ILLINGWORTH & RODKIN, INC.
Acoustics • Air Quality

1 Willowbrook Court, Suite 120
Petaluma, California 94954

Tel: 707-794-0400 *Fax: 707-794-0490*
www.illingworthrodkin.com *illro@illingworthrodkin.com*

August 15, 2013

Ms. Amy Haedt
Vintage Wine Estates
205 Concourse Blvd.
Santa Rosa, CA 95403
VIA E-Mail: ahaedt@vintagewineestates.com

SUBJECT: Review of updated Garden Patio site plan
Cosentino Winery, Napa County, CA

Dear Ms. Haedt;
Illingworth & Rodkin, Inc. (I&R) has reviewed the updated site plan of the proposed exterior Garden Patio at the Cosentino Winery for compliance with Napa County noise standards at an existing Residence/ Bed & Breakfast Inn north of the Winery as an addendum to our May 3, 2013 (updated June 25, 2013) environmental noise assessment for this project. Under the current proposal, the position of the exterior Garden Patio will be moved from the northern side of the winery building to the eastern side of the building and illustrated in Figure 1 (attached). The current proposal also includes an eight (8) foot high fireplace structure and 6 foot high stucco wall on the northern side of the patio, with a six (6) foot high stucco wall extension at the northeastern and northwestern corners of the patio as shown in Figures 2 and 3 (attached).

Based on a review of the patio plans and elevations shown in Figures 2 and 3, and considering that the walls and fireplace structures will be constructed of solid materials with surface weights greater than 3.0 lbs. per sq. ft., we find that the event noise levels, as presented and discussed in our environmental noise assessment, will be below the adjusted County Noise Ordinance daytime L_{50} noise limit of 50 dBA at the closest façade and outdoor use areas of the existing Residence/ Bed & Breakfast Inn north of the Winery. Therefore, we find that the installation of the proposed wall and fireplace structures currently proposed at the Cosentino Winery exterior Garden Patio will mitigate the noise level to a less than significant level at the existing Residence/ Bed & Breakfast Inn north of the Winery.

Sincerely,

Fred M. Svinth, INCE, Assoc., AIA
Senior Consultant, Principal
Illingworth & Rodkin, Inc.

Figure 1: Previous and Current Garden Patio Locations

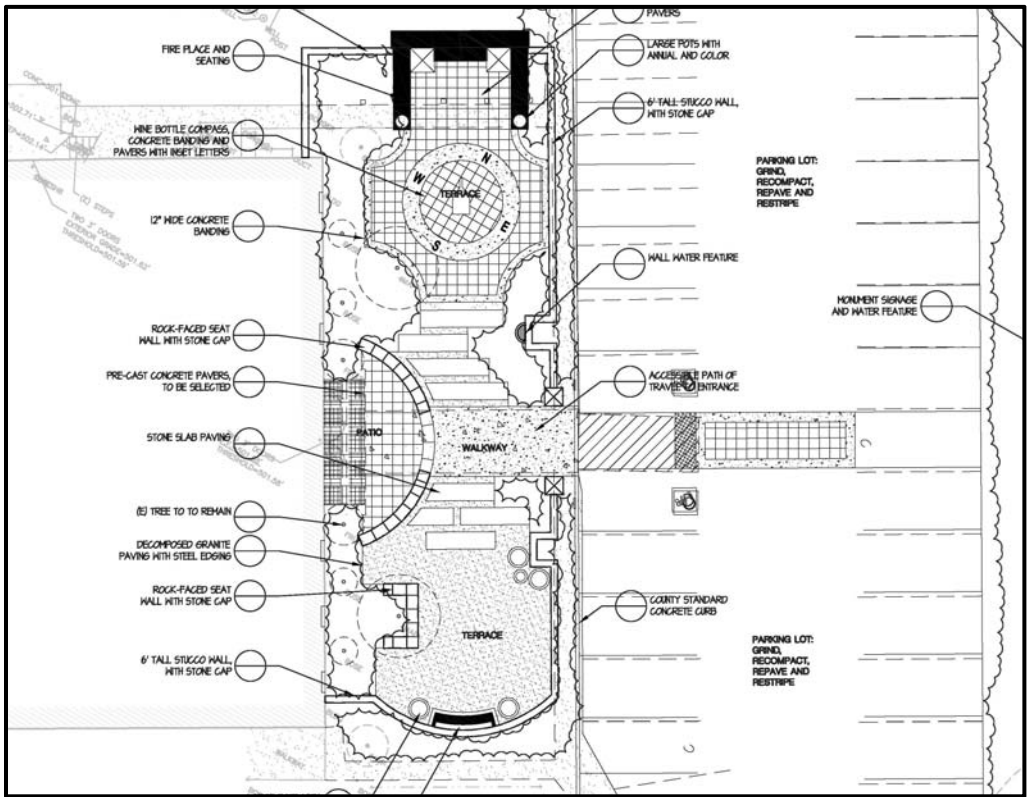

Figure 2: Current Garden Patio Site Plan

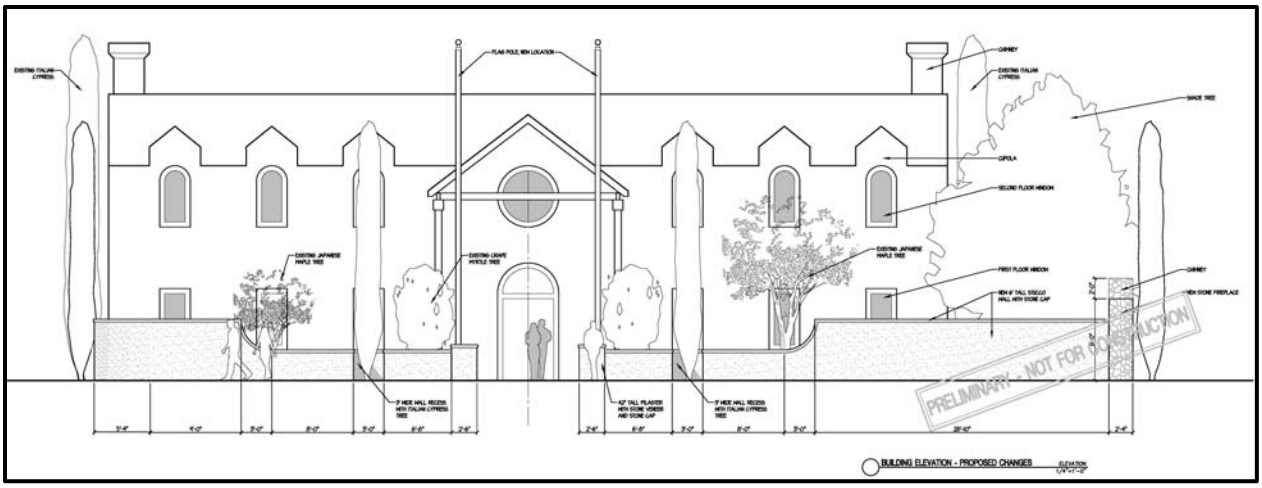

Figure 3: Current Garden Patio Elevation

ENVIRONMENTAL NOISE ASSESSMENT
COSENTINO WINERY EXTERIOR IMPROVEMENTS
YOUNTVILLE, CALIFORNIA
May 3, 2013

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Prepared for:
Ms. Amy Haedt
Vintage Wine Estates
205 Concourse Blvd.
Santa Rosa, CA 95403

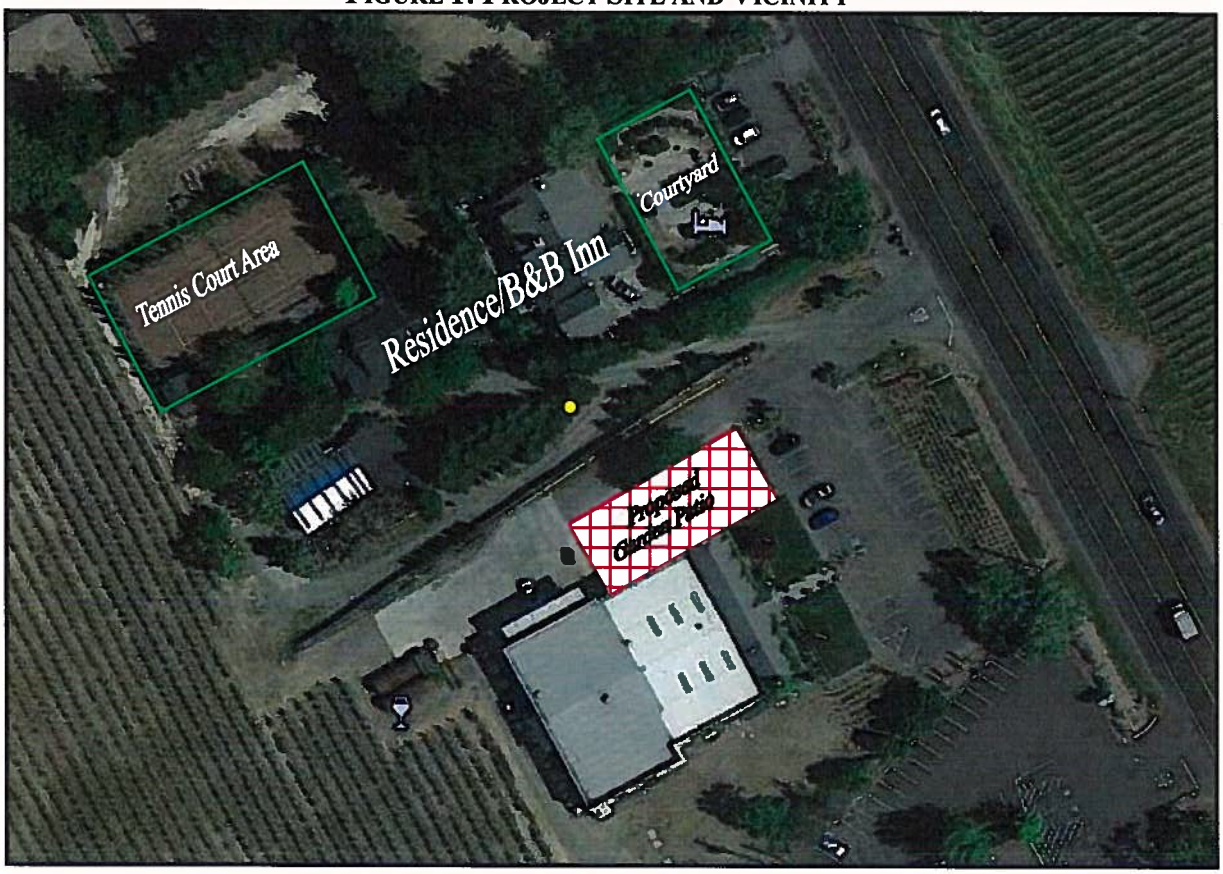
Prepared by:

Fred M. Svinth, INCE, Assoc. AIA
ILLINGWORTH & RODKIN, INC.
Acoustics _ Air Quality
505 Petaluma Boulevard South
Petaluma, CA 94952
(707) 766-7700

INTRODUCTION

This noise assessment evaluates the potential for increased noise as a result of the construction and use of an exterior Garden Patio at the Cosentino Winery in the Yountville area of Napa County at an existing Residence/ Bed & Breakfast Inn north of the Winery. The Garden Patio is proposed for use as an outdoor tasting and small event area, and its use may include low volume music playback. This report includes a summary of applicable County noise regulations, the results of a noise monitoring survey conducted for the project, and an assessment of noise impacts and mitigation measures necessary to meet the applicable County standards at adjacent noise sensitive land uses for the construction and use of the Garden Patio. Persons not familiar with environmental noise analysis are referred to Appendix A for additional discussion.

FIGURE 1: PROJECT SITE AND VICINITY



REGULATORY BACKGROUND

Napa County Noise Ordinance

Sections 8.16.070 and 8.16.080 of the Napa County Noise Ordinance regulates exterior noise levels within the unincorporated area of the county due to operational and construction related noise as follows;

Section 8.16.070: Exterior noise limits

No person shall operate, or cause to be operated, any source of sound at any location within the unincorporated area of the county, or allow the creation of any noise on property owned, leased, occupied or otherwise controlled by such person, which causes the noise level, when measured on any other property, either incorporated or unincorporated, to exceed:

a. The noise standard for that land use as specified in Table 8.16.070 for a cumulative period of more than thirty minutes in any hour [equivalent to the L_{50} noise metric]; or
b. The noise standard plus five dB for a cumulative period of more than fifteen minutes in any hour [equivalent to the L_{25} noise metric]; or
c. The noise standard plus ten dB for a cumulative period of more than five minutes in any hour [equivalent to the L_{08} noise metric]; or
d. The noise standard plus fifteen dB for a cumulative period of more than one minute in any hour [equivalent to the L_{02} noise metric];
e. The noise standard plus twenty dB or the maximum measured ambient level, for any period of time [equivalent to the L_{max} noise metric].

Table 8.16.070: EXTERIOR NOISE LIMITS
(Levels not to be exceeded more than 30 minutes in any hour)

Receiving Land Use Category	Time Period	Noise Level (dBA) Noise Zone Classification		
		Rural	Suburban	Urban
Residential: Single and double	10 p.m. to 7 a.m.	45	45	50
	7 a.m. to 10 p.m.	50	55	60
Residential: multiple and country	10 p.m. to 7 a.m.	45	50	55
	7 a.m. to 10 p.m.	50	55	60
Commercial	10 p.m. to 7 a.m.	60		
	7 a.m. to 10 p.m.	65		
Industrial, including wineries	10 p.m. to 7 a.m.	75		
	7 a.m. to 10 p.m.	45		

If the measured ambient noise level differs from that permissible within any of the first four noise limit categories above (L_{50}, L_{25}, L_{08}, L_{02}), the allowable noise exposure standard shall be the ambient noise level.

The implementation of this last provision of the ordinance is unclear. For this analysis, we have interpreted it to mean that if the ambient noise is above the level of any of the first four noise limit categories, then the limits in these categories should be adjusted up to the higher levels. We have not adjusted the sound levels for a lower ambient, since adjusting for both higher and lower levels would, essentially, negate the need for the established limits.

Another provision is included to correct the allowable noise standard for the character of the sound as follows,

"*In the event the alleged offensive noise, as judged by the noise control officer, contains a steady, audible tone such as a whine, screech or hum, or is a repetitive noise such as hammering or riveting, or contains music or speech, the standard limits set forth in Tables 8.16.060 and 8.16.070 shall be reduced by five dB, but not lower than forty-five.* "

8.16.080.B.2: Construction or Demolition noise prohibited

a. Operating or causing the operation of any tools or equipment used in construction, drilling, repair, alteration or demolition work between the hours of seven p.m. and seven a.m., such that the sound there from creates a noise disturbance across a residential or commercial real property line, except for emergency work of public service utilities or by variance issued by the appropriate authority. This subsection shall not apply to the use of domestic power tools, as specified in subsection (B)(3) of this section.

b. Noise Restrictions at Affected Properties. Where technically and economically feasible, construction activities shall be conducted in such a manner that the maximum noise levels at affected properties will not exceed those listed in the following schedule:

Table 8.16.080: Noise Limits for Construction Activities

Time of Day/Night	Land Use Type		
	Residential	Commercial	Industrial
Daytime: 7 a.m. to 7 p.m.	75 dBA	80 dBA	85 dBA
Evening/Nighttime: 7 p.m. to 7 a.m.	60 dBA	65 dBA	70 dBA

EXISTING NOISE ENVIRONMENT

AMBIENT NOISE LEVELS

The primary source of ambient noise in the project area is traffic on Highway 29 east of the Winery and the constant hum of noise produced by cooling and ventilation equipment used for on-going winery operations.

To evaluate ambient noise levels at the closest noise sensitive land-uses to the project, an ambient noise monitoring survey was conducted between Tuesday April 16th and Wednesday April 17th 2013. A long-term noise measurement was made on the property line shared with the residence/B&B Inn north of the Winery site. The approximate location of this measurement is shown in Figure 1.

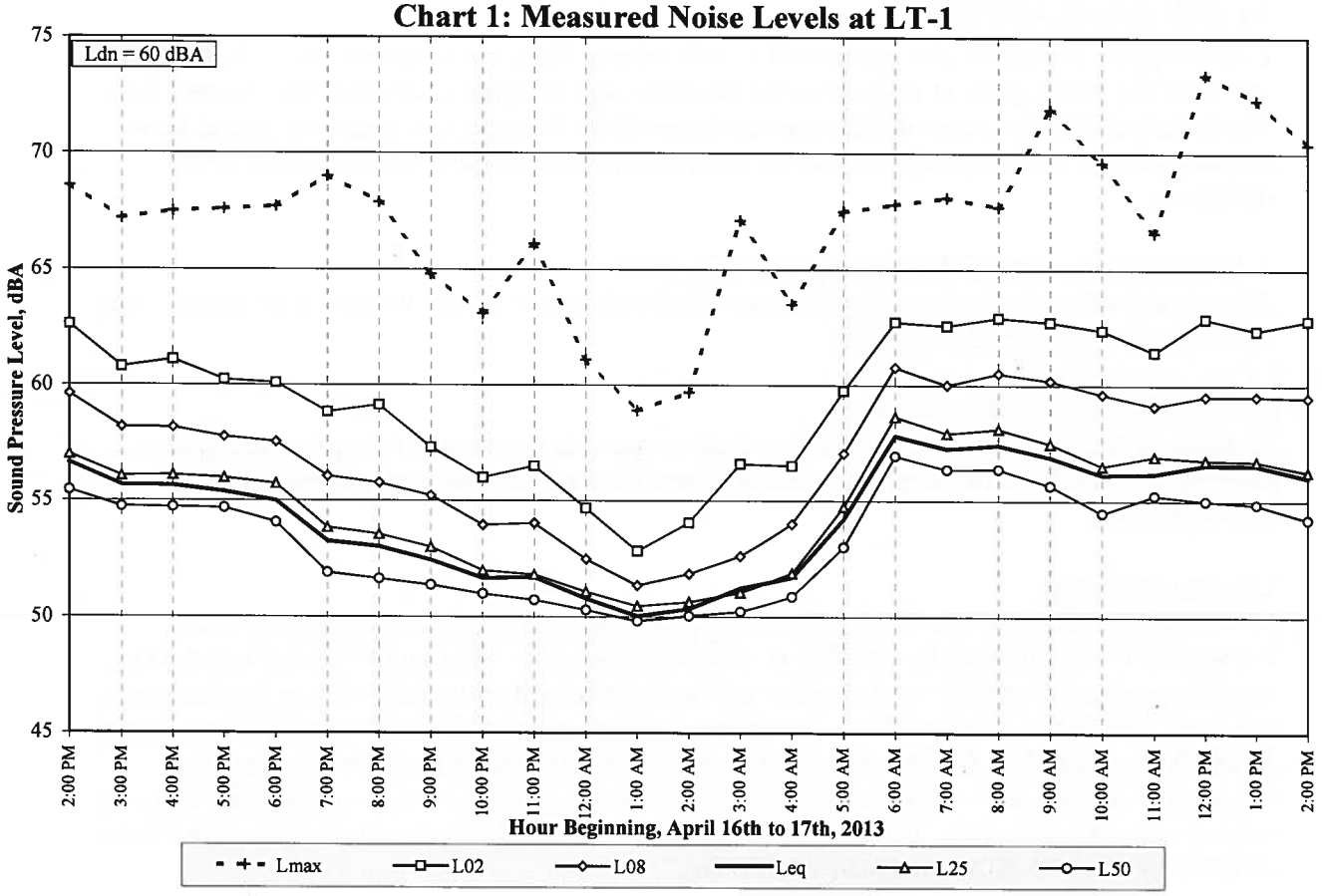
The long-term sound level monitoring position (LT-1) was on the trunk of a redwood tree on the shared property line between the residence/B&B Inn and the Winery, at approximately 210 feet east of the centerline of Hwy 29. This is the approximate setback of the rear of the adjacent home/Inn and of the center of the Garden Patio "Lounge" Area as identified in the project plans (refer to Figure 2). The hourly trend in noise levels at LT-1, including the energy equivalent noise level (L_{eq}) the maximum (L_{max}) noise level, and the statistical noise levels representing the limits set forth in Napa County Noise Ordinance (noise levels exceeded 2, 8, 25 and 50 percent of the time) are shown on Chart 1, following.

A review of Chart 1 indicates that daytime and nighttime average (L_{eq}) noise levels ranged from 52 to 57 dBA and 50 to 58 dBA, respectively, with an average daytime L_{eq} of 56 dBA and an average nighttime L_{eq} of 53 dBA. The day-night average noise level (L_{dn}) measured at this location was 60 dBA. The daytime and nighttime noise descriptors used to interpret the County's Noise Ordinance Standards at LT-1 are shown in Table 1.

Table 1: Measured Noise Levels at Residential Property Line

Hourly Noise Metric	Ave. Daytime Level (Range)	Ave. Nighttime Level (Range)
L_{50} (exceeded < 30 min./hour)	**55 dBA** (51 to 56 dBA)	**52 dBA** (50 to 57 dBA)
L_{25} (exceeded < 15 min./hour)	**56 dBA** (53 to 58 dBA)	**53 dBA** (50 to 59 dBA)
L_{08} (exceeded < 5 min./hour)	**59 dBA** (55 to 61 dBA)	**55 dBA** (51 to 61 dBA)
L_{02} (exceeded < 1 min./hour)	**62 dBA** (57 to 63 dBA)	**58 dBA** (53 to 63 dBA)
L_{max} (maximum per hour)	**69 dBA** (65 to 73 dBA)	**65 dBA** (59 to 68 dBA)

Chart 1: Measured Noise Levels at LT-1



AMBIENT NOISE LEVEL CRITERIA

Based on the measurement results the Noise Ordinance standards for rural residential use have been adjusted to reflect the measured noise levels though the application of the provision of the Noise Ordinance for adjusting the permissible noise levels to match ambient levels and the application of a 5 dB reduction to the permissible noise levels for sounds containing music or speech. The results of this analysis are shown in Table 2.

Table 2: Adjusted County Noise Ordinance Standards at Residential Property Line

Hourly Noise Metric	Daytime Level	Nighttime (10pm to 7am) Level
L_{50} (30 Min.)	**50 dBA**	**47 dBA**
L_{25} (15 Min.)	**51 dBA**	**48 dBA**
L_{08} (5 Min.)	55 dBA	50 dBA
L_{02} (1 Min.)	60 dBA	55 dBA
L_{max}	65 dBA	60 dBA

Notes: 1. **Bolded** entries have been increased to reflect ambient noise levels that are above the base Noise Ordinance limits.

2. Following a comparison measured levels for heightened ambient conditions, all entries have been reduced by 5 dBA to reflect noises consisting primarily of speech or music.

NOISE ASSESSMENT

Estimating the expected noise produced by, and impacts from, the construction of the patio area and activities in the patio at adjacent noise sensitive uses requires three elements; the first is an assessment of what noise producing operations are likely to occur, the second is typical noise source levels for those operations, and the third is to determine the temporal nature of the operations.

I. Identification of Noise Producing operations/uses

The primary noise producing activities associated with winery events would be associated with sound produced at the activity itself.

II. Typical Noise Source Levels

To estimate the noise levels associated with the construction and use of the proposed garden patio some attention must be given to the temporal nature of the construction and operational noise produced.

Construction Noise

Construction of the exterior Garden Patio is expected to primarily involve demolition and excavation work, followed by foundation and finishing work. The demolition and excavation work is expected to employ various noise producing pieces of equipment such as jackhammers, Backhoes, bulldozers, and trenchers. This type of equipment can generate noise maximum noise levels of between 80 to 85 dBA at a distance of 50 feet. Foundation and finishing work is expected to include various pieces of noise generating equipment, such as compactors, concrete mixers, and masonry saws. These types of equipment can generate noise maximum noise levels of between 80 to 90 dBA at a distance of 50 feet.

Operational Noise

Table 3, below, lists typical noise levels expected by small sized events at a distance of 50 feet from the source.

Table 3: Typical Noise Source Levels for Special Events (A-Weighted L_{50} Levels)

Event or Activity[1]	Typical Noise Level @ 50 ft
Low level playback of background music	67 dBA
Raised Conversation	64 dBA

The use of the garden patio is only expected to involve the playback of low volume recorded music and the occasional raised voices of patrons. Based on a review of the typical levels listed in Table 3, sound from such activities is expected to produce respective L_{50} levels of between 64 dBA and 67 dBA at 50 feet.

III. Propagation of sound

The final step in estimating project generated noise levels is assessing the propagation of sound to the sensitive receptors. To do this, it is necessary to assume some rate of sound attenuation between the operations and receiver locations. The most dominant physical effect is due to the spreading out of sound waves with distance. For small fixed area sources, the divergence of the sound waves are typically hemispherical in nature producing a reduction of 6 dB with each doubling of distance. Other effects can modify this fall-off rate such as partial shielding from buildings or topography, atmospheric attenuation of sound, ground absorption, and

meteorological effects. These effects almost always reduce the noise in addition to that due to sound divergence. A review of the topography of the Cosentino Winery site and surroundings shows that the adjacent residential receiver is at about the small elevation as the garden patio, and sound will have a relatively clear non-obstructed path from source to receiver.

The Cosentino Winery is situated such there is a wooden privacy type fence south of the actual residential property line which separates the winery production access drive from an unpaved access road serving the Residence/B&B Inn to the north. Using distance information obtained via Goggle Earth, the centerline of the proposed garden patio will be at respective distances of about 45 feet and 70 feet from the existing fence line and the property line. A garage is located about 13 feet north of the property line and the closest façade of the Residence/B&B Inn is located about 35 feet north of the property line. Identified outdoor use areas at the Residence/B&B Inn include an entry courtyard between the Residence/B&B Inn and Hwy 29 and a tennis court area at the rear of the Residence/B&B Inn. The centerline of the garden patio will be at respective distances of about 125 feet and 180 feet from the entry courtyard and tennis courts.

Using these distances and considering hemispherical divergence of the sound, noise levels referenced above at 50 feet occurring at the proposed garden patio would be reduced as following average levels at the adjacent Residence/B&B Inn;

- 3 dBA at the actual property line,
- 6 dBA at the closest façade of the Residence/B&B Inn,
- 8 dBA at the entry courtyard, and
- 11 dBA at the tennis court area

IMPACT ASSESSMENT

Construction Noise at Adjacent Noise Sensitive Areas

Considering construction noise levels rating from 80 to 90 dBA at 50 feet and the distances and attenuation rates discussed above, construction noise levels at the closest façade of the Residence/B&B Inn could be up to 9 dBA above the 75 dBA construction noise County limit, while construction noise levels at the tennis court and entry courtyard areas could, respectively, be 4 dBA and 7 dBA above the 75 dBA construction noise County limit.

Mitigation

To reduce construction noise levels at the adjacent Residence/B&B Inn during the construction of the proposed exterior Garden Patio we recommend that a 150 foot long 8-foot high construction sound fence be installed at the current position of the wooden privacy type fence at the edge of the winery production access drive as shown in Figure 2. This barrier should be installed without cracks or gaps in the face or large or continuous gaps at the base and have a minimum surface weight of 1.0 lb. per sq. ft. The fence may be built of 3/4" plywood panels or other solid sheet materials with equivalent surface mass, or can be installed using construction blanket type barrier materials secured to the fence and hung off of guy wires. Acceptable construction blanket barriers can be rented or purchased from the Noise Control Corporation[1], SPL Services[2], and Environmental Noise Control[3].

[1] Go to http://www.noisecontrol.com/index.cfm?fuseaction=page&page_id=5009 for more information.
[2] Go to http://www.splservices.com/noisemitigation.htm for more information.
[3] Go to http://www.environmental-noise-control.com/noise_control_construction.php for more information.

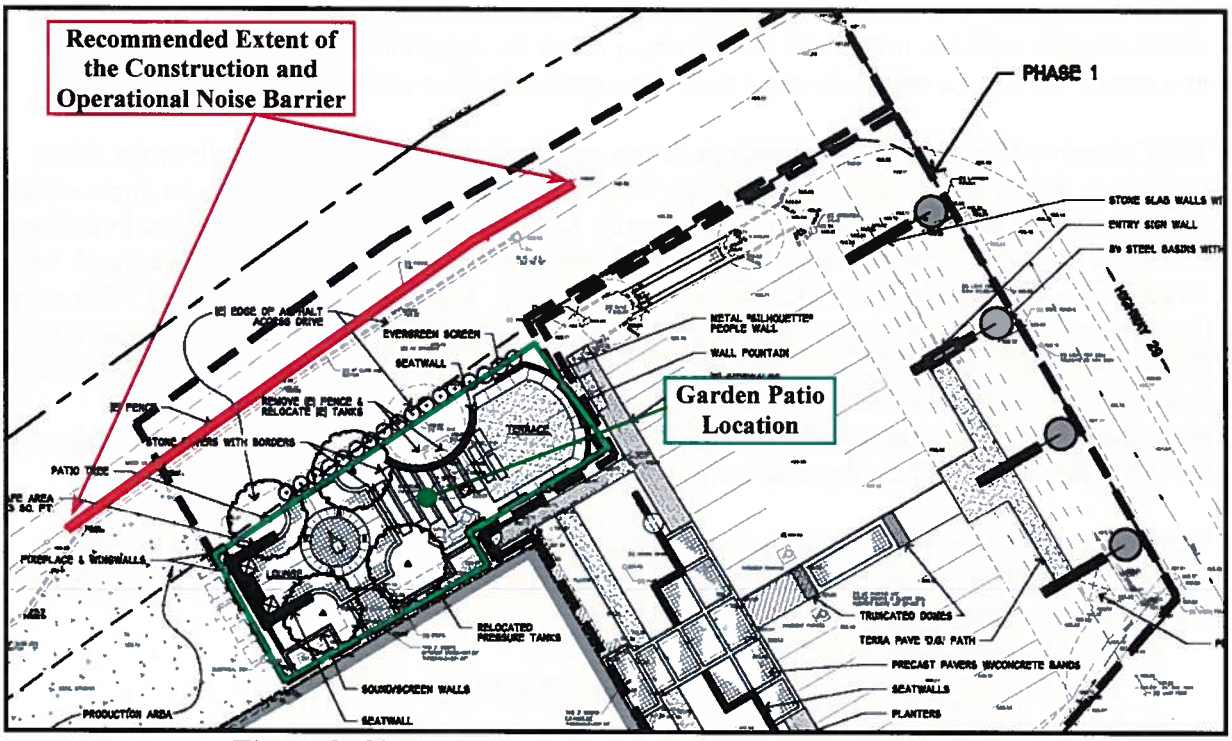


Figure 2: Site Plan with Recommended Barrier Location

Event Noise at Adjacent Residence

Considering event noise levels of 64 to 67 dBA at 50 feet and the distances and attenuation rates discussed above, event noise levels at the closest façade of the Residence/B&B Inn could be up to 11 dBA above the adjusted County Noise Ordinance daytime L_{50} noise limit of 50 dBA, while event noise levels at the tennis court and entry courtyard areas could, respectively, be 6 dBA and 9 dBA above the 50 dBA adjusted County Noise Ordinance daytime L_{50} noise limit.

Mitigation

To reduce noise levels from events in the Garden Patio at the adjacent Residence/B&B Inn, we recommend that 150 feet of the existing wooden privacy fence be rebuilt as a noise barrier wall with a top of wall height of 9 feet above the finish grade of the Garden Patio. A graphic representation of the extent of the existing wooden privacy fence, which will need to be rebuilt, is shown in Figure 2.

To be effective as a noise barrier, the wall should be built without cracks or gaps in the face or large or continuous gaps at the base and have a minimum surface weight of 3.0 lbs. per sq. ft. Acceptable materials for the wall includes, but are not limited to, masonry block and pre-cast concrete panels. Wood may also be used. For a wood wall to meet these requirements we typically recommend that a homogenous sheet material, such as 3/4" plywood, be used as a backing for typical 1" thick (nominal) wood fence slats. Using the plywood ensures the continued effectiveness of the barrier with age, since wood slats alone have a tendency to warp and separate with age allowing gaps to form and the barrier effect of the wall to diminish.

Building this wall prior to the initiation of Garden Patio construction activities would eliminate the need for the construction/installation of the temporary construction noise barrier, discussed under Construction Noise Impacts.

APPENDIX A:
FUNDAMENTAL CONCEPTS OF ENVIRONMENTAL ACOUSTICS

Noise may be defined as unwanted sound. Noise is usually objectionable because it is disturbing or annoying. The objectionable nature of sound may be caused by either 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 that are used to describe noise in a particular location. *A decibel (dB)* is a unit of measurement that 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 or 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 *Day/Night Average Sound Level, Ldn,* is a measure of the cumulative noise exposure in a community, with a 10 dB penalty added to nighttime (10:00 pm - 7:00 am) noise levels.

TERM	DEFINITIONS
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, which is 20 micropascals (20 micronewtons per square meter).
Frequency, Hz	The number of complete pressure fluctuations per second above and below atmospheric pressure.
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. All sound levels in this report are A-weighted, unless reported otherwise.
L_{01}, L_{10}, L_{50}, L_{90}	The A-weighted noise levels that are exceeded 1%, 10%, 50%, and 90% of the time during the measurement period.
Equivalent Noise Level, L_{eq}	The average A-weighted noise level during the measurement period.
Day/Night Noise Level, Ldn	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.
L_{max}, L_{min}	The maximum and minimum A-weighted noise level during the measurement period.
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.

Definitions Of Acoustical Terms | **Table 1**

ILLINGWORTH & RODKIN, INC./Acoustical Engineers

At a Given Distance From Noise Source	A-Weighted Sound Level in Decibels	Noise Environments	Subjective Impression
	140		
Civil Defense Siren (100')	130		
Jet Takeoff (200')	120		Pain Threshold
	110	Rock Music Concert	
Diesel Pile Driver (100')	100		Very Loud
	90	Boiler Room	
Freight Cars (50')		Printing Press Plant	
Pneumatic Drill (50')	80		
Freeway (100')		In Kitchen With Garbage	
Vacuum Cleaner (10')	70	Disposal Running	Moderately Loud
	60	Data Processing Center	
Light Traffic (100')	50	Department Store	
Large Transformer (200')			
	40	Private Business Office	Quiet
Soft Whisper (5')	30	Quiet Bedroom	
	20	Recording Studio	
	10		Threshold of Hearing
	0		

Typical Sound Levels Measured In The Environment And Industry — **Table 2**

ILLINGWORTH & RODKIN, INC./Acoustical Engineer

Effects of Noise

Sleep and Speech Interference: The thresholds for speech interference indoors are about 45 dBA if the noise is steady and above 55 dBA if the noise is fluctuating. Outdoors the thresholds are about 15 dBA higher. Steady noise of sufficient intensity; above 35 dBA, and fluctuating noise levels above about 45 dBA have been shown to affect sleep. Interior residential standards for multi-family dwellings are set by the State of California at 45 dBA Ldn. Typically, the highest steady traffic noise level during the daytime is about equal to the Ldn and nighttime levels are 10 dBA lower. The standard is designed for sleep and speech protection and most jurisdictions apply the same criterion for all residential uses. Typical structural attenuation is 12-17 dBA with open windows. With closed windows in good condition, the noise attenuation factor is around 20 dBA for an older structure and 25 dBA for a newer dwelling. Sleep

and speech interference is therefore possible when exterior noise levels are about 57-62 dBA Ldn with open windows and 65-70 dBA Ldn if the windows are closed. Levels of 55-60 dBA are common along collector streets and secondary arterials, while 65-70 dBA is a typical value for a primary/major arterial. Levels of 75-80 dBA are normal noise levels at the first row of development outside a freeway right-of-way. In order to achieve an acceptable interior noise environment, bedrooms facing secondary roadways need to be able to have their windows closed, those facing major roadways and freeways typically need special glass windows.

Annoyance: Attitude surveys are used for measuring the annoyance felt in a community for noises intruding into homes or affecting outdoor activity areas. In these surveys, it was determined that the causes for annoyance include interference with speech, radio and television, house vibrations, and interference with sleep and rest. The Ldn as a measure of noise has been found to provide a valid correlation of noise level and the percentage of people annoyed. People have been asked to judge the annoyance caused by aircraft noise and ground transportation noise. There continues to be disagreement about the relative annoyance of these different sources. When measuring the percentage of the population highly annoyed, the threshold for ground vehicle noise is about 55 dBA Ldn. At an Ldn of about 60 dBA, approximately 2 percent of the population is highly annoyed. When the Ldn increases to 70 dBA, the percentage of the population highly annoyed increases to about 12 percent of the population. There is, therefore, an increase of about 1 percent per dBA between an Ldn of 60-70 dBA. Between an Ldn of 70-80 dBA, each decibel increase increases by about 2 percent the percentage of the population highly annoyed. People appear to respond more adversely to aircraft noise. When the Ldn is 60 dBA, approximately 10 percent of the population is believed to be highly annoyed. Each decibel increase to 70 dBA adds about 2 percentage points to the number of people highly annoyed. Above 70 dBA, each decibel increase results in about a 3 percent increase in the percentage of the population highly annoyed.