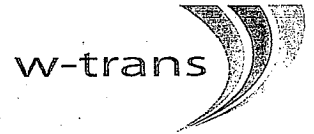


October 15, 2009

Mr. Lester Schwartz
Fort Ross Vineyard
1212 Oakland Avenue
Piedmont, CA 94611



Whitlock & Weinberger
Transportation, Inc.

490 Mendocino Avenue
Suite 201
Santa Rosa, CA 95401

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Focused Traffic Study for Fort Ross Vineyard Tasting Room Project

Dear Mr. Schwartz;

As requested, Whitlock & Weinberger Transportation, Inc. (W-Trans) has prepared this updated traffic analysis for the proposed tasting room at Fort Ross Vineyard located at 15001 Meyers Grade Road in the County of Sonoma. The focus of the analysis was the potential impacts of the tasting room on operations of Meyers Grade Road along the site's frontage.

Project Description

The proposed Fort Ross Vineyard Tasting Room would be located on the existing vineyard property and used to promote and sell Fort Ross wines. All Fort Ross wines are made with grapes grown onsite though the wines are produced off-site. The wines will continue to be produced off-site, with no onsite winery facilities existing or planned.

The site is located on the east side of Meyers Grade Road about 2.5 miles northeast of State Route (SR) 1. Access for the project would be provided via two existing driveways, with inbound traffic using the northerly site driveway and outbound traffic utilizing the southerly driveway, which also serves and will continue to serve the existing residence on the site. An existing unimproved road provides an onsite connection between the two driveways. A copy of the "Driveway Access Plan" prepared by Bartholow Engineering and dated April 2009 is enclosed.

Existing Conditions

Meyers Grade Road is designated as a Rural Minor Collector in the *Sonoma County General Plan*. The County of Sonoma Transportation and Public Works Department obtained traffic counts on Meyers Grade Road near SR 1 on September 4, 2002, and August 23, 2006, both Wednesdays. These counts showed daily volumes ranging between 349 and 802 vehicles per day (vpd). On occasion, SR 1 traffic is detoured onto Meyers Grade Road, and traffic volumes recorded on Meyers Grade Road in March and April 1995 included traffic detoured from SR 1, with daily counts recorded at 2,100 vpd. Two-lane roadways such as Meyers Grade Road have an estimated operational capacity of 12,000 vpd, so the measured volumes are considerably lower than this operational threshold.

Current volumes were measured near the existing driveway for seven days, between September 4 and 11, 2009, and an average daily volume (ADT) of 400 vpd was measured. This sample, a copy of which is enclosed, included traffic volumes over the Labor Day holiday weekend as well as on weekdays.

Meyers Grade Road is currently paved to a width of 24 feet along the project site frontage, as well as between the site and SR 1. The intersection of SR 1/Meyers Grade Road is an unsignalized tee-intersection,

with the Meyers Grade Road approach stop-controlled. During a site review, several large agricultural trucks were observed traveling on Meyers Grade Road, likely carrying grapes harvested in the area. The trucks seen were traveling at a reasonable speed, and were able to stay well within the travel way. There is no posted speed limit on Meyers Grade, though there are various warning signs, including steep grade signs and truck access warnings. It has several cattle crossing guards, metal grates within the roadway, indicative of the rural nature of this road. Traffic speeds were recently measured and the calculated 85th percentile speed is 38 mph.

Collision History

The collision history for Meyers Grade Road was reviewed to determine any trends or patterns that may indicate a safety issue. Collision rates were calculated based on records for October 2005 through September 2008 obtained from the California Highway Patrol and published in their SWITRS reports.

During the three-year period evaluated there was one collision reported for the half-mile segment of Meyers Grade Road to the east and west of the existing project access driveway. Based on the average weekday daily volume of 400 vehicles, the study segment of Meyers Grade Road had a collision rate of 2.37 collisions per million vehicle miles (c/mvm). The statewide average collision rate for rural two-lane roads with a speed limit of less than 55 mph is 2.69 c/mvm. Since the collision rate on this portion of Meyers Grade Road is lower than the statewide average, it would appear that it is operating within acceptable safety standards. It was noted that the one collision was a single vehicle collision with 'driving on the wrong side of the road' indicated as the primary collision factor. A copy of the spreadsheet showing the derivation of actual and statewide collision rates is enclosed.

Project Trip Generation

For purposes of estimating the number of trips that proposed projects can be expected to generate, *Trip Generation*, 8th Edition, Institute of Transportation Engineers, 2008, is typically used. This publication does not contain information for tasting rooms, and although Sonoma County has developed a trip generation form that includes tasting rooms, it is primarily intended for developing traffic volumes associated with wineries, so is not applicable to this project. However, the assumptions applied to the tasting room component of winery projects was used to determine the potential trip generation for the proposed Fort Ross Vineyard Tasting Room based on the estimated maximum number of visitors anticipated.

The tasting room is expected to have three employees, each generating an average of three trips per day, for a total of nine daily trips. A maximum of 25 visitors is expected, most likely in July or August, with far fewer visitors expected during off-peak tourist seasons, resulting in an annual average of 17 visitors per day for tasting. Based on the vehicle occupancy of 2.5 visitors per vehicle, a maximum of 20 and an average of 14 daily trips are expected due to tasting. With employee and guest trips combined, the proposed tasting room is expected to generate a maximum of 29 and an average of 23 vehicle trips per day.

Site Access and Circulation

Site access and circulation will be improved, with the two existing driveways to be reconstructed to County standards, including grading and paving, together with resurfacing of the onsite road connecting the two driveways. As shown on the driveway access plan, Entry 1 will be used for outbound project traffic and Entry 2 will be used for inbound traffic.

Sight Distance

Sight distance along Meyers Grade Road at both driveway locations 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). Though the recent speed survey indicates a critical, or 85th percentile, speed of 38 mph, the sight distance analysis was based on 40 mph, for which 305 feet of stopping sight distance is required.

Entry 1 Location – The measured sight distance for southbound drivers approaching the driveway is less than 180 feet, which is less than the required stopping sight distance, while northbound drivers have sight distance of the driveway for approximately 360 feet which is acceptable. Inbound project traffic should be directed to use Entry 2 to ensure adequate sight distance. In addition, since outbound traffic will use this driveway, sight distance was also measured from the driveway along each roadway approach. The sight distance varies with the distance from the edge of Meyers Grade Road, and the greatest sight distance for outbound traffic is provided at a location approximately 20 feet from the edge of the roadway, or where the existing gate is located, with more than 600 feet of sight distance available for viewing southbound approaching traffic and more than 400 feet available for viewing northbound traffic approaching the driveway. A limit line and 'STOP' legend should be marked on the reconstructed driveway at this location to ensure that exiting motorists stop where the best visibility can be achieved.

Entry 2 Location – Entry 2 is located approximately 0.3-miles north of Entry 1 along Meyers Grade Road and is to be used for inbound project traffic. Sight distance was measured for both approaches, with motorists having a measured sight distance of the access exceeding 360 feet in each direction which is adequate for speeds of 45 mph or less. Although outbound traffic is not anticipated at this time, sight distance for these potential outbound motorists was reviewed, with more than 360 feet available in each direction, which is acceptable.

Measured values exceed the minimum distance recommended except for the southbound approach to Entry 1. Using Entry 1 for outbound tasting room traffic and Entry 2 for inbound, all sight distance requirements will be met. To ensure continued adequate sight distance, it is recommended that any vegetation or signs proposed to be installed along the project frontage be located so as to avoid obstructing visibility of and for vehicles entering or exiting the project site.

Left-Turn Lane Evaluation

The need for left-turn channelization on Meyers Grade Road at the tasting room driveways was not evaluated as the measured traffic volume of 400 vpd on Meyers Grade Road is significantly less than the roadway capacity, so channelization to maintain traffic flow is unnecessary.

Parking Adequacy

Normal Operations

A total of 31 parking spaces are to be provided, including two handicap accessible spaces, and there is potential for more unmarked parking spaces around the site. Since ten existing vineyard workers park near the barn buildings or in the fields, only the site administrator and three tasting room employees would be expected to use the parking lot. Assuming that each employee drives to work in their own vehicle, four parking spaces would be needed to accommodate the employees. Assuming an average vehicle occupancy

of 2.5 tasting room visitors per vehicle, 17 visitors would occupy seven vehicles, and assuming the highly unlikely event that all visitors would be on-site at one time, the visitors would need seven parking spaces.

The proposed 31 marked parking spaces will adequately accommodate the total parking demand of 11 spaces for visitors and employees with a surplus of 20 spaces.

Special and Promotional Events

The greatest demand for parking would be expected to occur during one of the special or promotional events.

The proposed tasting room may be used for up to eight *special* events per year between April 1 and November 30, with up to 200 persons in attendance, and by invitation only. Such events may include catered fund-raising activities and would be expected to occur in the afternoon and evening, with an estimated catering staff of 15 providing support. Using an occupancy of 2.5 persons per vehicle for guests and solo occupancy for staff, a 200-person event would be expected to generate 80 guest vehicles and 15 staff vehicles, for a total 95 vehicles.

The tasting room may also be used for as many as ten *promotional* trade events per year with up to 150 attendees. These promotional events would be by invitation only and would be expected to attract wine club members, brokers, distributors, and other food or wine industry professionals. The attendees would be expected to drive alone to the site, as would the support staff of five who would work at the event. Though far exceeding the normal range, the largest event could result in 155 vehicles on-site.

This parking demand will exceed the 31 space supply by 124 vehicles. Assuming a vehicle occupies a ten-foot wide by 20-foot long space, 200 square feet of parking area is needed for each vehicle, for a total 24,800 square feet, or slightly more than one-half acre of overflow parking area will be needed to accommodate the event parking. Event parking does not need to be permanent and can take place along driveways or in unpaved fields. It is recommended that during such events temporary signs be placed directing vehicles to on-site overflow parking areas.

Additional Operational Consideration

Visitors who are traveling to and from the site under conditions of limited visibility can be restricted by controlling the hours of operation of the tasting room and event scheduling. During the winter months, between December 1 and March 31, the tasting room would be open from 10 a.m. to 5 p.m. and because sunset may occur as early as 5:30 p.m. it would be closed and promotional events concluded at 5:00 p.m. This schedule provides motorists at least 30 minutes of travel before dusk and ample time to travel beyond the vicinity of the site. Similarly, during the spring, summer and fall months, April 1 through November 30, sunset occurs later and scheduled events will end one-half hour before sunset, which could be as late as 8:30 p.m. although the tasting room hours would be restricted to the hours of 10 a.m. to 6 p.m.

Conclusions and Recommendations

- Meyers Grade Road has an ADT of 400 vehicles per day based on a week-long traffic count.
- Based upon speed data collected, the calculated critical speed on Meyers Grade Road is 38 mph.

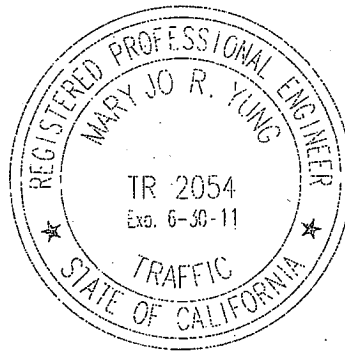
- The collision rate on Meyers Grade Road is slightly lower than the average rate for similar facilities statewide.
- The Fort Ross Vineyard Tasting Room is expected to generate a maximum of 29 and an average of 23 vehicle trips per day.
- Sight distance at the two driveway locations is adequate as proposed, with outbound project traffic utilizing Entry 1 and inbound project traffic utilizing Entry 2, though it is recommended that a limit line and 'STOP' legend be installed at Entry 1 gate to guide exiting motorists. Additionally, any vegetation or signs proposed to be installed along the project frontage at either driveway should be located so as not to obstruct the visibility of vehicles entering or exiting the project site.
- Based on the analysis performed, the proposed Fort Ross Vineyard Tasting Room project will have an imperceptible impact on traffic conditions and the existing facilities will adequately support the additional trips associated with implementation of the proposed project.
- The proposed parking supply will adequately accommodate all employees and tasting room visitors, though it is recommended that overflow parking be made available on-site during special events and that temporary signs be placed directing vehicles to overflow parking areas within the project site.
- As a precautionary measure and in consideration of traffic operational efficiency the applicant plans to restrict the hours of operation, with tasting room hours and events scheduled during the winter months limited to 10 a.m. to 5 p.m., and during the remainder of the year tasting room hours will be 10:00 a.m. to 6 p.m. and events scheduled to end no later than 8:30 p.m., to coincide with the changing sunset conditions.

Thank you for giving W-Trans the opportunity to provide these services. Please call if you have any questions.

Sincerely,



Mary Jo Yung, P.E., PTOE
Associate



MJY/mjy/SOX319.L2.wpd

Enclosures: Driveway Access Plan
Meyers Grade Road Traffic Volumes
Collision Rate Spreadsheet

Copy: Mr. Jim Olmsted, Olmsted & Associates Planning Consultants (via email)

W-trans
 Whitlock & Weinberger Transportation, Inc.
 490 Mendocino Avenue, Suite 201
 Santa Rosa, CA 95401

Site Code: SOX319
 Station ID: 18182
 15001 Meyers Grade Road
 Latitude: 0' 0.000 Undefined

Start Time	04-Sep-09		05-Sep-09		06-Sep-09		07-Sep-09		08-Sep-09		09-Sep-09		10-Sep-09		Week Average	
	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB
12:00 AM	*	*	1	4	1	3	0	1	0	1	0	0	0	0	0	2
01:00	*	*	0	2	0	0	0	0	0	0	0	0	0	0	0	1
02:00	*	*	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:00	*	*	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:00	*	*	1	0	0	0	1	0	0	0	0	0	0	0	0	0
05:00	*	*	1	3	2	6	0	3	2	10	2	2	2	11	1	6
06:00	*	*	1	7	2	5	2	1	8	19	8	18	5	22	4	12
07:00	*	*	5	2	5	4	2	0	10	5	13	5	12	5	8	4
08:00	*	*	2	13	13	2	3	5	13	11	13	17	14	10	10	10
09:00	*	*	10	7	6	2	14	1	17	13	15	13	22	12	14	8
10:00	*	*	11	12	14	16	19	9	15	4	22	5	16	10	16	9
11:00	*	*	11	19	20	7	32	13	25	15	13	8	25	9	21	12
12:00 PM	*	*	13	29	19	5	33	9	24	14	12	5	20	11	20	12
01:00	19	14	12	15	14	13	44	8	13	12	10	11	13	13	18	12
02:00	11	20	14	20	11	10	38	6	12	11	10	9	14	10	16	12
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07:00	6	14	6	10	10	14	10	6	2	10	4	9	5	17	6	11
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09:00	1	7	9	5	5	4	2	1	2	6	2	9	2	7	3	6
10:00	0	6	1	10	2	5	1	3	1	5	0	4	0	5	1	5
11:00	0	3	4	0	1	2	0	0	0	0	2	2	0	1	1	1
Total	90	190	154	232	194	156	293	106	209	197	188	188	219	204	204	192
Day	280	386	350	399	406	423	376	396	396	376	376	376	423	396	396	396
AM Peak	10:00	11:00	11:00	11:00	11:00	10:00	11:00	11:00	11:00	06:00	10:00	06:00	11:00	06:00	11:00	06:00
Vol.	11	19	20	32	25	19	32	13	25	18	22	18	25	22	21	12
PM Peak	13:00	20:00	14:00	13:00	12:00	15:00	13:00	15:00	12:00	17:00	16:00	17:00	12:00	19:00	12:00	15:00
Vol.	19	30	14	44	24	17	44	12	24	21	21	21	20	17	20	17

SEGMENT COLLISION CALCULATIONS
County of Sonoma

Location: Half-Mile East & West of 15001 Meyers Grade Rd

Date of Count: Wednesday, September 9, 2009
ADT: 385

Number of Collisions: 1
Number of Injuries: 1
Number of Fatalities: 0
Start Date: October 1, 2005
End Date: September 30, 2008
Number of Years: 3

Highway Type: CONVENTIONAL 2 LANES OR LESS
Area: Rural
Design Speed: <=55
Terrain: MOUNTAIN

Segment Length: 1.0 miles
Direction: EAST/WEST

$$\frac{\text{NUMBER OF COLLISIONS} \times 1 \text{ MILLION}}{\text{ADT} \times 365 \text{ DAYS PER YEAR} \times \text{SEGMENT LENGTH} \times \text{NUMBER OF YEARS}}$$

$$\frac{1 \times 1,000,000}{385 \times 365 \times 1 \times 3}$$

	Collision Rate	Fatality Rate	Injury Rate
Study Segment	2.37 c/mvm	0.0%	100.0%
Statewide Average*	2.69 c/mvm	2.1%	48.2%

ADT = average daily traffic volume (adjusted for seasonal & weekday changes)

c/mvm = collisions per million vehicle miles

* 2007 Collision Data on California State Highways, Caltrans

