E. NOISE

A noise impact assessment was prepared by Terry A. Hayes Associates in June 2000 which addresses the potential noise impacts of the Proposed Project. This study is attached in full as ***Appendix C*** (under separate cover) and is on file with the Department of City Planning, Environmental Review Section, Room 1500, 221 N. Figueroa St., Los Angeles. Information from this study is incorporated within this section.

Environmental Setting

The project site is located at the southwest corner of Mulholland Drive and the Ventura Freeway (US 101) at the western limit of the City of Los Angeles. In the project vicinity, commercial and residential uses are located in close proximity to each other. The proposed project site is located in a suburban environment. The primary source of noise in the project vicinity is vehicular traffic on the Ventura Freeway and Mulholland Drive.

Noise is generally defined as unwanted sound. The degree to which noise can impact the human environment range from levels that interfere with speech and sleep (annoyance and nuisance) to levels that cause adverse health effects (hearing loss and psychological effects). Human response to noise is subjective and can vary greatly from person to person. Factors that influence individual response include the intensity, frequency, and pattern of noise, the amount of background noise present before the intruding noise, and the nature of work or human activity that is exposed to the noise source.

The basic unit of measurement for sound is the decibel (dB). To better account for human sensitivity to sound, decibels are measured on the "A-weighted scale," abbreviated dBA. On this scale, the range of human hearing extends from approximately 3 to 140 dBA. The smallest perceptible sound level change is about 3 dBA, while a 10 dBA increase is perceived by most people as a doubling of the sound level.

Sound measurements were taken during the late afternoon (3:00 PM to 5:00 PM) on August 24, 1999 at various locations surrounding the project site. These readings were used to establish existing ambient conditions and provide a baseline from which to evaluate construction and operational noise impacts. Since daytime noise levels are typically lower than early morning or late afternoon levels, when traffic volumes are approaching their peaks, construction and operational noise sources result in the greatest impact during these off-peak hours.

The locations of the noise monitoring positions are shown in **Figure 13, Sensitive Receptor Areas**, page 96. These locations consist of representative noise sensitive land uses which included nearby residences and sensitive commercial development. The existing noise levels as recorded are listed on **Table 26, Existing Noise Levels (dBA)**, page 95. As shown, the noise levels ranged between 54.9 and 66.8 dBA (Leq) [1].

TABLE 26
EXISTING NOISE LEVELS (dBA)

Sensitive Receptor	Measurement
R1 - Northeast corner of Calabasas Road and El Canon (Farmers Market)	66.8
R2 - SFR located at the end of El Canon, West of the project area	62.9
R3 - The Park Sorrento Condominium Complex	54.9
R4 - SFRs located Southeast of Mulholland Drive and Valmar Road	60.7
R5 - The multi-family dwellings located East of Mulholland Drive	65.2

Source: Terry A. Hayes Associates

[1] dBA is the abbreviation for A-weighted decibels. The A-weighted decibel scale reflects the normal hearing sensitivity range of the human ear. An increase of 3 dBA is generally considered to be the point at which people can perceive a change in the sound level. Leq is the abbreviation for the equivalent sound level. Leq is a sound energy average of the fluctuating noise levels recorded in a given time period, generally one hour.

FIGURE 13
SENSITIVE RECEPTOR AREAS

Significance Criteria

The criteria for the determination of a significant noise impact is stated in the City of Los Angeles CEQA Thresholds Guide. With regard to construction noise, a significant impact would normally occur if construction activities were to add 5 dBA or more to the current ambient exterior noise level at a sensitive receptor location. A project would normally have a significant impact during the operational phase if the project causes the ambient noise level measured at the property line of affected uses to increase by 3 dBA in CNEL to or within the "normally unacceptable" or "clearly unacceptable" category, or any 5 dBA or greater noise level increase (see **Table 27 Community Compatibility Noise Exposure Chart**, page 97).

TABLE 27
COMMUNITY COMPATIBILITY NOISE EXPOSURE CHART

Land Use	Normally Acceptable	Conditionally Acceptable	Normally Unacceptable	Clearly Unacceptable
Single Family, Duplex, Mobile Homes	50-60	55-70	70-75	above 70
Multi-Family Homes	50-65	60-70	70-75	above 70
Schools, Libraries, Churches, Hospitals, Nursing Homes	50-70	60-70	70-80	above 80
Transient Lodging: Motels, Hotels	50-65	60-70	70-80	above 80
Auditorium, Concert Halls, Amphitheaters	-	50-70	-	above 65
Sports Arena, Outdoor Spectator Sports	-	50-75	-	above 70
Playgrounds, Neighborhood Parks	50-70	-	67-75	above 72
Golf Courses, Riding Stables, Water Recreation, Cemeteries	50-75	-	70-80	above 80
Office Buildings, Business and Professional Commercial	50-70	67-77	above 75	-
Industrial, Agriculture, Manufacturing, Utilities,	50-75	70-80	above 75	-

Source: Office of Noise Control, California Department of Health Services (DHS).

Environmental Impacts

Construction Noise

Construction activities require the use of numerous noise generating types of equipment such as jack hammers, pneumatic impact equipment, saws, and tractors. **Table 28, Outdoor Construction Noise Levels**, page 98 shows the typical noise level associated with each construction phase.

TABLE 28
OUTDOOR CONSTRUCTION NOISE LEVELS

Construction Phase	Noise Level (dBA Leq)	
	At 50 Feet	At 50 Feet with Mufflers
Ground Clearing	84	82
Grading/Excavation	89	86
Foundations	78	77
Structural	85	83
Finishing	89	86

Source: EPA, Noise from Construction Equipment and Operations, Building Equipment and Home Appliances, PB 206717, 1971.

As distance from the construction activity increases, the noise level decreases. Over hard surfaces, the noise generated by a stationary noise source, or "point source," will decrease by approximately six decibels for each doubling of the distance. Therefore, if the maximum anticipated noise level produced by construction activity on the project site is 89 dBA at a reference distance of 50 feet, then at a distance of 100 feet from the source the noise level would be 83 dBA.

To ascertain worst-case noise impacts at sensitive receptor locations, construction noise was modeled by introducing the noise level associated with the finishing phase of a typical development project to the ambient noise level. The noise source was assumed to be active for forty percent (40%) of the eight hour work day, generating a noise level of 89 dBA (Leq) at a reference distance of 50 feet.

The noise level, during the construction period, for each receptor location was calculated by (1) making a distance adjustment to the construction source sound level and (2) logarithmically adding the adjusted construction noise source level to the ambient noise level.[1] Results appear in **Table 29, Worst Case Construction Noise**, page 99.

[1] U.S. Environmental Protection Agency, Information on Levels of Environmental Noise Requisite to Protect Public Health and Welfare with an Adequate Margin of Safety, March 1974.

TABLE 29
WORST CASE CONSTRUCTION NOISE (dBA)

Receptor	Distance [1]	Sound Level [2]	Existing Ambient [3]	New Ambient [4]	Increase	Impact?
R1	75 ft	85.5	66.8	77.9	11.1	Yes
R2	75 ft	85.5	62.9	77.9	15.0	Yes
R3	75 ft	85.5	54.9	77.9	23.0	Yes
R4	100 ft	83.0	60.7	75.4	14.7	Yes
R5	150 ft	79.5	65.2	72.1	6.9	Yes

[1] Distance of noise source from receptor.
[2] Construction noise source's sound level at receptor location, with distance adjustment.
[3] Pre-construction activity ambient sound level at receptor location.
[4] New sound level at receptor location during the construction period, including noise from construction activity.
Source: Terry A. Hayes Associates, See **Appendix C**

As shown on **Table 29**, construction activities are anticipated to add more than 5 dBA to the ambient noise conditions at each of the five sensitive receptor locations and would, therefore, result in a significant impact.

Operational Noise

Operational impacts occur from stationary sources, such as unenclosed generators, HVAC systems, and additional vehicular traffic. For the Proposed Project, the predominate noise source is anticipated to be vehicular traffic. Over a 24-hour period, the Proposed Project is forecasted to generate an additional 2,708 daily vehicle trip ends during a typical weekday. Thus, the greatest impacts are anticipated to occur at sensitive receptor locations near roadways affected by the proposed project. As previously illustrated in **Figure 13, Sensitive Receptor Areas**, page 96, sensitive receptors R2 and R3 are not located adjacent any roadways affected by the Proposed Project and, therefore, are not anticipated to experience any noise impacts related to traffic increases.

As discussed in ***Section IV.M.1, Traffic***, page 123, the project traffic report provides the proposed project's estimated average daily trips (ADT), as well as traffic counts at key intersections for the a.m. and p.m. peak hour. The "existing conditions" counts represent actual traffic counts, while "future without project" and "future with project" counts are estimates. Since vehicular traffic is the predominate noise source within the project area, traffic volumes can be used to estimate the community noise equivalent level (CNEL) at sensitive receptor locations with and without the proposed project.

Table 30, Operational Noise Impacts (dBA), page 100, identifies the future ambient noise levels at the receptors without project traffic and the future noise levels with project traffic.

TABLE 30
OPERATIONAL NOISE IMPACTS

Receptor	CNEL (dBA)		Difference
	Without Project	With Project	
R1	69.1	69.4	0.3
R4	71.9	72.0	0.1
R5	71.2	71.3	0.1

Assumptions:
Vehicular traffic is the predominate noise source.
The p.m. peak hour traffic represents 10% of ADT.
The 24 hour distribution is 75% , 17.5%, and 7.5% for 7 am - 7 pm, 7 - 10 pm, and 10 pm - 7 am, respectively.
The vehicle distribution is 91%, 6.5%, and 2.5% for auto, medium truck, and heavy truck, respectively.

Source: Terry A. Hayes Associates, see **Appendix C**

As **Table 30** shows, future project related noise increases at all three potentially impacted noise monitor locations would range from 0.1 to 0.3 dB, an increase which is not a discernible noise change (increase of 3 decibels or more) at any of the applicable sensitive receptor locations. Therefore, the Proposed Project would not result in a significant impact due to operational noise.

Cumulative Impacts

Construction activities associated with related projects in close proximity to the Proposed Project (Related Project Nos. 11 and 4) would increase short-term noise levels in the project vicinity. However, it is unlikely that the Proposed Project and these related projects would be under construction concurrently.

Since vehicular traffic is the predominate noise source within the project area, traffic counts can be used to estimate the community noise equivalent level (CNEL) at sensitive receptor locations for existing and future traffic conditions. The project traffic report provides existing traffic volumes and forecasted future traffic volumes at key intersections. Since future traffic forecast include traffic from related projects, the cumulative project impact can be evaluated by modeling and comparing noise levels associated with existing and future traffic.

TABLE 31
CUMULATIVE NOISE IMPACTS

Receptor	CNEL (dBA)		Difference
	Existing	Future With Project	
R1	67.7	69.4	1.7
R4	68.4	72.0	3.6
R5	67.3	71.3	4.0

Assumptions:
Vehicular traffic is the predominate noise source.
The p.m. peak hour traffic represents 10% of ADT.
The 24 hour distribution is 75% , 17.5%, and 7.5% for 7 am - 7 pm, 7 - 10 pm, and 10 pm - 7 am, respectively.
The vehicle distribution is 91%, 6.5%, and 2.5% for auto, medium truck, and heavy truck, respectively.
Source: Terry A. Hayes Associates, see **Appendix C**

As shown in **Table 31, Cumulative Noise Impacts**, page 101, a cumulative project noise impact is anticipated to occur at receptors R4 (the single-family residences located southeast Mulholland Drive and Valmar Road) and R5 (the multi-family residences located east of Mulholland Drive). This impact would be significant and unavoidable.

Mitigation Measures

Construction Noise Mitigation Measures:

- Operations shall be performed in the most quiet manner possible through proper planning and the use of noise attenuating devices, so as to avoid high noise levels caused by independent and simultaneous operation of equipment.
- Quieted equipment shall be used in compliance with the applicable provisions of Ordinance No. 156,363.
- The project shall comply with the City of Los Angeles Noise Ordinance Nos. 144,331 and 161,574, and any subsequent ordinances, which prohibit the emission or creation of noise beyond certain levels at adjacent uses, unless technically infeasible.
- Temporary eight-foot-high fencing to serve as noise barriers shall be erected around the noisiest areas of operations, and in the vicinity of haul truck loading and queuing.
- Loading and staging areas shall be kept on-site within the perimeter protected by the temporary noise barrier and away from the noise-sensitive sides of the site.

- All haul trucks shall queue within an enclosed area on-site, whenever practicable. Engines will be shut-off if queuing last three or more minutes.
- Haul truck routes and queuing areas shall avoid residential streets.
- Project contractors shall muffle and shield the intakes and exhausts of construction equipment, shroud and shield impact tools, and use electric-powered, rather than diesel-powered equipment, as feasible.
- Rubber tired equipment shall be used, rather than track equipment, to the maximum extent possible.
- Adjacent residents shall be given regular notification of major construction activities and their duration.
- A sign, legible at a distance of 50 feet, shall be posted on the construction site identifying a telephone number where residents can inquire about the construction process and register complaints.
- Construction hours shall be limited to the hours of 7:00 AM to 6:00 PM, Monday through Saturday.
- To the extent feasible, alternatives to pile driving, such as drilling, shall be used to minimize highly intrusive noise.

Operational Noise Mitigation Measures:

Under the Proposed Project there would be no operational noise impacts. Therefore mitigation measures for operational noise are not required.

Impacts After Mitigation

Short-term construction noise impacts would occur at sensitive receptor locations. Mitigation measures would reduce, but not eliminate, significant construction noise impacts.

Traffic generated during the operation of the Proposed Project would contribute a maximum increase of 0.5 dB to future noise levels. This increase would be undetectable to the average person, and not considered significant. However, this increase would contribute to a cumulative significant increased in ambient noise levels at Receptor Locations 4 and 5.