IV. ENVIRONMENTAL IMPACT ANALYSIS
H. NOISE

The following information summarizes the findings and conclusions of the Noise Impact Analysis prepared by Giroux & Associates, dated May 4, 2001. The entire noise report is included in Appendix G to this Draft EIR.

ENVIORNMENTAL SETTING

Noise Descriptors

Sound is mechanical energy transmitted by pressure waves in a compressible medium such as air. Noise is commonly defined as unwanted sound. Sound is characterized by various parameters that describe the rate of oscillation of sound waves, the distance between successive troughs or crests, the speed of propagation, and the pressure level or energy content of a given sound wave. In particular, the sound pressure level has become the most common descriptor used to characterize the loudness of an ambient sound level. The unit of sound pressure ratioed to an assumed zero sound level is called a decibel (dB).

Because sound or noise can vary in intensity by over one million times within the range of human hearing, a logarithmic loudness scale similar to the Richter Scale is used to keep sound intensity numbers at a convenient and manageable level. Since the human ear is not equally sensitive to all sound frequencies within the entire spectrum, noise levels at maximum human sensitivity (middle A and its higher harmonics) are factored more heavily into sound descriptions in a process called "A-weighting", written as dB(A). Any further reference to decibels in this discussion written as "dB" should be understood to be A-weighted.

Time variations in noise exposure are typically expressed in terms of a steady-state energy level equal to the energy content of the time varying period (called Leq), or, alternately, as a statistical description of the sound level that is exceeded over some fraction of a given observation period. Finally, because community receptors are more sensitive to unwanted noise intrusion during the evening and at night, state law requires that, for planning purposes, an artificial dB increment be added to quiet time noise levels in a 24-hour noise descriptor called the Community Noise Equivalent Level (CNEL). An interior CNEL of 45 dB(A) is mandated for multiple family dwellings in Title 24 of the California Code of Regulations, and is considered a desirable noise exposure for single family dwelling units as well. Since typical noise attenuation within noise-sensitive structures such as homes, schools, medical facilities, etc. is about 15-20 dB, an exterior noise exposure of 60-65 dB CNEL is generally the noise/land use compatibility guideline for new residential dwellings in California.

Noise Standards

The City of Los Angeles has adopted land use/noise compatibility guidelines, as shown in Table IV.H-1 on page 174, which establish a school siting criterion of 65 dB CNEL. This criterion generally applies to outdoor space where reasonable quiet is a prerequisite for outdoor assembly. School uses such as outdoor stages, lunch areas, etc. would be expected to have their noise levels mitigated to 65 dB CNEL or less. Playgrounds or ballfields are somewhat less noise-sensitive because they generate their own noise. However, even such uses are best located in a moderately noise-protected environment.

Possible noise interference with school uses occurs more within classroom interior settings than outdoor settings. There are no national or state standards for acceptable classroom noise environments. The California Education Code requires that schools be adequately shielded from excessive outside noise, but contains no numerical standards. The Los Angeles Unified School District (LAUSD) has established an interior classroom noise standard of 55 dBA LEQ. This standard is consistent with those used in other districts in California. It is therefore considered a reasonable standard to be applied to the Hillcrest West Campus expansion.

For open windows, structural noise reduction is approximately 10 dB. With open windows, exterior levels of 65 dBA LEQ can be accommodated. With closed safety glass windows used in an air conditioned school building, noise reductions of 25 dB are routinely achieved. If a school structure is built to allow for window closure, or is built with fixed-sash windows, exterior levels of up to 80 dBA LEQ would still be acceptable relative to being able to meet the classroom interior standard of 55 dBA LEQ.

Ambient Noise Conditions

In order to characterize the current project site noise environment, on-site noise measurements were recorded on September 8-10, 1999, at the site of the proposed classroom building on the northwest corner of Rinaldi Street and Shoshone Avenue. All noise measurements were recorded on days when Hillcrest school was in session. The monitoring location approximately corresponded to the location of the south building facade facing Rinaldi Street. This monitoring location represents a worst case scenario as it is in close proximity to, and direct line of sight with Rinaldi Street. Rinaldi Street represents the dominant noise source in the project area. Table IV.H-2 on page 175 summarizes the on-site noise measurement results measured at this location.

Table IV.H-1
Los Angeles Land Use Compatibility Guidelines for Exterior Community Noise
(CNEL in dBA)

Land Use	Normally Acceptable[a]	Conditionally Acceptable[b]	Normally Unacceptable[c]	Clearly Unacceptable[d]
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
Auditoriums, 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, Manufacturing, Utilities, Agriculture	50 - 75	70 - 80	above 75	---

[a] *Normally Acceptable: Specified land use is satisfactory, based upon the assumption that any buildings involved are of normal conventional construction without any special noise insulation requirements.*

[b] *Conditionally Acceptable: New construction or development should be undertaken only after a detailed analysis of the noise reduction requirements is made and needed noise insulation features included in the design. Conventional construction, but with closed windows and fresh air supply systems or air conditioning will normally suffice.*

[c] *Normally Unacceptable: New construction or development should generally be discouraged. If new construction or development does proceed, a detailed analysis of the noise reduction requirements must be made and needed noise insulation features included in the design.*

[d] *Clearly Unacceptable: New construction or development should generally not be undertaken.*

Source(s): City of Los Angeles Draft CEQA Thresholds Guide, 1998. Office of Noise Control, California Department of Health Services (DHS).

Based on the range of noise/land use compatibility guidelines shown in Table IV.H-1, above, in the absence of a noise wall or other barrier, the noise exposure for the proposed school building along its southern site perimeter is considered "normally unacceptable" for school uses. The measured CNEL of 68-69 dB is approximately 3-4 dB higher than the 65 dB CNEL level considered "normally acceptable" for a school site. However, the 65 dB CNEL standard applies to any usable outdoor space. There is no outdoor student assembly space proposed between the southern

Table IV.H-2
On-Site Noise Metering Results
(dBA)

Parameter	September 8-9, 1999	September 9-10, 1999
24-hour CNEL	68.0	68.6
Peak hour LEQ	69.2 (7 am–8 am)	69.7(7 am–8 am)
2nd-High hour	67.8 (8 am- 9 am)	67.7 (8 am- 9 am)
Min. 1-hour	51.2 (3 pm- 4 pm)	52.1 (3 pm- 4 pm)
Lmax	84	82
Lmin	38	42

Note: Noise is dominated by traffic and by student activity. Decibels are logarithmic such that the very large changes are needed in student population or traffic volumes to produce any measurable noise changes. An increase in 10 percent in noise generators produces a +0.4 dB noise increase which is undetectable. Traffic volumes and/or student populations have changed by much less than 10 percent since September 1999. The above data, within an imperceptible difference, are therefore considered still applicable to the project site.

Source: Noise Impact Analysis, Hillcrest Christian School, Los Angeles (Granada Hills), California, Giroux & Associates, May4, 2001.

building facade and Rinaldi Street. The proposed play area will be situated at 300 feet from Rinaldi, and will be substantially protected by

the school building itself acting as a noise barrier. Existing noise levels, therefore, do not pose any constraint to site use as proposed.

Existing peak hour exterior noise of 70 dBA LEQ requires 15 dB of attenuation to attain an interior 55 dBA LEQ classroom standard. Meeting this standard will require the ability to close windows facing Rinaldi. The minimum noise reduction with closed windows is 20 dB, or 5 dB more than needed to meet the classroom interior noise standard. With air conditioned classrooms, existing noise constitutes no constraint on achieving acceptable classroom noise levels.

Because of the logarithmic relationship between traffic volumes and noise levels, it would require a three-fold increase in future traffic volumes on Rinaldi Street to consume the 5 dB margin of safety for classroom interior noise exposure. Rinaldi Street is not forecast to ever carry traffic volumes that would adversely affect the interior learning environment in the classrooms of the proposed West Campus education building.

ENVIRONMENTAL IMPACTS

Thresholds of Significance

CEQA Guidelines identify significant impacts as those that cause standards to be exceeded where they are currently met. Project activities that cause a violation of the City of Los Angeles Noise Ordinance would thus be considered to have a significant impact. An impact is also considered significant if it "measurably" worsens an existing unacceptable noise environment. The Noise Ordinance standard would apply to any on-site noise generation.

The term “measurably” is not defined in any guidelines. The accuracy of sound level meters and of sound propagation computer models is no better than +1 dB. This is also the human loudness difference discrimination level under ideal laboratory conditions. Under ambient conditions, most people cannot distinguish a change in the noise environment that differs by less than 3 dB between the pre- and post-project exposure. For the purposes of this analysis, an increase of 3 dB in the ambient traffic noise environment would be considered a significant degradation of noise quality.

Project Impacts

Construction Noise Impacts

Temporary construction noise impacts vary markedly because the noise strength of construction equipment ranges widely as a function of the equipment used and short-term variations are strongly influenced by topographical factors that may somewhat change during the course of the project. Construction noise tends to occur in discrete phases dominated initially by earth-moving sources and later for finish construction. The heavy equipment noise typically ranges up to about 90 dB(A) at 50 feet from the source. Figure IV.H-1 on page 178, summarizes the noise generation for typical construction activities. It is important to note that the noise levels in Figure IV.H-1 tend to be more short-term peaks rather than longer term averages. Hourly noise measurements at construction sites tend to average closer to 80 dB at a 50-foot reference distance rather than the 90 dB short-term maxima.

Point sources of noise emissions are atmospherically attenuated by a factor of 6 dB per doubling of distance. The construction noise exposure as a function of distance from the source is demonstrated in Table IV.H-3 on page 177. As shown in Table IV.H-3, peak equipment noise levels will still exceed 60 dB beyond 1000 feet of the source.

Table IV.H-3
Construction Noise Exposure as a Function of Distance

Distance	Peak Noise (dBA)	Average Noise (dBA)
50 feet	90	80
100 feet	84	74
280 feet	75	65
400 feet	72	62
500 feet	70	60
890 feet	65	55
Source: Noise Impact Analysis, Giroux & Associates, May 2001.		

However, the elevated noise baseline from arterial traffic and the SR-118 Freeway will substantially mask any project activities beyond the campus itself.

When construction occurs in close proximity to any individual home west of the proposed campus addition (within 100 feet), both the average and peak will temporarily exceed the baseline level by a substantial amount. At more average separations of 300-400 feet when the classroom building and play yard are built, the average construction noise level will be near the existing background, but individual peaks will be 10 dB higher. A noise level that is +10 dB above background is perceived to be twice as loud as the background. Except for earthwork along the western campus perimeter, average noise construction activity levels will be reasonably well masked by the above referenced background noise. The individual excursions of twice the background loudness would be considered an adverse, but not an environmentally significant impact.

Construction noise sources are not strictly applicable to a 24-hour community noise standard because they occur only during selected times and the source strength varies sharply with time. Construction activities are also treated separately in various community noise ordinances because they do not represent a chronic, permanent noise source. To abate the potential nuisance from construction noise, especially in very close proximity to any nearby noise-sensitive development, the City of Los Angeles Noise Ordinance (Municipal Code Ordinance No. 144,331) limits the hours of allowable

Figure IV.H-1 Typical Construction Equipment Noise Generation Levels

construction activities and prohibits loud, unnecessary and unusual construction noise within 500 feet of any residential zone. The Ordinance states as follows:

> "Section 112.03 Construction Noise
>
> (a) Between the hours of 9 p.m. and 7 a.m. of the following day, noise due to construction or repair work of any kind upon, or excavation for any building or structure shall be regulated or prohibited as provided by Sec. 41.40 of this code.
>
> (b) After 7 a.m. and prior to 9 p.m. of any day, in any residence zone of the City or within 500 feet thereof, no person shall perform any construction or repair work on any building or structure, or perform any excavation work, which work entails the use of any power driven hoist, scraper or shovel, pneumatic hammer, pile driver or other construction type device in such manner that the noise created thereby is loud, unnecessary and unusual and substantially exceeds the noise customarily and necessarily attendant to the reasonable and efficient performance of such work."

Enforcement of the ordinance provides a reasonable measure of protection for nearby residents in those localized instances where major earthworks occur within the 500 feet ordinance limit zone. Because of enhanced noise sensitivity on weekends, the Municipal Code was further amended in 1990 (Ordinance 166,170) to restrict construction to the hours of 8 a.m. to 6 p.m. on Saturdays if operations occur within 500 feet of an occupied residence. The City Planning Department further restricts construction activities after 6:00 p.m. on weekdays. Unless there are compelling reasons, the City of Los Angeles Planning Department may also restrict heavy equipment construction to Monday through Friday to provide a noise-protected weekend environment. Assuming construction activities are conducted in compliance with City Ordinances, and the mitigation measures prescribed herein, construction noise associated with school expansion will not create a significant impact on the adjacent community.

Due to the proposed two-phased construction plan, students would be relocated to the West Campus site while construction of the proposed education building is in process. Under the proposed construction plan, the students will occupy the northern one-third of the project site while the education building is being constructed. The parking lot will be constructed prior to any student occupancy of the site. Because a majority of the heavy earthwork operations will occur prior to the students occupying the site, the highest construction related noise levels will not pose a risk to students. Nevertheless, students in portable classrooms and on the temporary play area will be exposed to noise levels on the order of 77

Table IV.H-4
Project-Related Traffic Noise Impact Assessment
(CNEL in DBA at 100 feet from centerline)

	Roadway Segment	Pre-Project	Post-Project	Project Impact*
Mayerling Street	West of Shoshone	57.8	57.8	0.0
	Shoshone-Andasol	51.3	51.3	0.0
	East of Andasol	53.1	53.1	0.0
Flanders Street	Shoshone-Andasol	47.8	47.8	0.0
Rinaldi Street	West of Amigo/SR-118 WB Ramps	67.2	67.3	+ 0.1
	Amigo-Reseda	68.9	68.9	0.0
	Reseda-Zelzah	66.8	67.0	+ 0.2
	Zelzah-White Oak	67.1	67.2	+ 0.2
	White Oak-Shoshone	67.5	67.6	+ 0.1
	Shoshone-Encino	67.4	67.6	+ 0.2
	Encino-Andasol	67.2	67.3	+ 0.1
	Andasol-Louise	66.9	67.1	+ 0.2
	Louise-Balboa	66.8	67.2	+ 0.4
	East of Balboa	65.3	65.3	0.0
Amigo Lane	North of Rinaldi	56.3	56.3	0.0
Reseda Boulevard	North of Rinaldi	62.0	62.2	+ 0.2
	Rinaldi-SR-118 EB Ramps	67.3	67.3	0.0
	South of SR-118 EB Ramps	68.8	68.9	+ 0.10
Zelzah Avenue	North of Rinaldi	54.3	54.3	0.0
	South of Rinadi	61.7	61.8	+ 0.1
White Oak Avenue	South of Rinaldi	58.8	58.8	0.0
Shoshone Avenue	North of Mayerling	60.1	60.1	0.0
	Mayerling-Flanders	61.8	61.9	+ 0.1
	Flanders-Rinaldi	62.3	62.4	+ 0.1
Encino Avenue	South of Rinaldi	54.6	54.8	+ 0.2
Andasol Avenue	North of Mayerling	52.8	52.8	0.0
	Mayerling-Flanders	54.7	54.7	0.0
	Flanders-Rinaldi	56.2	56.2	0.0
	South of Rinaldi	46.9	46.9	0.0
Louise Avenue	North of Rinaldi	59.2	59.2	0.0
	South of Rinaldi	60.3	60.3	0.0
Balboa Boulevard	North of Rinaldi	69.9	69.9	0.0
	Rinaldi-SR-118 WB Ramps	69.7	69.8	+ 0.1
	SR-118 WB Ramps-SR-118 EB Ramps	69.8	69.9	+ 0.1
	South of SR-118 EB Ramps	69.4	69.4	+ 0.0

Source: Giroux & Associates, Noise Impact Analysis, May 4, 2001.

dBA to 86 dBA.[1] While, these levels are in excess of the normally acceptable 65 dBA noise level for school sites, noise exposure can be reduced by providing portable classroom trailers equipped with HVAC systems to allow windows to be closed during periods of excessive noise. As stated previously, with closed safety glass windows used in an air conditioned school building, noise reductions of 25 dBA can be achieved. Noise levels can be further attenuated by erecting a solid noise barrier between the active construction site and the school site. Therefore, temporary construction noise impacts upon the students occupying the West Campus prior to project buildout can be reduced to less than significant levels.

Mobile Source Noise Impacts

The project traffic study states that proposed project development adding 400 students under the proposed project would generate an additional 1,400 daily trips to the surrounding roadway system. Project-related traffic will be concentrated at the project site, and then will be dispersed over multiple streets and become progressively diluted farther and farther from the site. Localized noise impacts in the project vicinity were calculated based on the predicted future year 2005 pre- and post-project traffic volumes on each individual link. Roadway noise levels from project traffic were calculated using the Caltrans microcomputer version of the federal highway traffic noise model (FHWA-RD-77-108) consistent with Caltrans roadway noise assessment guidelines.

The traffic noise level increase from an additional 1,400 daily vehicle trips on project vicinity roadways are shown in Table IV.H-4 on page 180. Noise levels will increase by 0.4dB or less above future year (2005) "without project" conditions on all roadways near the campus. As previously noted, any increase in noise levels of +1 dB are imperceptible even in an acoustic laboratory. The threshold of clear human perception is +3 dB. All project-related noise increases are imperceptible even in a laboratory environment, much less under ambient conditions. Off-site traffic noise impacts from project development are therefore considered individually and cumulatively less than significant.

On-Site Activity Noise Impacts

School activity noise from the West Campus could be intrusive into the adjacent residential community west of the site. A nuisance could occur if the source is loud and there are large numbers of participants. When there is a large congregation of people, noise generation is characterized by a "cocktail party" effect where each person talks louder than normal to be heard in order to overcome the rising background noise level.

---

[1] *Based on outdoor construction noise levels for foundations, structural, and finishing activities. EPA, Noise from Construction Equipment and Operations, Building Equipment and Home Appliances, PB 206717, 1971.*

Student recreational activity noise on the existing campus would seem to be a logical model/prototype for the proposed expansion. However, measurements of student recreational noise were not made at the existing school facility east of Shoshone because the noise characteristics of the existing and proposed facilities are completely different. The existing student recreational activity noise does not occur within a large grassy play area as will the proposed West Campus. The students will be spread out over a larger area, and there will be fewer multiple wall reflections (if any at all) at the new West Campus compared to the existing East Campus site. Noise measurements were therefore made at a public school with a large play yard as a prototype for the proposed new facility.This issue was evaluated by monitoring noise levels from a group of recreating children at an existing school and assuming that a similar noise "footprint" would be superimposed upon the project site. Measurements were made during recess at an elementary school with the centroid of the student activity from 150 students located 100 feet from the sound level meter. The results of these measurements are seen in Table IV.H-5 on page 183. As shown in Table IV.H-5, typical noise levels generated by representative outdoor student activity is characterized at 66.8 dBA (Leq), a level which is conditionally acceptable under the City of Los Angeles Land Use Compatibility Guidelines for Exterior Noise Sources. The peak high and low noise levels are characterized at 74.0 (L_{max}) and 58.5 (L_{min}), respectively.

The noise level associated with a 400-student population, if every student was outdoors simultaneously and exuberantly playing on apparatus or ball games, would be expected to be about 4.2 dB higher. However, all 400 students are not expected to be outdoors during recess periods at the same time. Also, the West Campus students will be older students, who typically do not make the level of high pitched noise that elementary students generate when they play on apparatus or ball games during recess periods. Therefore, the reference noise level monitored from 150 elementary students is probably very representative of the noise created by 400 older (middle and high school) students.

The nearest noise-sensitive land uses from concentrated areas of student assembly at the proposed new campus “play area” are 300 feet away. With normal spreading losses, the measured level would dissipate to 57 dB at the nearest home. Traffic noise is in the low 60 dB range at the nearest homes. Student assembly will typically have lower noise levels than background traffic noise. Because the character of recreational activity noise is different from traffic noise, it will be audible at the nearest homes, but at loudness that is slightly less than baseline traffic noise levels.

Table IV.H-5
Student Noise Impact Assessment

Parameter	Noise Levels (dBA)
Lavg (LEQ)	66.8
Lmax	74.0
Lmin	58.5
10% Exceeded	70.0
50% Exceeded	65.5
90% Exceeded	62.0

Source: Noise Impact Analysis, Giroux and Associates, May 4, 2001.

The proposed athletic field will be an open grass field with a surrounding track surface. The use of the proposed athletic field will include generalized student activities during recess, intramural athletic events and practices, and annual graduation events. The project proposes low level bleacher seating along the length of the western end of the athletic field, with a seating capacity of approximately 1,000 people.[2] Activities would occur during and after school hours but would not extend past dusk because no night-time field lighting is proposed. It is not expected that any of the proposed uses, other than special events such as yearly graduation ceremonies, would fill the seating area to full capacity. The normal attendance expected for intramural student sporting events would be on the order of 50 to 75 people. This assumption is based on a review of other private schools located in the Los Angeles area, with similar campuses and intramural sporting programs. Intramural sporting activities would generate similar noise impacts as would occur during the student assembly times at recesses with 200+ students congregating and playing on the field. Representative noise levels for intramural athletic events at similar school setting indicate noise levels would be on the order of 61 dBA, at 50 feet from the edge of the athletic field. A representative noise recording at a private school's girls softball game in Irvine with an attendance of 25 players and 50 spectators revealed noise levels of 60.9 dBA at 50 feet from the edge of the athletic field. Such noise levels are below the 68 – 69 dBA ambient noise levels recorded in the project vicinity. Additionally, noise generated by activities on the athletic field and bleachers would be further reduced by the proposed retaining walls along the west and northern slopes of the west Campus Property. Therefore, noise levels from athletic events would be less than significant.

---

[2] *It is assumed that the bleachers will include roughly 10 rows of seats extending approximately 250 feet along the western side of the athletic field.*

Student assembly noise will be additionally reduced by the retaining wall separating Ridgeway Road from the play area. The wall will partially shield the direct line of sight of student activities closest to Ridgeway Road. This would further deepen the "sound shadow" and would reduce noise levels for nearby residences. Such a barrier would be most effective closest to the school building where students exit the building or congregate near the dining patio. Farther north, the two sets of retaining walls will provide adequate noise protection for any student activities. In addition, direct line-of-sight from the proposed play area to residential uses above the hillside to the west would be precluded, as the western slope is proposed to be heavily landscaped upon completion of the project. As indicated on the proposed Landscape Plan presented in Section IV.C, Biological Resources, approximately 60 trees are proposed to be planted on the slope immediately west of the proposed play area. These trees will further attenuate sound levels for the nearby residences. As such, noise impacts would be further reduced and would be less than significant.

School operations can sometimes entail the use of bells/buzzers, amplified sound (fixed speakers or portable systems), competitive athletic events, playing of musical instruments, etc. Such uses will be employed in a manner consistent with the existing operations on the East Campus. The play area at the West Campus will not be used after dark for competitive events involving any substantial number of spectators, for marching bands, etc., as no field or stadium lighting is proposed. As such, noise impacts upon the surrounding residential neighborhoods would be less than significant.

The new parking lot will accommodate 124 vehicles. The noise associated with access/egress by 124 vehicles will be far below the ambient noise level created by traffic on Rinaldi Street. The average noise level from 124 vehicles per hour moving at slow speed in a parking lot is 51 dB at 50 feet from the drive aisle. If a similar number of drop-off vehicles were added to the mix, the noise would increase to 54 dB. With the ambient traffic noise level close to 65 dB, the parking lot and drop-off traffic would increase ambient noise by less than +0.5 dB. Such an increase is insignificant and generally imperceptible to the human ear. However, parking lots entail single-event noise that could be intrusive at nearby homes. Such activities include door slams, engine start-ups, tire squeal, car alarm "chirps" or accidental theft alarm sirens, blowing of horns, loud radios, students shouting, etc. Noise levels of 75 dB at 50 feet from single events are common in parking lots. With the source-receiver separation to the nearest homes, single event levels exceeding 65 dB are possible under direct line-of-sight conditions. This would exceed the background noise level experienced during quieter traffic noise periods.

As required by the City of Los Angeles Municipal Code, the parking lot noise will be attenuated by a 6-foot added noise barrier (in the form of a solid block wall). This barrier will preclude a direct line-of-sight relationship for any parking lot activities closest to the western site boundary. Noise reduction effectiveness of this barrier will reduce single-event noise by 5-10 dB. Such reduction will create off-site, single- event noise that is below the ambient levels experienced due to background noise. As such,

site design at the parking lot will preclude creation of any potential noise nuisance. Noise impacts from the proposed parking lot would therefore be less than significant.

CUMULATIVE IMPACTS

Implementation of the proposed project in conjunction with the related projects would increase existing ambient noise levels in the project vicinity. These noise levels were calculated using the pre-project and post-project traffic volumes on adjacent roadways. As such, the noise analysis presented above already considers cumulative impacts for mobile noise sources. As shown in Table IV.H-4 on page 180, project-related, as well as cumulative noise level increases, will not significantly affect any project vicinity roadways. Main thoroughfares will experience cumulative noise level increases of 0.3 dB, and residential streets will not experience noise exposure that would cause existing acceptable noise levels to become unacceptable. Therefore, cumulative operational mobile noise impacts would be less than significant.

Construction noise is generally confined to the immediate vicinity of the activity. There would be no substantial noise overlap in construction on the parcel site with other nearby related projects. In addition, the related projects would be subject to the City of Los Angeles Noise Ordinance (Municipal Code Ordinance No. 144,331), which limits the hours of allowable construction activities and prohibits loud, unnecessary and unusual construction noise within 500 feet of any residential zone. Therefore, cumulative noise construction impacts would be less than significant.

MITIGATION MEASURES

Noise impacts from project traffic will be masked by existing noise sources such that off-site traffic noise impacts will be individually insignificant. Cumulatively significant impacts will be masked by existing traffic noise to a less than clearly perceptible level.

Construction noise impacts during campus development will be reduced by limiting hours of operation, location of activities and/ or noise levels of equipment used in construction. Specific measures to implement these objectives include:

1. Construction activities shall comply with the Los Angeles Municipal Code (Section 112.03) and the City of Los Angeles Department of Planning guidelines, which include but are not limited to, the restriction of construction activities after 6:00 p.m. on weekdays and Saturdays and all day on Sundays.
2. Construction equipment should be equipped with properly operating mufflers.

3. Construction staging areas should be located as far away from the nearest noise-sensitive receiver locations as possible.
4. A temporary noise barrier shall be erected between the active construction site and the temporary portable classrooms to be placed on site prior to completion of the final phase. The noise barrier shall consist of a solid barrier of heavy vinyl material or ¾-inch ply-wood positioned to block direct line of site from the active construction area and any area occupied by students.

Site operational noise from school activities could be intrusive at the nearest residences. Suggested noise control features for the proposed West Campus expansion include:

5. Bells/buzzers or other outdoor signalizing devices for class changes shall operate from 7:30 a.m. to 3:30 p.m. only on days when school is in session.
6. Temporary outdoor loudspeakers for limited numbers of special events shall operate only from 8:00 a.m. to 3:30 p.m. and shall not exceed ambient levels at the nearest residences by more than +5 dB.
7. A solid continuous six foot concrete wall shall be provided along the westernmost property line adjacent to the proposed parking lot area. This wall will further enhance the noise reduction effectiveness of the grade separation between the parking lot and any nearby residences.

These measures would allow for "normal" school operations while recognizing and protecting the noise sensitivity of the nearest residential uses.

LEVEL OF SIGNIFICANCE AFTER MITIGATION

With implementation of the mitigation measures listed above, construction noise impacts would be reduced to less than significant levels.

Operational noise levels would be less than significant before mitigation and would be further reduced with implementation of the mitigation measures mentioned above.