Revised
Mitigated Negative Declaration

Sonoma County Permit and Resource Management Department
2550 Ventura Avenue, Santa Rosa, CA 95403
(707) 565-1900 FAX (707) 565-1103

Publication Date:	5/1/2019
Public Review Period:	6/21/2019 to 7/22/2019
State Clearinghouse Number:	2017052001
Permit Sonoma File Number**:**	PLP14-0031
Prepared by:	Brian Millar
Phone:	(530) 902-9218

Pursuant to Section 15071 of the State CEQA Guidelines, this proposed Mitigated Negative Declaration and the attached Initial Study, constitute the environmental review conducted by the County of Sonoma as lead agency for the proposed project described below:

Project Name: Westside Road Winery

Project Applicant/Operator: Backen, Gillam, Kroeger Architects, attn: Dusan Motolik

Owner: Broken Hill 1, LLC

Project Location/Address: 4603 Westside Road, Healdsburg

APN: 110-110-026

General Plan Land Use Designation: Land Intensive Agriculture (LIA) 40-acre density

Zoning Designation: LIA (Land Intensive Agriculture) B6-40 acre density. Z (Second Unit Exclusion), F2 (Floodplain) RC50/50 (Riparian Corridor), SR (Scenic Resources), VOH (Valley Oak Habitat)

Decision Making Body: Board of Zoning Adjustments (denied project on July 6, 2017)

Appeal Body: Board of Supervisors (considering project on appeal)

Project Description: Request for a Use Permit and Design Review for a new winery with annual production of 10,000 cases within new and existing buildings on a 26.20-acre parcel with approximately 2.14 acres of construction footprint and 1.27 acres of new development. The project includes a new 8,145 square foot production building, a new 2,171 square foot detached tasting room with a 297 square foot covered porch open to the public, and continued use of an existing 640 square foot building for agricultural purposes. The request includes 12 promotional event days with a maximum of 150 people, 13 industry-wide event days, and 12 winemaker meals. No other events are proposed.

ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED:

The environmental factors checked below would be potentially affected by this project, involving at least one impact that is a “Potentially Significant Impact” or “Less than Significant with Mitigation” as indicated in the attached Initial Study and in the summary table below.

Table 1. Summary of Topic Areas

Topic Area	Abbreviation*	Yes	No
Aesthetics	VIS	Yes	
Agricultural & Forest Resources	AG	Yes	
Air Quality	AIR	Yes	
Biological Resources	BIO	Yes	
Cultural Resources	CUL	Yes	
Geology and Soils	GEO	Yes	
Greenhouse Gas Emission	GHG	Yes	
Hazards and Hazardous Materials	HAZ	Yes	
Hydrology and Water Quality	HYDRO	No	
Land Use and Planning	LU	Yes	
Mineral Resources	MIN		No
Noise	NOISE	Yes	
Population and Housing	POP		No
Public Services	PS		No
Recreation	REC		No
Transportation and Traffic	TRAF	Yes	
Utility and Service Systems	UTL		No
Mandatory Findings of Significance		Yes	

RESPONSIBLE AND TRUSTEE AGENCIES

The following lists other public agencies whose approval is required for the project, or who have jurisdiction over resources potentially affected by the project.

Table 2

Agency	Activity	Authorization
Regional Water Quality Control Board (North Coast)	Discharge or potential discharge to waters of the state	California Clean Water Act (Porter-Cologne) – Waste Discharge requirements, general permit or waiver
California Department of Fish and Wildlife (CDFW)	Streambed Alteration Agreement	Section 1600 of CDFW Code
State Water Resources Control Board	Notice of Intent and preparation of a Storm Water Pollution Prevention Plan	National Pollutant Discharge Elimination system General Permit
Sonoma County Permit and Resource Management Department	Grading, septic, encroachment and building permits	Permits
Sonoma County Fire and Emergency Services	Grading and building permit review and Hazardous Materials	Fire Safe Standards and Hazardous Materials Business Permit

ENVIRONMENTAL FINDING:

Based on the evaluation in the attached Expanded Initial Study, I find that the project described above will not have a significant adverse impact on the environment, provided that the mitigation measures identified in the Initial Study are included as conditions of approval for the project and a Mitigated Negative Declaration is proposed. The applicant has agreed in writing to incorporate identified mitigation measure into the project plans.

Prepared by: Brian Millar Date: June 21, 2019

Expanded Initial Study

Sonoma County Permit and Resource Management Department
2550 Ventura Avenue, Santa Rosa, CA 95403
(707) 565-1900 FAX (707) 565-1103

I. INTRODUCTION:

This document is an Initial Study (IS) with supporting environmental studies, which provides justification for a Mitigated Negative Declaration (MND) pursuant to the California Environmental Quality Act (CEQA) for a Use Permit for the Westside Road Winery to be used by the County of Sonoma Permit and Resource Management Department (PRMD), acting as the CEQA lead agency to determine whether the proposed Project may have a significant effect on the environment pursuant to CEQA. The project is located at 4603 Westside Road, Healdsburg.

The Project Applicants request a Use Permit and Design Review for a new winery with annual production of 10,000 cases within new and existing buildings on a 26.2-acre parcel with a 2.14 acre construction footprint and 1.27 acres of new development. The project includes a new 8,145 square foot production building, a new 2,171 square foot detached tasting room with a 297 square foot covered porch open to the public, and continued use of an existing 640 square foot building for agricultural purposes. The request includes 12 promotional event days with a maximum of 150 people, 13 industry-wide event days, and 12 winemaker meals. No other events are proposed. A referral letter was sent to the appropriate local, state and federal agencies and interest groups who may wish to comment on the project. The project was denied by the Board of Zoning Adjustments on July 6, 2017 and was subsequently appealed to the Board of Supervisors, who will consider the appeal at a noticed public hearing.

This MND has been revised and is being recirculated because the applicant has provided new technical information related to the project, including a supplemental traffic analysis and biological assessment, along with modifications to the proposed project entry and driveway.
This report is the Initial Study required by the California Environmental Quality Act (CEQA). The report was prepared by Brian Millar, Contract Project Review Planner with the Sonoma County Permit and Resource Management Department, Project Review Division. Information on the project was provided by the project applicant's team, including additional technical information as part of the appeal of the BZA's denial of the project. Technical studies provided by qualified consultants are attached to this Expanded Initial Study to support the conclusions. Other reports, documents, maps and studies referred to in this document are available for review at the Permit and Resource Management Department (Permit Sonoma) or on the County's website at: http://www.sonoma-county.org/prmd/divpages/projrevdiv.htm

Please contact Brian Millar, Project Planner, at (530) 902-9218 or at brian@landlogistics.com for more information.

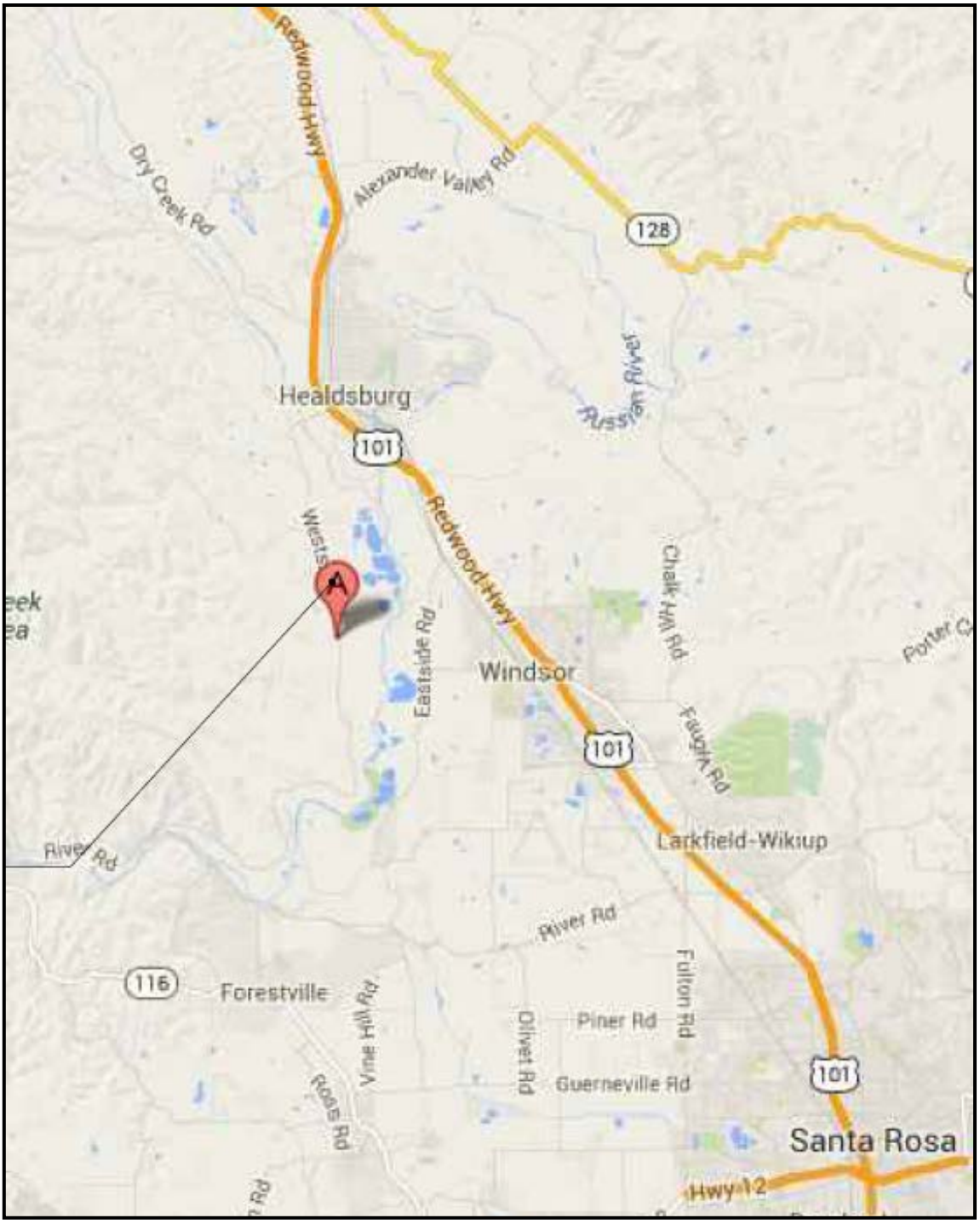

Redwood Hwy
Dry Creek Rd
Alexander Valley Rd
128
Healdsburg
101
Russian River
Westside Rd
A
Redwood Hwy
Eastside Rd
Windsor
Chalk Hill Rd
Faught Rd
101
River Rd
Larkfield-Wikiup
River Rd
116
Forestville
Vine Hill Rd
Olivet Rd
Piner Rd
Fulton Rd
Guerneville Rd
101
Santa Rosa
Hwy 12

Figure 1 Aerial Photo (2013)

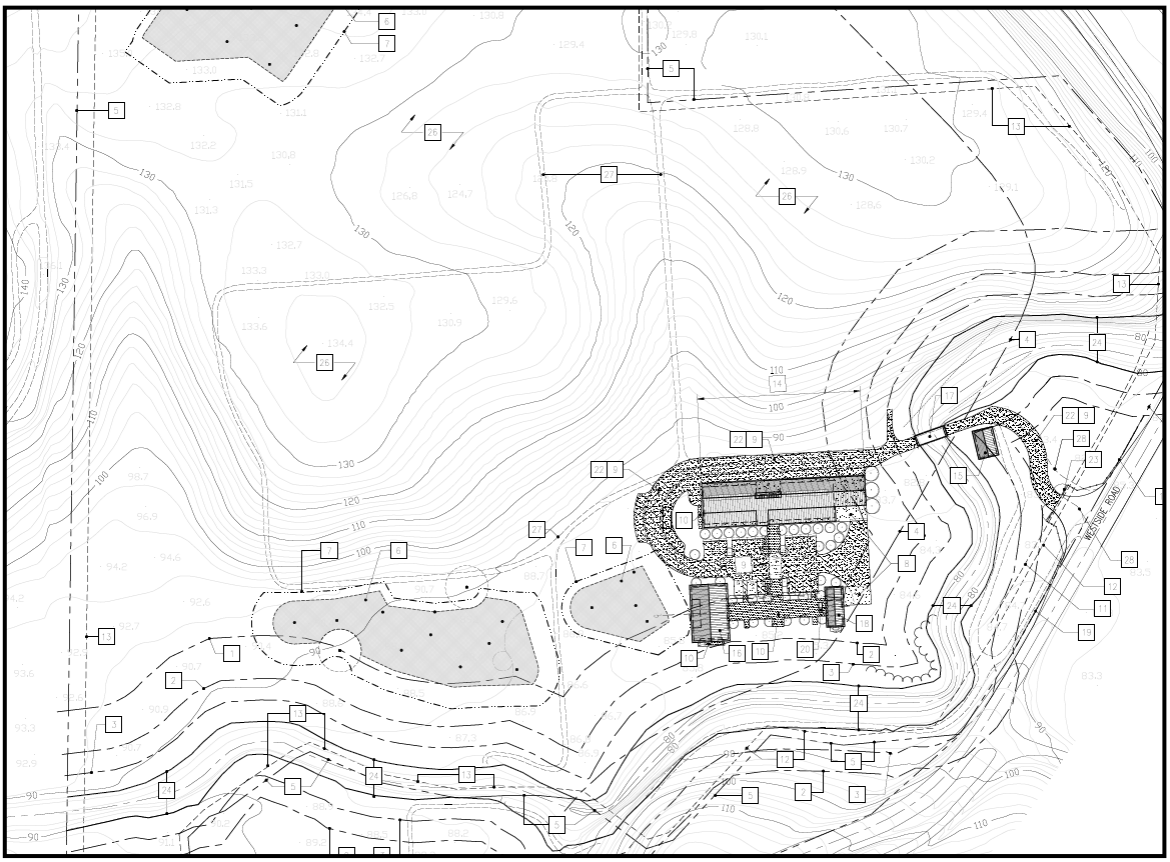


Figure 2 Site Plan

II. EXISTING FACILITY AND SITE CONDITIONS

The subject parcel was formerly part of a larger parcel (APN 110-110-001), which was under a Prime Land Conservation Contract since 1976. The subject parcel and adjacent parcel to the south were recognized in 2008 as two separate, legal parcels through the Administrative Certificate of Compliance process (PRMD File No. PLP08-0083). A Lot Line Adjustment was approved between the two parcels in 2009 (PRMD File No. LLA09-0015.) The resulting parcels are similarly sized and meet the minimum 20-acre lot size. The applicant recorded a replacement Land Conservation Contract consistent with the new property boundaries (PRMD File No. PLP09-0094).

This planning application was submitted in 2014. The applicant has subsequently revised the project plans and proposal several times to respond to Design Review Committee, staff, and public comments. The Design Review Committee provided conceptual design feedback on May 6, 2015 and preliminary design review feedback on July 1, 2015.

The northern half of the parcel proposed for the project is planted in vineyards (13.65 acres) while the southern half is undeveloped grassland and forested riparian corridor along Storey Creek, a USGS blueline stream that is a Russian River tributary. The only built infrastructure is an existing driveway connected to Westside Road and a small (640 square foot) agricultural building used for storage of agricultural equipment.

III. PROJECT DESCRIPTION AND BACKGROUND

The project seeks use permit and design review approval to allow a new winery with a tasting room and events on a 26.20-acre parcel developed in vineyards, as described below.

The project was denied by the Board of Zoning Adjustments (BZA) on July 6, 2017, and subsequently appealed to the Board of Supervisors, who will consider the appeal at a noticed public hearing. The BZA denial was based on a series of findings, summarized below:

1. Traffic and Public Safety: Topographic issues limit sight distance around the Westside Road curve located north of the project site entry driveway, and possible backup at the driveway entrance would shorten sight distance and reaction time for vehicles rounding the curve, raising the potential for accidents. Vehicles which take the curve at speeds higher than 35 mph could face a critical situation of not having enough sight distance/reaction time. The two curves exacerbate the hazard to the many bicyclists that travel on Westside Road and the risk of accidents involving cars and bicyclists.

2. Winery Events and Tasting Room Traffic: This Project's establishment of a 30th permitted winery with operational traffic, tasting room traffic and event traffic, on a portion of Westside Road with existing traffic constraints, in concert with existing and proposed Westside Road winery traffic, will result in a traffic and public safety hazard.

3. Land Use (Neighborhood) Compatibility: The proposed 37 event days, in concert with events held at nearby and other Westside Road wineries, would lead to a proliferation of traffic and activity incompatible with the neighborhood. The proposed addition of another winery and tasting room in close proximity to the existing tasting rooms would contribute to a concentration of uses that would be incompatible with the neighborhood character and deleterious to the rural character of the immediate area.

4. Zoning and General Plan Consistency: the proposed Project's location, its traffic generation, the existing curves on Westside Road, traffic conflicts, constrained sight distances, public safety and neighborhood character, the Project would be inconsistent with General Plan Policy AR-6f.

Subsequently, the applicant appealed the BZA action to the Board of Supervisors, and provided two technical documents and modifications to project plans in response to BZA comments. The new technical documents are summarized below and in the analysis sections of this Initial Study:

1) Traffic: A supplemental analysis was completed by the project traffic engineer, W-Trans, evaluating sight distance and related issues associated with the proposed relocated driveway access and use of a southbound deceleration approaching the driveway off of Westside Road.

2) Biological Resources: Additional assessment of biological habitat was conducted by the project biologist, Jane Valerius of Environmental Consulting. The analysis focused on two site specific areas for project review related to increasing the view area along Westside Road on the north side and the south side of the parcel.

IV. PROJECT DETAILS

Proposed Construction: Proposed construction includes an 8,145 square foot winery building with photovoltaic panels and a 10,000 case annual production capacity. The project also includes a 2,171 square foot detached tasting room with a manager's office, commercial kitchen, wine tasting, and retail sales of wine and local products (e.g., jam, honey, mustard, and pickles). The kitchen would be utilized for agricultural promotion dinners, food and wine pairings, and events and would not be used as a café or restaurant with cooked-to-order food. Figures 1 and 2 provide the floor area breakdown for these structures.

The existing approximately 640 square foot agricultural building would be retained for agricultural use (i.e., equipment and miscellaneous storage) and would not be used for winery purposes. A low, open wooden fence with a gate along Westside Road with a small, non-illuminated sign is proposed

The total project construction footprint is approximately 2.14 acres with 1.27 acres of new built infrastructure (buildings, roads, etc.).

LAND USE TYPE	OCCUPANCY	GROSS FL. AREA GROUND FL. / MEZZANINE	TOTAL GROSS FL. AREA
WINERY	F-2 (WINE PROCESSING)	4,098 SQ. FT. / 457 SQ. FT.	4,555 SQ. FT.
BARREL STORAGE	S-2 (WAREHOUSE)	2,192 SQ. FT. / 168 SQ. FT.	2,360 SQ. FT.
UNCONDITIONED COVERED WORK AREA #1	F-2 (WINE PROCESSING) UNCONDITIONED	946 SQ. FT.	1,230 SQ. FT.
UNCONDITIONED COVERED WORK AREA #2	F-2 (WINE PROCESSING) UNCONDITIONED	284 SQ. FT.	

Figure 1 Winery Building Area Calculation

LAND USE TYPE	OCCUPANCY	GROSS FL. AREA	TOTAL GROSS FL. AREA
TASTING ROOM	A–2 – WINE TASTING AND RETAIL AREA	2,171 SQ. FT.	2,171 SQ. FT.
COVERED PORCH (UNCONDITIONED)	A–2 – WINE TASTING AND RETAIL AREA	297 SQ. FT.	349 SQ. FT.
ALCOVE AREA (UNCONDITIONED)	A–2 – WINE TASTING AND RETAIL AREA	52 SQ. FT.	

Figure 2 Tasting Room Building Area Calculation

Operations

The applicant proposes to process grapes sourced from on-site vineyards, grapes from other Sonoma County vineyards, and possibly from outside of Sonoma County. The existing 13.65 acres of on-site vineyard production will continue to provide a minimum of 52% of grapes for the production facility. Proposed winery hours of operation are seven days per week, 7:00 am to 6:00 pm and as needed during harvest. Proposed tasting room hours of operation are 10:00 am to 5:00 pm. A maximum of 24 employees will be used for the operation, consisting of 11 for the winery, 10 for the tasting room and 3 for the vineyard. Pomace will be re-used as compost for the on-site vineyards.

The applicant proposes a maximum of 12 agricultural promotional event days and participation in 13 industry-wide event days (total of 25 days annually.) No third-party events or facility rentals will be allowed. Each event could include indoor and outdoor tasting and outdoor acoustic music. Indoor music would be limited to playing recorded music through a built-in speaker system.

The applicant additionally proposes to host 12 annual winemaker lunches, dinners, and food and wine pairings with a maximum of 36 guests by invitation only. The applicant is proposing these winemaker lunches/dinners in addition to the agricultural promotional and industry-wide events. The winery would host 6 winemaker lunches on weekend days from 11:00 a.m. to 2:00 p.m. and 6 winemaker dinners from 5:00 p.m. to 9:00 p.m. The tasting room would be closed to the general public during winemaker dinners. The applicant proposes these not count as “events” because they indicate that the tasting room will be closed during these events. However, the County treats winemaker dinners as events. The total number of events proposed for this use permit, including the winemaker lunches and dinners, would be 24 events and 13 industry-wide events. Events would take place inside the tasting room and outdoors in the adjacent patio, measuring approximately 2,520 square feet and 4,100 square feet, respectively.

The events are further described below:

1. 13 industry-wide event days:
    a. Annual Barrel Tasting – 6 days (organized by Wine Road)
    b. Annual Winter Wineland – 2 days (organized by Wine Road)
    c. Annual A Wine & Food Affair – 2 days (organized by Wine Road)
    d. Wine Tourism Day – 1 day (organized by Wine Road)
    e. Russian River Valley Pinot Classic – 2 days (organized by Russian River Valley Winegrowers)

2. 12 agricultural promotional event days:
    a. Description: Release parties, open houses, and Wine Club events consisting of educational seminars and harvest parties. All events by invitation only.

b. Attendance: 6 events with a maximum of 80 guests, 3 events with a maximum of 100 guests, and 3 events with a maximum of 150 guests.
c. Schedule: 6 events on weekend days from 10:00 a.m. to 2:00 p.m. and 6 events on weekday or weekend evenings from 5:00 p.m. to 9:00 p.m.
    i. No more than three events per month
    ii. No more than two weekend events per month
    iii. Larger events will be paired with smaller events during that month

In the following chart, "L" refers to lunches, "D' refers to dinners and "A" refers to agricultural promotional event days, and the accompanying number refers to the number of guests associated with that lunch, dinner, or agricultural promotional event.

Sample Calendar - For Illustrative Purposes Only												
	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.
Weekday day						A/80	A/80	L/36			L/36	L/36
Weekday evening	D/36		A/80	A/80	D/36	A/100		A/80	D/36			
Weekend day		L/36	L/36	L/36	A/100		A/150	A/100	A/150	A/150		
Weekend evening						D/36	D/36			D/36	A/80	

Figure 3

Parking: A total of 27 parking spaces will be developed, consisting of 25 gravel parking spaces and 2 ADA-accessible spaces will be concrete, bicycle parking, hardscape outdoor gathering area, landscaping, and vines are proposed. In response to comments received at the BZA hearing regarding potential for traffic entering the site to back up onto Westside Road (in crossing an existing one-lane bridge leading into the property), the applicant has amended their application to include an additional 68 vineyard row event parking spaces to accommodate the largest agricultural promotional event with 150 guests (60 spaces for guests + 8 spaces for event staff).

Access: The existing driveway at Westside Road would be relocated approximately 20 feet south for safer ingress and egress. A southbound deceleration lane has also been proposed allowing for a right-in turn movement.

Sewage Disposal: A septic system will be provided.

Water Supply: Water demand for the proposed winery will be supplied from a new well and is estimated to be 3.3 acre-feet per year; the net increase in groundwater demand for the project is 2.8 acre-feet per year owing to a 0.5 acre-foot decrease in water use from a 1-acre reduction in vineyard area to construct the winery facilities.

V. SETTING

The project site is a 26.20-acre parcel located on Westside Road, approximately 1.8 miles west of the Town of Windsor. Approximately 13.65 acres (52%) are planted in productive vineyard on moderately sloped land on the northern half of the parcel. The southern half of the parcel is mostly grassland with forested riparian corridor in the floodplain of an unnamed Russian River tributary, commonly called Storey Creek. The creek drains east to the Russian River, just over 0.5 mile away.

Land use in the project vicinity is primarily agricultural with some rural housing.

The site has a General Plan designation of Land Intensive Agriculture (LIA) 40 acre density, and is accessed from Westside Road, a designated Scenic Corridor.

The site is under a Prime Land Conservation Contract.

The site is zoned LIA (Land Intensive Agriculture) B6 40-acre density, Z (Second Unit Exclusion), F2 (Floodplain) RC50/50 (Riparian Corridor), SR (Scenic Resources), VOH (Valley Oak Habitat)

Surrounding land uses and settings are as follows:

North (two parcels)
Zoning: LIA (Land Intensive Agriculture) B6 4-acre density, Z (Second Unit Exclusion), SR (Scenic Resources), VOH (Valley Oak Habitat) / LIA B6-40 acre density, Z (Second Unit Exclusion), RC 50/50 (Riparian Corridor), SR (Scenic Resources), VOH (Valley Oak Habitat)

Land Use: Single-family dwelling / single-family dwelling, vineyard, and open space

South
Zoning: LIA (Land Intensive Agriculture), B6 40-acre density, Z (Second Unit Exclusion), RC50/50, SR (Scenic Resources), VOH (Valley Oak Habitat)

Land Use: Winery with tasting room and events, vineyard

West
Zoning: LIA (Land Intensive Agriculture) B6 40-acre density, RC50/50 (Riparian Corridor), VOH (Valley Oak Habitat)

Land Use: Residential, woodlands, and vineyards

East (across Westside Road)
Zoning: LIA (Land Intensive Agriculture) B6 40-acre density, Z (Second Unit Exclusion), F1 (Floodway), F2 (Floodplain), RC50/50 (Riparian Corridor), RC200/100 (Riparian Corridor), SR (Scenic Resources), VOH (Valley Oak Habitat)

Land Use: Agricultural dwelling unit and vineyards

VI. ISSUES RAISED BY THE PUBLIC OR AGENCIES

A referral packet was sent to the appropriate local, State, and Federal agencies, and special interest groups anticipated to take interest in the project. The WCA Advisory Group, the Westside Community Association and the Community Alliance with Family Farmers, North Coast Chapter submitted letters of opposition to the project, along with comments provided at the Board of Zoning Adjustments hearing, raising concerns including:

- Groundwater availability
- Overconcentration of wineries, tasting rooms, and events
- Cumulative impacts
- Traffic
- Impacts to rural character.

VII. OTHER RELATED PROJECTS

A Use Permit application for a new tasting room with no agricultural events at 4075 Westside Road, approximately 0.3 miles to the north, was approved by the Board of Supervisors in January 2019, and a Use Permit application was approved on December 11, 2018 approximately 2 miles to the south at 7097 Westside Road for a 60,000-case winery with 22 agricultural promotional event days. An application is pending for a 492 case winery at 6677 Westside Road with 18 event days.

VIII. EVALUATION OF ENVIRONMENTAL IMPACTS

This section analyzes the potential environmental impacts of this project based on the criteria set forth in the State CEQA Guidelines and the County's implementing ordinances and guidelines. For each item, one of four responses is given:

> **No Impact: The project would not have the impact described.** The project may have a beneficial effect, but there is no potential for the project to create or add increment to the impact described.
>
> **Less Than Significant Impact**: The project would have the impact described, but the impact would not be significant. Mitigation is not required, although the project applicant may choose to modify the project to avoid the impacts.
>
> **Potentially Significant Unless Mitigated:** The project would have the impact described, and the impact could be significant. One or more mitigation measures have been identified that will reduce the impact to a less than significant level.
>
> **Potentially Significant Impact:** The project would have the impact described, and the impact could be significant. The impact cannot be reduced to less than significant by incorporating mitigation measures. An environmental impact report must be prepared for this project.

Each question was answered by evaluating the project as proposed, that is, without considering the effect of any added mitigation measures. The Initial Study includes a discussion of the potential impacts and identifies mitigation measures to substantially reduce those impacts to a level of insignificance where feasible. All references and sources used in this Initial Study are listed in the Reference section at the end of this report and are incorporated herein by reference.

The Project applicants have agreed to accept all mitigation measures listed in this Initial Study as conditions of approval for the proposed project (if the project is approved by the Board of Supervisors), and to obtain all necessary permits, notify all contractors, agents and employees involved in project implementation and any new owners should the property be transferred to ensure compliance with the mitigation measures.

1. AESTHETICS:

Would the project:

a) Have a substantial adverse effect on a scenic vista?

Comment:
The project site is located on Westside Road, a designated Scenic Corridor under the General Plan Open Space Element. The site is not identified as a Scenic Landscape Unit in the Open Space and Resource Conservation Element (OSRCE).

The property is zoned LIA B6-40 Z F2 RC50/50 SR VOH, which includes the SR Scenic Resources Combining District. The Scenic Resources Combining District is intended to "preserve the visual character and scenic resources of lands in the county and to implement the provisions of Sections 2.1, 2.2 and 2.3 of the General Plan (OSRCE)."

The Permit and Resource Management Department Visual Assessment Guidelines provide for the assessment of visual impacts in the preparation of Initial Studies.

The Guidelines require that public viewing points be analyzed, which include public roads, public trails and public parks. Proposed site improvements would only be potentially visible from Westside Road, a public road, and would not be visible from any public trails or public parks.

A fence with entry gate is proposed within the Scenic Corridor, which is 200 feet from the centerline of Westside Road. The fence is allowable under the Scenic Resource zoning designation, subject to design review. The Design Review Committee reviewed the project and determined that an open wooden and/or stone fence, possibly with landscaping, would be acceptable, subject to Final Design Review. The fencing would be open-style and appropriate for the rural character of the area.

The existing 640 square feet metal-sided agricultural building is located within the Scenic Corridor and will continue to be used for storage to serve on-site agricultural use. Proposed buildings, driveway and parking areas, and outdoor event areas are a minimum of 200 feet from the property line and are located behind a narrow band of riparian vegetation along Storey Creek. The existing vegetation and landscape is undeveloped grassland which would be replaced by several buildings and parking areas.

Using the site sensitivity analysis provided in the PRMD Visual Assessment Guidelines, the site sensitivity is high on a scale ranging from Low to Moderate to High to Maximum.

The site is within a land use or zoning designation that protects scenic or natural resources, e.g., General Plan designated scenic landscape units, coastal zone, community separators, scenic corridors, etc. The landscape in the vicinity of the project site is characterized by large vineyard acreages, especially to the east towards the Russian River. To the north, south and west of the project parcel, the Russian River floodplains grades into rolling foothills with grassland, oak woodland, and vineyard. This landscape setting forms the scenic backdrop for the community or scenic corridor, which includes building and construction areas within the SR designation located on prominent hilltops, visible slopes less than 40 percent or where there are significant natural features of aesthetic value that are visible from public roads or public use areas (e.g., parks, trails, etc.).

The sensitivity analysis results in a high sensitivity rank because the project site is located on Westside Road, a designated Scenic Corridor and includes the SR designation. The approximately 1.2 acres of the site proposed for development are located on lower elevations of the site while the more prominent hillside portions of the property will remain in vineyard use and not be developed.

The PRMD Visual Assessment Guidelines require that the “visual dominance” of a project be determined by contrasting the proposed development with its surroundings and rating the proposed development as not evident, subordinate, co-dominant, or dominant. As discussed above, proposed site improvements with the exception of the entry fencing will be sited at least 200 feet from Westside Road and buffered from view by existing vegetation. Site improvements will be located in the lowest portion of the site while surrounding topography rises to the north and south of the proposed improvements. Building style, color and materials will integrate development into the site and be compatible with its setting as they will have a wooden exterior, stained or painted an earth tone, which will blend into the surroundings. Proposed metal roofing will be similar in color and non-glare in accordance with standard conditions of approval. Thus, overall the visual dominance of the project is classified as “subordinate.”

Table 3 of the Visual Assessment Guidelines determines that a high sensitivity project with subordinate visual dominance is less than significant. The less than significant determination for this project is based on incorporation of the following mitigation measure:

Mitigation Measure AES-1
Vegetation along Westside Road between the front property line and proposed improvements shall not be removed without Design Review approval, and shall be coordinated with requirements for maintenance of sight distance by the driveway entry under Mitigation Measure TRAF-1. Additional landscape screening shall be provided as required through the Design Review.

Mitigation Monitoring AES-1
The above mitigation measure shall be included on all submitted building permit plans. PRMD shall review all plans and verify compliance with the above mitigation measure prior to the issuance of a building permit.

Significance Level:

Less than Significant with Mitigation Incorporated

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

Comment:
The project site is not on a state scenic highway. There are no historic buildings on the site. Therefore, the project will not substantially damage scenic resources, including but not limited to trees, rock outcroppings and historic buildings on a state scenic highway. See also the discussion in 1.a above.

Significance Level:

No Impact

c) Substantially degrade the existing visual character or quality of the site and its surroundings?

Comment:
Proposed structures are located outside of the 200-foot Scenic Corridor from Westside Road, with the closest building, a mechanical building and trash enclosure sited at the 200-foot setback, and the proposed tasting room building and winery building approximately 250 feet from Westside Road. Buildings will have a wooden exterior and will be stained or painted an earth tone, which will blend into the surroundings. Proposed metal roofing will be similar in color and non-glare per standard conditions of approval. The proposed structures and parking areas are located behind existing riparian trees and vegetation. Therefore, the project will not cause a degradation to the existing visual character or quality of the site and its surroundings.

Significance Level:

Less than Significant Impact

d) Create a new source of substantial light or glare which would adversely affect day or nighttime view in the area?

Comment:
New structures will introduce new sources of light and the potential for glare. Though existing riparian trees and vegetation will provide screening of proposed structures and parking areas,

facility lighting, especially night lighting for the winery, tasting room, and events, could result in light and glare being visible from off-site vantage points, particularly along Westside Road. Potential impacts related to light and glare can be reduced to a less than significant level with incorporation of the following mitigation measure.

Mitigation Measure AES-2
Prior to issuance of the Building Permit, an exterior lighting plan shall be submitted to the Design Review Committee for review and approval.

Exterior lighting shall be low mounted, downward casting and fully shielded and directed downward to prevent glare. Lighting shall not wash out structures or any portions of the site. Light fixtures shall not be located at the periphery of the property and shall not spill over onto adjacent properties or into the sky. Flood lights are not permitted. Parking lot fixtures should be limited in height (20 feet). All parking lot and/or street light fixtures shall use full cut-off fixtures. Lighting shall shut off automatically after closing and security lighting shall be motion-sensor activated.

Lighting plans shall be designed to meet the appropriate Lighting Zone standards from Title 24 effective October 2005 (LZ1 for dark areas, LZ2 for rural, LZ3 for urban.)

Lighting shall be installed in accordance with the approved lighting plan during the construction phase.

Mitigation Monitoring AES-2
Prior to building permit issuance, the applicant shall submit an Exterior Night Lighting Plan consistent with the approved plans and County standards. Final occupancy on the Building Permit shall not be approve until a site inspection of the property has been conducted that verifies that all lighting improvements have been installed according to the approved plans and conditions. If light or glare complaints are received, the owner or operator shall immediately bring the exterior lighting into compliance with the required plans and standards or improve or alter exterior lighting such that spill over on adjacent properties or the night sky is prevented.

Significance Level:

Less than Significant with Mitigation Incorporated

2. AGRICULTURE AND FOREST RESOURCES:

In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Dept. of Conservation as an optional model to use in assessing impacts on agriculture and farmland. In determining whether impacts to forest resources, including timberland, are significant environmental effects, lead agencies may refer to information compiled by the California Department of Forestry and Fire Protection regarding the state's inventory of forest land, including the Forest and Range Assessment Project and the Forest Legacy Assessment project; and forest carbon measurement methodology provided in Forest Protocols adopted by the California Air Resources Board.

Would the project:

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

Comment:
According to the Sonoma County Important Farmlands Map, most of the project site, including the area proposed for development, is designated as Prime Farmland. A small portion on the western portion of the site is designated as Unique Farmland. Of the parcel's 26.20 acres, approximately 21 acres are located outside of the riparian corridor and are farmable. The proposed development and event area is located in a five acre portion of the parcel that is presently fallow along with an area containing one acre of vineyard. The septic system is proposed to be over-planted with vineyard. The construction grading footprint of the project is approximately 2.14 acres with approximately 1.27 acres of built infrastructure.

This conversion would include an agricultural processing use and related tasting room. Processing of agricultural products of a type grown or produced primarily on site or in the local area and tasting rooms and other temporary, seasonal, or year-round sales and promotion of agricultural products grown or processed in the county, subject to the criteria of General Plan Policies AR-6d and AR-6f, are uses permitted with a Use Permit in the Land Intensive Agriculture zoning district. Agricultural promotional events and industry-wide events have also been found to promote the region's wine grape industry as well as the grapes grown on-site, educate visitors to the region's wines, on the making of wines, and help to increase wine club membership, thereby increasing direct marketing and sales of the wine produced on site.

The construction footprint (2.14 acres), would disturb and alter the structure of surface soils is a small portion of the overall project site, as approximately 10% of the 21 acres of farmable land on the parcel and approximately 6% of the farmable land would be permanently converted to non-farm built infrastructure.

Figure 4. Farmable areas of parcel. Upper polygon is approximately 15.3 acres, lower fallow area where development is proposed is approximately 5 acres. Small polygon along Westside Road is approximately 0.5 acres.

Mitigation Measure AFR-1
Prior to grading permit issuance, the applicant shall record a conservation easement in a form approved by County Counsel over the portions of the riparian corridor of Storey Creek located on the parcel. Riparian corridors is defined as land within 50 feet of the top of bank of Storey, excluding the access drive and bridge.

Mitigation Monitoring AFR-1
The grading permit shall not be issued by PRMD until documentation that the easement has been recorded is received.

Significance Level:

Less than Significant with mitigation incorporated

b) Conflict with existing zoning for agricultural use, or Williamson Act Contract?

Comment:
The project site is located in the Land Intensive Agriculture IA (LIA) zoning district and the Land Intensive Agriculture General Plan designation. The purpose of the LIA zoning is to "enhance and protect lands best suited for permanent agricultural use and capable of relatively high production per acre of land; and to implement the provisions of the land intensive agriculture land use category of the General Plan and the policies of the agricultural resources element." The LIA zoning designation allows for tasting rooms as conditional uses (Zoning Ordinance Section 26-04-020).

The General Plan policy for Land Intensive Agricultural states that agricultural production, agricultural support uses, and visitor serving uses, as provided in the Agricultural Resources Element of the General Plan, are allowed uses, provided a Use Permit is approved. The proposed project must be found consistent with the General Plan's Agricultural Element Goals, Objectives, and Policies. The scale and location of the proposed winery tasting facility are consistent with applicable General Plan Policies AR-6d and AR-6f (see Initial Study Section 10 Land Use.)

The proposed winery and tasting room would continue to support processing of grapes grown in Sonoma County. The proposed use will not overburden nearby roadways (see discussion under Transportation), nor would it encroach upon or diminish nearby agricultural production activity. Consequently, the project will have a less than significant impact on existing zoning for agricultural use.

Land Conservation Act Contract
The project property is included in a Williamson Act contract, or Land Conservation Act Contract. A new Land Conservation Contract was recorded to reflect the change in property boundaries approved by a lot line adjustment in 2009 (PRMD File Nos. LLA09-0015 and PLP09-0094).

The County's Uniform Rules for Agricultural Preserves provide operating standards for lands under a Land Conservation Contract. Tasting rooms are identified as a "compatible use" for land under an agricultural contract. Events are also listed as a "compatible use" under the following circumstances:

1. When directly related to agricultural education or the promotion or sale of agricultural commodities and products produced on the contracted land, and
2. Events last no longer than two consecutive days and do not provide overnight accommodations, and
3. No permanent structure dedicated to events is constructed or maintained on the contracted land.

The proposed events are considered "promotional events" according to the current County interpretation and are further broken down into four categories by the applicant:

1. Wine Club events, such as educational seminars and harvest parties (by invitation only)
2. Release parties and open houses (by invitation only)

3. Industry-wide events

Each event must promote a product made from grapes produced on-site to be consistent with the Uniform Rules. The grapes will be processed on-site into wine, which will be utilized in events.

Events will be limited to a maximum of two consecutive days, no lodging is provided, and a permanent structure is not devoted to events. Events would take place inside the tasting room and outdoors in the adjacent patio, measuring approximately 2,520 square feet and 4,100 square feet, respectively.

Compatible uses are limited to 15% of the project site or five acres, whichever is less, excluding public roads, private access roads, and driveways. For this project, there are no existing compatible uses other than the existing approximately 640 square foot agricultural building. The proposed compatible uses, the winery and tasting room, comprise approximately 1.27 acres of the 26.20-acre site. The events would occur within this developed area, which is approximately 5% of the site, consistent with the Uniform Rules. The approved project description will provide for total site development of 1.27 acres under the approved use permit.

As conditioned, the project meets the intent of the Williamson Act to preserve and promote agriculture. The primary use of the site will remain agriculture production in the form of vineyards. The project will not negatively impact the agricultural use of the site. The project will promote the site's agricultural use.

State Law
Government Code Section 51238.1 requires that uses approved on contracted land meet the following three principles of compatibility:

1. The use will not significantly compromise the long-term productive agricultural capability of the subject contracted parcel or parcels or on other contracted lands in agricultural preserves.
2. The use will not significantly displace or impair current or reasonably foreseeable agricultural operations on the subject contracted parcel or parcels or on other contracted land in agricultural preserves.
3. The use will not result in the significant removal of adjacent contracted land from agricultural or open space use.

The proposed project will not compromise the long-term productive capability of the subject site or other contracted lands. The tasting room and events will promote the agricultural capability of the contracted land and not conflict with daily vineyard operations. The tasting room would be located within the developed area, next to the proposed winery. The events would be located within the developed area and would not disrupt the vineyard operations. The surrounding contracted land is devoted primarily to vineyard.

No agricultural operations will be displaced or impaired as a result of the events. Events will be held in the proposed tasting room and adjacent patio area, measuring approximately 2,520 square feet and 4,100 square feet, respectively. The proposed development and event area is located in a portion of the site that is currently fallow. No buildings will be constructed for or devoted entirely to events. No vines will be removed and no land will be removed from production under a Land Conservation contract.

Significance Level:

Less than Significant Impact

c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code Section 4526) or timberland zoned Timberland Production (as defined by Government Code Section 51104(g)?

Comment:

The project site is not designated timberland or zoned for Timber Production.

Significance Level:

No Impact

d) Result in the loss of forest land or conversion of forest land to non-forest use?

Comment:

The project site is not designated forest land. This project will not result in the loss of forest land or the conversion of forest land to non-forest use.

Significance Level:

No Impact

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

Comment:
See discussion in 2a, above.

Significance Level:

Less than significant with mitigation incorporated

See Mitigation Measure and Monitoring AFR-1

3. AIR QUALITY:

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

Would the project:

a) Conflict with or obstruct implementation of the applicable air quality plan?

Comment:
The project is within the jurisdiction of the Northern Sonoma County Air Pollution Control District (NSCAPCD). The NSCAPCD does not have an adopted air quality plan because it is in attainment for all federal and state criteria pollutants, although the District occasionally exceeds state standards for PM10.

Significance Level:

Less than Significant Impact

b) Violate any air quality standard or contribute substantially to an existing or projected air quality violation?

Comment:
The project consists of a type of land use that does not have a stationary source of emissions. Based on the relatively low traffic volumes expected with this project, including occasional diesel delivery trucks, and air emission standards, the emissions of ozone precursors (hydrocarbons and NOX) and particulates would not be significant. State and federal standards have been established for "criteria pollutants": ozone precursors, carbon monoxide, sulfur dioxide and particulates (PM_{10} and $PM_{2.5}$). The pollutants NOx (nitrogen oxides) and hydrocarbons form ozone in the atmosphere in the presence of sunlight. The principal source of ozone precursors is vehicle emissions, although stationary internal combustion engines must also be considered. Given the low traffic generation of the project relative to the screening criteria, ozone precursor emissions would be less than significant.

Detailed air quality analysis for carbon monoxide is generally not recommended unless a project would generate 10,000 or more vehicle trips a day, or contribute more than 100 vehicles per hour to intersections operating at LOS D, E or F with project traffic. Given the low traffic generation of the project, including substantially fewer than 100 trips per hour at nearby intersections with LOS D or lower, carbon monoxide emissions from the use would be less than significant.

Significance Level:

Less than Significant Impact

c) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable Federal or State ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)?

Comment:
The project is located in the NSCAPCD jurisdiction, a region that is in attainment for criteria pollutants under applicable state and federal ambient air quality standards, however, PM_{10} is a criteria pollutant that is closely monitored in the NSCAPCD. Readings in the district have exceeded state standards on several occasions in the last few years. The high PM_{10} readings occurred in the winter and are attributed to the seasonal use of wood burning stoves.

The project will not have a cumulative effect on ozone because it will not generate substantial traffic which would result in substantial emissions of ozone precursors (ROG and NOx_x). See discussion above in 3 (b). The project will have no long-term effect on $PM_{2.5}$ and PM_{10}, because all surfaces will be paved gravel, landscaped or otherwise treated to stabilize bare soils, and dust generation will be insignificant. However, there could be a significant short-term emission of dust (which would include $PM_{2.5}$ and PM_{10}) during construction. These emissions could be significant at the project level, and could also contribute to a cumulative impact.

Although the project will generate some ozone precursors from new vehicle trips the Traffic Study prepared by W-Trans found that the proposed project is expected to generate 186 trips per day on average vehicle trips per day, with 274 trips during harvest season and 136 trips during the larger events. The project will not have a cumulative effect on ozone because it will not generate substantial traffic resulting in significant new emissions of ozone precursors (ROG and NOx). See discussion in 3(b) above.

Dust created during construction, although short term, could also increase cumulative air quality impacts. Standard conditions of the County, also addressed as a mitigation measure,

require all projects to control dust using adopted Best Management Practices (BMP's). Conditions include but are not limited to: 1)Water or dust palliative shall be sprayed on unpaved construction and staging areas during any construction activity as directed by the County; 2) Trucks hauling soil, sand and other loose materials over public roads will cover the loads, or will keep the loads at least two feet below the level of the sides of the container, or will wet the load sufficiently to prevent dust emissions; and 3) Paved roads will be swept as needed to remove soil that has been carried onto them from the project site.

County Building Inspectors may red tag and stop construction projects during their routine site inspections if the project does not meet dust control BMP's. Given the short-term nature of the potential construction dust impact, and the required implementation of adopted Best Management Practices as mitigation, and the regular inspection of construction sites by County Building Inspectors, no significant cumulative dust impacts from the project are expected.

Mitigation Measure AIR-1:
The following dust control measures shall be included in the project:

a. The applicant, owner or operator shall ensure fugitive dust from the project site is fully contained by using water or alternative dust control methods on construction areas, soil stockpiles, and staging areas during construction as directed by the County.
b. Trucks hauling soil, sand and other loose materials over public roads will cover the loads, or will keep the loads at least two feet below the level of the sides of the container, or will wet the load sufficiently to prevent dust emissions.
c. During active construction, Westside Road will be swept at least weekly a minimum of 0.25 miles north and south of the project entrance or more frequently to remove soil that has been carried onto Westside Road from the project site.

Mitigation Monitoring AIR-1:

PRMD staff shall ensure that the measures are listed on all site alteration, grading, building or improvement plans prior to issuance of grading or building permits.

Significance Level:

Less than Significant with Mitigation Incorporated

d) Expose sensitive receptors to substantial pollutant concentrations?

Comment:
Sensitive receptors include hospitals, schools, convalescent facilities, and residential areas. The nearest sensitive receptor is a residence located approximately 545 feet away from new structures. There are other residences within one mile of the site, and no other sensitive receptors. The project consists of a winery with a tasting room and events. The proposed operations would not generate substantial pollutants. Therefore, the project would not expose these types of receptors to significant concentrations of pollutants.

Significance Level:

Less than Significant Impact

e) Create objectionable odors affecting a substantial number of people?

Comment:
The construction and operation of a winery with a tasting room and events would not create objectionable odors.

Significance Level:

No Impact

4. BIOLOGICAL RESOURCES:

Would the project:

a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?

Comment:
The project proposes to permanently convert undeveloped grassland to built infrastructure with a grading footprint of approximately 2.14 acres and a built infrastructure (buildings, roads, parking, etc.) of approximately 1.27 acres. The project mostly parallels the riparian corridor of Storey Creek except where it crosses Storey Creek with an existing one-lane bridge. Based on the results of the Habitat Assessment dated June 3, 2014 prepared by the applicant's consultant (Wildlife Research Associates and Jane Valerius Environmental Consulting), no candidate, sensitive or special status species were observed to occur or were expected to occur on or near the project parcel except for potential impacts to nesting birds and roosting bats from construction activities. Standard pre-construction surveys are recommended as mitigation measures.

Mitigation Measure BIO-1
The applicant shall implement the following mitigation measures to avoid or minimize nesting bird impacts in the grassland or riparian corridor:

BIO-1A
Construction fencing shall be installed completely around the 2.14 acre construction footprint for the project. Fencing shall be located outside of the boundary of the 50 foot riparian corridor streamside conservation area (see below). Absolutely no construction activities (e.g., materials staging or storage, vehicle access or parking, grading, soil disturbance, etc.) are allowed within the 50 foot riparian corridor on both sides of Storey Creek with the exception of the minimum activities necessary for the construction of the one-lane bridge and utilities crossing.

BIO-1B
In order to remove potential grassland nesting habitat prior to the nesting season, all grassland vegetation within the 2.14 acre construction footprint for the project must be mowed to less than 5 inches in height prior to February 15 of the year in which construction commences.

BIO-1C
No earlier than seven (7) days prior to initiating grading, a pre-construction nesting bird (both passerine and raptor) survey of areas outside of the fenced construction footprint (remaining grasslands and adjacent riparian corridor) must be performed by a qualified biologist. If no nesting birds are observed no further action is required and grading may proceed. If active bird nests (either passerine and/or raptor) are observed during the pre-construction survey, a disturbance-free buffer zone must be established around the nest locations until the young have fledged, as determined by a qualified biologist. The radius of the required buffer zone can vary depending on the species, (i.e., 75-100 feet for passerines and 200-300 feet for raptors), with the dimensions of any required buffer zones to be determined by a qualified biologist in consultation with PRMD and CDFW. To delineate the buffer zone around a nesting tree, orange construction fencing shall be placed at the specified radius from the base of the tree

within which no machinery or workers shall intrude. After the fencing is in place there will be no restrictions on grading or construction activities outside the prescribed buffer zones.

BIO-1D
Prior to initiating any alterations of the existing 640 square foot storage structure, a qualified bat biologist shall conduct an assessment for the presence of roosting, hibernating and/or breeding bats The bat habitat assessment will provide specific recommendations for humane bat eviction if necessary. In general, humane eviction of bats must occur during seasonal periods of bat activity, between March 1, or when evening temperatures are above 45F and rainfall less than ½" in 24 hours occurs, and April 15, prior to parturition of pups. The next acceptable period for humane eviction with suitable roosting habitat is after pups become self-sufficiently volant – September 1 through about October 15, or prior to evening temperatures dropping below 45F and onset of rainfall greater than ½" in 24 hours.

Mitigation Monitoring BIO-1 (BIO-1A, -1B, -1C, -1D)
Prior to grading permit issuance, the applicant shall provide PRMD documentation that the required construction fencing, grassland mowing and pre-construction survey has been completed.

Significance Level:

Less than Significant with Mitigation Incorporated

b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?

Comment
An unnamed seasonal creek, commonly called Storey Creek, passes through the southern boundary and near the eastern boundary. Storey Creek drains east to the Russian River, located just over 0.5 mile to the east. It was evaluated in the June 3, 2014 Habitat Assessment report. The creek is a designated riparian corridor in the Sonoma County General Plan and governed by the Riparian Corridor ordinance. Both regulations establish a 50-foot Streamside Conservation Area measured from the top of outer bank. Any modification in the creek setback area, including grading, pathways, and vegetation removal, must comply with the General Plan policies and Riparian Corridor ordinance. The project design must therefore be modified to respect the mandatory 50-foot setback.

General Plan Policies
The following General Plan policies apply to the creek:

> OS-5h: Roadway construction should seek to minimize damage to riparian areas.
>
> CT-1k: Where practical, locate and design circulation improvements to minimize disturbance of biological resource areas and destruction of trees

The project will be served by the existing driveway, which provides site access from Westside Road and crosses the creek. New circulation improvements are located outside the creek setback to the maximum extent feasible. The exception is the required wider portion of the driveway located on the eastern side of the creek. The wider portion will not require tree removal or riparian vegetation removal. The wider road width of 20 feet is required by Fire Safe Standards and cannot be eliminated. Therefore, circulation and roadway improvements are designed to minimize disturbance to riparian areas. Road crossings are allowed within the riparian corridor provided they minimize disturbance.

Zoning regulations
The RC (Riparian Corridor) ordinance prohibits "grading, vegetation removal, agricultural cultivation, structures, roads, utility lines, and parking lots" within required Streamside Conservation Area unless an exception is allowed by the director of PRMD. The project as proposed includes multiple impingements on the required Streamside Conservation Area, including, but not limited to, following:

1. Reconstruction activities associated with existing 640 square foot storage building;
2. Construction activities associated with improving the existing access road east and west of Storey Creek;
3. Installation of a drainage swale to the bioinfiltration feature;
4. Installation of the bioinfiltration feature;
5. A small area of the south side of the tasting room;
6. Grading associated with the development of buildings and parking lots as well as construction of the large primary septic area; and
7. Vegetation trimming or clearance around the one-lane bridge, access road for public safety purposes along Westside Road.

(Refer to Plan Sheets A1.00 Overall Site Plan date 12/11/2015 and C1 Overall Site Plan dated 01/18/2018).

As mentioned above, the wider access road located on the east side of the creek is required by Fire Safe Standards and cannot be eliminated. The existing bridge and 640 square foot storage building, as well as the existing access road which is being widened and improved, are already present in the Streamside Conservation Area and pre-date the adoption of the Riparian Ordinance. (Note: any expansion or modification of the bridge would require additional review; no changes are proposed as part of the project.) All of the other areas noted above would constitute new intrusions into the Streamside Conservation Area and do not make the project unbuildable. Finally, some vegetation clearance or trimming is required to improve site lines on Westside Road for public safety. The project biologist also prepared a Revised Supplemental Assessment to the Biological Habitat Assessment for the subject property, and provided a review of two site specific areas for project review related to increasing the view area along Westside Road on the north side and the south side of the parcel and evaluated the potential for impacts to special-status plants, animals and habitats based on the proposed project. Report findings are summarized, below.

Area 1 – Vegetation and removal adjacent to and within the top of bank for the area west of the Storey Creek Bridge on Westside Road on the north side of the parcel. Vegetation primarily includes trimming of willows (Salix sp.), California bay laurel (Umbellularia californica) and valley oak (Quercus lobata) sucker shoots (not the main trunk), dead limbs of an oak tree, and Himalayan blackberry (Rubus armeniacus). The desired trimming would project north a line from the current fence on the project side of the creek to the opposite side of the creek. Trimming would be between this line and the bridge.

Area 2 – To the south of the project driveway, there are six multi-stemmed coast live oak (Quercus agrifolia) and three valley oak trees which block the line of site in this direction. The trees will only need to be trimmed based on the most currently project description. The intent here is to trim these oaks so that the project can increase the stopping sight distance to the south of the project driveway, thus allowing the project driveway to be moved further south and therefore increasing the stopping-sight distance to the blind turn to the north of the project driveway.

The mixed riparian woodland community does not have a special-status designation *per se* but riparian scrub and tree communities are considered to be valuable and sensitive vegetation community types. The Sonoma County General Plan Open Space and Resource Conservation Element (Sonoma County Permit and Resource and Management District

(SCPRMD) 2008) identifies riparian corridors as valuable areas because they provide important functions such as acting as vegetation filters for sediment and pollutants in stormwater runoff, slow flood flows, provide erosion protection for streambanks and facilitates groundwater recharge. Riparian areas also support many wildlife species and provide shade and habitat for aquatic species. In urban areas streamside areas provide natural open space and opportunities for recreation, education and aesthetic appreciation. The Policy and Goal Element #8 in the Sonoma county General Plan recognizes the importance of riparian communities to water quality and as wildlife habitat.

Mitigation measures are therefore included, below, to reduce these potential impact to less than significant.

Mitigation Measure BIO-2

BIO-2A
In addition to implementing Mitigation Measure AFR-1 and BIO-1A, above, applicant shall appropriately revise its project plans on its grading, septic and building permits to reflect that no part of the construction footprint of the project shall be located within the Streamside Conservation Area except for the following listed activities, and for these activities only for the absolute minimum of area necessary to accomplish the activity:

1. Widening and improvement of the internal access road on the east and west sides of Storey Creek;
2. Reconstructing/Improving the existing 640 square foot storage shed within its existing footprint;
3. Minor trimming or vegetation clearance along Westside Road as outlined in the Supplemental Habitat Assessment Report for improved sight-lines on Westside Road.

BIO-2B
For the Streamside Conservation Plan required to grant an exception for project work in the Streamside Conservation Area, prepare and submit to PRMD for review and concurrence a Riparian Corridor Reforestation Plan which replants with native, local genotype Sonoma County riparian trees, all grassland areas of the Streamside Conservation Area on the project parcel. The reforestation plan shall be fully implemented prior to final occupancy being granted for the project buildings.

Mitigation Monitoring BIO-2

The PRMD shall not issue a grading, septic or building permit until appropriately revised grading, septic and building permit plans that include the requirements of Mitigation Measure BIO-1A and BIO-2A are received and able to be approved by PRMD.

The PRMD shall not approve final occupancy of the project buildings until the reforestation plan required by BIO-2B is fully implemented.

Significance Level

Less than Significant with Mitigation Incorporated

c) Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?

Comment:
No wetlands, as that term is defined under County, state and federal law were identified on the project parcel.

Significance Level:

No Impact

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

Comment:
Wildlife Research Associates, with Jane Valerius Environmental Consulting, prepared a habitat assessment for the project on June 3, 2014. This assessment identified the tributary to the Russian River as a potential movement corridor for aquatic wildlife, such as foothill yellow-legged frog and California red-legged frog, and terrestrial wildlife, such as raccoon. The proposed development is located more than 30 feet from the top of bank of the tributary, thus the project will not impede movement by aquatic species.

The riparian corridor adjacent to the tributary may be used by terrestrial wildlife, such as striped skunk and deer. The proposed winery would not be a barrier to movement, and animals can move around the structures at night. Thus, no impediment to movement corridors will occur from the proposed project. After the project is built, no peripheral barriers, such as fencing, will be installed. Therefore, the impact to wildlife movement would be less than significant

Significance Level:

Less than Significant Impact with mitigation incorporated (AFR-1, BIO-1, BIO2)

e) Conflict with any local policies or ordinances protecting biological resources, such as tree preservation policy or ordinance?

Comment:
No tree removal is proposed. The project complies with the Riparian Corridor Ordinance; see discussion in item 4.d, above. Therefore, there is no impact to local policies and ordinances protecting biological resources.

Significance Level:

No Impact.

f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state Habitat Conservation Plan?

Comment:
Habitat conservation plans and natural community conservation plans are site-specific plans to address effects on sensitive species of plants and animals. The project site is not located in an area subject to a habitat conservation plan or natural community conservation plan.

Significance Level:

No Impact

5. CULTURAL RESOURCES:

Would the project:

a) Cause a substantial adverse change in the significance of a historical resource as defined in §15064.5?

Comments:
No cultural resources were identified in a cultural resources report prepared for this site in 2007. The Northwest Information Center did not recommend further cultural resource evaluations in its project referral response. There is an existing 640 square foot agricultural structure, which will continue to be used for agriculture and will not be modified. In response to the an AB 52 Tribal referral, the Cloverdale Rancheria of Pomo Indians responded, requesting that the appropriate government agencies and local tribes be contacted if the applicant discovers archaeological remains or resources during construction. A standard condition of approval will require all earth-disturbing permits to include a note directing the contractor to stop work and notify the appropriate government agencies if archaeological resources or human remains are discovered. Therefore, the project will not impact historic resources.

Mitigation Measure CUL-1:
In the event that archaeological resources such as pottery, arrowheads, midden or culturally modified soil deposits are discovered at any time during grading, scraping or excavation within the property, all work shall be halted in the vicinity of the find and County PRMD Project Review staff shall be notified and a qualified archaeologist shall be contacted immediately to make an evaluation of the find and report to PRMD. PRMD staff may consult and/or notify the appropriate tribal representative from tribes known to PRMD to have interests in the area. Artifacts associated with prehistoric sites include humanly modified stone, shell, bone or other cultural materials such as charcoal, ash and burned rock indicative of food procurement or processing activities. Prehistoric domestic resources include hearths, fire pits, or house floor depressions whereas typical mortuary resources are represented by human skeletal remains. Historic artifacts potentially include all by products of human land use greater than 50 years of age including trash pits older than fifty years of age. When contacted, a member of PRMD Project Review staff and the archaeologist shall visit the site to determine the extent of the resources and to develop and coordinate proper protection/mitigation measures required for the discovery. PRMD may refer the mitigation/protection plan to designated tribal representatives for review and comment. No work shall commence until a protection/mitigation plan is reviewed and approved by PRMD Project Review staff. Mitigations may include avoidance, removal, preservation and/or recordation in accordance with California law. Archeological evaluation and mitigation shall be at the applicant's sole expense.

If human remains are encountered, all work must stop in the immediate vicinity of the discovered remains and PRMD staff, County Coroner and a qualified archaeologist must be notified immediately so that an evaluation can be performed. If the remains are deemed to be Native American, the Native American Heritage Commission must be contacted by the Coroner so that a "Most Likely Descendant" can be designated and the appropriate provisions of the California Government Code and California Public Resources Code will be followed.

Mitigation Monitoring CUL-1
PRMD project review planner shall verify prior to the issuance of a building permit that the above notes shall be placed on the project grading and building plans.

Significance Level:

Less than Significant with Mitigation Incorporated

b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?

Comment:
See discussion item 5.a above.

Significance Level:

Less than Significant Impact

c) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?

Comment:
There are no unique geological features on the property that would be impacted by the proposed project. The geology of the site and the nature of the project make it unlikely that paleontological resources would be encountered or destroyed.

Significance Level:

Less Than Significant Impact

d) Disturb any human remains, including those interred outside of formal cemeteries?

Comment:
See discussion in item 5.a above.

Significance Level:

Less than Significant Impact

6. GEOLOGY AND SOILS:

Would the project:

a) Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:

i. Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.

Existing geologic conditions that could affect new development are considered in this analysis. Impacts of the environment on the project are analyzed as a matter of County policy and not because such analysis is required by CEQA.

Comment:
The project site is not within a fault hazard zone as defined by the Alquist-Priolo fault maps. (General Plan Public Safety Figure PS-1b).

Significance Level:

Less than Significant Impact

ii. Strong seismic ground shaking?

Comment:
According to Sonoma County General Plan Figure PS-1a, the project site is subject to Very Strong ground shaking during a seismic event.

All of Sonoma County is subject to seismic shaking that would result from earthquakes along the San Andreas, Healdsburg-Rodgers Creek, and other faults. By applying geotechnical evaluation techniques and appropriate engineering practices, potential injury and damage from seismic activity can be diminished, thereby exposing fewer people and less property to the effects of a major damaging earthquake. The design and construction of new structures are subject to engineering standards of the California Building Code (CBC), which take into account soil properties, seismic shaking and foundation type. Project conditions of approval require that building permits be obtained for all construction and that the project meet all standard seismic and soil test/compaction requirements. The project would therefore not expose people to substantial risk of injury from seismic shaking. The following mitigation measures will ensure that potential impacts are reduced to less than significant levels.

Mitigation GEO-1
All earthwork, grading, trenching, backfilling and compaction operations shall be conducted in accordance with the County Subdivision Ordinance (Chapter 25, Sonoma County Code). All construction activities shall meet the California Building Code regulations for seismic safety. Construction plans shall be subject to review and approval of Permit Sonoma prior to the issuance of a building permit. All work shall be subject to inspection by Permit Sonoma and must conform to all applicable code requirements and approved improvement plans prior to the issuance of a certificate of occupancy.

Mitigation Monitoring GEO-1
Building/grading permits for ground disturbing activities shall not be approved for issuance by Project Review staff until the above notes are printed on applicable building, grading and improvement plans. The applicant shall be responsible for notifying construction contractors about code requirement.

Significance Level:

Less than Significant with Mitigation Incorporated

iii. Seismic-related ground failure, including liquefaction?

Comment:
According to Sonoma County General Plan Figure PS-1c, the project site is located in a High area of liquefaction.

Strong ground shaking can result in liquefaction, the sudden loss of shear strength in saturated sandy material, resulting ground failure. Areas of Sonoma County most at risk of liquefaction are along San Pablo Bay and in alluvial valleys. General Plan Public Safety Figure PS-1, Liquefication Hazzard Areas identifies that sections of the project site are located within an area of “very high susceptibility” to liquefaction. If the project includes structures located within a liquefaction hazard area strong ground shaking during an earthquake can result in ground failure or settlement, including deformation of slopes, particularly fill slopes. Therefore the property has the potential to experience liquefaction and settlement during a seismic event. All structures will be required to meet building permit requirements, including seismic safety

standards and soil test/compaction requirements. Implementation of Mitigation Measures GEO-1, above would reduce any impacts to less than significant.

Significance Level:

Less than Significant Impact

iv. Landslides?

Comment:
General Plan Public Safety Figure PS-1d does not identify the project site as a landslide hazard area. If the project includes structures located in the footprint of a mapped landslide or within a landslide hazard area building or grading could destabilize slopes resulting in slope failure. All structures will be required to meet building permit requirements, including seismic safety standards and soil test/compaction requirements. Implementation of Mitigation Measures GEO-1, above, would reduce any impacts to less than significant.

Significance Level:

Less than Significant Impact

b) Result in substantial soil erosion or the loss of topsoil?

Comment:

The proposed project would include grading which requires the issuance of a grading permit. Unregulated grading, both during and post construction, has the potential to increase the volume of runoff from a site which could have adverse downstream flooding and increase soil erosion on and off site which could adversely impact downstream water quality.

County grading ordinance design and adopted best management practices require that soil erosion be minimized and that stormwater facilities be engineered to treat storm events and associated runoff to the 85-percentile storm event. Adopted flow control best management practices must be designed to treat storm events and associated runoff to the channel forming discharge storm event, which is commonly referred to at the two-year storm event. Required inspection by County building inspectors insure that all work is constructed per the approved plans. These ordinance requirements and adopted best management practices are specifically designed to maintain potential project water quantity impacts at a less than significant level during and post construction.

To address both pre-and post-construction water quality impacts the County has adopted grading ordinance design requirements, grading standards and best management practices, has mandated limitations on work in wet weather and has standard grading inspection requirements which are specifically designed to maintain potential water quality impacts at a less than significant level during project construction. Post construction impacts use adopted grading permit standards and best management practices to require creation of areas that allow stormwater to be detained, infiltrated or retained for later use. Other adopted water quality best management practices include storm water treatment devices based on filtering, settling or removing pollutants. These construction standards are specifically designed to maintain potential water quality grading impacts at a less than significant level post construction.

Issuance of the grading permit will require that the project comply with County adopted grading ordinances and standards. The related conditions of approval which enforce them are specific and require compliance with all standards and regulations adopted by the State and Regional Water Quality Control Board, Low Impact Development (LID) and any other adopted best

management practices. See further discussion of related issues (such as maintenance of required post construction water quality facilities) under section 9 Hydrology and Water Quality.

Therefore, no significant adverse soil erosion or related soil erosion water quality impacts are expected given the mandated conditions and standards that need to be met.

Significance Level:

Less Than Significant Impact

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

Comment:
The project site is subject to seismic shaking and other geologic hazards as described in item 6.a.ii, iii, and iv, above. Refer back to appropriate mitigation measure.

Significance Level:

Less than Significant Impact

d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property?

Comment:
Table 18-1-B of the Uniform Building Code is an index of the relative expansive characteristics of soil as determined through laboratory testing. For the proposed project, soils at the site have not been tested for their expansive characteristics. Standard Building Code requirements applicable to the construction of this project will ensure that no substantial risks to life or property would be created from soil expansion at the proposed project, even if it were to be affected by expansive soils.

Significance Level:

Less than Significant Impact

e) Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?

Comment:
The project site is not in an area served by public sewer. Preliminary documentation provided by the applicant and reviewed by the PRMD Project Review Health Specialist indicates that on-site soils would support a septic system and the required expansion area.

Significance Level:

No Impact

7. GREENHOUSE GAS EMISSIONS:

Would the project:

a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?

Comment:
The project is within the jurisdiction of the Northern Sonoma County Air Pollution Control District (NSCAPCD). The NSCAPCD does not have an adopted air quality plan because it is in attainment for all federal and state criteria pollutants, although the District occasionally exceeds state standards for PM10.

The traffic analysis prepared for the project by the applicant's traffic engineer concluded that the proposed project would generate an average of 186 trips on a daily basis, and would generate 274 new daily trips during harvest season. The largest of the proposed events was projected to result in 136 trips. These trip generation numbers are relatively low, and the project is not expected to generate significant greenhouse gases. See additional discussion under item 7.b, below.

Significance Level:

Less than Significant Impact

b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?

Comment:
State and Federal standards have been established for the "criteria pollutants": ozone, carbon monoxide, nitrogen dioxide, sulfur dioxide and particulates (PM_{10} and $PM_{2.5}$). The pollutants NOx (nitrogen oxides) and reactive organic gases (ROG) form ozone in the atmosphere in the presence of sunlight. The principal source of ozone precursors is vehicle emissions, although stationary internal combustion engines are also considered a source.

A condition of approval of the project will require submittal of a Greenhouse Gas Reduction Plan. The Greenhouse Gas Reduction Plan would include all reasonably feasible measures to reduce greenhouse gas emissions to the maximum extent feasible, and at a minimum will include use of best available conservation technologies for a energy and water uses, installation of renewable energy facilities to meet demand on-site (such as solar panels), bicycle facilities including secure bike parking, and employing best management practices for carbon sequestration, such as no till soils, reduced use of fertilizers, etc.

Significance Level:

Less than Significant Impact

8. HAZARDS AND HAZARDOUS MATERIALS:

Would the project:

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

Comment:
The project consists of a winery (agricultural processing facility) with an associated tasting room and limited events. The processing and fermentation of the grapes into wine includes the use and maintenance of machinery and equipment that require the transport, use, and disposal of hazardous materials (e.g., oils, diesel, solvents, lubricants, etc.). The vineyard operation requires the use and storage of pesticides and herbicides on the project site. The Sonoma County Agricultural Commissioner's Office regulates the storage and use of herbicides and pesticides by requiring the annual issuance of a Pesticide I.D. and classes be taken by persons applying such hazardous materials for agricultural uses such as vineyard operations.

The project is a type of land use that does not produce or generate hazardous materials. The County Fire and Emergency Services Department regulates storage and use of flammable materials associated with wineries, and acting as the state-certified Certified Unified Program Agency, administers laws and regulations regarding hazardous materials. This regulatory agency applies conditions to building permits that ensure the storage and use of any hazardous waste associated with the winery would not create a hazard. Therefore, to ensure the project construction would have a less than significant impact regarding use or storage of hazardous materials, the following mitigation shall be incorporated into the project:

Mitigation Measure HAZ-1:
NOTE ON GRADING AND BUILDING PLANS: During all construction activities, any storage of flammable liquids shall be in compliance with the Sonoma County Fire Code and section 7-1.01G of the Caltrans Standard Specification (or the functional equivalent) for the protection of surface waters.

In the event of a spill of hazardous materials the Project Contractor will immediately call the emergency number 9-1-1 to report the spill, and will take appropriate actions to contain the spill to prevent further migration of the hazardous materials to storm water drains or surface waters.

During construction, hazardous materials shall be stored away from drainage or environmentally sensitive areas, on non-porous surfaces. Storage of flammable liquids shall be in accordance with Sonoma County Fire Code. A concrete washout area, such as a temporary pit, shall be designated to clean concrete trucks and tools. At no time shall concrete waste be allowed to enter waterways, including creeks and storm drains. Vehicle storage, fueling and maintenance areas shall be designated and maintained to prevent the discharge of pollutants to the environment. Spill cleanup materials shall be kept on site at all times during construction, and spills shall be cleaned up immediately. In the event of a spill of hazardous materials, the applicant will call 911 to report the spill and take appropriate action to contain and clean up the spill. Portable toilets shall be located and maintained to prevent the discharge of pollutants to the environment.

Mitigation Monitoring HAZ-1:
The Project Review Planner shall not provide Planning clearance on a grading permit or building permit for the winery development until the above notes are printed on the building and grading plans. The applicant shall be responsible for notifying construction contractors about the requirement for responsible storage and spill cleanup of hazardous materials.

Significance Level:

Less than Significant with Mitigation Incorporated

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

Comment:
The project is not expected to involve significant use of hazardous materials, and therefore would have an unlikely potential impact involving release of hazardous materials. See discussion of spill prevention, monitoring and cleanup under item 8.a, above, regarding regulation of hazardous materials at the planned winery. Use of pesticides and herbicides will also be regulated by the County as discussed in item 8.a.

The project would not generate or produce hazardous materials. Hazardous materials (diesel fuels, solvents, oils, etc.) are contained in products used on site for use and maintenance of equipment and machinery. The use, storage, and transport of such products are controlled by the local Certified Unified Program Agency (CUPA). The vineyard operation is not part of this review, but use of pesticides and herbicides are regulated by the Sonoma County Agricultural Commissioner's Office. Because the project would be required to operate in conformance with all standards, laws and regulations designed to prevent foreseeable accidents involving a hazardous materials release, the project would have a less than significant impact involving release of hazardous materials into the environment.

Significance Level:

Less than Significant Impact

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

Comment:
The project is not located within one quarter mile of any existing or proposed school

Significance Level:

No Impact

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

Comment:
The site is not identified as a hazardous materials site under Government Code Section 65962.5

Significance Level:

No Impact

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

Comment:
The project site is not located within an airport land use plan as designated by the County of Sonoma or within two miles of a public airport.

Significance Level:

No Impact.

f) For a project located within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area?

Comment:
There are no known private airstrips within the vicinity of the proposed project.

Significance Level:

No Impact

g) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?

Comment:
The project would not impair implementation of, or physically interfere with the County's adopted emergency operations plan. There is no separate emergency evacuation plan for the County. In any case, the project would not change existing circulation patterns significantly, access and egress would continue to be from the existing driveway off Westside Road, a County maintained roadway, and would have no effect on emergency response routes.

Significance Level:

No Impact

h) Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas of where residences are intermixed with wildlands?

Comment:
General Plan Figure PS-1g shows the site is located in a Moderate Fire Hazard Severity Zone. However, daily activities will take place indoors or outdoors on improved areas such as the patio by the tasting room and not in high grass or remote areas on the site. Upon completion, the site will be planted in vineyard and improved with structures, parking areas, and maintained landscaped areas. In addition, the Fire Marshal reviewed the project and recommended conditions of approval to limit fire risk. Therefore, the impact is less than significant.

Significance Level:

Less than Significant Impact

9. HYDROLOGY AND WATER QUALITY:

Would the project:

a) Violate any water quality standards or waste discharge requirements?

Comment:
An unnamed seasonal creek, commonly called Storey Creek, passes through the southern boundary and near the eastern boundary, draining to the Russian River. There are no wetlands on-site. As designed the project, does not propose to directly connect roofs, parking areas, drives or other impervious surfaces to Storey Creek. All storm water run off from new impervious surface will be infiltrated in place or sheet flowed from the 1.27 acres of built infrastructure to vineyards or vegetated riparian corridor along Storey Creek. The project was

reviewed by the Sonoma County PRMD Storm Water and Grading Section. This project is subject to Low Impact Development (LID) standards and a final Standard Urban Storm Water Mitigation Plan (SUSMP) will be submitted with the grading and/or building permit application. The conditions of approval reflect these requirements. Erosion and sediment control methods are described in 6.b. Because the project involves disturbance of more than one acre, project construction is subject to National Pollutant Discharge Elimination System (NPDES) requirements. A standard condition of approval requires that documentation of coverage under the Construction General Permit must be submitted to Permit Sonoma prior to issuance of any grading permit.

Less than Significant with Mitigation Incorporated.

Significance Level:

Less than Significant Level

b) Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?

Comment:
There are four existing wells on the project site, which irrigate the subject property and adjacent MacRostie site. The project includes a new domestic well to serve the winery and tasting room.

The project is located within the Dry Creek Watershed and lies within the General Plan Zone 1 (major groundwater basin) groundwater availability area. PRMD does not typically require a hydrogeology report for projects in Zone 1 groundwater availability areas. However, the neighbors expressed concern about groundwater availability due to the project's proximity to their wells, the proposed addition of a new well, and the site's proximity to a Zone 4 groundwater availability area, which indicates areas with low or highly variable water yield. Therefore, the applicant submitted a groundwater report, prepared by O'Connor Environmental, Inc. on June 9, 2015. Subsequently, two nearby neighbors submitted a letter analyzing the project's impacts on their wells, prepared by EBA Engineering on August 10, 2015. In response to this letter and at the neighbors' request, the applicant submitted a Pump Test and Well Interference Analysis, prepared by O'Connor Environmental on December 2, 2015.

EBA Engineering
EBA Engineering provided a professional critique of the O'Connor Groundwater Report and requested clarification on how the project site wells are presently used. EBA found the O'Connor report used normal methodology and assumptions. Based on the proposed water use and findings from the on-site observations and research, EBA concluded that the proposed winery and tasting room may impact the water supply on the 4395 Westside Road property (adjacent to the west), albeit the likelihood is low. However, given the high variability of fractured groundwater flow in the areas, and the total project aquifer usage as estimated in the O'Connor report to be 70 percent of the estimated annual recharge, the neighbors requested the following items:

1. Conduct a dry weather 8-hour pump test, preferably 72 hours in duration.
2. Minimize drawdown through tank and pump design. Specifically, design the system with longer pumping times at a slower rate with greater tank capacity.
3. Install a totalizer on the project site's wells and submit the results to the adjacent neighbors annually.

4. Conduct annual dry weather measurements of depth to groundwater (DTW) on the project wells and adjacent wells at 4395 Westside Road and submit the results to the owners of that parcel.

Requests 1 and 2 directly relate to analysis and reduction of environmental impacts and are considered as part of this Initial Study

O'Connor Environmental, Inc. Groundwater Report and Pump Test and Well Interference Analysis

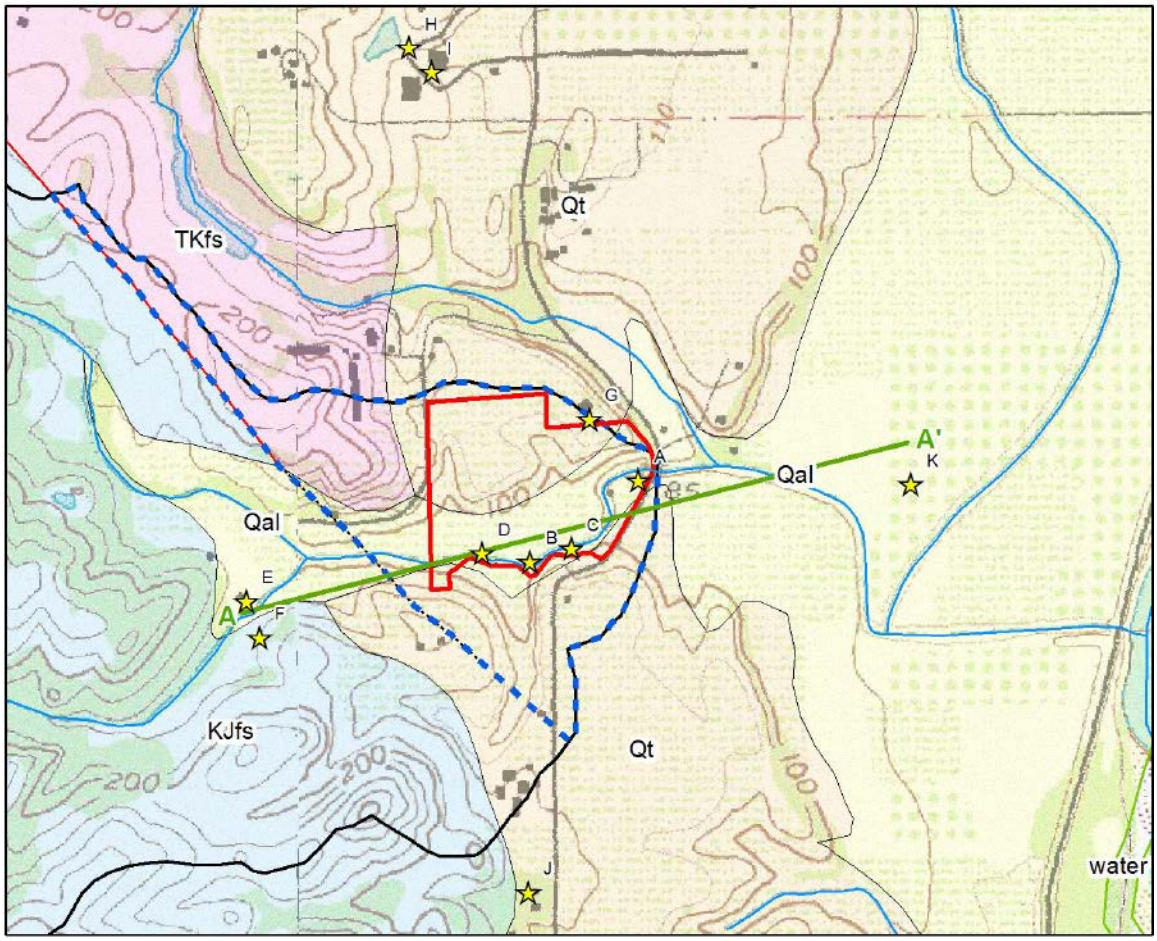
Background

The O'Connor report analyzes hydrogeological conditions of the aquifer that would be utilized by the proposed project and provides estimates of groundwater storage, annual recharge, and groundwater demand on the aquifer for vineyard irrigation, domestic use, and winery use. Groundwater supply estimates, groundwater demand estimates for existing conditions, and groundwater demand estimates for proposed conditions are summarized below. The report utilizes the most conservative or "worst case scenario" approach when a range of data or estimates are available. The Rudd parcel is the project site (APN 110-110-026). The MacRostie parcel is adjacent to the project site's southern boundary (APN 110-110-025). The O'Connor Pump Test and Well Interference Analysis responds to questions posed in the EBA letter and provides the results of the 24-hour pump test. Both O'Connor documents are utilized in this section of the initial study.

The northern portion of the project parcel is underlain by Quaternary alluvial and marine terrace deposits (map unit Qt) and the southern portion of the parcel is underlain by Quaternary alluvial fan and fluvial deposits (map unit Qal). The sandstone unit of the Franciscan Complex (map unit TKfs) outcrops northwest of the project parcel and likely underlies the Quaternary units over most or all of the project parcel. Given the limited depth and lack of wells screened within the overlying alluvial deposits, the bedrock aquifer is considered the only relevant aquifer supplying water to wells in the vicinity of the project parcel.

The O'Connor report Page 7) identifies the project aquifer, sometimes called the cumulative impact area, in the graphic below. The dashed blue line identifies the project aquifer, the solid red line identifies the project site, the solid green line identifies the hydrogeologic cross sections, and the yellow stars identify well locations.

Figure 2. Locations of wells evaluated for this analysis and location of the hydrogeologic cross section presented in Figure 3



Existing On-Site Water System

The O'Connor Pump Test and Well Interference Analysis states the existing water system consists of four wells (A through D) that supply irrigation water to both the Rudd and MacRostie vineyards. These wells are plumbed to a 110,000 gallon storage tank and operation of the wells is triggered by a float. When the system is turned on, all four wells operate simultaneously until the tank is filled. The operational pumping rates of the wells ranges from 5 to 30 gpm for a total combined pumping rate of 65 gpm. Without adjusting for the buffering effects of the storage tank, 4.6 hours of pumping at the operational pumping rates would be required to meet the peak daily irrigation demand of 18,082. A new well will be constructed with a 50 foot sanitary seal to supply domestic water for the proposed winery. Assuming this fifth (yet to be drilled) well has an operational pumping rate similar to well D (10 gpm) indicates that the peak daily winery demand of 1,910 gallons could be met with 3.2 hours of pumping.

Assuming the aquifer properties and sustainable yield estimates derived for well D are representative of conditions at the other wells, the four existing wells plus the new well will have a combined sustainable yield of 48,000 gallons per day. The peak daily demand on the well field of 19,992 gallons represents approximately 42% of the total sustainable yield of the well field.

Existing Conditions - Supply

The O'Connor report found that recharge to the project aquifer likely occurs via percolation of rainfall falling directly on the aquifer surface and percolation from the overlying alluvial aquifer. Seepage from the stream bed to the alluvium and from the alluvium to the underlying bedrock

aquifer is another source of aquifer recharge. Groundwater storage calculations have been made.
assuming that the project area aquifer is a semi-confined fractured bedrock aquifer consisting of only the Franciscan Complex TKfs (limited to the area east of the fault).

Table 2. Summary of Annual Aquifer Water Supply

Aquifer Area (acres)	70.1
Groundwater Storage (acre-feet)	119.9
Average Annual Recharge (acre-feet)	39.9

Existing Conditions - Demand
Water demand for existing uses of the bedrock aquifer was estimated by measuring the area of vineyards from aerial photographs and by estimating the number of dwellings on each of the parcels overlying the aquifer. Standard water use rates for each acre of vineyard and for each dwelling were then applied to develop the estimate of groundwater use.

Table 3. Summary of Existing Annual Aquifer Water Demand

Vineyard Irrigation Demand (39.6 acres* @ 0.5 acre-feet per acre per year)	19.8
Residential Demand (acre-feet per year)	2.5
Estimated Winery Demand (acre-feet per year)	3.0
Total Demand (acre-feet per year)	25.3

* 3 acres of existing vineyard in the aquifer area are removed from this acreage-assumed to be irrigated by surface water diversion per records of State of California Division of Water Rights; 4.5 acres of presently unplanted vineyard acreage in the project area that are included and assumed to be replanted for purposes of estimating long-term groundwater demand for this study.

The average annual groundwater recharge for the aquifer of 39.9 acre-feet represents an estimate of the sustainable yield of the aquifer. The estimated demand for water from the aquifer under current conditions, including maximum historic planted vineyard acreage, is 25.3 acre-feet per year, which represents about 63% of annual recharge for the aquifer. This comparison indicates that there is a surplus of about 14.6 acre-feet of groundwater in terms of annual use compared to annual recharge.

Proposed Demand
With respect to the additional demand for groundwater for the project, the increment of increase in annual use of 2.8 acre-feet (3.3 acre-feet for winery project less 0.5 acre-feet for reduced vineyard acreage) is equivalent to about 11% of existing groundwater use and about 7.0% of average annual recharge. Adding net water demand increase under proposed project conditions of 2.8 acre-feet per year would bring estimated total demand to about 28.1 acre-feet per year (Table 4), which is equivalent to 70% of annual recharge for the aquifer. The additional increment of use proposed for this winery project represents a modest increment of the existing use.

Table 4. Summary of Aquifer Water Demand, Proposed Project Conditions

Vineyard Irrigation Demand (38.6 acres @ 0.5 acre-feet per acre per year)	19.3
Residential Demand (acre-feet per year)	2.5
Winery Demand (acre-feet per year)	6.3
Total Demand (acre-feet per year)	28.1

Well Interference
The O'Connor Well Interference Analysis states a 24-hour duration constant rate pump test (8 gpm) was conducted at Well D on November 2nd and 3rd, 2015. The extents and magnitudes of the cones of depression associated with pumping at the rates and durations required to meet the peak water demands indicate that the area where drawdown would exceed 0.1-ft would not extend more than 400-ft in the direction of the wells on the neighboring property. The closest of these neighboring wells is located 935-ft away, thus no well interference is expected to occur as a result of pumping the project wells even during times of peak demand. Given that the existing water system is capable of producing the peak daily demands with only 3 to 5 hours of pumping and that the resulting cones of depression do not extend far enough away from the wells to intersect neighboring wells, no changes to the existing water system are deemed necessary.

Conclusion
The O'Connor report concludes the project aquifer is a semi-confined fractured bedrock aquifer comprised of sandstone of the Franciscan Complex. The aquifer is recharged by infiltration of direct precipitation on the surface of the aquifer and by percolation of stream flow. Additional recharge of the aquifer via potential connection with adjacent aquifers may be significant, but have not been quantified.

Estimated annual recharge by direct precipitation is estimated to be on the order of 39.9 acre-feet. Estimated existing demand from the project aquifer is estimated to be 25.3 acre-feet per year. Water demands for the proposed winery to be supplied from a new project well are estimated to be 3.3 acre-feet per year; the net increase in groundwater demand for the project is 2.8 acre-feet per year owing to a 1 acre decrease in vineyard area required for the winery facilities. Total groundwater demand under proposed project conditions is estimated to be 28.1 acre-feet per year.

The groundwater withdrawals required for the proposed 10,000 case winery on the subject parcel are unlikely to be affected by or affect existing or potential future groundwater withdrawals on adjoining parcels that utilize the same aquifer because of the relatively small quantity of water required and the fact that the total proposed demand is substantially less than the mean annual recharge, even when conservative assumptions are applied.

Given that the existing water system is capable of producing the peak daily demands with only 3 to 5 hours of pumping and that the resulting cones of depression do not extend far enough away from the wells to intersect neighboring wells, no changes to the existing water system are deemed necessary. Therefore, the project will have a less than significant impact to groundwater supply.

Significance Level

Less than Significant Impact

c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on- or off-site?

Comment:
There will be no modification of an existing waterway, nor would the project create runoff that would result in off-site or on-site flooding. On-site drainage patterns will not be substantially altered by the project. The project was reviewed by the Sonoma County PRMD Drainage Review Section. Grading and drainage improvement plans will be reviewed and approved by PRMD prior to the issuance of any development permits. As part of the grading plans, the applicant shall include an erosion prevention/sediment control plan which clearly shows best

management practices to be implemented, limits of disturbed areas, vegetated areas to be preserved, pertinent details, notes, and specifications to prevent damages and minimize adverse impacts to the environment. These preventative measures include, but are not limited to, prohibiting any tracking of soil or construction debris into the public right-of-way or drainages. Runoff containing concrete waste or by-products shall not be allowed to drain to the storm drain system, waterway(s), or adjacent lands. Erosion and sediment control measures are required to be included in the plans, limiting possible drainage impacts. Residue or polluted runoff from the crush pad or from production areas/activities shall not be allowed to drain directly to the storm drain system, waterway(s) or adjacent lands. Any waste water conveyance system shall not be allowed to be combined with the storm water conveyance system. Runoff from waste receptacles or outside washing areas shall not be allowed to drain directly to the storm drain system, waterway(s) or adjacent lands. Areas used for waste receptacles and outside washing areas shall be separated from the rest of the project site by grade breaks that prevent storm water run-on. Any surface water flow from a waste receptacle or outside washing area shall not be permitted to enter the storm drain system without receiving appropriate treatment.

Grading and land disturbance are required to maintain a 50-foot setback from the stream top of bank under the Riparian Corridor overlay zone in the Zoning Code and as mandated in Section 4. No construction or grading will be allowed in the Streamside Conservation Area. Best Management Practices required under the Grading permit will insure the project does not substantially alter the existing drainage pattern of the site or area. The project development will not alter a water course, stream or river. Therefore, the impact is less than significant. t

Significance Level:

Less than Significant Impact

d) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site?

Comment:
See discussion under item 9.c, above. The project will not significantly alter drainage patterns on-site or in the general area, nor will it result in on- or off-site flooding. The project proposal does not include the alteration of a stream or river.

Significance Level:

Less than Significant Impact

e) Create or contribute runoff water which would exceed the capacity of existing or planned storm water drainage systems or provide substantial additional sources of polluted runoff?

Comment:
Through the grading permit process and best management practices required to be implemented under this permit, the proposed development would not substantially alter drainage patterns or capacities of the project site, or result in substantial additional sources of polluted runoff. Development would only be permitted after review of engineered development plans by PRMD to ensure adequate management of stormwater runoff. The project will not involve use of hazardous materials that could enter area water courses.

Significance Level:

Less than Significant Impact

f) Otherwise substantially degrade water quality?

Comment:
The project does not involve other changes in the environment that could result in substantially degrading water quality. See discussion under item 6.b, above.

Significance Level:

Less than Significant Impact

g) Place housing within a 100-year hazard area as mapped on a federal Flood hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?

Comment:
No housing is proposed as part of this project, therefore, there will be no impact related to housing and flooding impacts

Significance Level:

No Impact

h) Place within a 100-year flood hazard area structures which would impede or redirect flood flows?

Comment:
A small portion of the eastern corner of the site is located within the 100-year floodplain. No structures or fill will be placed in this floodplain.

Significance Level:

No Impact

i) Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam?

Comment:
Earthquakes could potentially damage dams and result in the release of reservoir waters, thereby creating secondary flood hazards downstream. According to General Plan Figure PS-1f, the project site is located in a Dam Failure Inundation Hazard Area. The project site would potentially be affected by a failure of Warm Springs Dam, the largest dam in the County, which creates the Lake Sonoma Reservoir. It was designed to absorb the maximum expected displacement and ground shaking from faults in the region and is inspected by the Army Corps of Engineers on an ongoing basis. This dam is generally designed and engineered to withstand seismic events, and the risk of failure is low. Therefore, the impact is less than significant.

Significance Level:

Less than Significant Impact

j) Inundation by seiche, tsunami, or mudflow?

Comment:
The project site is located in the Dry Creek Valley and not located in an area of the County subject to seiche, tsunami, or mudflow.

Significance Level:

No Impact

10. LAND USE AND PLANNING:

Would the project:

a) Physically divide an established community?

Comment:
The project would not physically divide a community. It does not involve construction of a facility that would result in division of a community or removal of a primary access route (such as a road or bridge) that would impair mobility within an established community or between a community and outlying areas.

Significance Level:

No Impact

b) Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?

Comment:
The project site is located within both the Land Intensive Agriculture (LIA) zoning district and the Land Intensive Agriculture General Plan designation.

General Plan
The General Plan policy for Land Intensive Agricultural states that agricultural production, agricultural support uses, and visitor serving uses, as provided in the Agricultural Resources Element of the General Plan, are allowed uses, provided a Use Permit is approved. The proposed project must be consistent with the General Plan's Agricultural Element Goals, Objectives, and Policies, which include the following:

"**Policy AR-4a**: *The primary use of any parcel within the three agricultural land use categories shall be agricultural production and related processing, support services, and visitor serving uses. Residential uses in these areas shall recognize that the primary use of the land may create traffic and agricultural nuisance situations, such as flies, noise, odors, and spraying of chemicals."*

Analysis: The project site is within the Land Intensive Agriculture General Plan land use designation. The existing primary use of the project site is agricultural production (vineyard). The majority of the project site is planted with vineyard (52%). This application requests adding a winery, tasting room, and events. Events would consist of agricultural promotional events, such as wine club education seminars, release parties, and industry-wide events. The applicant also proposes winemaker lunches, dinners, and food and wine pairings.

Food and wine pairings occurring in the tasting room in an area no greater than 15% of the tasting room floor area have been not been considered events if they occur during standard tasting room hours. The County classifies wine maker lunches and dinners as promotional events.

The current request does not require the removal of any vines and the primary use of the site will remain agricultural production if the project is approved and constructed.

"**Policy AR-5a**: *Provide for facilities that process agricultural products in all three agricultural land use categories only where processing supports and is proportional to agricultural production on site or in the local area*."

Analysis: The 13.65-acre vineyard makes up 52% of the 26.20-acre project site and will continue to be the primary use of the parcel. The remaining land is relatively flat and covered by non-native annual grasses dominated by wild oats. If the project is approved and constructed, the fallow portion of the site not devoted to the project will be planted in vineyards. The on-site grapes would provide approximately 5,000 cases of the proposed 10,000-case annual production capacity. The remaining 5,000 cases would be served by grapes grown in Sonoma County and possibly Mendocino County, however, the application indicates that a minimum 51% of grapes processed would be grown in Sonoma County. Therefore, the on-site processing would support and be proportional to the agricultural production on-site and in the local area.

"**Policy AR-5c**: *Permit storage, bottling, canning, and packaging facilities for agricultural products either grown or processed on site provided that these facilities are sized to accommodate, but not exceed, the needs of the growing or processing operation. Establish additional standards in the Development Code that differentiate between storage facilities directly necessary for processing, and facilities to be utilized for the storage of finished product such as case storage of bottled wine. Such standards should require an applicant to demonstrate the need for such on-site storage*."

Analysis: The winery building production and storage area consists of approximately 0.77 square feet of production area per one case of wine. Staff research performed for another winery project determined that wineries on average provided 0.60 square feet of area per case of wine with a range of 0.33 sq. ft./case for a winery with a production capacity of 15,000 cases compared to 1.10 sq. ft./case for a smaller winery with a production capacity of 2,000 cases. In comparison, the size of the proposed production building here is slightly above average but within the typical range. The site is not being developed for case storage of bottled wine or other storage of finished product. The facility appears generally in compliance with Policy AR-5c.

PRMD also requires that office and administration areas not exceed 15% of the square footage of the winery's production, storage, and tasting areas to ensure these uses are incidental to the winery. The proposed administration area is approximately 462 square feet, which is 4% of the total winery and tasting room building areas, well below PRMD's maximum threshold.

"Policy AR-5g: *Local concentrations of any separate agricultural support uses, including processing, storage, bottling, canning and packaging, agricultural support services, and visitor-serving and recreational uses as provided in Policy AR-6f, even if related to surrounding agricultural activities, are detrimental to the primary use of the land for the production of food, fiber and plant materials and shall be avoided. In determining whether or not the approval of such uses would constitute a detrimental concentration of such uses, consider all the following factors:*

"*1. Whether the above uses would result in joint road access conflicts, or in traffic levels that exceed the Circulation and Transit Element's objectives for level of service on a site specific and cumulative basis."*

Analysis: Based on the Traffic Analysis and subsequent sight-distance analysis prepared by W-Trans (dated January 2018), which was subsequently reviewed and accepted by Sonoma County Transportation and Public Works Department (DTPW), project-generated traffic will not result in road access conflicts and would not exceed the level of service established in the Circulation and Transit Element's objectives (see Transportation section, below, for further discussion.)

"*2. Whether the above uses would draw water from the same aquifer and be located within the zone of influence of area wells."*

Analysis: The project site is located in a Zone 1 Major Groundwater Basin designation. The General Plan does not require groundwater availability studies for projects within this groundwater zone. However, the Zone 4 Areas with Low or Highly Variable Yield designation is approximately 290 feet to the west. The adjacent neighbors to the west expressed concern that the project would negatively impact their wells, therefore, the applicant submitted a hydrogeology report prepared by O'Connor Environmental, Inc. This report concluded that the project's groundwater withdrawal is unlikely to affect the aquifer and adjoining parcels given the relatively small amount of water required for the project's operation and that proposed demand is less than the mean annual recharge.

The neighbors submitted an independent evaluation of this report, prepared by EBA Associates. The EBA evaluation provided a professional critique of the O'Connor report and ultimately concluded that the project "may impact the water supply on the 4395 Westside Road property, albeit the likelihood is low." The EBA letter states the neighbors request four conditions of approval, one of which is a dry weather 8 to 72 hour pump test to simulate maximum water use if the project is constructed.

At this request, the applicant submitted a well pump interference analysis, also prepared by O'Connor Environmental, Inc. This analysis described the results of the 24-hour dry weather pump test performed on November 2 and 3, 2015. The analysis concluded that the project will not interfere with the nearest neighboring well, even during peak demand. The cone of influence for the existing wells does not intersect with neighboring wells. Therefore, the project is consistent with this guideline.

"3. Whether the above uses would be detrimental to the rural character of the area."

Analysis: The project site is 26.20 acres with approximately 13.65 acres of vineyard. The proposed development was modified in response to comments from two Design Review Committee meetings. Existing riparian vegetation will substantially screen the project from Westside Road, a designated Scenic Corridor. The proposed winery and tasting room buildings will have an agrarian design with wood and stone. Building appearance will be compatible with the rural character of the area and not detrimental to the area's rural character. The applicant's traffic study identified trip generation that would increase traffic related mainly to the tasting room and on event days, addressing previous questions of traffic safety. An acoustical assessment concluded that project noise levels would comply with the General Plan noise standards in Table NE-2 and therefore not detract from the rural character of the area.

"**Policy AR-6a**: *Permit visitor serving uses in agricultural categories that promote agricultural production in the County, such as tasting rooms, sales and promotion of products grown or processed in the County, educational activities and tours, incidental sales of items related to local area agricultural products, and promotional events that support and are secondary and incidental to local agricultural production*."

Analysis: Consistent with past approvals for similar projects, the events held at the winery facility are considered agricultural promotional events. The purpose of events at the winery site is to create a customer experience to increase direct sales of the wine produced on site. Consistent with past approvals, the proposed events would promote wine processed on the site. The applicant also proposes to sell other local agricultural products, such as honey, jams, mustard, and pickles, in the tasting room and during agricultural promotional events. No third-party private events are proposed. The LIA (Land Intensive Agriculture) zoning district allows for tasting rooms, subject to the minimum criteria of General Plan Policies AR-6d and AR-6g and approval of a Use Permit.

"**Policy AR-6b**: *Except as allowed by Policy AR-6a, prohibit new restaurants and lodging. Recognize existing restaurants or lodging facilities and those which were approved prior to adoption of this plan, but limit their expansion or intensification*."

Analysis: No lodging or restaurant is proposed. The proposal includes a commercial kitchen for winemaker lunches, dinners, and food and wine pairings. The kitchen equipment would consist of a double sink, preparation counters, microwave oven(s), warming cabinet(s), refrigerator(s), a stove or range, an exhaust hood, and small storage area.

The County generally prohibits commercial kitchens on agricultural lands. However, commercial kitchens have been approved at some wineries with visitor-serving uses, such as Windsor Oaks Winery (PRMD File no. PLP12-0009). In these cases, conditions have prohibited a restaurant, café, deli, or other food service offering cooked-to-order food, limited use to approved events, and prohibited menu options. With implementation of these conditions to limit kitchen use, the proposal would not be a restaurant and would be consistent with Policy AR-6b.

"**Policy AR-6d**: *Follow these guidelines for approval of visitor serving uses in agricultural areas:*

(1) The use promotes and markets only agricultural products grown or processed in the local area.

Analysis: The tasting room use, agricultural promotional events, and industry wide events will promote grapes grown and processed on-site and in the local area (i.e., within Sonoma County and, potentially, within adjacent counties). The tasting room will also sell other local agricultural products, such as jams, honey, mustard, and pickles.

(2) The use is compatible with and secondary and incidental to agricultural production activities in the area.

Analysis: The project development encompasses approximately 1.27 acres, which is 5% of the overall project site of 26.20 acres. These uses are considered secondary to the primary use of the project site, which will remain a commercial vineyard operation.

(3) The use will not require the extension of sewer and water.

Analysis: Extension of sewer and water is not proposed. The site is adequately served by wells and a septic system. See additional discussion about groundwater use in Item 9, Hydrology and Water Quality. Therefore, the project is consistent with this guideline.

(4) The use is compatible with existing uses in the area.

Analysis: Under the LIA zoning, agricultural production and related processing are considered the primary uses, with residential uses secondary. The project site is 26.20 acres with

approximately 13.65 acres of vineyard. The proposed development was modified in response to comments from two Design Review Committee meetings. Existing riparian vegetation will substantially screen the project from Westside Road, a designated Scenic Corridor. The proposed winery and tasting room buildings will have an agrarian design with wood, stone. Building appearance will be compatible with the rural character of the area and not detrimental to the area's rural character. The tasting room operating hours are limited and agricultural promotional events are limited per year in frequency and size. There will be no outdoor amplified music. An acoustical assessment concluded that project noise levels would comply with the General Plan noise standards in Table NE-2 and therefore not detract from the rural character of the area (see further discussion of Noise impacts in Item No. 12 below.)

Based on the above information, the proposed use will be compatible with existing uses in the area.

(5) Hotels, motels, resorts, and similar lodging are not allowed.

Analysis: No lodging is proposed; therefore, the project is consistent with this guideline.

(6) Activities that promote and market agricultural products such as tasting rooms, sales and promotion of products grown or processed in the County, educational activities and tours, incidental sales of items related to local area agricultural products are allowed.

Analysis: The project includes a 2,171 square foot tasting room, agricultural promotional events, and industry-wide events. The County considers these events agricultural promotional events. The purpose of these events at the winery site is to create a customer experience to increase direct sales of the wine produced on site. Consistent with past approvals, the proposed events would promote wine processed on the site. The applicant also proposes to sell other local agricultural products, such as honey, jams, mustard, and pickles, in the tasting room and during agricultural promotional events. No third-party private events are proposed.

(7) Special events on agricultural lands or agriculture related events on other lands in the Sonoma Valley Planning Area will be subject to a pilot event coordination program which includes tracking and monitoring of visitor serving activities and schedule management, as necessary, to reduce cumulative impacts.

Analysis: The project is not located in the Sonoma Valley, and accordingly this guideline does not apply to this project. A standard condition of approval for any winery within the county requires participation in the following event coordination program:

"Policy AR-6f: *Local concentrations of visitor serving and recreational uses, and agricultural support uses as defined in Goal AR-5, even if related to surrounding agricultural activities, are detrimental to the primary use of the land for the production of food, fiber and plant materials and may constitute grounds for denial of such uses. In determining whether or not the approval of such uses would constitute a detrimental concentration of such uses, consider all the following factors:*
(1) Whether the above uses would result in joint road access conflicts, or in traffic levels that exceed the Circulation and Transit Element's objectives for level of service on a site specific and cumulative basis.
(2) Whether the above uses would draw water from the same aquifer and be located within the zone of influence of area wells.
(3) Whether the above uses would be detrimental to the rural character of the area."

Analysis:

In light of the public comments addressing concerns of traffic congestion and safety and number of wineries in the project areas, staff researched recent winery approvals and winery

approvals in the nearby area.

Table 1 Approvals in Project Vicinity (within ½ mile)

Name/File No.	Address/APN	Approval Date	Tasting?	Events?	Distance from subject site*
MacRostie UPE07-0123	4605 Westside Rd. 110-110-025	2011	Yes	16 events (promotional and industry wide) with 100 to 200 people each	0.2 miles
VML UPE97-0016	4035 Westside Rd. 110-100-028	1997	Yes	11 events with 20 to 600 people each	0.6 miles
Bacigalupi Vineyards UPE07-0145	4353 Westside Rd. 110-190-005 No winery on-site	2008	Yes	6 events with 50 people each	0.5 miles

*Distance from subject site is measured from existing project site driveway to winery driveway using Google driving directions.

Table 1 identifies three wineries with promotional activities located within ½ mile of the project site. All three have tasting and events. There is no consistent number of events, which range from 6 to 16 days, or number of attendees, which ranges from 20 to 600 people.

This application seeks approval of 13 industry-wide event days and 12 agricultural promotional event days, plus 12 winemaker lunches/dinners. While the applicant proposes winemaker events not be counted as events since the tasting room will be closed when they are held, established County precedent is that they be included as part of total events, which would raise agricultural promotional events to 37.

In order to lower project events closer toward the approximate number of events for listed wineries with events, the conditions of approval for the project shall reflect that the winemaker meals count as events and limit total winery events to 20 events annually. The number of proposed events is recommended to be 20 because all but 3 of the events are proposed to accommodate 100 or fewer participants, which is smaller than event sizes at some other wineries. Food and wine pairings involving less than 15% of tasting room area and occurring during tasting room hours are not considered as events.

Zoning Ordinance
In the LIA (Land Intensive Agriculture) zoning district of the Zoning Ordinance, Section 26-04-010(g), allows for processing and preparation of agricultural products. Section 26-04-010 (f) allows for:

Tasting rooms and other temporary, seasonal or year-round sales and promotion of agricultural products grown or processed in the county subject to the minimum criteria of General Plan Policies AR-6d and AR-6g. This subsection shall not be interpreted so as to require a use permit for uses allowed by Section 26-04-010(g);

Analysis: For past projects, wine-marketing dinners or similar events have been found consistent with the purposes and uses in agricultural zoning districts, including the LIA district, when such events promote agricultural products grown or processed on the site. In addition, such events can be found compatible with surrounding agricultural activities if hours and the frequency of the events are limited and there are no substantial noise or traffic impacts as a result of the activities.

Events would be hosted in the proposed tasting room and adjacent outdoor patio area, which will primarily be used for tasting and sales. Currently, the zoning ordinance does not have a limit as to the number of promotional events allowed on agricultural zoned parcels.

Events must relate to the promotion of agricultural product that is produced on the site, such as wine and creating label recognition. There are other agricultural processing facilities (wineries) in the Dry Creek Valley area and along Westside Road. However, the level of service capacity along this section of Westside Road has not been exceeded. A revised traffic study has been completed for the project and it concluded that the project will result in less than significant impacts to transportation, including with the proposed relocation of the project driveway 20 ft south of its previously proposed location and the installation of a southbound deceleration/right turn lane off of Westside Road into the site.

As outlined in item (6) above, the total number of events will be limited to a maximum of 20 annually and any winemaker lunches and dinner will count toward this limit to achieve consistency with other use permit approvals.

The County has previously approved projects based upon findings that events are a compatible use for agricultural land because they are a marketing tool to insure the long term viability of wine sales and they promote the long-term viability of agriculture within the county. This initial study concludes that the project as proposed will either result in less than significant impacts or potentially significant impacts can be reduced to less than significant levels through required mitigation measures.

Significance Level:

Less than Significant Impact

c) Conflict with any applicable habitat conservation plan or natural community conservation plan?

Comment:
See discussion in Item 4.f. Habitat conservation plans and natural community conservation plans are site-specific plans to address effects on sensitive species of plants and animals. The project site is not located in an area subject to a habitat conservation plan or natural community conservation plan.

Significance Level:

No Impact

11. MINERAL RESOURCES:

Would the project:

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

Comment:
The project site is not located within a known mineral resource deposit area (Sonoma County Aggregate Resources Management Plan, 2010).

Significance Level:

No Impact

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

Comment:
The project site is not located within an area of locally-important mineral resource recovery site and the site is not zoned MR (Mineral Resources) (Sonoma County Aggregate Resources Management Plan, as amended 2010 and Sonoma County Zoning Code). No locally-important mineral resources are known to occur at the site.

Significance Level:

No Impact

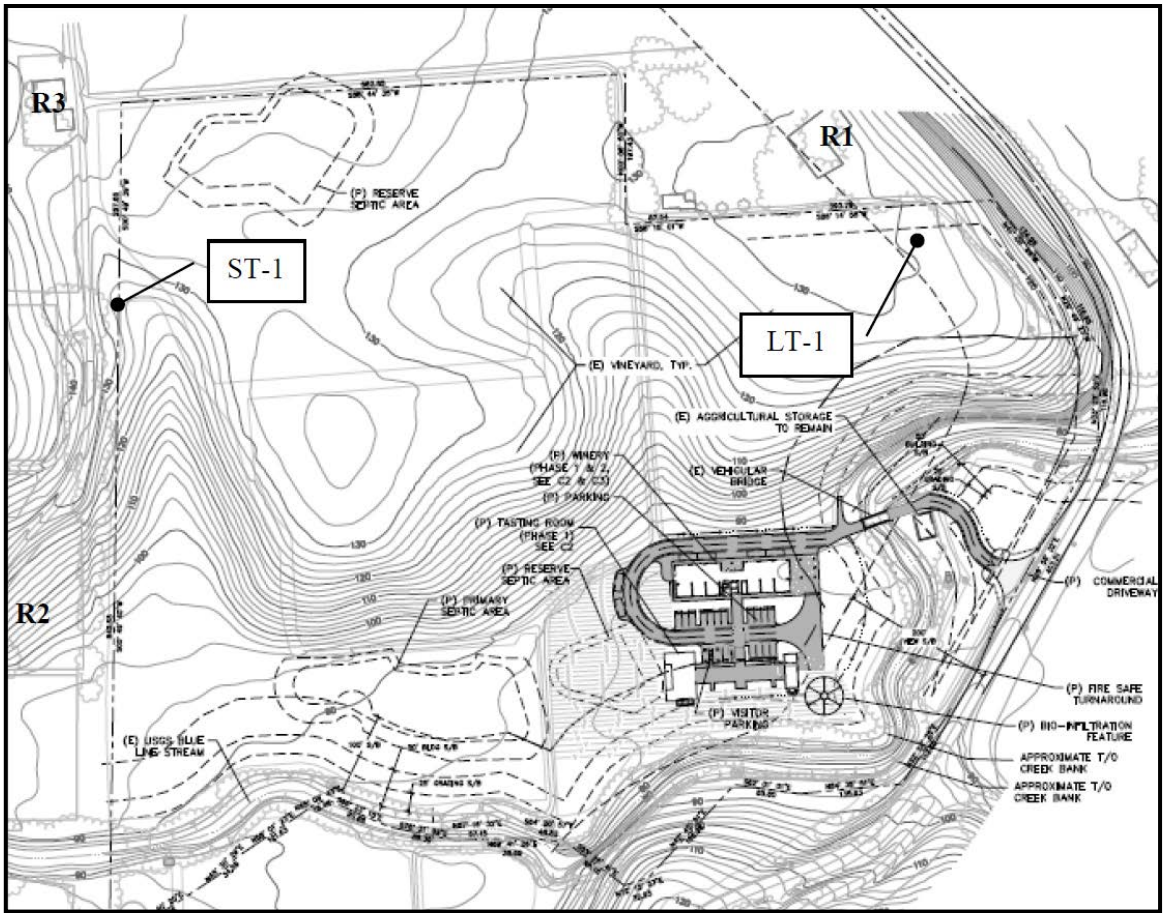
12. NOISE:

Would the project:

a) Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?

Comment:
The Noise Element of the Sonoma County General Plan establishes goals, objectives and policies, including performance standards, to regulate noise affecting residential and other sensitive receptors. The general plan sets separate standards for transportation noise and for noise from non-transportation land uses, identifying a site as “noise impacted” if it experiences noise levels of 60 dBA or greater. The noise standards are found in Table NE-2 in the General Plan.

Background
An Environmental Noise Assessment was prepared by Illingworth & Rodkin on September 25, 2015. The existing noise environment and potential noise impacts were considered for the nearest sensitive receptors, three residences. The property line of the nearest residence, to the north (R1), is approximately 400 feet from the center of the driveway serving the project site and 450 feet from the proposed structures. The property line of the residence to the west (R2) is approximately 700 feet to the west of the project driveway and 750 feet from the proposed structures. No distances are provided for the third residence (R3), which is located farther away than R2. See Environmental Noise Assessment Figure 1 below from noise study page 17.



Environmental Noise Assessment Figure 1 Site Plan Showing Noise Monitoring Locations and Receptors (R1, R2, and R3)

Existing Conditions
Noise levels were measured at Site LT-1 from the afternoon of Thursday, September 11, 2014 to the morning of Tuesday, September 16, 2014 to quantify existing conditions at a location considered acoustically equivalent to the nearest residence to the project site (R1). Existing ambient day-night average noise levels at Site LT-1 ranged from 47 to 50 dBA Ldn.

Proposed Conditions
The primary noise-producing activities associated with the project are vehicle traffic and parking lot activities, agricultural promotional events, maintenance and forklift operations, and seasonal production activities including crushing and bottling operations. Noted is that events with amplified music would be held indoors in the winery and tasting room building, with occasional use of outdoor acoustic music planned on the patio areas. Other potential noise sources are associated with the on-site wine production, which includes noise from refrigeration equipment, air compressors, seasonal crush activities, and bottling. Anticipated noise levels from each noise-producing activity are provided in the following tables.

TABLE 6 Site-Specific Promotional Event Driveway L08 Noise Levels

	L_{08} (Noise Level Exceeded 5 Minutes in any Hour)			
	Daytime		Nighttime	
Receptor	R1	R2	R1	R2
Unadjusted Table NE-2 Limit	60	60	55	55
Ambient Noise Levels	48	43	43	38
Driveway Noise Level	23	24	23	24
Operations Exceed Ambient by 10 dBA?	No	No	No	No
NE-2 Adjustment	0	0	0	0
Adjusted Table NE-2 Limit	60	60	55	55
Operations Exceed NE-2?	No	No	No	No

TABLE 7 Parking Lot L08 Noise Levels

	L_{08} (Noise Level Exceeded 5 Minutes in any Hour)			
	Daytime		Nighttime	
Receptor	R1	R2	R1	R2
Unadjusted Table NE-2 Limit	60	60	55	55
Ambient Noise Levels	48	43	43	38
Parking Lot Noise Level	30	32	30	32
Operations Exceed Ambient by 10 dBA?	No	No	No	No
NE-2 Adjustment	0	0	0	0
Adjusted Table NE-2 Limit	60	60	55	55
Operations Exceed NE-2?	No	No	No	No

TABLE 8 Special Event L50 Noise Levels

	L_{50} (Noise Level Exceeded 30 Minutes in any Hour)			
	Daytime Amplified Music		Daytime Non-Amplified Music	
Receptor	R1	R2	R1	R2
Unadjusted Table NE-2 Limit	50	50	50	50
Ambient Noise Levels	42	37	42	37
Special Event Noise Level	42	43	37	43
Operations Exceed Ambient by 10 dBA?	No	No	No	No
NE-2 Adjustment*	-5	-5	-5	-5
Adjusted Table NE-2 Limit	45	45	45	45
Operations Exceed NE-2?	No	No	No	No

*The adjusted noise threshold assumes that the sound source would consist primarily of music.

TABLE 9 Maintenance and Forklift Operations L08 Noise Levels

	L_{08} (Noise Level Exceeded 5 Minutes in any Hour)			
	Daytime		Nighttime	
Receptor	R1	R2	R1	R2
Unadjusted Table NE-2 Limit	60	60	55	55
Ambient Noise Levels	48	43	43	38
Maintenance and Forklift Operations Noise Level	42	43	42	43
Operations Exceed Ambient by 10 dBA?	No	No	No	No
NE-2 Adjustment	0	0	0	0
Adjusted Table NE-2 Limit	60	60	55	55
Operations Exceed NE-2?	No	No	No	No

TABLE10 Mechanical Equipment L50 Noise Levels

	L_{50} (Noise Level Exceeded 30 Minutes in any Hour)			
	Daytime		Nighttime	
Receptor	R1	R2	R1	R2
Unadjusted Table NE-2 Limit	50	50	45	45
Ambient Noise Levels	42	37	39	34
Mechanical Equipment Noise Level	35	37	35	37
Operations Exceed Ambient by 10 dBA?	No	No	No	No
NE-2 Adjustment	0	0	0	0
Adjusted Table NE-2 Limit	50	50	45	45
Operations Exceed NE-2?	No	No	No	No

TABLE 11a Crushing Related L50 Noise Levels

	L_{50} (Noise Level Exceeded 30 Minutes in any Hour)			
	Daytime		Nighttime	
Receptor	R1	R2	R1	R2
Unadjusted Table NE-2 Limit	50	50	45	45
Ambient Noise Levels	42	37	39	34
Crushing Related Noise Level	39	34	39	34
Operations Exceed Ambient by 10 dBA?	No	No	No	No
NE-2 Adjustment	0	0	0	0
Adjusted Table NE-2 Limit	50	50	45	45
Operations Exceed NE-2?	No	No	No	No

TABLE 11b Crushing Related L02 Noise Levels

	L_{02} (Noise Level Exceeded 1 Minute in any Hour)			
	Daytime		Nighttime	
Receptor	R1	R2	R1	R2
Unadjusted Table NE-2 Limit	65	65	60	60
Ambient Noise Levels	51	46	46	41
Crushing Related Noise Level	55	50	55	50
Operations Exceed Ambient by 10 dBA?	No	No	No	No
NE-2 Adjustment	0	0	0	0
Adjusted Table NE-2 Limit	65	65	60	60
Operations Exceed NE-2?	No	No	No	No

TABLE 12 Bottling Related L50 Noise Levels

	L_{50} (Noise Level Exceeded 30 Minutes in any Hour)			
	Daytime		Nighttime	
Receptor	R1	R2	R1	R2
Unadjusted Table NE-2 Limit	50	50	45	45
Ambient Noise Levels	42	37	39	34
Bottling Related Noise Level	42	42	42	42
Operations Exceed Ambient by 10 dBA?	No	No	No	No
NE-2 Adjustment	0	0	0	0
Adjusted Table NE-2 Limit	50	50	45	45
Operations Exceed NE-2?	No	No	No	No

Based on the findings in the Noise Assessment, Illingworth & Rodkin found noise associated with project operations is not expected to exceed the daytime or nighttime NE-2 noise standard at any residential property in the site vicinity. There would be no need for additional noise attenuation or operational controls in order to achieve compliance with the Table NE-2 noise limits. This noise assessment conclusion is based on the project description and design plans, which are incorporated into the following noise mitigation measures (see discussion in Item 12.d for construction-related noise impacts.)

Mitigation Measure NOI-1:
This project shall comply with the approved project description, including no amplified outdoor music shall be permitted. Crush pad siting shall be as shown in the submitted plans and subject to PRMD final approval.

Mitigation Monitoring NOI-1:
PRMD staff shall ensure that the measures are listed on all site alteration, grading, building or improvement plans, and prior to issuance of grading or building permits. Any noise complaints will be investigated by PRMD staff. If violations are found, PRMD shall seek voluntary compliance from the permit holder and thereafter may initiate an enforcement action and/or revocation or modification proceedings, as appropriate.

Significance Level:

Less than Significant with Mitigation Incorporated

b) Exposure of persons to or generation of excessive ground borne vibration or ground borne noise levels?

Comment:
The project includes construction activities that may generate ground borne vibration and noise. These levels would not be significant because they would be short-term and temporary, and would be limited to daytime hours. There are no other activities or uses associated with the project that would expose persons to or generate excessive ground borne vibration or ground borne noise levels. See discussion in Item 12.a and mitigation in Item 12.a and 12.d.

Mitigation Measure: See Mitigation Measure NOI-2.

Mitigation Monitoring: See Mitigation Monitoring NOI-2.

Significance Level:

Less than Significant with Mitigation Incorporated

c) A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?

Comment:
The project would not create or result in a substantial permanent increase in ambient noise levels. The proposed project would not significantly alter the noise environment on a permanent basis. See Item 12.a.

Significance Level:

Less than Significant Impact

d) A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?

Comment:
The proposed project would create temporary noise impacts related to construction, as well as periodic noise impacts related to crushing, bottling, and special events. See item 12.a for discussion about operational noise. Temporary construction noise can be mitigated to a less than significant level with incorporation of the following mitigation measure.

Mitigation Measure NOI-2:
Construction activities for this project shall be restricted as follows:

a) All internal combustion engines used during construction of this project will be operated with mufflers that meet the requirements of the State Resources Code, and, where applicable, the Vehicle Code. Equipment shall be properly maintained and turned off when not in use.
b) Except for actions taken to prevent an emergency, or to deal with an existing emergency, all construction activities shall be restricted to the hours of 7:00 a.m. and 7:00 p.m. on weekdays and 9:00 a.m. and 7:00 p.m. on weekends and holidays. If work outside the times specified above becomes necessary, the applicant shall notify the PRMD Project Review Division as soon as practical.
c) There will be no start up of machines nor equipment prior to 7:00 a.m., Monday through Friday or 9:00 am on weekends and holidays; no delivery of materials or equipment prior to 7:00 a.m. nor past 7:00 p.m., Monday through Friday or prior to 9:00 a.m. nor past 7:00 p.m. on weekends and holidays and no servicing of equipment past 7:00 p.m., Monday through Friday, or weekends and holidays. A sign(s) shall be posted on the site regarding the allowable hours of construction, and including the developer's phone number for public contact.
d) Pile driving activities shall be limited to 7:30 a.m. to 7:00 p.m. weekdays only.

e) Construction maintenance, storage and staging areas for construction equipment shall avoid proximity to residential areas to the maximum extent practicable. Stationary construction equipment, such as compressors, mixers, etc., shall be placed away from residential areas and/or provided with acoustical shielding. Quiet construction equipment shall be used when possible.
f) The developer shall designate a Project Manager with authority to implement the mitigation prior to issuance of a building/grading permit. The Project Manager's phone number shall be conspicuously posted at the construction site. The Project Manager shall determine the cause of noise complaints (e.g. starting too early, faulty muffler, etc.) and shall take prompt action to correct the problem.

Mitigation Monitoring NOI-2:
PRMD staff shall ensure that the measures are listed on all site alteration, grading, building or improvement plans, and prior to issuance of grading or building permits. Any noise complaints will be investigated by PRMD staff. If violations are found, PRMD shall seek voluntary compliance from the permit holder and thereafter may initiate an enforcement action and/or revocation or modification proceedings, as appropriate.

Significance Level:

Less than Significant with Mitigation Incorporated

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

Comment:
The site is not within an airport land use plan as designated by Sonoma County.

Significance Level:

No Impact

f) For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?

Comment:
There are no known private airstrips within the project area and people residing or working in the project area would not be exposed to excessive noise.

Significance Level:

No Impact

13. POPULATION AND HOUSING:

Would the project:

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

Comment:
This project is a Use Permit for a proposed winery. It will not induce substantial population growth through proposing new homes and businesses or indirectly through means such as road or other infrastructure extension. No new homes or infrastructure improvements are proposed.

Significance Level:

No Impact

b) Displace substantial numbers of existing housing necessitating the construction of replacement housing elsewhere?

Comment:
No housing will be displaced by the project and no replacement housing is proposed to be constructed.

Significance Level:

No Impact

c) Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?

Comment:
No people will be displaced by the project and no replacement housing will be required.

Significance Level:

No Impact

14. PUBLIC SERVICES:

Would the project:

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

Comment:
The project will not result in substantial adverse impacts such that governmental services and/or facilities will have to be expanded. The proposed winery and tasting room and special events can be accommodated by existing services as follows:

Significance Level:

Less than Significant Impact

i. Fire protection?

Comment:
Sonoma County Code requires that all new development meet Fire Safe Standards (Chapter

13). The County Fire Marshal reviewed the project description and requires that the expansion comply with Fire Safe Standards, including fire protection methods such as sprinklers in buildings, alarm systems, extinguishers, vegetation management, hazardous materials management and management of flammable or combustible liquids and gases. This is a standard condition of approval and required by county code and impacts would be less than significant.

Significance Level:

Less than Significant Impact

ii. Police?

Comment:
The Sonoma County Sheriff will provide service to this area. There is no anticipated significant increased need for police protection resulting from the proposed project.

Significance Level:

Less than Significant Impact

iii. Schools, parks, or other public facilities?

Comment:
The project will not generate additional students; nor will it significantly increase demand for park (see Comment 15.a) or other public facilities.

Significance Level:

No Impact

iv. Parks?

Comment:
See Comment 15.a

Significance Level:

No Impact

v. Other public facilities?

Comment:
There are no other public facilities would be adversely impacted by this project.

Significance Level:

No Impact

15. RECREATION:

Would the project:

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

Comment:
The project consists of a new winery with tasting and events. The project would not involve activities that would cause or accelerate substantial physical deterioration of parks or recreational facilities.

Significance Level:

No Impact

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

Comment:
The project consists of a new winery with a tasting room and agricultural events. This proposal does not include recreational facilities or require the construction or expansion of recreational facilities, which might have an adverse physical effect on the environment.

Significance Level:

No Impact

16. TRANSPORTATION / TRAFFIC:

Would the project:

a) Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit?

Comment:
Westside Road provides access to the project site. The Sonoma County General Plan 2020 Circulation and Transit Element Figure CT-4 identifies Westside Road as a Rural Major Collector.

W-Trans completed a revised traffic study for the proposed Rudd Winery, tasting room and special events on May 11, 2016. The traffic analysis concluded that the proposed project would generate an average of 186 trips on a daily basis, including 35 p.m. peak hour trips and 39 weekend midday peak hour trips. During harvest, the proposed project would generate 274 new daily trips, including 54 p.m. peak hour trips and 59 weekend midday peak trips. Additionally, the study looked separately at traffic generated by agricultural promotional events. It indicated that since these only occurred 37 times annually (not including winemaker lunch/dinners), they should be viewed separately from other site traffic. The highest number of

trip ends was 136 trips for the maximum-sized 150 guest event, which would be composed of 68 trips in and 68 trips out. Since this event would be held on a Saturday afternoon, W-Trans concluded that it would be at a time when employees that work weekdays would not be on the site. However, the trip count includes eight additional employees needed to staff the special event. Because the traffic analysis found project-generated traffic to be less than significant, it would have less than significant impacts on the area's circulation, including plans, ordinances and policies.

W-Trans submitted additional Level of Service Analysis for the proposed winery and tasting room on April 14, 2017 as follows:

Existing Conditions:
Traffic counts were provided by County staff for Westside Road north of Felta Road. These volumes are substantially higher than the counts obtained further south on Westside Road, near the site. These volumes were used to present a more conservative assessment. It is noted that counts as well as future volumes are only readily available for a weekday, so the following assessment represents this time period only. It is further noted that weekday p.m. peak hour counts are typically higher than weekend counts, so this time period normally reflects worst case conditions. Based on this available data, Westside Road carried 364 vehicles during the p.m. peak hour, which translates to LOS C operation.

Future Conditions:
Future volumes on this segment of Westside Road were obtained from the travel demand model maintained by the Sonoma County Transportation Authority (SCTA). Based on the data reviewed, an estimated future volume of 507 vehicles per hour was used for the analysis, resulting in continued LOS C operation.

Plus Project Conditions:
The proposed project is expected to generate 35 trips during the weekday peak hour, with 11 in (southbound) and 24 out (northbound). Assuming that a 100-person event would begin during the weekday peak hour, and conservatively assigning all trips in one direction (southbound, from Healdsburg), 40 event-related trips were added to the trips associated with typical daily operation. It is noted that some employees would likely remain at the site for an event, if one were to start during the peak hour, but no deductions were taken to reflect this. Even using these conservative assumptions, Westside Road would be expected to continue operating at LOC C upon adding project-generated trips to either existing or future volumes. The report reached the following conclusions:

- Westside Road is currently operating at LOS C and is expected to continue doing so in the future, including the worst case analysis of adding trips associated with operation of the winery during harvest together with a 100-person event.
- Traffic volumes on weekend days would be expected to be less than those during the weekday p.m. peak commute.
- Volumes would need to increase beyond the levels projected for 2040 and using a worst case assessment with trips added based on both the harvest-period trip generation and a special event; this condition would be unlikely to occur even once a year. It therefore appears reasonable to conclude that the project has a less-than-significant impact on traffic operation.

The Sonoma County Traffic Engineering & Land Development reviewed the W-Trans analysis and conclusions and found them to be acceptable.

More recently, and in response to comments and concerns noted during the BZA hearing in 2017, the applicant submitted a revised site plans that would relocate the proposed entry driveway approximately 20 feet south from the previously proposed location. The project

frontage improvements for this new driveway location would also include the addition of a southbound right-turn lane which will provide space for southbound vehicles to decelerate as they turn right into the project, to allow the removal of vehicles from the path of travel of southbound traffic approaching the site form the north.

In January 2018, the project traffic engineer provided a supplemental analysis, a review of sight distance conditions at the access to the proposed project off of Westside Road. Sight distance from the proposed driveway location was evaluated looking both in the northbound and southbound directions. A traffic speed survey was also conducted Results of the analysis are summarized below.

The posted speed limit on Westside Road near the project site is 45 miles per hour (mph) with a 25-mph advisory speed south of the site for northbound traffic and a 30-mph advisory speed north of the site for the southbound traffic. There is an existing driveway to the Rudd Winery property located approximately 1,190 feet south of Boehm Road and 3,700 feet north of Wohlenberg Road. The project driveway is proposed to be reconstructed and relocated 20 feet south of its current location to further address concerns noted during the BZA public hearing. This new driveway position was used for all sight distance measurements.

As reported previously, speed surveys were collected on December 1, 2015 to determine the speed at which southbound traveling drivers exit the curve just north of the project driveway. The 85th percentile of southbound vehicle speeds was found to be 35 mph, which is higher than the posted advisory speed sign of 30 mph, but lower than the posted speed limit of 45 mph. An additional speed survey was conducted on October 8, 2015; however, these surveys were focused on traffic on the straightway along the project frontage and not on the exit to the curves to the north and south of the project.

New speed surveys were completed during midday on Friday, October 27, 2017 as well as Tuesday, November 7, 2017 for both 1) southbound approaching vehicles north of the driveway and 2) northbound approaching vehicles south of the driveway. Weather conditions during these periods were clear and dry. The average speed for both movements was recorded at 29 mph and the 85th percentile speed was 33 mph for both locations.

Sight distance to the north = 330 feet
Sight distance to the south = 335 feet

At speeds of 35 mph, 250 feet of stopping sight distance is recommended for motorists on Westside Road. Sight lines with vegetation removal and at the location of the proposed driveway are approximately 335 feet, which is an adequate distance for speeds of 42 to 43 mph.

For left-turn movements onto Westside Road without requiring the through traffic to radically alter their speed, a sight distance of 390 feet is suggested in both directions for a design speed of 35 mph. With only 330-335 feet of sight distance available, approaching vehicles would have to slow to 30 mph as vehicles are exiting the driveway. This is reasonable and common condition on roads similar to Westside Road.

For right-turn movements onto Westside Road without requiring the through traffic to radically alter their speed, a sight distance of 335 feet to the north is required for a design speed of 35 mph. With a sight distance of 330 feet to the north, the majority of vehicles on Westside Road would not have to slow as they approach exiting vehicles turning right onto Westside Road.

Based on the sight distance analysis and AASHTO criteria, the W-Trans analysis found that results are in compliance with the County of Sonoma Guidelines for Traffic impact Studies. County TPW reviewed and accepted the analysis findings.

No additional recommendations are made other than relocating the driveway 20 feet to the south, as proposed, and removing vegetation to increase the sight distance in both directions.

Significance Level:

Less than Significant Impact

b) Conflict with an applicable congestion management program, including, but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways?

Comment:
Refer to discussion Item 16.a. and the conclusions of the W-Trans May 11, 2016 and April 14, 2017 reports. W-Trans conclude that the proposed project would not significantly impact adjacent intersections, roadways, or highways, given the relatively low number of vehicle trips it would generate. The report concluded that neither a left-turn or right-turn lane nor a right-turn taper are warranted on Westside Road at the proposed driveway for peak hour traffic or special event traffic. A subsequent analysis was conducted by the project traffic engineer, see section 16.a, above, and further addressed project traffic movements based on a new driveway location and placement of a southbound deceleration lane approaching the driveway. With proposed project traffic, the report concludes that all intersection/roadways would be expected to operate within the above County prescribed standards

Significance Level:

Less than Significant Impact

c) Result in change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?

Comment:
The project would have no effect on air traffic patterns.

Significance Level:

No Impact

d) Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?

Comment:
The W-Trans traffic analysis concludes the Westside Road has experienced collisions at a rate below the statewide average and exhibits an acceptable safety profile. It determined that the speed on northbound Westside Road approaching the driveway was 36 mph while the 350 foot sight distance to the south of the proposed driveway exceeded the minimum 250 foot requirements for an approach speed of 40 mph so is more than adequate for the prevailing speed. Sight to the north of the proposed driveway along Westside Road of 310 feet is more than adequate for the 250 feet necessary for southbound vehicles traveling at 35 mph, which is the speed drivers were exiting the curve to the north of the driveway. The report does recommend that that landscaping along the project frontage be planted and maintained to be less than three feet in height to maximize the availability of clear sight lines to provide drivers

traveling southbound with a clear view of the driveway prior to accelerating out of the curve to the north of the driveway.

Department of Transportation and Public Works requires as a condition of approval the construction of a commercial driveway entrance for Westside Road with a minimum paved throat width of 20 feet measured 30 feet from the edge of pavement. This driveway must enter Westside Road as close to perpendicular as possible subject to the approval of an encroachment permit.

Mitigation Measure TRAF-1
Landscaping along the project frontage north of the driveway shall be planted and maintained to be less than three feet in height to maximize the availability of clear sight lines to provide drivers traveling southbound with a clear view of the driveway prior to accelerating out of the curve to the north of the driveway. This action shall be coordinated with Mitigation Measure AES-1.

Mitigation Monitoring TRAF-1
PRMD shall review final landscape plans for the area along Westside Road frontage north of the driveway and restrict landscaping to plant species reaching a height of three feet or less.

Mitigation Measure TRAF-2
Department of Transportation and Public Works requires the construction of a commercial driveway entrance for Westside Road with a minimum paved throat width of 20 feet measured 30 feet from the edge of pavement. This driveway must enter Westside Road as close to perpendicular as possible subject to the approval of an encroachment permit.

Mitigation Monitoring TRAF-2
Prior to the issuance of grading or building permit, Department of Transportation and Public Works shall review and approve the design for construction of a commercial driveway entrance from Westside Road and shall approve final driveway installation.

A subsequent analysis was conducted by the project traffic engineer, see section 16.a, above, and further addressed project traffic movements based on a new driveway location and placement of a southbound deceleration lane approaching the driveway. With proposed project traffic, the report concludes that all intersection/roadways would be expected to operate within the above County prescribed standards

Significance Level:

Less than Significant with Mitigation Incorporated.

e) Result in inadequate emergency access?

Comment:
Driveway access shall be upgraded to meet all Sonoma County Fire Safe Standards for emergency vehicle access, as required by the conditions of approval.

Significance Level:

Less than Significant Impact

f) Conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities?

Comment:
There are currently no pedestrian or bicycle facilities on Westside Road, though the roadway is

frequently used for bicycle trips. The traffic analysis indicates that there are plans to include Class III bicycle facilities based on the 2014 SCTA Bicycle and Pedestrian Plan. The 2010 Sonoma County Bicycle and Pedestrian plan designates Westside Road as a proposed Class III bike route. The plan encourages new developments to incorporate bicycle friendly design. Some visitors may utilize bicycles to access the proposed project site. Bicycle racks will be required to be located at the winery site based on the County bicycle parking standards of 1 space per 5 required vehicle parking spaces. The report concludes that the project proposes no changes that would impede any existing or future pedestrian or bicycle improvements.

Significance Level:

Less than Significant Impact

g) Result in inadequate parking capacity?

Comment:
The traffic analysis for this project concluded that the site plan, which provided a total of 75 on-site parking spaces, "…is more than adequate for the largest special event as well as for harvest conditions."

In response to comments received at the BZA hearing regarding potential for traffic entering the site backing up onto Westside Road (in crossing the one-lane bridge leading into the property), the applicant has amended their application with the addition of space for 68 vineyard row event parking spaces to accommodate the largest agricultural promotional event with 150 guests (60 spaces for guests + 8 spaces for event staff). Such event parking spaces would be located on a one way loop located west from the proposed tasting room building in addition to 27 permanent parking spaces located adjacent to proposed buildings.

A standard condition of approval prohibits on-street parking for any winery facility parking need, including promotional events. The conditions of approval will require on-site traffic control for all events to assure all parking needs are provided on-site for events. Parking attendants shall be trained in advance to assure proper management of event circulation and parking needs.

Significance Level:

Less Than Significant Impact

17. UTILITIES AND SERVICE SYSTEMS:

Would the project:

a) Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?

Comment:
The project includes a new septic system that will be sized to accommodate the fifth largest event per PRMD Policy 9-2-31. New system design and demonstration of reserve areas will be done under permit and meet current standards from the PRMD Well and Septic Section. The applicant has completed groundwater test and percolation tests. The Project Review Health Specialist will receive a final clearance from the Well and Septic Section that all required septic system testing and design elements have been satisfied.

Significance Level:

Less than Significant Impact

b) Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?

Comment:
The project will be served by a private on-site septic system and a private well. It will not require the construction of a new water or wastewater facilities or the expansion of existing facilities.

Significance Level:

No Impact

c) Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?

Comment:
Drainage improvements will consist of on-site improvements meeting PRMD Grading and Stormwater Section requirements. See Section 9, Hydrology and Water Quality, for drainage discussion

Significance Level:

Less than Significant Impact

d) Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?

Comment:
The project will be served by a private well and not from a water system. See Section 9, Hydrology and Water Quality, for water supply discussion.

Significance Level:

No Impact

e) Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?

Comment:
The project will be served on-site septic and will not be served by a wastewater treatment provider. It will therefore not impact a wastewater treatment provider's ability to serve the project's projected demand capacity.

Significance Level:

No Impact

f) Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?

Comment:
Sonoma County has a solid waste management program in place that provides solid waste collection and disposal services for the entire County. The program can accommodate the permitted collection and disposal of the waste that would result from the proposed project.

Significance Level:

No Impact

g) Comply with federal, state, and local statutes and regulations related to solid waste?

Comment:
Sonoma County has access to adequate permitted landfill capacity to serve the proposed project. The project will comply with federal, state and local statutes and regulations related to solid waste

Significance Level:

No Impact

18. MANDATORY FINDINGS OF SIGNIFICANCE

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

As demonstrated by this environmental checklist, the project with the proposed mitigation measures and monitoring identified in other sections of this initial study will not have any direct or indirect adverse effects that would have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory. Mitigation measure have been included where necessary to reduce any potential impacts related to these items to less than significant levels.

Less than Significant with Mitigation Incorporated.

b) Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?

The project would develop a type agricultural processing and tasting room uses on the property. Cumulative impacts could include development of other residential, agricultural, and winery uses in the project area and traffic impacts associated with such development. As noted in this Initial Study, this project as conditioned will not result in significant adverse impacts related to traffic, water supply, safety or noise, though policy considerations related to the

winery and events will be considered as part of the Use Permit. The project will not make a considerable contribution to any other significant cumulative impacts. Based on the discussion in Section 10. Land Use and Section 16. Transportation/Traffic, the proposal will not result in any cumulative land use or traffic impacts.

Less than Significant Impact

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

The project would not result in any significant environmental effects, which will cause substantial adverse effect to human being either directly or indirectly. Based on the discussion and information provide in this initial study, the project's environmental effects will not cause either direct or indirect significant adverse effects on human beings.

Less than Significant Impact

References

Sources

1. PRMD staff evaluation based on review of the project site and project description.

2. Sonoma County Important Farmland Map 1996. California Department of Conservation, Division of Land Resource Protection, Farmland Mapping and Monitoring Program.

3. Assessor's Parcel Maps.

4. BAAQMD CEQA Guidelines (2017); Bay Area Air Quality Management District; California Air Resources Board (CARB) http://www.arb.ca.gov/

5. California Natural Diversity Database, California Department of Fish & Wildlife.

6. Habitat Assessment, Westside Road Winery and Tasting Room, Wildlife Research Associates and Jane Valerius Environmental Consulting, June 2014.

7. Supplemental Habitat Assessment Report, Jane Valerius Environmental Consulting, February 2018.

8. Revised Traffic Study for the Rudd Wines Winery and Tasting Room, W-Trans, May 2016.

9. Sight Distance Review - Rudd Wines Winery and Tasting Room, W-Trans, January 2018.

10. Environmental Noise Assessment, Rudd Wines Winery and Tasting Room, Illingworth & Rodkin, September 2015.

11. Sonoma County General Plan 2020 (as amended), Sonoma County Board of Supervisors, September 23, 2008.

12. California Environmental Protection Agency - http://www.calepa.ca.gov/SiteCleanup/corteseList/default.htm; California Regional Water Quality Control Board - http://geotracker.swrcb.ca.gov/; California Dept of Toxic Substances Control http://www.dtsc.ca.gov/database/calsites/cortese_list.cfm, and Integrated Waste Management Board - http://www.ciwmb.ca.gov/SWIS/Search.asp

13. Alquist-Priolo Special Studies Zones; State of California; 1983.

14. Flood Insurance Rate Maps, Federal Emergency Management Agency.

15. American National Standard for Tree Care Operations – Tree, Shrub, and Other Woody Plant Maintenance – Standard Practices, Pruning (ANSI A300 (Part 1)-2008 Pruning), American National Standard Institute (ANSI) and National Arborist Association (NAA), 2008;

16. Best Management Practices: Tree Pruning, International Society of Arboriculture (ISA), 2008.

17. Tree Protection and Replacement Ordinance (Ordinance No. 4014); Sonoma County.

18. Valley Oak Protection Ordinance (Ordinance No. 4991); Sonoma County, December 1996.

19. Heritage or Landmark Tree Ordinance (Ordinance No. 3651); Sonoma County.

20. Manual of Standards for Erosion and Sediment Control Measures, Association of Bay Area Governments; May, 1995.

21. Soil Survey of Sonoma County, California, Sonoma County, U.S. Department of Agriculture; 1972.

22. Evaluation of Groundwater Resources, California Department of Water Resources; 1975.

23. Sonoma County Congestion Management Program, Sonoma County Transportation Authority; December 18, 1995.

24. Sonoma County Bicycle and Pedestrian Plan, Sonoma County Permit and Resource Management Department, August 24, 2010.

Attachments

1. Westside Road Winery Appeal Cover Letter.
2. Project Plans, Revised 1-11-2018.
3. Traffic Study.
4. Traffic Sight Distance Review.
5. Habitat Assessment Report.
6. Supplemental Habitat Assessment Report.
7. Noise Report.
8. Letter Water Use Update.
9. Groundwater Peer Review by neighbors EBA

Attachment 1

2416 E 37th St. North, Wichita, KS

February 2, 2018

County of Sonoma
Mr. Gary Broad
2550 Ventura Avenue
Santa Rosa, CA 95403-2829

RE: 4603 Westside RD Healdsburg CA 95448 APN# 110-11-026

Dear Mr. Broad,

In advance of the pending appeal for 4603 Westside Road winery use permit application, we have compiled the following information to supplement the appeal. These studies provided by the W-Trans traffic engineer, architects and various experts will help the Board of Supervisors and the community to understand the project is safe, sustainable, and compatible with the neighborhood and designed to meet the zoning/general plan consistencies.

This letter shall serve as an introduction to the additional work that has been completed to meet the desires of the local neighborhood, safety and compatibility for the application. Below please find a summary of the additional work completed to date on the project:

1. Traffic/Public Safety – the project meets all traffic safety standards and it is not detrimental to the health and safety of persons residing or working in the neighborhood and it is not detrimental to the general welfare of the area. Below listed findings and design revisions include the following:

    - W-Trans Traffic Engineer Steve Weinberger completed supplemental traffic analysis and issued them in a Supplemental Letter dated 01/18/18.
    - Speed survey completed on 10/08/2017 and 11/07/2017 confirmed average speed for southbound and northbound movements at 29 mph and the 85th percentile speed at 33 mph for both locations.
    - Field measurements confirmed sight distance to the north to be 330 feet and sight distance to the south to be 335 feet. In this measurement, W-Trans assumed vegetation trimming proposed by the Property Owner within boundary of the project site at each curve. The measurement was calculated to the entry driveway that is proposed to be located 20 feet south from the existing entry driveway. Specific measures to perform the vegetation trimming were analyzed and defined

in the Supplemental Biological Habitat Assessment prepared by Jane Valerius Environmental Consulting dated 01/23/18.

- Sight distance assessment confirmed that looking north for an approach speed of 35 mph, 250 feet of stopping sight distance is recommended and for a 40 mph approach speed, 305 feet is recommended. The 330 feet available is more than adequate for the 35 mph critical speed sampled at the point where drivers would first be able to see and react to a vehicle exiting the driveway.
- Sight distance assessment confirmed that looking south for an approach speed of 35 mph, 250 feet of stopping sight distance is recommended. The 335 feet available is more than adequate for up to 42-43 mph speed.
- The sight distance analysis confirm compliance with AASHTO criteria and results are in compliance with the County of Sonoma Guidelines for Traffic Impact Studies.
- To minimize potential interference between vehicle entering the project site on a southbound approach and to minimize potential queuing caused by 150 guests special event, the Owner proposed addition of a southbound right-turn lane which will provide space for southbound vehicles to decelerate as they turn into the project, thus removing them from the path of travel of bicyclists, local residents, scenic view and other agriculture related drivers.
- At the BZA hearing concerns were raised regarding the possibility of traffic backing up because of the one lane bridge near the entrance. This was in the context of the few large events. The staff recommended and the Owner accepts Condition 43 on-site traffic control. To completely eliminate any chance of queuing on the bridge, the Owner proposes the addition of space for 68 vineyard row event parking spaces to accommodate largest agricultural promotional (special) event with 150 guests (60 spaces for guests + 8 spaces for event staff). Such event parking spaces shall be located on a one way loop located west from the proposed tasting room building in addition to 31 permanent parking spaces located adjacent to proposed buildings. With this, there should be no occasion for cars not being able to move efficiently to parking.

2. Event and Tasting Room Traffic – The addition of winery and tasting room with proposed industry wide and agricultural promotional (special) events and other promotional activities would not result in a traffic and public safety hazard.

    - The proposed winery with relatively small production capacity for 10,000 cases of red and white varietal wines is commensurate to the size of the property and other Westside Road wineries. Addition of operational traffic and tasting room traffic is within general parameters of the existing agriculture related traffic in this neighborhood.
    - Location of the proposed winery on Westside Road is consistent with all current policies in the General Plan and/or Zoning Ordinance. There is no current policy in General Plan and/or Municipal Code that defines maximum amount of wineries within certain geographic area nor minimum distance between two or more adjacent wineries.

3. Neighborhood Compatibility – The establishment, maintenance or operation of the proposed winery in this location will not be detrimental to the health, safety, peace, comfort and general welfare of persons residing or working in the neighborhood, nor be detrimental to the general welfare of the area.

    - The proposed design and location of the winery production building and tasting room, proposed operations and events were carefully refined following feedback from the general public, neighbors, neighborhood groups and planning staff. Multiple studies were conducted and adjustments addressed raised concerns from various parties. The proposed use is compactible and suitable for this neighborhood that is heavily comprised of various agricultural uses and occasional residential properties scattered along Westside Road. Proposed design of buildings have been reviewed and approved in the Preliminary Design Review completed by Sonoma County Design Review Committee.
    - The proposed use and design in existing neighborhood conforms to provisions of the General Plan and Municipal Code. No policy defining maximum intensity of development and overconcentration of proposed use currently exists.

4. Zoning and General Plan Inconsistency – Although the Project was recommended for approval by Planning Staff, the Resolution of Denial relies on General Plan Policy AR-6f. However, the evidence presented does not support a finding that the Project violates this Policy. The issue raised by AR-6f is whether the concentration of wineries in this area is detrimental to the primary use of the land for production of food, fiber and plant materials. That is, denial is only appropriate if the use is detrimental to these actual agricultural uses. The existing agricultural production on-site is not impacted by the use are:

    (1) "will the uses result in joint road access conflicts or traffic levels exceed the Traffic Element level of service." There are no joint road access issues and as W-Trans finds, Westside Road is and will continue to operate at acceptable levels of service.

    (2) "Whether the above uses would draw water from the same aquifer and be located with the zone of influence of area wells." As the hydrological reports conclude, the well here is not operating within the zone of influence of area wells.

    (3) "Whether the above uses would be detrimental to the rural character of the area." The winery facility is set well back of Westside Road and because of the riparian corridor between it and the road, it is not visible. It is visible from only one off-site location. It will have no impact on the appearance of the area character. More to the point, this factor only relates to issues of agricultural production.

We are pleased to submit this additional information in support of the project. Should you have questions or comments on the above referenced material, please feel free to reach out to myself or Dusan Motolik.

Yours truly,

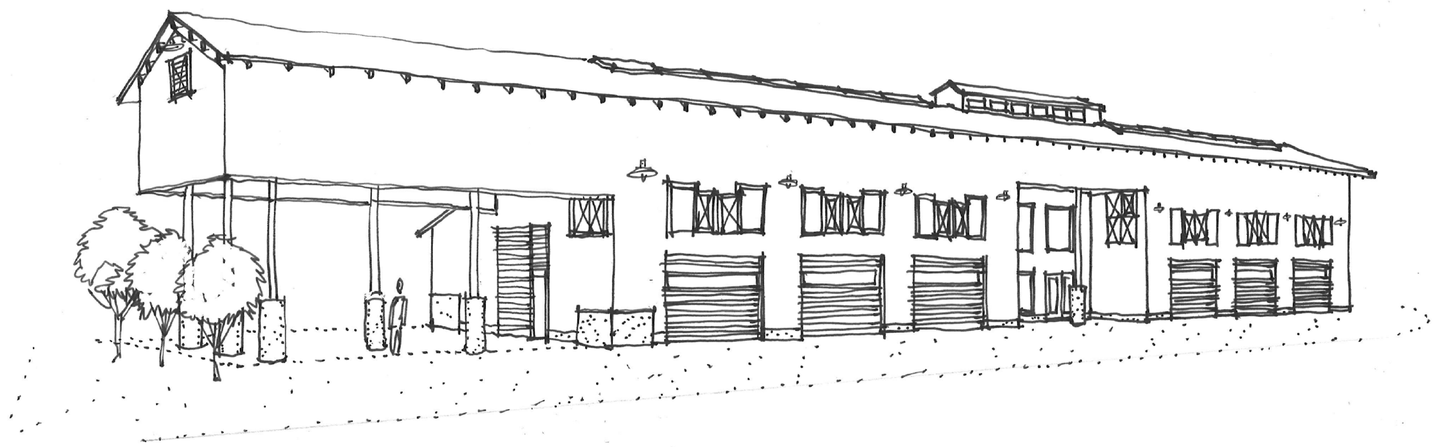
Chris Economou
Vice President Real Estate
Rudd Properties

68 Coombs Suite 10 | Napa, CA 94559
Office: 707.948.2688 | Cell: 415.420.5761
chris.economou@lrico.com

Attachment 2

&	AND	H.P.	HEAT PUMP
@	AT	HT.	HEIGHT
℄	CENTERLINE		
		I.D.	INSIDE DIAMETER
ACOUS.	ACOUSITCAL	I.G.	INSULATED GLASS
ADJ.	ADJACENT	INSUL.	INSULATION
A.F.F.	ABOVE FINISH FLOOR	INT.	INTERIOR
A.F.G.	ABOVE FINISH GRADE		
AL.	ALUMINUM	LAM.	LAMINATE
APPROX.	APPROXIMATE	LAV.	LAVATORY
ARCH.	ARCHITECTURAL	LT./LTG.	LIGHT/LIGHTING
BD.	BOARD	K.E.C.	KITCHEN EQUIPMENT CONTRACTOR
BK.	BLOCK		
BLDG.	BUILDING	MAX.	MAXIMUM
BLKG.	BLOCKING	M.C.	MECHANICAL CONTRACTOR
BM.	BEAM	MECH.	MECHANICAL
B.O.	BOTTOM OF	MFR.	MANUFACTURER
BOT.	BOTTOM	MGR.	MANAGER
		MIN.	MINIMUM
CAB.	CABINET	MISC.	MISCELLANEOUS
C.B.	CATCH BASIN	MLDG.	MOLDING
CD.	CRITICAL DIMENSION	MTD./MTG.	MOUNTED/MOUNTING
CEM.	CEMENT	MTL.	METAL
CER.	CERAMIC		
CL.	CLOSET	(N)	NEW
CLG.	CEILING	N.I.C.	NOT IN CONTRACT
CLR.	CLEAR	N.T.S.	NOT TO SCALE
CNTR.	COUNTER		
COL.	COLUMN	O.C.	ON CENTER
CONC.	CONCRETE	O.D.	OUTSIDE DIAMETER
CONN.	CONNECTION	OPP.	OPPOSITE
CONST.	CONSTRUCTION		
CONT.	CONTINUOUS	P.C.	PLUMBING CONTRACTOR
CONTR.	CONTRACTOR	PL.	PLATE
CTR.	CENTER	PLAM.	PLASTIC LAMINATE
		PLAS.	PLASTER
DBL.	DOUBLE	PLYWD.	PLYWOOD
DEPT.	DEPARTMENT	PR.	PAIR
DET.	DETAIL	PRHT.	PARTIAL HEIGHT
D.F.	DOUGLAS FIR	P.T.	PRESSURE TREATED
DIA.	DIAMETER	PT. / PTD.	PAINT / PAINTED
DIM.	DIMENSION		
DISP.	DISPENSER	R.	RADIUS
DN.	DOWN	R.A.G.	RETURN AIR GRILLE
D.S.	DOWN SPOUT	R.C.P.	REFLECTED CEILING PLAN
D.W.	DISH WASHER	R.D.	ROOF DRAIN
DWG.	DRAWING	RCP.	RECEPTACLE
DWR./DWRS.	DRAWER(S)	REFRG.	REFRIGERATOR
		REQ.	REQUIRED
(E)	EXISTING	RM.	ROOM
EA.	EACH	RWD.	REDWOOD
E.C.	ELECTRICAL CONTRACTOR	R.W.L.	RAINWATER LEADER
EL.	ELEVATION		
ELEC.	ELECTRICAL	S&R	SHELF AND ROD
ELEV.	ELEVATOR	S.A.	SMOKE ALARM
EMER.	EMERGENCY	S.A.D.	SUPPLY AIR DIFFUSER
ENCL.	ENCLOSURE	SAN.	SANITARY
EQ.	EQUAL	S.C.	SOLID CORE
EQP.	EQUIPMENT	SCHED.	SCHEDULE
EXT.	EXTERIOR	SECT.	SECTION
		SHT.	SHEET
F.A.	FIRE ALARM	SIM.	SIMILAR
F.D.	FLOOR DRAIN	SPEC.	SPECIFICATION
FDN.	FOUNDATION	SQ.	SQUARE
F.F.	FINISH FACE	S.S.	STAINLESS STEEL
FIN.	FINISH	STD.	STANDARD
FIN. FL.	FINISH FLOOR	STL.	STEEL
FLUOR.	FLUORESCENT	STR.	STRUCTURE
F.P.	FIRE PROOF	SURF.	SURFACE(S)
F.R.	FIRE RATED, FIRE RESISTIVE	SUSP.	SUSPENDED
F.R.P.	FIBER REINFORCED PANEL		
F.T.	FIRE TREATED	TEMP.	TEMPERED
FT.	FOOT/ FEET	T.O.	TOP OF
FTG.	FOOTING	TRAN.	TRANSOM
		T.V.	TELEVISION
GA.	GAUCE	TYP.	TYPICAL
GALV.	GALVANIZED		
G.B.	GRAB BAR	U.O.N.	UNLESS OTHERWISE NOTED
G.C.	GENERAL CONTRACTOR		
G.D.	GARBAGE DISPOSAL	VERT.	VERTICAL
GL.	GLASS	V.I.F.	VERIFY IN FIELD
GND.	GROUND		
GYP.	GYPSUM	W.C.	WATER CLOSET
		WD.	WOOD
H.B.	HOSE BIBB	W.R.	WATER RESISTANT
HDWD.	HARDWOOD	WT.	WEIGHT
HDWR.	HARDWARE	WWM.	WELDED WIRE MESH
H.M.	HOLLOW METAL	W/	WITH
HOR.	HORIZONTAL	W/O	WITHOUT

5 ABBREVIATIONS



4 WINERY BUILDING PERSPECTIVE

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2250 VENTURA AVENUE
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CIVIL & ENVIRONMENTAL ENGINEER
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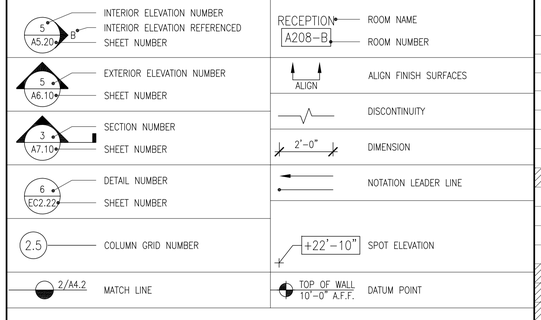
CONTACT: BEN MONROE
T (707) 542-8795
E BenM@alwayseng.com

3 PROJECT TEAM



2 GRAPHIC SYMBOLS

SHEET NUMBER	TITLE	REVISION SUMMARY						
		PRELIM. D.R. REV. 1	BZA DESIGN CHANGE REV. 2	BZA DESIGN CHANGE REV. 3	BZA ISSUE REV. 4	REV. 5		
A0.00	COVER SHEET	06/23/15	08/28/15	12/11/15	05/19/17	01/17/18		
A0.10	PROJECT INFORMATION	06/23/15	08/28/15	12/11/15	05/19/17	01/17/18		
A0.11	FIRE DEPARTMENT SAFE STANDARDS	06/23/15	08/28/15	12/11/15				
A0.12	(E) SITE PHOTOGRAPHS	06/23/15	08/28/15	12/11/15	05/19/17			
A1.00	PROPERTY OVERALL SITE PLAN	06/23/15	08/28/15	12/11/15	05/19/17	01/17/18		
A1.10	PROPERTY OVERALL SITE PLAN – EVENT PARKING					01/17/18		
A1.20	WINERY & TASTING ROOM SITE PLAN	06/23/15	08/28/15	12/11/15	05/19/17	01/17/18		
A1.30	WINERY & TASTING ROOM SITE PLAN (PHASE 1 & 2)	06/23/15						
A2.00	ENTRY GATE	06/23/15	08/28/15	12/11/15	05/19/17	01/17/18		
A2.10	TASTING ROOM PLAN	06/23/15	08/28/15	12/11/15	05/19/17			
A2.20	TASTING ROOM ELEVATIONS		08/28/15	12/11/15				
A2.30	TASTING ROOM ELEVATIONS AND SECTIONS		08/28/15	12/11/15	05/19/17			
A3.00	WINERY FLOOR PLAN (PHASE 1)	06/23/15	08/28/15					
A3.10	WINERY EXTERIOR ELEVATIONS (PHASE 1)	06/23/15	08/28/15					
A3.20	WINERY EXTERIOR ELEVATIONS & SECTIONS (PHASE 1)	06/23/15	08/28/15					
A4.00	WINERY FLOOR PLAN	06/23/15	08/28/15	12/11/15				
A4.10	WINERY EXTERIOR ELEVATIONS & SECTION	06/23/15	08/28/15	12/11/15				
A4.20	WINERY EXTERIOR ELEVATION & SECTIONS	06/23/15	08/28/15	12/11/15				
A4.30	WINERY LONGITUDINAL SECTION	06/23/15	08/28/15	12/11/15				
A5.00	ENTRY GATE COLOR STUDY & MATERIAL PALETTE	06/23/15	08/28/15	12/11/15	05/19/17			
A5.10	TASTING ROOM COLOR STUDY & MATERIAL PALETTE	06/23/15	08/28/15	12/11/15				
A5.20	WINERY COLOR STUDY & MATERIAL PALETTE		08/28/15	12/11/15				
C1	OVERALL SITE PLAN	06/23/15	08/28/15	12/11/15		01/17/18		
C2	GRADING AND DRAINAGE	06/23/15	08/28/15	12/11/15		01/17/18		
C3	EROSION CONTROL PLAN	06/23/15	08/28/15	12/11/15		01/17/18		
C4	STOPPING SIGHT DISTANCE PLAN					01/17/18		
C5	RIGHT TURN LANE PLAN					01/17/18		

1 SHEET INDEX

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ST. HELENA, CA 94574
TELEPHONE 707 967 1930
FAX/EMAIL 707 967 1934

WESTSIDE ROAD WINERY AND TASTING ROOM

4603 WESTSIDE ROAD, HEALDSBURG, CA 95448

Date	12/11/2015
Drawn By	NP
Checked By	DM
Project No.	201154

Date	Issue
05/06/2015	PRELIMINARY DESIGN REVIEW
06/23/2015	PRELIMINARY DESIGN REVIEW-REV1
08/28/2015	BZA DESIGN CHANGE-REV2
12/11/2015	BZA DESIGN CHANGE-REV3
05/19/2017	BZA ISSUE-REV4
01/17/2018	REV5

COVER SHEET

NTS

A0.00

PROJECT ADDRESS: 4603 WESTSIDE ROAD, HEALDSBURG, CA 95448

ASSESSORS PARCEL NO: 110–110–026–000

PROJECT SUMMARY: REPLACE THE EXISTING ENTRY GATE & FENCE WITH NEW, PROVIDE SITE ACCESS VIA A NEW FIRE LANE ROAD WITH TURNAROUND, NEW 10,000 CASES PRODUCTION CAPACITY WINERY BUILDING AND TASTING ROOM BUILDING WITH PARKING LOT AND LANDSCAPING

APPLICABLE CODES:
SONOMA COUNTY ZONING REGULATIONS
2013 CALIFORNIA BUILDING CODE WITH SONOMA COUNTY AMENDMENTS.
2013 CALIFORNIA MECHANICAL CODE WITH SONOMA COUNTY AMENDMENTS.
2013 CALIFORNIA PLUMBING CODE WITH SONOMA COUNTY AMENDMENTS.
2013 CALIFORNIA ELECTRICAL CODE WITH SONOMA COUNTY AMENDMENTS.
2013 CALIFORNIA FIRE CODE WITH SONOMA COUNTY AMENDMENTS.
2013 CALIFORNIA ENERGY WITH SONOMA COUNTY AMENDMENTS.

CONSTRUCTION TYPE:	TASTING ROOM WINERY	TYPE V–B TYPE V–B
OCCUPANCY GROUP:	TASTING ROOM WINERY	A–2 F–2, S–2
SPRINKLERS:	TASTING ROOM WINERY	PROPOSED SPRINKLERED PROPOSED SPRINKLERED

EXITING: PROVIDED IN COMPLIANCE WITH CBC 2013

SANITARY FACILITIES: PROVIDED IN COMPLIANCE WITH CPC 2013

PARKING SPACES RATIO: SEE PARKING ANALYSIS 1/A0.10

(E) VEHICLE BRIDGE: HAZARDOUS H920 RATING
BRIDGE PERMIT #BLD07 – 6112 AREA 01

(E) WATER TANK: PERMIT #BLD08 – 0816 AREA 01

6 PROJECT DATA

ACRES:	26.2
ZONING:	LIA 86 40 Z, F2 SR VOH
LAND USE	LIA40
LAND USE POLICIES:	NOT APPLICABLE
PLANNING AREA POLICIES:	NOT APPLICABLE
PLANNING AREA:	3 HEALDSBURG
URBAN SERVICE AREAS	NOT APPLICABLE
GROUND WATER AVAILABILITY AREAS:	ZONE –1 MAJOR GROUND WATER BASIN
AREA AND SPECIFIC PLAN	NOT APPLICABLE
REDEVELOPMENT PLAN:	NOT APPLICABLE
LOCAL AREA DEVELOPMENT GUIDELINE:	NOT APPLICABLE
WILLIAMSON LAND CONTRACT:	TYPE 1 CONTRACT
CITY SPHERE OF INFLUENCE	NOT APPLICABLE
CITY URBAN GROWTH:	NOT APPLICABLE
FLOOD PRONE URBAN AREA	NOT APPLICABLE
AIR QUALITY CONTROL BOARD:	NORTHERN SONOMA COUNTY AIR POLLUTION CONTROL DISTRICT
WALVER PROHIBITION AREA	NORTH COAST REGION.
WET WEATHER ZONE:	F– HEALDSBURG
SUPERVISOR DISTRICT	DISTRICT 4– MIKE McGUIRE
FIRE PROTECTION RESPONSIBILITY AREA	LOCAL, STATE.
USGS QUAD	20C

2 PROPERTY GIS DATA

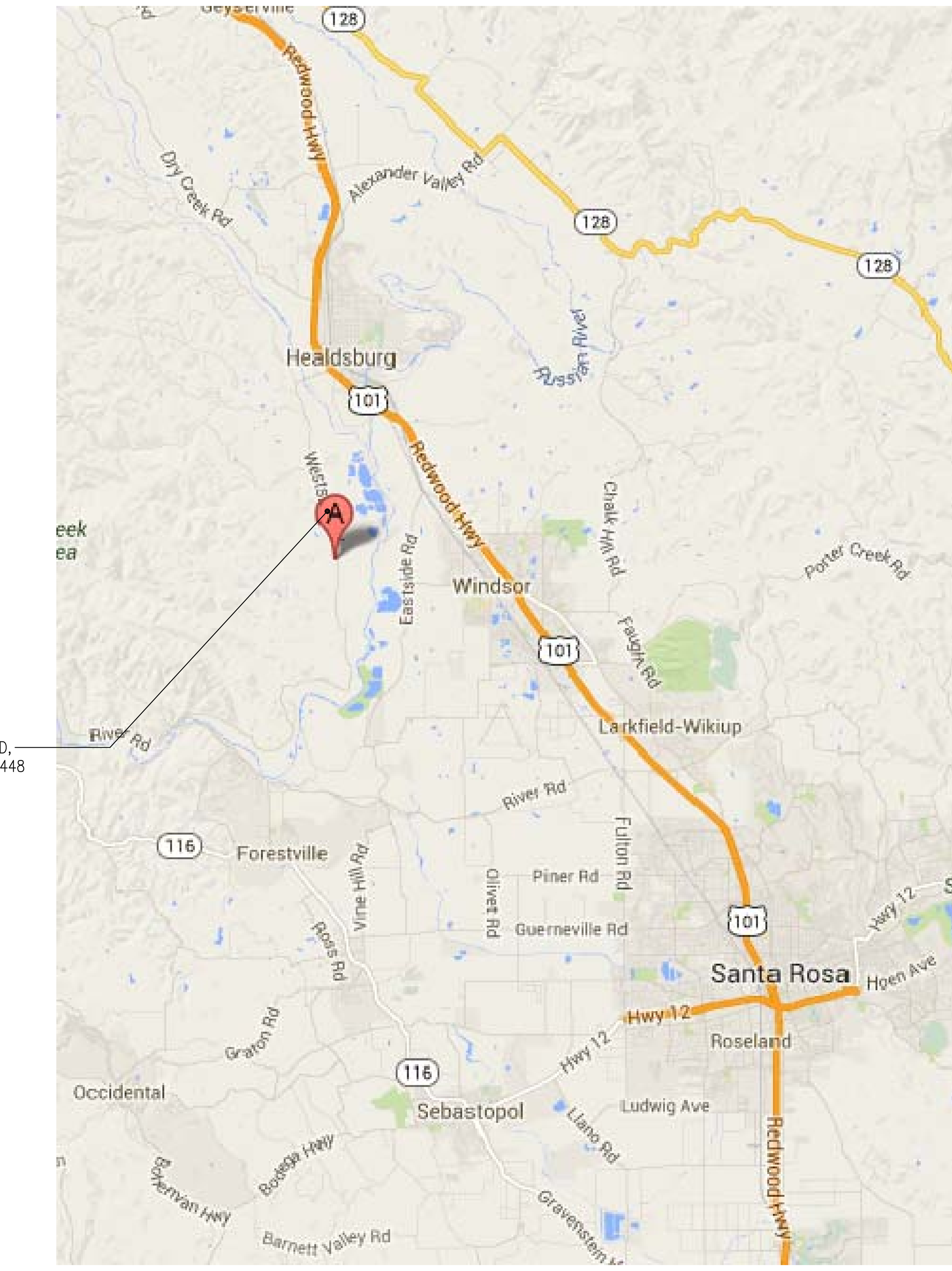
LAND USE TYPE	OCCUPANCY	AREA	PARKING RATIO (SEC.26–86–010)	NUMBER OF PARKING SPACES REQUIRED		NUMBER OF PARKING SPACES PROVIDED
WINERY BUILDING	F–2 (WINE PROCESSING)	4,555 SQ. FT.	1 PARKING SPACE PER 500 SQ. FT. GROSS BUILDING FLOOR AREA FOR WINE PROCESSING	9.11	28.17	30
	S–2 (WAREHOUSE)	2,360 SQ. FT.	1 PARKING SPACE PER 2,000 SQ.FT. GROSS BUILDING FLOOR AREA FOR WAREHOUSING	1.18		
	F–2 (WINE PROCESSING) UNCONDITIONED	1,230 SQ. FT.	1 PARKING SPACE PER 500 SQ. FT. GROSS BUILDING FLOOR AREA FOR WINE PROCESSING	2.46		
TASTING BUILDING	TASTING SERVICE AREA	842 SQ. FT.	1 PARKING SPACE PER 60 SQ. FT. TASTING SERVICE FLOOR AREA	14.03		
	RETAIL AREA	206 SQ. FT.	1 PARKING SPACE PER 200 SQ. FT. RETAIL FLOOR AREA	1.03		
	OFFICE	90 SQ. FT.	1 PARKING SPACE PER 250 SQ. FT. OFFICE FLOOR AREA	0.36		

NOTES:

1. SEE A4.00 WITH GROSS BUILDING FLOOR AREAS LISTED FOR WINERY BUILDING.
2. SEE A2.10 WITH FLOOR AREAS LISTED FOR TASTING BUILDING.
3. SEE A1.10 FOR VINEYARD PARKING TO ACCOMMODATE LARGE AGRICULTURAL PROMOTIONAL (SPECIAL) EVENT FOR 150 GUESTS.

1 PARKING ANALYSIS

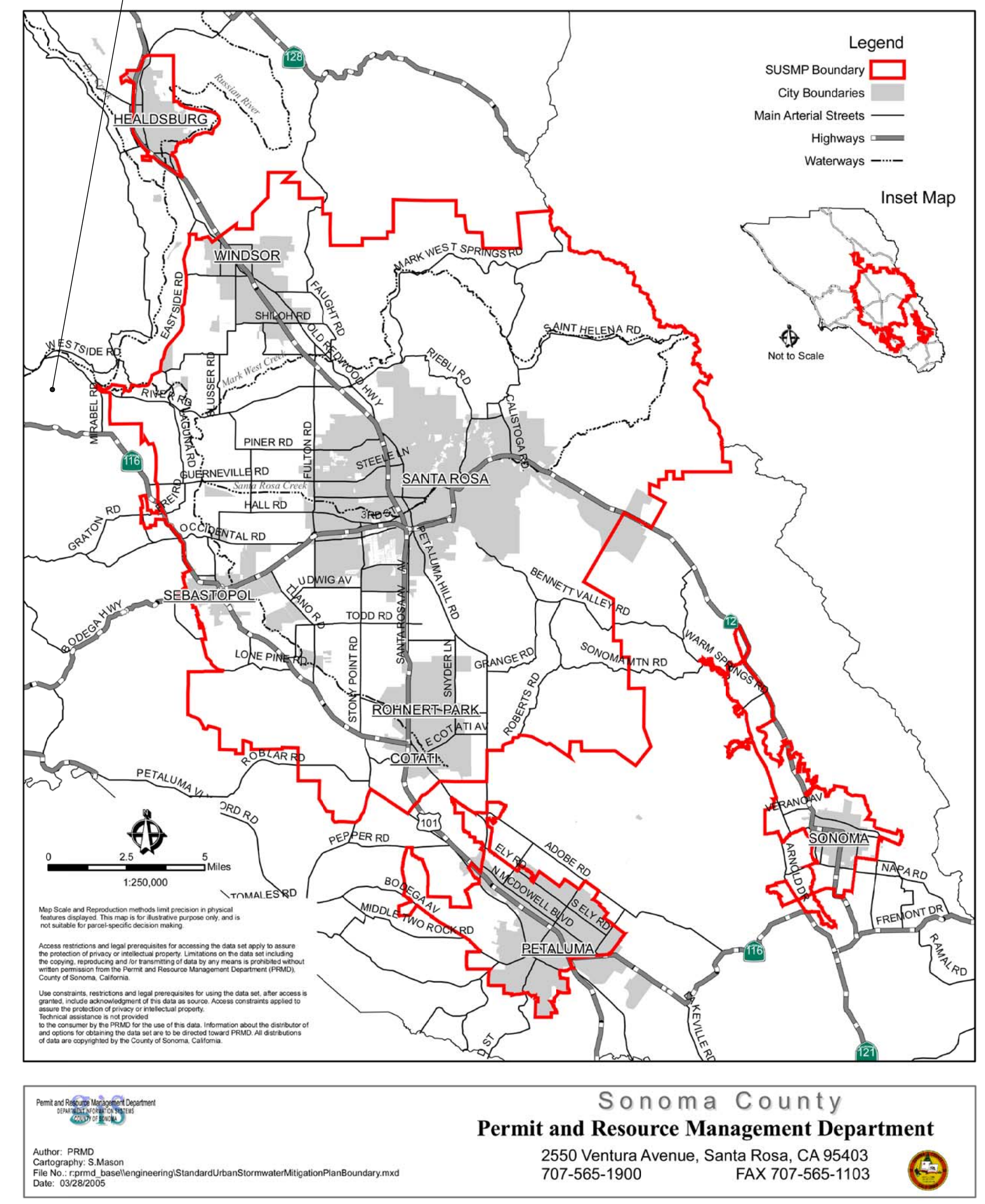
4603 WESTSIDE ROAD, HEALDSBURG, CA 95448



4 VICINITY MAP

NTS

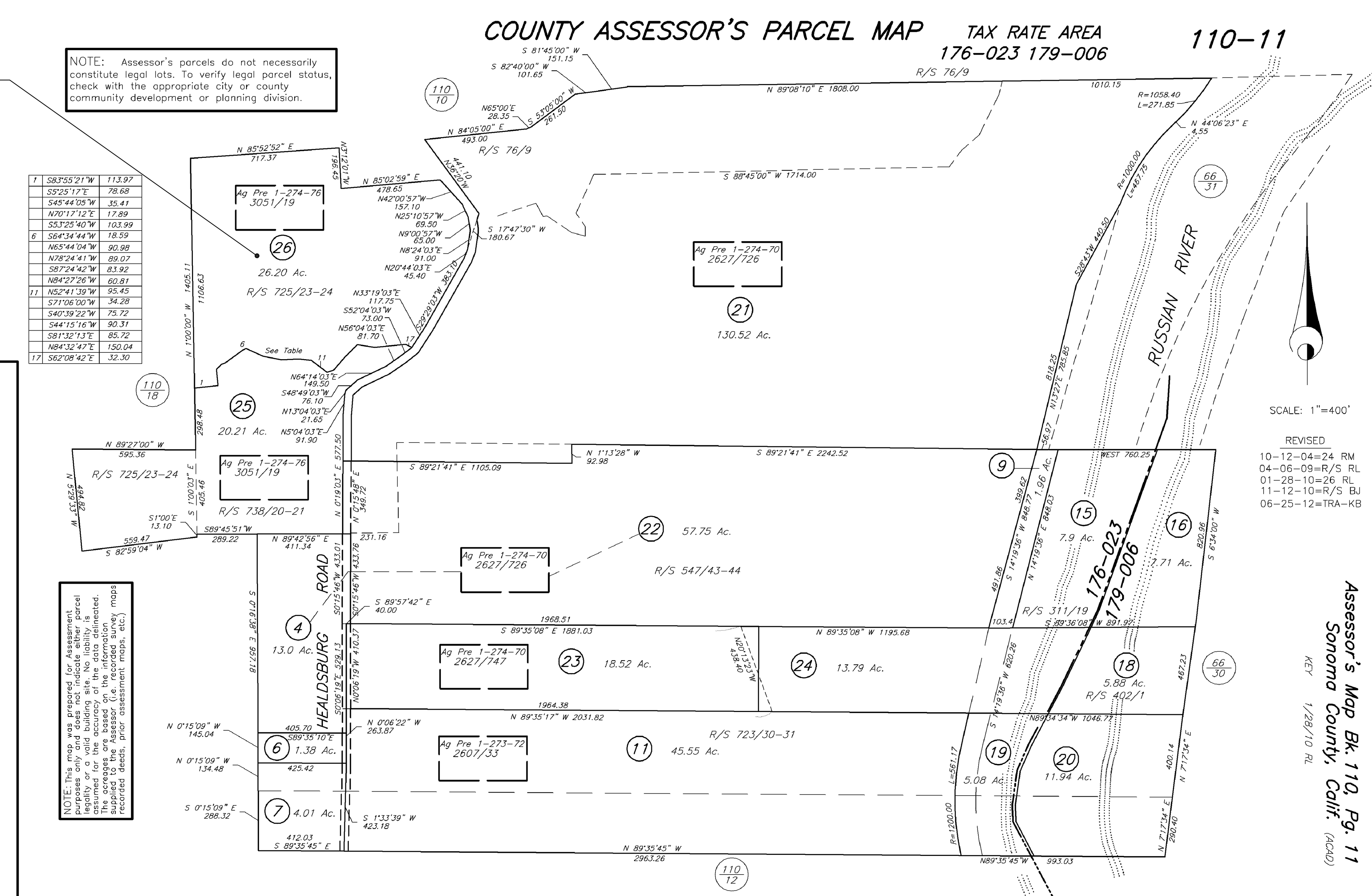
4603 WESTSIDE ROAD, HEALDSBURG, CA 95448. PROPERTY LOCATION OUTSIDE OF STANDARD URBAN STORM WATER MITIGATION BOUNDARY AND IS NOT SUBJECT FOR THIS REGULATION ENFORCEMENT



5 STANDARD URBAN STORM WATER ONE SPACE MITIGATION PLAN BOUNDARY

NTS

4603 WESTSIDE ROAD, HEALDSBURG, CA 95448



2 COUNTY ASSESSORS PARCEL MAP

NTS

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architects

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FACSIMILE 415 289 3866

1421 MAIN STREET
ST. HELENA CALIF 94574
TELEPHONE 707 967 1920
FACSIMILE 707 967 1924

WESTSIDE ROAD WINERY AND TASTING ROOM

4603 WESTSIDE ROAD, HEALDSBURG, CA 95448

Date	12/11/2015
Drawn By	NP
Checked By	DM
Project No.	201154

Date	Issue
05/06/2015	PRELIMINARY DESIGN REVIEW
06/23/2015	PRELIMINARY DESIGN REVIEW-REV1
08/28/2015	BZA DESIGN CHANGE-REV2
12/11/2015	BZA DESIGN CHANGE-REV3
05/19/2017	BZA ISSUE-REV4
01/17/2018	REV5

PROJECT INFORMATION

NTS

A0.10

1/17/2018 S:\2011\201154 - Rudd Westside Road\1-Drawings\01-Current\Use Permit Application Set\A0.10.dwg

ALL BRIDGES

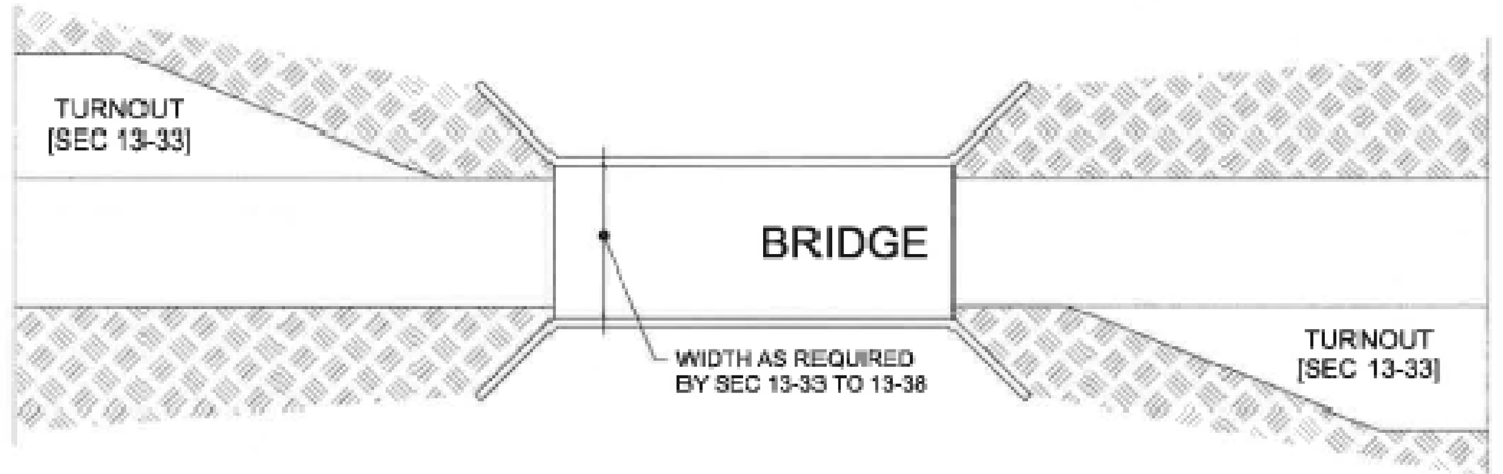
- HS 20 LOADING [SEC 13-33(a)]
- SIGNS INDICATING WEIGHT LIMIT AND VERTICAL CLEARANCE LIMITS [SEC 13-33 (b)]
- COMBINATION VEHICLE/PEDESTRIAN GUARD RAILS BOTH SIDES

ONE LANE BRIDGE

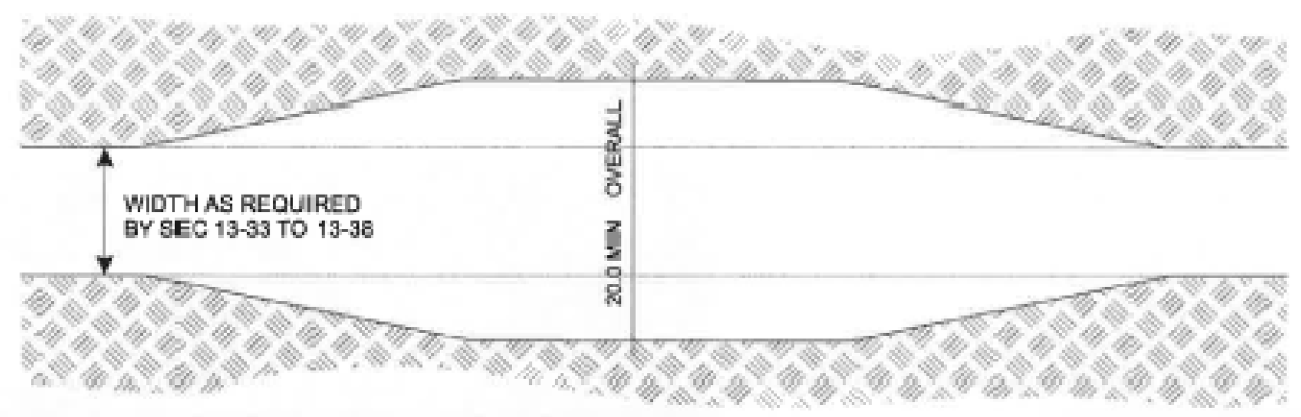
- MINIMUM WIDTH: 12.0' [SEC 13-33(c)] EXCEPT DRIVEWAYS WITH MAXIMUM LENGTH OF 65' IN WHICH CASE MINIMUM WIDTH MAY BE 10.0'
- SIGNS INDICATING ONE WAY OR ONE LANE CONDITION [SEC 13-33 (b)]
- UNOBSTRUCTED VISIBILITY ENTIRE LENGTH [SEC 13-33(c)]
- TURNOUTS AT BOTH ENDS [SEC 13-33(c)]

BRIDGE WIDTH: 12'
MAX. LOAD: 80,000 LBS

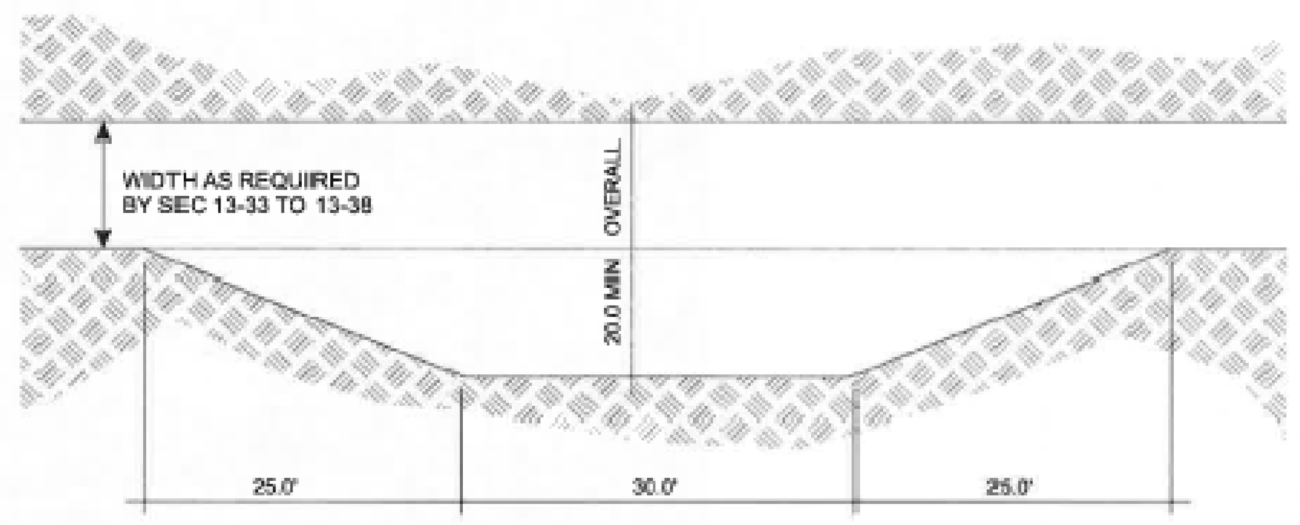
SIGN EXAMPLE
NOT TO SCALE



SEC 13-33 BRIDGES	FIRE SAFE STANDARDS	
SONOMA COUNTY FIRE AND EMERGENCY SERVICES DEPARTMENT	1/16" = 1'-0" SCALE 02/11/03 REVISION DATE	F5 DRAWING NO



BULGE TURNOUT

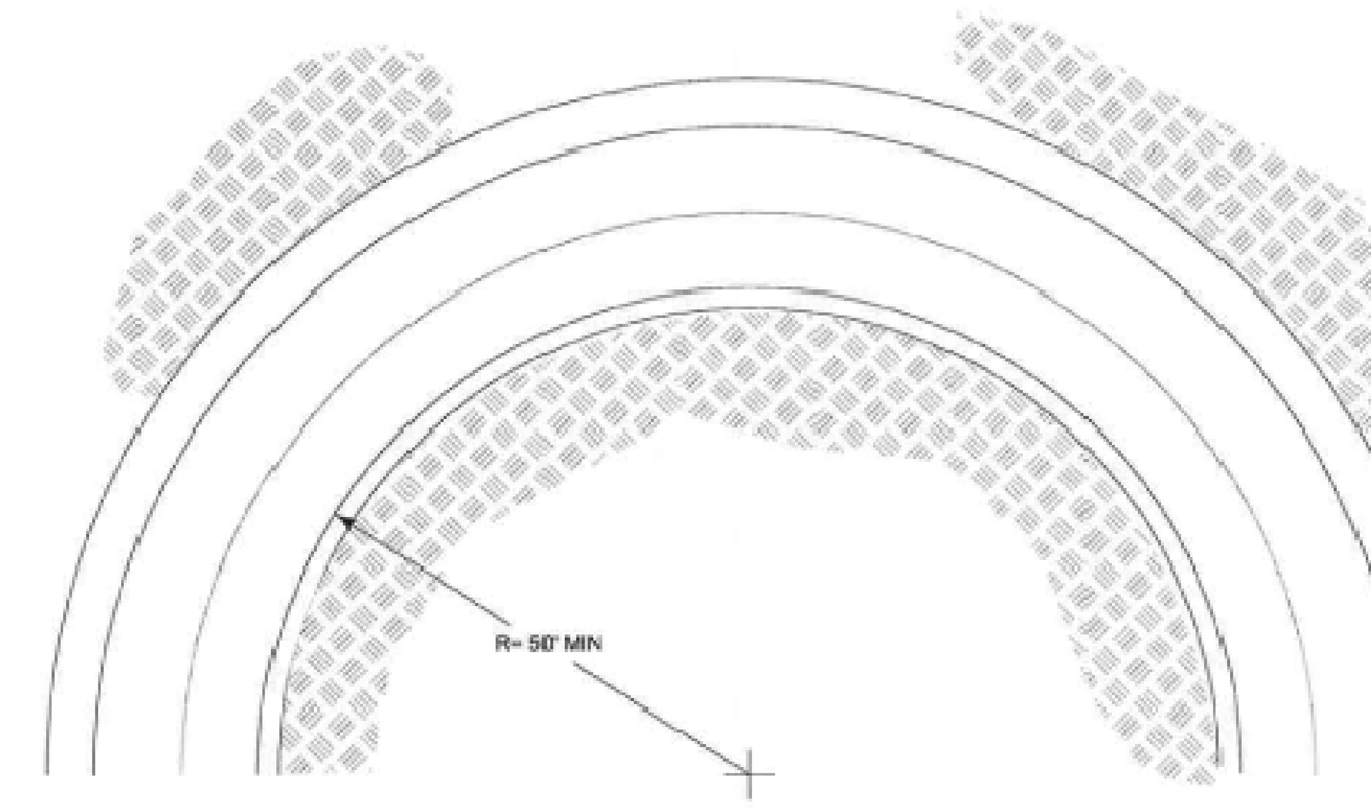


TURNOUT

[SEC 13-37(b)] ALL DRIVEWAYS EXCEEDING ONE HUNDRED FIFTY (150) FEET IN LENGTH SHALL HAVE A TURNOUT CONSTRUCTED AT APPROXIMATELY THE MIDPOINT OF THE DRIVEWAY. ANY DRIVEWAY EXCEEDING EIGHT HUNDRED (800) FEET IN LENGTH SHALL HAVE TURNOUTS CONSTRUCTED APPROXIMATELY EVERY FOUR HUNDRED (400) FEET ALONG THE ENTIRE LENGTH OF THE DRIVEWAY.

[SEC 13-35(c)] ALL ONE-WAY ROADS EXCEEDING FIVE HUNDRED (500') IN LENGTH SHALL HAVE A TURNOUT CONSTRUCTED AT APPROXIMATELY THE MIDPOINT OF THE ROAD. ANY ONE-WAY ROAD EXCEEDING ONE THOUSAND FEET (1000') IN LENGTH SHALL ALSO HAVE TURNOUTS CONSTRUCTED APPROXIMATELY EVERY FIVE HUNDRED FEET (500') ALONG THE ENTIRE LENGTH OF THE ROAD.

SEC 13-37(b) & SEC 13-35(c) TURNOUT	FIRE SAFE STANDARDS	
SONOMA COUNTY FIRE AND EMERGENCY SERVICES DEPARTMENT 2300 COUNTY CENTER DR Santa Rosa, California 95403 Telephone (707) 565-1152 Fax (707) 565-1172	1/16" = 1'-0" SCALE 02/11/03 REVISION DATE	F7 DRAWING NO

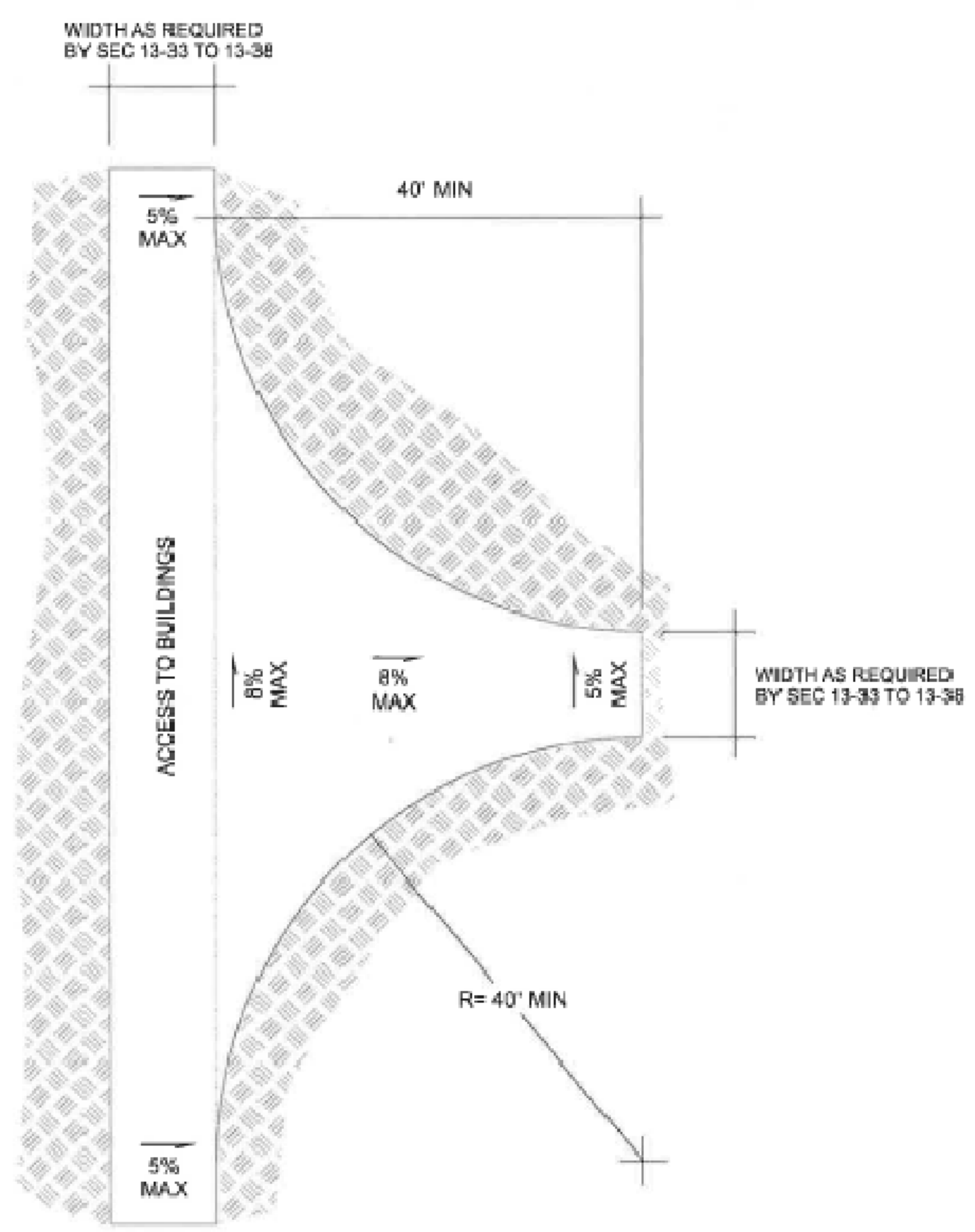


HORIZONTAL CURVE TURNING RADIUS, ROAD/DRIVEWAY
SECTION 13-32

- HORIZONTAL INSIDE RADIUS 50' MIN
- ADDITIONAL WIDTHS ARE REQUIRED:
  4' IF RADIUS IS LESS THAN 100' AND A CENTRAL ANGLE > 45 DEGREES
  2' IF RADIUS IS 100' TO 200' AND A CENTRAL ANGLE > 45 DEGREES
- TURNOUTS ARE NOT ALLOWED ON THE INSIDE OF CURVES.

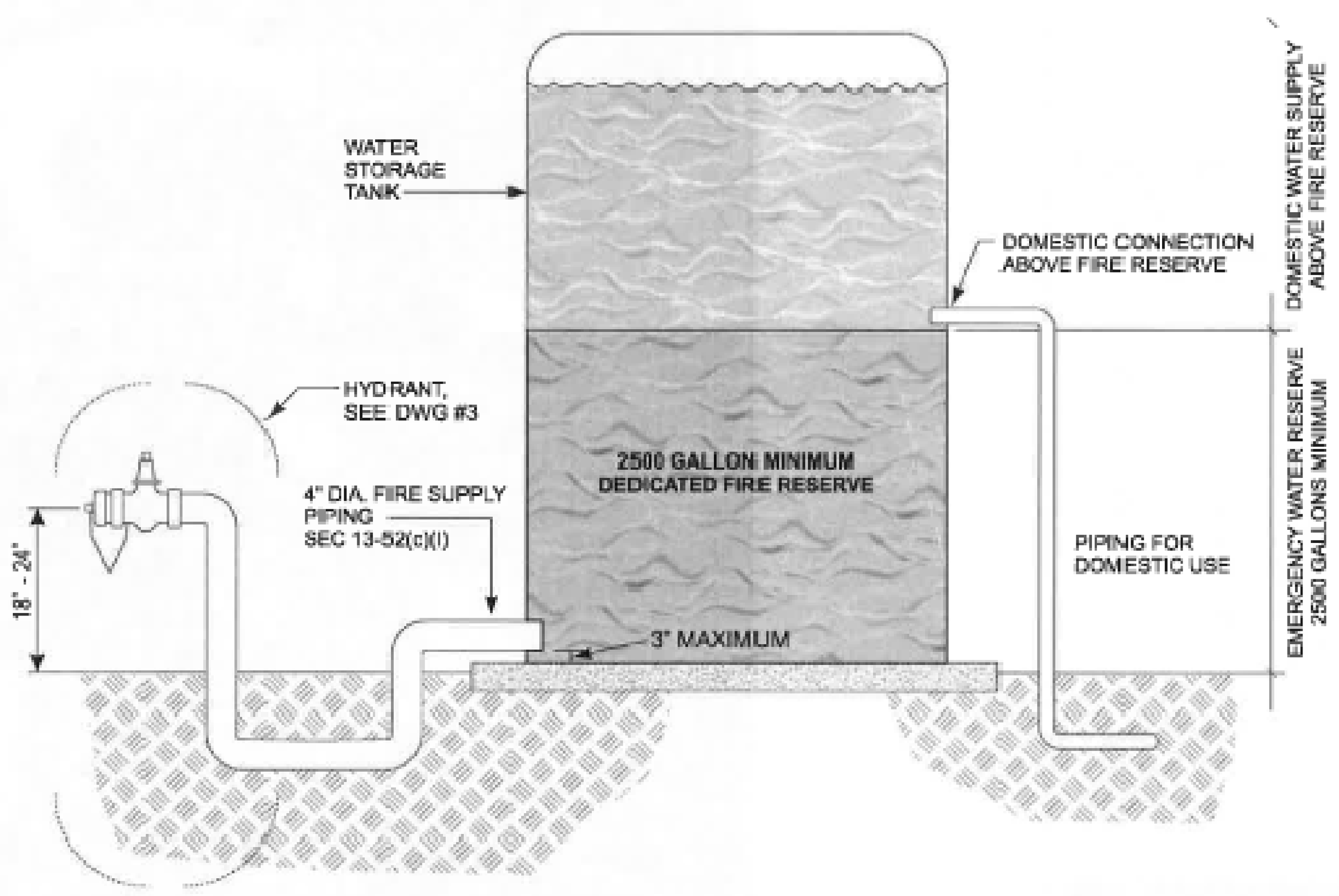
SEC 13-32, ROAD/DRIVEWAY CURVES	FIRE SAFE STANDARDS	
SONOMA COUNTY FIRE AND EMERGENCY SERVICES DEPARTMENT 2300 COUNTY CENTER DR Santa Rosa, California 95403 Telephone (707) 565-1152 Fax (707) 565-1172	1/16" = 1'-0" SCALE 02/11/03 REVISION DATE	F11 DRAWING NO

SLOPE ON TURNAROUNDS SHALL NOT EXCEED 8%



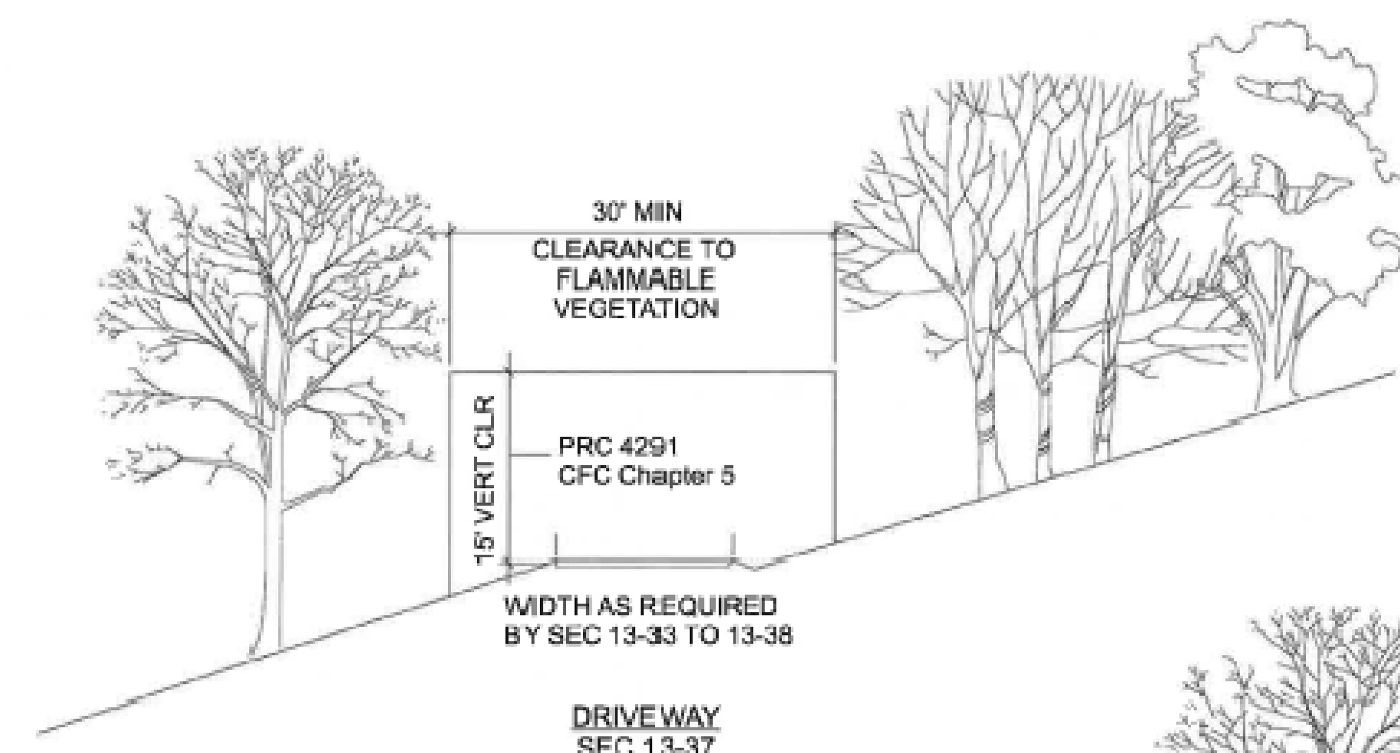
STUB-OUT TURNAROUND
Option #3

SEC 13-31, SEC 13-37(c) & 13-36(b), (c) TURNAROUND	FIRE SAFE STANDARDS	
SONOMA COUNTY FIRE AND EMERGENCY SERVICES DEPARTMENT 2300 COUNTY CENTER DR Santa Rosa, California 95403 Telephone (707) 565-1152 Fax (707) 565-1172	1/16" = 1'-0" SCALE 09/15/06 REVISION DATE	F10 DRAWING NO

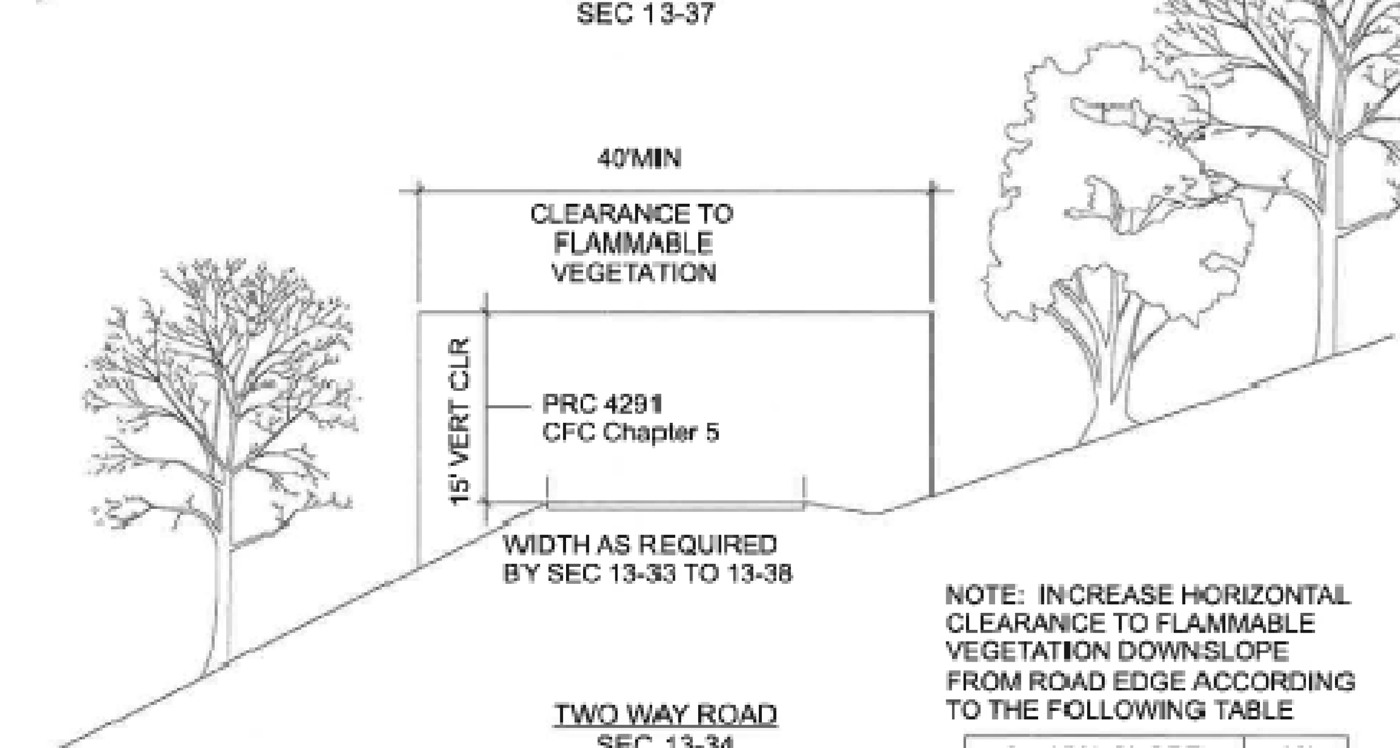


- FOR STORAGE CAPACITY REQUIREMENTS, REFER TO SEC 13-51(b) & 13-52(b)
- WHEN MULTIPLE TANKS ARE UTILIZED TO ACHIEVE THE REQUIRED VOLUME OF WATER, THE CONNECTION BETWEEN THE TANKS SHALL BE BY AN APPROVED 4" DIA. WATER LINE

SEC 13-51 EMERGENCY WATER SUPPLY	FIRE SAFE STANDARDS	
SONOMA COUNTY FIRE AND EMERGENCY SERVICES DEPARTMENT 2300 COUNTY CENTER DR Santa Rosa, California 95403 Telephone (707) 565-1152 Fax (707) 565-1172	NOT TO SCALE SCALE 02/11/03 REVISION DATE	F2 DRAWING NO



DRIVEWAY
SEC 13-37



TWO WAY ROAD
SEC 13-34

NOTE: INCREASE HORIZONTAL CLEARANCE TO FLAMMABLE VEGETATION DOWNSLOPE FROM ROAD EDGE ACCORDING TO THE FOLLOWING TABLE

0 - 10% SLOPE	10'
11 - 20% SLOPE	20'
30% + SLOPE	30'

SEC 13-34, 37 ROAD &DRIVE, VEGETATION CLEARANCE	FIRE SAFE STANDARDS	
SONOMA COUNTY FIRE AND EMERGENCY SERVICES DEPARTMENT 2300 COUNTY CENTER DR Santa Rosa, California 95403 Telephone (707) 565-1152 Fax (707) 565-1172	1/16" = 1'-0" SCALE 02/11/03 REVISION DATE	F15 DRAWING NO

1 SONOMA COUNTY FIRE SAFE STANDARDS (ORDINANCE #5905)

FIRE DEPARTMENT NOTES:

1. SEE SONOMA COUNTY DEPARTMENT FIRE SAFE STANDARDS ORDINANCE NO. 5905 FOR REFERENCED ON DRAWINGS SECTIONS AND FIRE SAFETY DETAILED STANDARDS GUIDELINES.
2. SEE CFC 2013, CHAPTER 13 SONOMA COUNTY SAFETY ORDINANCE FOR COMMERCIAL DEVELOPEMENT #6049 FOR FIRE SAFETY COMPLIANCE.

2 FIRE DPT. NOTES

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1421 MAIN STREET ST HELENA CALIF 94574 TELEPHONE 707 967 1820 FACSIMILE 707 967 1824

WESTSIDE ROAD WINERY AND TASTING ROOM
4603 WESTSIDE ROAD, HEALDSBURG, CA 95448

Date	12/11/2015
Drawn By	NP
Checked By	DM
Project No.	201154

Date	Issue
05/06/2015	PRELIMINARY DESIGN REVIEW
06/23/2015	PRELIMINARY DESIGN REVIEW-REV1
08/28/2015	BZA DESIGN CHANGE-REV2
12/11/2015	BZA DESIGN CHANGE-REV3
05/19/2017	BZA ISSUE-REV4
01/17/2018	REV5

FIRE DEPARTMENT SAFE STANDARDS

AS SHOWN

A0.11

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PHOTOGRAPH #1
EXISTING GATE TO ENTER SITE WILL BE UPGRADED W/ NEW FENCE & GATE

PHOTOGRAPH #2
EXISTING AGRICULTURAL BUILDING WILL REMAIN AS IS

PHOTOGRAPH #3
EXISTING AGRICULTURAL BUILDING WILL REMAIN AS IS

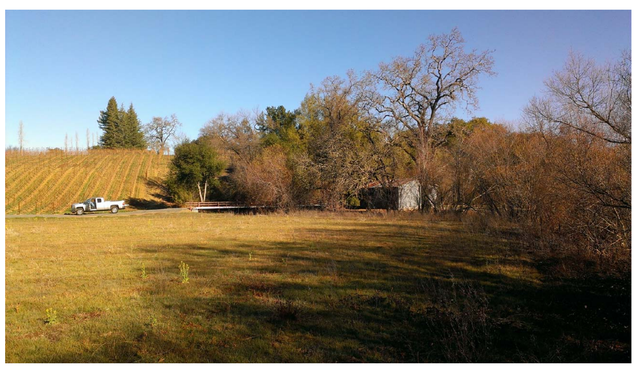
PHOTOGRAPH #4
EXISTING MEADOW WILL REMAIN AS IS

PHOTOGRAPH #5
EXISTING VEHICLE BRIDGE WILL REMAIN AS IS

PHOTOGRAPH #6
EXISTING AREA THAT WILL INCLUDE (N) WINERY BUILDING & NATURAL LANDSCAPE AREA WITH NATIVE & DROUGHT RESISTANT PLANTS

PHOTOGRAPH #7
EXISTING AREA THAT WILL INCLUDE (N) WINERY BUILDING & TASTING ROOM BUILDING

PHOTOGRAPH #8
EXISTING AREA THAT WILL INCLUDE (N) WINERY BUILDING & NEW FIRE ACCESS ROAD



PHOTOGRAPH #9
EXISTING AREA THAT WILL INCLUDE (N) WINERY BUILDING & NATURAL LANDSCAPE AREA WITH NATIVE & DROUGHT RESISTANT PLANTS

BACKEN GILAM KROEGER
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WESTSIDE ROAD WINERY AND TASTING ROOM

4603 WESTSIDE ROAD, HEALDSBURG, CA 95448

Date	12/11/2015
Drawn By	NP
Checked By	DM
Project No.	201154

Date	Issue
05/06/2015	PRELIMINARY DESIGN REVIEW
06/23/2015	PRELIMINARY DESIGN REVIEW-REV1
08/28/2015	BZA DESIGN CHANGE-REV2
12/11/2015	BZA DESIGN CHANGE-REV3
05/19/2017	BZA ISSUE-REV4
01/17/2018	REV5

(E) SITE PHOTOGRAPHS

NTS

A0.12

1 PROPERTY OVERALL SITE PLAN

2 KEY NOTES & LEGEND

No.	Key Note / Legend
1	100' SEPTIC SETBACK
2	50' CREEK BUILDING SETBACK
3	25' CREEK GRADING SETBACK
4	200' SCENIC CORRIDOR SETBACK
5	PROPERTY LINE
6	(E) LEACHFIELD AREA
7	(E) LEACHFIELD SETBACK
8	CONCRETE AREA
9	GRAVEL ROAD
10	ACCESSIBLE DECOMPOSED GRANITE PEDESTRIAN PATHWAY/TERRACE
11	55'-0" ROAD SETBACK
12	30'-0" FRONT SETBACK
13	BUILDABLE AREA SETBACK
14	WINERY BUILDING 10,000 CASES PRODUCTION CAPACITY
15	(E) 640 SF AGRICULTURAL BUILDING TO REMAIN AS IS
16	LOCATION OF 2,171 SF TASTING ROOM BUILDING
17	(E) 12'-0" ONE WAY WIDE VEHICULAR BRIDGE
18	MECH. BUILDING & TRASH ENCLOSURE (SIZE T.B.D.)
19	48" HIGH FENCE (TYPE/MATERIAL TBD)
20	OUTDOOR FIREPLACE
21	68 VINEYARD ROW PARKING SPACES FOR LARGE AGRICULT. PROMOTIONAL (SPECIAL) EVENT
22	2-WAY 20'-0" MIN. FIRE LANE/ ACCESS ROAD
23	24'-0" MIN WIDE ENTRY GATE
24	APPROXIMATE T/O CREEK BANK
25	RIGHT TURN LANE
26	(E) VINES
27	(E) TRACTOR ROAD
28	LOCATION OF (E) ENTRY DRIVEWAY TO BE REPLACED
29	VALET PARKING DROP-OFF & PICKUP DURING LARGE AGRICULTURAL PROMOTIONAL (SPECIAL) EVENT

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KROEGER
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WESTSIDE ROAD WINERY AND TASTING ROOM

4603 WESTSIDE ROAD, HEALDSBURG, CA 95448

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01/17/2018	REV5

PROPERTY OVERALL SITE PLAN

1"=60'

A1.00

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1 PROPERTY OVERALL SITE PLAN

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WESTSIDE ROAD WINERY AND TASTING ROOM

4603 WESTSIDE ROAD, HEALDSBURG, CA 95448

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01/17/2018	REV5

PROPERTY OVERALL SITE PLAN - EVENT PARKING

1"=60'

A1.10

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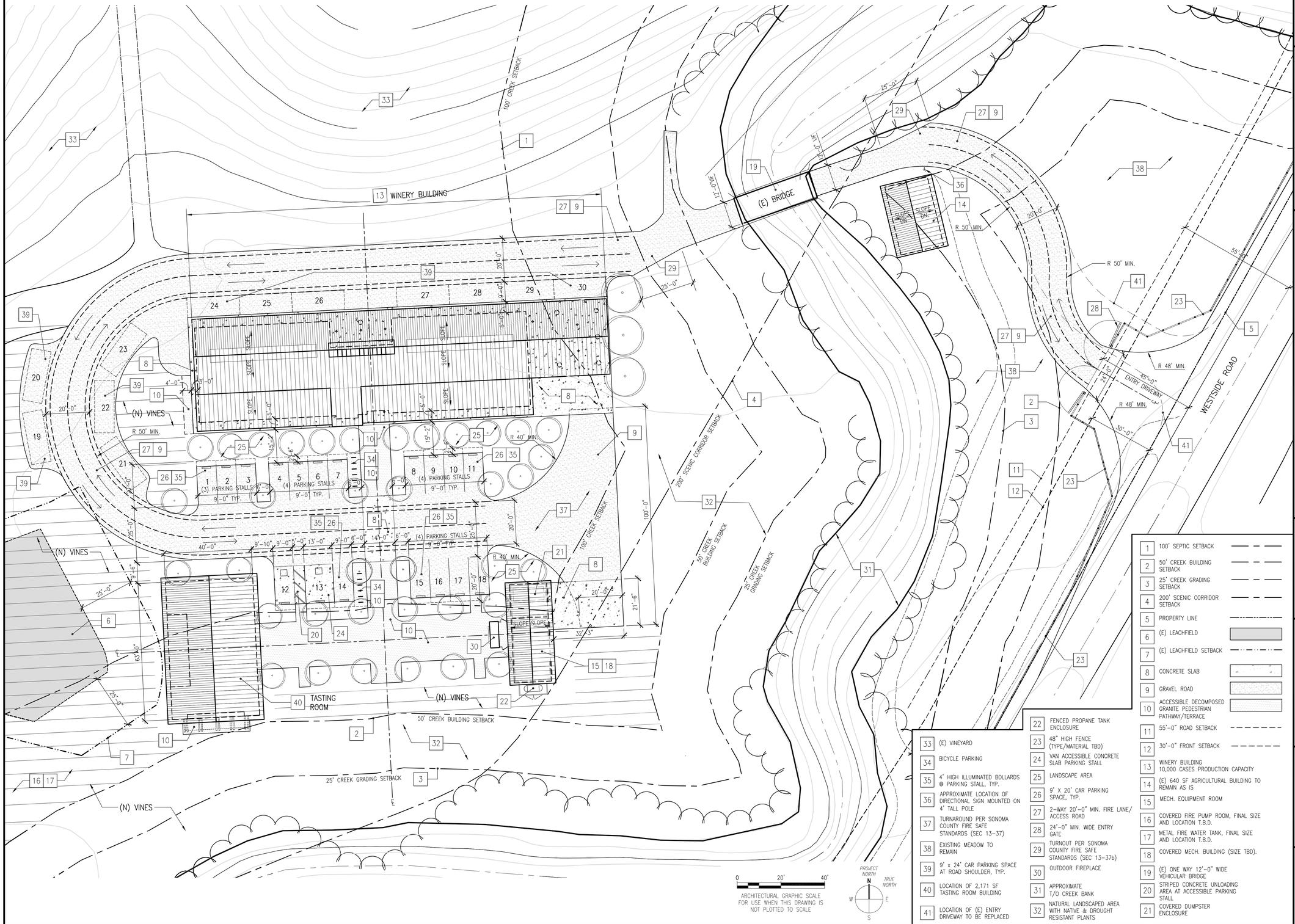

1 WINERY & TASTING SITE PLAN

1	100' SEPTIC SETBACK
2	50' CREEK BUILDING SETBACK
3	25' CREEK GRADING SETBACK
4	200' SCENIC CORRIDOR SETBACK
5	PROPERTY LINE
6	(E) LEACHFIELD
7	(E) LEACHFIELD SETBACK
8	CONCRETE SLAB
9	GRAVEL ROAD
10	ACCESSIBLE DECOMPOSED GRANITE PEDESTRIAN PATHWAY/TERRACE
11	55'-0" ROAD SETBACK
12	30'-0" FRONT SETBACK
13	WINERY BUILDING 10,000 CASES PRODUCTION CAPACITY
14	(E) 640 SF AGRICULTURAL BUILDING TO REMAIN AS IS
15	MECH. EQUIPMENT ROOM
16	COVERED FIRE PUMP ROOM, FINAL SIZE AND LOCATION T.B.D.
17	METAL FIRE WATER TANK, FINAL SIZE AND LOCATION T.B.D.
18	COVERED MECH. BUILDING (SIZE TBD).
19	(E) ONE WAY 12'-0" WIDE VEHICULAR BRIDGE
20	STRIPED CONCRETE UNLOADING AREA AT ACCESSIBLE PARKING STALL
21	COVERED DUMPSTER ENCLOSURE
22	FENCED PROPANE TANK ENCLOSURE
23	48" HIGH FENCE (TYPE/MATERIAL TBD)
24	VAN ACCESSIBLE CONCRETE SLAB PARKING STALL
25	LANDSCAPE AREA
26	9' X 20' CAR PARKING SPACE, TYP.
27	2-WAY 20'-0" MIN. FIRE LANE/ ACCESS ROAD
28	24'-0" MIN. WIDE ENTRY GATE
29	TURNOUT PER SONOMA COUNTY FIRE SAFE STANDARDS (SEC 13-37b)
30	OUTDOOR FIREPLACE
31	APPROXIMATE T/O CREEK BANK
32	NATURAL LANDSCAPED AREA WITH NATIVE & DROUGHT RESISTANT PLANTS
33	(E) VINEYARD
34	BICYCLE PARKING
35	4' HIGH ILLUMINATED BOLLARDS @ PARKING STALL, TYP.
36	APPROXIMATE LOCATION OF DIRECTIONAL SIGN MOUNTED ON 4' TALL POLE
37	TURNAROUND PER SONOMA COUNTY FIRE SAFE STANDARDS (SEC 13-37)
38	EXISTING MEADOW TO REMAIN
39	9' x 24' CAR PARKING SPACE AT ROAD SHOULDER, TYP.
40	LOCATION OF 2,171 SF TASTING ROOM BUILDING
41	LOCATION OF (E) ENTRY DRIVEWAY TO BE REPLACED

2 KEY NOTES & LEGEND

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WESTSIDE ROAD WINERY AND TASTING ROOM

4603 WESTSIDE ROAD, HEALDSBURG, CA 95448

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01/17/2018	REV5

WINERY & TASTING ROOM SITE PLAN

1"=20'-0"

A1.20

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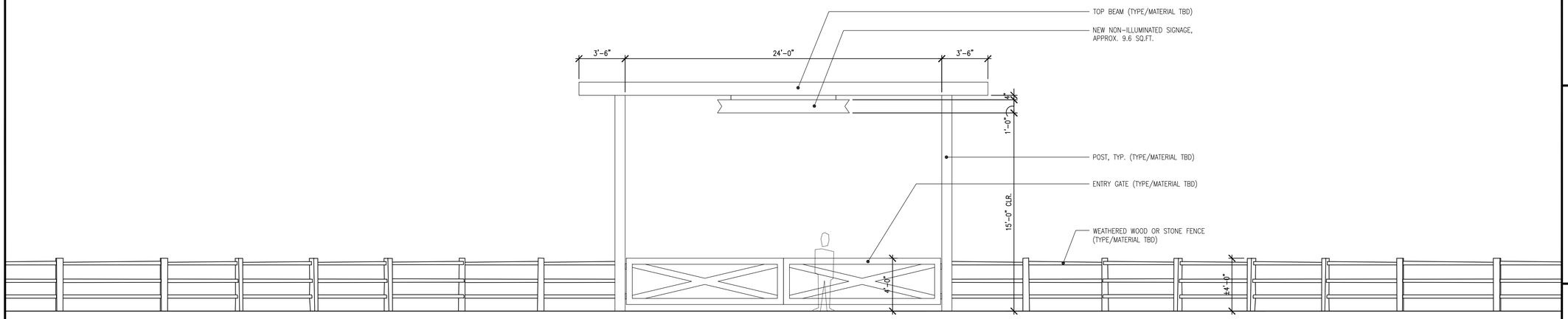
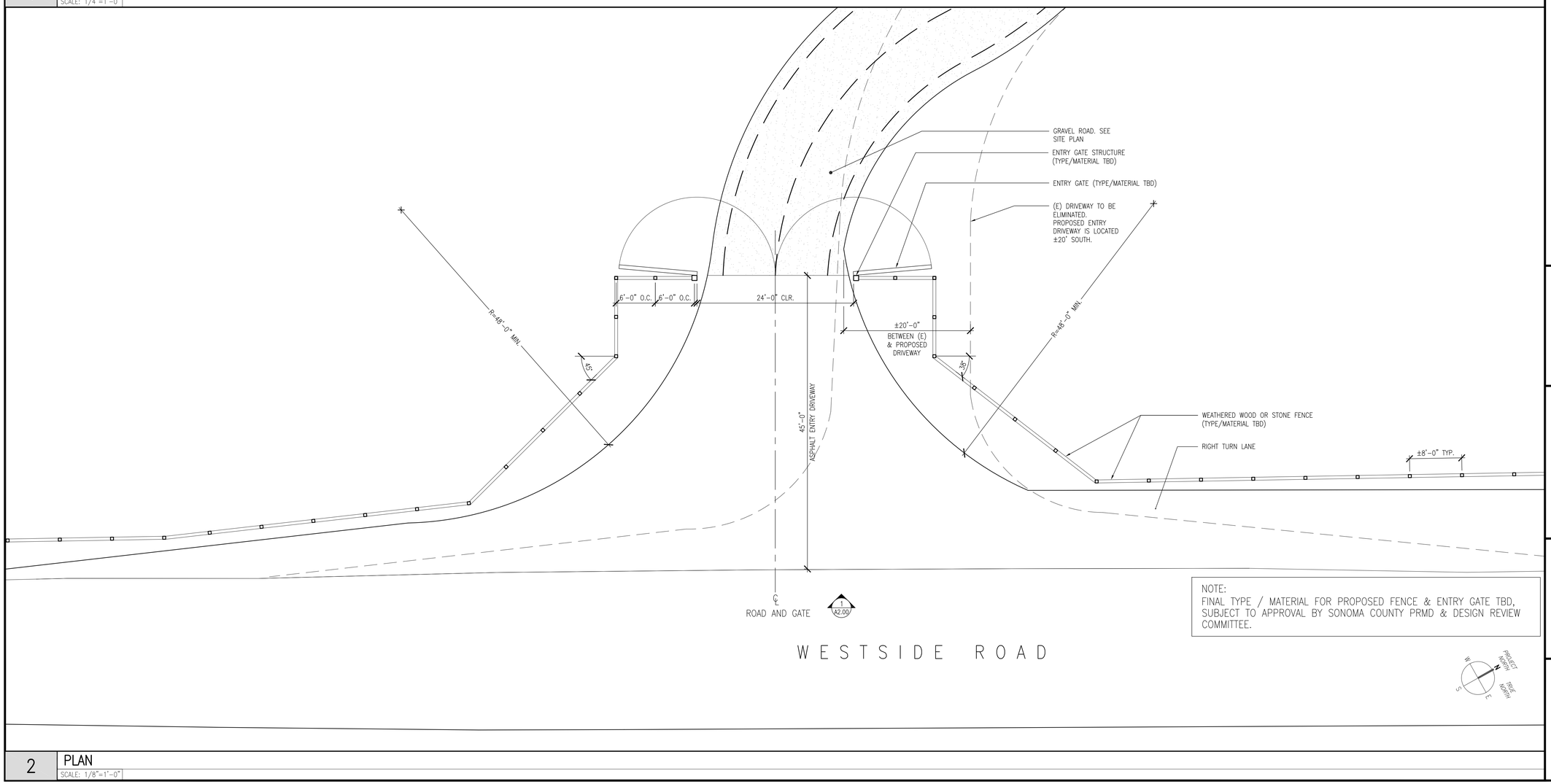


1 ELEVATION

SCALE: 1/4"=1'-0"



NOTE:
FINAL TYPE / MATERIAL FOR PROPOSED FENCE & ENTRY GATE TBD, SUBJECT TO APPROVAL BY SONOMA COUNTY PRMD & DESIGN REVIEW COMMITTEE.

2 PLAN

SCALE: 1/8"=1'-0"

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WESTSIDE ROAD WINERY AND TASTING ROOM

4603 WESTSIDE ROAD, HEALDSBURG, CA 95448

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01/17/2018	REV5

ENTRY GATE

SCALE: SEE DRAWING

A2.00

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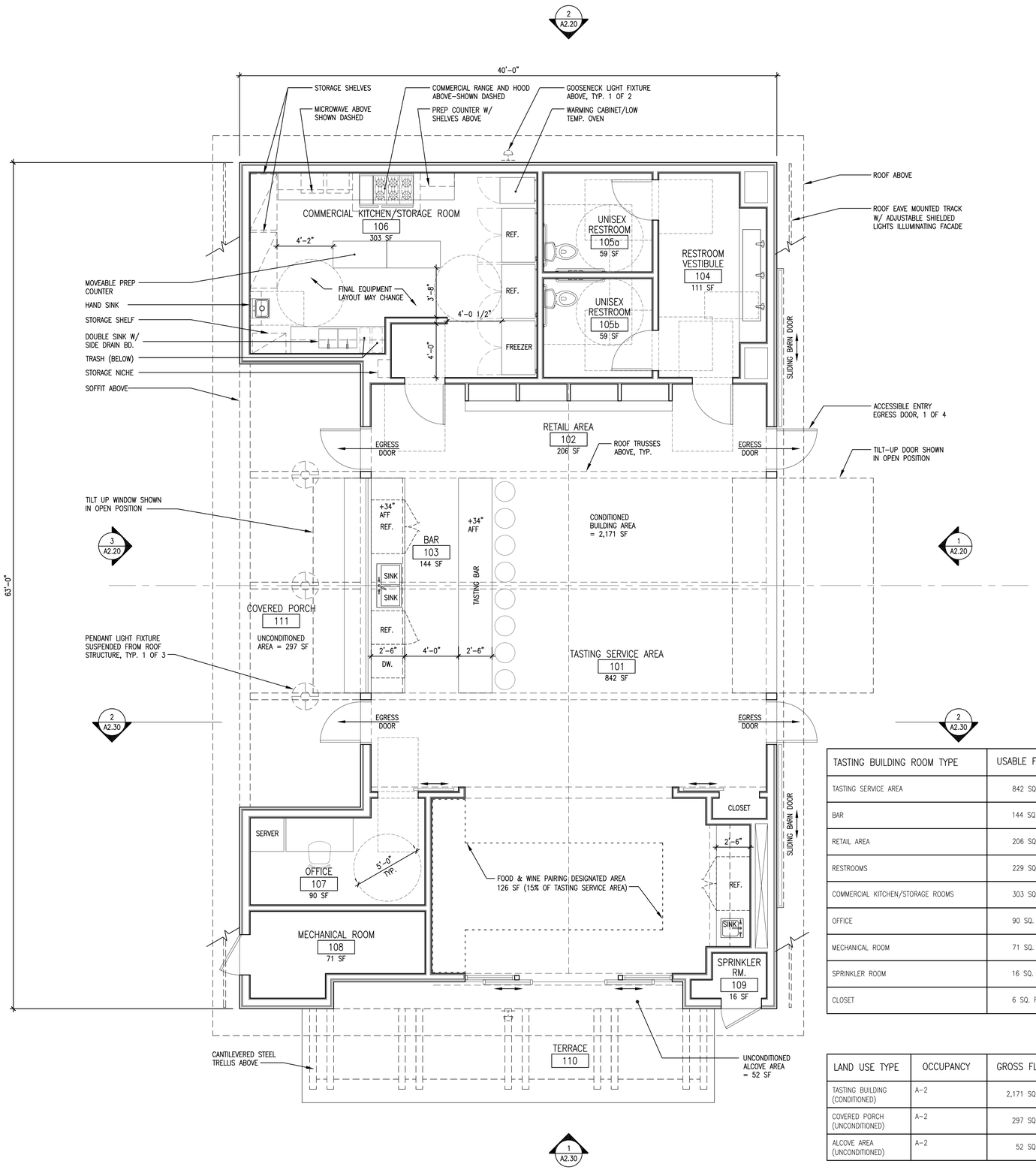

TASTING BUILDING ROOM TYPE	USABLE FLOOR AREA
TASTING SERVICE AREA	842 SQ. FT.
BAR	144 SQ. FT.
RETAIL AREA	206 SQ. FT.
RESTROOMS	229 SQ. FT.
COMMERCIAL KITCHEN/STORAGE ROOMS	303 SQ. FT.
OFFICE	90 SQ. FT.
MECHANICAL ROOM	71 SQ. FT.
SPRINKLER ROOM	16 SQ. FT.
CLOSET	6 SQ. FT.

LAND USE TYPE	OCCUPANCY	GROSS FL. AREA	TOTAL GROSS FL. AREA
TASTING BUILDING (CONDITIONED)	A-2	2,171 SQ. FT.	2,171 SQ. FT.
COVERED PORCH (UNCONDITIONED)	A-2	297 SQ. FT.	349 SQ. FT.
ALCOVE AREA (UNCONDITIONED)	A-2	52 SQ. FT.	

PROJECT NORTH N TRUE NORTH W E S

0 4' 8'

ARCHITECTURAL GRAPHIC SCALE FOR USE WHEN THIS DRAWING IS NOT PLOTTED TO SCALE

1 TASTING ROOM FLOOR PLAN

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TELEPHONE 707 967 1930
FACSIMILE 707 967 1934

WESTSIDE ROAD WINERY AND TASTING ROOM

4603 WESTSIDE ROAD, HEALDSBURG, CA 95448

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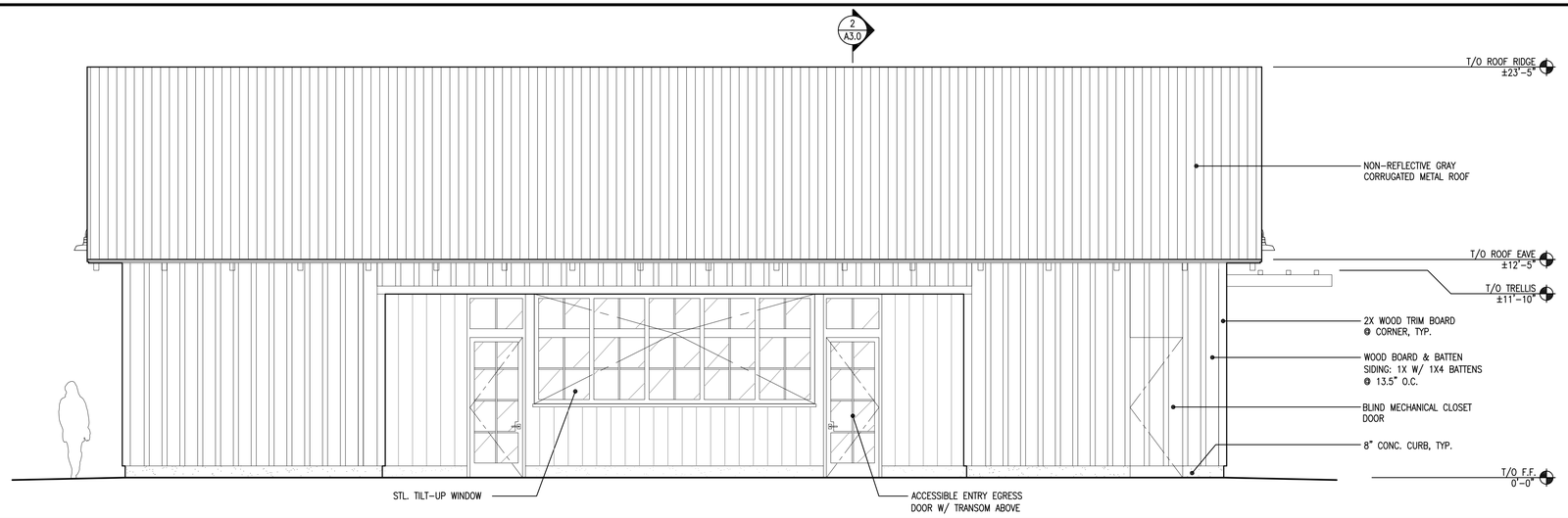
01/17/2018	REV5

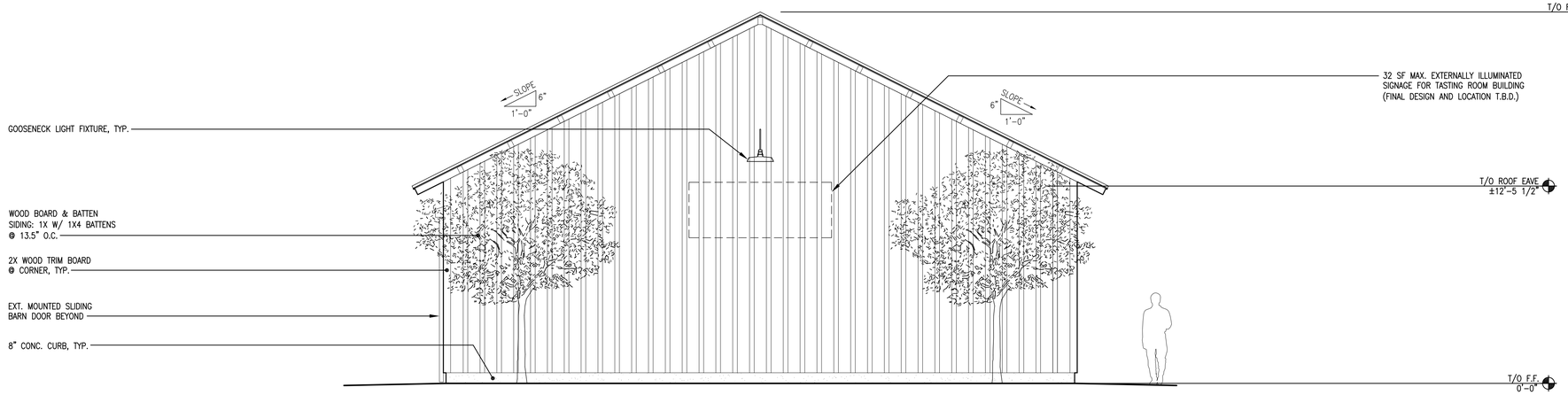
TASTING ROOM PLAN

1/4"=1'-0"

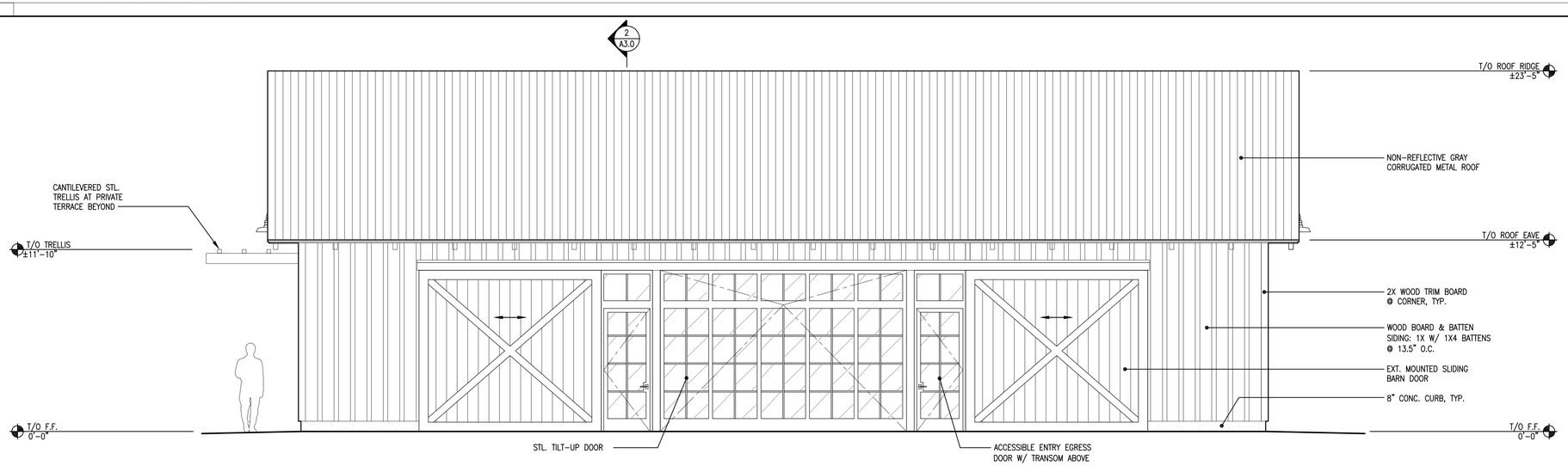
A2.10



3 TASTING ROOM WEST EXTERIOR ELEVATION



2 TASTING ROOM NORTH EXTERIOR ELEVATION



1 TASTING ROOM EAST EXTERIOR ELEVATION

BACKEN GILLAM KROEGER
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WESTSIDE ROAD WINERY AND TASTING ROOM

4603 WESTSIDE ROAD, HEALDSBURG, CA 95448

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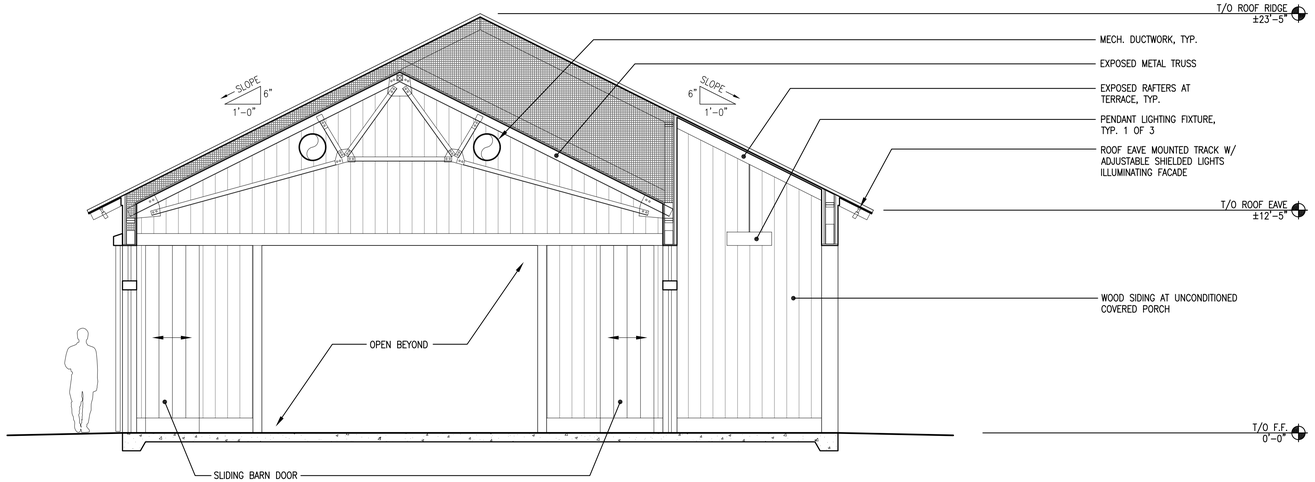
05/19/2017	BZA ISSUE-REV4
01/17/2018	REV5

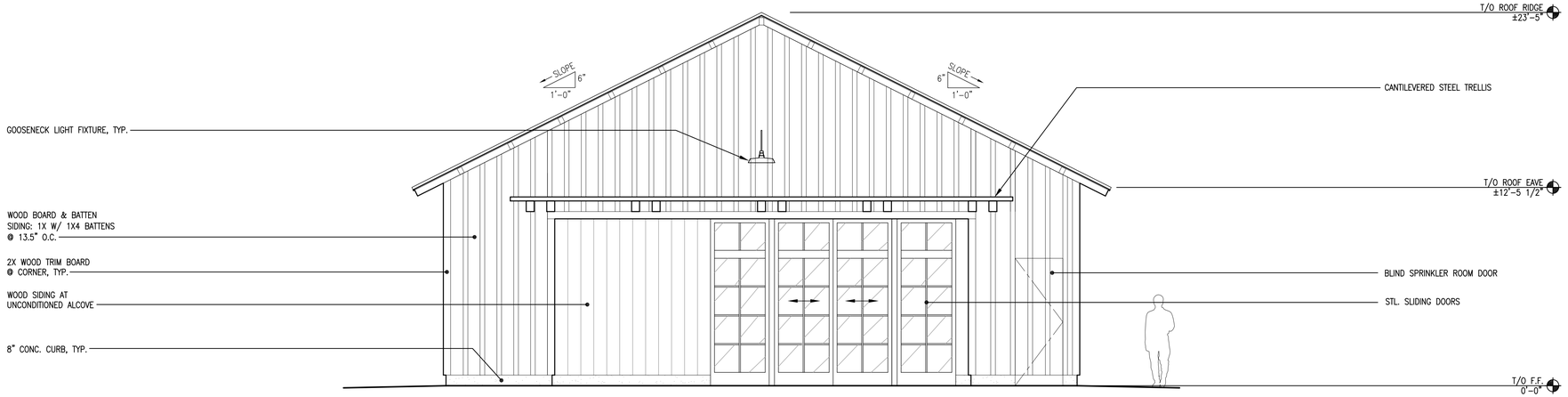
TASTING ROOM ELEVATIONS

1/4"=1'-0"

A2.20



2 TASTING ROOM BUILDING SECTION LOOKING SOUTH



1 TASTING ROOM SOUTH BUILDING ELEVATION

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WESTSIDE ROAD WINERY AND TASTING ROOM

4603 WESTSIDE ROAD, HEALDSBURG, CA 95448

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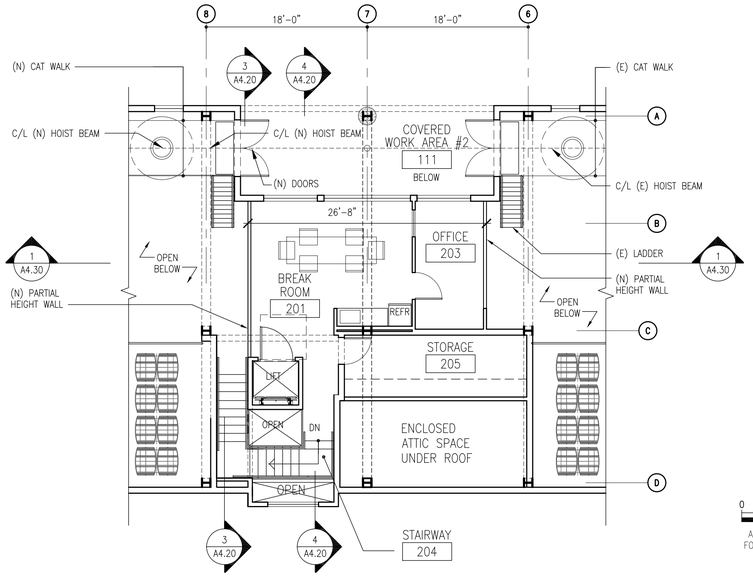
01/17/2018	REV5

TASTING ROOM
ELEVATIONS & SECTIONS

1/4"=1'-0"

A2.30



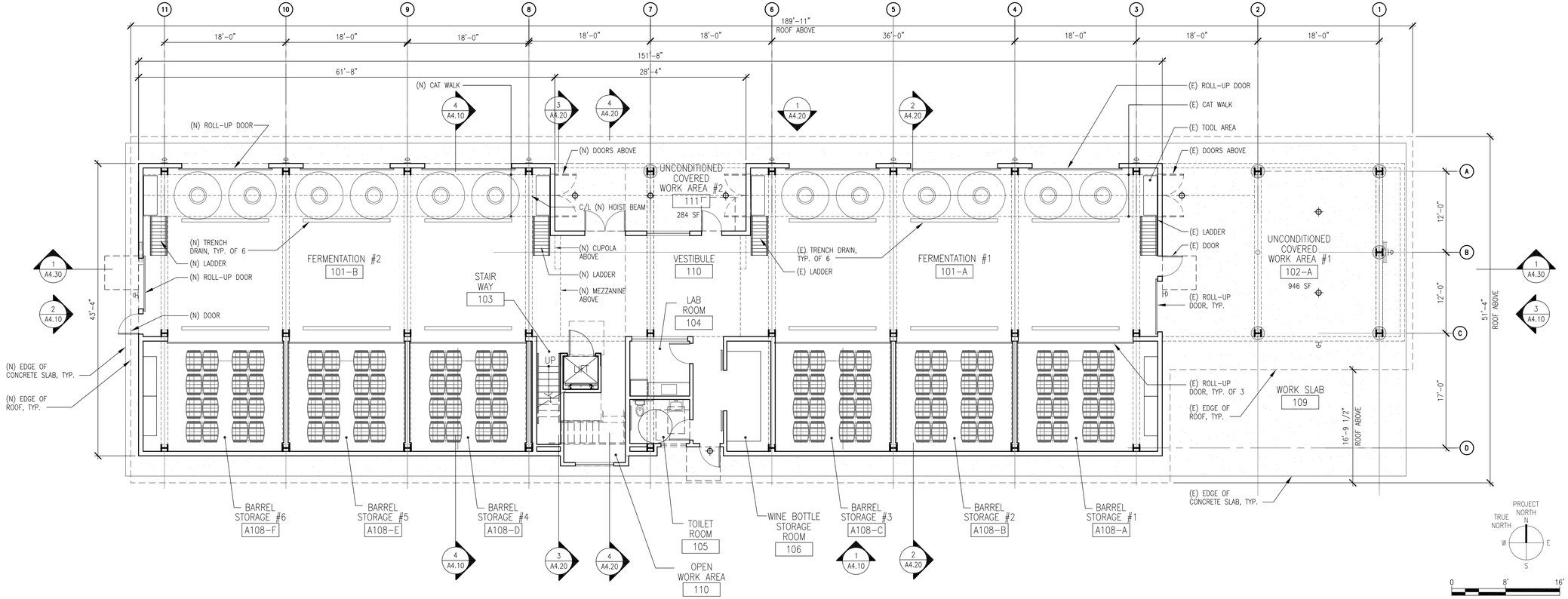
LAND USE TYPE	OCCUPANCY	GROSS FL. AREA (GROUND FL. / MEZZANINE)	TOTAL GROSS FL. AREA
WINERY	F-2 (WINE PROCESSING)	4,098 SQ. FT. / 457 SQ. FT.	4,555 SQ. FT.
BARREL STORAGE	S-2 (WAREHOUSE)	2,192 SQ. FT. / 168 SQ. FT.	2,360 SQ. FT.
UNCONDITIONED COVERED WORK AREA #1	F-2 (WINE PROCESSING) UNCONDITIONED	946 SQ. FT.	1,230 SQ. FT.
UNCONDITIONED COVERED WORK AREA #2	F-2 (WINE PROCESSING) UNCONDITIONED	284 SQ. FT.	

0 8' 16'
ARCHITECTURAL GRAPHIC SCALE
FOR USE WHEN THIS DRAWING IS NOT PLOTTED TO SCALE

PROJECT NORTH / TRUE NORTH
N W E S

2 WINERY MEZZANINE FLOOR PLAN

1/8"=1'-0"



PROJECT NORTH / TRUE NORTH
N W E S

0 8' 16'
ARCHITECTURAL GRAPHIC SCALE
FOR USE WHEN THIS DRAWING IS NOT PLOTTED TO SCALE

1 WINERY FLOOR PLAN

BACKEN GILAM KROEGER
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WESTSIDE ROAD WINERY AND TASTING ROOM

4603 WESTSIDE ROAD, HEALDSBURG, CA 95448

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WINERY FLOOR PLAN

1/8"=1'-0"

A4.00

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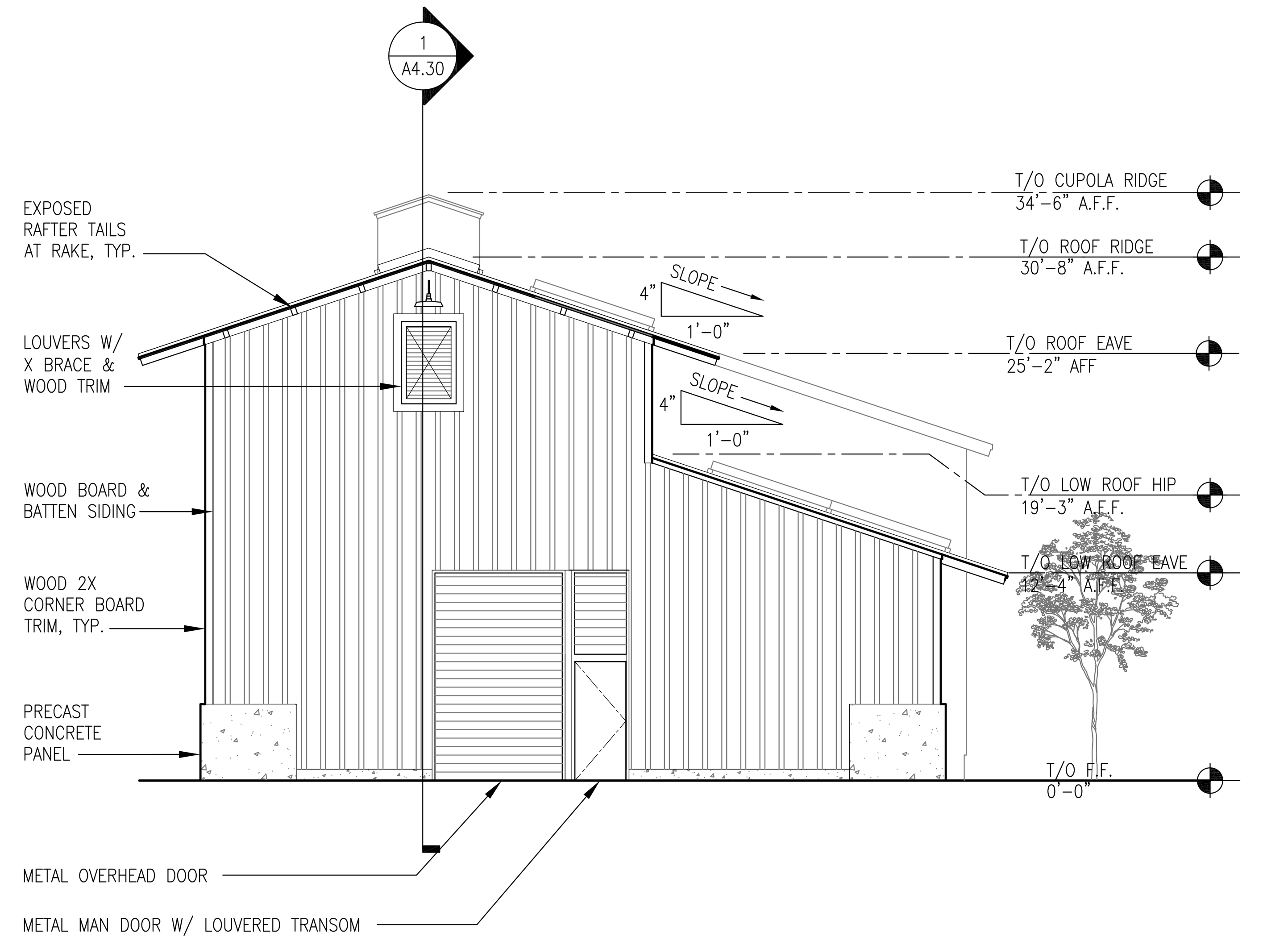
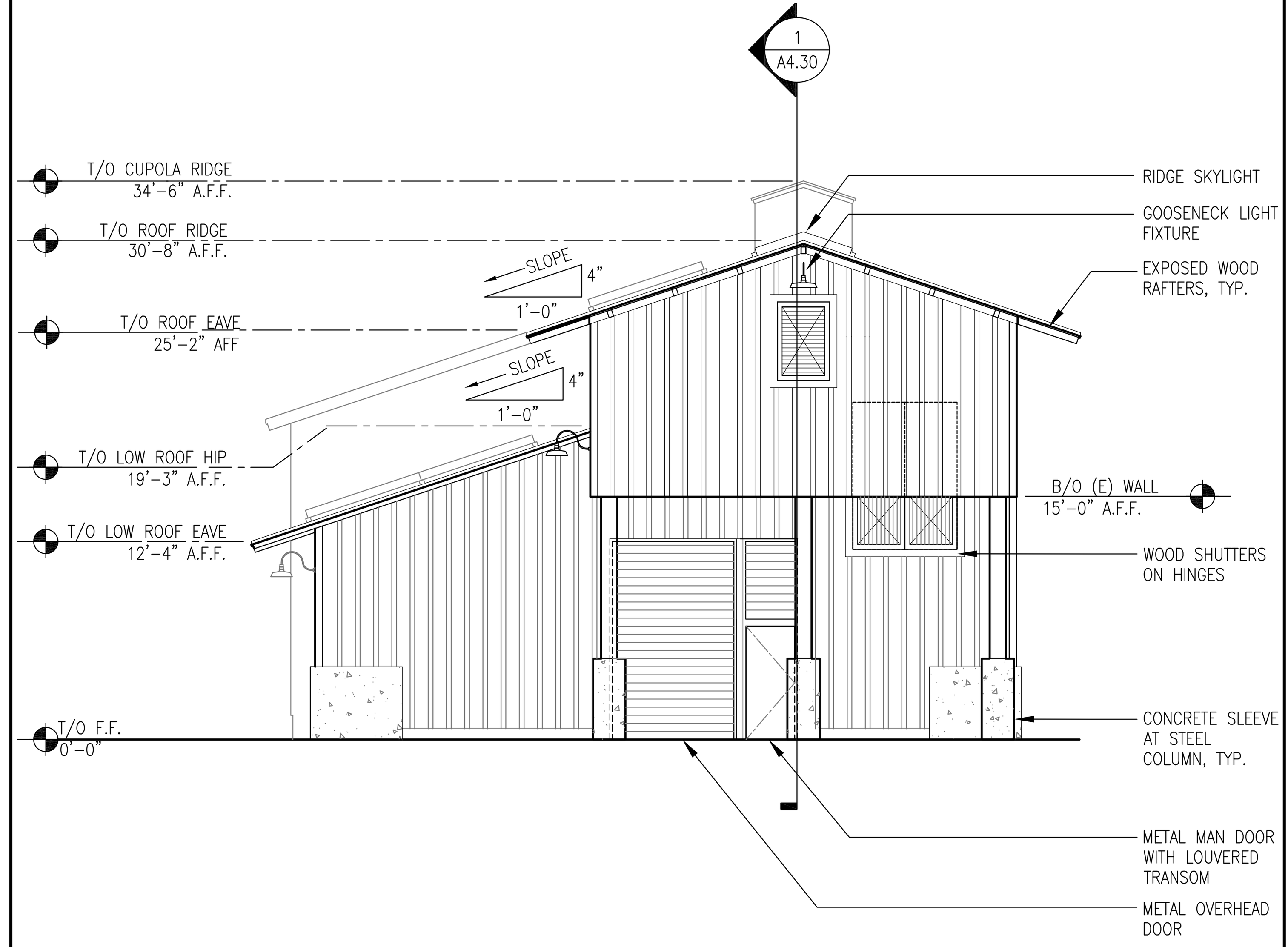
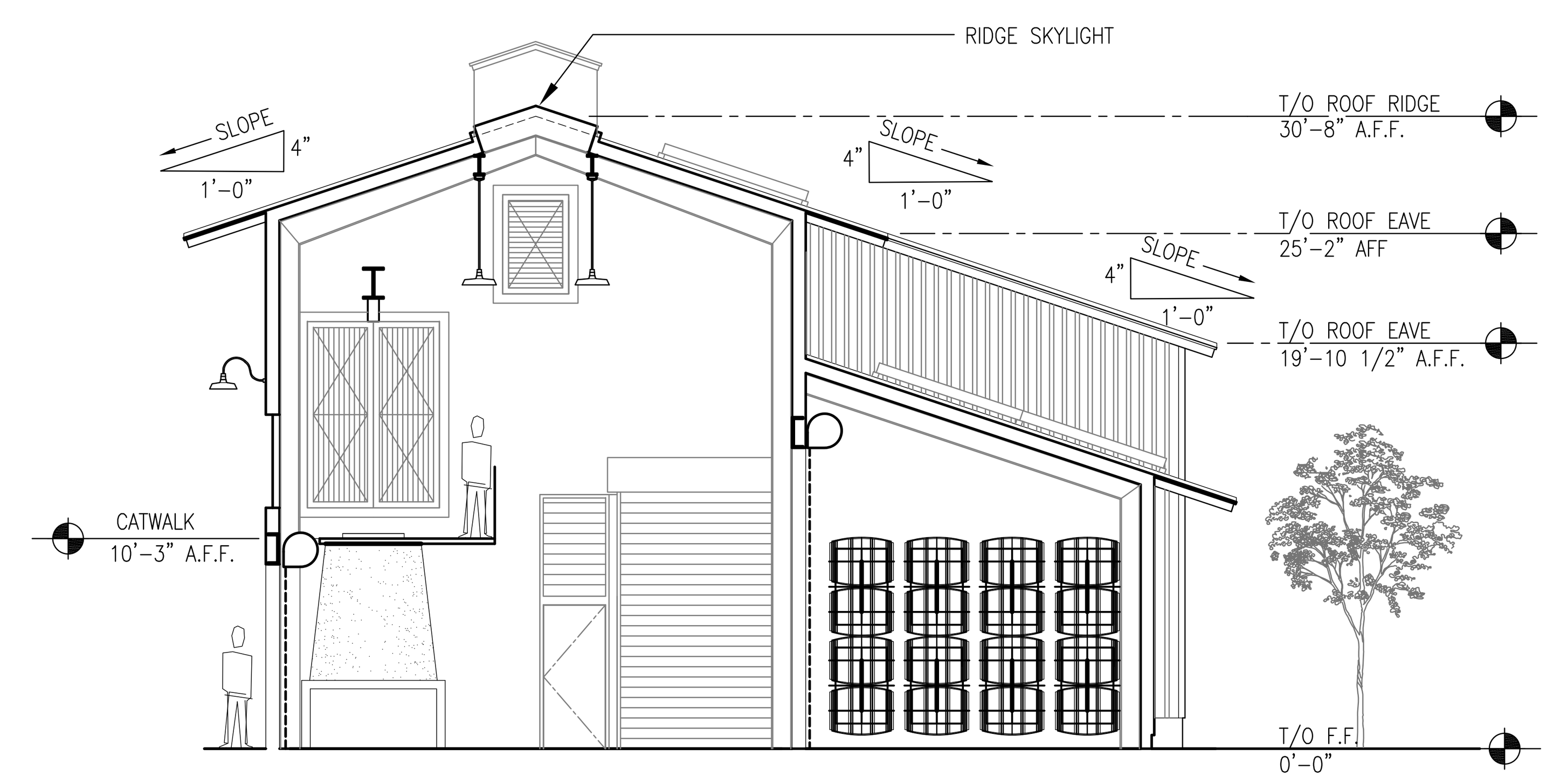


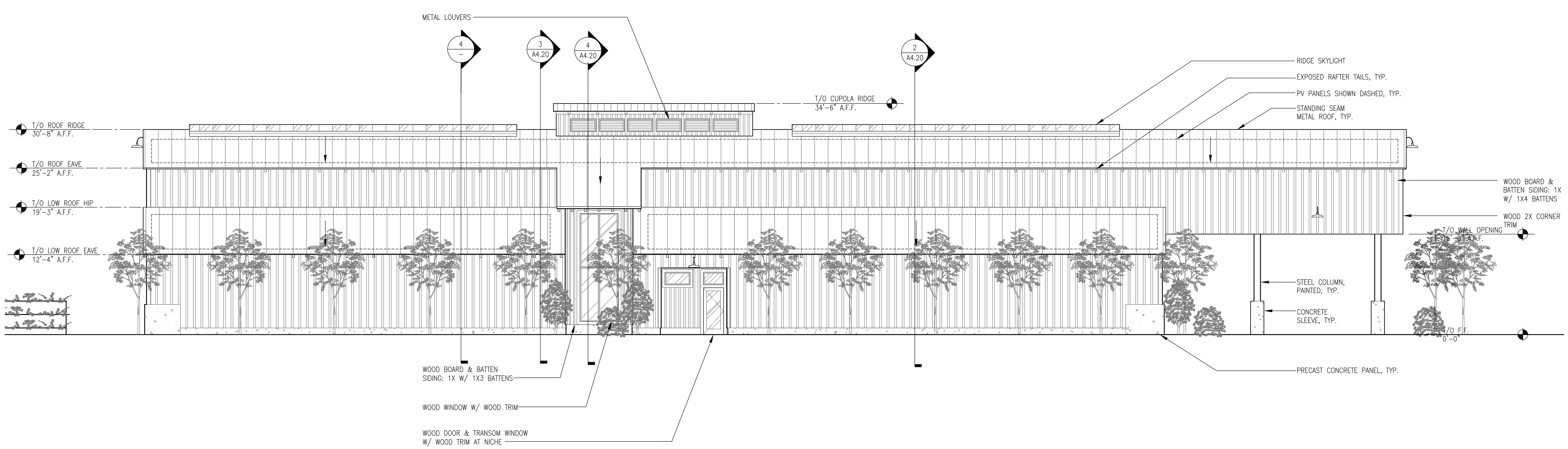
2 WINERY WEST ELEVATION



3 WINERY EAST ELEVATION



4 WINERY BUILDING SECTION



1 WINERY SOUTH ELEVATION

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WESTSIDE ROAD WINERY AND TASTING ROOM

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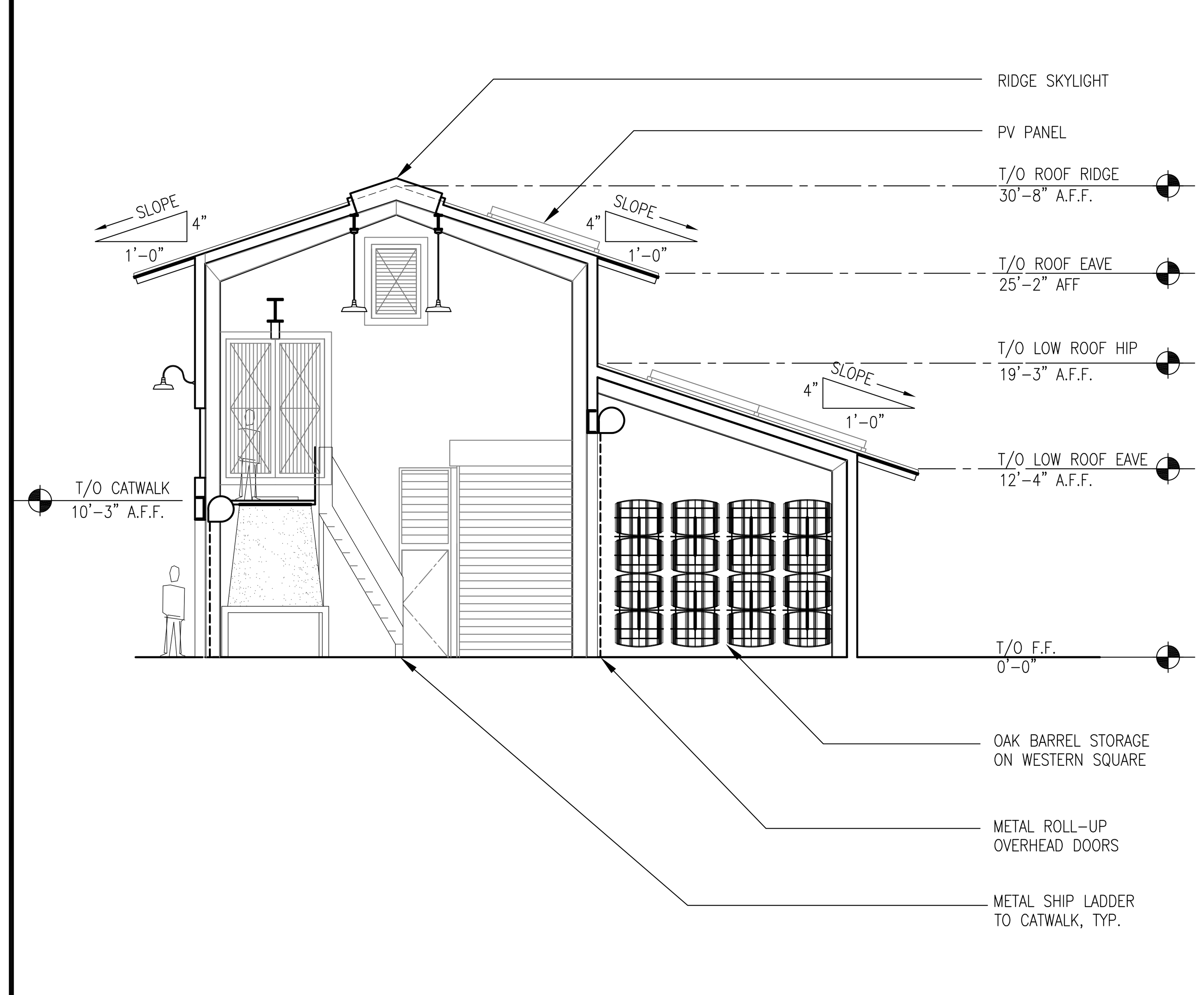
01/17/2018	REV5

WINERY EXTERIOR ELEVATIONS & SECTION

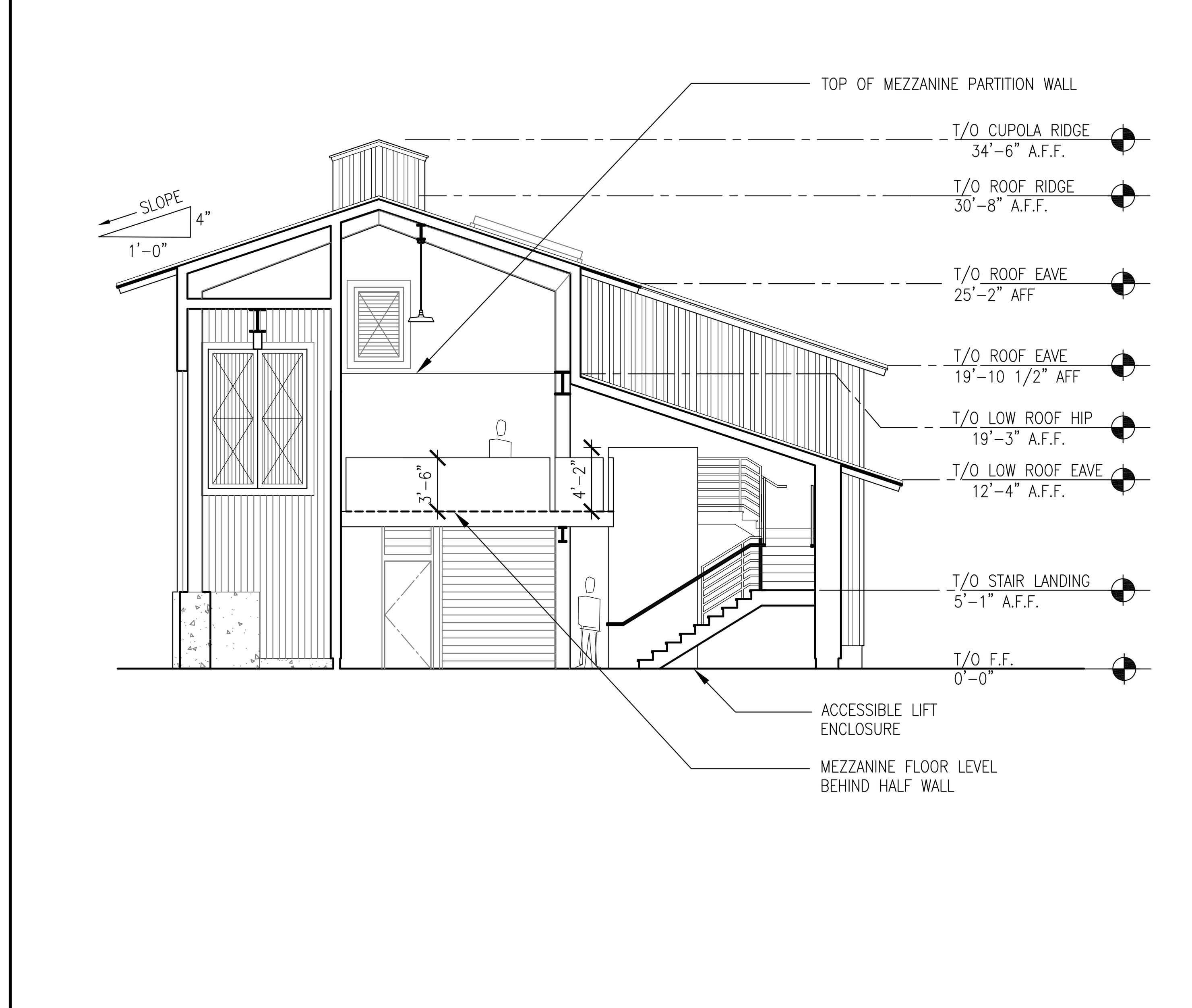
1/8"=1'-0"

A4.10

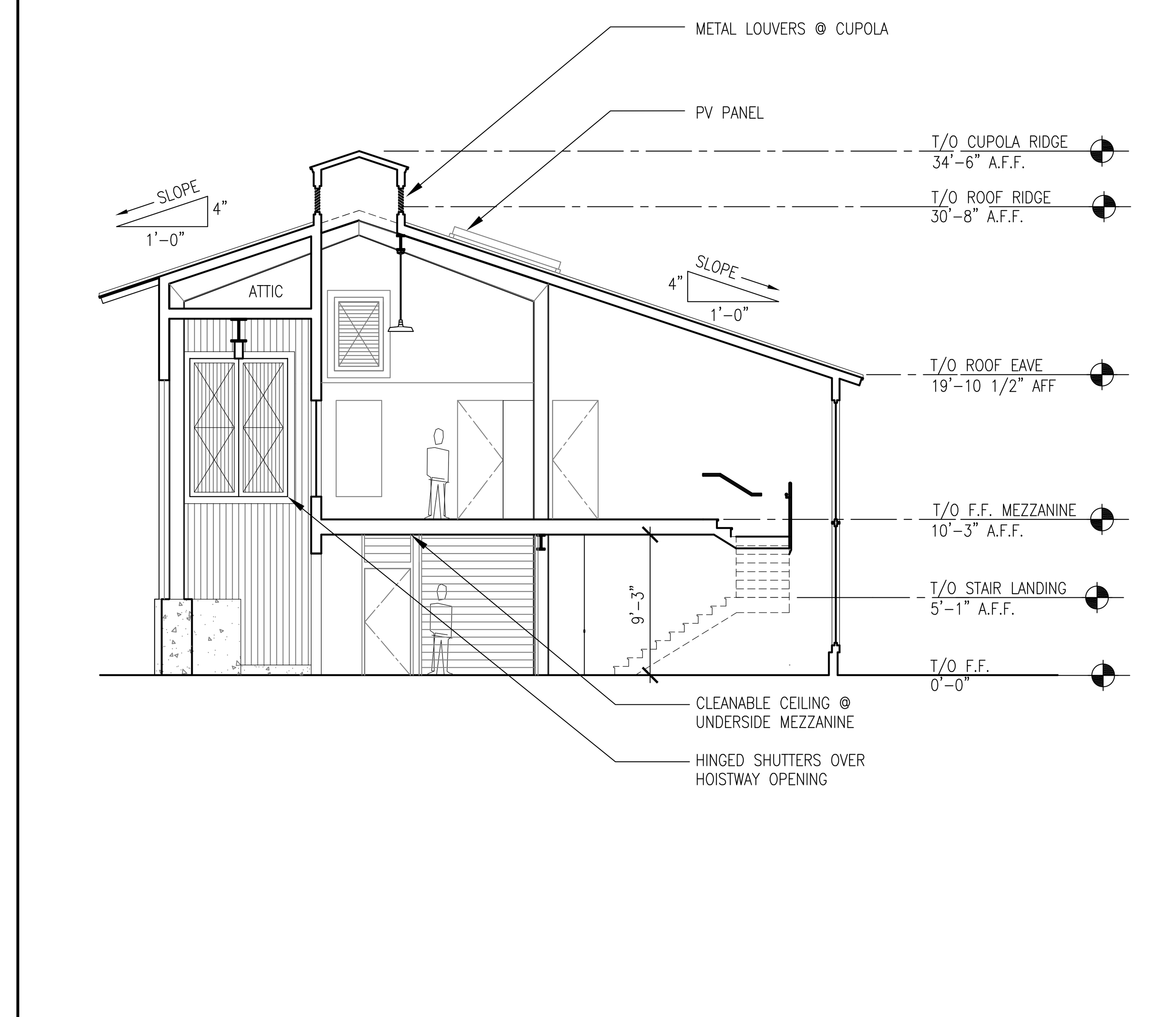
1/17/2018 S:\2011\201154 - Rudd Westside Road\1-Drawings\01-Current\Use Permit Application Set\A4.10_WINERY_ELEVS_PH2.dwg



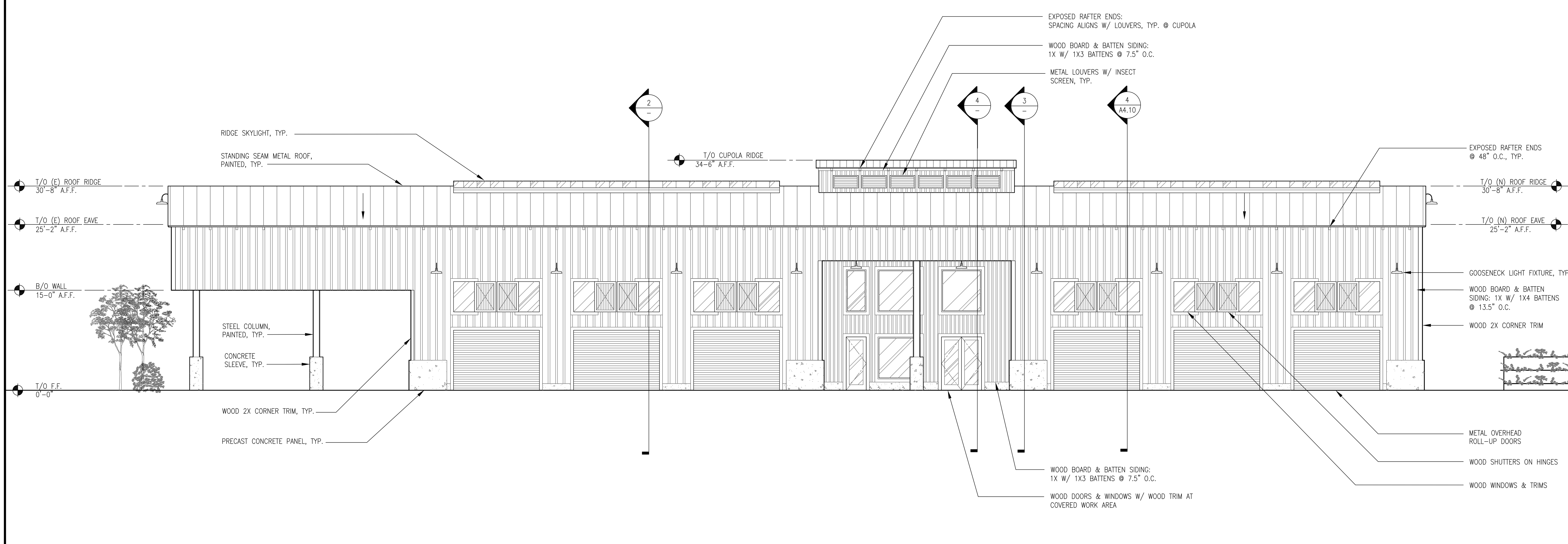
2 WINERY BUILDING SECTION



3 WINERY BUILDING SECTION AT MEZZANINE



4 WINERY BUILDING SECTION AT MEZZANINE/TOWER



1 WINERY NORTH ELEVATION

1/17/2018 S:\2011\201154 - Rudd Westside Road\1-Drawings\01-Current\Use Permit Application Set\A4.20_WINERY_ELEVS_PH2.dwg

BACKEN GILLAM KROEGER
architects

2352 MARINSHIP WAY
SAUSALITO CALIF 94965
TELEPHONE 415 289 3860
FACSIMILE 415 289 3866

1421 MAIN STREET
ST. HELENA CALIF 94574
TELEPHONE 707 967 1920
FACSIMILE 707 967 1924

WESTSIDE ROAD WINERY AND TASTING ROOM

4603 WESTSIDE ROAD, HEALDSBURG, CA 95448

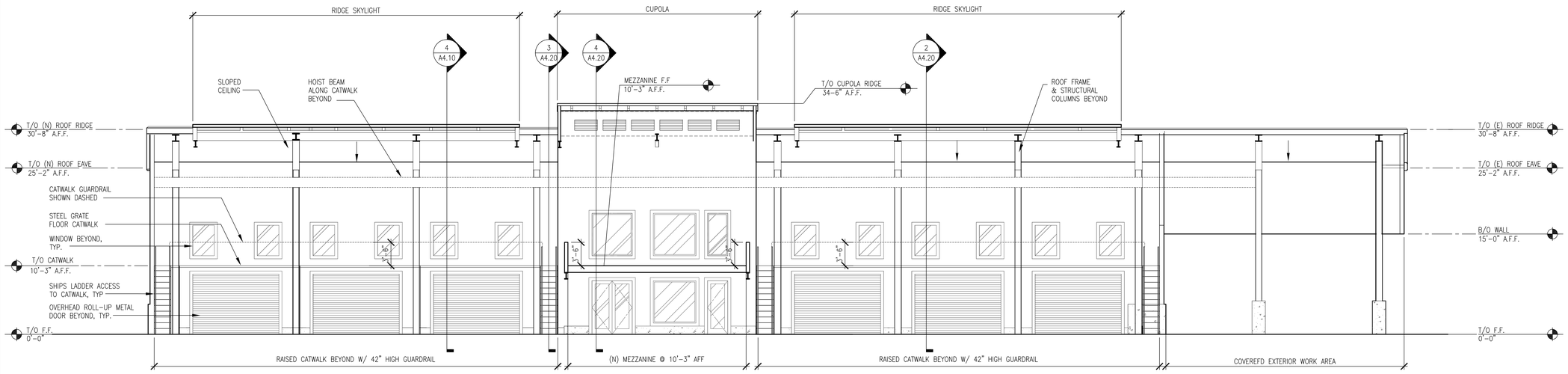
Date	12/11/2015
Drawn By	NP
Checked By	DM
Project No.	201154

Date	Issue
05/06/2015	PRELIMINARY DESIGN REVIEW
06/23/2015	PRELIMINARY DESIGN REVIEW-REV1
08/28/2015	BZA DESIGN CHANGE-REV2
12/11/2015	BZA DESIGN CHANGE-REV3
05/19/2017	BZA ISSUE-REV4
01/17/2018	REV5

WINERY EXTERIOR ELEVATION & SECTIONS

1/8"=1'-0"

A4.20



1 WINERY BUILDING LONGITUDINAL SECTION

BACKEN GILAM KROEGER
architects

1421 MAIN STREET
ST. HELENA, CA 94574
TELEPHONE 707 967 1930
FAX/SMART# 707 967 1934

2352 MARKINSHIP WAY
SAUSALITO, CA 94965
TELEPHONE 415 289 7660
FAX/SMART# 415 289 7644

WESTSIDE ROAD WINERY AND TASTING ROOM

4603 WESTSIDE ROAD, HEALDSBURG, CA 95448

Date	12/11/2015
Drawn By	NP
Checked By	DM
Project No.	201154

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08/28/2015	BZA DESIGN CHANGE-REV2
12/11/2015	BZA DESIGN CHANGE-REV3
05/19/2017	BZA ISSUE-REV4
01/17/2018	REV5

WINERY LONGITUDINAL SECTION

1/8"=1'-0"

A4.30

1 BEFORE – EXISTING GATE & AGRICULTURAL BUILDING

NOTE:
FINAL TYPE / MATERIAL FOR PROPOSED FENCE & ENTRY GATE TBD, SUBJECT TO APPROVAL BY SONOMA COUNTY PRMD & DESIGN REVIEW COMMITTEE.

2 AFTER – NEW ENTRY GATE AND FENCE, AGRICULTURAL BUILDING TO REMAIN AS IS

BACKEN GILLAM KROEGER
architects

2352 MARKINSHIP WAY
SANTA ROSA, CA 95403
TELEPHONE 415 289 7660
FACSIMILE 415 289 7664

1421 MAIN STREET
ST. HELENA, CA 94574
TELEPHONE 707 967 1930
FACSIMILE 707 967 1934

WESTSIDE ROAD WINERY AND TASTING ROOM

4603 WESTSIDE ROAD, HEALDSBURG, CA 95448

Date	12/11/2015
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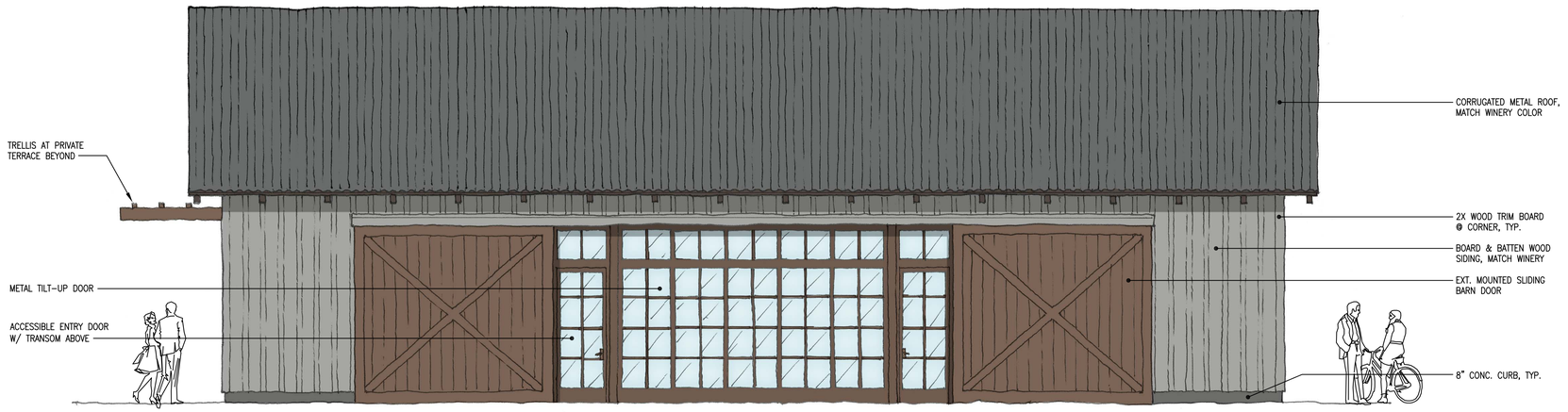
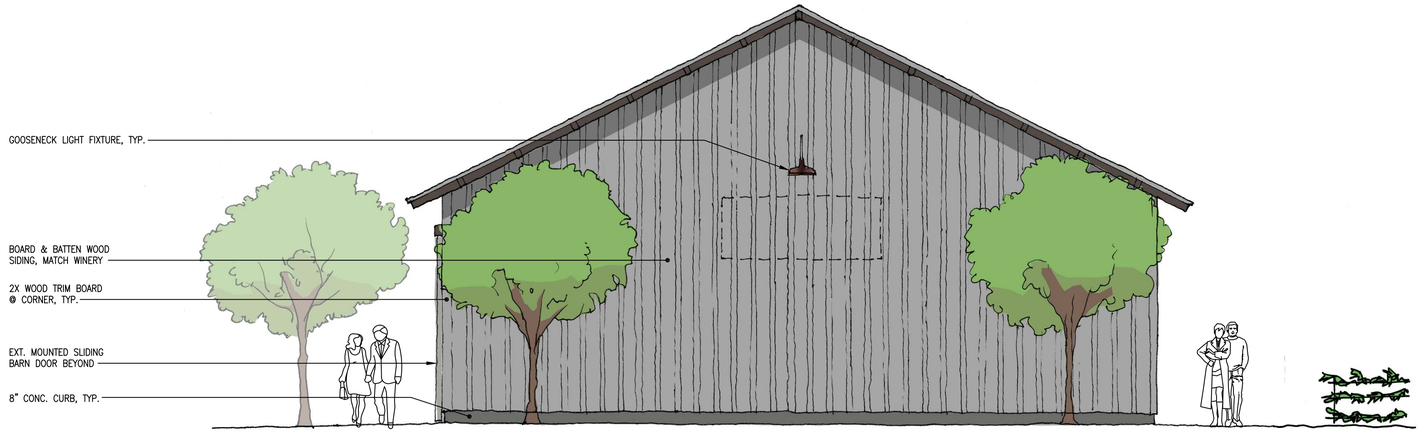
12/11/2015	BZA DESIGN CHANGE-REV3
05/19/2017	BZA ISSUE-REV4
01/17/2018	REV5

ENTRY GATE COLOR STUDY & MATERIAL PALETTE

A5.00

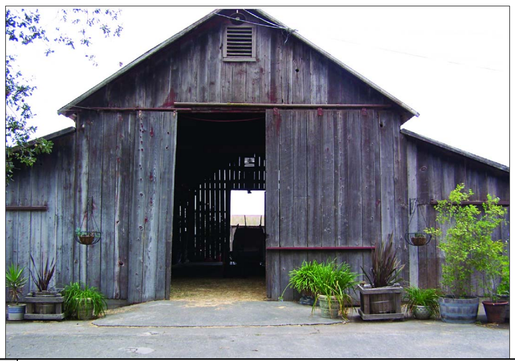


3 TASTING ROOM COLOR STUDY – EAST ELEVATION



2 TASTING ROOM COLOR STUDY – NORTH ELEVATION

CORRUGATED METAL ROOFING:
NON-REFLECTIVE GRAY



WOOD SIDING:

BOARD & BATTEN STAIN, WEATHERED GRAY

CONTRASTING WOOD SIDING & TRIM:

BOARD & BATTEN STAIN, BROWN

GOOSENECK LIGHT FIXTURE:

COPPER

CONTRASTING WOOD BARN DOORS:

WOOD TONGUE & GROOVE STAIN, BROWN

PATH EDGING:

GRANITE SETTS

WOOD BOARD & DECOMPOSED GRANITE PATHWAY/TERRACE:

STAIN GRAY, NATURAL BEIGE

STEEL TILT-UP DOORS & WINDOWS

1 TASTING ROOM MATERIAL PALETTE

BACKEN GILAM KROEGER
architects

2352 MARKINSHIP WAY
SUITE A, NAPA, CA 94558
TELEPHONE 415 289 7660
FAX/EMAIL 415 289 7664

1421 MAIN STREET
ST. HELENA, CA 94574
TELEPHONE 707 967 1930
FAX/EMAIL 707 967 1934

WESTSIDE ROAD WINERY AND TASTING ROOM

4603 WESTSIDE ROAD, HEALDSBURG, CA 95448

Date	12/11/2015
Drawn By	NP
Checked By	DM
Project No.	201154

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05/06/2015	PRELIMINARY DESIGN REVIEW
06/23/2015	PRELIMINARY DESIGN REVIEW-REV1
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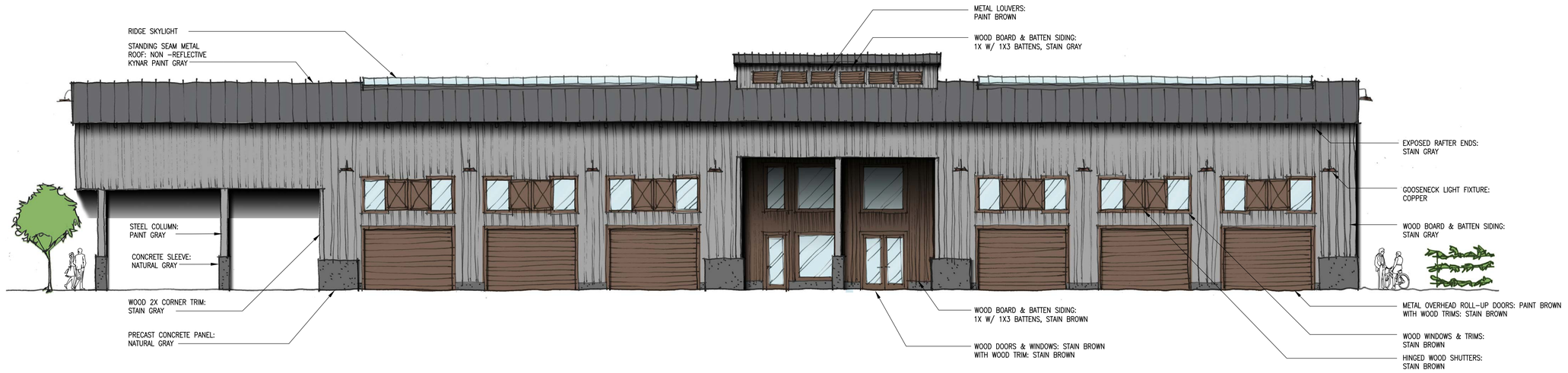
12/11/2015	BZA DESIGN CHANGE-REV3
05/19/2017	BZA ISSUE-REV4
01/17/2018	REV5

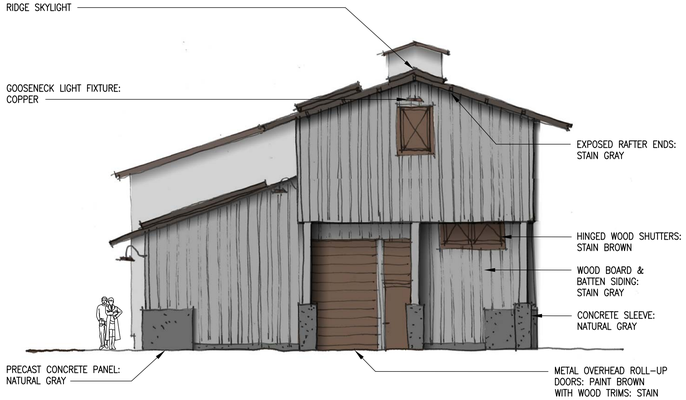
TASTING ROOM COLOR STUDY & MATERIAL PALETTE

1/4"=1'-0"

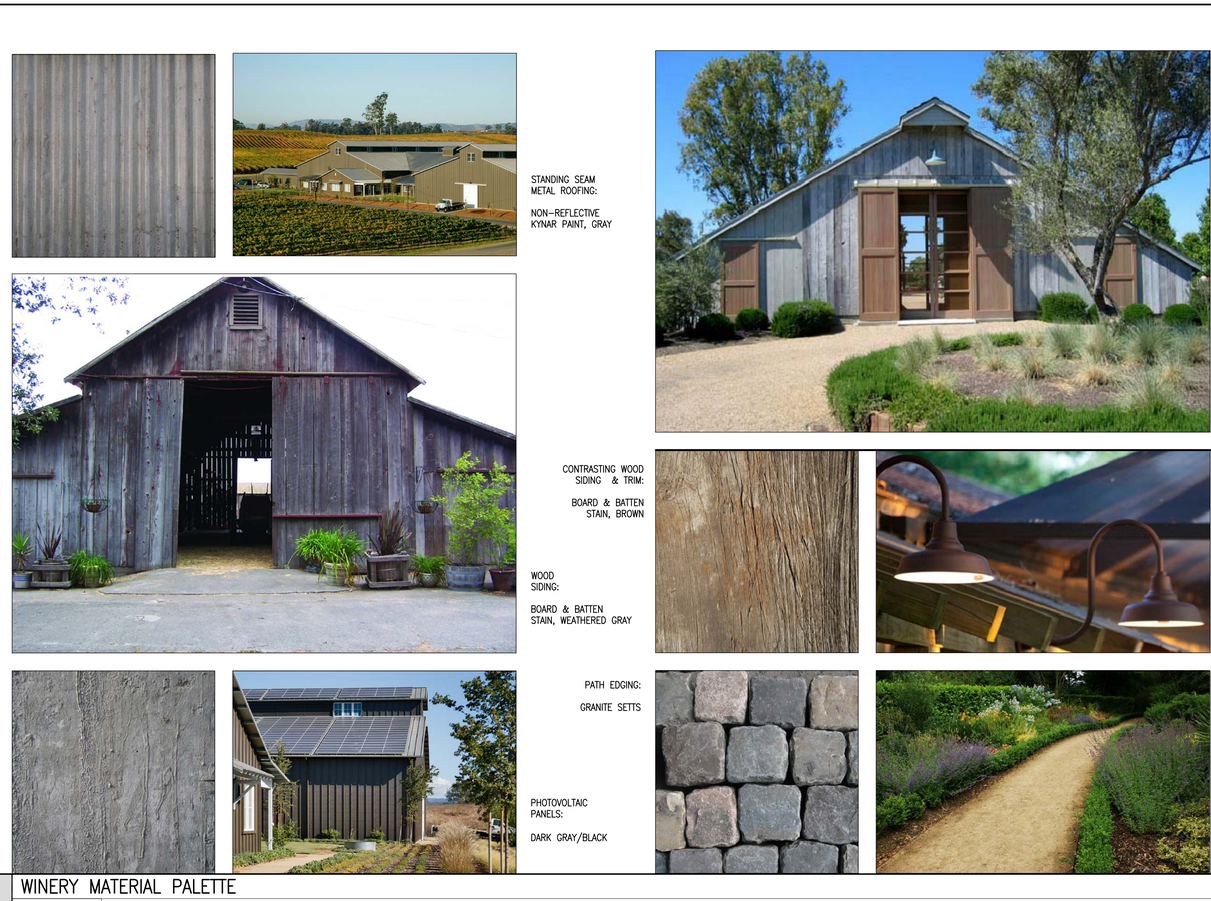
A5.10



3 WINERY COLOR STUDY– NORTH ELEVATION



1 WINERY COLOR STUDY– EAST ELEVATION



2 WINERY MATERIAL PALETTE

BACKEN GILAM KROEGER
architects
1421 MAIN STREET
ST. HELENA, CA 94574
TELEPHONE 707 967 1930
FAX/EMAIL 707 967 1934
2352 MARKINSHIP WAY
MILL VALLEY, CA 94941
TELEPHONE 415 289 7660
FAX/EMAIL 415 289 7664

WESTSIDE ROAD WINERY AND TASTING ROOM

4603 WESTSIDE ROAD, HEALDSBURG, CA 95448

Date	12/11/2015
Drawn By	NP
Checked By	DM
Project No.	201154

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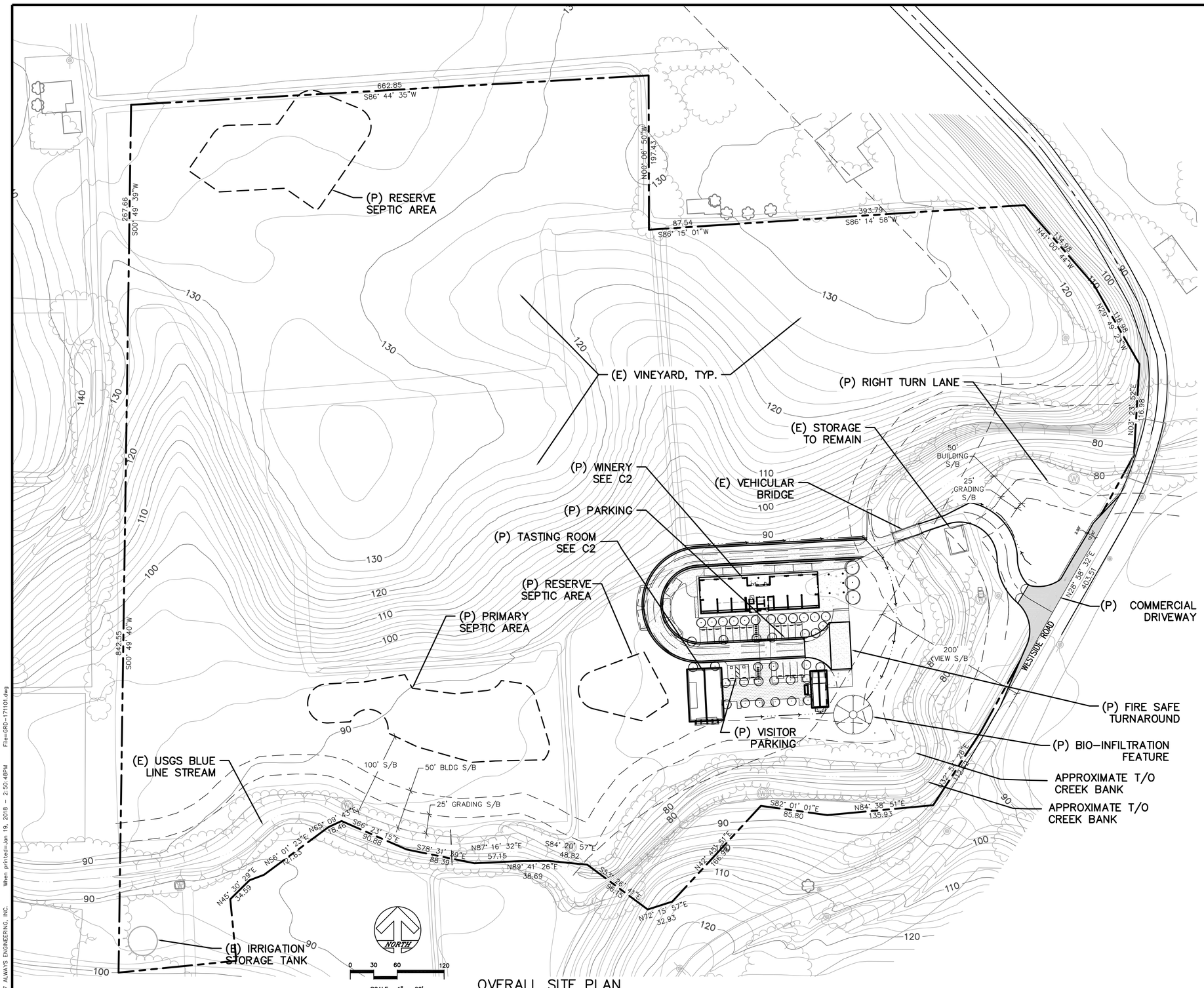
12/11/2015	BZA DESIGN CHANGE-REV3
05/19/2017	BZA ISSUE-REV4
01/17/2018	REV5

WINERY
COLOR STUDY &
MATERIAL PALETTE

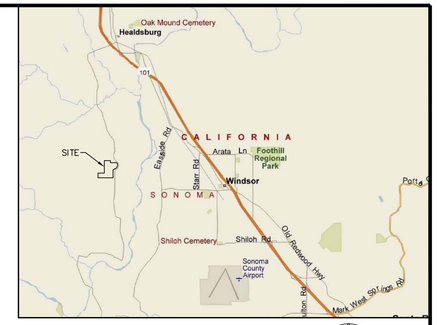
1/8"=1'-0"

A5.20

1/17/2018 S:\2011\201154 - Rudd Westside Road\1-Drawings\01-Current\Use Permit Application Set\A5.20_WINERY_COLOR_STUDY.dwg



OVERALL SITE PLAN
SCALE: 1" = 60'



VICINITY MAP
NO SCALE

NORTH

LEGEND

- APPROXIMATE PROPERTY LINE
- APPROXIMATE R.O.W. EASEMENT
- EDGE OF PAVEMENT
- EDGE OF GRAVEL DRIVEWAY
- DRAINAGE COURSE FLOWLINE
- 10 FOOT INDEX 2' INTERVAL CONTOURS
- CP 1 — CONTROL POINT
- FD — FOUND MONUMENT
- W — WELL
- (E)/(P) — EXISTING/PROPOSED
- P# — SOILS PROFILE PIT
- S/B — SET BACK
- COTG — CLEAN OUT TO GRADE
- FIRE HYDRANT

SHEET INDEX

NOTES

1. ALWAYS ENGINEERING, INC IS NOT RESPONSIBLE OR LIABLE FOR CHANGES MADE BY THE CLIENT, HIS/HER CONTRACTORS OR SUBCONTRACTORS TO ANY PLAN, SPECIFICATION OR OTHER CONSTRUCTION DOCUMENT PREPARED BY ALWAYS ENGINEERING, INC WITHOUT OBTAINING THE ENGINERS' PRIOR WRITTEN CONSENT.
3. THIS MAP DOES NOT CONSTITUTE A BOUNDARY SURVEY.PROPERTY LINES DERIVED FROM SONOMA COUNTY GIS AND SONOMA COUNTY PARCEL MAPS AND HAVE NOT BEEN VERIFIED.
4. SURVEY BY MICHAEL BROOKS, FLOWN ON 3/23/07 BY AMERICAN AERIAL MAPPING, INC.
5. PURPOSE STATEMENT: WINERY USE PERMIT.

REGISTERED PROFESSIONAL ENGINEER
JASON FRANK ROGERS
No. C86429
CIVIL
STATE OF CALIFORNIA

REVISION	DESCRIPTION	BY	DATE
1	PER LA REVISION 1	RM	6/23/15
2	B2A DESIGN CHANGE — REV 2	RB	8/28/15
3	ZONING SET CHANGE — REV 3	RB	12/11/15
5	REV 5	RM	01/18/18

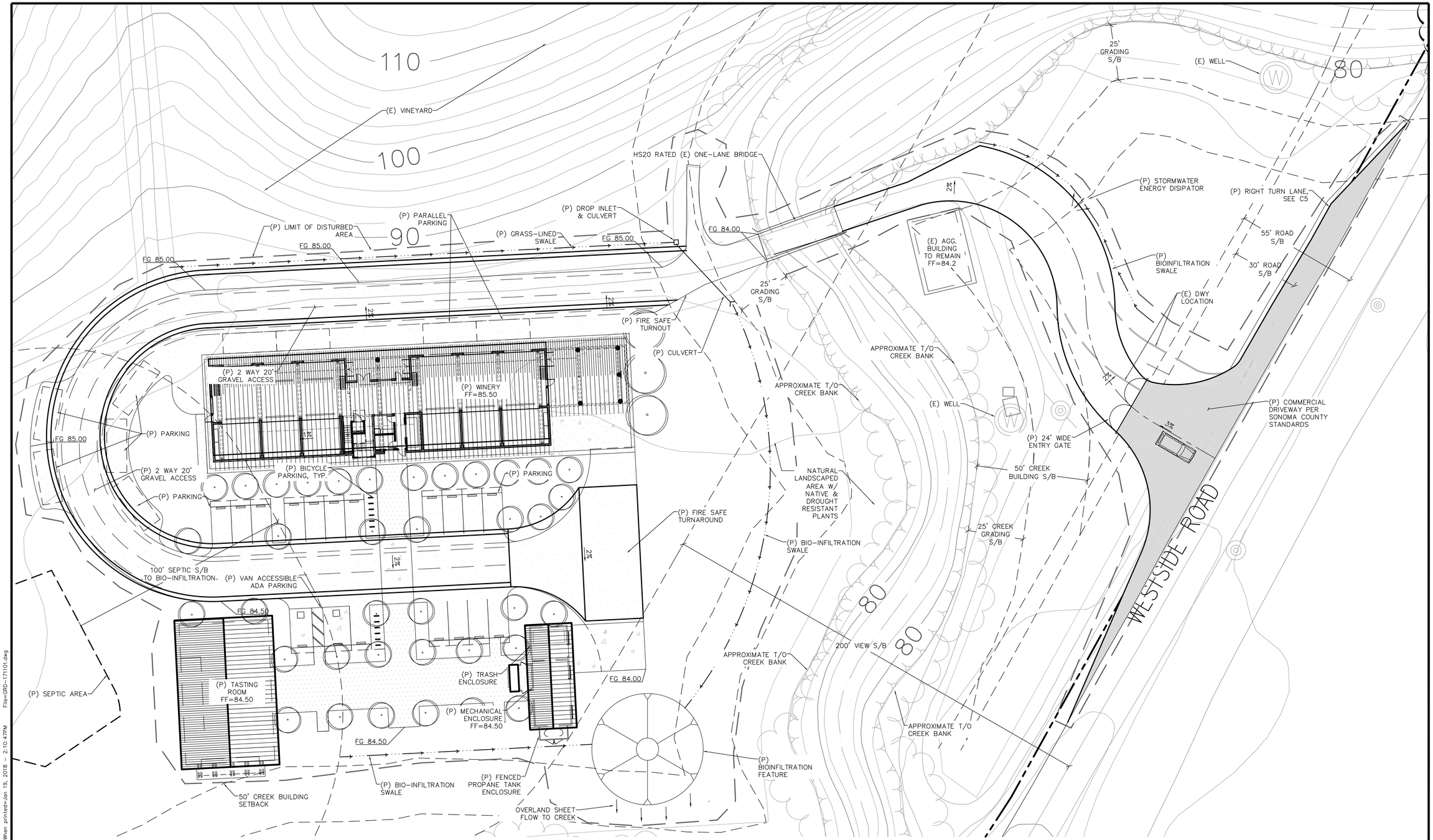
Always Engineering, Inc.
Civil Engineering & Topographic Surveying
131 Stony Circle, Suite 1000 (707) 542-8795
Santa Rosa, CA 95401 Fax (707) 542-8798
www.alwayseng.com JasonH@alwayseng.com

Prepared for: Rudd Wines
Westside Road Winery and Tasting Room

Prepared on: January 18, 2018

BROKEN HILL 1, LLC.
OVERALL SITE PLAN
4603 Westside Rd, Healdsburg, CA 95448
APN: 110-110-026

JOB# 12504
SHEET C1 OF C5



PLAN VIEW

SCALE: 1" = 20'

NORTH

0 10 20 40

SCALE: 1" = 20'

Grading Quantities:
Site Grading is based upon subgrade to existing grade. No account has been taken for strippings, expansion or contraction. Volumes should be verified and determined independently by the Contractor.

CUT:	FILL:	NET:
300 C.Y.	1230 C.Y.	930 C.Y FILL

DISTURBED AREA = 2.10 ACRES

EXCESS SOIL WILL BE SPREAD EVENLY ONTO VINEYARD ROWS AND PLANTED WITH A COVER CROP. EXCESS ROCK SHALL BE USED ONSITE FOR EROSION CONTROL AND LANDSCAPE FEATURES. ANY OFF-HAUL OF EXCESS SPOILS SHALL BE REVIEWED AND APPROVED BY SONOMA COUNTY ENGINEERING AND PLANNING PRIOR TO EXPORTING OFFSITE.

REGISTERED PROFESSIONAL ENGINEER
JASON FRANK HOOREMAN
No. C86429
CIVIL
STATE OF CALIFORNIA

REVISION	DESCRIPTION	BY	DATE
1	PLANNING REVIEW REVISION 1	RM	6/23/15
2	BDA DESIGN CHANGE - REV 2	RB	8/28/15
3	PLANNING DESIGN CHANGE - REV 3	RB	12/11/15
4	REV 5	RM	01/18/18

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Santa Rosa, CA 95401 Fax (707) 542-8798
www.alwayseng.com JasonH@alwayseng.com

Prepared for: BROKEN HILL 1, LLC.
Westside Road Winery and Tasting Room

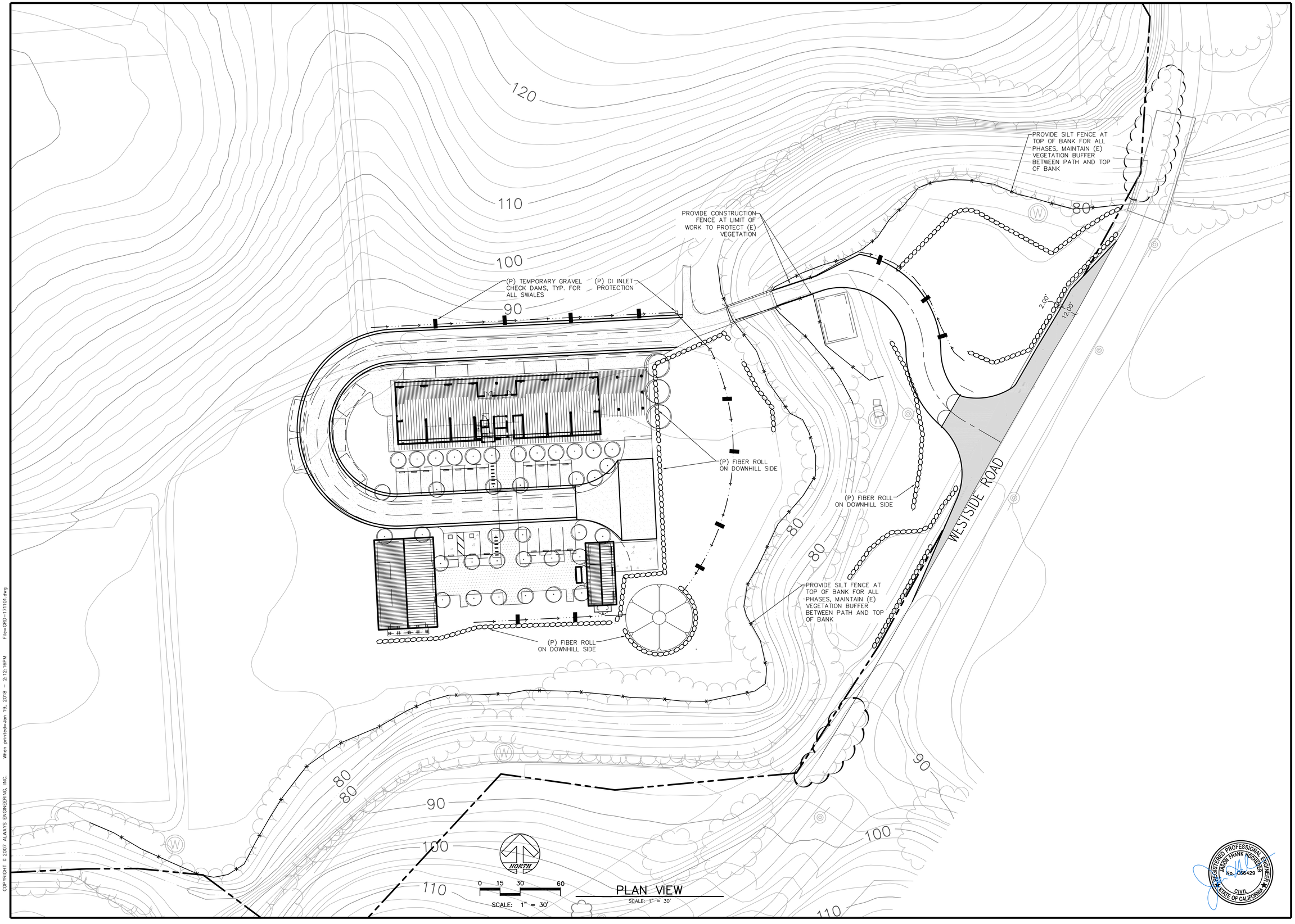
Prepared on: January 18, 2018

WINERY USE PERMIT
GRADING AND DRAINAGE

4603 Westside Rd, Healdsburg, CA 95448
APN: 110-110-026

JOB# 12504

SHEET
C2 OF C5



REVISION	DESCRIPTION	BY	DATE
1	PRELIM REVIEW REVISION 1	RM	6/23/15
2	BZA DESIGN CHANGE - REV 2	RB	8/28/15
3	PLANNING DESIGN CHANGE - REV 3	RB	12/11/15
4	REV 5	RM	01/18/18

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Santa Rosa, CA 95401 Fax (707) 542-8798
www.alwayseng.com JasonH@alwayseng.com

Prepared for: BROKEN HILL 1, LLC.
Westside Road Winery and Tasting Room

Prepared on: January 18, 2018

WINERY USE PERMIT
EROSION CONTROL PLAN

4603 Westside Rd, Healdsburg, CA 95448
APN: 110-110-026

JOB# 12504

SHEET
C3 OF C5

REGISTERED PROFESSIONAL ENGINEER
JASON FRANK HOOKER
No. C86429
CIVIL
STATE OF CALIFORNIA

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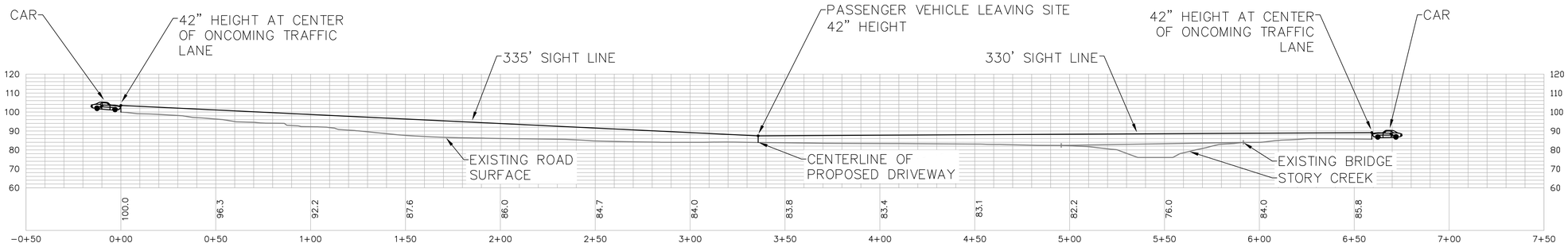


SIGHT LINE PROFLE VIEW

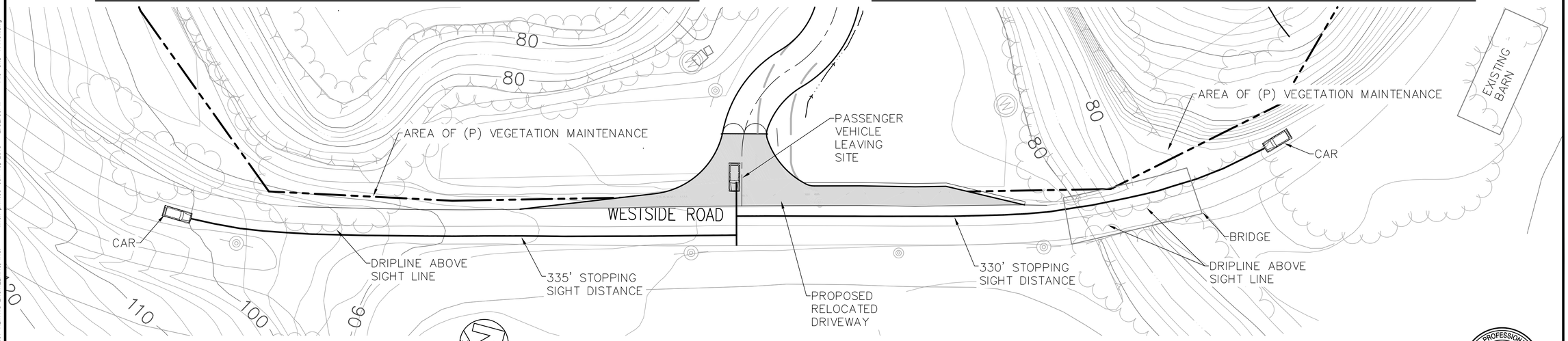
SCALE: HORIZONTAL & VERTICAL 1" = 30'

0 15 30 60

SCALE: 1" = 30'

NORTHBOUND STOPPING SITE DISTANCE AT 343 FEET TO PROPOSED DRIVEWAY

SOUTHBOUND STOPPING SITE DISTANCE AT 330 FEET TO PROPOSED DRIVEWAY



SIGHT DISTANCE PLAN VIEW

SCALE: 1" = 30'

0 15 30 60

SCALE: 1" = 30'

REGISTERED PROFESSIONAL ENGINEER
JASON FRANK HOHBEIN
No. C86429
CIVIL
STATE OF CALIFORNIA

REVISION	DESCRIPTION	BY	DATE
1	PRELIM DESIGN REVISION 1	RM	6/23/15
2	BZA DESIGN CHANGE - REV 2	RB	8/28/15
3	PLANNING DEPT CHANGE - REV 3	RB	12/11/15
4	REVISE STOP SIGHT DISTANCE	RB	12/5/17
5	REV 5	RM	01/18/18

Always Engineering, Inc.
Civil Engineering & Topographic Surveying
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Santa Rosa, CA 95401 Fax (707) 542-8798
www.alwayseng.com JasonH@alwayseng.com

Prepared for: BROKEN HILL 1, LLC.
Westside Road Winery and Tasting Room

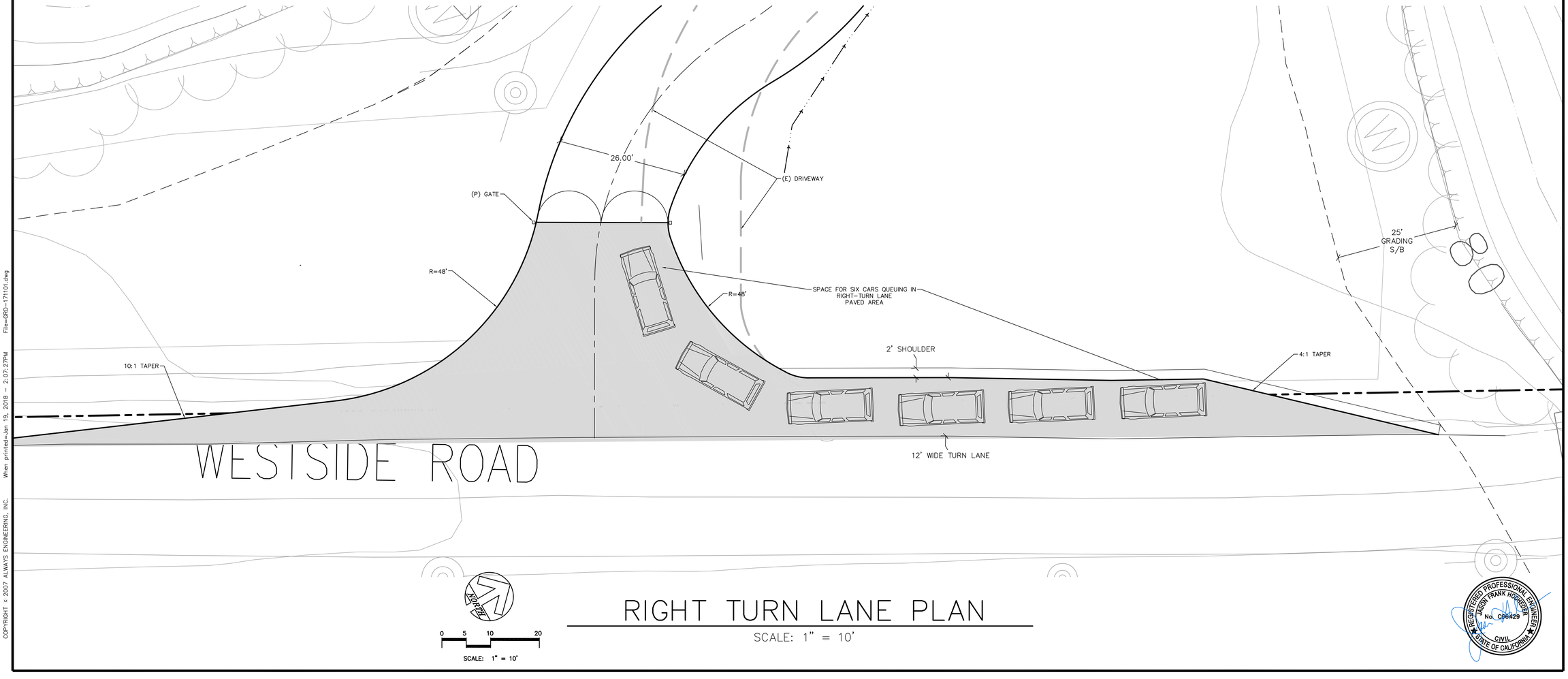
Prepared on: January 18, 2018

WINERY USE PERMIT
STOPPING SIGHT DISTANCE PLAN
4603 Westside Rd, Healdsburg, CA 95448
APN: 110-110-026

JOB# 12504

SHEET
C4 OF C5

When printed=Jan 19, 2018 - 2:52:39PM File=GRD-171101.dwg



RIGHT TURN LANE PLAN

SCALE: 1" = 10'

0 5 10 20

SCALE: 1" = 10'

REGISTERED PROFESSIONAL ENGINEER
JASON FRANK ROBERTS
No. C56429
CIVIL
STATE OF CALIFORNIA

REVISION	DESCRIPTION	BY	DATE
1	PRELIM REVISION REVISION 1	RM	6/23/15
2	BZA DESIGN CHANGE — REV 2	RB	8/28/15
3	BZA DESIGN CHANGE — REV 3	RB	12/11/15
4	REV 5	RM	01/18/18

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www.alwayseng.com JasonH@alwayseng.com

Prepared for: BROKEN HILL 1, LLC.
Westside Road Winery and Tasting Room

Prepared on: January 18, 2018

WINERY USE PERMIT
RIGHT TURN LANE PLAN
4603 Westside Rd, Healdsburg, CA 95448
APN: 110-110-026

JOB# 12504

SHEET
C5 OF C5

When printed=Jan 19, 2018 - 2:07:27PM File=GRD-171101.dwg

Attachment 3

May 11, 2016

Mr. Guy Byrne
Leslie Rudd Investment Company, Inc.
P.O. Box 105
Oakville, CA 94562-0105

Revised Traffic Study for Rudd Wines Winery & Tasting Room

Dear Mr. Byrne;

W-Trans has completed a focused traffic analysis addressing potential traffic impacts and circulation needs for the proposed new Rudd Wines Winery & Tasting Room (PLP14-0031) to be located at 4603 Westside Road southwest of the City of Healdsburg in unincorporated County of Sonoma. The scope for the traffic study was established based on the information requested by Mr. Greg Desmond of the County's Permit and Resource Management Department in a letter dated June 26, 2014.

Project Description

The site is a 26.2-acre parcel that is currently occupied by some vineyards and a small equipment shed/office building. Ultimately, the proposed project would add a new 8,145 square foot production building and 2,520 square foot tasting room to achieve a production capacity of 10,000 cases.

Study Area

The project site is on Westside Road, a rural major collector, approximately four and a quarter miles southwest of the nearest US 101 interchange. Westside Road is a two-lane road, with about a ten- to twelve-foot travel lane in each direction and a double yellow centerline. The posted speed limit on Westside Road near the project site is 45 miles per hour (mph). Traffic counts were collected north of Felta Road on Thursday August 23, 2012. Based on this data, Westside Road has an average daily traffic (ADT) volume of approximately 3,070 vehicles on weekdays. It is important to note that there is an elementary school located on Felta Road that contributed many of the vehicles counted at that location. Most trips associated with the elementary school arrived from and returned to US 101 at Westside Road, so were not present at the project driveway.

Collision History

The collision history for the segment of Westside Road within one-half mile of the project driveway was reviewed to determine any trends that may indicate a safety issue. Collision rates were calculated based on collision data available from the California Highway Patrol as published in their Statewide Integrated Traffic Records System (SWITRS) reports. The most current five-year period available is from March 1, 2010 to February 28, 2015. The calculated collision rate for the study segment was compared to the average collision rate for similar facilities statewide, as indicated in *2012 Collision Data on California State Highways*, Caltrans.

The statewide average collision rate for a rural two-lane road with a speed limit of less than 55 mph is 0.93 collision/million vehicles miles (c/mvm). Two collisions occurred just north and south of the project driveway, but the vehicles were traveling northbound and it was due to unsafe speed. The calculated collision rate for the two reported collisions during a five-year study period is 0.35 c/mvm, which is lower than the statewide average of 0.93 c/mvm for similar facilities. Similarly, the fatality rate of 0.0 was below the statewide average. Though the injury rate was higher than the statewide average, with only two collisions reported for the study segment, one of which resulted in an injury, the above-average rate is not seen as significant. A copy of the collision rate spreadsheet is enclosed for reference.

Trip Generation

The anticipated trip generation for a proposed project is typically estimated using standard rates published by the Institute of Transportation Engineers (ITE) in *Trip Generation Manual*, 9th Edition, 2012. However, this publication does not contain information for wineries. Therefore, Sonoma County's Winery Trip Generation form was used to determine the potential trip generation for existing and proposed conditions.

The project as proposed is expected to have 24 employees total. Each of the 24 employees is assumed to generate three trip ends daily, or 72 daily trips for all employees. Based on year-long counts taken at a wine tasting facility, visitation was found to range from 47 percent of the maximum number of tasting visitors during the winter months to 100 percent during the summer and up to 99 percent during harvest. The tasting room is expected to serve a peak of 200 and an average of 140 guests on a daily basis. Per County policy, assuming an average of 2.5 persons per vehicle, the tasting room operation will generate an average of 112 visitor trip ends daily. The sum of these typical daily trips is 186 trips per day, which includes employees and tasting visitors, as well as deliveries of materials and supplies. The estimated truck traffic is approximately two trips per day on average. Special event traffic is not shown in the tables below. It is discussed in the next section and included in a separate enclosure, which shows the number of vehicles on the event days.

Data collected by W-Trans at a local Sonoma County winery was used to develop factors for winery tasting room trips made during both the p.m. and weekend midday peak hours. Based on this information it was assumed that the p.m. peak accounted for ten percent of the weekday daily trips, and the weekend midday peak captures thirteen percent of traffic on a weekend day. Details of the trip generation derivation for an average day are shown in Table 1 and provided on the enclosed spreadsheet.

Table 1 – Trip Generation Summary – Average (non-Harvest)

Trip Type	Unit	Daily		PM Peak Hour			Weekend MD Peak		
		Rate	Trips	Trips	In	Out	Trips	In	Out
Winery Employees	11	3	33	11	3	8	11	5	6
Vineyard Employees	3	3	9	3	1	2	3	1	2
Tasting Employees	10	3	30	10	3	7	10	5	5
Tasting Visitors	140	0.8	112	11	4	7	15	8	7
Truck Traffic	2	n/a	2	0	0	0	0	0	0
Total New Trips			**186**	**35**	**11**	**24**	**39**	**19**	**20**

Note: Trip generation does not include special event traffic

The employee count is expected to increase to 38 employees with extra staff hired during harvest. The 38 employees for the winery and tasting room operations during the harvest season are expected to generate 114 daily trips. Peak visitation during harvest is expected to be 198 visitors or 158 daily trips. Truck traffic is expected to be 1.67 daily trips, so was rounded to two trips, as shown in Table 2, which presents the anticipated peak harvest-period trip count.

Table 2 – Trip Generation Summary – Harvest

Trip Type	Unit	Daily		PM Peak Hour			Weekend MD Peak		
		Rate	Trips	Trips	In	Out	Trips	In	Out
Winery Employees	17	3	51	17	4	13	17	8	9
Vineyard Employees	11	3	33	11	3	8	11	6	5
Tasting Employees	10	3	30	10	3	7	10	5	5
Tasting Visitors	198	0.8	158	16	5	11	21	11	10
Truck Traffic	n/a	n/a	2	0	0	0	0	0	0
Total New Trips			**274**	**54**	**15**	**39**	**59**	**30**	**29**

Note: Trip generation does not include special event traffic

As indicated by the difference between the trip generation for typical daily conditions and during harvest, the traffic at a winery varies substantially over the course of the year, depending on the season. The variation by month, including the increase in employees needed for bottling in July and additional employees needed for harvest from August through October, is shown for each category of trip generator in Table 3.

Table 3 – Trip Generation Summary – ADT Variation by Month

	Jan	Feb	Mar	Apr	May	Jun	Jul	**Aug**	**Sept**	**Oct**	Nov	Dec
Employees	72	72	72	72	72	72	87	**114**	**114**	**114**	72	72
Truck Trips	0.95	0.95	0.95	0.92	0.95	0.98	2.15	**1.67**	**1.65**	**0.95**	0.95	0.95
Visitors	77	83	94	106	120	126	160	**158**	**120**	**125**	101	75
Total	150	156	167	179	193	199	249	**274**	**236**	**240**	174	148

Notes: Months in bold represent harvest season conditions; total values rounded to nearest whole number

Agricultural Promotional Events

The project proposal includes 37 events per year, including 12 agricultural promotional events, 13 industry-wide events, and 12 wine maker lunches or dinners. Of the 12 agricultural promotional events proposed per year, six events would have as many as 80 guests, three events would have 100 guests, and three events would have as many as 150 guests. Six winemaker lunches and six winemaker dinners are proposed per year with as many as 36 guests per event. The winery would also participate in as many as 13 days of industry-wide events, such as Winter Wineland and Barrel Tasting. It was assumed that a staff of eight employees would be needed for the maximum-sized site-specific 150-person event. The 150-person events are proposed to occur on Saturday afternoons, at which time employees that work weekdays would not be on the site. Using occupancy of 2.5 persons per vehicle for guests, and solo occupancy for staff, a 150-person event would be expected to generate 136 trip ends at the facility. This would include 68 inbound trips prior to the start of the event and 68 outbound trips upon its conclusion.

Since events occur so infrequently, trips from events are not included in the trip generation estimates shown above or as presented on the enclosed Winery Trip Generation form. The trips that would be generated on an event day are shown on the Event Matrix, which is enclosed.

Event Parking

The project site should provide adequate parking to accommodate daily operations at the winery as well as agricultural promotional events. For the largest 150-person event, 60 guest vehicles would be expected to arrive at the site in addition to eight employee vehicles, resulting in a total parking demand of 68 spaces. The enclosed

site plan indicates a total parking supply of approximately 75 spaces, including 27 designated parking spaces and room for approximately 48 vehicles between the vineyard rows. The parking supply as proposed is more than adequate for typical daily operations as well as the winery's largest special event.

Harvest Conditions Parking

Assuming the total number of employees during harvest season is 38 and the peak number of visitor vehicles during the day is 21, the parking supply (assuming 1 vehicle per employee) would need to be at least 59 spaces. The proposed parking supply is adequate for harvest season conditions.

Site Access

The project site is accessed via a proposed driveway approximately 20 feet south of the existing driveway on Westside Road. It is expected that most traffic will arrive from the north as this is the shortest path to US 101 and there are numerous other wineries as well as hotels to the north.

Prevailing Speed

A radar speed study was conducted on Thursday, October 8, 2015 between 1 and 2 p.m. to determine the prevailing speed of vehicles traveling on Westside Road as they approach the existing driveway. Conducting a speed survey outside peak periods results in ideal conditions for capturing free-flow speeds of motorists. Due to the low volume of the roadway, it took an hour to obtain speeds of 25 vehicles in each direction for a total sample size of 50 vehicles. The 85th percentile of vehicle speeds sampled was 40 mph, which is lower than the posted speed limit. It is further noted that nearly 70 percent of vehicles were traveling between 28 and 38 mph and only two vehicles were sampled at speeds exceeding 45 mph.

An additional speed survey was conducted on Tuesday, December 1, 2015 between 1 and 2 p.m. to determine the speed at which southbound traveling drivers exit the curve just north of the project driveway. It is noted that the *California Manual on Uniform Traffic Control Devices* (CA-MUTCD) indicates that a minimum of 50 vehicles should be sampled for speed surveys that are to be used for Engineering and Traffic Surveys to establish a posted speed limit on a road segment. However, given that the speed survey was performed to obtain prevailing speeds for the sight distance analysis, and not for a use such as a speed limit that is legally binding, the smaller sample is adequate to provide guidance. The 85th percentile of southbound vehicle speeds was found to be 35 mph, which is higher than the posted advisory speed sign of 30 mph, but lower than the posted speed limit of 45 mph. Output data from the speed surveys are enclosed.

Sight Distance

At driveways a substantially clear line of sight should be maintained between the driver of a vehicle waiting on the driveway and the driver of an approaching vehicle. Adequate time must be provided for the waiting vehicle to either cross, turn left, or turn right, without requiring the through traffic to radically alter their speed. Sight distance along Westside Road from the proposed driveway location was evaluated based on sight distance criteria contained in *A Policy on Geometric Design on Highways and Streets* published by American Association of State Highway and Transportation Officials (AASHTO). Because this is a private driveway and not a public road, stopping sight distance was used to evaluate sight distance at the project driveway. Measurements of available sight distance at the project driveway were taken in the field using a measuring wheel and an object representing the height of a driver sitting in a car at the project driveway. Measuring from the project driveway the distance at which the object representing the height of a driver goes out of view is determined for both directions.

Looking South

Looking to the south of the driveway, there is a more gradual curve with a posted advisory speed of 25 mph for northbound traffic. A speed survey was conducted at the location of the existing driveway to capture 85th percentile speeds of northbound and southbound vehicles. The **northbound** 85th percentile speed was found to

be 36 mph. At speeds of 35 mph, 250 feet of stopping sight distance is recommended for motorists on Westside Road. Sight lines at the location of the proposed driveway are approximately 350 feet, which is an adequate distance for speeds of 40 mph. The speed profiles with 85th percentile speeds are enclosed. Sight distance measurements are shown graphically in another enclosure.

Looking North

To the north of the driveway there is a sharp curve with a posted advisory speed of 30 mph for southbound traffic. Speeds taken at the existing driveway indicate an 85th percentile southbound speed of 44 mph. For speeds of 45 mph, 360 feet of stopping sight distance is required. At the location of the proposed driveway, sight lines are limited to approximately 310. Because this speed was recorded at the project driveway and not at the location where a southbound vehicle would see a vehicle at the project driveway and react, a second speed survey was conducted at the location of the curve. The 85th percentile speed of **southbound** vehicles at the point at which they exit the curve north of the project driveway was found to be 35 mph. For an approach speed of 35 mph, 250 feet of stopping sight distance on Westside Road is recommended and for a 40-mph approach speed, 305 feet is recommended. The 310 feet available is more than adequate for the 35-mph critical speed sampled at the point where drivers would first be able to see and react to a vehicle exiting the driveway. It is recommended that vegetation along the project frontage be planted and maintained such that it does not exceed three feet in height to maximize clear sight lines.

Turn Lane Warrants

The need for a left-turn lane on Westside Road at the proposed driveway was evaluated using volumes from a count obtained on Westside Road north of Felta Road in August of 2012. Because much of the traffic on this segment is associated with the elementary school on Felta Road, this results in a conservative analysis. To capture "typical" conditions, the 50-person event at the winery was used for this analysis rather than the infrequent larger events. This size of event is expected to generate 24 inbound trips in a single hour, which exceeds the inbound volumes under typical operation without an event. It is assumed employees would arrive in the hour before the guests arrive, so they were not included in the project volumes for the turn warrant analysis. The turn warrant analyses were conservatively performed assuming peak hour volumes on Westside Road. The left-turn warrant analysis was first run with all traffic arriving from the south and making a left turn into the project site even though such an arrival pattern is not expected. A left-turn lane is not warranted on Westside Road at the project site even under these highly unlikely conditions. The right-turn warrant analysis was then run with all the traffic arriving from the north. A right-turn lane or taper is also not warranted on Westside Road at the project site.

Copies of the warrant analysis spreadsheets are enclosed for reference.

Alternative Modes Access

There are currently no pedestrian or bicycle facilities on Westside Road, but there are plans to include Class III bicycle facilities, based on the *2014 SCTA Countywide Bicycle and Pedestrian Plan*. It is typical for pedestrians and bicyclists to share the travel way with vehicles on rural roads such as Westside, and this will continue upon signing the road as a Class III facility. The project includes no changes that would impede any existing use or future improvements.

Conclusions and Recommendations

- The proposed project would generate an average of 186 new trips on a daily basis, including 35 p.m. peak hour trips and 39 weekend midday peak hour trips.

- During harvest, the proposed project would generate 274 new daily trips, including 54 p.m. peak hour trips and 59 weekend midday peak hour trips.

- Westside Road has experienced collisions at a rate below the statewide average, so exhibits an acceptable safety condition.

- The site plan indicates a parking supply of 75 parking spaces, which is more than adequate for the largest special event as well as for harvest conditions.

- The speed sampled on northbound Westside Road approaching the project driveway was 36 mph; sight distance to the south of the proposed driveway exceeds the minimum requirement for an approach speed of 40 mph so is more than adequate for the prevailing speed.

- Sight distance to the north of the proposed driveway location along Westside Road is more than adequate for southbound vehicles traveling at 35 mph, which is the speed at which drivers were recorded exiting the curve to the north of the driveway. It is recommended that the landscaping along the project frontage be planted and maintained to be less than three feet in height to maximize the availability of clear sight lines, such that a driver traveling southbound would have a clear view of the driveway prior to accelerating out of the curve to the north of the driveway.

- Neither a left-turn or right-turn lane nor a right-turn taper are warranted on Westside Road at the proposed driveway for peak hour traffic or special event traffic.

We appreciate the opportunity to provide these services. Please call us if you have any questions.

Sincerely,

Lauren Davini, EIT
Assistant Transportation Engineer

Dalene J. Whitlock, PE, PTOE
Principal

DJW/lgd/SOX508.L1

References

2012 Collision Data on California State Highways, California Department of Transportation, 2012
A Policy on Geometric Design of Highways and Streets, 6th Edition, American Association of State Highway and Transportation Officials, 2011
California Manual on Uniform Traffic Control Devices for Streets and Highways, California Department of Transportation, 2012
Intersection Channelization Design Guide, National Cooperative Highway Research Program (NCHRP) Report No. 279, Transportation Research Board, 1985
SCTA Countywide Bicycle & Pedestrian Master Plan, Sonoma County Transportation Authority, 2014
Statewide Integrated Traffic Records System (SWITRS), California Highway Patrol, 2010-2015

Enclosures

Collision Rate Spreadsheet
Winery Trip Generation Worksheet
Sonoma County Winery Events Matrix
Event Parking Exhibit
Speed Survey
Sight Distance Exhibit
Left-turn Lane Warrant Spreadsheet

SEGMENT COLLISION RATE CALCULATIONS

SOX508 Rudd Wines Winery & Tasting Room

Location: 4603 Westside Road and Project Driveway

Date of Count: Thursday, August 23, 2012
ADT: 3,100

Number of Collisions: 2
Number of Injuries: 1
Number of Fatalities: 0
Start Date: March 1, 2010
End Date: February 28, 2015
Number of Years: 5

Highway Type: Conventional 2 lanes or less
Area: Rural
Design Speed: ≤55
Terrain: Flat

Segment Length: 1.0 miles
Direction: North/South

$$\frac{\text{Number of Collisions x 1 Million}}{\text{ADT x 365 Days per Year x Segment Length x Number of Years}}$$

$$\frac{2 \times 1{,}000{,}000}{3{,}100 \times 365 \times 1 \times 5}$$

	Collision Rate		Fatality Rate	Injury Rate
Study Segment	**0.35**	**c/mvm**	**0.0%**	**50.0%**
Statewide Average*	**0.93**	**c/mvm**	**2.4%**	**40.1%**

ADT = average daily traffic volume
c/mvm = collisions per million vehicle miles
* 2012 Collision Data on California State Highways, Caltrans

Winery Trip Generation

Winery: Rudd Wines Winery & Tasting Room
Location: 4603 Westside Road
Annual Full Production: 10000 cases

WINERY OPERATIONS

Employee traffic using passenger vehicles, in average ADT

Item Description	Employees				Trips			
	Existing	Proposed (year round)	Proposed (harvest period)	Proposed (bottling period)	Existing	Proposed (year round)	Proposed (harvest period)	Proposed (bottling period)
Winery Production	0	3	5	--	0	9	15	--
Cellar / Storage	0	2	6	--	0	6	18	--
Administrative	0	3	3	--	0	9	9	--
Sales	0	3	3	--	0	9	9	--
Bottling	0	0	--	5	0	0	--	15
Other staff (describe):					0	0	0	0
Totals	**0**	**11**	**17**	**5**	**0**	**33**	**51**	**15**

Truck traffic associated with winery operations (average ADT during period of activity)

Item Description		Existing	Average	Harvest
Grape Importation Truck loads per year: Dates of Activity:	20.2; 17.96 truck(s) at 6 tons/truck; and 2.24 truck(s) at 12 tons/truck August through September	0.00	0.00	0.70
Juice Importation Truck loads per year: Dates of Activity:	None through	0.00	0.00	0.00
Juice/Fruit Exportation Truck loads per year: Dates of Activity:	None August through September	0.00	0.00	0.00
Pomace Disposal Truck loads per year: Dates of Activity: Disposed:	0 August through September	0.00	0.00	0.00
Bottle Delivery Truck loads per year: Dates of Activity:	4.2 truck(s) at 2380 cases/truck July through July	0.00	0.40	0.00
Barrel Delivery Truck loads per year: Dates of Activity:	0.88 truck(s) at 150 barrels/truck June through August	0.00	0.03	0.03
Finished Wine Transportation to storage/sales Truck loads per year: Dates of Activity:	8.12 truck(s) at 1232 cases/truck July through July	0.00	0.77	0.00
Less Backhauls Truck loads per year: Dates of Activity:	0	0.00	0.00	0.00
Miscellaneous trips Truck loads per year: Dates of Activity:	119.52 trucks January through December	0.00	0.95	0.95
Totals		**0.00**	**2.15**	**1.67**

VINEYARD OPERATIONS

Employee trips associated with vineyard operations (in average ADT)

Item Description	Employees		Trips		
	Existing	Proposed	Existing	Average	Harvest
Vineyard Maintenance: Year Round	0	3	0	9	
Vineyard Maintenance: Peak Season	0	11			33
Totals	**0**	**14**	**0**	**9**	**33**

Winery Trip Generation

TASTING ROOM OPERATIONS

Item Description	Persons			Trips		
	Existing	Average	Harvest	Existing	Average	Harvest
Tasting Room Visitors	0	140	198	0	112	158
Tasting Room Employees	0	10	10	0	30	30
Totals	**0**	**150**	**208**	**0**	**142**	**188**

	Tasting Room			Production		
	Existing	Average	Harvest	Existing	Average	Harvest
Months of Operation	-	Year Round	Year Round	-	Year Round	0
Days of Operation	-	Daily	Daily	-	Monday - Friday	Daily
Hours of Operation	-	10:00 am - 5:00 pm	10:00 am - 10:00 pm	-	7:00 am - 6:00 pm	6:00 am - 10:00 pm

MISCELLANEOUS OTHER TRAFFIC GENERATORS

Item Description	Existing	Average	Harvest
Event Traffic Enter Event Information on Schedule Tab	0	13	9
Other Trips (If Applicable) None			
Totals	**0**	**13**	**9**

SUMMARY

Item Description	Existing	Average	Harvest
Winery Operations (employees)	0	33	51
Winery Operations (truck traffic)	0	2	2
Vineyard Operations (employees)	0	9	33
Tasting Room Traffic (employees and visitors)	0	142	188
Miscellaneous other traffic generators	0	0	0
Totals	**0**	**186**	**274**

Variation in ADT during the course of a typical full production year (Proposed Project Trips)

Generator	January	February	March	April	May	June
Employees	72	72	72	72	72	72
Visitors	77	83	94	106	120	126
Trucks	0.95	0.95	0.95	0.95	0.95	0.98
Total Trips	150	156	167	179	193	199

Month	July	August	September	October	November	December
Employees	87	**114**	**114**	**114**	72	72
Visitors	160	**158**	**120**	**125**	101	75
Trucks	2.15	**1.67**	**1.65**	**0.95**	0.95	0.95
Total Trips	249	**274**	**236**	**240**	174	148

Notes:
Total may not equal sum of trips for individual generators due to rounding.
Employees - Assume 3 ADT per employee
Visitors - Assume 2.5 person per vehicle occupancy
Months indicated in **bold** represent harvest season.

Winery Event Matrix

Winery: Rudd Wines
Location: 4603 Westside Road
Condition: Proposed

Event	Number of Guests	Number of events this size annually	Estimated Month(s) during which events will occur	Day of Week when Events will occur	Time of Day (start and end)	No. of Employees	No. of Guest Vehicles	No. of Employee Vehicles	Total Vehicles
Special-Agricultural Promotional	80	6	January - December	Monday - Sunday	10:00 AM - 9:00 PM	5	32	5	37
Special-Agricultural Promotional	100	3	January - December	Monday - Sunday	10:00 AM - 9:00 PM	6	40	6	46
Special-Agricultural Promotional	150	3	January - December	Monday - Sunday	10:00 AM - 9:00 PM	8	60	8	68
Annual Barrel Tasting	150	6	March	Friday - Sunday	11:00 AM - 4:00 PM	8	60	8	68
Annual Winter WINEland	100	2	January	Saturday - Sunday	11:00 AM - 4:00 PM	6	40	6	46
Annual A Wine & Food Affair	100	2	November	Saturday - Sunday	11:00 AM - 4:00 PM	6	40	6	46
Wine Tourism Day	100	1	May	Saturday	10:00 AM - 5:00 PM	6	40	6	46
Russian River Valley Pinot Classic	150	2	May	Saturday - Sunday	10:00 AM - 5:00 PM	8	60	8	68
Wine Maker Lunches/Dinners	36	12	January - December	Monday - Sunday	11:00 AM - 9:00 PM	2	14.4	2	16.4

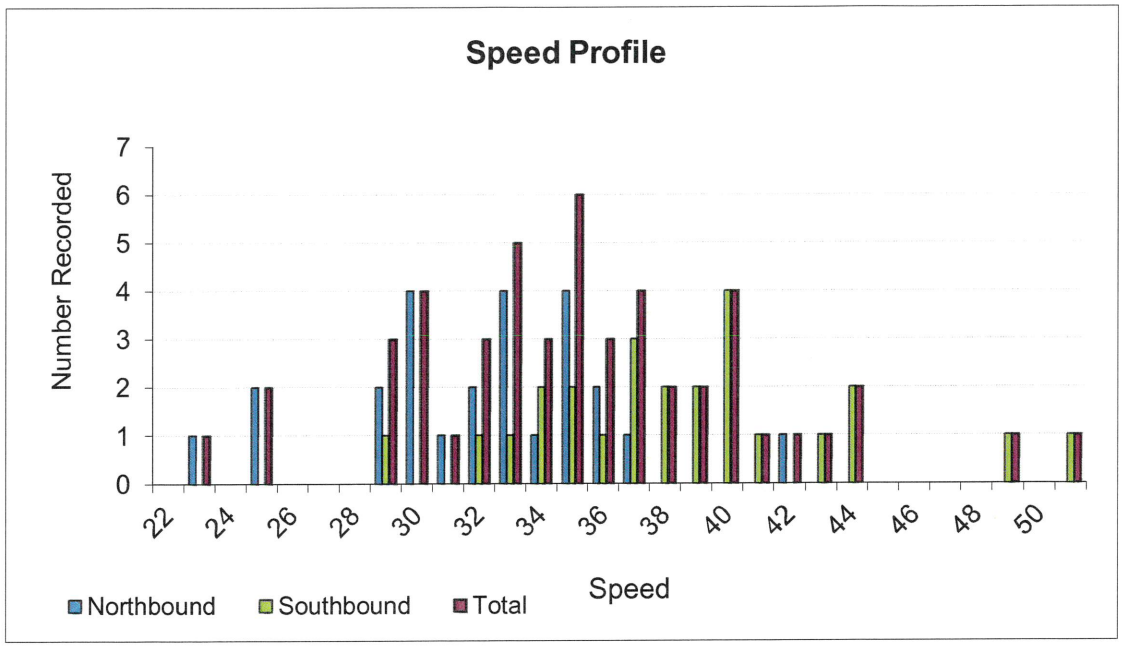
3/25/2016

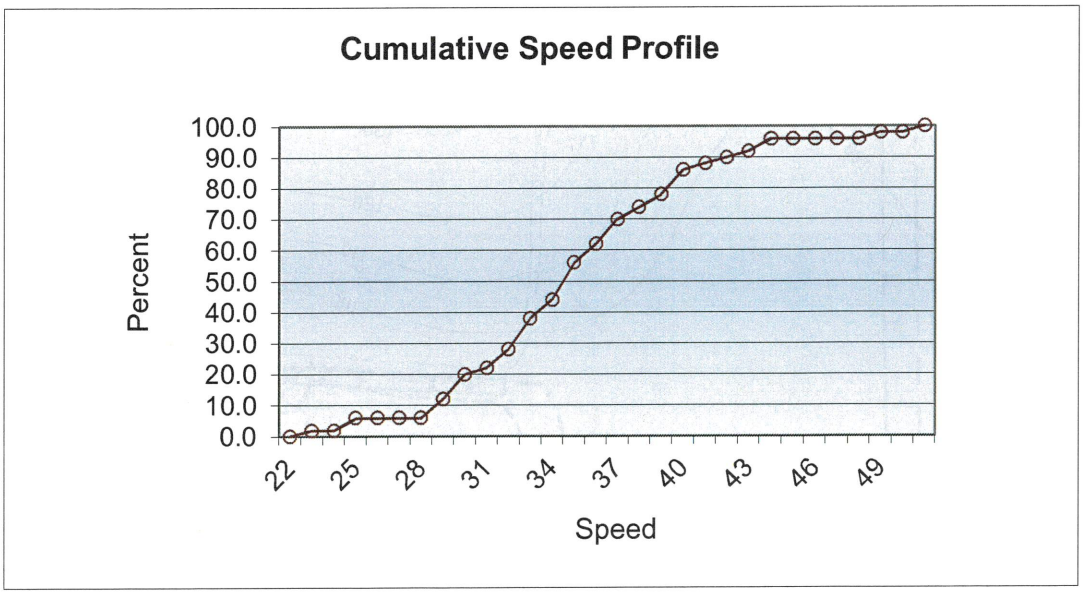

140
130
120
110
100
90
130
120
130
140
130
120
110
100
90
90

Speed Survey

4603 Westside Road (Existing Driveway)

85th Percentile Speed Northbound: 36 *85th Percentile Speed Southbound:* 44
85th Percentile Speed (Both Directions): 40 (Speeds in mph)



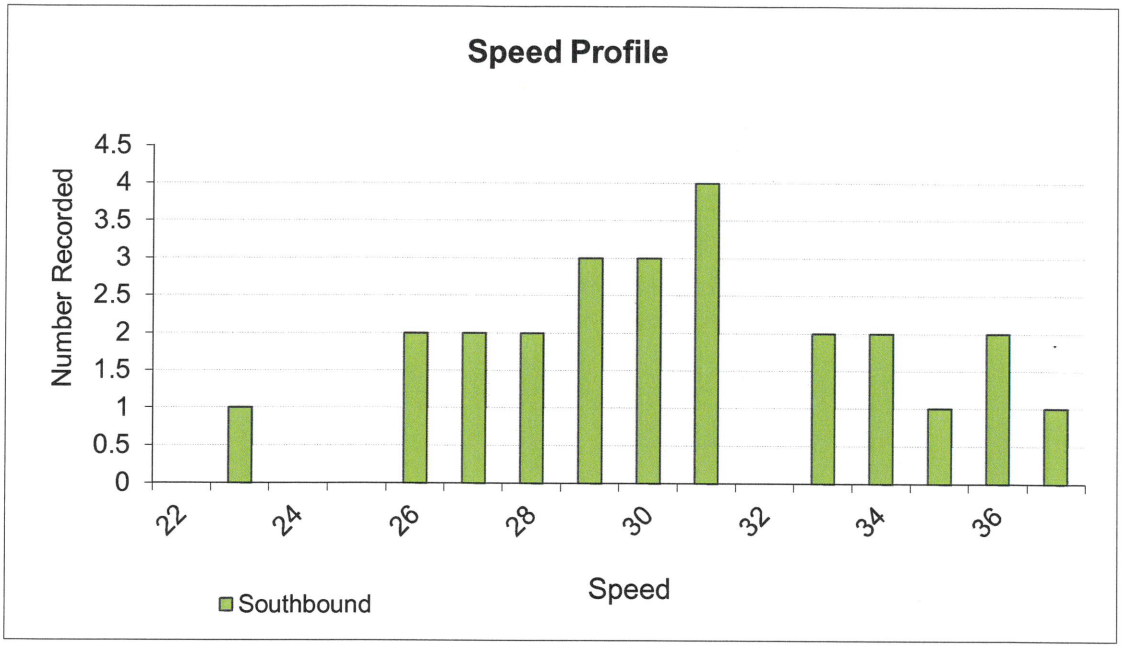


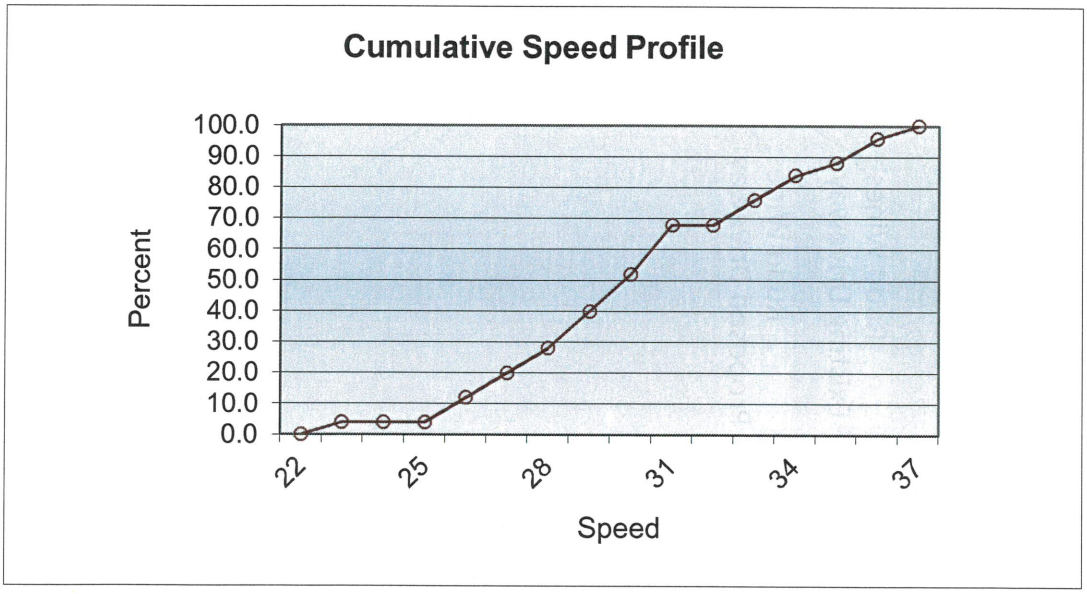
Date Data Collected: 10/08/15 *Start Time:* 1:00 PM *Weather:* Clear
Day of the Week: Thursday *End Time:* 2:00 PM *Recorder:* DT

Speed Survey

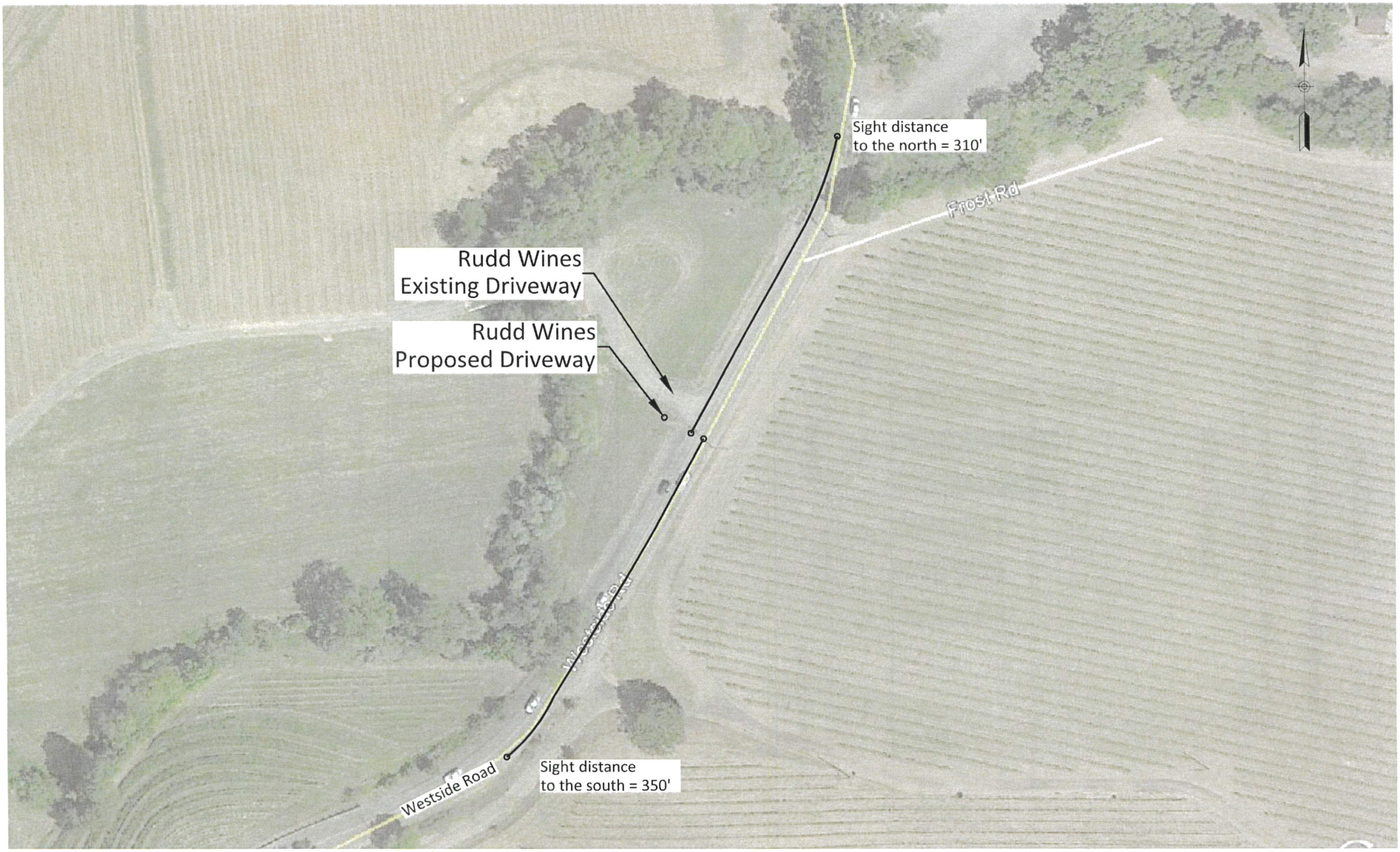
Westside Road (Curve to North of Project Driveway)

85th Percentile Speed Southbound (mph): 35





Date Data Collected:	12/01/15	*Start Time:*	1:00 PM	*Weather:*	Clear
Day of the Week:	Tuesday	*End Time:*	2:00 PM	*Recorder:*	DT



Whitlock & Weinberger Transportation, Inc
490 Mendocino Ave, Suite 201
Santa Rosa, CA
(707)542-9500 Fax (707)542-9590

Sight Distance at Rudd Wines Driveway

4603 Westside Road

DRAWN:	SCALE:
LD	NTS
DESIGN:	DATE: 10/28/15
SHEET 1 of 1 SHEETS	JOB NO. SOX508

Turn Lane Warrant Analysis - Tee Intersections

Study Intersection: Westside Road & Project Driveway
Study Scenario: Existing Plus Project Conditions (50-person event)

Direction of Analysis Street: North/South

Cross Street Intersects: From the West

Westside Road

Southbound Volumes (veh/hr)

Through Volume = 177

Right Turn Volume = 0

Southbound Speed Limit: 45 mph

Southbound Configuration: 2 Lanes - Undivided

Project Driveway

Westside Road

Northbound Volumes (veh/hr)

187 = Through Volume

24 = Left Turn Volume

Northbound Speed Limit: 45 mph

Northbound Configuration: 2 Lanes - Undivided

Southbound Right Turn Lane Warrants

1. Check for right turn volume criteria

NOT WARRANTED Less than 40 vehicles

2. Check advance volume threshold criteria for turn lane

Advancing Volume Threshold	AV =	-
Advancing Volume	Va =	177
If AV<Va then warrant is met		-

Right Turn Lane Warranted: **NO**

Southbound Right Turn Taper Warrants
(evaluate if right turn lane is unwarranted)

1. Check taper volume criteria

NOT WARRANTED - Less than 20 vehicles

2. Check advance volume threshold criteria for taper

Advancing Volume Threshold	AV =	-
Advancing Volume	Va =	177
If AV<Va then warrant is met		-

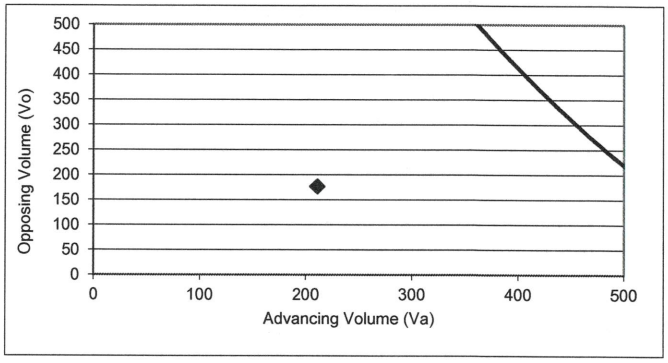
Right Turn Taper Warranted: **NO**

Northbound Left Turn Lane Warrants

Percentage Left Turns %lt 11.4 %

Advancing Volume Threshold AV 525 veh/hr

If AV<Va then warrant is met



◆ Study Intersection

Two lane roadway warrant threshold for: 45 mph

Turn lane warranted if point falls to right of warrant threshold line

Left Turn Lane Warranted: **NO**

Methodology based on Washington State Transportation Center Research Report *Method For Prioritizing Intersection Improvements*, January 1997.
The right turn lane and taper analysis is based on work conducted by Cottrell in 1981.
The left turn lane analysis is based on work conducted by M.D. Harmelink in 1967, and modified by Kikuchi and Chakroborty in 1991.

Turn Lane Warrant Analysis - Tee Intersections

Study Intersection: Westside Road & Project Driveway
Study Scenario: Existing Plus Project Conditions (150-person event)

Direction of Analysis Street: North/South

Cross Street Intersects: From the West

Westside Road

Southbound Volumes (veh/hr)

Through Volume = 177

Right Turn Volume = 24

Southbound Speed Limit: 45 mph
Southbound Configuration: 2 Lanes - Undivided

Project Driveway

Westside Road

Northbound Volumes (veh/hr)

187 = Through Volume

0 = Left Turn Volume

Northbound Speed Limit: 45 mph
Northbound Configuration: 2 Lanes - Undivided

Southbound Right Turn Lane Warrants

1. Check for right turn volume criteria

NOT WARRANTED Less than 40 vehicles

2. Check advance volume threshold criteria for turn lane

Advancing Volume Threshold	AV =	-
Advancing Volume	Va =	201
If AV<Va then warrant is met		-

Right Turn Lane Warranted: **NO**

Southbound Right Turn Taper Warrants
(evaluate if right turn lane is unwarranted)

1. Check taper volume criteria

Thresholds not met, continue to next step

2. Check advance volume threshold criteria for taper

Advancing Volume Threshold	AV =	460
Advancing Volume	Va =	201
If AV<Va then warrant is met		No

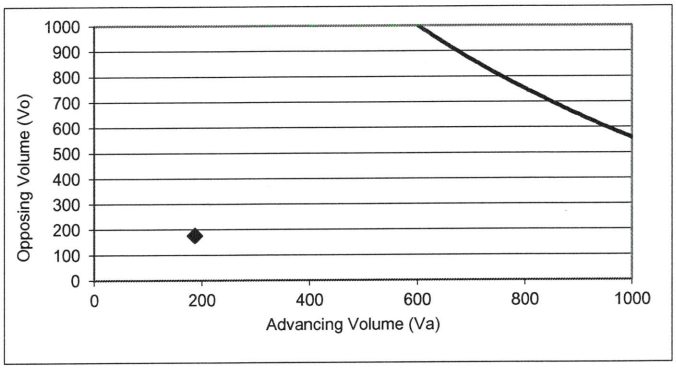
Right Turn Taper Warranted: **NO**

Northbound Left Turn Lane Warrants

Percentage Left Turns %lt 0.0 %

Advancing Volume Threshold AV 1552 veh/hr

If AV<Va then warrant is met



◆ Study Intersection

——— Two lane roadway warrant threshold for: 45 mph

Turn lane warranted if point falls to right of warrant threshold line

Left Turn Lane Warranted: **NO**

Methodology based on Washington State Transportation Center Research Report *Method For Prioritizing Intersection Improvements*, January 1997.
The right turn lane and taper analysis is based on work conducted by Cottrell in 1981.
The left turn lane analysis is based on work conducted by M.D. Harmelink in 1967, and modified by Kikuchi and Chakroborty in 1991.

January 18, 2018

Mr. Guy Byrne
Leslie Rudd Investment Company, Inc.
PO Box 105
Oakville, CA 94562-0105

Rudd Wines Winery & Tasting Room - Sight Distance Review

Dear Mr. Byrne;

As requested we have completed a review of sight distance conditions at the access to the proposed Rudd Wines Winery & Tasting Room to be located at 4603 Westside Road in the County of Sonoma. Sight distance from the proposed driveway location was evaluated looking both in the northbound and southbound directions. This issue was previously addressed in the traffic study for the proposed project, but has been updated. Field conditions were reviewed in October 2017 and supplemental speed surveys were completed.

Study Area

The project site is on Westside Road, a rural major collector, approximately 4.25 miles southwest of the nearest US 101 interchange. Westside Road is a two-lane road, with about ten- to twelve-foot travel lanes in each direction and a double yellow centerline. The posted speed limit on Westside Road near the project site is 45 miles per hour (mph) with a 25-mph advisory speed south of the site for northbound traffic and a 30-mph advisory speed north of the site for the southbound traffic.

Site Access

There is an existing driveway to the Rudd Winery property located approximately 1,190 feet south of Boehm Road and 3,700 feet north of Wohlenberg Road. The project driveway is proposed to be reconstructed and relocated 20 feet south of its current location. This new driveway position was used for all sight distance measurements. The project frontage improvements will also include the addition of a southbound right-turn lane which will provide space for southbound vehicles to decelerate as they turn right into the project, thus removing the vehicles from the path of travel of southbound traffic approaching the site form the north.

Sight Distance Analysis

The County of Sonoma *Guidelines for Traffic Impact Studies* was reviewed for this sight distance analysis. The guidelines indicate the following:

> *A project would have a significant traffic impact if it results in any of the following conditions:*
>
> ***Sight Lines:*** *The project constructs an unsignalized intersection (including driveways) and/or adds traffic to an existing unsignalized intersection approach that does not have adequate sight lines based upon Caltrans criteria for State highway intersections and AASHTO criteria for County roadway intersections.*

Because Westside Road is a County-maintained road, sight distance criteria from *A Policy on Geometric Design on Highways and Streets* published by American Association of State Highway and Transportation Officials (AASHTO) was used. Also, because the project access is an existing driveway, stopping sight distance criteria is used as discussed in our previous response to comments.

At driveways a substantially clear line of sight should be maintained between the driver of a vehicle waiting on the driveway and the driver of an approaching vehicle. Adequate time must be provided for the waiting vehicle to either cross, turn left, or turn right, without requiring the through traffic to radically alter their speed. Sight distance along Westside Road from the proposed driveway location was evaluated based on sight distance criteria contained in *A Policy on Geometric Design on Highways and Streets.* Because this is a private driveway and not a public road, stopping sight distance was used to evaluate sight distance at the project driveway. Measurements of available sight distance at the project driveway were taken in the field using a measuring wheel and an object representing the height of a driver sitting in a car at the project driveway. Measuring from the project driveway the distance at which the object representing the height of a driver goes out of view is determined for both directions.

There are both horizontal and vertical curves located north and south of the driveway which limit the line of sight between drivers traveling on Westside Road versus those about to turn onto Westside Road from the driveway. Analysis was completed for two conditions: 1) sight distance between vehicles in the driveway and southbound approaching vehicles, north of the driveway, and 2) sight distance between vehicles in the driveway and northbound approaching vehicles, south of the driveway.

Speed Surveys

As reported previously, speed surveys were collected on December 1, 2015 to determine the speed at which southbound traveling drivers exit the curve just north of the project driveway. The 85th percentile of southbound vehicle speeds was found to be 35 mph, which is higher than the posted advisory speed sign of 30 mph, but lower than the posted speed limit of 45 mph. An additional speed survey was conducted on October 8, 2015; however these surveys were focused on traffic on the straightway along the project frontage and not on the exit to the curves to the north and south of the project.

New speed surveys were completed during midday on Friday, October 27, 2017 as well as Tuesday, November 7, 2017 for both 1) southbound approaching vehicles north of the driveway and 2) northbound approaching vehicles south of the driveway. Weather conditions during these periods were clear and dry. The average speed for both movements was recorded at 29 mph and the 85th percentile speed was 33 mph for both locations.

Field Measurements

At the time of the field measurements on October 20, 2017, vegetation removal on the project site was identified by project representatives. This sight distance analysis uses the measurements assuming completion of the vegetation removal and view from the new driveway location. The following measurements from the project driveway were taken:

- Sight distance to the north = 330 feet
- Sight distance to the south = 335 feet

Sight Distance Assessment

Looking North

The 85th percentile speed of **southbound** vehicles at the point at which they exit the curve north of the project driveway was found to be 35 mph. For an approach speed of 35 mph, 250 feet of stopping sight distance on Westside Road is recommended and for a 40-mph approach speed, 305 feet is recommended. The 330 feet available is more than adequate for the 35-mph critical speed sampled at the point where drivers would first be able to see and react to a vehicle exiting the driveway.

Looking South

At speeds of 35 mph, 250 feet of stopping sight distance is recommended for motorists on Westside Road. Sight lines with vegetation removal and at the location of the proposed driveway are approximately 335 feet, which is an adequate distance for speeds of 42 to 43 mph.

Sight distance measurements are shown graphically in the enclosed plan.

Findings

- Based on a design speed of 35 mph, the minimum stopping sight distance needed for this location is 250 feet. The available sight distance of 330 to 335 feet in both directions would be an adequate stopping sight distance for speeds up to 42 to 43 mph. Therefore, the driveway location has more than adequate for "safe" stopping sight distance.

- For left-turn movements onto Westside Road without requiring the through traffic to radically alter their speed, a sight distance of 390 feet is suggested in both directions for a design speed of 35 mph. With only 330-335 feet of sight distance available, approaching vehicles would have to slow to 30 mph as vehicles are exiting the driveway. This is reasonable and common condition on roads similar to Westside Road.

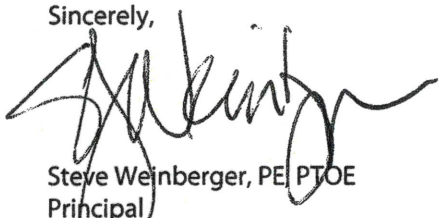
- For right-turn movements onto Westside Road without requiring the through traffic to radically alter their speed, a sight distance of 335 feet to the north is required for a design speed of 35 mph. With a sight distance of 330 feet to the north, the majority of vehicles on Westside Road would not have to slow as they approach exiting vehicles turning right onto Westside Road.

- Based on the sight distance analysis and AASHTO criteria, the results are in compliance with the County of Sonoma *Guidelines for Traffic Impact Studies*.

- No additional recommendations are made other than relocating the driveway 20 feet to the south, as proposed, and removing vegetation to increase the sight distance in both directions.

Thank you for giving us the opportunity to provide these services.

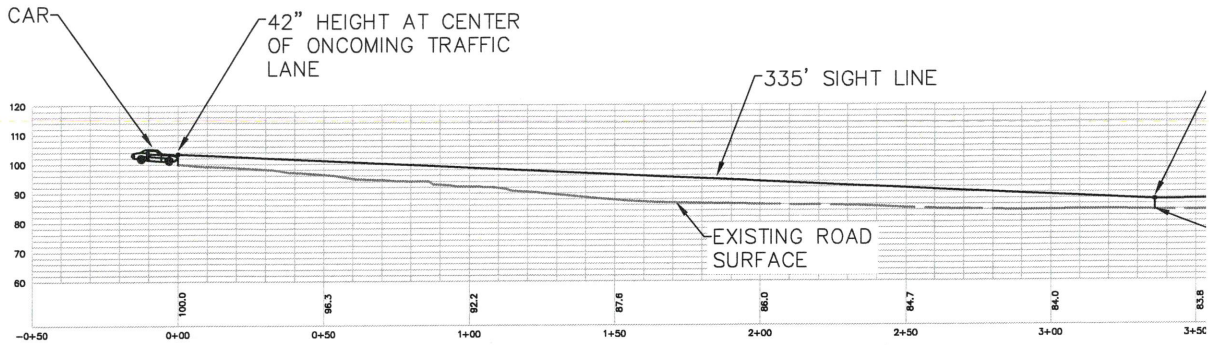
Sincerely,



Steve Weinberger, PE, PTOE
Principal

SJW:SOX508.L1

Enclosure: Stopping Sight Distance Plan Exhibit



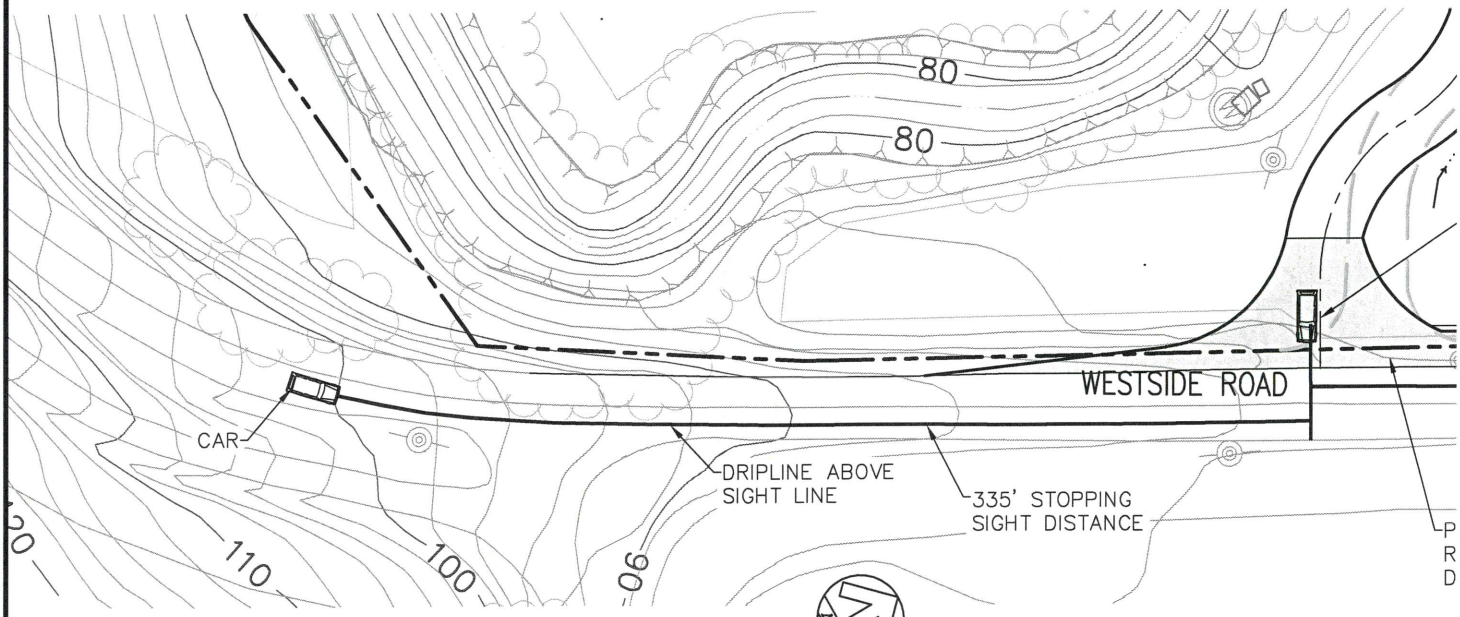
SIGHTDI

SIGHT LINE PI

0 15 30 60

SCALE: 1" = 30'

SCALE: HORIZONTAL &



SIGHT DISTANCE

0 15 30 60

SCALE: 1" = 30'

SCALE: 1"

Attachment 5

Habitat Assessment

Westside Road Winery and Tasting Room
4603 Westside Road
Healdsburg, Sonoma County, CA

June 3, 2014

Prepared for
Rudd Wines, Inc.
Attn: Guy Byrne
PO Box 105
Oakville, Ca

Prepared by
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1119 Burbank Avenue
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Habitat Assessment
4603 Westside Road, Healdsburg

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SUMMARY

The Westside Road Winery, located at 4603 Westside Road, Healdsburg, CA, proposed project (Sonoma County Planning Permit Number: PLP14-0031) includes a tasting room and estate winery to be built on agricultural property, as depicted on the Construction Drawings (Always Engineering 2014). The site currently contains a reliable water supply currently exists on the site with multiple wells feeding a water storage tank, as well as located septic fields in appropriate areas of the site and a one-lane vehicle bridge to connect the two pieces of the property.

Proposed in 4 Phases of development, the first phase of the Westside Road Winery will develop a permeable parking lot, a renovated building and a pedestrian foot bridge that will support utilities crossing the unnamed tributary, and associated plantings. These developments will occur on the east side of the tributary. On the west side of the tributary, a leach field will occur in one of the three areas which have received percolation test approval on the west side of the creek. A new potable well with a 50 foot annual seal will be provided for the project, as the existing irrigation wells onsite do not have required seal depth. Phase 2-4 will be the development of a winery building on the west side of the tributary, with associated paved road, leach fields and septic tanks.

Of the 26.20 acre parcel, approximately 31,363 sq. ft. (0.72 acres) are proposed for development in Phase 1 and, by Phase 4 approximately 93,218 sq. ft. (2.14 acres) of new disturbance, which includes grading.

This Habitat and Site Assessment presents the findings of our literature review (including scientific literature and previous reports detailing studies conducted in the area) and the California Department of Fish and Wildlife's (CDFW) Natural Diversity Data Base (CNDDB) for reported occurrences of special-status vegetation communities, plants and animals.

Two vegetation community types, corresponding to the *Avena (barbata, fatua)* semi-natural herbaceous stands or wild oats grasslands and the mixed riparian woodland occur within the project area.

As part of this Habitat Assessment, we also evaluated the potential for occurrence of 27 special-status plant species, and 26 special-status wildlife species. No focused surveys for any special-status wildlife species were conducted as part of this assessment. Surveys for special status plants were conducted on April 22 and May 12, 2014 which covered the flowering period for all of the special status plants that have the potential to occur within the project area based on the presence of potential habitat.

Based on this review and limitations of the present surveys, the following are action items to be addressed prior to ground breaking:

- Removal of trees that may support potentially roosting bat species must occur under direct supervision of a bat biologist and occur between March 1 and April 15, or September 1 through October 15.
- Nesting bird survey within one week of the removal of nesting habitat, unless removal occurs after August 15 and before March 1.
- Obtain a Section 1600 Streambed Alteration Agreement from the California Department of Fish and Wildlife (CDFW and a 401 Water Quality Certification Water Quality Certification and/or waste discharge permit from the Regional Water Quality Control Board (RWQCB) for the pedestrian bridge crossing (RWQCB 2014).

INTRODUCTION

Mr. Guy Byrne of Rudd Wines, Inc., contracted with Jane Valerius Environmental Consulting and Wildlife Research Associates to conduct a Habitat Assessment of the 26.20-acre parcel for their proposed 0.72 acre development project (Sonoma County Planning Permit Number: PLP14-0031). The 4603 Westside Road parcel (APN: 110-110-026) is located in the western portion of Dry Creek Valley, in the central portion of Sonoma County, California. This habitat assessment was conducted to determine the potential for special-status vegetation communities, plant and animal species to occur within the proposed project and to identify the limitations to potential development of the project, such as: a) increased on-site flows from impermeable surfaces and, b) habitat removal.

This Habitat Assessment is part of the preliminary analysis of both the existing environment and potential impacts from the proposed project as required under the California Environmental Quality Act (CEQA) for new projects. Federal and state agencies that have purview over biological resources include the following:

- U.S. Army Corps of Engineers (USACE),
- U.S. Fish and Wildlife Service (USFWS),
- National Marine Fisheries Service (NMFS),
- California Regional Water Quality Control Board (RWQCB), and the
- California Department of Fish and Wildlife (CDFW).

The USACE regulates the discharge of dredged or fill material into waters of the United States. Waters of the U.S. are defined as waters that are hydrologically connected to waters with interstate or foreign commerce, and include tributaries to any of these waters, and wetlands, which are areas that are inundated or saturated by surface water or groundwater at a frequency and duration sufficient to support vegetation typically adapted to life in saturated soil conditions. The USFWS has regulatory authority over federally listed plant and animal species. The NMFS, a division of the National Oceanic and Atmospheric Administration (NOAA), has regulatory authority over essential fish habitat, which is habitat necessary to maintain sustainable fisheries in the United States. The California RWQCB protects all waters with special responsibility for wetlands, riparian areas, and headwaters. The CDFW has regulatory authority over state listed plants and animals as well as streams and lakes within the State.

Locally, Sonoma County has regulatory authority over: a) large native trees, trees with historical importance, and oak woodland habitat, under the Sonoma County Native Tree Protection and Preservation Ordinance, and b) all natural watercourses shown as a solid or dashed blue lines, or along watercourses supporting riparian vegetation, under the Biotic Resource Areas identified in the County General Plan (Sonoma County 2008). See Appendix A for more regulatory details.

Site Location

The proposed project site is located in central portion of Sonoma County, within the Dry Creek Valley, located west of the City of Healdsburg, west of the Russian River and northwest of the River Front Regional Park, on the west side of Dry Creek Road. The project site lies on either side of the unnamed tributary, located north of the confluence of Russian River and Porter Creek (Figure 1).

The site currently supports a reliable water supply currently exists on the site with multiple wells feeding a water storage tank, as well as located septic fields in appropriate areas of the site and a one-lane vehicle bridge to connect the two pieces of the property.

Proposed Project

The Westside Road Winery, located at 4603 Westside Road, Healdsburg, CA, proposed project includes a tasting room and estate winery to be built on agricultural property, as depicted on the Construction Drawings (Always Engineering 2014). The four Phases are described below.

The project is located just outside the floodplain of the Russian River. The unnamed tributary on-site is depicted as a Designated Stream, as shown in Figure OSRC-2, Biotic Resource Areas, of the Open Space & Resource Conservation Element of the General Plan and is classified as "other riparian corridor" (SCPRMD 2008). This type of corridor typically requires a setback of 50 ft. (SCPRMD 2008). The proposed project includes the bridge footings encroaching into the creek setback of 30 feet from the top of bank estimated by the formula above. However, this setback will not increase the water surface elevation, nor will water velocities of the tributary be increased because of development. The grading of the site will not result in depressions that could lead to aquatic stranding. All depressions will be used as water percolation.

The proposed project is a winery building, as depicted on the Construction Drawings (Always Engineering 2014). Of the 26.20 acre parcel, approximately 2.14 acres (93,218 sq. ft.) are proposed for development, which includes grading. The project includes several phases of development consisting of Phases 1 through 4 (Table 1), resulting in 55,667 sq. ft. (1.27 acres) of new development, with the remaining disturbance due to grading.

Table 1: Square footage of structures – 4603 Westside Road

		Square Footage		
Structure	**Phase**	**Pervious Surface**	**Impervious Surface**	**Footprint Surface**
Stonewall	1		860	860
Parking lot (east side)	1	6,655	437	7,092
Decomposed granite walkways	1-4	9,926		9,926
Small tasting room (existing)	1		640	640
Pedestrian bridge	1		269	269
Stub out turn around	1	2,192		2,192
Leach field	1-3	21,525		21,525
Winery Building	2		3,500	3,500
Winery Building	3		3,966	3,966
Parking lot (west side)	2-3	3,052		3,052
Outbuilding pads	2		845	845
Tasting room (west side)	4		1,800	1,800
Total		**43,350**	**12,317**	**55,667**

Phase 1

A natural dry set stone wall will be built at the eastern property line along Westside Road, with new citrus fruit orchards blending into the natural riparian area along the creek, populated with oaks and willows.

Car parking for 6 vehicles (the parking requirement for the retail tasting room is 4) will be developed as an unpaved gravel area to allow absorption of rainwater into the ground. The car parking will be screened from Westside Road with a 72" high wood fence and drought tolerant edible landscaping. A code-required accessible stall will be developed on a small concrete pad with an accessible decomposed granite walkway leading to the entrance of the renovated tasting building.

The building project will be accomplished in phases with a small tasting room created near the road from an existing 640 square foot equipment shed / site office building in Phase 1. See Phase 1 site plan on sheet A1.10. A single accessible restroom will be developed. All walkways around the tasting room will be

covered in a walkable permeable surface such as decomposed granite which minimizes re-grading along the sensitive riparian corridor and allows rainwater penetration to the soil below. No changes are proposed to the footprint or envelope of the existing shed building.

All existing trees along the creek will be protected during construction and retained. Existing vegetation between the top of creek bank and improvements will be preserved as much as possible to maintain riparian habitat and provide a vegetative buffer for runoff of stormwater from the site. The parking area and roadways will direct sheet flow runoff into Bioinfiltration trenches designed to collect and infiltrate the initial storm runoff from the site.

Also included in Phase 1 is the construction of a new walking bridge across the creek to connect the site for pedestrians and allow code-compliant accessibility, although this bridge could also be developed in subsequent phases. No trees will be removed although some pruning of non-protected species may be required to develop the pedestrian bridge.

Utilities crossing the creek in all phases will comply with all Sonoma County requirements. It is proposed to utilize the existing vehicular bridge for utility crossing to the extent possible, with the new pedestrian bridge providing additional opportunity for crossing of utilities.

A required stub-out turn-around for fire emergency vehicles will be provided as a gravel road on the west side of the creek. The emergency water storage tank and pump building (if required for pressurized hydrant) will also be developed on the other side of the creek in Phase 1. If an electrical fire pump is required for phase 1, then electrical power supply will also need to cross the creek to the west side.

Development of a leach field will occur in one of the three areas which have received percolation test approval on the west side of the creek. A new potable well with a 50 foot annual seal will be provided for the project, as the existing irrigation wells onsite do not have required seal depth.

Phase 2

A new 3500 square foot winery will be built on the larger back portion of the site in Phase 2 connected by the existing vehicle bridge. See Phase 2 site plan on sheet A1.20. The gravel access road will be widened to comply with Sonoma County Fire Department requirements for vehicle pull-outs on either side of the bridge. The one-way road will be brought around the new building to allow required fire vehicle turn around and passenger vehicle exiting. Additional parking for 10 vehicles will be developed on the south side of the winery building as an unpaved gravel area with landscaping. A concrete paved pad will serve the accessible parking stall and required building entrance paving.

Outbuildings will be developed to screen the trash dumpster as well as refrigeration equipment for the winery which match the larger building in architectural character.

Phase 2 will require development of a larger leach field to accommodate winery process wastewater and sanitary sewage from winery production employees. This will be placed in the location of approved soil percolation testing and may be incorporated into an expansion of the septic system developed for Phase 1. Once installed, the leach field area will be overplanted with vineyard to blend it into the landscape.

If not provided in Phase 1, electrical power supply will cross the creek using one of the two onsite bridges in order to provide power to the winery in Phases 2 and 3.

Development of the Phase 2 winery will be done with the intention of minimizing site impacts. For example, the amount of soil cut/fill will be minimized and balanced so that import as well as off-haul is not required. Any excess soil generated during construction of Phase 2 will be placed in the location of Phase 3 and stored to minimize future work required to develop the Phase 3 building pad.

The winery buildings are proposed without gutters and downspouts so as not to concentrate stormwater runoff. Rain water from the building roofs will flow onto paved and gravel areas surrounding the winery. Runoff will sheet flow from paved/gravel areas into the adjacent vineyard. Surrounding the winery will be a gradual vegetated bioswale to collect runoff from the site and direct runoff into the vineyard. In an appropriate low spot in the vineyard, a large shallow depression in the native grade will be developed to allow ponding and infiltration of initial runoff. During larger storms, this depression will fill with runoff and overflow. The depression will be designed with a uniform low side which allows the collected water to sheet flow over land to the adjacent creek. The depression shall be sized to accommodate the runoff from all phases of the project.

Phase 3

Phase 3 doubles the square footage and production capacity of the winery to 10,000 cases total, with expansion of parking (7 additional parking spaces provided in this phase) and lengthened access road. See Phase 3 site plan on sheet A1.30. Phase 3 will require an additional expansion of the leach field and septic tank system to provide for the increase in production. This will occur as an expansion to the system already installed in previous phases.

Phase 4

In the fourth and final phase a larger, all-new tasting room building will be constructed near the winery. Phase 4 is shown on Phase 3 site plan on sheet A1.30. The larger 1,800 sq. ft. tasting room is included in the overall site entitlement for use and area.

METHODS

Information on special-status plant species was compiled through a review of the literature and database search. Database searches for known occurrences of special-status species focused on the Healdsburg and Guerneville U.S. Geologic Service 7.5-minute topographic quadrangles, which provided a five mile radius around the proposed project area. The following sources were reviewed to determine which special-status plant and wildlife species have been documented in the vicinity of the project site:

- U.S. Fish and Wildlife Service (USFWS) quadrangle species lists (USFWS 2014)
- USFWS list of special-status animals for Sonoma County (USFWS 2014)
- California Natural Diversity Database records (CNDDB) (CDFW 2014)
- California Department of Fish and Wildlife's (CDFW) Special Animals List (CDFW 2014)
- State and Federally Listed Endangered and Threatened Animals of California (CDFW 2014)
- California Native Plant Society (CNPS) Electronic Inventory records (CNPS 2014)
- California Department of Fish and Game (CDFG) publication "California's Wildlife, Volumes I-III" (Zeiner, et al., 1990)
- Sonoma County General Plan 2020, Open Space and Resource Conservation Element (Sonoma County 2008)

Botanical nomenclature used in this report conforms to Baldwin, et al. (2012) for plants and to Sawyer et al. (2009) for vegetation communities. Nomenclature for special-status animal species conforms to CDFW (2013). We also reviewed the CalFish IMAPS Viewer (www.calfish.org/DataandMaps/CalFishGeographicData), developed by CDFW Biogeographic Branch for analysis of steelhead and coho salmon along Russian River and nearby creeks.

Site Survey: Jane Valerius of Jane Valerius Environmental Consulting, and Trish Tatarian, Wildlife Research Associates, conducted a reconnaissance-level survey of proposed project areas and the adjacent riparian habitat on April 22, between the hours of 1000 and 1200. Jane Valerius, botanist, conducted a second site survey on May 12, 2014. The purpose of the April and May site visits was to survey for the presence of any special status plants. The project area was walked and a list of all plants identifiable at the time of the

surveys was recorded (see Appendix D). The site visits were conducted during the flowering period special status plants that had the potential to occur within the project area based on the presence of potential habitat.

The project area was evaluated for suitable bird nesting habitat using 8 x 42 roof-prism binoculars, noting presence of old bird nests. The reconnaissance-level site visit was intended only as an evaluation of on-site and adjacent habitat types; no special-status species surveys were conducted as part of this effort as winter is not a time of year in which surveys for nesting birds are valid.

EXISTING CONDITIONS

The project area is located within the San Francisco Bay Coastal Bioregion (Welsh 1994). This bioregion is located within central California and encompasses the San Francisco Bay and the Sacramento Delta, extending from the Pacific Ocean to the eastern portion of the tule marsh zone, which is defined by Highway 99 (Welsh 1994). Habitats within this bioregion include both mesic (moist) habitats, such as freshwater marsh, and xeric (dry) habitats, such as chaparral, and are typical of a Mediterranean type climate.

The proposed project site is located within the central western portion of the Healdsburg topographic quadrangle. This unsectioned portion is within the Molinos Rancheria, south of the Sotoyome Rancheria. This portion of the Dry Creek Valley, located south of Healdsburg, supports several watersheds that flow into the Russian River, including Mill Creek, Felta Creek, and Porter Creek, as well as several unnamed tributaries such as the one on the parcel. At this location of the Russian River, the watershed is defined by a western ridge, created by Wild Hog Hill (1,150 feet in elevation).

Topographically, the project site is located on a valley that faces east, with higher elevations occurring in the northern portion of the parcel (137 feet) and lower elevations (78 feet) in the eastern portion of the parcel. At the time of the April 2014 reconnaissance, water was flowing in the creek.

Drainages

The property boundary is inclusive of the unnamed tributary to the Russian River, which is likely intermittent in La Nina conditions and perennial in El Nino conditions. The blue-line creek is one of many drainages of central Sonoma County flowing into the Russian River in the Dry Creek Area. The proposed project is situated on the eastern and western banks of tis tributary (Figures 3 and 4).

The unnamed tributary qualifies as a waters of the U.S. and waters of the state. The area within the ordinary high water mark is within the jurisdiction of the U. S. Army Corps of Engineers (Corps). The Regional Water Quality Control Board (RWQCB) takes jurisdiction from top of bank to top of bank and the California Department of Fish and Wildlife (CDFW) has jurisdiction over the bed and bank and any associated riparian woodland vegetation.

The creek within the project area is incised and the banks have been armored with concrete blocks and at least one old car body. The creek could benefit from some bank stabilization to prevent further erosion along the banks.

Ben Monroe, Project Manager with Always Engineering, met with Adam McKannay with CDFW and Kaete King with the North Coast RWQCB on April 8, 2014 to discuss the proposed pedestrian bridge crossing for the creek. This meeting was documented in a memorandum prepared by Ms. King and addressed to Stephen Bargsten with the RWQCB and Ben Monroe dated April 22, 2014. As stated in the memorandum, the RWQCB will require a 401 water quality certification and/or waste discharge permit for project as the RWQCB takes jurisdiction from top of bank to top of bank of any creek drainages. A Section 1602 Streambed Alteration Agreement will also be required from CDFW. Because the bridge will span the creek it will not encroach upon the ordinary high water mark of the creek and therefore a Section 404 permit will not be required from the Corps.

Vegetation Communities
Two vegetation community types, corresponding to the *Avena (barbata, fatua)* semi-natural herbaceous stands or wild oats grasslands and mixed riparian woodland occur within the project area. These are described below.

Wild oats grassland is comprised of non-native annual grasses with wild oats being the dominant species. Other non-native grasses associated with this type include ripgut brome (*Bromus diandrus*), soft chess (*Bromus hordaeceus*), ryegrass (*Festuca perennis*), Harding grass (*Phalaris aquatica*), hare barley (*Hordeum murinum* ssp. *leporinum*), large quaking grass (*Briza maxima*) and rattail fescue (*Festuca myuros*). A number of non-native forb species are also associated with this type including filarees (*Erodium cicutarium*, *E. botrys*), scarlet pimpernel (*Anagallis arvensis*), mayweed (*Anthemis cotula*), rough cat's-ear (*Hypochaeris radicata*), mallow (*Malva* sp.), English plantain (*Plantago lanceolata*) and wild radish *(Raphanus sativus*). French broom (*Genista monspessulana*), a noxious weed, was also observed on the site. This species was in somewhat low numbers but because this plant is highly invasive the site will benefit from the eradication of this species.

Mixed riparian woodland is associated with the blue-line tributary drainage that runs along the southern portion of the project site. This riparian tree and shrub canopy includes a variety of tree and shrub species including arroyo willow (*Salix lasiolepis*), narrow-leaved willow (*Salix exigua*), red willow (*Salix laevigata*), valley oak (*Quercus lobata*), California bay laurel (*Umbellularia californica*), Oregon ash (*Fraxinus latifolia*), California buckeye (*Aesculus californica*), coast live oak (*Quercus agrifolia*), Northern California black oak (*Juglans hindsii*), blue elderberry (*Sambucus nigra* ssp. *canadensis*), California rose (*Rosa californica*), California blackberry (*Rubus ursinus*), poison oak (*Toxicodendron diversilobum*) and snowberry (*Symphoricarpos albus* ssp. *laevigatus*). Several non-native and weedy plants also occur as understory along the creek banks including periwinkle (*Vinca major*), Himalayan blackberry (*Rubus armeniacus*) and poison hemlock (*Conium maculatum*). The creek supports very little wetland vegetation although there were small patches of curly dock (*Rumex crispus*), spike rush (*Eleocharis macrostachya*) and some patches of spreading rush (*Juncus patens*).

Wildlife Habitats
The value of a site to wildlife is influenced by a combination of the physical and biological features of the immediate environment. Species diversity is a function of diversity of abiotic and biotic conditions and is greatly affected by human use of the land. The wildlife habitat quality of an area, therefore, is ultimately determined by the type, size, and diversity of vegetation communities present and their degree of disturbance. Wildlife habitats are typically distinguished by vegetation type, with varying combinations of plant species providing different resources for use by wildlife. The following is a discussion of the wildlife species supported by the on-site habitats, as described by *A Guide to Wildlife Habitats of California* (Mayer and Laudenslayer 1988).

Valley-Foothill Riparian. This habitat along this portion of the unnamed tributary supports insect diversity attractive to a variety of migratory birds and provides nesting habitat. Typically, diverse foraging substrates, such as foliage, bark and ground substrates, increase feeding availability. Birds that forage for insects in the leaves of plants include Bewick's wren (*Thryomanes bewickii*), and bushtit (*Psaltriparus minimus*). Bark-insect foraging species, such as downy woodpecker (*Picoides pubescens*), plain titmouse (*Parus inornatus*) and white-breasted nuthatch (*Sitta carolinensis*) forage for insects in the bark. There are a few species that are adapted to foraging for insects in flight, such as black phoebe (*Sayornis nigricans*), and western wood pewee (*Contopus sordidulus*). Generalist omnivores are species such as the scrub jay (*Aphelocoma caerulescens*) that eat a variety of different foods, from insects to seeds to fruits. Although insects are the primary food source for most species in the riparian habitat, ground dwelling species, such as California quail (*Callipepla californica*) and California towhee (*Pipilo fuscus*), are also present in the riparian habitat feeding on seeds. The reduced vegetation along the north bank within the project area reduces the occupancy of the project area by these species but habitat still exists on the south bank to support many of these species.

The aquatic habitat of the tributary in the immediate vicinity of the project site is comprised of pools up to 1 foot deep, within the riffles and runs within the project area. Canopy cover is approximately 40%. The majority of the streambed structure is riffles with shallow flows, between 4-6 inches of water, at the time of the survey. Within the project area, the bed is comprised of gravel, with sandy soils occurring throughout. However, the shape of the creek bed and the open canopy cover and duration of water appear to be unsuitable for steelhead rearing, based on the biological requirements of the species (Leidy, et al. 2005). No ponding water of sufficient depth (> 2 feet) was observed at the time of the April survey.

Non-native grassland: Grassland habitat, including native and non-native grasslands, provides both primary habitat, such as nesting and foraging, and secondary habitat, such as a movement corridor. Small species using this habitat as primary habitat include reptiles and amphibians, such as southern alligator lizard (*Gerrhonotus multicarinatus*), western fence lizard (*Sceloporus occidentalis*), and Pacific slender salamander (*Batrachoseps attenuatus*), which feed on invertebrates found within and beneath vegetation and boulders within the vegetation community. This habitat also attracts seed-eating and insect-eating species of birds and mammals. California quail (*Lophortyx californicus*), mourning dove (*Zenaidura macroura*), and meadowlark (*Sturnella neglecta*) are a few seed-eaters that nest and forage in grasslands. Insect-eaters such as scrub jays (*Aphelocoma coerulescens*) use the habitat for foraging only. Grasslands are important foraging grounds for aerial and ground foraging insect-eating bat species such as myotis (*Myotis* spp.) and pallid bat (*Antrozous pallidus*). A large number of other mammal species such as California vole (*Microtus californicus*), deer mouse (*Peromyscus maniculatus*), and Botta's pocket gopher (*Thomomys bottae*).

The grasslands on the site are reduced in quality due to the presence of Harding grass which is unsuitable for ground nesting birds. This habitat on the site provides good as foraging habitat but is poor quality for ground nesting birds.

Anthropogenic structures. Anthropogenic structures, such as the outbuilding located in the eastern portion of the project area, provide potential roosting habitat for various wildlife species, including birds and bats. Bird species that use anthropogenic structures include passerines, such as barn swallows (*Hirundo rustica*) and black phoebe (*Sayornis nigricans*), and if the structure is large enough, raptors, such as barn owls (*Tyto alba*). These species have adapted to the disturbances associated with human settlements and will nest and forage in close proximity to humans. In general, the nesting season for both passerines and raptors typically begins at the end of February and may last to mid-August. The conclusion of the nesting season is variable, as female barn swallows and black phoebe, for example, may produce 2-3 broods each year (Alsop 2001).

Statewide, buildings also provide significant bat roosting habitat, and it appears that large bat populations are supported by the availability of buildings. Because bats show high roost fidelity, it is possible for older structures to provide roost habitat for decades. However, not all buildings available to bats provide the temperature, humidity and other requirements for bats; such factors vary by building design, materials, location, human activity patterns, and by bat species. As a result not all buildings provide suitable roost habitat.

The building on the site has been used by bats in the past; however, a bat site assessment was not conducted for this assessment and the extent of use is not known at this time.

Movement Corridors

Wildlife movement includes migration (i.e., usually one way per season), inter-population movement (i.e., long-term genetic flow) and small travel pathways (i.e., daily movement corridors within an animal's territory). While small travel pathways usually facilitate movement for daily home range activities such as foraging or escape from predators, they also provide connection between outlying populations and the main corridor, permitting an increase in gene flow among populations.

These linkages among habitat types can extend for miles between primary habitat areas and occur on a large scale throughout California. Habitat linkages facilitate movement among populations located in discrete

areas and populations located within larger habitat areas. The mosaic of habitats found within a large-scale landscape results in wildlife populations that consist of discrete sub-populations comprising a large single population, which is often referred to as a meta-population. Even where patches of pristine habitat are fragmented, such as occurs with coastal scrub, the movement between wildlife populations is facilitated through habitat linkages, migration corridors and movement corridors. Depending on the condition of the corridor, genetic flow between populations may be high in frequency, thus allowing high genetic diversity within the population, or may be low in frequency. Potentially low frequency genetic flow may lead to complete isolation, and if pressures are strong, potential extinction (McCullough 1996; Whittaker 1998).

Wildlife connectivity of this site to other open lands in the area occurs along the tributary and is considered a movement corridor for amphibians, such as foothill yellow-legged frog and California red-legged frog, and mammals, such as striped skunk. Movements by these wildlife species occur between aquatic habitats and they may use the tributary on site to move between ponds located within the area. The creek provides cover from predators while these movements are being made.

SPECIAL-STATUS BIOLOGICAL RESOURCES

Certain vegetation communities, and plant and animal species are designated as having special-status based on their overall rarity, endangerment, restricted distribution, and/or unique habitat requirements. In general, special-status is a combination of these factors that leads to the designation of a species as sensitive. The Federal Endangered Species Act (FESA) outlines the procedures whereby species are listed as endangered or threatened and established a program for the conservation of such species and the habitats in which they occur. The California Endangered Species Act (CESA) amends the California Fish and Wildlife Code to protect species deemed to be locally endangered and essentially expands the number of species protected under the FESA.

Special-status Vegetation Communities
Sensitive natural communities are those that are considered rare in the region, may support special-status plant or wildlife species, or may receive regulatory protection (i.e., through Section 404 of the Clean Water Act [CWA] and/or Sections 1600 et seq. of the California Fish and Wildlife Code). Please refer to Appendix A for detailed descriptions of waters and wetlands. In addition, sensitive natural communities include plant communities that have been identified as having highest inventory priority in the California Natural Diversity Database (CNDDB). The second edition of *A Manual of California Vegetation* (Sawyer, et al. 2009) also provides the rarity ranking status of these communities.

As stated earlier, the unnamed tributary on-site is depicted as a Designated Stream, as shown in Figure OSRC-2, Biotic Resource Areas, of the Open Space & Resource Conservation Element of the General Plan and is classified as "other riparian corridor" (SCPRMD 2008). This type of corridor typically requires a setback of 50 ft. (SCPRMD 2008).

Within the study area, the tributary was identified as having a bed and bank with an ordinary high water mark. The tributary, identified as blue-line drainage on the Healdsburg USGS topographic quadrangle, is intermittent, and flows through to the Russian River and into the Pacific Ocean. The mixed riparian woodland community does not have a special status designation per se but riparian scrub and tree communities are considered to be valuable and sensitive vegetation community types. The Sonoma County General Plan Open Space and Resource Conservation Element (Sonoma County Permit and Resource and Management District (SCPRMD) 2008) identifies riparian corridors as valuable areas because they provide important functions such as acting as vegetation filters for sediment and pollutants in stormwater runoff, slow flood flows, provide erosion protection for streambanks and facilitates groundwater recharge. Riparian areas also support many wildlife species and provide shade and habitat for aquatic species. In urban areas streamside areas provide natural open space and opportunities for recreation, education and aesthetic appreciation. The Policy and Goal Element #8 in the General Plan recognizes the importance of riparian communities to water quality and as wildlife habitat.

Special-status Plant Species
Special-status plant species are those species that are legally protected under the federal Endangered Species Act (ESA) and/or the California Endangered Species Act (CESA) as listed or proposed for listing as threatened or endangered, as well as species that are considered rare by the scientific community. For example, the California Native Plant Society (CNPS) has identified some species as List 1 or 2 species and may be considered rare or endangered pursuant to Section 15380(b) of the State CEQA Guidelines. The CDFW has compiled a list of "Special Plants" (CDFW 2014), which include California Special Concern species. These designations are given to those plant species whose vegetation communities are seriously threatened. Although these species may be abundant elsewhere they are considered to be at some risk of extinction in California. Although Special Concern species are afforded no official legal status under FESA or CESA, they may receive special consideration during the planning stages of certain development projects and adverse impacts may be deemed significant under the California Environmental Quality Act (CEQA).

A total of 27 special-status plant species have been reported occurring on the two topographic quadrangles (CNDDB 2014). Please refer to Appendix B for a list of these species and their potential for occurrence. The site does not support plants associated with the following habitats: broadleaved upland forest, chaparral, cismotane woodland, closed-cone coniferous forest, coastal prairie, coastal bluff scrub, coastal scrub, marshes and swamps or vernal pools. In addition the site does not support plant species associated with serpentinite, alkaline, or rocky and volcanic soils.

Surveys for special status plants were conducted on April 22 and May 12, 2014. No special status plants were observed during these two surveys which were conducted during the flowering period for all of the special status plants that have the potential to occur on site based on the presence of potential habitat. With the exception of the mixed riparian tree and shrub community the majority of the plants on the site are non-native species, many of which are common weedy plants. The wild oats grassland is dominated by non-native species and no native species were observed within this type. Native plants observed were associated with the interface between the riparian area and the non-native grassland area. Native herbaceous species observed include California brome (*Bromus californica*), California bee plant (*Scrophularia californica*), manroot (*Marah fabaceous*) and California grape (*Vitis californica*).

Special-status Animal Species
Special-status animal species include those listed by the USFWS (2013) and the CDFW (2013). The USFWS officially lists species as either Threatened or Endangered, and as candidates for listing. Additional species receive federal protection under the Bald Eagle Protection Act *(e.g.*, bald eagle, golden eagle), the Migratory Bird Treaty Act (MBTA), and state protection under CEQA Section 15380(d). In addition, many other species are considered by the CDFW to be species of special concern; these are listed in Remsen (1978), Williams (1986), and Jennings and Hayes (1994). Although such species are afforded no official legal status, they may receive special consideration during the planning and CEQA review stages of certain development projects. The CDFW further classifies some species under the following categories: "fully protected", "protected fur-bearer", "protected amphibian", and "protected reptile". The designation "protected" indicates that a species may not be taken or possessed except under special permit from the CDFW; "fully protected" indicates that a species can be taken for scientific purposes by permit only.

Of the 14 special-status animal species identified as potentially occurring in the vicinity of the project area, including within a 3 mile radius (CNDDB 2014), several additional species were evaluated for their potential to occur within the study area, based on: 1) review of the CNDDB, 2) the "Special Animals" list (CDFW 2014) that includes those wildlife species whose breeding populations are in serious decline, and 3) the habitat present on site. See Appendix C for a list of the 26 species evaluated. Several of these species are known to occur in Sonoma Creek or have a high potential for occurrence at the project site and are discussed below. This document does not address impacts to species that may occur in the region but for which no habitat occurs on site.

Central California Coast steelhead (*Oncorhynchus mykiss irideus*) is federally listed as Threatened and Critical Habitat has been identified (USFWS 2005). Winter steelhead enter streams from the ocean when rains have increased the stream flows (Moyle 2002). Spawning typically occurs in tributaries to mainstream rivers, after which they return to the ocean. A key characteristic of all breeding streams is cool temperatures, typically between 0° Celsius (winter) and 26°-27° C (summer) (Moyle 2002). Higher temperatures may reduce oxygen levels that are not population sustaining. Different size classes require different microhabitats that are defined by depth, water velocity, substrate and cover (Moyle 2002).

Project Area Occurrence: No surveys were conducted for this species as part of this habitat assessment. This species is known to occur within the Russian River and it supports Critical Habitat (CDFW 2014). The tributary on- site is unsuitable for steelhead rearing, based on the shape of the creek bed and the open canopy cover and duration of water. No further action is required.

California red-legged frog (*Rana draytonii*) (CRF), listed by the USFWS as Threatened and is classified by the CDFW as a California Special Concern species and a Fully Protected Species under Fish and Game Code 5050, breeds primarily in ponds, but will also breed in slow-moving streams, or deep pools in intermittent streams. Inhabited ponds are typically permanent, at least 2 feet (0.6 meters) in depth, and contain emergent and shoreline vegetation. Sufficient pond depth and shoreline cover are both critical, because they provide means of escape from predators and high winter flooding of stream habitat for the frogs (Stebbins 1985, Tatarian 2008).

Project Area Occurrence: No surveys were conducted for this species as part of this habitat assessment. This species has a low potential for occurrence in this portion of Dry Creek Valley, based on the lack of ponded water and duration of water in the streams. There is potential that this tributary is used by CRF as a movement corridor. There is no potential that this tributary is used for breeding, based on the high flows during the winter storms and then very low flows during the spring, and no flow during the summer. This species has been reported occurring more than 2.5 miles southwest of the project area in the perennial Porter Creek (CNDDB 2014).

Foothill yellow-legged frog (*Rana boylii*) is a California Special Concern species, and occurs in most Pacific drainages from Oregon to Los Angeles County. The species typically inhabits perennial rocky streams, preferring streams with cobble-sized substrates (Jennings and Hayes 1994). Occupied drainages range from sea level to 2,040 meters (6,700 feet) (Jennings and Hayes 1994). Streams in woodland, chaparral or forest with little-to-no bank vegetation cover are also preferred (Stebbins 1985). Breeding occurs from mid-March to May, depending on rains, with tadpoles metamorphosing in June or July.

Project Area Occurrence: No surveys were conducted for this species as part of this habitat assessment. This species has a moderate potential to occur within the unnamed tributary on-site based on the presence of riffles and calmer runs and potential pools; however, the presence would be related to perennial nature of the stream (i.e., if there is no water in the stream then the species will not occur). This species has been reported occurring more than 3 miles west of the project area (CNDDB 2014).

Western pond turtle (*Emys marmorata*) is listed by the CDFW as a California Special Concern species. It originally inhabited many of the pacific drainage basins in California (Stebbins 1985). This medium sized turtle ranges in size to just over 8 inches (21cm) with a low carapace that is generally olive, brownish or blackish (Stebbins 1985, Jennings and Hayes 1994). Primary habitats include permanent water sources such as ponds, streams and rivers. It is often seen basking on logs, mud banks or mats of vegetation, although wild populations are wary and individuals will often plunge for cover after detecting movement from a considerable distance. Although it is an aquatic species with webbed feet, it can move across land in response to fluctuating water level, an apparent adaptation to the variable rainfall and unpredictable flows that occur in many coastal California drainage basins (Rathbun, *et al*. 1992).

Project Area Occurrence: No surveys were conducted for this species as part of this habitat assessment. This species is not expected to occur within the unnamed tributary based on the ephemeral nature of the stream and the lack of depth of the ponding water. This species has been reported occurring less than 1 mile east of the project area in the Russian River (CNDDB 2014).

Nesting Passerines: As stated previously, passerines, protected under the MBTA and Fish and Wildlife Code 3503, have potential to nest within the proposed project area. Bird species potentially nesting in the riparian area include California thrasher (*Toxostoma redivivum*), Allen's hummingbird (*Selasphorus sasin*), bushtit (*Psaltriparus minimus*) and oak titmouse (*Baeolophus inornatus*) that glean insects from the bark. As early as February, passerines begin courtship and once paired, they begin nest building, often around the beginning of March. Nest structures vary in shapes, sizes and composition and can include stick nests, mud nests, matted reeds and cavity nests. For example, black phoebes may build a stick nest under the eaves of a building. Depending on environmental conditions, young birds may fledge from the nest as early as May and, if the prey base is large, the adults may lay a second clutch of eggs.

Project Area Occurrence: No surveys were conducted for these species as part of this habitat assessment. Several passerine (perching birds) species may nest on the site in the various habitats, including, but not limited to, song sparrows along the coastal scrub, and white-breasted nuthatch in the oak trees. A nesting bird survey shall be conducted before removal of any of these habitats, and seasonal restrictions put into place for occupied habitats, to ensure no take of individuals will occur.

Nesting Raptors: Like passerines, raptors (birds of prey), such as red-shouldered hawk (*Buteo lineatus*), cooper's hawk (*Accipiter cooperii*), are protected under the Federal Migratory Bird Treaty Act and Fish and Wildlife Code 3503.5

General Ecology and Distribution: Raptors nest in a variety of substrates including, cavities, ledges and stick nests. For example, Cooper's hawks are small bird hunters, hunting on the edges of forests in broken forest and grassland habitats where passerines forage for seeds and insects. Nests occur in heavily forested areas near a water source. Research sites on nesting Cooper's hawks rarely show the nests more than a quarter of a mile away from water, whether it is a cattle tank, stream or seep (Snyder and Snyder 1975). Trees typically used by Cooper's hawks include coast live oaks, cottonwoods, and black oaks (Call 1978), as well as second growth conifer stands or deciduous riparian areas. In general, the breeding season for raptors occurs in late March through June, depending on the climate, with young fledging by early August.

Project Area Occurrence: No surveys were conducted for these species as part of this habitat assessment. However, several nests from previous years were observed along the eastern segment of the Proposed trail that could support nesting sharp-shinned hawks and Cooper's hawk. Northern harrier, white-tailed kite and red-shouldered hawk were observed foraging within the study area.

Roosting bats – including Townsend's big-eared bat, pallid bat, Yuma Myotis and hoary bat
Status: Proposed for listing as Endangered by CDFW, State Species of Concern, as well as Fish and Wildlife Code Sections 86, 2000, 2014, 3007, Title 14, Sections 15380, 15382.

General Ecology and Distribution: Bats in this region of California are not active year-round. During the maternity season, non-volant young of colonial bats remain in the roost until late summer (end of August), after which they may disperse from the natal roost or remain into or throughout the winter. Obligate tree-roosting bat species, and to some extent, colonial bats, may switch tree roosts frequently, particularly after young are volant, but are sometimes faithful for longer periods (weeks). During winter months, bats typically enter torpor, rousing only occasionally to drink water or opportunistically feed on insects. The onset of torpor is dependent upon environmental conditions, primarily temperature and rainfall. To prevent direct mortality of either non-volant young or torpid bats during winter months, roosts must not be disturbed or destroyed until bats are seasonally active, and only after they have been provide a means of escape from the roost.

Townsend's big-eared bats are found unevenly throughout most of the state from sea level to the Sierras, but are more restricted in their roost habitat selection, and more sensitive to human disturbance. This species is more strongly associated with cave and mine habitat, preferring large, open roosts, compared to smaller cavities or crevices. Roosts for this nomadic species may serve multiple functions throughout the year, and multiple sites may be used for different life stages (pregnancy, parturition, rearing, etc.). Males remain solitary during maternity season.

Pallid bats are eclectic in their roosting habitat selection, and to some extent distribution, and can be found in crevices and small cavities in rock outcrops, tree hollows, mines, caves, and a wide variety of man-made structures such as buildings, bridges and culverts, generally in lower to mid-elevation sites. This species forms maternity colonies, composed of dozens to sometimes hundreds of females and their young, and smaller bachelor colonies composed of males and not-yet reproductive females.

Western red bats have a broad, but disjunct, distribution throughout the state, and a wide range of elevations. Reproductive females are more common in the inland portions of the state than the Bay Area, where males are more common during the summer months. This is a foliage-roosting species typically associated with large-leaf trees, such as willows, cottonwoods, and sycamores, and is often found near riparian zones. Western red bats are typically solitary, however females give birth to two to five young, which is atypical compared to other bat species.

Project Area Occurrence: Building: Smaller bats, such as Brazilian free-tailed bats (*Tadarida brasiliensis*), Yuma myotis (*Myotis yumanensis*) and other Myotis species, have potential to roost in the on-site building, and evidence of bats was found during our site visit, which occurred during the 2014 season. The structure contains suitable day and/or night roost habitat to varying degrees. Non-SSC bat species, such as those mentioned above, have potential to occur in the building and to a lesser extent, trees containing suitable habitat. If large colonies of Brazilian free-tailed or Yuma myotis were to become established in the building, a significant impact to local breeding populations could occur if buildings are demolished without first conducting humane bat eviction or other appropriate measures. Please refer to the Impacts and Mitigation Measures for details on avoidance measures of roosting bats in buildings on this site.

Trees: Three trees on the project site contained suitable potential roost habitat. Pallid bats could roost in those trees with cavities, crevices and/or exfoliating bark; these could also support non-SSC bats such as hoary bats (*Lasiurus cinereus*), an obligate tree-roosting species, and Myotis species. In addition, western red bats, a SSC species, could potentially roost in the foliage of larger mature trees throughout the project site.

Please refer to the Impacts and Mitigation Measures for details on avoidance measures of roosting bats in trees on this site.

IMPACTS AND MITIGATION MEASURES

This section summarizes the potential temporary biological impacts from construction activities within the study area. The analysis of these impacts is based on a single reconnaissance-level survey of the study area, a review of existing databases and literature, and personal professional experience with biological resources of the region.

CEQA Guidelines Sections 15206 and 15380 were used to determine impact significance. Impacts are generally considered less than significant if the habitats and species affected are common and widespread in the region and the state.

A species may be treated as rare or endangered even if it has not been listed under CESA or FESA. Species are designated endangered when it survival and reproduction in the wild are in immediate jeopardy from one or more causes, including loss of habitat, change in habitat, overexploitation, disease or other factors.

For the purposes of this report, three principal components in the evaluation were considered:

- Magnitude of the impact (e.g., substantial/not substantial)
- Uniqueness of the affected resource (rarity)
- Susceptibility of the affected resource to disturbance (sensitivity)

The evaluation of significance must consider the interrelationship of these three components. For example, a relatively small-magnitude impact (e.g., disturbing a nest) to a state or federally listed species would be considered significant because the species is at low population levels and is presumed to be susceptible to disturbance. Conversely, a common habitat such as non-native grassland is not necessarily rare or sensitive to disturbance. Therefore, a much larger magnitude of impact (e.g., removal of extensive vegetation) would be required for it to be considered a significant impact.

Drainages

The property boundary is inclusive of the unnamed tributary to the Russian River, which is likely intermittent in La Nina conditions and perennial in El Nino conditions. The blue-line creek is one of many drainages of central Sonoma County flowing into the Russian River in the Dry Creek Area. The proposed project is situated on the eastern and western banks of its tributary (Figures 3 and 4). The unnamed tributary qualifies as a waters of the U.S. and waters of the state. The area within the ordinary high water mark is within the jurisdiction of the U. S. Army Corps of Engineers (Corps). The Regional Water Quality Control Board (RWQCB) takes jurisdiction from top of bank to top of bank and the California Department of Fish and Wildlife (CDFW) has jurisdiction over the bed and bank and any associated riparian woodland vegetation.

The creek within the project area is incised and the banks have been armored with concrete blocks and at least one old car body. Ben Monroe, Project Manager with Always Engineering, met with Adam McKannay with CDFW and Kaete King with the North Coast RWQCB on April 8, 2014 to discuss the proposed pedestrian bridge crossing for the creek. This meeting was documented in a memorandum prepared by Ms. King and addressed to Stephen Bargsten with the RWQCB and Ben Monroe dated April 22, 2014. As stated in the memorandum, the RWQCB will require a 401 water quality certification and/or waste discharge permit for project as the RWQCB takes jurisdiction from top of bank to top of bank of any creek drainages. A Section 1602 Streambed Alteration Agreement will also be required from CDFW. Because the bridge will span the creek it will not encroach upon the ordinary high water mark of the creek and therefore a Section 404 permit will not be required from the Corps.

Special-Status Plants

No special status plants were observed within the project area and none are expected to occur based on the lack of potential habitat. The grassland habitat on the site is dominated by non-native species and only a few, common native plants were observed on the site. No further analysis is required.

Vegetation Communities

CDFW and the RWQCB take jurisdiction over the bed and bank of creeks as waters of the state and the CDFW jurisdiction extends to include any riparian tree or shrub communities associated with the creek drainage. Impacts to the riparian tree and shrub community are considered to be significant impacts as this vegetation type is considered to have high value for wildlife and

A pedestrian ADA compliant bridge is proposed that would be installed to connect the parking area to the winery facilities on the other side of the creek. The bridge would be designed with footings outside the banks of the creek to minimize impacts.

Impact: The pedestrian bridge will be located to minimize impacts or removal of any riparian trees or shrubs although some tree or shrub trimming may be required. Any impacts to the riparian vegetation will require compensation. CDFW requires replacement of trees that are to be removed that are 4 inches DBH or greater with a replacement to loss ratio of 3:1 or greater.

Mitigation Measure: A Section 1602 Streambed Alteration Agreement from CDFW for impacts to the riparian tree community will be required prior to construction in addition to a 401 Water Quality Certification and/or waste discharge permit from the Regional Water Quality Control Board (RWQCB) for the pedestrian bridge crossing (RWQCB 2014). As part of the Streambed Alteration Agreement and RWQCB permit, submittal of a Habitat Mitigation and Monitoring Plan shall be prepared that will include the following elements:

- Development of a planting design that will provide as compensation for the loss of any riparian tree and shrub community. The pedestrian bridge is 5-feet wide so at a minimum there will be 5 feet on each side, for a total of 10 feet wide times the length of area covered by the footings. Compensation shall be at a 2:1 or 3:1 mitigation to loss ratio, depending on the requirements of the CDFW and RWQCB permits.

- A weed control plan will be included to eliminate invasive species from the project site. These include Himalayan blackberry, French broom, English ivy, periwinkle and poison hemlock.

- All bare areas will be seeded with a native seed mix designed for the site.

- The planting design will be developed by a profession qualified ecological restoration specialist.

- The plantings shall be maintained for five following plant installation. At the end of 5 years 80% of the plantings will have survived and be in a good, health vigorous condition.

- The plantings will receive regular weeding and maintenance.

- Annual reports will be required to be sent to CDFW for their approval.

Fish

No impacts to special status fisheries are expected to occur from this project, based on the avoidance and minimization measures proposed for this project, such as the bioswales associated with each building and parking lot to capture impervious surface runoff and the larger bioswale associated with the winery building will ensure no runoff into the creek from the proposed project.

Birds

Impact: Several passerine (perching birds) species observed on site, such as California towhee and scrub jays, build stick nests in trees and shrubs, while others, such as the white-breasted nuthatch and chestnut-backed chickadee, nest in tree cavities. Disturbance during the nesting season (February 15- August 15) may

result in the potential nest abandonment and mortality of young, which is considered a "take" of an individual. However, many of the species observed on the site were fledged juveniles from this year, which means that the nesting season has concluded in the project area.

Mitigation Measure: The following mitigation measures should be followed in order to avoid or minimize impacts to passerines and raptors that may potentially nest in the trees:

1) Grading or removal of nesting trees should be conducted outside the nesting season, which occurs between approximately February 15 and August 15.
2) If grading between August 15 and February 15 is infeasible and groundbreaking must occur within the nesting season, a pre-construction nesting bird (both passerine and raptor) survey of the grasslands and adjacent trees shall be performed by a qualified biologist within 7 days of ground breaking. If no nesting birds are observed no further action is required and grading shall occur within one week of the survey to prevent "take" of individual birds that could begin nesting after the survey.
3) If active bird nests (either passerine and/or raptor) are observed during the pre-construction survey, a disturbance-free buffer zone shall be established around the nest tree(s) until the young have fledged, as determined by a qualified biologist.
4) The radius of the required buffer zone can vary depending on the species, (i.e., 75-100 feet for passerines and 200-300 feet for raptors), with the dimensions of any required buffer zones to be determined by a qualified biologist in consultation with CDFW.
5) To delineate the buffer zone around a nesting tree, orange construction fencing shall be placed at the specified radius from the base of the tree within which no machinery or workers shall intrude.
6) After the fencing is in place there will be no restrictions on grading or construction activities outside the prescribed buffer zones.

Mammals

Impact: Renovation of buildings may cause direct mortality of roosting bats that use the structures, if the structures are renovated during seasonal periods of inactivity (maternity season or winter), or without first conducting humane bat eviction or partial dismantling under supervision of a qualified bat biologist experienced with bats using man-made roosts.

Mitigation Measure: To prevent direct mortality of bats in the empty buildings on the project site, a bat habitat assessment must be conducted by a qualified bat biologist at least 3-6 months ahead of demolition. The bat habitat assessment will provide specific recommendations for humane bat eviction and/or partial dismantling to be followed for each building. In general, humane eviction of bats must occur during seasonal periods of bat activity, ***between March 1, or when evening temperatures are above 45F and rainfall less than ½" in 24 hours occurs, and April 15, prior to parturition of pups. The next acceptable period for humane eviction with suitable roosting habitat is after pups become self-sufficiently volant – September 1 through about October 15, or prior to evening temperatures dropping below 45F and onset of rainfall fretter than ½" in 24 hours.***

Movement Corridors

The tributary to the Russian River is considered a potential movement corridor for aquatic wildlife, such as foothill yellow-legged frog and California red-legged frog, and terrestrial wildlife, such as raccoon. The proposed development is located 30 feet from the top of bank of the tributary, thus the project will not impeded movement by aquatic species.

The riparian corridor adjacent to the tributary may be used by terrestrial wildlife, such as striped skunk and deer. The proposed winery would not be a barrier to movement, and animals can move around the structures at night. Thus, no impediment to movement corridors will occur from the proposed project. After the project is built, no peripheral barriers, such as fencing, will be installed.

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Figure 1: Project Location.

Figure 2. Tributary in western portion of the site.

Figure 3. Approximate area of bridge crossing.

Figure 4.Non-native grassland in area of proposed winery building.

APPENDIX A: FEDERAL, STATE AND LOCAL PLANS, POLICIES, REGULATIONS AND ORDINANCES

Federal Endangered Species Act - U.S. Fish and Wildlife Service

Pursuant to ESA, the U.S. Fish and Wildlife Service (USFWS) has regulatory authority over federally listed species. Under ESA, a permit to "take" a listed species is required for any federal action that may harm an individual of that species. Take is defined under Section 9 of ESA as "to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or attempt to engage in any such conduct." Under federal regulation, take is further defined to include habitat modification or degradation where it would be expected to result in death or injury to listed wildlife by significantly impairing essential behavioral patterns, including breeding, feeding, or sheltering. Section 7 of ESA requires all federal agencies to consult with USFWS to ensure that their actions are not likely to "jeopardize the continued existence" of any listed species or "result in the destruction or adverse modification" of designated critical habitat. No federal approvals or other actions are anticipated as being required to implement the project at this time. Therefore, consultation under Section 7 of ESA is not expected. However, if USACE determines that wetlands and/or other waters of the United States on the project site are subject to protection under Section 404 of the CWA, or any other federal action becomes necessary, consultation under Section 7 of ESA would be required.

For projects where federal action is not involved and take of a listed species may occur, the project proponent may seek to obtain a permit for incidental take under Section 10(a) of ESA. Section 10(a) of ESA allows USFWS to permit the incidental take of listed species if such take is accompanied by a habitat conservation plan (HCP) that includes components to minimize and mitigate impacts associated with the take. The permit is known as an incidental take permit. The project proponent must obtain a permit before conducting any otherwise-lawful activities that would result in the incidental take of a federally listed species.

Sections 404 and 401 of the Clean Water Act - U.S. Army Corps of Engineers

USACE regulates the discharge of dredged or fill material into waters of the United States under Section 404 of the CWA. Waters of the United States are defined as waters where use, degradation, or destruction could affect interstate or foreign commerce, tributaries to any of these waters, and wetlands that meet any of these criteria or that are somehow connected to any of these waters or their tributaries. Wetlands are defined as areas that are inundated or saturated by surface water or groundwater at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted to life in saturated soil conditions. Wetlands falling under USACE jurisdiction must demonstrate the presence of three specific wetland parameters: hydric soils, hydrophytic vegetation, and sufficient wetland hydrology. Generally, wetlands include swamps, marshes, bogs, and similar areas. Lakes, rivers, and streams are defined as "other waters." Jurisdictional limits of these features are typically noted by the ordinary high-water mark (OHWM). The OHWM is the line on the shore or bank that is established by the fluctuations of water and indicated by physical characteristics, such as a clear, natural line impressed on the bank, shelving, changes in soils, lack of woody or terrestrial vegetation, the presence of litter or debris, or other characteristics of the surrounding areas.

Isolated ponds or seasonal depressions had been previously regulated as waters of the United States. However, in Solid Waste Agency of Northwestern Cook County (SWANCC) v. United States Army Corps of Engineers et al. (January 8, 2001), the U.S. Supreme Court ruled that certain "isolated" wetlands (e.g., nonnavigable, isolated, and intrastate) do not fall under the jurisdiction of the CWA and are no longer under USACE jurisdiction (although isolated wetlands are regulated by the State of California under the Porter-Cologne Water Quality Control Act—see discussion below). Some circuit courts (e.g., U.S. v. Deaton, 2003; U.S. v. Rapanos, 2003; Northern California River Watch v. City of Healdsburg, 2006), however, have ruled that the SWANCC opinion does not prevent CWA jurisdiction if a "significant nexus" such as a hydrologic connection exists, whether it be human-made (e.g., roadside ditch) or natural tributary to navigable waters, or direct seepage from the wetland to the navigable water, a surface or underground hydraulic connection, an ecological connection (e.g., the same bird, mammal, and fish populations are supported by both the wetland

and the navigable water), and changes to chemical concentrations in the navigable water due to water from the wetland.

Section 404 prohibits the discharge of dredged or fill material into waters of the United States (including wetlands) without a permit from USACE. With respect to the proposed project, the discharge of dredged or fill material includes the following activities:

- placement of fill that is necessary for the construction of any structure or infrastructure in a water of the United States;
- the building of any structure, infrastructure, or impoundment requiring rock, sand, dirt, or other material for its construction;
- site-development fills for recreational, industrial, commercial, residential, or other uses; and
- construction of causeways or road fills.

The regulations and policies of USACE, the U.S. Environmental Protection Agency (EPA), and USFWS mandate that the filling of wetlands be avoided unless it can be demonstrated that no practicable alternatives (to filling wetlands) exist. If the placement of fill into waters of the U.S., including wetlands, meets certain criteria the project be permitted under one of the Nation Wide Permits (NWP), which is an expedited permit process.

Section 401 of the CWA requires an applicant for any federal permit that may result in a discharge into waters of the United States to obtain a certification from the state that the discharge will comply with provisions of the CWA. The regional water quality control boards (RWQCBs) administer this program. Any condition of water quality certification would be incorporated into the USACE permit. The state has a policy of no net loss of wetlands and typically requires mitigation for impacts on wetlands before it will issue a water quality certification.

Essential Fish Habitat - National Marine Fisheries Service

Essential Fish Habitat (EFH) is regulated through the National Marine Fisheries Service (NMFS), a division of the National Oceanic and Atmospheric Administration (NOAA). Protection of EFH is mandated through changes implemented in 1996 to the Magnuson-Stevens Fishery Conservation and Management Act (Magnuson-Stevens Act) to protect the loss of habitat necessary to maintain sustainable fisheries in the United States. The Magnuson-Stevens Act defines EFH as "those waters and substrate necessary to fish for spawning, breeding, feeding, or growth to maturity" (16 U.S.C. 1802(10)). NMFS further defines essential fish habitat as areas that "contain habitat essential to the long-term survival and health of our nation's fisheries" (NMFS 2007). EFH can include the water column, bottom substrate types such as gravels suitable in size for salmonid spawning, and vegetation and woody structures that provided habitat for rearing. Under regulatory guidelines issued by NMFS, any federal agency that authorizes, funds, or undertakes action that may affect EFH is required to consult with NMFS (50 CFR 600.920).

California Endangered Species Act (CESA)

The California Endangered Species Act (CESA) (FGC §§ 2050–2116) is administered by the California Department of Fish and Wildlife. The CESA prohibits the “taking” of listed species except as otherwise provided in state law. The CESA includes FGC Sections 2050–2116, and policy of the state to conserve, protect, restore, and enhance any endangered species or any threatened species and its habitat. The CESA requires mitigation measures or alternatives to a proposed project to address impacts to any State listed endangered, threatened or candidate species, or if a project would jeopardize the continued existence of any endangered or threatened species or result in the destruction or adverse modification of habitat essential to the continued existence of those species, if there are reasonable and prudent alternatives available consistent with conserving the species or its habitat which would prevent jeopardy. Section 86 of the FGC defines take as “hunt, pursue, catch, capture, or kill, or attempt to hunt, pursue, catch, capture, or kill.” Unlike the ESA, CESA applies the take prohibitions to species under petition for listing (state candidates) in addition to listed

species. Section 2081 of the FGC expressly allows DFG to authorize the incidental take of endangered, threatened, and candidate species if all of the following conditions are met:

- The take is incidental to an otherwise lawful activity.
- The impacts of the authorized take are minimized and fully mitigated.
- Issuance of the permit will not jeopardize the continued existence of the species.
- The permit is consistent with any regulations adopted in accordance with §§ 2112 and 2114 (legislature-funded recovery strategy pilot programs in the affected area).
- The applicant ensures that adequate funding is provided for implementing mitigation measures and monitoring compliance with these measures and their effectiveness.

The CESA provides that if a person obtains an incidental take permit under specified provisions of the ESA for species also listed under the CESA, no further authorization is necessary under CESA if the federal permit satisfies all the requirements of CESA and the person follows specified steps (FGC § 2080.1).

California Environmental Quality Act (CEQA)

CEQA is a California statute passed in 1970, shortly after the United States federal government passed NEPA, to institute a statewide policy of environmental protection. CEQA does not directly regulate land uses, but instead requires state and local agencies within California to follow a protocol of analysis and public disclosure of environmental impacts of proposed projects and adopt all feasible measures to mitigate those impacts.

The CEQA statute, California Public Resources Code § 21000 et seq., codifies a statewide policy of environmental protection. According to CEQA, all state and local agencies must give major consideration to environmental protection in regulating public and private activities, and should not approve projects for which there exist feasible and environmentally superior mitigation measures or alternatives.

Species Protection under California Department of Fish and Wildlife

The CDFW is established under the Fish and Game Code (FGC) (FGC § 700) and states that the fish and wildlife resources of the state are held in trust for the people of the state by and through CDFW (FGC § 711.7(a)). All licenses, permits, tag reservations and other entitlements for the take of fish and game authorized by FGC are prepared and issued by CDFW (FGC § 1050 (a)).

Provisions of the FGC provide special protection to certain enumerated species such as:

§ 3503 protects eggs and nests of all birds.
§ 3503.5 protects birds of prey and their nests.
§ 3511 lists fully protected birds.
§ 3513 protects all birds covered under the federal Migratory Bird Treaty Act.
§ 3800 defines nongame birds.
§ 4150 defines nongame mammals.
§ 4700 lists fully protected mammals.
§ 5050 lists fully protected amphibians and reptiles.
§ 5515 lists fully protected fish species.

In addition, the Native Plant Protection Act (NPPA), directs the CDFW to carry out the Legislature's intent to "preserve, protect and enhance rare and endangered plants in this State." As a result, the NPPA allows the California Fish and Game Commission to designate native plants as endangered or rare, and to require permits for collecting, transporting, or selling such plants.

California Native Plant Society (CNPS)

The California Native Plant Society (CNPS) is a statewide non-profit organization dedicated to the monitoring and protection of sensitive species in California. The CNPS publishes and maintains an Inventory of Rare and Endangered Vascular Plants of California, focusing on geographic distribution and qualitative characterization of rare, threatened, or endangered vascular plant species of California. The list serves as the candidate list for listing as threatened and endangered by the CDFG. The Inventory assigns plants to the following categories:

A. Presumed Extinct in California
B. Rare or endangered in California and elsewhere
Rare or endangered in California, more common elsewhere
Plants for which more information is needed
Plants of limited distribution.

Additional rarity, endangerment, and distribution codes are assigned to each taxa.

Plants on Lists 1A, 1B, and 2 of the CNPS Inventory consist of plants that may qualify for listing, and the Department recommends they be addressed in CEQA projects (CEQA Guidelines Section 15380). However, a plant need not be in the Inventory to be considered a rare, threatened, or endangered species under CEQA. In addition, the DFG recommends, and local governments may require, protection of plants which are regionally significant, such as locally rare species, disjunct populations of more common plants, or plants on the CNPS Lists 3 and 4.

Waters of the State - California Regional Water Quality Control Board
The term "Waters of the State" is defined by the Porter-Cologne Act as "any surface water or groundwater, including saline waters, within the boundaries of the state." The Regional Water Quality Control Board (RWQCB) protects all waters in its regulatory scope, but has special responsibility for wetlands, riparian areas, and headwaters. These waterbodies have high resource value, are vulnerable to filling, and are not systematically protected by other programs. RWQCB jurisdiction includes "isolated" wetlands and waters that may not be regulated by the USACE under Section 404. "Waters of the State" are regulated by the RWQCB under the State Water Quality Certification Program which regulates discharges of fill and dredged material under Section 401 of the Clean Water Act and the Porter-Cologne Water Quality Control Act. Projects that require a USACE permit, or fall under other federal jurisdiction, and have the potential to impact "Waters of the State," are required to comply with the terms of the Water Quality Certification determination.

If a proposed project does not require a federal permit, but does involve dredge or fill activities that may result in a discharge to "Waters of the State," the RWQCB has the option to regulate the dredge and fill activities under its state authority in the form of Waste Discharge Requirements.

Streams, Lakes, and Riparian Habitat - California Department of Fish and Game
Streams and lakes, as habitat for fish and wildlife species, are subject to jurisdiction by CDFG under Sections 1600-1616 of the State Fish and Game Code. Alterations to or work within or adjacent to streambeds or lakes generally require a 1602 Lake and Streambed Alteration Agreement. The term stream, which includes creeks and rivers, is defined in the California Code of Regulations (CCR) as follows: "a body of water that flows at least periodically or intermittently through a bed or channel having banks and supports fish or other aquatic life. This includes watercourses having a surface or subsurface flow that supports or has supported riparian vegetation" (14 CCR 1.72). In addition, the term stream can include ephemeral streams, dry washes, watercourses with subsurface flows, canals, aqueducts, irrigation ditches, and other means of water conveyance if they support aquatic life, riparian vegetation, or stream-dependent terrestrial wildlife (CDFG ESD 1994). Riparian is defined as, "on, or pertaining to, the banks of a stream;" therefore, riparian vegetation is defined as, "vegetation which occurs in and/or adjacent to a stream and is dependent on, and occurs because of, the stream itself" (CDFG ESD 1994). Removal of riparian vegetation also requires a Section 1602 Lake and Streambed Alteration Agreement from CDFG.

Native Tree Protection and Preservation - Sonoma County
Pursuant to the Sonoma County Native Tree Protection and Preservation Ordinance, Chapters 25 and 26 of the Sonoma County Zoning Regulations, the County requires that projects shall be designed to minimize the destruction of protected trees.. Trees protected include the following: Big Leaf Maple (*Acer macrophyllum*), Black Oak (*Quercus kelloggii)*, Blue Oak (*Quercus douglasii*), Coast Live Oak (*Quercus agrifolia*), Interior Live Oak (*Quercus wislizenii*), Madrone (*Arbutus menziesii*), Oracle Oak (*Quercus morehus*), Oregon Oak

(*Quercus garryana*), Redwood (*Sequoia sempervirens*), Valley Oak (*Quercus lobata*), California Bay (*Umbellularia californica*), and their hybrids.

With development permits a site plan shall be submitted that depicts the location of all protected trees greater than nine inches (9") and their protected perimeters in areas that will be impacted by the proposed development, such as the building envelopes, access roads, leachfields, etc. Lot line adjustments, zoning permits and agricultural uses are exempt from this requirement. The provisions of this section shall not apply to trees which are the subject of a valid timber harvesting permit approved by the state of California. This section shall not be applied in a manner that would reduce allowable density lower than that permitted as a result of CEQA or by other county ordinances or render a property undevelopable. To achieve this end, adjustments may be made.

Replacement trees may be located on residentially zoned parcels of at least one and one-half acres and on any commercial or industrial zoned parcel, regardless of size, where feasible. Where infeasible, they may be located on public lands or maintained private open space. In-lieu fees may be used to acquire and protect stands of native trees in preserves or place trees on public lands.

Permits to remove trees will take into account the environmental effects of removal, possible alternatives to removal, and whether preservation unreasonably interferes with development of the parcel. Required mitigation may include:

1. establishment and maintenance of replacement trees;
2. a detailed mitigation management plan;
3. removal of invasive exotics; and
4. posting of a bond to cover the cost of an inspection to ensure the success of measures
5. described above.

Policy for Riparian Corridors - Sonoma County General Plan Open Space and Resource Conservation (OSRC) Element:

The Sonoma County General Plan OSRC Element (SCPRMD 2008) establishes goals and objectives for Riparian Corridors. The relevant goals and policies to this project are:

Goal OSRC-8: Protect and enhance Riparian Corridors and functions along streams, balancing the need for agricultural production, urban development, timber and mining operations, and other land uses with the preservation of riparian vegetation, protection of water resources, flood control, bank stabilization, and other riparian functions and values.

Objective OSRC-8.1: Designate all streams shown on USGS 7.5 minute quadrangle topographic maps as of March 18, 2003, as Riparian Corridors and establish streamside conservation areas along these designated corridors.

Objective OSRC-8.2: Provide standards for land use and development in streamside conservation areas that protect riparian vegetation, water resources and habitat values while considering the needs of residents, agriculture, businesses and other land users.

Objective OSRC-8.3: Recognize and protect riparian functions and values of undesignated streams during review of discretionary projects/

Policy OSRC-8a: Classify "Riparian Corridors" designated in the Open Space and Resource Conservation Element as follows:

(1) “Russian River Riparian Corridor” is the corridor adjacent to the main stem of the Russian River, excluding lands located within the Urban Residential, Commercial, Industrial, or Public-Quasi Public land use categories or within the jurisdiction of a city.

(2) “Flatland Riparian Corridors” are the corridors adjacent to designated streams in the 1989 General Plan that flow through predominantly flat or very gently sloping land, generally with alluvial soil. This classification excludes areas located within the “Russian River Riparian Corridor” or within the Urban Residential, Commercial, Industrial, or Public/Quasi-Public land use categories.

(3) “Other Riparian Corridors” are the corridors adjacent to all designated streams not included in (1) or (2) above.*

Policy OSRC-8b: Establish streamside conservation areas along both sides of designated Riparian Corridors as follows, measured from the top of the higher bank on each side of the stream as determined by PRMD:

(1) Russian River Riparian Corridor: 200'
(2) Flatland Riparian Corridors: 100'
(3) Other Riparian Corridors: 50'*

Policy OSRC-8e: Prohibit, except as otherwise allowed by Policy OSRC-8d, grading, vegetation removal, agricultural cultivation, structures, roads, utility lines, and parking lots within any streamside conservation area. Consider an exception to this prohibition if:

(1) It makes a lot unbuildable and vegetation removal is minimized,

(2) The use involves the minor expansion of an existing structure where it is demonstrated that the expansion will be accomplished with minimum damage to riparian functions,

(3) The use involves only the maintenance or restoration of an existing structure or a non-structural use,

(4) It can be clearly demonstrated through photographs or other information that the affected area has no substantial value for riparian functions, or

(5) A conservation plan is approved that provides for the appropriate protection of the biotic resources, water quality, flood management, bank stability, groundwater recharge, and other applicable riparian functions. Until the County adopts mitigation standards and procedures for specific uses and riparian functions, prior to approving the conservation plan, consult on areas of concern with the Resource Conservation District, Agricultural Commissioner, and resource agencies that are applicable to the proposed plan.*

Appendix B: Potentially Occurring Special-Status Plant Species in the Study Area

Scientific Name **Common Name**	**Status USFWS/ CDFW/ CNPS list**	**Habitat Affinities and Blooming Period/Life Form**	**Potential for Occurrence**
Alopecurus aequalis var. *sonomensis* Sonoma alopecurus	FE/-/1B	Freshwater marshes and riparian scrub. Blooms May to July.	None. Typical habitat not present in project area. Not observed during surveys.
Amorpha californica var. *napensis* Napa false indigo	FSC/-/1B	Broadleafed upland forest, Chaparral, cismontane woodland. Blooms April to July.	None. No habitat in project area. Not observed during surveys.
Arctostaphylos bakeri ssp. *sublaevis* The Cedars manzanita	-/CR/1B	Closed-cone coniferous forest, chaparral on serpentinite seeps. Blooms February to May.	None. No habitat in project area. Not observed during surveys.
Blennosperma bakeri Sonoma sunshine	FE/CE/1B	Mesic sites in valley and foothill grassland, vernal pools. Blooms March to May.	None. No habitat in project area. Not observed during surveys.
Brodiaea leptandra Narrow-anthered California brodiaea	FSC/-/1B	Broadleaved upland forest, chaparral, lower montane coniferous forest. Blooms May to July.	None. No habitat in project area. Not observed during surveys.
Carex comosa Bristly sedge	-/-/2	Coastal prairie, marshes and swamps, lake margins, mesic sites in grasslands. Blooms May to Sept.	None. No habitat in project area. Not observed during surveys.
Castilleja ambigua ssp. *ambigua* Johnny-nip	-/-/4	Coastal bluff scrub, coastal prairie, coastal scrub, marshes and swamps, valley and foothill grassland, vernal pool margins. Blooms March to August.	None. No habitat in project area. Not observed during surveys.
Ceanothus confusus Rincon Ridge Ceanothus	FSC/-/1B	Closed-cone coniferous forest, chaparral, cismontane woodland, volcanic or serpentine substrate. Blooms February to April.	None. No habitat in project area. Not observed during surveys.
Ceanothus purpureus Holy-leaved ceanothus	-/-/1B	Chaparral and cismontane woodland with rocky, volcanic substrate. Blooms February to June.	None. No habitat in project area. Not observed during surveys.
Centromadia parryi ssp. *parryi* Pappose tarplant	-/-/1B	Chaparral, coastal prairie, coastal salt meadows and swamps, valley and foothill grassland (vernally mesic)/often alkaline. Blooms May to November	None. No habitat in project area. Not observed during surveys.

Scientific Name Common Name	Status USFWS/ CDFW/ CNPS list	Habitat Affinities and Blooming Period/Life Form	Potential for Occurrence
Cordylanthsu tenuis ssp. *capillaris* Pennell's bird's-beak	FE/CR/1B	Closed-cone coniferous forest and chaparral on serpentine. Blooms June to September.	None. No habitat in project area. Not observed during surveys.
Cypripedium montanum Mountain lady's-slipper	-/-/4	Broadleaved upland forest, cismontane woodland, lower montane coniferous forest, North Coast coniferous forest. Blooms March to August.	None. No habitat in project area. Not observed during surveys.
Downingia pusilla Dwarf downingia	-/-/2	Vernal pools and mesic sites in grassland. Blooms March to May	None. No habitat in project area. Not observed during surveys.
Erigeron serpentinus Serpentine daisy	-/-/1B	Chaparral with serpentine soils or seeps. Blooms May to August.	None. No habitat in project area. Not observed during surveys.
Fritillaria liliacea Fragrant fritillary	-/-/1B	Cismontane woodland, coastal prairie, coastal scrub, grassland. Blooms February to April.	None. Typical habitat not in project area. Not observed during surveys.
Hemizonia congesta ssp. *congesta* Seaside tarplant	-/-/1B	Valley and foothill grassland, sometimes roadsides. Blooms April-November.	None. Not observed during surveys.
Hesperevax caulescens Hogwallow starfish	-/-/4	Valley and foothill grassland (mesic, clay) and vernal pools (shallow). Blooms March to June.	None. Typical habitat not in project area. Not observed during surveys.
Horkelia tenuiloba Thin-lobed horkelia	FSC/-/1B	Mesic openings in broadleafed upland forest and chaparral on sandy substrate. Blooms May to July.	None. No habitat in project area. Not observed during surveys.
Lasthenia burkei Burke's goldfields	FE/CE/1B	Vernal pools, meadows, seeps. Blooms April to June.	None. No habitat in project area. Not observed during surveys.
Lessingia arachnoidea Crystal Springs lessingia	-/-/1B	Cismontane woodland, coastal scrub, valley and foothill grassland on serpentinite, often on roadsides. Blooms July to October.	None. No habitat in project area.
Limnanthes vinculans Sebastopol meadowfoam	FE/CE/1B	Meadows and seeps, vernal pools, grassland, vernally mesic sites. Blooms Apirl to May.	None. No habitat in project area. Not observed during surveys.
Microseris paludosa Marsh microseris	-/-/1B	Closed-cone coniferous forest, cismontane woodland, coastal scrub, grassland. Blooms April to June.	None. Not observed during surveys.

Scientific Name **Common Name**	**Status USFWS/ CDFW/ CNPS list**	**Habitat Affinities and Blooming Period/Life Form**	**Potential for Occurrence**
Navarretia leucocephala ssp. *bakeri* *Baker's navarretia*	-/-/1B	Cismontane woodland, lower montane coniferous forest, meadows and seeps, valley and foothill grassland, vernal pools/mesic. Blooms April to July.	None. Typical habitat not project area. Not observed during surveys.
Navarretia leucocephala ssp. *plieantha* Many-flowered navarretia	FE/CE/1B	Volcanic ash flow vernal pools. Blooms May to June.	None. No habitat in project area. Not observed during surveys.
Perideridia gairdneri ssp. *gairdneri* Gardner's yampa	-/-/4	Broadleaved upland forest, chaparral, coastal prairie, valley and foothill grassland, vernal pools in vernally mesic areas. Blooms June to October.	None. Typical habitat not in project area. Not observed during surveys.
Ranunculus lobbii Lobb's aquatic buttercup	-/-/4	Cismontane woodland, North Coast coniferous forest, valley and foothill grassland, vernal pools. Blooms February to May.	None. Typical habitat not in project area. Not observed during surveys.
Usnea longissima Long-bear lichen	-/-/4	North coast coniferous forest, broadleafed upland forest. Grows in the "redwood zone" on a variety of trees including big leaf maple, oaks, ash, Douglas fir and bay.	None. Project area not in "redwood zone".

NOTES:

U.S. FISH AND WILDLIFE SERVICE

FE = federally listed Endangered
FT = federally listed Threatened

CALIFORNIA DEPT. OF FISH AND WILDLIFE

CE = California listed Endangered
CR = California listed as Rare
CT = California listed as Threatened

CALIFORNIA NATIVE PLANT SOCIETY -

List 1: Plants of highest priority
List 1A: Plants presumed extinct in California
List 1B: Plants rare and endangered in California and elsewhere
List 2: Plants rare and endangered in California but more common elsewhere
List 3: Plants about which additional data are needed

Appendix C: Potentially Occurring Special-Status Animal Species in the Project Area

Common Name *Scientific Name*	Status USFWS/ CDFW	Habitat Affinities and Reported Localities in the Project Area	Occurrence for Potential
Invertebrates			
Giuliani's dubiraphian riffle beetle *Dubiraphia giulianii*	-/CSC	Inhabits exposed, wave-washed willow roots in the slow flows of the Russian River.	None: No habitat present.
California linderiella *Linderiella occidentalis*	-/CSC	Seasonal pools in unplowed grasslands with old alluvial soils underlain by hardpan or in sandstone depressions.	None: No habitat present.
Fish			
Russian River tule perch *Hysterocarpus traskii pomo*	-/SSC	Occurs in low elevation streams of the Russian River. Requires clear, flowing water with abundant cover and deep (>1M) pool habitat.	None: No habitat present.
Navarro roach *Lavinia symmetricus navarroensis*	-/SSC	Habitat generalists, found in warm intermittent streams as well as cold, well-aerated streams.	None: No habitat present.
Coho salmon - Central California Coast ESU *Onchorhynchus kisutch*	FE/SE	Occurs from Punta Gorda, in northern California, to the San Lorenzo River, in Santa Cruz County, and includes coho salmon populations from several tributaries of San Francisco Bay (e.g., Corte Madera and Mill Valley Creek).	None: No habitat present.
steelhead - Central California Coast DPS *Onchorhynchus mykiss*	FT/SSC	Requires beds of loose, silt-free, coarse gravel for spawning. Also needs cover, cool water and sufficient dissolved oxygen. Species reported in Russian River (CNDDB 2014).	None: No habitat present.
Amphibians			
foothill yellow-legged frog *Rana boylii*	-/ SSC	Inhabits permanent, flowing stream courses with a cobble substrate and a mixture of open canopy riparian vegetation. Species reported more than 3 miles in distance from project site (CNDDB 2012).	None: No habitat present.
California red-legged frog *Rana draytonii*	FT/ SSC	Prefers semi-permanent and permanent stream pools, ponds and creeks with emergent and/or riparian vegetation. Occupies upland habitat especially during the wet winter months. Species reported more than 3 miles in distance from project site (CNDDB 2014).	**Low: suitable habitat present near perennial ponds.**
Reptiles			
western pond turtle *Emys marmorata marmorata*	-/ SSC	Prefers permanent, slow-moving creeks, streams, ponds, rivers, marshes and irrigation ditches with basking sites and a vegetated shoreline. Requires upland sites for egg-laying. Species reported more in Russian River (CNDDB 2014).	**Low: suitable habitat present near perennial ponds.**
Birds			
Cooper's hawk *Accipiter cooperi*	MB/ SSC	Nests primarily in deciduous riparian forests. May also occupy dense canopied forests from gray pine-oak woodland to ponderosa pine. Forages in open woodlands.	Moderate: potential nesting occurs along the tributary.

Common Name *Scientific Name*	Status USFWS/ CDFW	Habitat Affinities and Reported Localities in the Project Area	Occurrence for Potential
sharp-shined hawk *Accipiter striatus*	MB/ SSC	Dense canopy pine or mixed conifer forest and riparian habitats. Water within one mile required.	Low: potential nesting occurs along the tributary
Great blue heron *Ardea herodius*	MB/ SSC	Nests colonially in large trees near water	None: No habitat present.
white-tailed kite *Elanus leucurus*	MB/CFP	Inhabits low rolling foothills and valley margins with scattered oaks and river bottom- lands or marshes adjacent to deciduous woodlands. Prefers open grasslands, meadows and marshes for foraging close to isolated, dense-topped trees for nesting and perching.	None: No habitat present. Would have been protected.
Osprey *Pandion haliaetus*	-/SSC	Nests in large trees within 15 miles of good fish-producing water body.	None: No habitat present. Would have been protected.
black phoebe *Sayornis nigricans*	MB/-	Nests in anthropogenic structures on ledges. Nest made of mud pellets, dry grasses, weed stems, plant fibers and hair.	**High: potential nesting on existing structure.**
Mammals*			
pallid bat *Antrozous pallidus*	-/SSC, WBWG:H	Day roosts in crevices and cavities in rock outcrops, mines, caves, buildings, bridges, properly-designed bat houses, as well as hollows and cavities in a wide variety of tree species. May roost alone, in small groups (2 to 20 bats), or in 100s in maternity roosts, with males and non-reproductive subadults in other, smaller roosts. High reliance on oak woodland habitat in many portions of its range in California, but uses a wide variety of vegetative habitat for foraging. Forages on larger prey taken on the ground or in the air, usually within 6-km of the day roost.	**Low: roosting habitat present**
Townsend's big-eared bat *Corynorhinus townsendii townsendii*	-/CPE, WBWG:H	Day roosts in cave analogs; mines, buildings, bridges, sometimes large tree hollows. Particularly sensitive to roost disturbance, this species has declined throughout its range in California; very few maternity roosts are known in California. Switches roosts seasonally, sometimes within each season. Females form maternity colonies, males roost singly, and all disperse widely after maternity season. During winter, roosts in cold, but non-freezing roosts, which may include man-made structures. Forages in a variety of habitats, consistently in riparian and stream corridors, avoiding open habitat. May commute relatively long distances to forage.	**Low: roosting habitat present**

Common Name *Scientific Name*	Status USFWS/ CDFW	Habitat Affinities and Reported Localities in the Project Area	Occurrence for Potential
Western red bat *Lasiurus blossevillii*	-/SSC, WBWG:H	Solitary roosting, except when females are with young (from 2 to 6 are born). Roosts almost exclusively in foliage, under overhanging leaves, in woodland borders, rivers, agricultural areas including orchards, and urban areas with mature trees. Typically found in large cottonwoods, sycamores, walnuts and willows associated with riparian habitats. Forages over mature orchards, oak woodland, low elevation conifer forests, riparian corridors, non-native trees in urban and rural residential areas, and around strong lighting	**Medium: roosting habitat present along riparian corridor.**
Hoary bat *Lasiurus cinereus*	-/-, WBWG:M	Roosts singly except when females are with young (from 2 to 4 are born) in dense foliage of medium to large coniferous and deciduous trees. Highly migratory, occurs from sea level to tree line in Sierra Nevada. Summer records predominantly male. Forages along stream and river corridors, open water bodies, meadows, and open forest above canopy.	**Low: roosting habitat present along riparian corridor.**
California myotis *Myotis californicus*	-/-	Females give birth to one young. Typically roosts alone or in small groups in almost every habitat from desert to mountains, but most abundant at lower to mid-elevations. Roosts in crevices in rocks, slabs, hollow trees, exfoliating bark, buildings, mines. In trees may exhibit low roost fidelity, switching frequently. Emerges early in evening, forages along tree margins, canopy edge, over water, along trails and higher above ground in open habitat. Typically hibernates.	**Moderate: potential habitat in building.**
Western small-footed myotis *Myotis ciliolabrum*	-/-, WBWG:M	Females give birth to one young, roosts singly or in small maternity groups in cliff and rock crevices, tree snags, buildings, concrete bridges and viaducts, caves and mines, occasionally under tree bark, swallow nests – males roost singly. Forages in early evening near rocks, bluffs, cliffs and tree margins, as well as water courses, and man-made water impoundments. Hibernates in small numbers.	**Moderate: potential habitat in building**
long-eared myotis *Myotis evotis*	-/-, WBWG:M	Reproductive females form small maternity colonies between 2-30 individuals; males and non-reproductive females roost singly or in small groups nearby. Found from coastal forests to high elevation, is absent from Central Valley and Sonoran and Colorado desert regions. May switch roosts frequently. Day roosts in hollow trees, under exfoliating bark, caves, mines, bridges, buildings and crevices in rock outcrops, under bark of small black oaks in northern California, also use mixed conifer forests throughout California. Nights roosts include bridges, caves. May hibernate.	**Low: roosting habitat present along riparian corridor and building**

Common Name *Scientific Name*	Status USFWS/ CDFW	Habitat Affinities and Reported Localities in the Project Area	Occurrence for Potential
fringed myotis *Myotis thysanodes*	-/-, WBWG:H	Roosts colonially, up to 2,000 individuals. Females form maternity roosts, give birth to one young. Found from coast to ca. 1,800 m in Sierra Nevadas, though most are known to the west of that range. Rare in all localities, data suggests serious population declines. Roosts in rock crevices, caves, mines, buildings and bridges, as well as tree hollows, particularly large conifer snags. Occurs in xeric woodland, hot desert-scrub, grassland, sage-grassland steppe, spruce-fir, mesic old growth forest, coniferous and deciduous/coniferous forests. Forages over secondary streams in fairly cluttered habitat, over meadows. May hibernate or use intermittent torpor.	**Low: roosting habitat present in building**
Yuma myotis *Myotis yumanensis*	-/-, WBWG:M	Forms often large maternity colonies, females giving birth to one young. Generally confined to lower elevations from sea level to up to 1,300 m in central Sierra Nevada and 2,000 m in southern Sierra Nevada. Males roost singly. Primarily a crevice roosting species in natural habitat, forms large maternity colonies in large spaces in man-made roosts, e.g. buildings. Also uses bridges, caves, mines, tree cavities, bat houses, abandoned swallow nests, exfoliating bark. Emerges early and forages almost exclusively over quiet water – ponds, pools, reservoirs, swimming pools. Appears to migrate, may hibernate in colder portions of their range.	**Moderate: potential habitat in building**
Brazilian free-tailed bat *Tadarida brasiliensis*	-/-	Found in large to very large colonies (several hundred to millions), females giving birth to single young in maternity roosts. Found almost everywhere throughout California, from sea level up to about 3,700 m in some western mountain ranges, but mostly below about 2,000 m. Crevice and cavity dwellers, uses rock crevices, caves, mines, buildings, bridges, tunnels, bat houses, culverts, abandoned swallow nests. Forages from 6 m to thousands of meters above ground, often very large distances (<50 km) from day roost. Migrates in colder portions of range, or makes winter movements to Coast Range where it remains active or semi-active throughout winter, using torpor. Can remain active throughout winter in southern portion of state.	**Moderate: potential habitat in building**

* Includes bat species expected to occur in the project region and vicinity based on known roosting ecology and habitat relationships, but not reported in the CNDDB.

U.S. FISH AND WILDLIFE SERVICE

FE = federally listed Endangered

FT = federally listed Threatened
FC = federal candidate for listing
FSC = federal Species of Concern
MBTA = Migratory Bird Treaty Act.

CALIFORNIA DEPT. OF FISH AND WILDLIFE

CE = California listed Endangered
CT = California listed as Threatened
SSC = Species of Special Concern

WESTERN BAT WORKING GROUP

WBWG:H - High
WBWG:M - Medium

Appendix D: Plant species observed April 22, 2014

Scientific Name	Common Name
Aesculus californica	California buckeye
Anagallis arvensis	Scarlet pimpernel*
Anthemis cotula	Mayweed*
Avena barbata	Slender wild oats*
Avena fatua	Oats*
Baccharis pilularis	Coyote bush
Brassica nigra	Black mustard*
Briza maxima	Large quaking grass*
Bromus alopecuros	Poverty brome*
Bromus carinatus	California brome
Bromus diandrus	Ripgut brome*
Bromus hordaeceus	Soft chess*
Carduus pycnocephalus	Italian thistle*
Cirsium vulgare	Bull thistle*
Conium maculatum	Poison hemlock*
Eleocharis macrostachya	Spike rush
Erigeron bonariensis	Horse weed*
Erodium botrys	Broad leaved filaree*
Erodium cicutarium	Red stemmed filaree*
Festuca myuros	Rattail fescue*
Festuca perennis	Ryegrass*
Foeniculum vulgare	Fennel*
Fraxinus latifolia	Oregon ash
Galium aparine	Bedstraw*
Genista monspessulana	French broom*
Hordeum marinum ssp. *gussoneanum*	Mediterranean barley*
Hordeum murinum ssp. *leporinum*	Hare barley*
Hypochaeris radicata	Rough cat's-ear*
Juglans hindsii	Northern California black walnut
Juncus patens	Spreading rush
Lactuca serriola	Prickly lettuce*
Malva sp.	Mallow*
Marah fabaceus	Manroot
Phalaris aquatica	Harding grass*
Plantago lanceolata	English plantain
Poa annua	Annual bluegrass*
Polygonum aviculare	Knotweed*
Quercus agrifolia	Coast live oak
Quercus lobata	Valley oak
Raphanus sativus	Wild radish*
Rosa californica	California rose
Rubus armeniacus	Himalayan blackberry
Rubus ursinus	California blackberry
Rumex crispus	Curly dock*
Salix exigua	Narrow-leaved willow
Salix laevigata	Red willow
Salix lasiolepis	Arroyo willo
Sambucus nigra ssp. *canadensis*	Blue elderberry

Scientific Name	Common Name
Scrophularia californica	California bee plant
Sonchus asper	Prickly sow thistle*
Symphoricarpos albus var. *laevigatus*	Snowberry
Toxicodendron diversilobum	Poison oak
Typha latifolia	Cattail
Umbellularia californica	California bay laurel
Urtica dioica	Stinging nettle
Vinca major	Periwinkle*
Vitis californica	California grape
Vitis vinifera	Grapes*

Appendix E: Wildlife species observed during April 22, 2014

Scientific Name	**Common Name**
Sceloporus occidentalis	Western fence lizard
Calypte anna	Anna's hummingbird
Picoides pubescens	Downy woodpecker
Sayornis saya	Say's phoebe
Tachycineta bicolor	Tree Swallow
Aphelocoma californica	Western scrub jay
Corvus brachyrhynchos	American crow
Junco hyemalis	Dark-eyed junco
Melozone crissalis	California towhee
Pipilo maculatus	Spotted towhee
Odoicoileus hemionius californicus	Black-tailed deer (sign)
Mephitis mephitis	Skunk (sign)
Procyon lotor	Raccoon (sign)

Attachment 6

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February 12, 2018

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RE: Revised Supplemental Assessment to the Biological Habitat Assessment for the Rudd Wines Property, 4603 Westside Road, Healdsburg, Sonoma County, CA.

This report presents our findings based on a site survey on September 18, 2017 and review of the Rudd Wines proposed winery project located at 4603 Westside Road in Healdsburg. This report is a supplement to the original biological Habitat Assessment prepared by Jane Valerius Environmental Consulting and Wildlife Research Associates for the proposed winery and tasting room project dated June 3, 2014. The owners, Rudd Wines, contracted with Jane Valerius, botanist and wetland ecologist, and Trish Tatarian, wildlife biologist, and requested a review of two site specific areas for project review related to increasing the view area along Westside Road on the north side and the south side of the parcel.

PROJECT DESCRIPTION

Two specific areas were reviewed as part of this analysis. The purpose of this review is to strengthen the application for the appeal. The following project description was also provided by Always Engineering with modifications by Jane Valerius to reflect tree and shrub species present in the specific areas.

1. Area 1 – Vegetation and removal adjacent to and within the top of bank for the area west of the Storey Creek Bridge on Westside Road on the north side of the parcel. Vegetation primarily includes trimming of willows (*Salix* sp.), California bay laurel (*Umbellularia californica*) and valley oak (*Quercus lobata*) sucker shoots (not the main trunk), dead limbs of an oak tree, and Himalayan blackberry (*Rubus armeniacus*). The desired trimming would project north a line from the current fence on the project side of the creek to the opposite side of the creek. Trimming would be between this line and the bridge. Anything in the County Right of Way would be done by the County as part of road maintenance and is scheduled to occur sometime soon (date unknown at this time).

2. Area 2 – To the south of the project driveway, there are six multi-stemmed coast live oak (*Quercus agrifolia*) and three valley oak trees which block the line of site in this direction. The trees will will only need to be trimmed based on the most currently project description. The intent here is to trim these oaks so that the project can increase the stopping sight distance to the south of the project driveway, thus allowing the project driveway to be moved further south and therefore increasing the stopping-sight distance to the blind turn to the north of the project driveway.

METHODS

Jane Valerius, botanist and wetlands ecologist, with Jane Valerius Environmental Consulting, and Trish Tatarian, wildlife biologist, with Wildlife Research Associates, met with Ben Monroe with Always Engineering at the site on September 18, 2017 and reviewed the two areas described above. During our survey we documented the vegetation communities and wildlife habitats on the site and evaluated the potential for impacts to special-status plants, animals and habitats based on the proposed project.

Each of the areas was walked and reviewed. Each area was evaluated for the plants and conditions present at the time of the site visit and evaluated based on the proposed project description. Additional background information was provided by Mr. Monroe for the project.

No further analysis was conducted regarding updating the information gathered from the California Natural Diversity Data Base (CNDDB) or other data bases for the project location other than what was done for the original 2014 Habitat Assessment. No protocol-level surveys for special-status species was conducted as part of this study. However, protocol-level special-status plant surveys were conducted for the site in 2014 by Jane Valerius as part of the original Habitat Assessment and no special-status plants were observed.

RESULTS

General Description of Creek and Riparian: Work proposed at each of the areas described above would impact vegetation along Storey Creek, which is a tributary to the Russian River, located east of the project area. Storey Creek qualifies as a waters of the U.S. and waters of the state. The area within the ordinary high water mark is within the jurisdiction of the U. S. Army Corps of Engineers (USACE). The Regional Water Quality Control Board (RWQCB) takes jurisdiction from top of bank to top of bank and the California Department of Fish and Wildlife (CDFW) has jurisdiction over the bed and bank and any associated riparian woodland vegetation. Storey Creek is an intermittent creek in normal, dry years. However, the creek can be perennial in years that are wetter as a result of El Nino conditions. Storey Creek is a blue-line creek and is one of many drainages of central Sonoma County flowing into the Russian River in the Dry Creek Area.

The riparian tree and shrub canopy associated with Storey Creek includes a variety of tree and shrub species including arroyo willow (*Salix lasiolepis*), narrow-leaved willow (*Salix exigua*), red willow (*Salix laevigata*), valley oak (*Quercus lobata*), California bay laurel (*Umbellularia californica*), Oregon ash (*Fraxinus latifolia*), California buckeye (*Aesculus californica*), coast live oak (*Quercus agrifolia*), Northern California black walnut (*Juglans hindsii*), blue elderberry (*Sambucus nigra* ssp. *canadensis*), California rose (*Rosa californica*), California blackberry (*Rubus ursinus*), poison oak (*Toxicodendron diversilobum*) and snowberry (*Symphoricarpos albus* ssp. *laevigatus*). Several non-native and weedy plants also occur as understory along the creek banks including periwinkle (*Vinca major*), Himalayan blackberry (*Rubus armeniacus*) and poison hemlock (*Conium maculatum*). The creek supports very little wetland vegetation although there were small patches of curly dock (*Rumex crispus*), spike rush (*Eleocharis macrostachya*) and some patches of spreading rush (*Juncus patens).*

The mixed riparian woodland community does not have a special-status designation per se but riparian scrub and tree communities are considered to be valuable and sensitive vegetation community types. The Sonoma County General Plan Open Space and Resource Conservation Element (Sonoma County Permit and Resource and Management District (SCPRMD) 2008) identifies riparian corridors as valuable areas because they provide important functions such as acting as vegetation filters for sediment and pollutants in stormwater runoff, slow flood flows, provide erosion protection for streambanks and facilitates groundwater recharge. Riparian areas also support many wildlife species and provide shade and habitat

for aquatic species. In urban areas streamside areas provide natural open space and opportunities for recreation, education and aesthetic appreciation. The Policy and Goal Element #8 in the Sonoma county General Plan recognizes the importance of riparian communities to water quality and as wildlife habitat.

Special-status plants: Special-status plants surveys were conducted for the project area in 2014 by Jane Valerius. No special-status plants were found and none are expected to occur within the areas proposed for work as described in this report.

Area 1: Northeast side of the parcel

Vegetation: Vegetation to be trimmed to increase the line of site along Westside Road at Storey Creek. Plant species noted include mostly arroyo willow, some bay, native blackberry, non-native Himalayan blackberry, fennel (*Foeniculum vulgare*), wild oats (*Avena barbata*), and panic grass (*Panicum capillare*). No trees would actually be removed and the amount of trimming would not have an adverse impact to the overall shading and canopy of the creek. On the eastside the Westside Road, not on the Rudd Wines property, the understory vegetation has been mowed such that the only shade is provided by the overstory trees.

Wildlife: The vegetation along this portion of Story Creek provides habitat for common wildlife species. There is potential for nesting birds to use both the understory and the canopy of the trees within Area 1. Species potentially nesting in understory and canopy include orange-crowned warbler (*Oreothlypis celata*), lazuli bunting (*Passerina amoena),* oak titmouse (*Baeolophus inornatus*), Bewick's wren (*Thryomanes bewickii*), and bushtit (*Psaltriparus minimus*). A coast live oak tree snag occurs in the central portion of Area 1 and if cavities occur on the trunk or main stem, the snag is likely used by nesting birds, such as acorn woodpecker (*Melanerpes formicivorus*), western bluebird (*Sialia mexicana*) or northern flicker (*Colaptes auratus*). If cavities, crevices or exfoliating bark are present, then there is potential for colonial bat species, such as long-eared myotis (*Myotis evotis*), long-legged myotis (*Myotis volans*), and Yuma myotis (*Myotis yumanensis*), among others, to use the snag for roosting habitat. Removal of the habitat during the nesting season or winter hibernacula or maternity season may impact the above mentioned species. See below for more details.

Area 2: Southeast side of the parcel
Vegetation: Three "groups" of oak trees comprised of valley oak and coast live oak would be trimmed. The three "groups" are comprised of one valley oak, a coast live oak with six trunks, and a second valley oak with 2 trunks. These trees are located along the road bank. These trees are not a part of the riparian vegetation along the creek but they do provide shading for the creek for approximately 34 linear feet. The creek bank opposite this area is eroded and undercut.

Wildlife: Several crevices and cavities were observed in the trees proposed for removal. As stated above several bird species have potential to nest in the cavities. In addition, several species of bats have potential to roost in the cavities. Removal of the habitat during the nesting season or winter hibernacula or maternity season may impact the above mentioned species. See below for more details.

IMPACTS AND MITIGATION MEASURES

Birds
Potential Impact: Several passerine (perching birds) species observed on site, such as western scrub jay, build stick nests in trees and may build nests within the riparian habitat of Storey Creek and in the oak trees along Westside Road. Cavity nesting species, such as acorn woodpeckers and western bluebirds, may nest in the cavities of the oak trees to be removed. Disturbance during the nesting season (February 15- August 15) may result in the potential nest abandonment and mortality of young, which is considered a "take" of an individual.

Mitigation Measure: The following mitigation measures should be followed in order to avoid or minimize impacts to passerines that may potentially nest in the trees:

1) Removal of nesting trees should be conducted outside the nesting season, which occurs between approximately February 1 and August 31.
2) If removal between September 1 and January 31 is infeasible and removal must occur within the nesting season, a pre-construction nesting bird survey of the trees shall be performed by a qualified biologist within 3 days of ground breaking. If no nesting birds are observed no further action is required and tree removal shall occur within one week of the survey to prevent "take" of individual birds that could begin nesting after the survey.
3) If active bird nests are observed during the pre-construction survey, a disturbance-free buffer zone shall be established around the nest tree(s) until the young have fledged, as determined by a qualified biologist.
4) The radius of the required buffer zone can vary depending on the species, (i.e., 75-100 feet for passerines), with the dimensions of any required buffer zones to be determined by a qualified biologist in consultation with CDFW.
5) To delineate the buffer zone around a nesting tree, orange construction fencing shall be placed at the specified radius from the base of the tree within which no machinery or workers shall intrude.
6) After the fencing is in place there will be no restrictions on grading or construction activities outside the prescribed buffer zones.

Roosting Bats
Potential Impacts to Trees: Trimming of trees containing suitable bat roosting habitat comprised of cavities, crevices, and/or exfoliating bark, may cause direct mortality of roosting bats if removed during maternity season prior to self-sufficient volancy of pups, or in winter during torpor or hibernation.

Mitigation Measure: Bats in this region of California are not active year-round. During the maternity season, non-volant young of colonial bats remain in the roost until late summer (end of August), after which they may disperse from the natal roost or remain into or throughout the winter. During winter months, roosting bats typically enter torpor, rousing only occasionally to drink water or opportunistically feed on insects. The onset of torpor is dependent upon environmental conditions, primarily temperature and rainfall. To prevent direct mortality of either non-volant young or torpid bats during winter months, roosts must not be disturbed or destroyed until bats are seasonally active, and only after they have been provided a means of escape from the roost, either by humane bat eviction (e.g. from structures), or two-step removal (trees).

Two-step tree removal must only be conducted during seasonal periods of bat activity, which are in this region, ***between March 1 (or after evening temperatures rise above 45F and/or no more than 1/2" of rainfall within 24 hours occurs), and April 15, or between August 31 and October 15 (or before evening temperatures fall below 45F and/or more than 1/2" of rainfall within 24 hours occurs).***

To prevent direct mortality of bats potentially roosting in cavities, crevices or exfoliating bark of trees, all of the following method should be used:

1) Tree removal shall be conducted using a two-stage process over two consecutive days (e.g. Tuesday and Wednesday, or Thursday and Friday). With this method, small branches and small limbs not containing cavity, crevice or exfoliating bark habitat on habitat trees as identified by a qualified bat biologist (who must be present on the site at the beginning of the first day of tree trimming or cutting) are removed first on Day 1, using chainsaws only (no dozers, backhoes, etc.). Trees containing suitable potential habitat must be trimmed on Day 1 under initial field supervision by a qualified bat expert to ensure that the tree cutters fully understand the process, and avoid incorrectly cutting potential habitat features or trees. After tree cutters have received sufficient instruction, the qualified bat expert does not need to remain on the site.
2) The following day (Day 2), the remainder of the tree is to be removed. The disturbance caused by chainsaw noise and vibration, coupled with the physical alteration, has the effect of causing bats to abandon the roost tree after nightly emergence for foraging. Removing the tree the next day prevents re-habituation and re-occupation of the altered tree.

REFERENCES

Wildlife Research Associates and Jane Valerius Environmental Consulting. 2014. Habitat Assessment Westside Road Winery and Tasting Room, 4603 Westside Road, Healdsburg, Sonoma County, CA. Prepared for Rudd Wines, Inc. June 3.

Attachment 7

ENVIRONMENTAL NOISE ASSESSMENT
RUDD WINES
WESTSIDE ROAD TASTING ROOM AND WINERY
USE PERMIT APPLICATION PLP14-0031
4603 WESTSIDE ROAD
SONOMA COUNTY, CALIFORNIA

September 25, 2015

♦ ♦ ♦

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Introduction

This report has been prepared in response to the Notice of Project Status letter issued by Sonoma County Permit and Resource Management Department (PRMD), dated July 31, 2014. The PRMD letter requested an assessment of noise resulting from operations at the proposed Rudd Wines Tasting Room and Winery with regard to the Sonoma County General Plan's Table NE-2 noise limits. The proposed project would convert an existing building at 4603 Westside Road into a small tasting room and add a new 7,465 square foot production building and 1,800 square foot tasting room over four construction phases to achieve a production capacity of 10,000 cases.

The project as proposed is expected to have 16 employees between winery, vineyard, and tasting room operations. The tasting room is expected to serve a peak of 200 and an average of 139 guests on a daily basis.

The project proposal includes 12 agricultural promotional (special) events per year (six with an attendance of a maximum 80 guests, three with an attendance of a maximum 100 guests, and three with an attendance of a maximum 150 guests) and thirteen industry-wide events, such as Winter Wineland and Barrel Tasting. In addition, the project proposal also includes smaller Wine Maker Dinners / Lunches with maximum 40 guests (not defined as events in the Project Description Letter prepared by the Applicant).

Amplified acoustic music is proposed outside of the tasting room on the south and east sides of the building. Non-amplified acoustic music is proposed on the covered porch located on the west side of the tasting room building. Music outdoors would end prior to 10:00 p.m.

The report first provides a brief discussion of the fundamentals of environmental noise to assist those who are not familiar with acoustical terminology or concepts, and provides a summary of the applicable regulatory criteria used in the assessment. Existing noise levels in the project vicinity are then described, and an evaluation of project-generated noise levels is made.

Fundamentals of Environmental Noise

Noise may be defined as unwanted sound. Noise is usually objectionable because it is disturbing or annoying. The objectionable nature of sound could be caused by its *pitch* or its *loudness*. *Pitch* is the height or depth of a tone or sound, depending on the relative rapidity (frequency) of the vibrations by which it is produced. Higher pitched signals sound louder to humans than sounds with a lower pitch. *Loudness* is intensity of sound waves combined with the reception characteristics of the ear. Intensity may be compared with the height of an ocean wave in that it is a measure of the amplitude of the sound wave.

In addition to the concepts of pitch and loudness, there are several noise measurement scales which are used to describe noise in a particular location. A *decibel (dB)* is a unit of measurement which indicates the relative amplitude of a sound. The zero on the decibel scale is based on the lowest sound level that the healthy, unimpaired human ear can detect. Sound levels in decibels are calculated on a logarithmic basis. An increase of 10 decibels represents a ten-fold increase in acoustic energy, while 20 decibels is 100 times more intense, 30 decibels is 1,000 times more

intense, etc. There is a relationship between the subjective noisiness or loudness of a sound and its intensity. Each 10 decibel increase in sound level is perceived as approximately a doubling of loudness over a fairly wide range of intensities. Technical terms are defined in Table 1.

There are several methods of characterizing sound. The most common in California is the *A-weighted sound level (dBA).* This scale gives greater weight to the frequencies of sound to which the human ear is most sensitive. Representative outdoor and indoor noise levels in units of dBA are shown in Table 2. Because sound levels can vary markedly over a short period of time, a method for describing either the average character of the sound or the statistical behavior of the variations must be utilized. Most commonly, environmental sounds are described in terms of an average level that has the same acoustical energy as the summation of all the time-varying events. This *energy-equivalent sound/noise descriptor* is called L_{eq}. The most common averaging period is hourly, but L_{eq} can describe any series of noise events of arbitrary duration.

The scientific instrument used to measure noise is the sound level meter. Sound level meters can accurately measure environmental noise levels to within about plus or minus 1 dBA. Various computer models are used to predict environmental noise levels from sources, such as roadways and airports. The accuracy of the predicted models depends upon the distance the receptor is from the noise source. Close to the noise source, the models are accurate to within about plus or minus 1 to 2 dBA.

Since the sensitivity to noise increases during the evening and at night -- because excessive noise interferes with the ability to sleep -- 24-hour descriptors have been developed that incorporate artificial noise penalties added to quiet-time noise events. The *Community Noise Equivalent Level* (*CNEL*) is a measure of the cumulative noise exposure in a community, with a 5 dB penalty added to evening (7:00 pm - 10:00 pm) and a 10 dB addition to nocturnal (10:00 pm - 7:00 am) noise levels. The *Day/Night Average Sound Level* (L_{dn}) is essentially the same as CNEL, with the exception that the evening time period is dropped and all occurrences during this three-hour period are grouped into the daytime period.

TABLE 1 Definition of Acoustical Terms Used in this Report

Term	Definition
Decibel, dB	A unit describing, the amplitude of sound, equal to 20 times the logarithm to the base 10 of the ratio of the pressure of the sound measured to the reference pressure. The reference pressure for air is 20 micro Pascals.
Sound Pressure Level	Sound pressure is the sound force per unit area, usually expressed in micro Pascals (or 20 micro Newtons per square meter), where 1 Pascal is the pressure resulting from a force of 1 Newton exerted over an area of 1 square meter. The sound pressure level is expressed in decibels as 20 times the logarithm to the base 10 of the ratio between the pressures exerted by the sound to a reference sound pressure (e. g., 20 micro Pascals). Sound pressure level is the quantity that is directly measured by a sound level meter.
Frequency, Hz	The number of complete pressure fluctuations per second above and below atmospheric pressure. Normal human hearing is between 20 Hz and 20,000 Hz. Infrasonic sound are below 20 Hz and Ultrasonic sounds are above 20,000 Hz.
A-Weighted Sound Level, dBA	The sound pressure level in decibels as measured on a sound level meter using the A-weighting filter network. The A-weighting filter de-emphasizes the very low and very high frequency components of the sound in a manner similar to the frequency response of the human ear and correlates well with subjective reactions to noise.
Equivalent Noise Level, L_{eq}	The average A-weighted noise level during the measurement period.
L_{max}, L_{min}	The maximum and minimum A-weighted noise level during the measurement period.
L_{02}, L_{08}, L_{25}, L_{50}	The A-weighted noise levels that are exceeded 2%, 8%, 25%, and 50% of the time during the measurement period.
Day/Night Noise Level, L_{dn} or DNL	The average A-weighted noise level during a 24-hour day, obtained after addition of 10 decibels to levels measured in the night between 10:00 pm and 7:00 am.
Community Noise Equivalent Level, CNEL	The average A-weighted noise level during a 24-hour day, obtained after addition of 5 decibels in the evening from 7:00 pm to 10:00 pm and after addition of 10 decibels to sound levels measured in the night between 10:00 pm and 7:00 am.
Ambient Noise Level	The composite of noise from all sources near and far. The normal or existing level of environmental noise at a given location.
Intrusive	That noise which intrudes over and above the existing ambient noise at a given location. The relative intrusiveness of a sound depends upon its amplitude, duration, frequency, and time of occurrence and tonal or informational content as well as the prevailing ambient noise level.

Source: Handbook of Acoustical Measurements and Noise Control, Harris, 1998.

TABLE 2 Typical Noise Levels in the Environment

Common Outdoor Activities	Noise Level (dBA)	Common Indoor Activities
	110 dBA	Rock band
Jet fly-over at 1,000 feet		
	100 dBA	
Gas lawn mower at 3 feet		
	90 dBA	
Diesel truck at 50 feet at 50 mph		Food blender at 3 feet
	80 dBA	Garbage disposal at 3 feet
Noisy urban area, daytime		
Gas lawn mower, 100 feet	70 dBA	Vacuum cleaner at 10 feet
Commercial area		Normal speech at 3 feet
Heavy traffic at 300 feet	60 dBA	
		Large business office
Quiet urban daytime	50 dBA	Dishwasher in next room
Quiet urban nighttime	40 dBA	Theater, large conference room
Quiet suburban nighttime		
	30 dBA	Library
Quiet rural nighttime		Bedroom at night, concert hall (background)
	20 dBA	
		Broadcast/recording studio
	10 dBA	
	0 dBA	

Source: Technical Noise Supplement (TeNS), California Department of Transportation, November 2009.

Regulatory Criteria

Goals, objectives, and policies, designed to protect noise-sensitive uses from exposure to excessive noise, are set forth in the Noise Element of the Sonoma County General Plan 2020. The following objectives and policies are applicable in the assessment of the proposed project:

Objective NE-1.2: Develop and implement measures to avoid exposure of people to excessive noise levels.

Objective NE-1.3: Protect the present noise environment and prevent intrusion of new noise sources which would substantially alter the noise environment.

Policy NE-1a: Designate areas within Sonoma County as noise impacted if they are exposed to existing or projected exterior noise levels exceeding 60 dB Ldn, 60 dB CNEL, or the performance standards of Table NE-2.

Policy NE-1c: Control non-transportation related noise from new projects. The total noise level resulting from new sources shall not exceed the standards in Table NE-2 (Table 3) of the recommended revised policies as measured at the exterior property line of any adjacent noise sensitive land use. Limit exceptions to the following:

(1) If the ambient noise level exceeds the standard in Table NE-2, adjust the standard to equal the ambient level, up to a maximum of 5 dBA above the standard, provided that no measurable increase (i.e. +/- 1.5 dBA) shall be allowed.

(2) Reduce the applicable standards in Table NE-2 by five dBA for simple tone noises, noises consisting primarily of speech or music, or for recurring impulsive noises, such as pile drivers and dog barking at kennels.

(3) Reduce the applicable standards in Table NE-2 by 5 decibels if the proposed use exceeds the ambient level by 10 or more decibels.

(4) For short-term noise sources, which are permitted to operate no more than six days per year, such as concerts or race events, the allowable noise exposures shown in Table NE-2 may be increased by 5 dB. These events shall be subject to a noise management plan including provisions for maximum noise level limits, noise monitoring, complaint response and allowable hours of operation. The plan shall address potential cumulative noise impacts from all events in the area.

(5) Noise levels may be measured at the location of the outdoor activity area of the noise sensitive land use, instead of at the exterior property line of the adjacent noise sensitive use where:

(a) The property on which the noise sensitive use is located has already been substantially developed pursuant to its existing zoning, and

(b) There is available open land on these noise sensitive lands for noise attenuation. This exception may not be used for vacant properties, which are zoned to allow noise sensitive uses.

TABLE 3 Maximum Allowable Exterior Noise Exposures for Non-transportation Noise Sources (Table NE-2)

Hourly Noise Metric[1], dBA	Daytime 7 a.m. to 10 p.m.	Nighttime 10 p.m. to 7 a.m.
L_{50} (30 minutes in any hour)	50	45
L_{25} (15 minutes in any hour)	55	50
L_{08} (5 minutes in any hour)	60	55
L_{02} (1 minute in any hour)	65	60

[1] The sound level exceeded n% of the time in any hour. For example, the L_{50} is the value exceeded 50% of the time or 30 minutes in any hour; this is the median noise level. The L_{02} is the sound level exceeded 1 minute in any hour.

Existing Noise Environment

Ambient noise levels were measured at the project site by *Illingworth & Rodkin, Inc.* in September 2014. The noise monitoring survey included one long-term noise measurement (LT-1) near the north boundary of the site, adjacent to a single family residence (R1), and one short-term noise measurement (ST-1) along the west boundary of the site, between two single-family residences (R2 and R3). Figure 1 is a site plan showing the noise monitoring locations and nearby receptors.

Noise levels were measured at Site LT-1 from the afternoon of Thursday, September 11, 2014 to the morning of Tuesday, September 16, 2014 in order to quantify existing conditions at a location considered acoustically equivalent to the nearest residence to the project site (R1). Figure 2 summarizes the noise data collected over the duration of the measurement period. Figures 3 - Figure 8 display the measured noise data on a daily basis. Existing ambient day-night average noise levels at Site LT-1 ranged from 47 to 50 dBA L_{dn}. The measured noise data are also summarized in terms of the metrics appropriate for the Sonoma County noise performance standards and for hourly L_{eq} in Table 4. The average noise level is given for each L_n descriptor throughout the daytime and nighttime periods.

TABLE 4 Existing Noise Levels at LT-1

Time Period	Average Hourly Noise Level, dBA				
	L_{50}	L_{25}	L_{08}	L_{02}	L_{eq}
Daytime	42	45	48	51	44
Nighttime	39	40	43	46	41

A short-term noise measurement was made on the morning of Tuesday, September 16, 2014, at the west property boundary of the project site, to quantify existing ambient noise levels at two residential land uses in the vicinity (R2 and R3). The measured noise level at Site ST-1 was 40 dBA L_{eq}, which indicated that ambient noise levels at the nearest receptors to the west are approximately 5 dBA less than the noise levels measured at Site LT-1.

Noise Assessment

Source Noise Levels for Operations

Noise generated by the proposed project was assessed against the Table NE-2 guidelines as presented in the County's Noise Element. These guidelines establish daytime and nighttime noise level limits for noise events of varying durations. The primary noise producing activities associated with the project are vehicle traffic and parking lot activities, special events, maintenance and forklift operations, and seasonal production activities including crushing and bottling operations. To estimate the noise levels associated with project operations, some attention must be given to the temporal nature of the noise produced.

Automobile and light vehicle traffic accessing the tasting room and winery would primarily occur during the daytime hours. Vehicles accessing the parking areas, engine starts, and door slams would be the primary noise sources. These noises typically range from 53 dBA to 63 dBA L_{max} at 50 feet. The cumulative duration of noise from these intermittent sounds would be more than five minutes, but less than 15 minutes in any hour, therefore, the L_{08} would be the applicable regulatory threshold used in the analysis.

Table 5, below, lists typical noise levels generated by small to moderate sized special events at a distance of 50 feet from the source. The cumulative duration of noise from these fairly continuous sounds would be more than 30 minutes in any hour. Therefore, the L_{50} would be the applicable regulatory threshold. The cumulative duration of noise from the intermittent sounds attributable to wine tasting would not exceed 1 minute in any hour. As such, the noise attributable to wine tasting (voices as patrons enter or exit the tasting room) would not measurably contribute to the L_{02} in any one hour period and would not be regulated by the Table NE-2 noise limits. There are no sound issues associated with voices due to wine tasting and no additional mitigation is necessary. This item is not discussed further.

TABLE 5 Typical Noise Source Levels for Special Events (A-Weighted L_{50} Levels)

Event or Activity	Typical Noise Level at 50 feet
Amplified wedding (or similar type event) Music	72 dBA
Amplified Speech	71 dBA
Non-amplified Music	67 dBA
Films – Voices/Music	64 dBA
Raised Conversation	64 dBA

Maintenance and forklift operations would produce intermittent noise depending on the exact nature of the operation. Backup alarms (or beepers), which are repetitive and irritating by design, will also produce noise during these activities, and as with forklift operations themselves are expected to be intermittent by nature. Forklift use and associated backup alarms noise will be partially attenuated during crush related activities by structure of the production building. Based on experience with other winery operations, we estimate that non-attenuated L_{08} noise levels from these operations may reach levels of 66 dBA to 67 dBA at 50 feet.

On-site wine production is a potential source of environmental noise. Wine production activities would produce the following type and range of noise levels at a bench mark distance of 50 feet:

- Refrigeration equipment, as a maximum condition, is assumed operate under constant conditions day and night. Though the model, type and capacities of the cooling compressors for the facility are not specified, field measurements of such equipment shows that sound levels from such equipment can produce levels of between 50 dBA to 65 dBA at 50 feet, with L_{50} noise levels of 60 dBA at 50 feet.

- Air compressors, used for various processes in the facility, typically cycle on and off, based on the need for compressed air. Though the model, type and capacities of the cooling compressors for the facility are not specified, from field measurements of cooling compressors at other wineries, we expect this equipment to produce L_{50} sound levels of 62 dBA at 50 feet.

- Crush activities typically occur for about two weeks each year. The majority of the noise sources associated with the crush include the operation of hoppers, presses, destemmers, separators, crushers, air compressors, forklifts, conveyors, etc. Average noise levels resulting from the crush are typically constant on an hourly basis. Individual pieces of crush-specific equipment such as the separators and destemmers are relatively quiet with sound levels of around 50 dBA L_{eq} at about 50 feet, however the composite crush activities at a small sized winery, such as the proposed 10,000 case capacity facility, typically generate noise levels of about 64 dBA L_{eq}, at a distance of 50 feet from the center of operations. During the crush discrete maximum noise events, such as the setting of empty bins, may reach 70 to 80 dBA L_{max} or L_{02} at 50 feet from the center of operations.

- Bottling would be constant on an hourly basis although it is likely to occur for only a few weeks each year. Based on sound level measurements of mobile bottling lines at other wineries, we would expect bottling operations to produce L_{50} sound levels of 67 dBA at 50 feet in an open air, non-acoustically shielded environment.

Vehicle Traffic Noise Assessment

The operation of the project would generate additional traffic along Westside Road and the driveway to the site located at 4603 Westside Road. Worst-case traffic noise levels would occur during site-specific special events when guests are expected to arrive and depart during roughly the same hours. This condition assumes a higher concentration of vehicle trips during an hour as opposed to industry-wide special events or wine-tasting related trips, which are normally distributed throughout the tasting room hours of operation. Traffic noise levels along the driveway were calculated for site-specific special events with 50 persons in attendance based on the following assumptions:

- 50 persons in attendance
- 2.5 persons per vehicle
- 20 one-way trips inbound at the beginning of the event
- 20 one-way trips outbound at the end of the event
- 8 one-way trips inbound/outbound for staff
- 15 mile per hour (mph) travel speed along project driveway

The property line of the nearest residential receptor (R1) is located approximately 400 feet from the center of the driveway serving the site. Traffic noise modeling results indicate that autos traveling along the project driveway would generate noise levels of approximately 23 dBA L_{08} at a distance of 400 feet assuming approximately 6 dBA of acoustical shielding provided by intervening terrain between the driveway and receptor position. The predicted noise level from site-specific special event traffic with 50 persons in attendance would be below ambient noise levels both day and night. The predicted noise level would be 37 dBA below the daytime noise level threshold of 60 dBA L_{08} and 32 dBA below the nighttime noise level threshold of 55 dBA L_{08}. Although more daily trips would be expected from the operation of the tasting room or industry-wide special events, the noise level in any hour would be expected to be less as the vehicle trips associated with these events would be distributed throughout the hours of operation as opposed to concentrated during periods immediately before and after site-specific special events.

The property line of residential receptor R2 is located approximately 700 feet to the west of the driveway that serves the winery and tasting room. Traffic noise levels at this position are calculated to be approximately 24 dBA L_{08} as there is no acoustical shielding provided by intervening terrain between the driveway and receptor. The predicted noise level from site-specific special event traffic with 50 persons in attendance would be below ambient noise levels both day and night, as well as the L_{08} noise limits established for daytime and nighttime time periods. Driveway noise levels at R3 would be less than those predicted for R2 because of additional distance from the noise source and acoustical shielding provided by intervening terrain. Table 6 summarizes the results of the assessment of driveway noise attributable to site-specific special event traffic.

TABLE 6 Site-Specific Special Event Driveway L_{08} Noise Levels

	L_{08} (Noise Level Exceeded 5 Minutes in any Hour)			
	Daytime		Nighttime	
Receptor	R1	R2	R1	R2
Unadjusted Table NE-2 Limit	60	60	55	55
Ambient Noise Levels	48	43	43	38
Driveway Noise Level	23	24	23	24
Operations Exceed Ambient by 10 dBA?	No	No	No	No
NE-2 Adjustment	0	0	0	0
Adjusted Table NE-2 Limit	60	60	55	55
Operations Exceed NE-2?	No	No	No	No

Parking Lot Noise Assessment

Regular noise sources occurring within the parking lot are calculated to generate L_{08} noise levels of 30 dBA at R1 located at a distance of 400 feet from the nearest parking lot. The predicted noise level from activities within the parking lot attributable to site-specific special event traffic would be 30 dBA below the daytime noise level threshold of 60 dBA L_{08} and 25 dBA below the nighttime noise level threshold of 55 dBA L_{08}. Parking lot noise levels due to tasting room trips and industry-wide special event trips would be less as the parking lot sounds associated with the vehicle trips would be distributed throughout the hours of operation as opposed to concentrated during periods immediately before and after site-specific special events.

Parking lot noise levels are calculated to be approximately 32 dBA L_{08} at the property line of R2. The predicted noise level would be below ambient noise levels both day and night, as well as the L_{08} noise limits established for daytime and nighttime time periods. Driveway noise levels at R3 would be less than those predicted for R2 because of additional distance from the noise source and acoustical shielding provided by intervening terrain and the winery building. Table 7 summarizes the assessment of parking lot noise.

TABLE 7 Parking Lot L_{08} Noise Levels

	L_{08} (Noise Level Exceeded 5 Minutes in any Hour)			
	Daytime		Nighttime	
Receptor	R1	R2	R1	R2
Unadjusted Table NE-2 Limit	60	60	55	55
Ambient Noise Levels	48	43	43	38
Parking Lot Noise Level	30	32	30	32
Operations Exceed Ambient by 10 dBA?	No	No	No	No
NE-2 Adjustment	0	0	0	0
Adjusted Table NE-2 Limit	60	60	55	55
Operations Exceed NE-2?	No	No	No	No

Special Event Noise Assessment

Special events will take place at or near the tasting room or winery building, approximately 450 feet from R1 and 750 feet from R2. Amplified acoustic music is proposed outside of the tasting room on the south and east sides of the building. Special events with amplified music would be expected to generate noise levels of approximately 72 dBA L_{50} at a distance of 50 feet from the noise source assuming free-field conditions. Approximately 30 dBA of attenuation would be expected due to the distance between the source of the noise and the property line of R1, and the additional attenuation provided by intervening shielding due to project buildings and intervening terrain. Approximately 24 dBA of attenuation would also be expected at the property line of R2 due to distance alone. An additional 5 to 10 dBA of attenuation would be expected due to the shielding provided by project buildings. The predicted noise level would be 42 dBA L_{50} at the property line of R1 and 43 dBA L_{50} at the property line of R2. The predicted noise level at R1 and R2 would not exceed the daytime noise level threshold. Noise from special events at R3 would be less than those predicted for R1 and R2 because of additional distance from the noise source and acoustical shielding provided by intervening terrain and the winery building.

Non-amplified acoustic music is proposed on the covered porch located on the west side of the tasting room building. Special events with non-amplified music would be expected to generate noise levels of approximately 67 dBA L_{50} at a distance of 50 feet from the noise source assuming free-field conditions. Approximately 30 dBA of attenuation would be expected at the property line of R1. Approximately 24 dBA of attenuation would also be expected at the property line of R2. The predicted noise level would be 37 dBA L_{50} at the property line of R1 and 43 dBA L_{50} at the property line of R2. The predicted noise level at R1 and R2 would not exceed the daytime noise level threshold. Noise from special events with non-amplified music at R3 would be less than those predicted for R1 and R2 because of additional distance from the noise source and acoustical shielding provided by intervening terrain and the winery building. Table 8 summarizes the assessment of special event noise at the worst-case receptors to the north and west.

TABLE 8 Special Event L_{50} Noise Levels

	L_{50} (Noise Level Exceeded 30 Minutes in any Hour)			
	Daytime Amplified Music		**Daytime Non-Amplified Music**	
Receptor	R1	R2	R1	R2
Unadjusted Table NE-2 Limit	50	50	50	50
Ambient Noise Levels	42	37	42	37
Special Event Noise Level	42	43	37	43
Operations Exceed Ambient by 10 dBA?	No	No	No	No
NE-2 Adjustment*	-5	-5	-5	-5
Adjusted Table NE-2 Limit	45	45	45	45
Operations Exceed NE-2?	No	No	No	No

*The adjusted noise threshold assumes that the sound source would consist primarily of music.

Maintenance and Forklift Operations Noise Assessment

Maintenance and forklift operations would primarily occur near the winery building, approximately 450 feet from R1 and 750 feet from R2. L_{08} noise levels from these operations are calculated to reach 42 dBA at the property line of R1 assuming the shielding provided by intervening terrain and 43 dBA at the property line of R2 due to attenuation with distance alone. Noise from maintenance and forklift operations at R3 would be less than those predicted for R2 because of additional distance from the noise source and acoustical shielding provided by intervening terrain and the winery building. The predicted noise levels at R1 and R2 would be 17 to 18 dBA below the daytime noise level threshold of 60 dBA L_{08} and 12 to 13 dBA below the nighttime noise level threshold of 55 dBA L_{08} at R1 and R2. Table 9 summarizes the assessment of noise produced by maintenance and forklift operations.

TABLE 9 Maintenance and Forklift Operations L_{08} Noise Levels

	L_{08} (Noise Level Exceeded 5 Minutes in any Hour)			
	Daytime		**Nighttime**	
Receptor	R1	R2	R1	R2
Unadjusted Table NE-2 Limit	60	60	55	55
Ambient Noise Levels	48	43	43	38
Maintenance and Forklift Operations Noise Level	42	43	42	43
Operations Exceed Ambient by 10 dBA?	No	No	No	No
NE-2 Adjustment	0	0	0	0
Adjusted Table NE-2 Limit	60	60	55	55
Operations Exceed NE-2?	No	No	No	No

Mechanical Equipment Noise Assessment

The winery production facility would likely include noise-generating mechanical equipment, such as air-cooled condensing units, pumps, and compressors, as well as less significant sources of noise, such as air-conditioning systems and exhaust fans. A mechanical enclosure is proposed south of the winery building and approximately 550 feet from R1 and 850 feet from R2. Based on these distances and the barrier effect of intervening structures and terrain, noise from mechanical equipment would be 37 dBA or less at the property lines of R1, R2, and R3. Table 10, following, summarizes the assessment of mechanical equipment noise.

TABLE 10 Mechanical Equipment L_{50} Noise Levels

	L_{50} (Noise Level Exceeded 30 Minutes in any Hour)			
	Daytime		Nighttime	
Receptor	R1	R2	R1	R2
Unadjusted Table NE-2 Limit	50	50	45	45
Ambient Noise Levels	42	37	39	34
Mechanical Equipment Noise Level	35	37	35	37
Operations Exceed Ambient by 10 dBA?	No	No	No	No
NE-2 Adjustment	0	0	0	0
Adjusted Table NE-2 Limit	50	50	45	45
Operations Exceed NE-2?	No	No	No	No

Based on these findings, noise associated with mechanical equipment is not expected to exceed the daytime or nighttime NE-2 noise standard at any residential property in the site vicinity.

Seasonal Production Related Noise Assessment

Crush activities typically occur for a period of about six to eight weeks per year; however, such activities would not occur on a daily basis during this timeframe. Crush related activities are expected to occur under the covered crush pad located at the east end of the proposed winery building. Grapes would be harvested from vineyards on and off-site for processing. Grapes imported to the winery from off-site vineyards would be delivered via truck. Grape bins would be unloaded from trucks with a forklift and delivered to the crush pad. Grapes would then be crushed and pressed and the juice would be pumped into fermentation tanks installed within the production building.

As discussed previously, the majority of the noise sources associated with the crush include the operation of hoppers, presses, destemmers, separators, crushers, air compressors, forklifts, conveyors, etc. Average noise levels resulting from the crush are typically constant on an hourly basis, producing average noise levels of 64 dBA L_{eq} or L_{50} and discrete maximum noise events of 70 to 80 dBA L_{max} or L_{02} at 50 feet from the center of operations under unshielded conditions. Considering the proposed location of the winery building, crush activities could occur as close as 450 feet from R1 and 900 feet from R2. Based on these distances and the barrier effect of intervening terrain and structures, L_{50} noise levels during crush at R1 would be 39 dBA, and L_{50} noise levels during crush at R2 would be 34 dBA. Discrete maximum crush related noise would produce L_{02} levels of 55 dBA at R1 and 50 dBA at R2. Tables 11a and 11b, following, summarize the assessment of crush related noise.

TABLE 11a Crushing Related L_{50} Noise Levels

	L_{50} (Noise Level Exceeded 30 Minutes in any Hour)			
	Daytime		Nighttime	
Receptor	R1	R2	R1	R2
Unadjusted Table NE-2 Limit	50	50	45	45
Ambient Noise Levels	42	37	39	34
Crushing Related Noise Level	39	34	39	34
Operations Exceed Ambient by 10 dBA?	No	No	No	No
NE-2 Adjustment	0	0	0	0
Adjusted Table NE-2 Limit	50	50	45	45
Operations Exceed NE-2?	No	No	No	No

TABLE 11b Crushing Related L_{02} Noise Levels

	L_{02} (Noise Level Exceeded 1 Minute in any Hour)			
	Daytime		Nighttime	
Receptor	R1	R2	R1	R2
Unadjusted Table NE-2 Limit	65	65	60	60
Ambient Noise Levels	51	46	46	41
Crushing Related Noise Level	55	50	55	50
Operations Exceed Ambient by 10 dBA?	No	No	No	No
NE-2 Adjustment	0	0	0	0
Adjusted Table NE-2 Limit	65	65	60	60
Operations Exceed NE-2?	No	No	No	No

A mobile bottling line (bottling truck) would be used to bottle wine on the north side of the proposed winery near the crush pad. Bottling operations produce L_{50} sound levels of 67 dBA at 50 feet in an open air, non-acoustically shielded environment. Bottling activities could occur as close as 450 feet from R1 and 900 feet from R2. Based on these distances and the barrier effect of intervening terrain and structures, L_{50} noise levels during bottling at the property lines of R1 and R2 would be 42 dBA. All other residences in the vicinity would be further from bottling activities. Table 12, following, summarizes the assessment of bottling related noise.

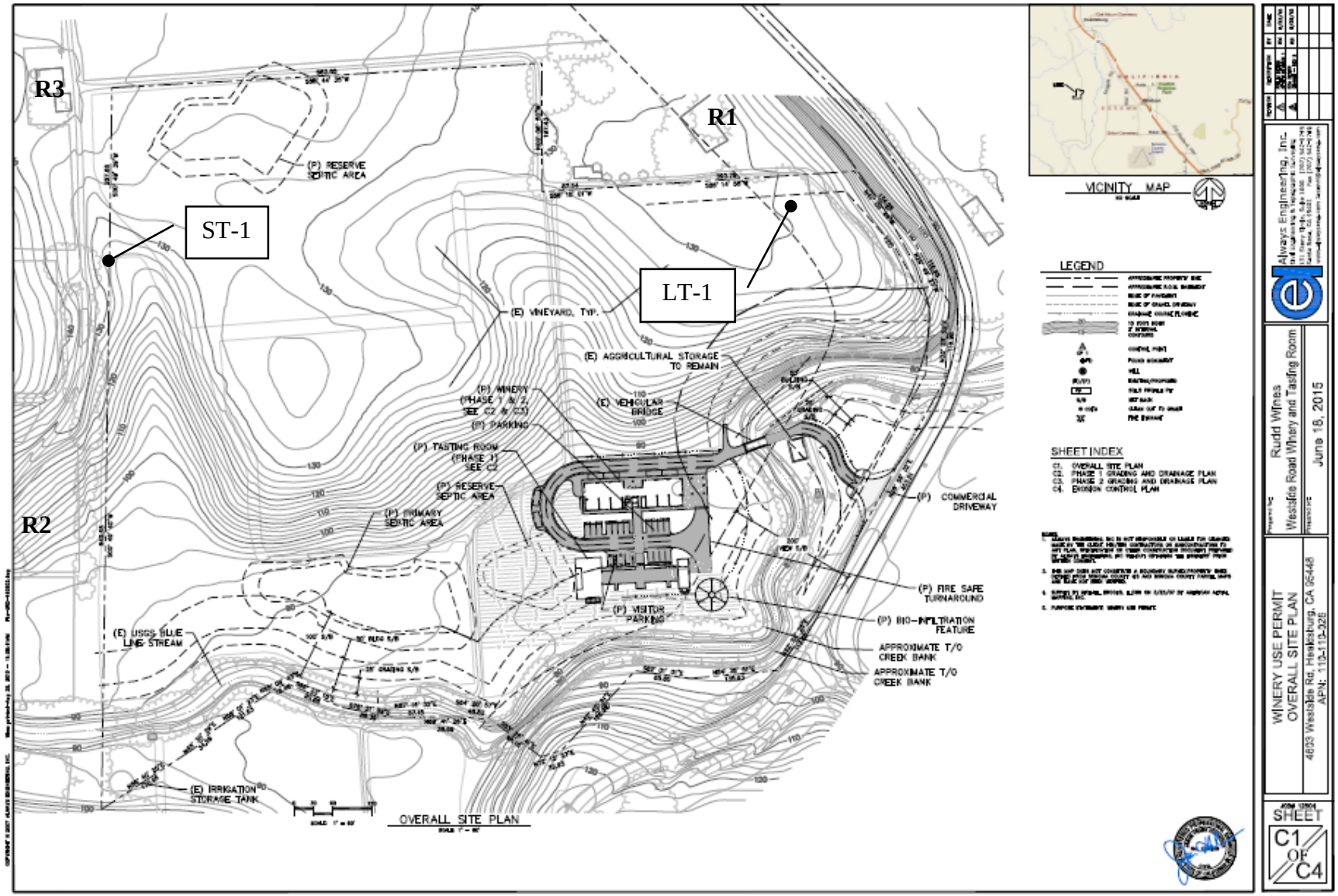
TABLE 12 Bottling Related L_{50} Noise Levels

	L_{50} (Noise Level Exceeded 30 Minutes in any Hour)			
	Daytime		Nighttime	
Receptor	R1	R2	R1	R2
Unadjusted Table NE-2 Limit	50	50	45	45
Ambient Noise Levels	42	37	39	34
Bottling Related Noise Level	42	42	42	42
Operations Exceed Ambient by 10 dBA?	No	No	No	No
NE-2 Adjustment	0	0	0	0
Adjusted Table NE-2 Limit	50	50	45	45
Operations Exceed NE-2?	No	No	No	No

SUMMARY/CONCLUSIONS

Based on the above findings, noise associated with operations at the Rudd Wines Tasting Room and Winery is not expected to exceed the daytime or nighttime NE-2 noise standard at any residential property in the site vicinity. There would be no need for additional noise attenuation or operational controls in order to achieve compliance with the Table NE-2 noise limits.

Figure 1 Site Plan Showing Noise Monitoring Locations and Receptors (R1, R2, and R3)



Noise Levels at LT-1
~ 175 feet from the Center of Westside Road
September 11 - 16, 2014

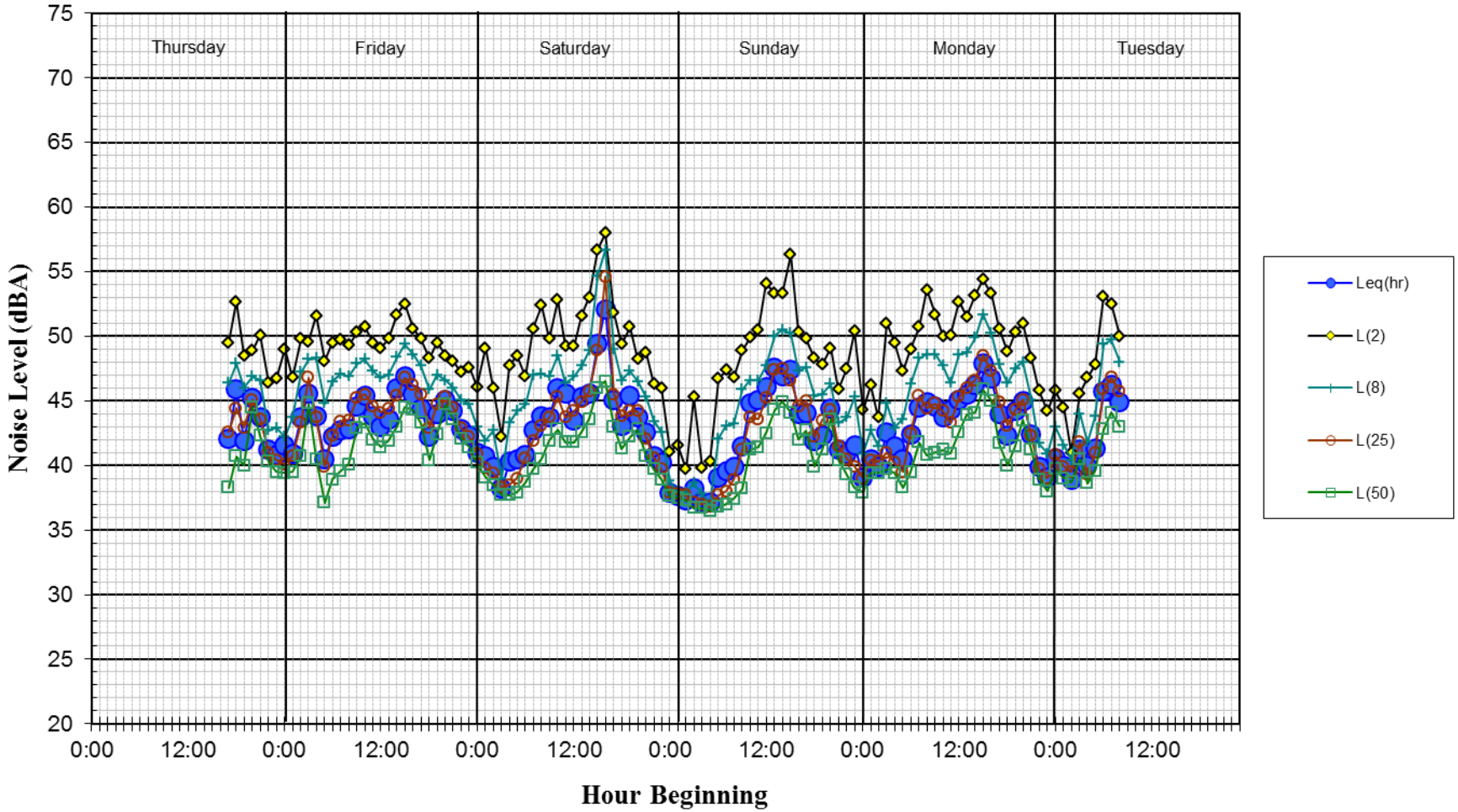


Figure 2

Noise Levels at LT-1
~ 175 feet from the Center of Westside Road
Thursday, September 11, 2014

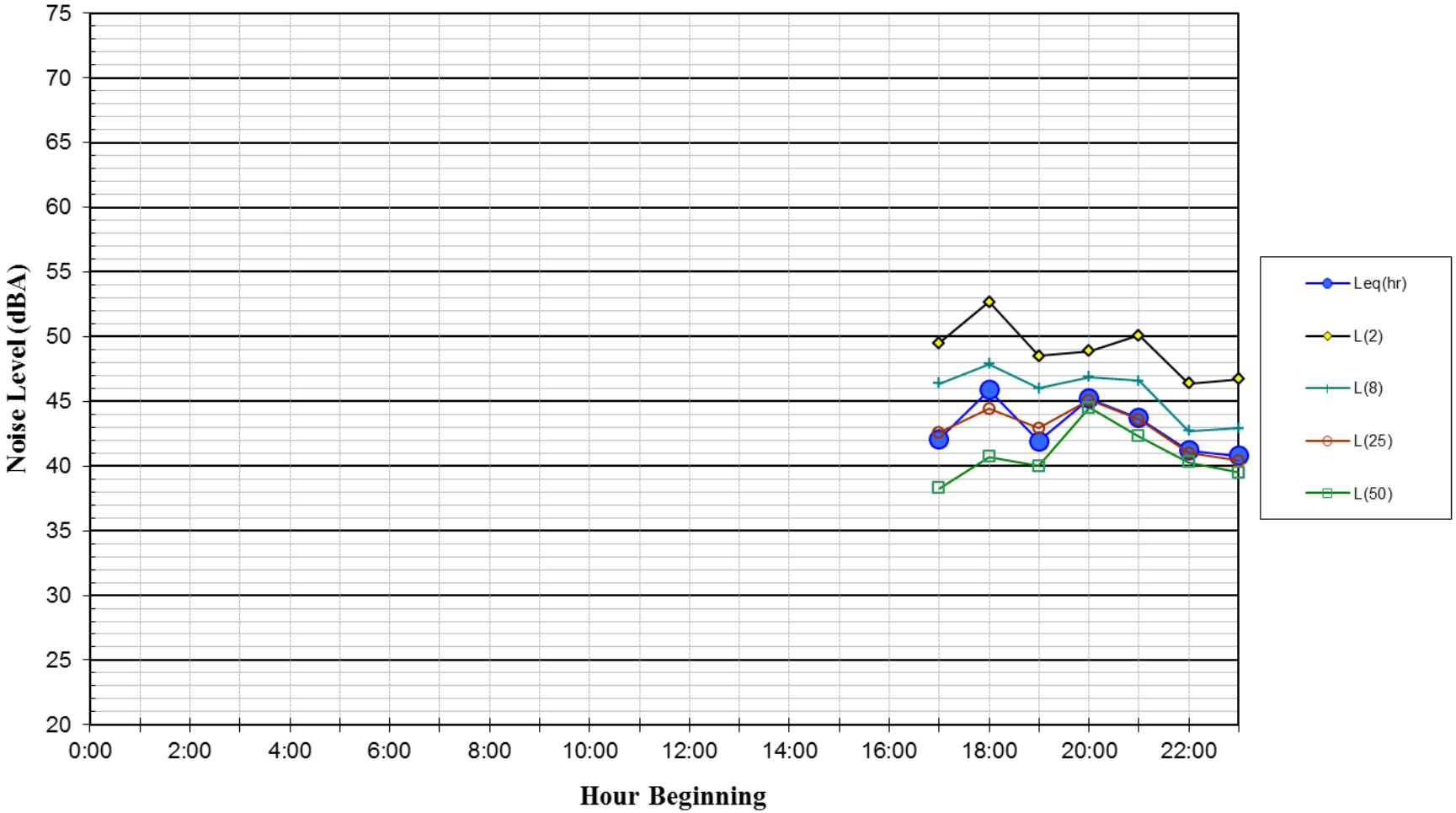
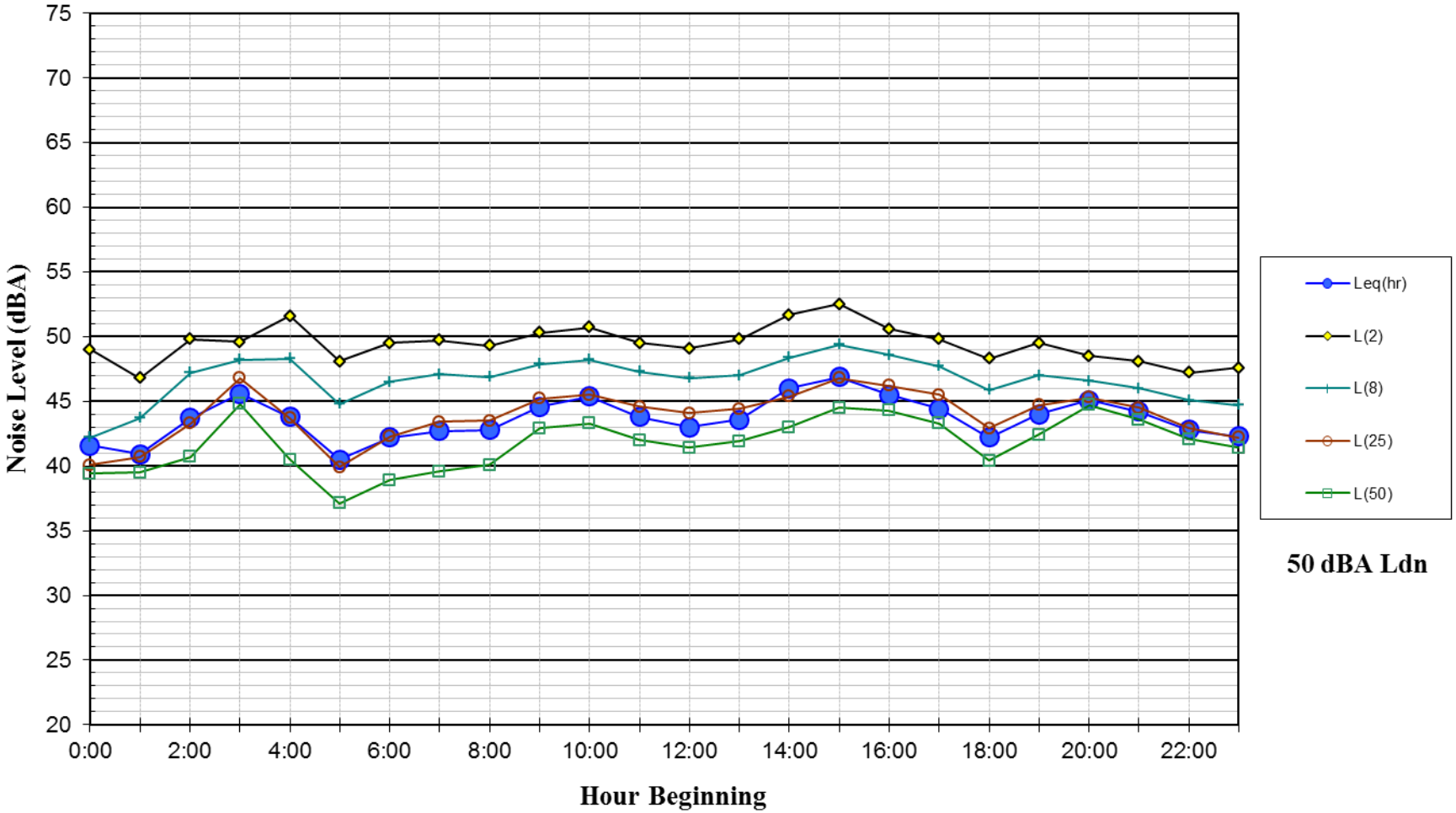


Figure 3

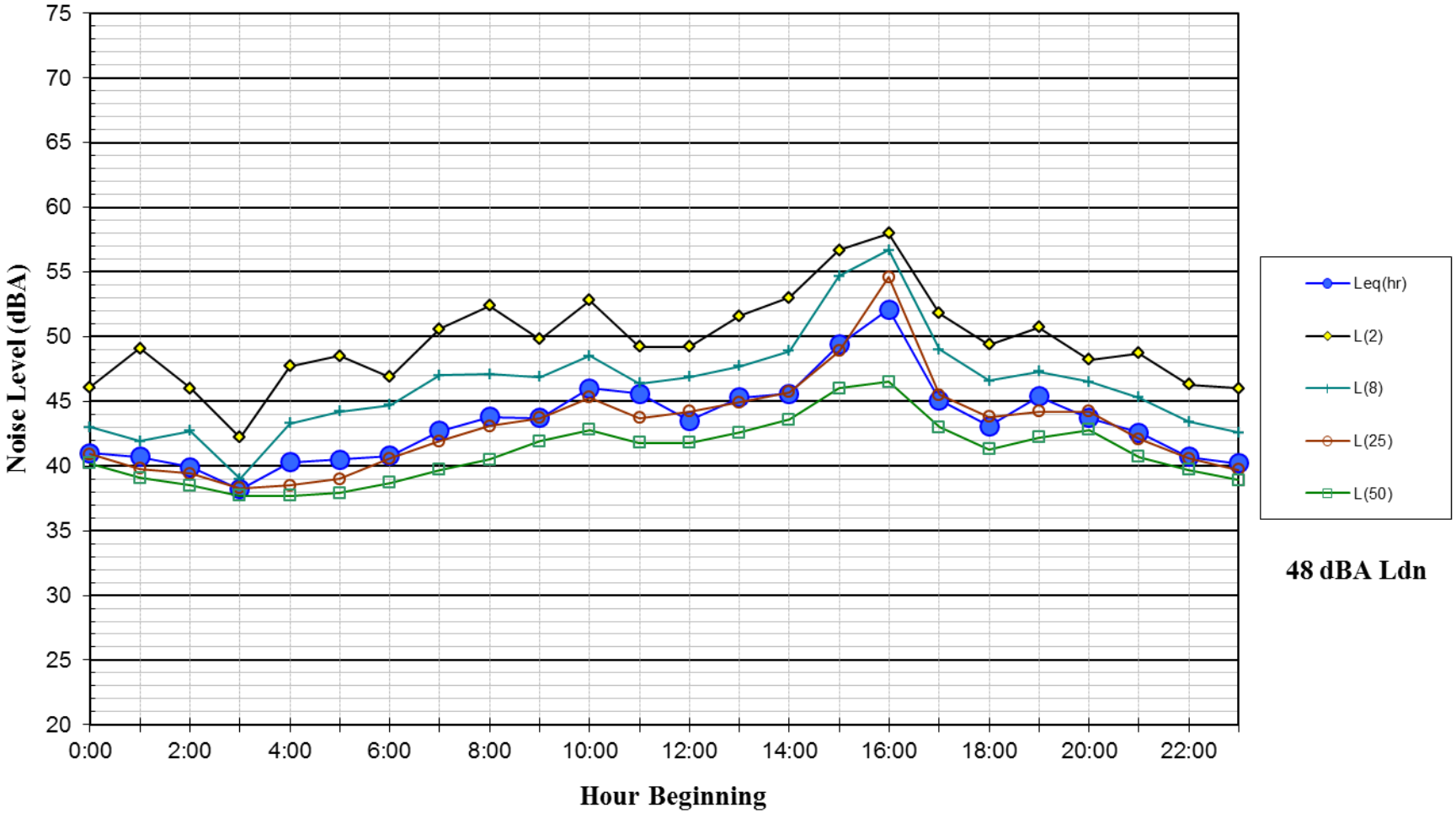
Noise Levels at LT-1
~ 175 feet from the Center of Westside Road
Friday, September 12, 2014



50 dBA Ldn

Figure 4

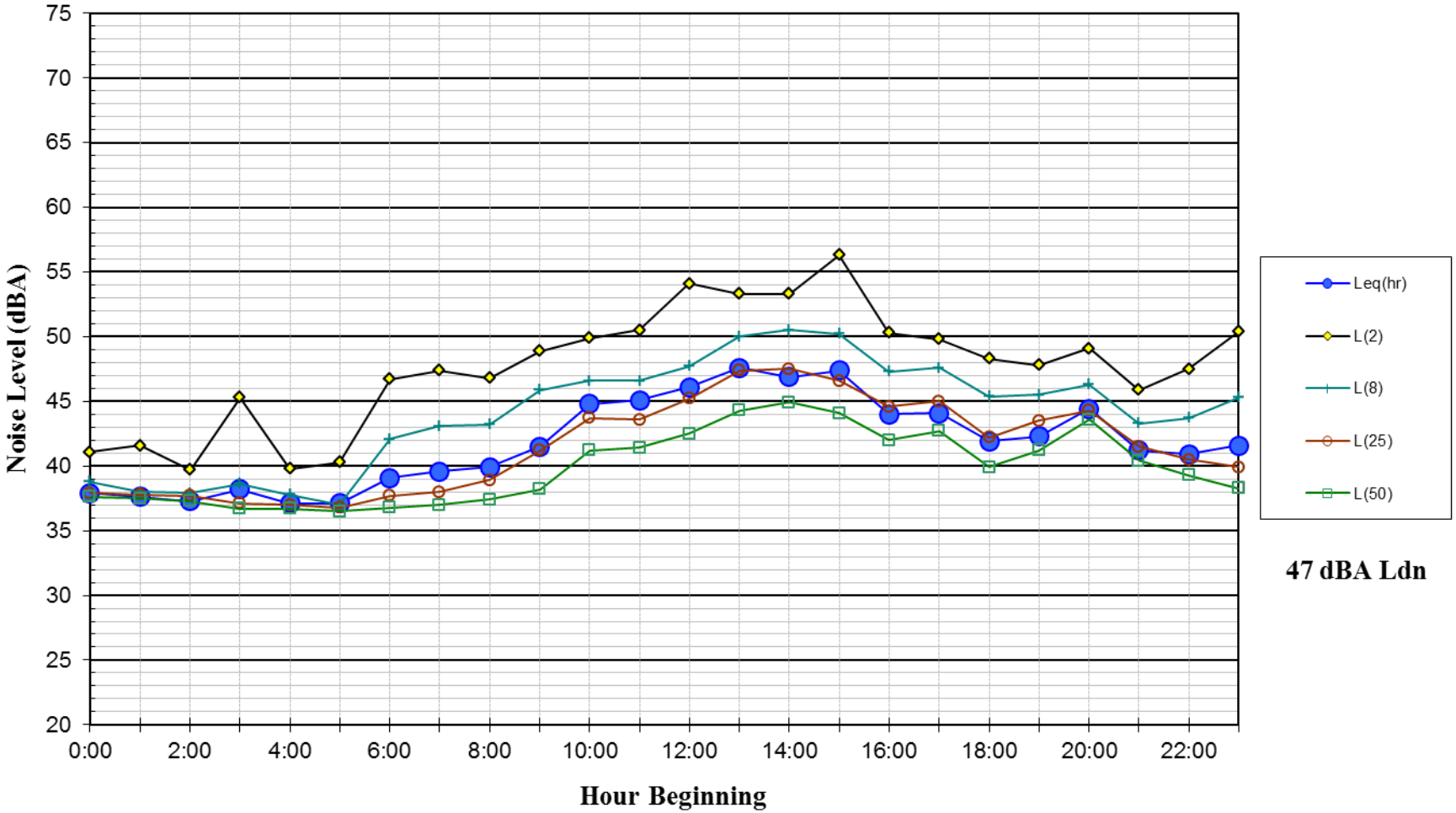
Noise Levels at LT-1
~ 175 feet from the Center of Westside Road
Saturday, September 13, 2014



48 dBA Ldn

Figure 5

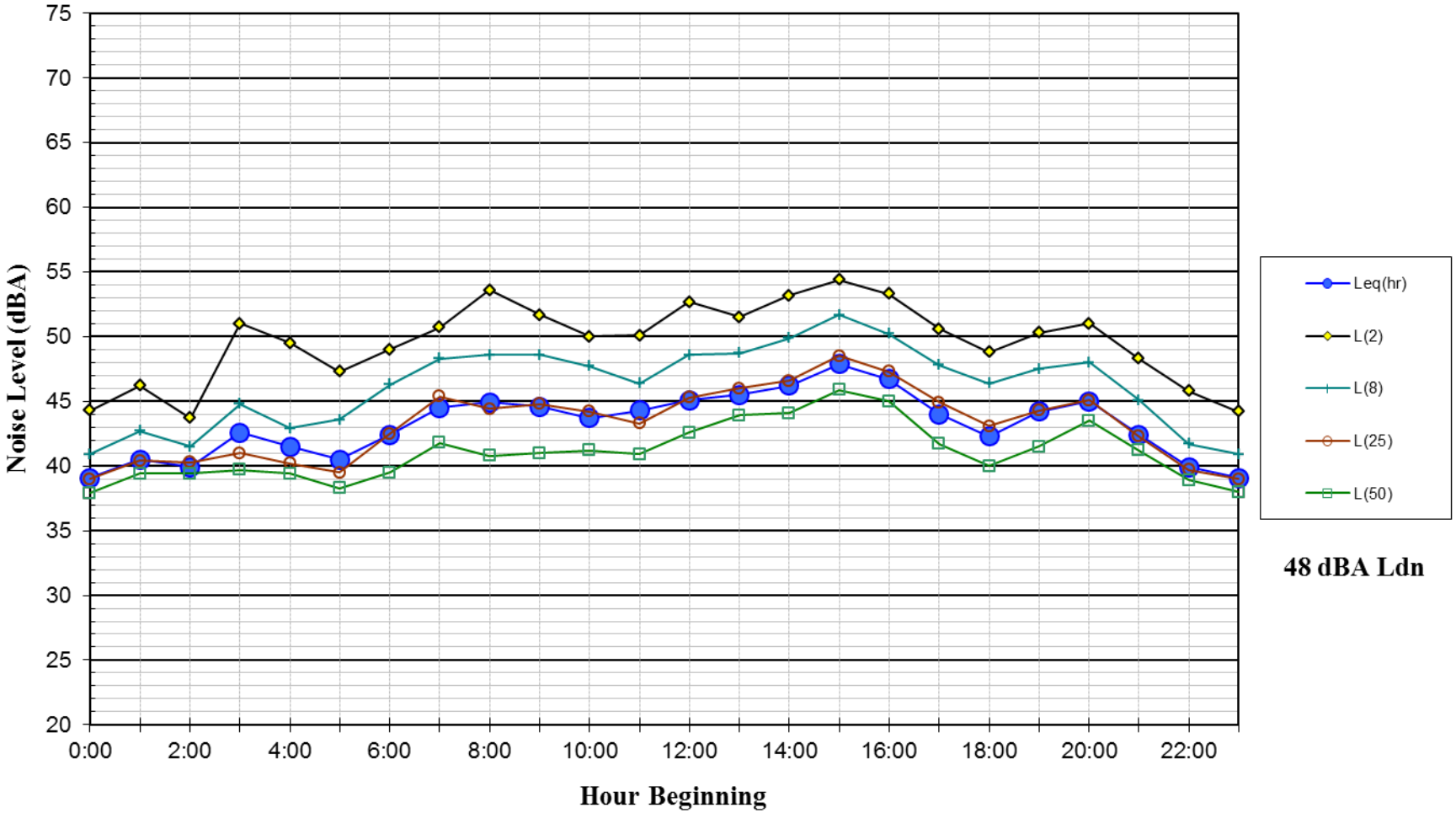
Noise Levels at LT-1
~ 175 feet from the Center of Westside Road
Sunday, September 14, 2014



47 dBA Ldn

Figure 6

Noise Levels at LT-1
~ 175 feet from the Center of Westside Road
Monday, September 15, 2014



48 dBA Ldn

Figure 7

Noise Levels at LT-1
~ 175 feet from the Center of Westside Road
Tuesday, September 16, 2014

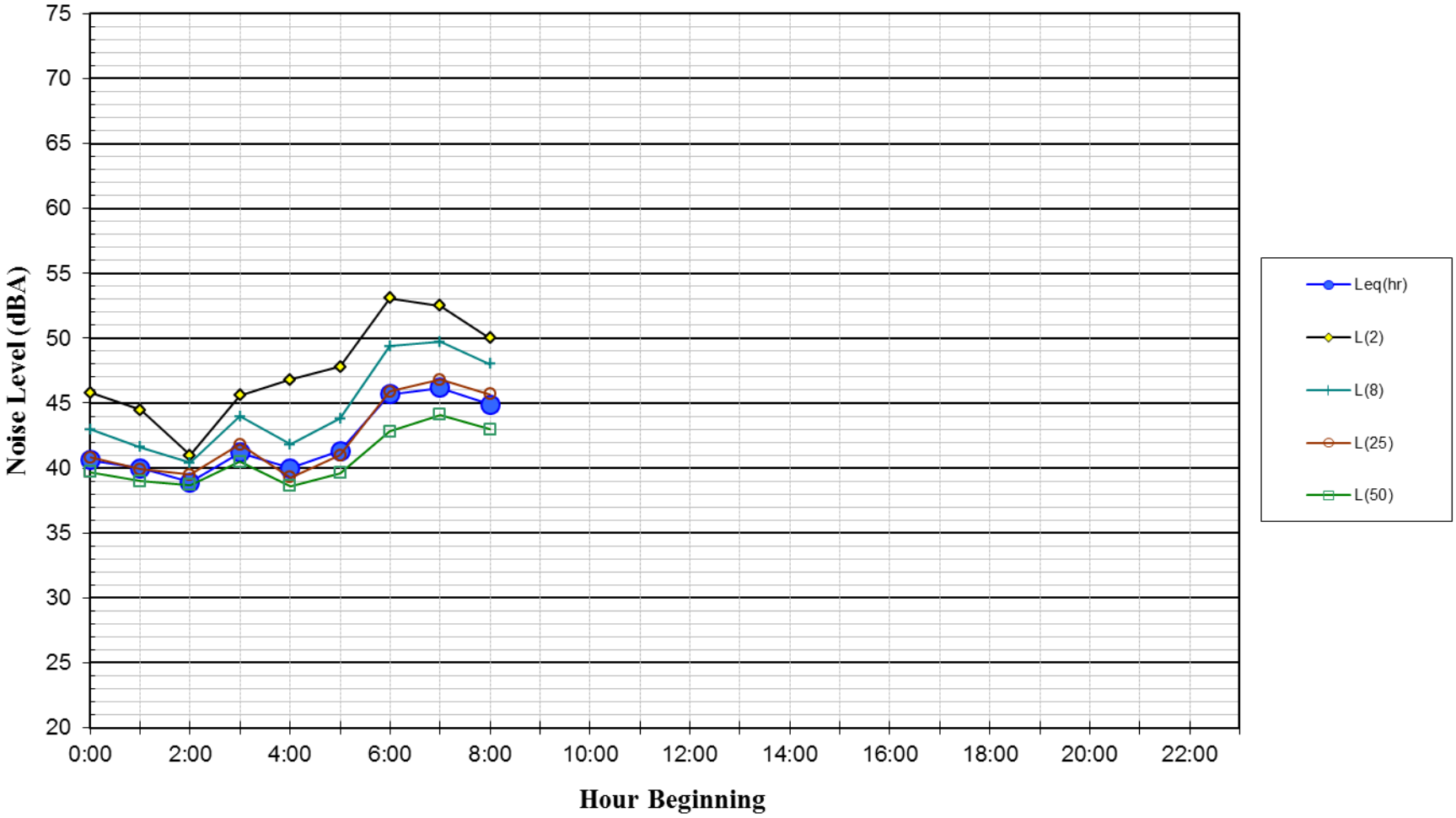


Figure 8

Attachment 8

12504.0 Rudd_West Side
Groundwater Use Estimates
September 22, 2014
Revised: September 15, 2015

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Sonoma County PRMD
ATTN: Misti Harris
2550 Ventura Ave.
Santa Rosa, Ca 95403

Project: **PLP14-0031**
Use Permit Application for:
4603 Westside Road
Healdsburg, Ca

Misti,

This letter is provided in response to the letter received from Gregory Desmond at Sonoma County PRMD, dated July 31, 2014. Specifically, this letter addresses the proposed groundwater use from the project, as requested in item #1 of the letter.

Project Proposal
Rudd Wines has applied for a Use Permit to construct a 10,000 case per year winery in 2 phases. Phases will include:

1. Tasting Room and 5,000 case winery building
2. 5,0000 case winery expansion with new building for total of 10,000 case production level

This report will utilize 3 methods of reviewing water use associated with the project. These methods are:

1. County of Napa Phase One Water Availability Analysis Method
2. Wastewater System Design Estimation Method
3. Town of Windsor Method

Additional information, such as documents referenced, can be provided upon request.

COUNTY OF NAPA PHASE ONE WATER AVAILABILITY ANALYSIS

As a requirement of the Use Permit application process, new wineries proposing to use groundwater in Napa County must complete the Phase One Water Availability Analysis Form to demonstrate the project will not place undue burden on the local groundwater supplies. This form provides general water use information for wineries. A blank copy of this form is provided, as an attachment for reference. Water use calculations are provided below in this document:

Proposed Winery Process Use

10,000 cases wine x 2.4 gallons wine/case wine	=	24,000 gallons wine

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24,000 gallons wine/yr x 2.15 ac-ft/100,000 gallons wine	=	0.516 ac-ft/yr

Proposed Winery Domestic and Landscape Use

24,000 gallons wine/yr x 0.5 ac-ft/100,000 gallons wine	=	0.12 ac-ft/yr

Total Winery Use

Process Use	=	0.516 ac-ft/yr
Domestic and Landscape Use	=	0.12ac-ft/yr
Total Winery Use	**=**	**0.636 ac-ft/yr**

The total winery water use is estimated to be 0.636 ac-ft/yr using the Napa County Public Works assumed values. This is equivalent to 207,241 gallons per year.

Landscape Use

Although the Domestic and Landscape Use is estimated above, to be conservative, landscape will be estimated separately from this value. In addition to the landscape number assumed above, the project will also include decorative native plant landscape design. A conservative value of one half acre has been assumed. The City of Healdsburg, Water Efficient Landscape Worksheet indicates that the Healdsburg area has a reference evapotranspiration 40.8 inches per year. A native plants crop coefficient of 0.3 is provided. The amount of water associated with the half acre of landscaping is estimated as:

(0.5 acres landscape) x (40.8 inches/acre-yr) x (1 ft/12 inches) x (43560 sf/acre) x (7.481 gal/1 ft^3) x (1 ac-ft/325,851 gallons) (0.3) = 0.51 ac-ft/yr

However, because actual project landscaping is intended to use Sonoma County native plants, little to no irrigation will be required once established.

Total Project Use

The total estimated water demand from the project is the sum of all winery, domestic, landscape, and orchard use. This is **1.146 ac-ft per year** which is equivalent to **373,425 gallons per year.**

WASTEWATER SYSTEM DESIGN ESTIMATION METHOD

The next method of evaluation will use values similar to those used in wastewater system design for domestic and process water use. It will also make assumptions for landscape water use. Water use is estimated as follows:

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Proposed Winery Process Wastewater (PW)

Sonoma County Peak Day

24,000 gallons wine x 1.5 / 45 days	=	800 gpd PW

Depending on the source of data, the harvest period accounts for 30% to 40% of the total annual water use for wineries. To be conservative, it is assumed that that this peak water use continues for all 60 days (September and October) of harvest and also accounts for 40% of annual water use. The annual use is estimated as follows:

Harvest Total PW Water Use

800 gpd x 60 days	=	48,000 gallons/year

Annual Total PW Water Use

48,000 gallons / 0.4	=	120,000 gallons/year
	=	0.37 ac-ft/year

Employees Water Use

The winery is proposing up to 24 employees onsite at any given time.

24 FT employees x 15 gpd/employee	=	360 gpd
TOTAL DAILY EMPLOYEE USE	=	360 GPD

To be conservative in this estimation, it is assumed that this is water use for 365 days per year. Actual use will be lower due to peak employees representing only harvest, and peak employees not working 7 days a week. Annual employee use is estimated as follows:

360 gpd x 365 days/year	=	229,950 gallons per year
TOTAL ANNUAL EMPLOYEE USE	=	0.71 ac-ft/year

Tasting Room Water Use

To estimate the annual water use, only average tasting room visitation will be evaluated, as the peak is included in the average number projections. This is estimated as follows:

100 average tasting visitors x 2.5 gpd/visitor	=	250 gpd
250 gpd x 365 days/year	=	91,250 gal/yr
	=	0.28 ac-ft/yr

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In addition, the tasting room will be closed to the public on days when the winery hosts winemaker lunches. These will include up to 40 people and may occur up to 3 times per month. An additional 12 gal/person is added to the tasting room water use for food prep, service, and cleanup.

40 visitors x 12 gpd/visitor	=	480 gpd
480 gpd x 3 events/month x 12 months/year	=	17,280 gal/yr
	=	0.05 ac-ft/yr

Therefore, total maximum tasting room use is estimated to be 144,117 gal/yr (0.44 ac-ft/yr).

Events Water Use

The project proposal includes 25 events per year: 13 industry-wide and 12 agriculture promotional. The maximum attendance at any of these events is presented in the table below. Because Saturday and Sunday of Barrel Tasting Weekend can be very crowded and it is difficult to estimate the total number of visitors. A vlue of 500 visitors, has been used as a potential attendance, however, onsite parking is morel likely to limit the number of visitors for these event days. On the days of events, the tasting room schedule will be revised and in many cases closed, so that no additional employees are required to service the event, beyond that already accounted for above. The events are summarized in the table below.

NUMBER OF ATTENDEES	EVENTS PER YEAR
80	6
100	3
150	12[1]
500	4[2]

[1.] Assumed 150 attendees at 9 industry events plus 3 agricultural promotional events.
[2.] Assumed 500 attendees each day for Saturday and Sunday of Barrel Tasting

It is assumed that each event will provide for catered food and water use is estimated as such. The amount of water use associated with each event is estimated as follows:

80 Person Event		
80 event visitors x 5 gpd/visitor	=	400 gpd
400 gpd x 6 days/year	=	2400 gal/yr
100 Person Event		
100 event visitors x 5 gpd/visitor	=	500 gpd
500 gpd x 3 days/year	=	1,500 gal/yr

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150 Person Event		
150 event visitors x 5 gpd/visitor	=	750 gpd
750 gpd x 9 days/year	=	6,750 gal/yr
500 Person Event		
500 event visitors x 2.5 gpd/visitor	=	2,000 gpd
2,000 gpd x 4 days/year	=	8,000 gal/yr
TOTAL EVENT SS		
2,400 gal + 1,500 gal + 6,750 gal + 8,000 gal	=	18,650 gal/yr

Total Domestic Water Use

A total domestic water use is estimated by summing the employees, tasting visitors, and event visitors use for the year. This is done as follows:

Employee Use + Tasting Visitor Use + Winemaker Lunch + Event Visitor Use	=	TOTAL DOMESTIC USE
229,950 gal + 91,250 gal + 17,280 gal + 18,650 gal	=	357,130 gallons/year
	=	1.10 ac-ft/year

Landscape Use

As noted in the Napa County Method Section above, it is assumed that there will be 0.5 acres of landscape planted for the project. Using similar evapotranspiration values to those presented in the prior section, landscape water use is estimated as follows:

Landscape	=	0.51 ac-ft year
TOTAL ANNUAL LANDSCAPE USE	=	0.51 AC-FT/YEAR
	=	166,184 gallons/year

Total Annual Water Use

The total annual water use estimated by this method is the sum of the winery process use, all domestic uses, and landscape use. This is calculated as follows:

Winery PW + Employee, Visitor, and Event Domestic + Landscape Use	=	
120,000 gallons + 357,130 gallons + 166,184 gallons	=	643,314 gallons/year
TOTAL ANNUAL PROJECT WATER USE	=	**1.97 AC-FT/YEAR**

TOWN OF WINDSOR METHOD

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In 2014, Town of Windsor issued a document titled, *Small Winery Classification and Investigation Regarding Wastewater Capacity Fees.* A portion of this document is attached for reference. In this document it reviewed the water use for wineries currently in the town of Windsor. It found that the average water use was 20.18 gallons of water per case of wine produced. The water use for this project is estimated as follows:

20.18 gal water/case wine x 10,000 cases wine	=	201,800 gallons
201,800 gallons x 1 ac-ft/325,851 gallons	=	0.62 ac-ft/year

It should be noted that these numbers are based on review of 2 wineries, one of which is a very high water user when compared to industry standards. Because the Town of Windsor does not provide for Domestic or Landscape water use in this document, the same values estimated in the Wastewater System Design Estimation Method shall be used for these values. This water use estimation is:

TOTAL ANNUAL DOMESTIC USE	=	1.10 ac-ft/year
TOTAL ANNUAL LANDSCAPE USE	=	0.51 AC-FT/YEAR

Total Annual Water Use

The total annual water use estimated by this method is the sum of the winery process use, all domestic uses, and landscape use. This is calculated as follows:

Winery PW + Employee, Visitor, and Event Domestic + Landscape Use =

201,800 gallons + 357,130 gallons + 166,184 gallons	=	725,114 gal/year
TOTAL ANNUAL PROJECT WATER USE	=	**2.23 AC-FT/YEAR**

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Conclusions

The total proposed water use from the project, estimated by each method, is summarized in the table below:

METHOD	TOTAL ESTIMATED ANNUAL WATER USE (AC-FT/YEAR)
Napa County Phase One Water Availability Analysis	1.15
Wastewater System Design Estimation	1.97
Town of Windsor	2.23

It should be noted that all of these methods, represent more of a worst-case water use, rather than expected average annual water use. This is because, in most cases, peak use was assumed for 365 days per year. In any event, the maximum estimated water use from the project is 2.23 ac-ft per year.

We trust that this letter sufficiently addresses the requested information. If you require clarification or have any questions, please feel free to contact us.

Sincerely,

Ben Monroe, P.E.
ALWAYS ENGINEERING, INC.
Project Manager

cc: Guy Byrne (LRICO)
Dusan Motolik (Backen Gilliam Kroeger Architects)
John Dobrovich (LRICO)

EBA ENGINEERING

August 10, 2015

Terry Harrison and Jack Salzgeber
4395 Westside Road
Healdsburg, CA

RE: LIMITED GROUNDWATER AVAILABILITY LETTER
4395 WESTSIDE ROAD, HEALDSBURG, CALIFORNIA
EBA JOB No. 15-2199

Dear Mr. Harrison and Mr. Salzgeber:

Thank you for the opportunity to evaluate the potential impact to your existing domestic water supply wells by the proposed winery and tasting room project (i.e., Rudd Westside Winery Project PRMD File No. PLP14-0031) located immediately east and adjacent to your property at 4395 Westside Road, Healdsburg, CA. Concern has been raised that the use of Rudd Winery Project wells (Rudd wells) for irrigation purposes on both the Rudd and MacRostie Vineyard, in addition to the proposed winery and tasting room (with events), could cause negative impacts to your water supply. Please refer to the attached Figure 1 Site Map for the location of the parcels and wells.

In order to complete this evaluation, EBA reviewed the water availability/assessment report for the proposed winery and tasting room. This document was entitled *Rudd Westside Winery Groundwater Report, 4603 Westside Road, Healdsburg, CA APN 110-110-026* (O'Conner, 2015). Please note that Rudd wells A through D on the Site Map refer to the wells present in O' Conner Report. Based on our review of the O' Conner report, EBA has the following comments to offer:

- The report methodology and general assumptions regarding geology, groundwater demand, precipitation, runoff, evapotranspiration, etc. appear to be normal or consistent with similar water availability assessments.

- It is unclear what specifically the Rudd wells are being used for. Clarification of uses of the Rudd wells would be beneficial to the overall evaluation. It appears as if the Rudd wells are being used for the MacRostie winery, vineyards, and events, in addition to the existing irrigation of vineyard on the Rudd property but it is not explicitly stated in the text. For example, the Project Demand discussed on page 10 and the Proposed Project Conditions as outlined on Table 4 on Page 13 seem to infer greater usage of the wells than just on the Rudd property. This total project aquifer usage is estimated in the O' Conner report to be 70 percent of the estimated annual recharge. An accurate assessment would include all the current uses of the Rudd wells, estimates of future uses, and a total of projected uses. These totals would be used to shed light on the total estimate percentage of recharge that is being used by the Rudd wells in total.

- With regard to Figure 2 on Page 5 of the O' Conner report, Well E looks to be in the wrong location. Well E is located across the fault and at the location generally shown in the attached Site Map. Interaction between the Rudd wells and Salzgeber well may be more of a possibility under strained pumping conditions when compared to wells located to the west of the fault although this relationship is not well understood. An accounting of previously drilled dry wells on the MacRostie property would be helpful in determining why there was a need for three tightly spaced wells (Wells B through D) along Storey Creek with no wells located on the southern MacRostie vineyard.

- The cumulative impact area (or project area aquifer as delineated in the 2015 report) is aligned with the drainage area of the watershed. EBA agrees that the primary water bearing formation in the cumulative impact area is fractured bedrock consisting of Franciscan mélange (greywacke sandstone blocks [KJfs] and Franciscan Complex (sandstone, shale and slate [TKfs]). The Salzgeber well and Rudd wells are located in this TKfs that appears to be a more prolific water-bearing unit that the KJfs unit. The two geologic units are separated by a fault with some noted serpentinite present at the boundary between units. This fault may either as a barrier or provide higher fracturing of bedrock, thereby allowing more infiltration of precipitation. While the main Rudd wells are located in what is mapped as shallow alluvium, it is EBA's opinion that the wells intersection with fractures within the TKfs are actually within the same geologic unit as the Salzgeber well (see next bullet).

- The pump tests from Rudd wells A through D demonstrated highly variable yields which suggests that the aquifer is highly variable in the area. For example, Well A, Well C, and Well D had pumping rates of 25 and 35 gallons per minute (gpm) in 2008, while Well B which is located directly between Wells D and C had a much lower production of 8 gpm.

- The two shallower wells located near Storey Creek at 4395 Westside Road were not mentioned in the O' Conner assessment.

EBA has also conducted research of local geologic/hydrogeologic literature, collected and reviewed boring logs and pump test data, and conducted a site reconnaissance of the area. The site reconnaissance included GPS location and measurement of depth to groundwater in several of the wells located on the 4395 Westside Road property, evaluation of the cumulative potential impact area (i.e., observations of topography and well location), and inspection of wells.

Pertinent findings from these efforts included the following:

- The fracture system with the main water bearing units (TKfs and JKfs) are not well understood in this area. Communication between wells in these units are largely dependent upon interconnected fracture systems which are largely dependent

upon fracturing and faulting. The overlying alluvium does not appear to be a viable aquifer for vineyard irrigation.

- The hydrogeologic communication between the Salzgeber Well and wells associated with the Rudd vineyards and proposed winery are not well understood. The potential for drawdown and impact to neighbors is not specifically addressed in the O' Conner report. Distance drawdown calculations and general groundwater modeling may help to assess the likelihood of potential impact to neighbors. It has been documented that the Rudd wells demonstrated between 92 and 179 feet of drawdown under pumping conditions. However, the nearest well to the Rudd wells is the Salzgeber well which is approximately 949 feet to the northwest and approximately 120 feet in elevation above the nearest Rudd well (D).

- Depth to groundwater (DTW) was measured in four wells during the site reconnaissance on July 1, 2015. The top of casing elevations of the wells were also measured using a handheld GPS device. These results were integrated with the DTW measurements from the Rudd wells as documented in O'Conner's report. Results from these calculations indicate that groundwater elevations adjusted to mean sea level (MSL) are extremely similar (within one foot MSL) in the Field well and Well A on the Rudd property. However, the Field well was observed to be pumping shortly after measurement and may have been pumping in the morning. Given the low groundwater recharge characteristics of the Field well, it is conceivable that this depth to water measurement is artificially low. In turn, if we use the depth to water in the Field well as determined during well construction in 2013, then the groundwater elevations between the Field well and wells C and D are essentially the same (i.e., 76 to 74 feet Mean Sea Level). This information may indicate some degree of hydrogeologic communication between these two locations although the wells are approximately 1,500 feet apart on either side of Storey Creek and quite possibly, present in different formations. This information would suggest that the likelihood of significant negative impacts from pumping of the Rudd wells would be low.

- Given the distance separating the Salzgeber well and the nearest drilled well on the Rudd property is approximately 984 feet, groundwater flow calculations from the DTW measurements indicate a groundwater flow direction almost due southeast between the Salzgeber well and Rudd Wells with an approximate hydraulic gradient of 0.04 feet per foot. Conversely, an essentially flat gradient between the Field well and Rudd wells exists with an hydraulic gradient that follows the Storey Creek to the east.

Based on the proposed water use and findings from the on-site observations and research, it is concluded that the proposed winery and tasting room may impact the water supply on the 4395 Westside Road property, albeit the likelihood is low.

However, given the high variability of fracture groundwater flow in the area, and the total project aquifer usage as estimated in the O' Conner report to be 70 percent of the estimated annual recharge, the interested homeowners would like the County to require as part of conditions of approval the following several items.

These items are as follows:

- Conduct a dry weather 8-hour pump test on the nearest Rudd well (D) while monitoring depth to groundwater in the Field well and Salzgeber well and nearby Rudd wells. The 8-hour pump test should simulate pumping rates that will be used during the actual proposed site use (i.e., irrigation, winery production, etc.). Ideally the pump test should be a greater duration of time than 8-hours and preferable 72-hours.

- Tank and pump design should reflect the minimization of drawdown by proper sizing and construction. Longer pumping times at a slower rate with more tank capacity would help minimize drawdown. These proposed rates should be documented as part of the permit.

- Include a totalizer on the Rudd wells with results being submitted to the homeowners on an annual basis.

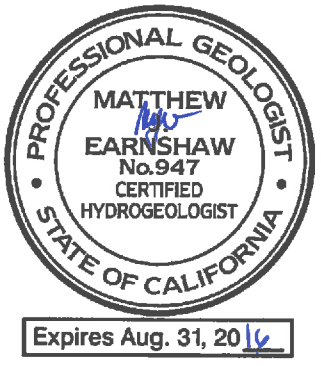
- Conduct annual dry weather measurements of DTW in the Rudd wells, Field well and Salzgeber wells. These results should be made available to owners of 4395 Westside Road.

Thank you for your time and consideration of this request. If you have any comments or questions regarding this Letter, please call (707) 544-0784.

Sincerely,

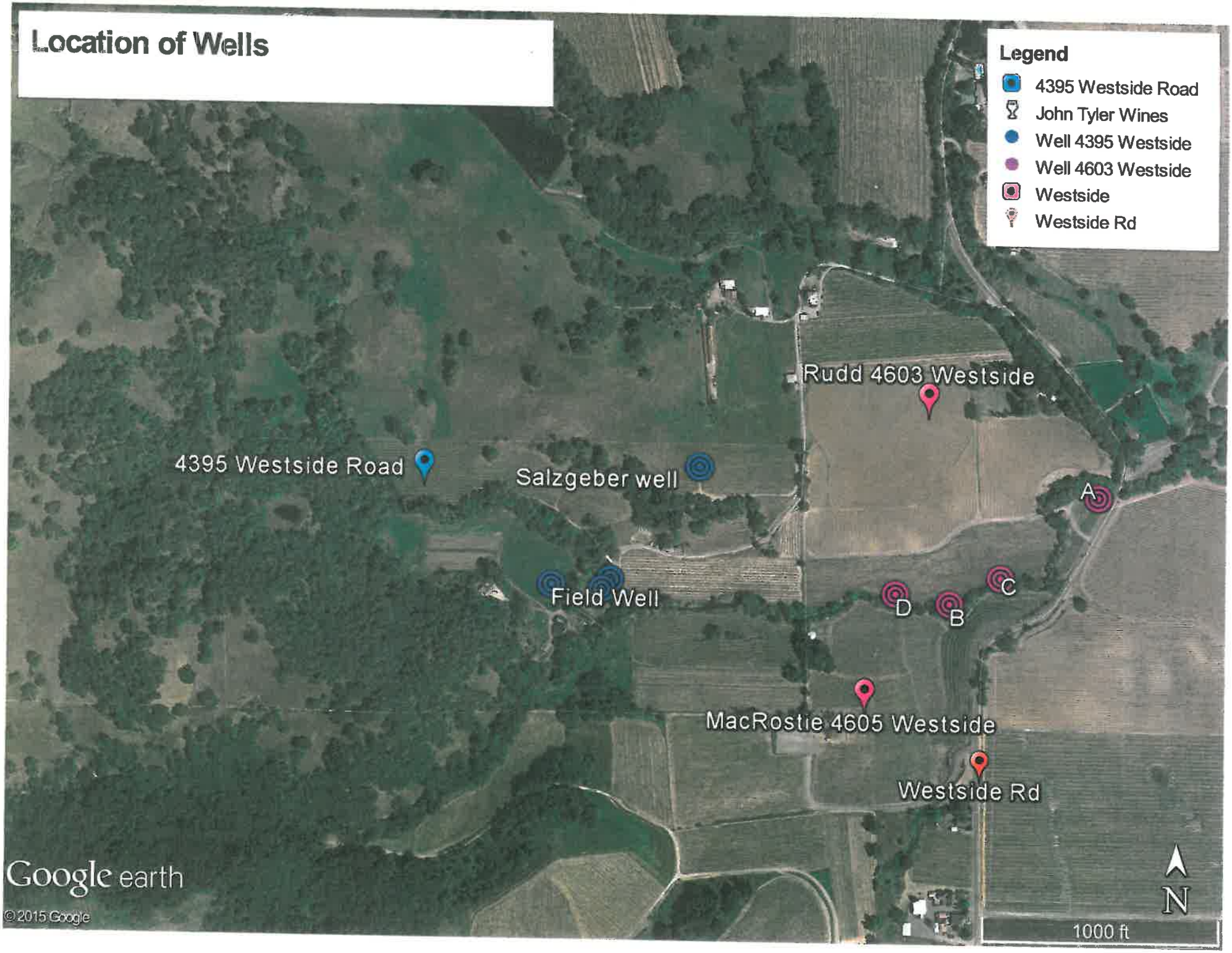
EBA ENGINEERING

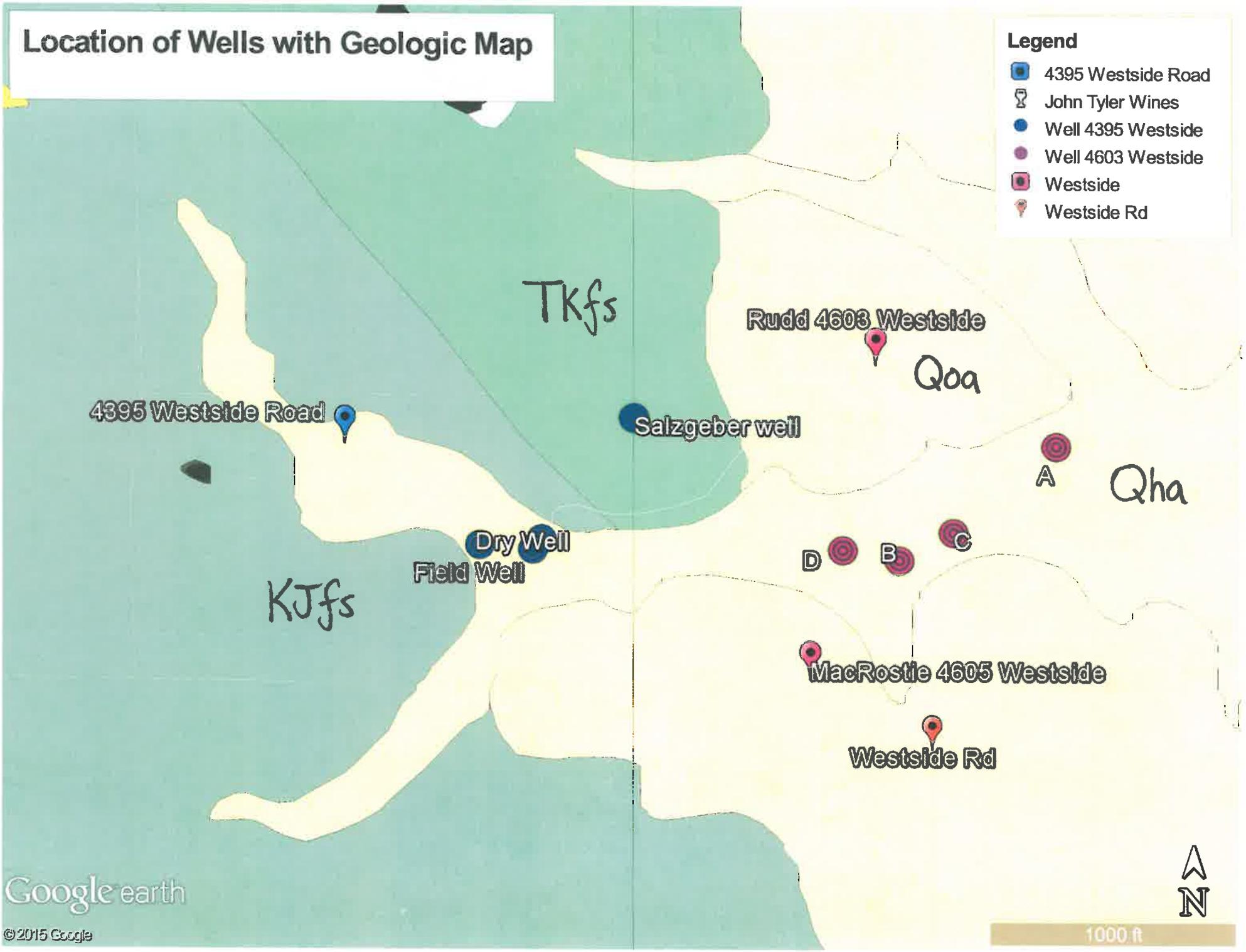
Matthew J. Earnshaw, P.G., C.Hg., QSD.
Senior Geologist



APPENDIX A

SITE MAP


Location of Wells
Legend
4395 Westside Road
John Tyler Wines
Well 4395 Westside
Well 4603 Westside
Westside
Westside Rd
Rudd 4603 Westside
4395 Westside Road
Salzgeber well
A
Field Well
D
B
C
MacRostie 4605 Westside
Westside Rd
Google earth
© 2015 Google
N
1000 ft


Location of Wells with Geologic Map
Legend
4395 Westside Road
John Tyler Wines
Well 4395 Westside
Well 4603 Westside
Westside
Westside Rd
TKfs
Rudd 4603 Westside
Qoa
4395 Westside Road
Salzgeber well
A
Qha
Dry Well
Field Well
D
B
C
KJfs
MacRostie 4605 Westside
Westside Rd
Google earth
© 2015 Google
N
1000 ft