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Outdoor Noise Study

Ladera Vineyards Winery
Minor Modification P21-00294-MOD and Viewshed P22-00109
Planning Commission Hearing June 7, 2023

28 November 2022

Christina Nicholson
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Petaluma, CA 94952
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**Subject: Ladera Vineyards
Noise Study
Salter Project 22-0087**

Dear Christina:

We have prepared the following noise study at the request of the Napa County Planning Department to document existing ambient noise levels and to study sources of exterior noise at Ladera Vineyards. We visited Ladera Vineyards at 3942 Silverado Trail North in Calistoga and conducted continuous exterior noise measurements between 24 February and 1 March 2022. This letter summarizes our observations, Code criterion, outdoor event types, vehicle types/trips, outdoor equipment, measurement results, and preliminary comments.

Site Conditions

The proposed tasting area of Ladera Vineyards is set back from Silverado Trail North (“SVN”) roughly 240 feet and slightly below the elevation of the roadway. The road is a primary thoroughfare through Calistoga. Refer to the site plan in **Figure 1** below. The proposed tasting area courtyard is to be located near the center of the property (outlined in green), roughly 110 feet from the east residential property line, and 130 feet from the west residential property line.

Refer to the **Figure 2** site plan depicting locations of the tasting area, adjacent residences, and the two measurement locations.



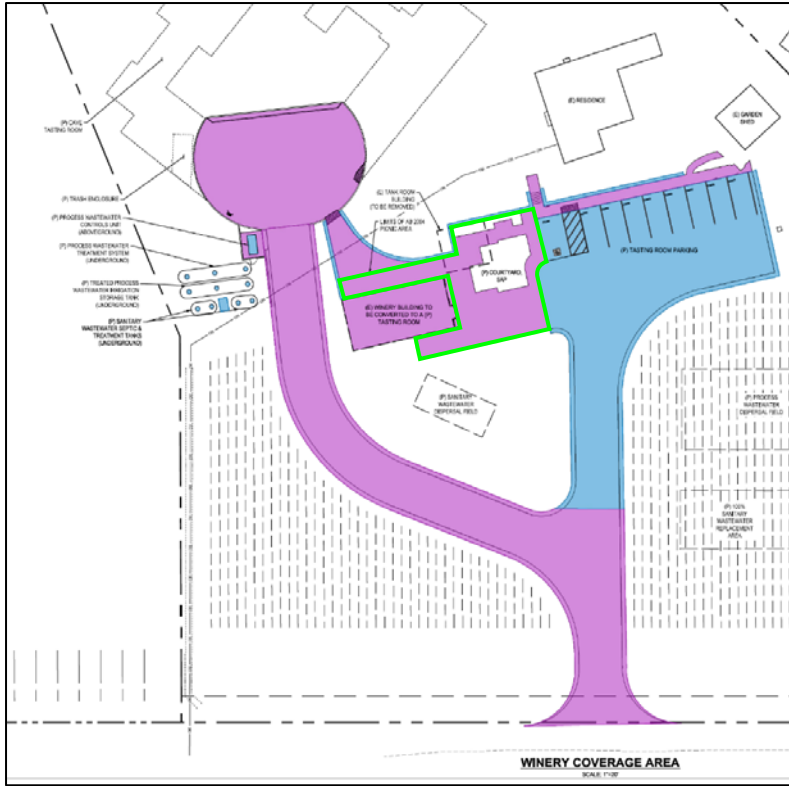


Figure 1: Site Plan



Figure 2: Site Plan Showing Measurement Locations (in yellow) and Nearest Adjacent Residences (in red)

Test Results

The following noise levels were collected between 24 February and 1 March 2022. Refer to the **Figure 2** site plan for ambient measurement locations.

Measurement Location	Start Time	End Time	Minimum Leq ¹ (30min) between 10:00am and 4:30pm
Long-Term Measurement Kit 1 (LT-1): Pole-mounted (12 feet above grade) along SVN, approximately 30 feet from the center of the roadway	24 Feb 2022 12:00am	1 Mar 2022 12:45pm	70 dB
Long-Term Measurement Kit 2 (LT-2): Pole-mounted (12 feet above grade) at the northeast property line, 240 feet from SVN, and 125 feet to the east of the proposed tasting area	24 Feb 2022 12:30am	1 Mar 2022 12:45pm	54 dB

Napa County Criterion

The County Planner has provided the Project team with a maximum noise criterion of 50 dB at the adjacent residential property lines between the hours of 7am and 10pm. This criterion is consistent with Table 8.16.070 of the Napa County Noise Ordinance and Noise Policy CC-38 of the 2008 General Plan. The 50 dB property line maximum noise criterion is not to be exceeded more than 30 minutes in any hour.

Section 8.16.070 of the Napa County Code of Ordinances (Napa Noise Ordinance) states, *“If the measured ambient noise level differs from that permissible within any of the first four noise limit categories above, the allowable noise exposure standard shall be the ambient noise level.”* In this case, the minimum ambient noise level measured between Thursday 24 February and Tuesday 1 March 2022 was 54 dBA Leq(30min) at the closest residential property line to the east, therefore, we assume the property line daytime criteria will be adjusted to 54 dBA per the Noise Ordinance directive.

The Napa County noise ordinance criterion for nighttime hours (10pm to 7am) is 45 dBA per Table 8.16.070.

MEP Equipment Noise

The wastewater equipment will be located outside as shown in **Figure 3** below. There will be a GM 15L blower on a concrete pad while the rest of the wastewater equipment and piping is buried underground. From discussions with the manufacturer, we understand that this blower can be as loud as 75 dBA when measured 3 feet from the blower in an acoustic free field. This noise level assumes the factory sheetmetal enclosure (with acoustic liner) will be provided for this application.

¹ Leq – The equivalent steady-state A weighted sound level that, in a stated period of time, would contain the same acoustic energy as the time-varying sound level during the same period.

In addition to the factory sheetmetal enclosure, this blower will also be enclosed in a 6-inch-thick concrete box with lid and man entry door. The south wall door should be constructed of similar surface weight as the concrete enclosure, and that there be no gaps in the construction. Acoustical hardware can be recommended depending on the chosen design. Similarly, venting should also be engineered to have similar losses and be oriented with openings facing away from the property line. The manufacturer should be consulted for venting noise reduction measures. If they do not have any factory options, then acoustic silencers or louvers can be recommended once the venting path is detailed.

With the above planned noise reduction measures, we estimate the blower noise will be well below the 45 dBA nighttime Code criterion at the nearest property line. All other new proposed MEP equipment associated with the winery operations will be within the tunnel.

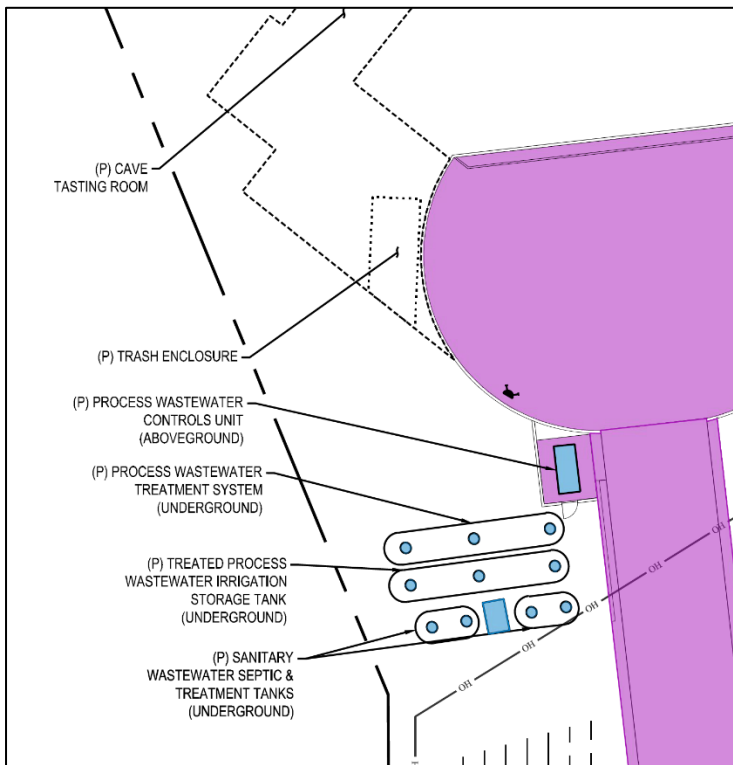


Figure 3: Exterior Wastewater Equipment

Winery Production Vehicles

Per the Winery Trip Generation form submitted to Napa County and dated 28 October 2021, the types and number of production vehicle trips will not change from current operations with an average of 0.4 truck trips per day during normal operations and 1.7 truck trips per day during harvest. Per discussions with Ladera Winery we understand all production vehicles will only be on-site during business hours. Truck turnaround areas are to be located at the cave auto-court and tasting room, and vehicles will either be staged within the production tunnel or directly outside of the tunnel which is shielded from adjacent properties by a large retaining wall.

Visitation and Marketing Events

Event Types

From discussions with Ladera Vineyards, we understand that visitation hours will be between 10:00am to 4:30pm, Monday through Sunday. A maximum of 30 people is expected to visit the site per day for tasting events. Two marketing events will also be held approximately every six months with a maximum of 50 people. There will be no amplified music or speech during these events.

Comments and Conclusion

The Napa County General Plan defines normal conversation as 60 dB. We estimate the combined noise level of 50 people talking during a marketing event would be roughly 80 dB. Assuming this combined noise level, we calculate that the noise level at the closest (east) property line 110 feet away will be 49 dB (due to noise loss over distance traveled), which is below the 54 dBA daytime Code criterion. Therefore, no additional noise mitigation is necessary.

This calculation does not include the additional acoustical shielding that will occur due to the proposed tasting building remodel shown in **Figure 1**. Noise ordinance criterion will also be achieved at the west property line which is farther away.

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This concludes our comments. Please call if you have any questions.

Sincerely,

SALTER



Dennis Mill
Associate



Eric Mori, PE
Senior Vice President