

Issue	Less Than Significant or No Impact	Potential Significant Impact Adequately Addressed in MEIR	MEIR Required Additional Review: No Significant Impact	Less Than Significant Impact Due to Mitigation Measures in Project Description	New Additional Significant Impact Not Addressed in MEIR	New Additional Mitigation Measures Required
5.11 Noise. Would the project result in:						
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Exposure of persons to or generation of excessive ground borne vibration or ground borne noise levels?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d) A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within 2 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?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Setting

The major existing noise sources in the vicinity of Neighborhoods I and J area are traffic on Mountain House Parkway and Byron Road. Aircraft overflights are also audible in the project area. The only existing noise-sensitive receptors in the area are scattered homes along Mountain House Parkway and Byron Road. About five to six homes are located along Mountain House Parkway and Byron Road in the immediate vicinity of Mountain House.

To quantify existing noise levels along the Byron Road and Union Pacific Railroad corridor, a 24-hour long measurement was conducted between noon on Wednesday, January 22, and noon on Thursday, January 23, 2004.¹ The Byron Road noise measurement was made at Kelso Road at a distance of 117 feet from the centerline of the near lane of Byron Road. The railroad is used only a few times per year. During the measurement, there was very little traffic on

¹ A noise analysis was completed pursuant to Section 9-1025.9M of the County's Development Title. This study was completed by Illingworth & Rodkin, Inc. for Trimark Communities and dated April 2, 2004.

Kelso Road and no train traffic on the Union Pacific Railroad. Noise levels were dominated by truck and automobile traffic on Byron Road. The measured 24-hour average day/night noise level (L_{dn})² was 72 dB³ at this location.

General aviation aircraft flyovers associated with Byron Airport, which is located to the west in Contra Costa County, are occasionally audible in the area. However, aircraft noise is not significant. The Contra Costa Airport Land Use Compatibility Plan prepared December 13, 2000 shows that the annual average CNEL in the Mountain House community due to Byron Airport activity is less than 55 dB everywhere within the community.

Noise Standards and Regulations

The 1994 MEIR and the Master Plan require that noise levels in primary outdoor use areas in new residential developments, schools, and other noise-sensitive land uses shall not exceed 65 dB. The Master Plan further states that community walls should be no more than 7 feet high whenever possible. Specifically, the Development Title for Mountain House requires the following (San Joaquin County, 1992):

9-1025.9M NOISE

The regulations concerning noise shall be as specified in the development title with the following modifications:

- (a) Standards for Commercial and Industrial Uses. For new commercial uses, industrial uses or utilities, the exterior non-transportation noise level performance standards specified in Table 0-1025.9M shall be applicable.

Noise Level Descriptor	Daytime (7 a.m. to 10 p.m.)	Nighttime (10 p.m. to 7 a.m.)
Hourly Leq	55 dB	50 dB

Notes:

- Stationary noise sources include equipment, utilities, or processes associated with industrial, commercial or public facilities which create a constant or periodic noise in a fixed location.
- Noise-sensitive uses include residential, educational, and hospital uses.

² Day/Night Noise Level, L_{dn} – 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.

³ 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).

- (b) Standards for Residential Uses. New residential development shall not be allowed where noise levels due to stationary noise sources would exceed the exterior noise level standards set forth in Table 9-1025.9M.
- (1) Noise levels from mobile noise sources in primary outdoor use areas of new residential development shall not exceed an L_{dn} of sixty (60) dB unless the project design includes mitigation measures to reduce noise in outdoor activity areas to sixty (60) dB, or as reasonably close to sixty (60) dB as is possible. Where it is not possible to reduce noise in outdoor activity areas to an L_{dn} of sixty (60) dB or less, an exterior noise level of up to, but not exceeding an L_{dn} of sixty-five (65) dB may be allowed by the Review Authority.
 - (2) Exterior noise levels shall not create an interior noise level exceeding forty-five (45) dB.
 - (3) Noise studies for specific residential projects proposed in areas with noise levels from mobile sources above L_{dn} sixty (60) dB shall address how noise levels in outdoor areas could be maintained at or below an L_{dn} of sixty-five (65) dB.
- (c) Standards for Other Specified Uses.
- (1) Noise-sensitive land uses other than residential uses shall not be allowed where noise levels due to stationary noise sources would exceed the exterior noise level standards set forth in Table 1025.9M.
 - (2) On school sites and other noise-sensitive land uses, any outdoor instructional areas or areas which require speech audibility shall be located outside the sixty (60) dB L_{dn} noise contour from mobile sources or shielded from mobile noise in excess of sixty (60) dB L_{dn}.
 - (3) Exterior noise levels shall not create an interior noise level exceeding forty-five (45) dB.
 - (4) Noise studies prepared for noise-sensitive land uses shall address how noise levels in outdoor areas from mobile sources shall be maintained at or below an L_{dn} of sixty (60) dB.
- (d) Noise-Attenuation Measures. In addition to the noise-attenuation measures specified in the development title, the following additional measures shall be applicable:
- (1) Until such time as residential, school or other noise-sensitive development is proposed within one thousand (1,000) feet of the railroad tracks in Mountain House, or until such time as rail use is initiated within the community, noise mitigation shall be limited to a sound wall along the tracks between the proposed transit station and Marina Boulevard.
 - (2) Residential development shall be set back from the centerline of I-205 a sufficient distance to satisfy Master Plan noise policies after the inclusion of sound mitigation improvements such as berms and sound walls.

Significant Impacts Identified in 1994 MEIR

The 1994 MEIR identified significant noise impacts related to the following:

- 1) Compatibility of the proposed uses with the future onsite noise environment;
- 2) Impacts on existing land uses in the area due to project-generated traffic noise increases;
- 3) Impacts on future residences due to agriculturally-generated noise on parcels adjacent to the community of Mountain House; and
- 4) Potential aircraft overflight noise impacts.

Findings Related to Significant Impacts Identified in 1994 MEIR

For all of the potential noise impacts, the Master Plan was amended as recommended in the 1994 MEIR mitigation measures. One exception was that the recommended acceptable outdoor noise level of an L_{dn} of 60 dB was raised to 65 dB to be consistent with the San Joaquin County Noise Element of the General Plan. Also, the original 1994 MEIR recommended mitigation measures to reduce noise from agricultural machinery and helicopters were not adopted.

Discussion Regarding Neighborhoods I and J

- 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?*

The Neighborhood I and J plans include berms and sound walls to mitigate noise levels at or below an L_{dn} of 65 dB in primary outdoor use areas of future residential development as described below.

Byron Road/Union Pacific Railroad

Noise levels along the Byron Road/Union Pacific Railroad corridor are not expected to increase. Future traffic volumes on Byron Road are expected to be 3,800 vehicles per hour during the peak hour. Speeds would be reduced as compared to the existing speed on the road due to stop lights and signage and the overall truck percentage would be slightly lower than it is today. The resulting noise level would be about the same as what exists today, an L_{dn} of 72 dB at a distance of 117 feet from the centerline of the closest lane of Byron Road. The L_{dn} in the yards of the closest proposed homes would be as high as 70 dB without mitigation. The Master Plan includes a 50-foot-wide setback between the railroad right-of-way and the closest proposed homes. A berm would be constructed in this area. The berm would be 8 feet high relative to the rear yards of the closest homes (see Figure 5.11-1). This berm would result in noise levels in the rear yards of the closest homes to Byron Road of less than an L_{dn} of 65 dB in accordance with the Master Plan.

Trains on the Union Pacific Railroad do not currently represent a noise problem. There is only about one train per year on the track and there are no plans for a significant change in the use of the tracks. For the purpose of this impact assessment, it has been assumed that the rail might be used in the future for a commuter-type operation similar to the Ace Train with up to four trains per day. The L_{dn} associated with this activity would be less than 65 dB outside of the closest homes. Therefore, future development on the north side of Byron Road would be consistent with the guidelines of the Master Plan with the incorporation of the proposed noise mitigation measure of an 8-foot-high berm relative to the heights of the yards on the north side of Byron Road.

Future noise levels outside of the closest residential units on the south side of Byron Road would be as high as an L_{dn} of 77 dB. Lots on the south side of Byron Road would be slightly above the Byron Road elevation. A 9-foot-high sound wall relative to the rear yard elevations would be constructed along the property lines of the homes on the south side of Byron Road. This wall would provide for an exterior L_{dn} of 65 dB outside of the closest homes in this area. From the road side, the sound wall would be 9 feet in height due to proposed berming. While higher than the Master Plan-recommended 7 feet, the wall's setback from Byron Road and proposed landscaping would reduce the associated visual impacts of this sound wall.

Farther east along Byron Road, there are one or two homes on the south side of Byron Road (outside project area) that may be impacted by increased traffic. Specific Plan II addresses the fact that noise mitigation for these homes will be addressed at the time of the proposed road widening for Byron Road.

Future Roads

Other future roadways in Neighborhoods I and J, including Great Valley Parkway, would include 7-foot-high sound walls to shield affected outdoor use areas similar to those used in the development of Neighborhoods E, F, and G (see Figure 5.11-1). A sound wall has been found necessary for Neighborhood I in the south end of the residential area near Byron Road (Figure 5.11-2). With the incorporation of these sound walls, no significant impacts would result. Per the Mountain House Master Plan (Section 4.2.7[c]) and Specific Plan II (Section 4.2.5), no community walls are permitted along Central Parkway.

Existing homes on the east side of Mountain House Parkway could be impacted by increased traffic on this main arterial when it is ultimately widened to six and eight lanes. Specific Plan II addresses the fact that mitigation for these existing homes should occur when the MHCS D approves the planned road widening. Mitigation could include stretches of sound walls near the homes, new fencing around outdoor use areas, and/or new ventilation systems in homes to allow windows to be kept closed. Some of these homes have already had sound walls constructed.

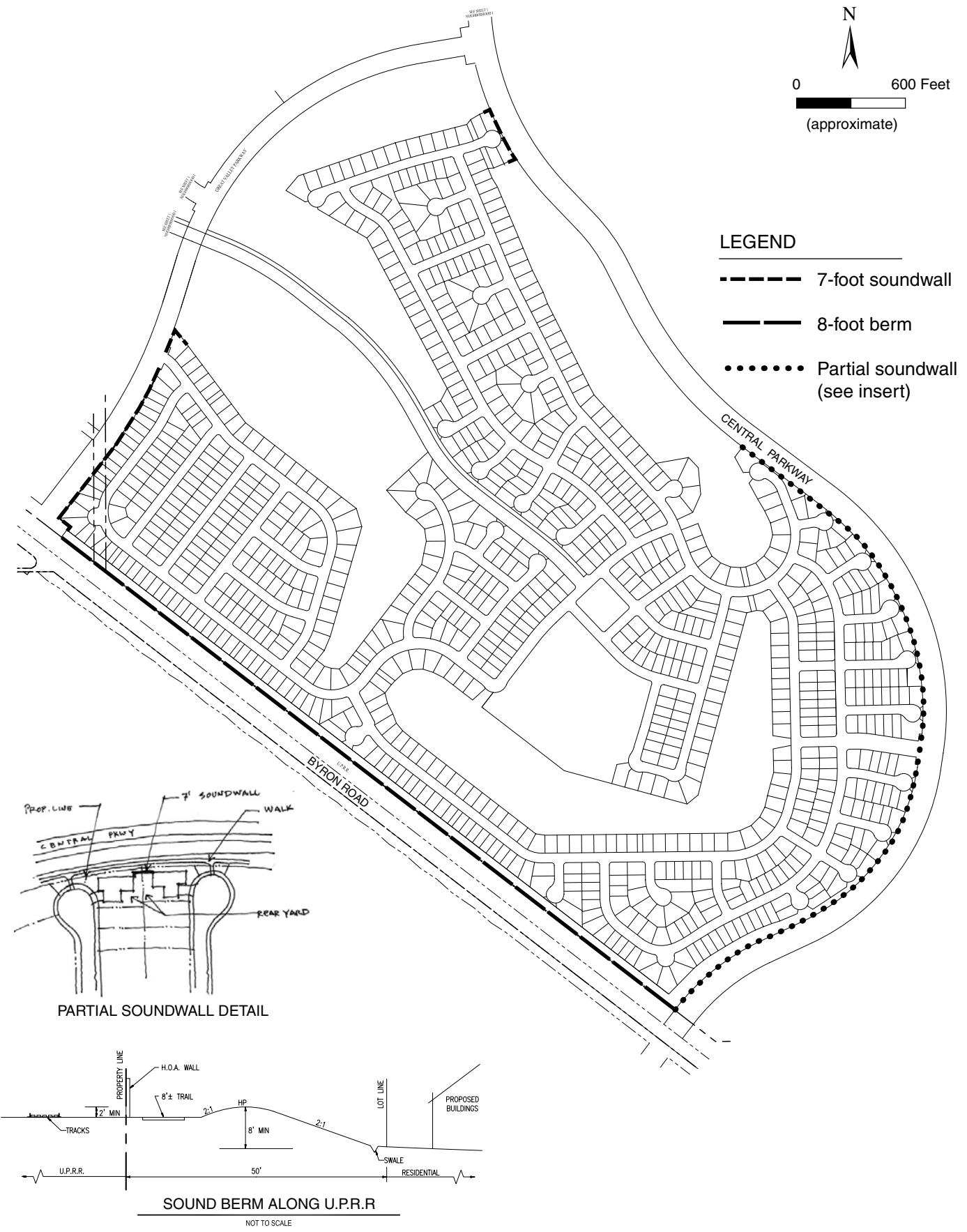


Figure 5.11-1

SOURCE: Carlson, Barbee & Gibson, Inc.; SWA, 2006

SOUNDWALL PLAN FOR NEIGHBORHOOD J



AMY SKEWES-COX
ENVIRONMENTAL PLANNING



Figure 5.11-2

SOUNDWALL PLAN FOR NEIGHBORHOOD I

SOURCE: Carlson, Barbee & Gibson, Inc.

Stationary Noise Sources

One stationary noise source in Neighborhood I includes the water treatment plant at the intersection of Byron Road and Great Valley Parkway. Localized noise impacts could occur around this source depending upon the proximity of other noise sensitive land uses to individual noise sources such as pumps, etc. The Mountain House Master Plan requires that noise from these commercial facilities be controlled to an hourly L_{eq} of 55 dBA in the daytime (7:00 a.m. to 10:00 p.m.) and 50 dBA during the nighttime (10:00 p.m. to 7:00 a.m.). These standards will assure that noise levels are appropriate for adjacent noise-sensitive land uses and no significant impacts would result.

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

The only potential source of ground-borne vibration would be rail traffic on the Union Pacific Railroad. The closest proposed homes would be set back over 100 feet from these tracks.⁴ Measurements along commuter rail corridors have shown that at distances of 100 feet or more, ground vibration levels are insignificant. Thus, no impacts due to ground-borne vibration would be expected.

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

Noise mitigation for existing scattered homes on the east side of Mountain House Parkway and south side of Byron Road is addressed under (a) above and in Sections 11.2.2 and 11.2.6 of Specific Plan II.

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

Temporary increases in noise levels would be associated with construction of buildings and infrastructure. This construction noise would be of most concern along the perimeter of existing neighborhoods. However, construction noise for existing residents would only be of concern for the 10 homes at the north end of Neighborhood I near Old River. No other existing neighborhoods are located in proximity to Neighborhoods I or J. Figure 3-6 shows the separation between existing and proposed homes due to roads and landscaped buffer areas. While occasionally audible, construction noise is not expected to be significant and no additional mitigation measures would be necessary.

Noise mitigation for existing scattered homes on the east side of Mountain House Parkway and south side of Byron Road is addressed under (a) above and in Sections 11.2.2 and 11.2.6 of Specific Plan II.

⁴ The 50-foot setback from the railroad right-of-way is added to the approximately 50-foot distance to the centerline of the tracks (see Figure 5.11-1).

- e) *For a project located within an airport land use plan or, where such a plan has not been adopted, within 2 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?*

The Byron Airport is located several miles to the west of the project area. The Contra Costa County Airport Land Use Compatibility Plan shows that future noise levels due to aircraft overflight noise for worst-case conditions would be less than 50 dB. This noise level is far below the L_{dn} of 65 dB allowed by the Master Plan. The aircraft noise impacts anticipated by the Master Plan EIR were based on information available at that time. Figure 11.1 of the Master Plan, which shows areas of potential noise impacts, is no longer applicable and the noise data contained in the current Contra Costa County Airport Land Use Compatibility Plan should be used. Aircraft noise would not be a significant 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?*

This project is not located near any private airstrip.

Sources of Information

San Joaquin County, 2004, *Final Environmental Impact Report, Mountain House Master Plan*.

San Joaquin County, 1994, *Mountain House New Community Master Plan and Specific Plan I Final Environmental Impact Report*.

San Joaquin County, 1992, San Joaquin County Development Title, adopted July 29, as amended.

