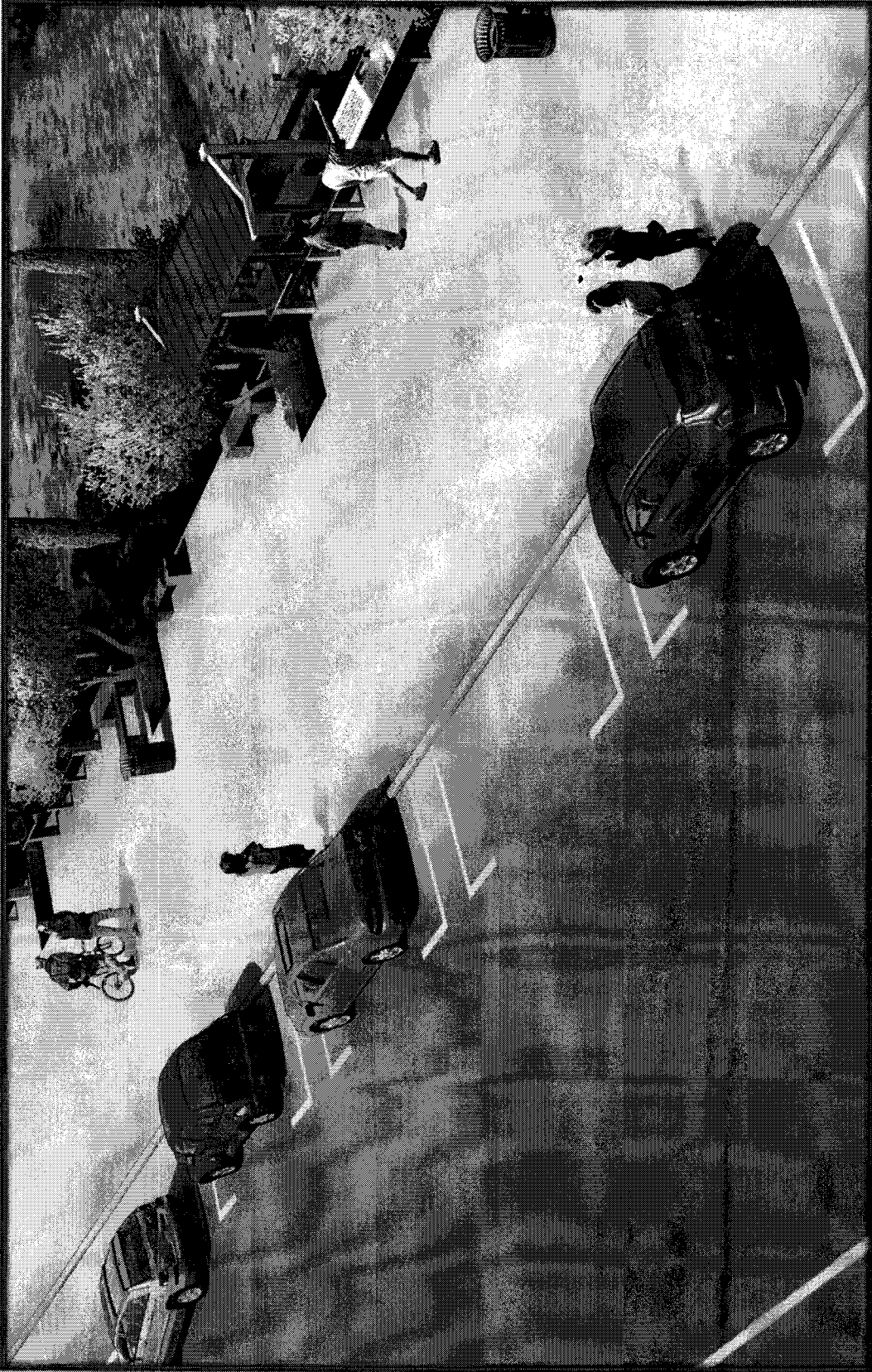
ONE WAY

East half of the
Visitor Orientation and Information Center

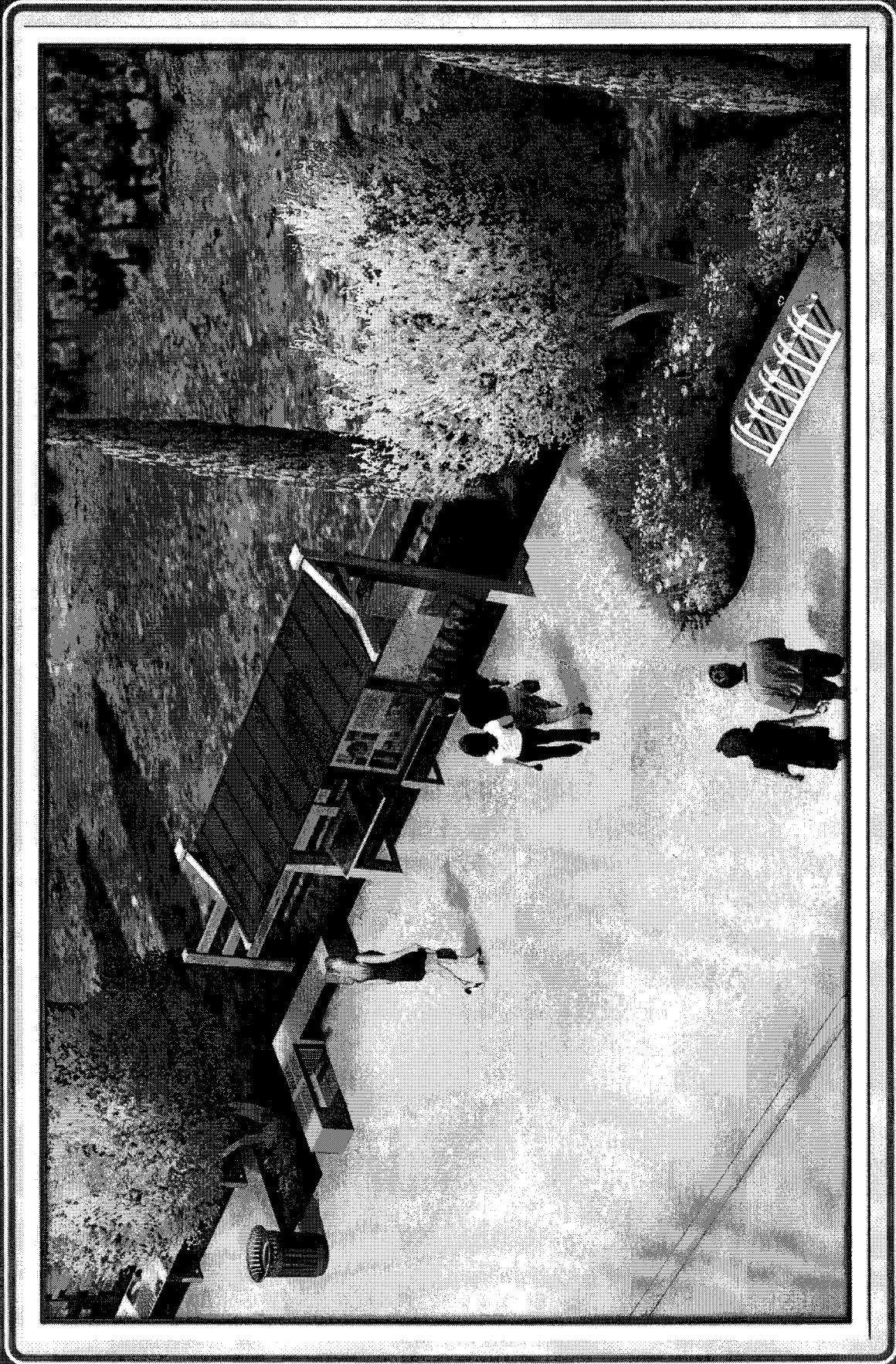
TEMECULA VALLEY WINE COUNTRY
DESIGN GUIDELINES



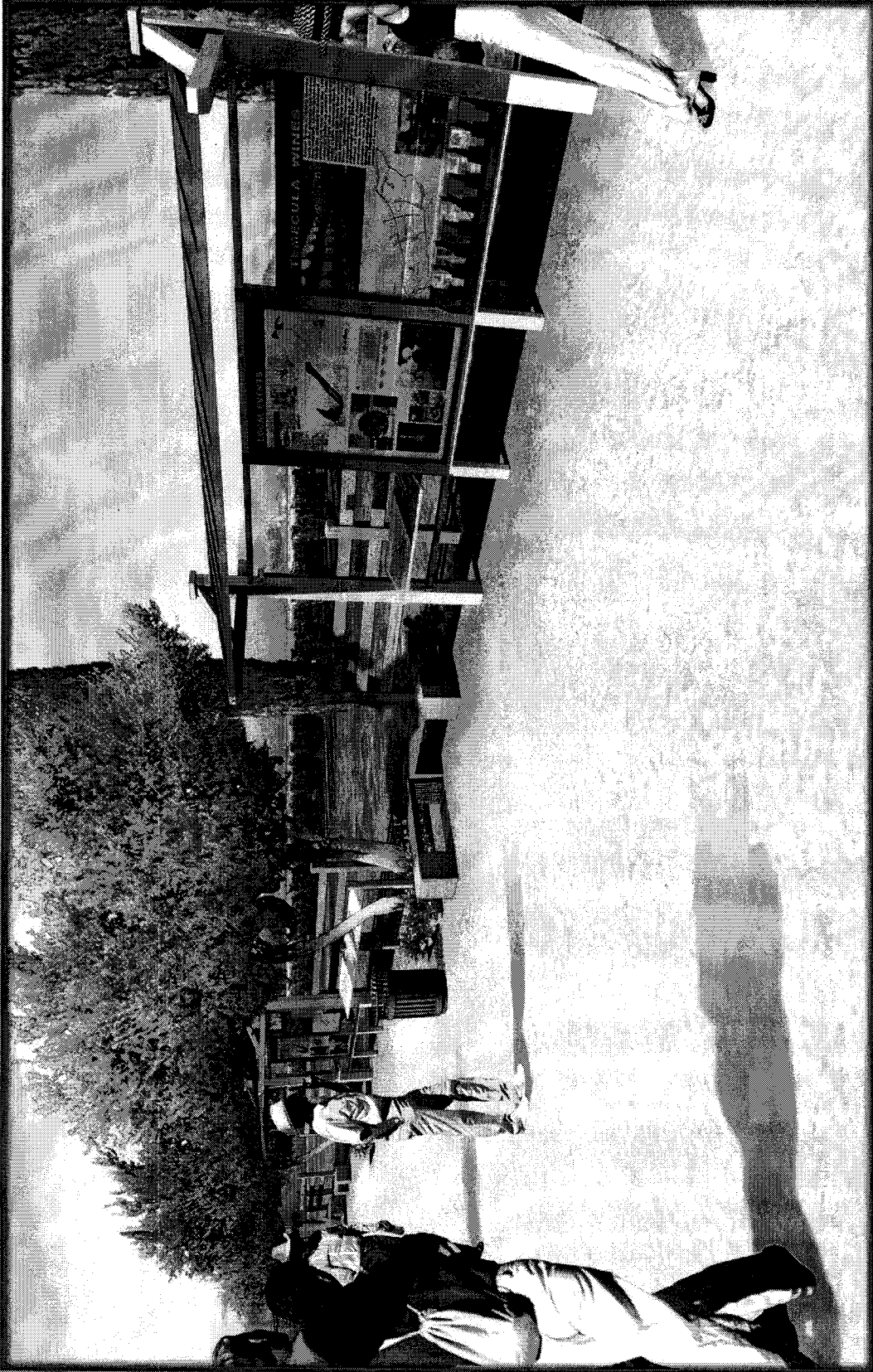
Bird's Eye View of the Proposed
Visitor Orientation and Information Center



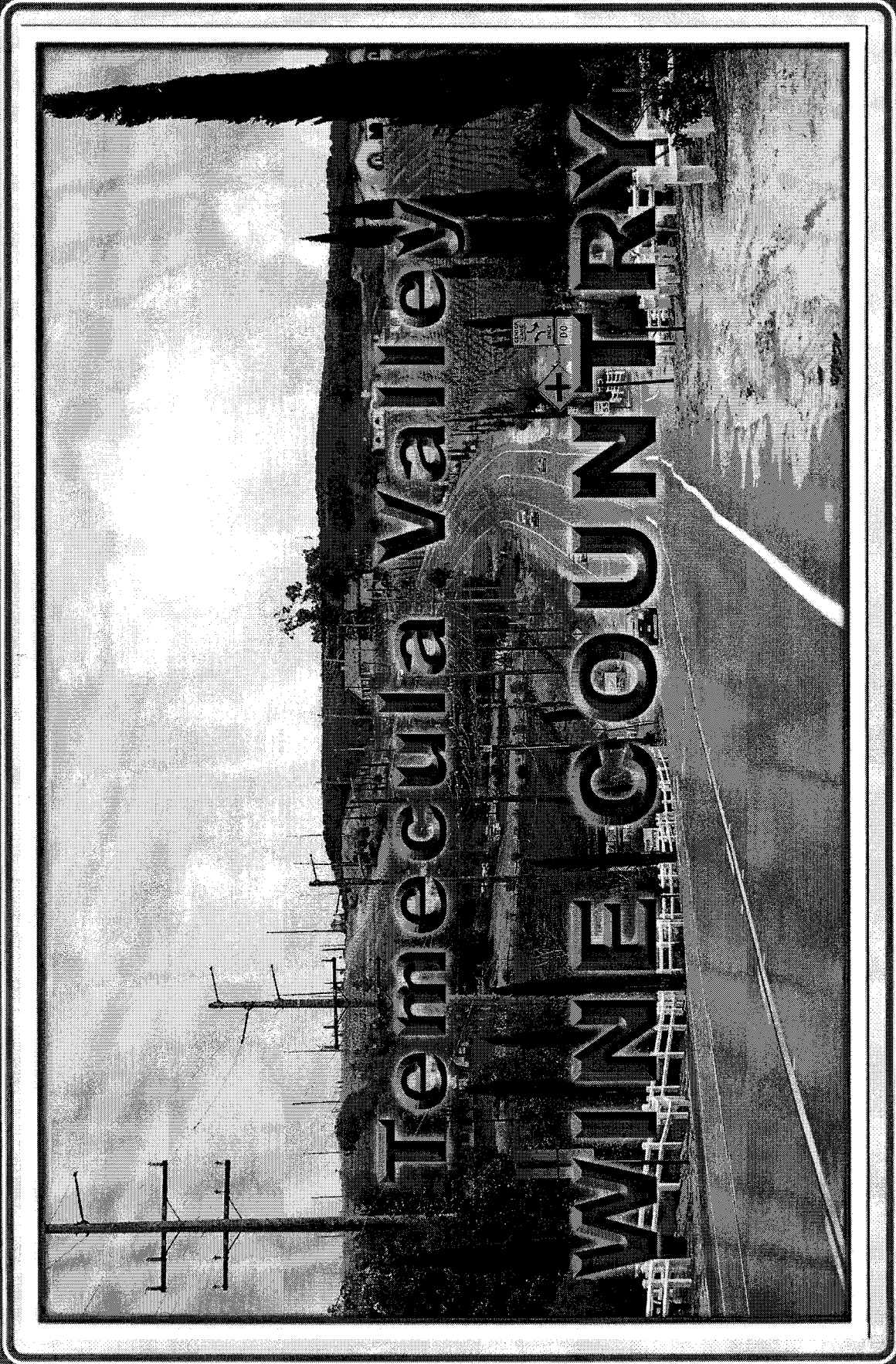
Bird's Eye View of the Proposed
Visitor Orientation and Information Center



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



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

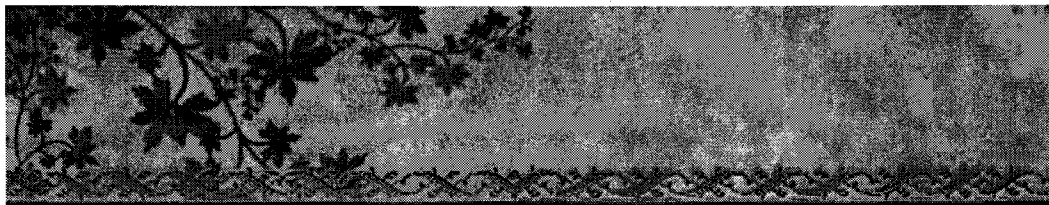
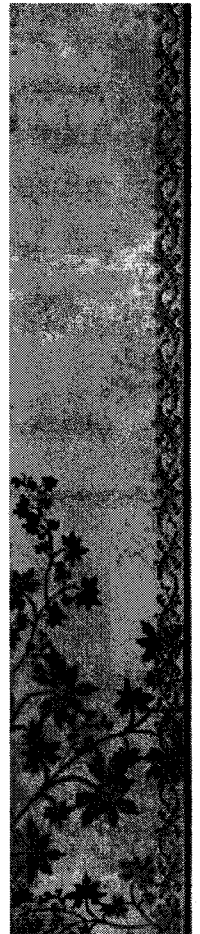


TEMECULA VALLEY WINE COUNTRY
DESIGN GUIDELINES

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Greenhouse Gas Reduction Workbook



RIVERSIDE COUNTY
PLANNING DEPARTMENT



TEMECULA VALLEY WINE COUNTRY GREENHOUSE GAS REDUCTION WORKBOOK

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TEMECULA VALLEY WINE COUNTRY GREENHOUSE GAS REDUCTION WORKBOOK

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 overabundance of air pollutants will degrade air quality causing mild to severe health effects in humans and animals, lower visibility, loss 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.

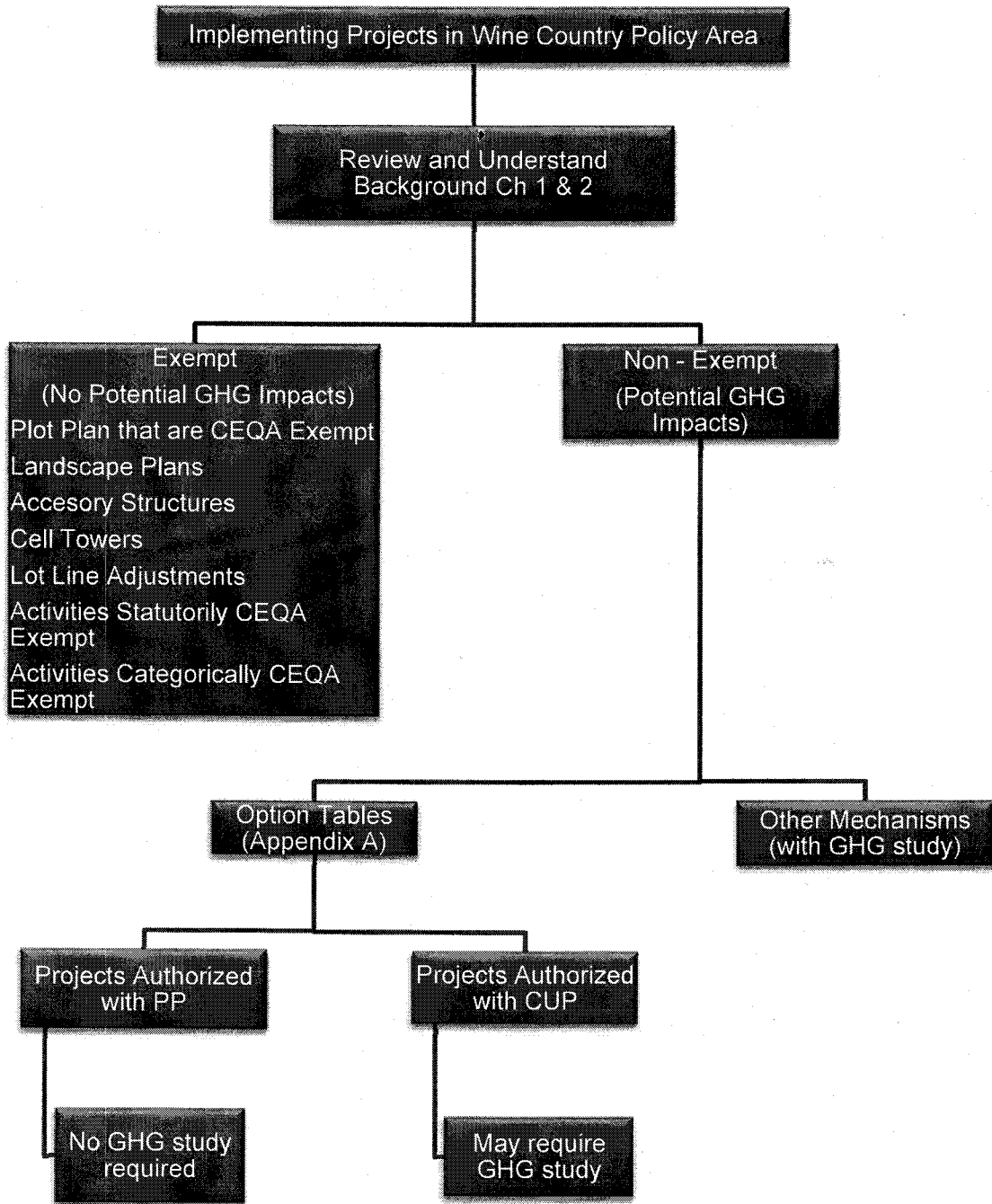
In order to ensure consistency with the General Plan and SWAP goals, the County has developed this workbook to provide guidance and streamline CEQA review for implementing projects within the Temecula Valley Wine Country Policy Area. This document serves to implement the greenhouse gas reduction policies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





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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 to 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 tons² 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.

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.



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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 manufacturers 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



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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) CO₂e.

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 CO₂e. Additionally, in December 2008, CARB adopted the Climate Change Scoping Plan,



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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 regional issues relating to transportation, the economy and community development, and the environment.

Although SCAG is not an air quality management agency, it is responsible for developing transportation, land use, and energy conservation measures that affect air quality. SCAG's Regional Comprehensive Plan and Guide (RCPG) provide growth forecasts that are used in the development of air quality-related land use and transportation control strategies by the SCAQMD. The RCPG is a framework for decision-making for local governments, assisting them in meeting federal and state mandates for growth management, mobility, and environmental standards, while maintaining consistency with regional goals regarding growth and changes through the year 2015, and beyond. Policies within the RCPG include consideration of air quality, land use, transportation, and economic relationships by all levels of government. As the Metropolitan Planning Organization for the County of Riverside, SCAG is in the process of implementing SB 375 with participation from the County and other local cities and Counties. SCAG's reduction target for per capita vehicular emissions is 8 percent by 2020 and 13 percent by 2035 (CARB 2010b).

b. South Coast Air Quality Management District

The SCAQMD is the agency principally responsible for comprehensive air pollution control in the SoCAB. To that end, the SCAQMD, works directly with SCAG, county transportation commissions, local governments, and cooperates actively with all federal and state government agencies. The SCAQMD develops rules and regulations, establishes permitting requirements, inspects emissions sources, and enforces such measures through educational programs or fines, when necessary.

SCAQMD is directly responsible for reducing emissions from stationary (area and point), mobile, and natural sources. It has responded to this requirement by preparing a series of Air Quality Management Plans (AQMPs). The most recent of these was adopted by the Governing Board of SCAQMD on June 1, 2007. This AQMP, referred to as the 2007 AQMP, was prepared to comply with the federal and state Clean Air Acts and amendments, to accommodate growth, to reduce the high pollutant levels in the basins, to meet federal and state ambient air quality standards, and to minimize the fiscal impact that pollution control measures have on the local economy. It identifies the control measures that will be implemented to reduce major sources of

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



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pollutants. These planning efforts have substantially decreased the population's exposure to unhealthy levels of pollutants, even while substantial population growth has occurred within its jurisdictional boundaries.

Riverside Countywide Regulations

a. General Plan

Public and private decisions regarding land use, traffic circulation, and resource use can influence the resultant air pollutant and GHG emissions from, respectively, development patterns, vehicle use and congestion, and alternative energy sources. Thus, many policies within the County's General Plan under the Land Use, Circulation, and Multipurpose Open Space Elements, are designed to encourage development of public and private lands that result in less intensive energy use and emissions. For example, the Land Use Element supports concentrating growth near community centers, developing sites that capitalize upon multi-modal transportation opportunities, and promoting compatible land use arrangements that reduce reliance on the automobile. The Circulation Element, for example, supports transit through allowing higher densities, and encourages and supports the development of projects that facilitate and enhance the use of alternative modes of transportation, including pedestrian-oriented retail and activity centers, dedicated bicycle lanes and paths, and mixed-use community centers. The Multipurpose Open Space Element contains policies that support implementation of the State Building Code and establishes mechanisms and incentives to encourage architects and builders to exceed minimum the energy efficiency standards.

b. Air Quality Element and Climate Action Plan

As part of the General Plan, the Air Quality Element contains policies which assist the county in meeting state and federal air quality guidelines and reducing pollutant emissions from mobile and stationary sources. The Air Quality Element, similar to the Land Use and Circulation Elements, account for growth within the region and balances the associated increase in pollutant emissions. Some policies within the Air Quality Element address mobile and stationary sources. With regard to mobile sources, the Air Quality Element contains policies such as encouraging use of mass transit, carpooling/ridesharing, and mixed-use development to reduce vehicle miles travelled within the region. With regard to stationary sources, such policies to reduce pollutant emissions include use of energy efficient building materials and use of energy efficient appliances (boilers, air conditioning and water usage reduction). In addition, the Air Quality Element takes into account nearby sensitive receptors during construction of new land uses to limit pollutant impacts to nearby existing sensitive uses (residential, school).

The County is currently (September 2011) developing an update to the Air Quality Element with the General Plan Update. New information and policies related to California laws and policies related to greenhouse gas (GHG) emission reduction will be incorporated into the revised chapter. The proposed update to the Air Quality Element will also be the footing for the County's greenhouse gas emission reduction strategy. The County's strategy will align with the AB32 goal to reduce the State's GHG emissions to 1990 levels by 2020, as well as its implementation





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mechanism, SB 375. These efforts to reduce greenhouse gas emissions will not only benefit the global climate, but improve the quality of life for Riverside County residents as well.

In addition, the County is currently (September 2011) developing the Climate Action Plan (CAP) in conjunction with the General Plan Update. The CAP for Riverside County will include GHG emission reduction goals and adopt implementation measures to achieve those goals through policies and programs for new developments, county operations and existing communities.

Upon the adoption of the General Plan Update, all individual projects which are able to demonstrate consistency with the revised Air Quality Element and CAP will be able to undergo streamlined CEQA review through tiering.



Chapter 3: *Greenhouse Gas Emission Reduction Strategies for Wine Country*

Pending adoption of an updated Air Quality Element and a Climate Action Plan for Riverside County, this section assesses the potential impacts of GHG emissions that could result from the cumulative build-out potential of the Wine Country Community Plan and new developments authorized pursuant to the plans and policies of the Wine Country Community Plan (proposed Project).

California Environmental Quality Act (CEQA) requires that Lead Agencies inform decision makers and the public regarding the following: potential significant environmental effects of proposed projects; feasible ways that environmental damage can be avoided or reduced through the use of feasible mitigation measures and/or project alternatives; and the reasons why the Lead Agency approved a project if significant environmental effects are involved (CEQA Guidelines §15002). CEQA also requires Lead Agencies to evaluate potential environmental effects based to the fullest extent possible on scientific and factual data (CEQA Guidelines §15064[b]). A determination of whether or not a particular environmental impact will be significant must be based on substantial evidence, which includes facts, reasonable assumptions predicated upon facts, and expert opinion supported by facts (CEQA Guidelines §15064f[5]).

Temecula Valley Wine Country Community Plan EIR

The County has prepared an Environmental Impact Report (EIR No. 524) assessing the potential direct and indirect impacts resulting from the Temecula Valley Wine Country Community Plan. The draft EIR analyzed GHG impacts due to the construction and operation of public and private improvements, such as the proposed trails network, roundabouts, and various implementing projects (residences, wineries, resorts, equestrian facilities, etc.) to be developed in accordance with the Community Plan. This EIR is programmatic in nature, and may not provide sufficient CEQA review for a specific implementing project. To the degree feasible, some individual projects will be allowed to tier off the analysis contained in the EIR thereby streamlining the CEQA process.

Thresholds

California law provides that climate change is an environmental effect subject to the California Environmental Quality Act ("CEQA"). Amendments to the State CEQA Guidelines adopted in February 2010 require lead agencies to consider the adverse effects of a project's cumulative contribution to greenhouse gas ("GHG") emissions on the environment and determine if a project's climate change impact may be significant. As amended, CEQA encourages lead agencies to estimate the amount of GHG emissions resulting from a development project, but also states that a lead agency retains the discretion to require a qualitative analysis. (State CEQA Guideline, § 15064.4.) The State CEQA Guidelines provide that significance thresholds may be quantitative, qualitative, or in the form of performance-based standards. Various



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agencies, including the California Air Resources Control Board ("CARB"), the Governor's Office of Planning and Research, and the South Coast Air Quality Management District, have been developing and drafting standards and guidelines for determining the cumulative significance of a project's GHG emissions on global climate change. The development, adoption, and application of GHG significance thresholds is in its infancy - there is currently no single accepted industry practice or methodology for analyzing GHG impacts.

The County has determined that there are three appropriate numeric thresholds to determine significance of the proposed Project. Specifically, GHG emissions were compared to the following three thresholds:

- **Mass Emissions.** A threshold of 3,000 MT CO₂e per year is adopted from the recommended SCAQMD's Interim Thresholds document for commercial, residential, mixed use, and industrial development projects; projects below this threshold are considered less than significant.
- **Per Capita Average Emissions.** A threshold of 4.1 MT per year per person, adopted from the SCAQMD efficiency based standard, is most applicable to larger projects, such as subdivisions and other projects of potential regional influence. The threshold is calculated on an emission rate per population or employee (service population) projected for Year 2035; developments which achieve emissions below this threshold are considered less than significant.
- **Reductions Consistent with State Goals.** A threshold of 28.5% below Business As Usual (BAU) emissions from future development projects. Project-specific emissions shall be calculated and compared to similar hypothetical development; if an implementing project achieves a reduction of at least 28.5% with incorporation of mandatory and voluntary measures, it is considered less than significant.

Results of the GHG Study

The Wine Country Community Plan EIR analyzed GHG impacts resulting from full build-out and operation of all implementing projects assumed in the Community Plan and proposed zoning. Analysis included construction emissions from individual projects and operational emissions from mobile sources (visitors, employees) and stationary sources (wine production, agricultural uses).

The findings of the GHG analysis conducted for EIR No. 524 are as follows:

- Construction of implementing projects would result in temporary and incremental increases in GHG emissions. Construction of multiple concurrent implementing projects could result in GHG emissions in excess of annual mass emission significance thresholds. However, SCAQMD recommends that construction emissions from individual Implementing Projects be amortized and significance be assessed in conjunction with long-term operational GHG emissions.





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- Construction and operation of implementing projects would result in GHG emissions in excess of the SCAQMD draft mass emission thresholds and the proposed per capita threshold; therefore, full Build-out under the Community Plan would result in potentially-significant and unavoidable cumulative impacts to global climate change.
- Implementing projects designed and constructed with GHG reducing project features consistent with the Wine Country Policy Area GHG policies would be consistent with the State's GHG-reduction goals under AB 32, resulting in emissions at least 28.5% below the BAU case. Compliance with these requirements can be demonstrated by achieving the mandatory minimum points on the applicable Option Table (see Appendix A) or demonstrated through other approved quantitative method.
- Implementation projects which achieve the required reductions required under the Wine Country Community Plan would be consistent with Global Climate Change policies set forth by the federal, state, regional and local plans.

As a result of the aforementioned findings, 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.

Community Plan Level Emissions Reduction Strategies

The Temecula Valley Wine Country Community Plan proposes a number of strategies at regional level to the Southwest Area Plan (SWAP) that reduce Greenhouse Gas Emissions through design features that are anticipated to reduce vehicle miles travelled.

a. Integrated Trails Network (Non-motorized Transportation including Pedestrian, Bike and Equestrian trails)

The County of Riverside contains multi-purpose trails that accommodate hikers, bicyclists, and equestrian users as an integral part of the County's circulation system. These facilities serve both as a means of connecting the unique communities and activity centers throughout the County and as a means of facilitating modes of transportation with no emission of air pollutants and GHGs. Within the Southwest Area Plan (SWAP), a network of trails is planned for the Wine Country region to provide pedestrians, visitors, equestrians, and bicyclists with alternative modes of travel and while providing attractive recreational opportunities. However, it does not connect all the existing wineries and other tourist destinations, such as Lake Skinner and Vail Lake, through equestrian and multi-purpose trails system. A Trails Sub-committee worked with the County Regional Parks and Open Space District and Planning Staff in the development of a trails network that was more conducive to this region's destination places and users' needs. As a result of their work-effort, Figure 8 (Trails and Bikeway System Map) of the SWAP was revised through GPA No. 1077 and the following policy was added to the Temecula Valley Wine Country Policy Area.

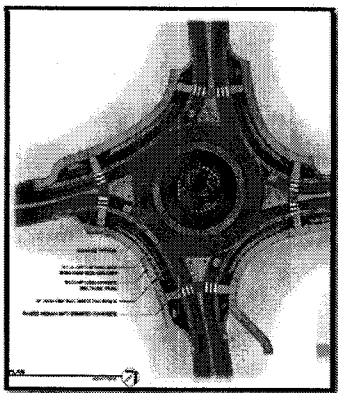
SWAP 1.6 Develop and implement a trails network that carefully considers equestrian uses, incidental commercial activities and agricultural operations, and includes, but is not





limited to, regional trails, combination trails, bike paths, open space trails, historic trails, etc.

b. Roundabouts



Through the Wine Country Community Plan process, five roundabouts are proposed along Rancho California Road to maintain rural character of this region while allowing efficient traffic calming and volume capacity. The roundabout at Rancho California Road and Anza Road will be the first of five roundabouts located at La Serena Way, Calle Contento Road, Monte De Oro Road and Glenoaks Road. These roundabouts will allow vehicular, equestrian, bicycle and pedestrian traffic to interact through the intersection more efficiently and safely while keeping its natural wine county landscape. The roundabout will accommodate the estimated 41,700 of daily vehicular traffic and a peak hour vehicular traffic of over 4000.

c. Fair Share and Phasing Assessment

Through the Community Plan process, the County has developed a traffic impact fee program specifically to ensure timely construction of transportation improvements as outlined in the Wine Country Fair Share and Phasing Assessment. This program will collect fair share contributions toward improvements within the Wine Country Policy Area and within the City of Temecula, and the County will enter into an agreement with the City of Temecula to implement the identified improvements. Additionally, implementing projects within the Wine Country Policy Area will be required to prepare a focused traffic study that will assess the following to ensure consistency:

- Trip generation comparison to estimates assumed in the WCP assessment
- Parking assessment
- Site access and on-site circulation assessment
- Interaction of driveways with adjacent intersections (if appropriate)
- Additional assessment deemed appropriate by the County of Riverside Transportation Department

In addition, EIR No. 524 includes the following mitigation measures to mitigate air quality impacts that assist the County in achieving the GHG reduction goals as well:

AQ-1 The County shall require new commercial and industrial implementing projects to develop a voluntary trip reduction program that promotes commuter-choices, employer transportation management, guaranteed ride home programs and commuter assistance and outreach-type programs intended to reduce commuter vehicle miles traveled. The program shall be submitted as part of discretionary review applications, and in place prior to Certificate of Occupancy.



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- AQ-2 The County shall condition all implementing projects to implement that Trails and Bikeways Systems map (SWAP Figure 8) of the Project. This map is more conducive to this region's destination places and multiple users' (bikers, equestrian, pedestrians, visitors, etc.) needs. Hence, changing the focus of land use from automobile-centered transportation would result in a reduction in vehicle miles traveled.
- AQ-3 In addition, the County shall require implementing projects to incorporate bicycle parking areas and horse hitching posts where applicable.
- AQ-4 The County shall require implementing projects to incorporate a comprehensive parking program for private parking lots where applicable, to promote ultra-low or zero emission vehicle parking; provide larger parking spaces that can accommodate vans and limousines; include adequate passenger waiting/loading areas; and provide safe pedestrian/equestrian pathways through parking areas.
- AQ-5 The County shall promote the expanded use of renewable fuel and low-emission vehicles within implementing projects. Implementing projects shall earn points in the GHG Mitigation Workbook Option Tables by making low-emissions or electric vehicle use more accessible by including one or both of the following project components: provide preferential parking for ultra-low emission, zero-emission, and alternative-fuel vehicles; and provide electric vehicle charging stations within the development.
- AQ-6 The County shall require implementing projects to prohibit idling of on and off-road heavy duty diesel vehicles for more than five minutes. This measure shall be implemented by new commercial and industrial projects with loading docks or delivery trucks. Such projects shall be required to post signage at all loading docks and/or delivery areas directing drivers to shut down their trucks after five minutes of idle time. Also, employers who own and operate truck fleets shall be required to inform their drivers of the anti-idling policy.
- AQ-7 The County shall work with the Winegrowers' Association and their partners to promote alternative modes of transportation, such as shuttles, cable-cars, trolley, etc. In addition, where feasible, the County shall work with the local transit provider – RTA – by adding or modifying existing transit service to enhance service near the Project site. This will encourage the use of transit and therefore reduce vehicle miles traveled (VMT). Unincorporated Riverside County hosts one Metrolink transit station; the County shall collaborate with in the neighboring cities to expand connections to this station as well as other Metrolink stations which will increase ridership and decrease vehicle miles traveled (VMT).





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Implementing Project Level Emissions Reduction Strategies

In addition to the strategies being implemented on a regional basis, the Temecula Valley Wine Country Policy Area contains the following policy to require that the implementing projects achieve a reduction in GHG emissions.

SWAP 1.9 *Pending adoption of an updated Air Quality Element and Climate Action Plan (CAP), ensure that new development selects greenhouse gas (GHG) reduction measures from the Option Tables to achieve the County's GHG emission reduction thresholds as set forth in the Greenhouse Gas Reduction Workbook (workbook). Alternatively, new developments may utilize other reduction mechanisms to achieve reduction thresholds as prescribe in the workbook.*

The County has determined that no analysis of GHG emissions is required for the following types of implementing projects because they will not result in any potentially significant cumulative impact on global climate change:

- Plot Plans that are CEQA exempt and not circulated and which meet the criteria of subdivision (a)(1) of Section 18.30 of Riverside County Ordinance 348.
- Landscaping Plans pursuant to, and consistent with, the provisions of Riverside County Ordinance 859
- Accessory Structures
- Cellular Towers
- Lot Line Adjustments
- Any Activity Statutorily Exempt from CEQA
- Any Activity Categorically Exempt from CEQA for which an Exception in State CEQA Guidelines Section 15300.2 Does Not Apply

Projects not defined above, are the projects or development activities that could potentially create a cumulatively significant impact on global climate change. Those projects could elect to utilize one of the following two options to achieve their fair share of GHG reductions.

Option Tables for Achieving GHG Reductions

The County of Riverside has developed option tables to assist in the analysis of GHGs for individual projects tiering off of the Wine Country Community Plan EIR, The option tables were developed based on AB 32 targets and contain measures to reduce GHG emissions at least 28.5% below Business As Usual (BAU) emissions. Individual projects have the option to use these option tables in order to demonstrate that GHG emissions from the project are less than significant. The GHG reduction measures contained in the option table are assigned points.





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Projects which implement enough reduction measures and achieve a 100/70 point rating are considered to be consistent with the County's GHG reduction goals for the Wine Country region.

Two versions of the Option Table have been developed to assist the project project proponents of these projects, one for residential projects and one for commercial projects. The Option Tables are included in Appendix A of this workbook. As noted above the County has developed a list of specific mitigation strategies applicable to certain implementing projects. The Option Tables provide a menu of additional options that both insures consistency in implementation of the measures and flexibility on how future development projects will achieve an overall reduction of GHG emissions, consistent with the reduction target established by the County in the Temecula Valley Wine Country Community Plan EIR.

Each Option Table assigns points for specific GHG reducing strategy incorporated into a project whether by regulation, statute, or policy, as mitigation or a project design feature (collectively referred to as "feature"). The point values correspond to the minimum emissions reduction expected from each feature, including those mandated as mitigation measures in the county's EIR No. 524 and by CALGreen Building Codes. The menu of features allows maximum flexibility and options for how development projects can implement the GHG reduction measures. Residential projects in the SWAP that garner at least 70 points will be consistent with the State's overall GHG reduction goals. Commercial projects will need to garner at least 100 points. As such, those projects that garner the minimum specified points or greater would not require quantification of project specific GHG emissions. Consistent with CEQA Guidelines, such projects would be determined to have a less than significant individual and cumulative impact for GHG emissions.

Mixed use projects provide additional opportunities to reduce emissions by combining complimentary land uses in a manner that can reduce vehicle trips. Mixed use projects also have the potential to complement energy efficient infrastructure in a way that reduces emissions. For mixed use projects fill out both Option Table 1 and Table 2, but proportion the points identical to the proportioning of the mix of uses. As an example, a mixed use project that is 50% commercial uses and 50% residential uses will show ½ point for each assigned point value in Table 1 and Table 2. Add the points from both tables. Mixed use projects that garner at least 100 points will be consistent with the reduction quantities in the County's GHG Plan and are considered less than significant for GHG emissions.

Other Mechanisms for Achieving GHG Reductions

Those projects that do not garnish the minimum points using the Option Tables discussed above (and presented in Appendix A) will require quantification of project specific GHG emissions and will need to provide mitigation measures to reduce GHG emissions at least 28.5% below Business As Usual (BAU) emissions.

A numerical analysis of GHG emissions and a discussion of impacts on global climate change is required for Residential and/or Commercial projects, as described below, and also for any





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mixed use projects involving more than one type of use. This study is also required for discretionary Agricultural projects.

1. The GHG study must quantify the GHG emissions for the project, and must also include, at a minimum, an analysis of GHG emissions for each type of GHG emission identified in California Health & Safety Code §38505 for construction impacts, if any, and operational impacts, if any.

a. GHGs to which this section applies include carbon dioxide, methane, nitrous oxide, hydro-fluorocarbons, perfluorocarbons, sulfur hexafluoride and nitrogen trifluoride, per Health and Safety Code §38505 and any amendments thereto.

b. Analysis of GHGs must not only quantify emissions but also discuss their relative potential to affect global climate change. For example, methane has a global warming potential many times that of carbon dioxide, such that a given quantity of methane may have an equal or greater effect on global climate change than a lesser amount of carbon dioxide.

c. In quantifying GHG emissions, the analysis must address:

i) For construction: The total amount of GHGs emitted by all construction activities including, but not limited to, equipment and machinery usage, energy usage, vehicle miles traveled by construction employees, emissions from architectural coatings, emissions from paving or road construction activities, and other reasonably fore-seeable emissions.

ii) For operations: The total amount of GHGs emitted by all operational activities per year including, but not limited to, emissions from use of electricity, use of natural gas, and other energy consumption, emissions resulting from water demand, vehicular emissions, and other reasonably foreseeable emissions.

iii) For purposes of subdivisions 1 and 2, above, a rule of reason shall apply requiring only those emissions that are reasonably foreseeable to be quantified. If a particular emission is speculative, the analysis shall discuss the issue qualitatively and explain the reasons why any further analysis would be speculative and then conclude the analysis.

2. The GHG study must describe and analyze feasible mitigation measures for any potentially significant GHG emissions. All feasible mitigation measures must be adopted for potentially significant impacts. The types of mitigation measures that may be considered and shall be imposed, if feasible, depend on the type of project that is proposed. A demonstration by the project applicant that the project has reduced GHG emissions by 28.5% or more below a business





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In connection with any of the above categories of projects, the County Planning Department may impose any or all of the following Conditions of Approval to further reduce GHG emissions:

- Use energy-efficient designs such as those found in the Leadership in Energy and Environmental Design ("LEED") Green Building Ratings and/or comply with Title 24, Part 11, the California Green Building Standards Code.
- Incorporate public transit into project design through siting, location, and transit links.
- Include vehicle-reduction measures through carpooling, public transit incentives, and linkages or electric shuttle services to public transit as well as, to the extent possible, local and regional pedestrian and bike trails.
- Retrofit the building for energy efficient purposes.
- Use energy-efficient appliances and office equipment (e.g., Energy Star compliant).
- Implement waste reduction and recycling measures.
- Incorporate on-site renewable energy production (i.e., solar installations on rooftops), and/or waste heat capture (for industrial projects to provide process and/or building heat), and/or water reuse.
- Install direct gas use or electricity projects to capture and use emitted methane (applies to landfill projects).
- Promote mixed-use, compact, and higher-density development to reduce trip distance, promote alternatives to vehicle travel, and promote efficiency in delivery of services and goods (applies to planning documents).





Chapter 4: Informational Resources

California Air Resource Board:

- Assembly Bill 32
 - Scoping Plan <http://www.arb.ca.gov/cc/scopingplan/scopingplan.htm>
 - Reducing Emissions <http://www.arb.ca.gov/html/programs.htm>
- Regulating Agricultural Related Activities
 - <http://www.arb.ca.gov/ag/ag.htm>
- Land Preparations: <http://www.arb.ca.gov/ei/areasrc/fullpdf/full7-4.pdf>
- Emission Calculation FOOD & AGRICULTURE WINE FERMENTATION
 - <http://www.arb.ca.gov/ei/areasrc/arbndprofandag.htm>
 - <http://www.arb.ca.gov/ei/areasrc/fullpdf/full5-1.pdf>

Non-profit Organizations:

- Wine Institute Greenhouse Gas Protocol and accounting tool:
<http://www.wineinstitute.org/ghgprotocol>.
- The California Sustainable Winegrowing Alliance (CSWA) Sustainable Winegrowing Program: <http://www.sustainablewinegrowing.org/aboutcswa.php>.

Appendix A:

Wine Country Option Tables – GHG Reduction Implementation Measures

(Residential and Commercial Developments)



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Table 1: GHG Reduction Implementation Measures for Residential Development

Feature	Description	Assigned Point Values	Implementing Project Points
Implementation Measure: Energy Efficiency			
E1 Building Envelope- Insulation	Title 24 standard (required)	0 points	
	Modestly Enhanced Insulation (5% > Title 24)	1 point	
	Enhanced Insulation (15%> Title 24)	3 points	
	Greatly Enhanced Insulation (20%> Title 24)	5 points	
E2 Building Envelope - Windows	Title 24 standard (required)	0 points	
	Modestly Enhanced Window Insulation (5% > Title 24)	1 point	
	Enhanced Window Insulation (15%> Title 24)	3 points	
	Greatly Enhanced Window Insulation (20%> Title 24)	5 points	
E3 Building Envelope - Doors	Title 24 standard (required)	0 points	
	Modestly Enhanced Insulation (5% > Title 24)	1 point	
	Enhanced Insulation (15%> Title 24)	3 points	
	Greatly Enhanced Insulation (20%> Title 24)	5 points	
E4 Building Envelope- Air Infiltration	Minimizing leaks in the building envelope is as important as the insulation properties of the building. Insulation does not work effectively if there is excess air leakage.		
	Title 24 standard (required)	0 points	
	Modest Building Envelope Leakage (5% > Title 24)	1 point	
	Reduced Building Envelope Leakage (15%> Title 24)	3 points	
	Minimum Building Envelope Leakage (20% > Title 24)	5 points	
E5 Building Envelope- Thermal Storage of Building	Thermal storage is a design characteristic that helps keep a constant temperature in the building. Common thermal storage devices include strategically placed water filled columns, water storage tanks, and thick masonry walls. Note: Engineering details must be provided to substantiate the efficiency of the thermal storage device.		
	Thermal storage designed to reduce heating/cooling by 5°F within the building	3 points	
	Thermal storage to reduce heating/cooling by 10°F within the building	6 points	
E6 Heating/ Cooling Distribution System	Title 24 standard (required)	0 points	
	Modest Distribution Losses (5% > Title 24)	1 point	
	Reduced Distribution Losses (15%> Title 24)	3 points	
	Greatly Reduced Distribution Losses (15%> Title 24)	5 points	
E7 Indoor Space Efficiencies - Space Heating/ Cooling Equipment	Title 24 standard (required)	0 points	
	Efficiency HVAC (5% > Title 24)	1 point	
	High Efficiency HBAC (15%> Title 24)	3 points	
	Very High Efficiency HBAC (20%> Title 24)	5 points	

Feature	Description	Assigned Point Values	Implementing Project Points
E8 Indoor Space Efficiencies-Water Heaters	Title 24 standard (required)	0 points	
	Efficiency Water Heater (Energy Star conventional that is 5% > Title 24) water heater that is 15%>	1 point	
	High Efficiency Water Heater (Conventional water heater that is 20%> Title 24)	3 points	
	High Efficiency Water Heater (Conventional water heater that is 20%> Title 24)	5 points	
	Solar Water Heating System	7 points	
E9 Indoor Space Efficiencies - Daylighting	Daylighting is the ability of each room within the building to provide outside light during the day reducing the need for artificial lighting during daylight hours.		
	All peripheral rooms within the living space have at least one window(required)	0 points	
	All rooms within the living space have daylight (through use of windows, solar tubes, skylights, etc.) such that each room has at least 800 lumens of light during a sunny day	1 points	
	All rooms daylighted to at least 1,000 lumens	3 points	
E10 Indoor Space Efficiencies - Artificial Lighting	Title 24 standard (required)	0 points	
	Efficient Lights (5% > Title 24)	1 point	
	High Efficiency Lights (LED, etc. 15%> Title 24)	3 points	
	Very High Efficiency Lights (LED, etc. 20%> Title 24)	5 points	
E11 Indoor Space Efficiencies - Appliances	Title 24 standard (required)	0 points	
	Efficient Appliances (5% > Title 24)	1 point	
	High Efficiency Energy Star Appliances (15%> Title 24)	3 points	
	Very High Efficiency Appliances (20%> Title 24)	5 points	
E12 Miscellaneous Residential - Building Placement	North/South alignment of building or other building placement such that the orientation of the buildings optimizes natural heating, cooling, and lighting.	3 points	
E13 Miscellaneous Residential - Independent Energy Efficiency Calculations	This allows innovation by the applicant to provide design features that increases the energy efficiency of the project not provided in the table. Note that engineering data will be required documenting the energy efficiency of innovative designs and point values given based upon the proven efficiency beyond Title 24 Energy Efficiency Standards.	0-5 points	
E14 Miscellaneous Residential - Existing Residential Retrofits	The applicant may wish to provide energy efficiency retrofit projects to existing residential dwelling units to further the point value of their project.	0-5 points	
E15 Miscellaneous Residential - Electric Vehicle Recharging	Provide circuit and capacity in garages of residential units for installation of electric vehicle charging stations	1 point	
	Install electric vehicle charging stations in the garages of residential units	8 points	
E16 Miscellaneous Residential - Wood Burning	As part of Rule 445 and the Healthy Hearths™ initiative, the South Coast Air Quality Management District adopted a rule for no permanently installed indoor or outdoor wood burning devices in new development.		
	Project contains no wood burning stoves or fireplaces	10 points	

Feature	Description	Assigned Point Values	Implementing Project Points
E17 Photovoltaic	Solar Photovoltaic panels installed on individual homes or in collective neighborhood arrangements such that the total power provided augments:		
	Solar Ready Homes (sturdy roof and electric hookups)	2 points	
	10 percent of the power needs of the project	4 points	
	20 percent of the power needs of the project	6 points	
	30 percent of the power needs of the project	8 points	
	40 percent of the power needs of the project	10 points	
	50 percent of the power needs of the project	12 points	
	60 percent of the power needs of the project	14 points	
	70 percent of the power needs of the project	16 points	
	80 percent of the power needs of the project	18 points	
	90 percent of the power needs of the project	20 points	
	100 percent of the power needs of the project	22 points	
Implementation Measure: Water Use			
W1 Water Efficient Landscaping	Limit conventional turf to < 20% of each lot (required)	0 points	
	Eliminate conventional turf from landscaping	3 points	
	Eliminate turf and only provide drought tolerant plants	4 points	
	Xeroscaping that requires no irrigation	6 points	
W2 Water Efficient irrigation systems	Drip irrigation	1 point	
	Smart irrigation control systems combined with drip irrigation (demonstrate 20 reduced water use)	3 points	
W3 Recycled grey water	Grey water (purple pipe) irrigation system on site	5 points	
W4 Showers	Title 24 standard (required)	0 points	
	EPA High Efficiency Showerheads (15% > Title 24)	1 points	
W5 Toilets	Title 24 standard (required)	0 points	
	EPA High Efficiency Toilets (15% > Title 24)	1 points	
W6 Faucets	Title 24 standard (required)	0 points	
	EPA High Efficiency faucets (15% > Title 24)	1 points	
Implementation Measure: Solid Waste for Residential Development			
SW1 Recycling	County initiated recycling program diverting 80% of waste requires coordination in neighborhoods to realize this goal. The following recycling features will help the County fulfill this goal: Provide green waste composing bins at each residential unit	4 points	
	Multi-family residential projects that provide dedicated recycling bins separated by types of recyclables combined with instructions/education program explaining how to use the bins and the importance of recycling.	3 points	
SW2 Recycling of Construction/ Demolition Debris	50% of construction waste recycled (required)	0 points	
	Recycle 55% of debris	2 points	
	Recycle 60% of debris	3 points	
	Recycle 65% of debris	4 points	
	Recycle 70% of debris	5 points	
	Recycle 75% of debris	6 points	
Total Points Earned by Residential Project:		70 Points needed	0

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Table 2: GHG Reduction Implementation Measures For Commercial Development

Feature	Description	Assigned Point Values	Implementing Project Points
Implementation Measure: Energy Efficiency			
E1 Building Envelope - Insulation	Title 24 standard (required)	0 points	
	Modestly Enhanced Insulation (5% > Title 24)	4 points	
	Enhanced Insulation (15%> Title 24)	8 points	
	Greatly Enhanced Insulation (20%> Title 24)	12 points	
E2 Building Envelope - Windows	Title 24 standard (required)	0 points	
	Modestly Enhanced Window Insulation (5% > Title 24)	4 points	
	Enhanced Window Insulation (15%> Title 24)	8 points	
	Greatly Enhanced Window Insulation (20%> Title 24)	12 points	
E3 Building Envelope - Doors	Title 24 standard (required)	0 points	
	Modestly Enhanced Insulation (5% > Title 24)	4 points	
	Enhanced Insulation (15%> Title 24)	8 points	
	Greatly Enhanced Insulation (20%> Title 24)	12 points	
E4 Building Envelope - Air Infiltration	Minimizing leaks in the building envelope is as important as the insulation properties of the building. Insulation does not work effectively if there is excess air leakage.		
	Title 24 standard (required)	0 points	
	Modest Building Envelope Leakage (5% > Title 24)	4 points	
	Reduced Building Envelope Leakage (15%> Title 24)	8 points	
	Minimum Building Envelope Leakage (20% > Title 24)	12 points	
E5 Building Envelope - Thermal Storage of Building	Thermal storage is a design characteristic that helps keep a constant temperature in the building. Common thermal storage devices include strategically placed water filled columns, water storage tanks, and thick masonry walls. Note: Engineering details must be provided to substantiate the efficiency of the thermal storage device.		
	Thermal storage designed to reduce heating/cooling by 5°F within the building	3 points	
	Thermal storage to reduce heating/cooling by 10°F within the building	5 points	
E6 Indoor Space Efficiencies - Heating/ Cooling Distribution System	Title 24 standard (required)	0 points	
	Modest Distribution Losses (5% > Title 24)	4 points	
	Reduced Distribution Losses (15%> Title 24)	8 points	
	Greatly Reduced Distribution Losses (15%> Title 24)	12 points	
E7 Indoor Space Efficiencies - Space Heating/ Cooling Equipment	Title 24 standard (required)	0 points	
	Efficiency HVAC (5% > Title 24)	4 points	
	High Efficiency HVAC (15%> Title 24)	8 points	
	Very High Efficiency HVAC (20%> Title 24)	12 points	
E8 Indoor Space Efficiencies - Commercial Heat Recovery Systems	Heat recovery strategies employed with commercial laundry, cooking equipment, and other commercial heat sources for reuse in HVAC air intake or other appropriate heat recovery technology. Point values for these types of systems will be determined based upon design and engineering data documenting the energy savings.	0-4 points	

Feature	Description	Assigned Point Values	Implementing Project Points
E9 Indoor Space Efficiencies- Water Heaters	Title 24 standard (required) Efficiency Water Heater (Energy Star conventional that is 5% > Title 24) High Efficiency Water Heater (Conventional water heater that is 15%>Title 24) High Efficiency Water Heater (Conventional water heater that is 20%> Title 24) Solar Water Heating System	0 points 4 points 12 points 14 points	
E10 Indoor Space Efficiencies - Daylighting	Daylighting is the ability of each room within the building to provide outside light during the day reducing the need for artificial lighting during daylight hours. All peripheral rooms within building have at least one window or skylight All rooms within building have daylight (through use of windows, solar tubes, skylights, etc.) such that each room has at least 800 lumens of light during a sunny day All rooms daylighted to at least 1,000 lumens	1 point 5 points 7 points	
E11 Indoor Space Efficiencies - Artificial Lighting	Title 24 standard (required) Efficient Lights (5% > Title 24) High Efficiency Lights (LED, etc. 15%> Title 24) Very High Efficiency Lights (LED, etc. 20%> Title 24)	0 points 4 points 6 points 8 points	
E12 Indoor Space Efficiencies - Appliances	Title 24 standard (required) Efficient Appliances (5% > Title 24) High Efficiency Energy Star Appliances (15%> Title 24) Very High Efficiency Appliances (20%> Title 24)	0 points 4 points 8 points 12 points	
E13 Miscellaneous Building Efficiencies - Building Placement	North/South alignment of building or other building placement such that the orientation of the buildings optimizes conditions for natural heating, cooling, and lighting.	4 points	
E14 Miscellaneous Building Efficiencies- Other	This allows innovation by the applicant to provide design features that increases the energy efficiency of the project not provided in the table. Note that engineering data will be required documenting the energy efficiency of innovative designs and point values given based upon the proven efficiency beyond Title 24 Energy Efficiency Standards.	0-8 points	
E15 Miscellaneous Building Efficiencies- Existing Commercial Building Retrofits	The applicant may wish to provide energy efficiency retrofit projects to existing residential dwelling units to further the point value of their project. Retrofitting existing residential dwelling units within the unincorporated County is a key reduction measure that is needed to reach the reduction goal. The potential for an applicant to take advantage of this program will be decided on a case by case basis and must have the approval of the Riverside County Planning Department. The decision to allow applicants to ability to participate in this program will be evaluated.	0-8 points	
E16 Electric Vehicle Recharging	Provide circuit and capacity in garages/parking areas for installation of electric vehicle charging stations. Install electric vehicle charging stations in garages/parking areas	2 points/area 8 points/station	
E17 Landscaping Equipment	Electric lawn equipment including lawn mowers, leaf blowers and vacuums, shredders, trimmers, and chain saws are available. When electric landscape equipment is used in place of conventional gas-powered equipment, direct GHG emissions from natural gas combustion are replaced with indirect GHG emissions associated with the electricity used to power the equipment. Project provides electrical outlets on the exterior of all buildings so that electric landscaping equipment is compatible with all built facilities.	2 points	

Feature	Description	Assigned Point Values	Implementing Project Points
E18 Photovoltaic	Solar Photovoltaic panels installed on commercial buildings or in collective arrangements within a commercial development such that the total power provided augments: Solar Ready Roofs (sturdy roof and electric hookups)	2 points	
	10 percent of the power needs of the project	8 points	
	20 percent of the power needs of the project	14 points	
	30 percent of the power needs of the project	20 points	
	40 percent of the power needs of the project	26 points	
	50 percent of the power needs of the project	32 points	
	60 percent of the power needs of the project	38 points	
	70 percent of the power needs of the project	44 points	
	80 percent of the power needs of the project	50 points	
	90 percent of the power needs of the project	56 points	
	100 percent of the power needs of the project	62 points	
Implementation Measure: Water Use			
W1 Water Efficient Landscaping	Limit conventional turf to < 20% of each lot (required)	0 points	
	Eliminate conventional turf from landscaping	3 points	
	Eliminate turf and only provide drought tolerant plants	4 points	
	Xeroscaping that requires no irrigation	6 points	
W2 Water Efficient irrigation systems	Drip irrigation	1 point	
	Smart irrigation control systems combined with drip irrigation (demonstrate 20 reduced water use)	5 points	
W3 Storm water Reuse Systems	Innovative on-site stormwater collection, filtration and reuse systems are being developed that provide supplemental irrigation water and provide vector control. These systems can greatly reduce the irrigation needs of a project. Point values for these types of systems will be determined based upon design and engineering data documenting the water savings.	0-4 points	
W3 Potable Water - Showers	Title 24 standard (required)	0 points	
	EPA High Efficiency Showerheads (15% > Title 24)	3 points	
W4 Potable Water - Toilets	Waterless Urinals (note that commercial buildings having both waterless urinals and high efficiency toilets will have a combined point value of 6 points)	0-4 points	
W5 Potable Water - Faucets	Title 24 standard (required)	0 points	
	EPA High Efficiency faucets (15% > Title 24)	3 points	
W6 Commercial Dishwashers	Title 24 standard (required)	0 points	
	EPA High Efficiency dishwashers (20% water savings)	4 points	

Feature	Description	Assigned Point Values	Implementing Project Points
W7 Commercial Laundry Washers	Title 24 standard (required)	0 points	
	EPA High Efficiency laundry (15% water savings)	3 points	
	EPA High Efficiency laundry Equipment that captures and reuses rinse water	6 points	
W8 Commercial Water Operations Program	Establish an operational program to reduce water loss from pools, water features, etc., by covering pools, adjusting fountain operational hours, and using water treatment to reduce draw down and replacement of water. Point values for these types of plans will be determined based upon design and engineering data documenting the water savings.	0-3 points	
W9 Recycled Water	Graywater (purple pipe) irrigation system on site	5 points	
Implementation Measure: Transportation			
T1 Parking	Provide reserved preferential parking spaces for car-share, carpool, and ultra-low or zero emission vehicles.	1 point	
	Provide larger parking spaces that can accommodate vans or limos used for ride-sharing programs and reserve them for vanpools and include adequate passenger waiting/loading areas.	1 point	
	Provide Bike Racks	1 point	
	Provide Horse Hitching Posts	1 point	
	Provides Bike & Horse Renting/Sharing	1 point	
T2 Commercial Vehicle Idling Restriction	All commercial vehicles are restricted to 5-minutes or less per trip on site and at loading docks.	2 points (Required of all Commercial)	
T3 Public Transit	The point value of a projects ability to increase public transit use will be determined based upon a Transportation Impact Analysis (TIA) or Traffic Management Plan demonstrating decreased use of private vehicles and increased use of public transportation.	1-15 points	
Implementation Measure: Solid Waste			
SW1 Recycling	County initiated recycling program diverting 80% of waste requires coordination with commercial development to realize this goal. The following recycling features will help the County fulfill this goal:		
	Provide separated recycling bins within each commercial building/floor and provide large external recycling collection bins at central location for collection truck pick-up	2 points	
	Provide commercial/industrial recycling programs that fulfills an on-site goal of 80% diversion of solid waste	5 points	
SW2 Recycling of Construction/ Demolition Debris	Recycle 2% of debris (required)	1 point	
	Recycle 5% of debris	2 points	
	Recycle 8 % of debris	3 points	
	Recycle 10% of debris	4 points	
	Recycle 12% of debris	5 points	
	Recycle 15% of debris	6 points	
Recycle 20% of debris			
Total Points Earned by Commercial Project:		100 Points Needed	0

Exhibit C
1999 Hearing Transcript

In The Matter Of:

**MEETING OF THE BOARD OF SUPERVISORS RIVERSIDE
COUNTY, CALIFORNIA**

**MEETING OF THE BOARD OF SUPERVISORS
RIVERSIDE COUNTY, CALIFORNIA**

June 22, 1999

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