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17 November 2014

Rachel Mansfield-Howlett
Provencher & Flatt LLC
823 Sonoma Avenue
Santa Rosa, CA 95404
Email: rhowlettlaw@gmail.com

Subject: **Walt Ranch EIR, Napa County, CA**
Peer Review
CSA Project: 14-0636

Dear Ms. Mansfield-Howlett:

The residential community at Circle Oaks Drive has asked us to review and comment on the noise and vibration findings of the FEIR for the subject project. This letter summarizes our comments.

1. The report does not address traffic noise impacts.

   A. Page 4.8-11 – *4.8.3-4 Impacts and Mitigation Measures*

   Mitigation measure 4.8-1 does not address the anticipated noise from dump trucks and hauling trucks on Circle Oaks Drive during construction or grape-hauling during project operation.

   Construction

   Transportation and Traffic Section 4.7.3-2 anticipates an additional 38 one way trips to and from the site during the peak AM and PM hours. The anticipated vehicle type of these additional one way trips will be heavy trucks to carry rocks and debris off site. These trucks generate 84 dBA at 50 feet. Several homes along Circle Oaks Drive are within 50 feet of the center line. Truck traffic will be within 40 feet of these homes and may generate noise levels in excess of 86 dBA. Federal and State standards limit noise emissions of trucks to 80 dBA at 50 feet.

   i The anticipated noise from truck traffic exceeds the Federal and State standards.

   ii The calculated increase to noise during the peak AM and PM hours exceeds 10 decibels.

   iii The additional truck traffic will increase to the day-night average sound level (DNL) 13 decibels.

   Operation of Proposed Project

   The report does not address noise from the transportation of grapes from the project through the Circle Oaks residences. During harvest, the main entrance to and from the site is on Circle Oaks Drive. Many homes occur within a 50 foot setback and would be exposed to noise in excess of 80 dB from trucks, which is above the Federal and State standards.

Truck noise is not covered under the agricultural operations exemption. This exemption only applies to noise while on agricultural property. Once trucks leave the agricultural property, all noise ordinance requirements apply.

Conclusion

Without mitigation, truck noise exceeds CEQA threshold of significance based on the following:

i The project related traffic (construction and operations) will expose persons to or generate of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies.

ii The project related traffic (construction and operations) will create a substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project.

Mitigation Measures

Barriers are not practical along the main arterial roadway through the residential community. Many homes are two-story and would overlook barriers of conventional heights. To reduce impacts to less than significant, reroute all truck traffic away from Circle Oaks Drive. The project site has other roadways that can be utilized to access the project.

2. The report does not address noise from alternative methods of rock demolition and removal.

A. Table 4.8-6 on Page 4.8-12 presents an abbreviated table of common construction equipment noise.

This table excludes other noisier equipment such as hoe rams and hydraulic breakers. These pieces of equipment will be used to break up large boulders within 775 foot "no blasting zone". This equipment typically generates noise levels of 90 dBA at 50 feet. The nearest residence to the project site is 30 feet away. At this distance, hammering noise would reach levels of 94 dBA.

Conclusion

Alternative methods of rock demolition and removal (i.e. hoe ram) noise will likely exceed the construction noise limit of 75 dBA and exceed CEQA level of significant impact based on the following:

i The project related excavation and removal of bedrock will expose persons to or generate of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies

Mitigation Measures

The report states that "sound walls will be constructed of materials and at heights sufficient to

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reduce construction noise by 15 dBA." In practice, building noise barriers that provide 15 decibels of noise reduction are impractical; they are too tall to build simply. Other factors such as wind loads and structural integrity would require a significantly engineered wall. For hoe ram operation, the barrier would need to provide at least 19 decibels of noise reduction. The theoretical limit of a barrier is 20 decibels. Most walls seldom provide more than 10 decibels of reduction.

For bedrock removal, use alternate methods of rock demolition within 160 feet of the homes. Handheld jack hammers generate significantly less noise compared to hoe rams. Enclosing a jackhammer in a sound barrier is more feasible than a hoe ram.

3. The report does not address vibration from alternative methods of rock demolition and removal.

   A. Table 4.8-3 on Page 4.8-5 presents an abbreviated table of common construction equipment vibration.

   This table excludes other impact equipment such as hoe rams and hydraulic breakers. These pieces of equipment will be used to break up large boulders within 775 foot "no blasting zone". This equipment typically generates PPV levels of 0.18975 at 100 feet. The nearest residence to the project site is 30 feet away. At this distance vibration levels would reach PPV levels of 1.1 inches per second.

   Conclusion

   Hoe ram vibration will likely exceed the project vibration limit of PPV 0.10 inches per second and exceed CEQA level of significant impact based on the following:

   The project related excavation and removal of bedrock will expose persons to or generation of excessive groundborne vibration or groundborne noise levels

   Mitigation Measures

   For bedrock removal, use alternate methods of rock demolition within 160 feet of the homes. Handheld jack hammers generate significantly less vibration compared to hoe rams. Enclosing a jackhammer in a sound barrier is more feasible than a hoe ram.

4. The report over estimates the effective noise reduction provided by sound barriers.

   A. Page 4.8-12 states "sound walls will be constructed of materials and at heights sufficient to reduce construction noise by 15 dBA."

   Sound barriers reduce noise by increasing the distance sound has to travel to reach the receiver. A sound barrier that breaks line of sight between the source and receive location provides 5 decibels of reduction. Each additional foot of height increases the sound reduction 1 decibel.

   In order to provide 15 decibels of noise reduction at the ground level, the wall must extend at

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least 10 feet above the height of the source. Construction equipment noise typically emanates from the diesel exhaust stack, which is 12 feet above grade. To reduce this noise 15 decibels, the wall must be at least 22 feet tall. For elevated receivers such as second story bedroom windows, the barrier will likely need to increase in height.

Mitigation

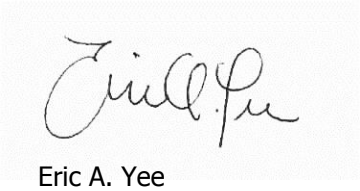
When close to the residential properties (i.e. within 160 feet), we recommend using smaller portable equipment to remove bedrock instead of larger construction equipment. Noise barriers are still required even with smaller equipment to minimize acoustical impacts.

During construction, we recommend implementing a continuous noise monitoring program to measure and regularly report noise levels to prove the project meets all Federal, State, and local noise regulations. The construction team should designate a team member as a liaison to the residences to field concerns, questions, and complaints. Alternatively, noise monitoring may be used in conjunction with real time text and email notification system. Thresholds may be set so that the construction team receives notification of noise levels approaching designated thresholds. Construction plans may be altered in the field to insure the noise requirements are not exceeded.

This concludes our current comments on the subject project. Please contact us if you have any questions.

Sincerely,

Charles M. Salter Associates, Inc.



Eric A. Yee
Principal Consultant

2013-11-17 (11-0480) Venetia Valley Post Construction Test Results

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