G. NOISE

This Section is based upon the Noise Assessment prepared by Mestre Greve Associates, dated January 20, 2003. The report can be found in **Appendix F** of this EIR. Traffic-related noise impacts were assessed utilizing the Project traffic study, generated by Crain & Associates (**Appendix G** of this EIR).

Technical Setting

Noise is often defined as "unwanted sound" because of its potential to disrupt sleep, interfere with speech communication, and damage hearing. Noise is generated from a variety of sources, including interior and exterior sources as well as mobile and stationary sources. Interior noises are generally stationary and include devices and machines such as stereos and televisions. Exterior noise can be both mobile and stationary and is generated by motor vehicles, aircraft operations, construction work, industrial operations, various human activities, and miscellaneous operations such as emergency vehicles and air conditioning units.

Noise Measurement

Sound waves, traveling outward from a source exert a sound pressure (commonly called a "sound level") measured in decibels. The standard for measurement of environmental noise is in A-weighted decibels (dBA), which are logarithmic units of sound energy intensity. The dBA is a decibel corrected for a variation in frequency response of the typical human ear at commonly encountered noise levels. The dBA scale represents the hearing sensitivity of the human ear, where 20 dBA is equivalent to a whisper and 100 dBA is equivalent to a jackhammer. In general, a 3 dB change in noise level is noticeable to the human ear, while lesser dB changes are generally not perceptible.[1]

Because environmental noise levels typically fluctuate over time, different types of noise descriptors are used to account for this variability. These descriptors include the equivalent noise level (Leq) and Ldn, which is the day-night average noise level. Leq is typically summed over a one-hour period. Ldn is a 24-hour noise measurement that accounts for most peoples' greater sensitivity to nighttime noise. When using the Ldn descriptor, noise during the 10:00 PM to 7:00 AM time period is weighted by adding 10 dB(A), thereby accounting for the greater annoyance of nighttime noises.

Community Noise Equivalent Level (CNEL) is the predominant rating scale now in use in California for land use compatibility assessment. The CNEL scale represents a time weighted 24-hour average noise level based on the A-weighted decibel. "Time weighted" refers to the reduction in acceptable noise levels for noise occurring during certain sensitive time periods. The evening time period (7 p.m. to 10 p.m.) reduces the acceptable level of noise by 5 dBA, while nighttime (10 p.m. to 7 a.m.) noises are reduced by 10 dBA. These time periods and reductions reflect people's increased sensitivity to noise during these time periods. A CNEL noise level may be reported as a "CNEL of 60 dBA," "60 dBA CNEL," or simply "60 CNEL."

[1] In community noise assessment, changes in noise levels greater than 3 dB are often identified as significant, while changes less than 1 dB will not be discernible to local residents. In the range of 1 to 3 dB, residents who are very sensitive to noise may perceive a slight change. Note that there is no scientific evidence is available to support the use of 3 dB as the significance threshold. In laboratory testing situations, humans are able to detect noise level changes of slightly less than 1 dB. In a community noise situation, however, noise exposures are over a long time period, and changes in noise levels occur over years, rather than the immediate comparison made in a laboratory situation. Therefore, the level at which changes in community noise levels become discernible is likely to be some value greater than 1 dB, and 3 dB appears to be appropriate for most people.

Another method used to characterize the variations in sound levels over time is the percentage exceedance level, designated as L10, L25, L50, etc. The number notes the percentage of time that the noise level was exceeded during the measurement period. An L0 level occurs once during the measurement period and indicates the highest noise level that would occur at a site. L25 represents the noise level that is exceeded 25 percent of the time while L50 represents the noise level exceeded 50 percent of the time.

Noise Exposure Standards

City of Los Angeles Noise Element

The City of Los Angeles General Plan Noise Element presents "Guidelines for Noise Compatible Land Use" (**Table V.G-1**). These guidelines were developed to characterize the environmental effect of certain noise levels for various land uses. A land use exposed to noise levels that are considered Normally Acceptable indicates that the land use is compatible with the noise environment and no special noise insulation is required. If new construction is exposed to a Conditionally Acceptable noise level, a noise analysis is typically required to determine noise mitigation required to reduce noise levels to a compatible level. Conventional construction will normally suffice with a fresh air supply system or air conditioning to allow windows to be closed to reduce interior noise levels.

Table V.G-1
City of Los Angeles Noise Guidelines

Land Use	Community Noise Exposure, CNEL, dB			
	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
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	--

Table V.G-1 (Cont.)
City of Los Angeles Noise Guidelines

Land Use	Community Noise Exposure, CNEL, dB			
	Normally Acceptable	Conditionally Acceptable	Normally Unacceptable	Clearly Unacceptable
Industrial, Manufacturing, Utilities, Agriculture	50 – 75	70 - 80	above 75	--

Key:

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.

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.

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.

Clearly Unacceptable: New construction or development should generally not be undertaken.

Source: City of Los Angeles.

Noise Element policies establish a 65 CNEL standard for outdoor residential areas and a 45 CNEL standard for indoor residential areas.

City of Los Angeles Municipal Code Building Regulations

Chapter IX – Building Regulations, Article 1 – Buildings, Section 91.1208 – The Sound Transmission Control provisions of the City of Los Angeles Municipal Code (LAMC) establish maximum interior noise levels attributable to exterior sources in habitable rooms of residences to be 45 CNEL. Compliance with this limit must be shown with the greater of existing or future noise levels. Additionally, future noise levels must be predicted for a period of at least 10 years from the time of building permit application.

City of Los Angeles Noise Ordinance

The LAMC - (Chapter XI-Noise Regulation) establishes the noise standards for various noise sources generated on private property affecting neighboring properties. (Parking lot noise sources are not specifically regulated by the Code.) The section of the Code establishing noise standards (Article 6-General Noise) is considered a "nuisance ordinance" and does not contain any specific noise limits. In general, these types of ordinances are difficult to enforce, because they do not define specific noise levels that are considered nuisances. The remainder of the ordinance, however, does set specific restrictions for specific activities. Three of these sections relate to the Project.

Section 112.02 regulates air conditioning, refrigeration, heating pumping and filtering equipment. This equipment cannot cause the noise level on any adjacent occupied property to exceed the ambient noise level by more than 5 dB.

Section 114.03 regulates loading and unloading of vehicles at loading docks. This section requires to the hours between 7:00 a.m. to 10:00j p.m. the following activities: "loading or unloading any vehicle,

the operation of any dollies, carts, forklifts, or other wheeled equipment that causes any impulsive sound, raucous or unnecessary noise within 200 feet of any residential building."

Section 112.03 regulates construction noise. This section designates the hours of the day where construction activities are appropriate and defines the acceptable levels of noise to be generated by these activities. Chapter IV Section 41.40 (Public Welfare) of the City LAMC prohibits construction before 7:00 a.m. or after 9:00 p.m. Monday through Friday, and before 8:00 a.m. or after 6:00 p.m. on Saturday or any national holiday; and at anytime on Sunday.

Existing Conditions

The existing noise environment in the vicinity of the Project site is typical of most urban areas within Southern California, characterized by a relatively high background or "ambient" noise level generated by vehicular traffic on nearby freeways and major thoroughfares, commercial activities, and a variety of other characteristic urban noise elements such as emergency vehicle sirens, barking dogs, car alarms, and loud stereos.

To characterize the existing noise environment at the Proposed Project site, ambient noise measurements were made during a "typical" weekday period on March 13, 2001 between 2:20 p.m. and 3:30 p.m.[2] at four sites. The locations of the noise measurement sites are shown in **Figure V.G-1**. Fifteen-minute measurements were made at each of the measurement sites except Site 2. Site 2 was located near the southeast corner of the existing apartment building, where a large fan was quite audible. Restricted access limited the determination of the exact source of the noise, but it was observed that the source most likely a parking garage exhaust fan within the parking garage for the office building located south of the Project site. Site 1 was located at the front yard of the existing residences located across Tiverton Avenue. Sites 3 and 4 were located along the east side of Glendon Avenue. Site 3 was located near the southern end of the property and Site 4 was near the northern end near Weyburn Avenue. The results of the noise measurements are presented in **Table V.G-2**.

The measurement results are presented in terms of the equivalent noise levels (Leq), maximum (Lmax) noise levels, and minimum (Lmin) noise levels. The Leq represents the average noise level during the measurement period. The Lmax and Lmin noise levels are the maximum and minimum noise levels during the measurement period. In addition, the L50 and L90 percentile noise levels are presented. These represent the noise levels that are exceeded 50 and 90 percent of the time. The L50 is the median noise level and the L90 represents the background noise level.

Table V.G-2
Existing Condition Noise Measurements

Site	Start	Leq	Lmax	L50	L90	Lmin
1	2:28 PM	59	73	57	56	54
2	2:52 PM	65	68	65	65	64
3	3:00 PM	60	73	56	54	52
4	3:18 PM	63	76	61	58	57
Source: Mestre Greve Associates, March 13, 2001.						

[2] The measurements were made with a Brüel & Kjær Modular Precision Sound Level Meter, Type 2236. The systems were calibrated before and after each measurement series with calibration traceable to the National Institute of Standards and Technology. The wind speeds during the time of measurements were light (0 to 5 miles per hour).

Figure V.G-1 Noise Monitoring and Loading Dock Locations

The noise environment in the Project area is primarily determined by the local traffic on Glendon Avenue, Weyburn Avenue and Tiverton Avenue. Activity in the surface parking lot contributes to the noise levels in the Project area. During the measurements, a movie or television production was using the eastern side of the parking lot as a staging area. A diesel generator was slightly audible during the measurements at Site 1. In addition, during this measurement period, there was some audible noise from the loading and unloading of equipment from a truck in the parking lot. This activity did not last long nor did it generate noise levels significantly above the ambient level.

The noise levels around the Project where measurements were taken reflect moderate levels, based on City standards. Sites 3 and 4 were located about 10 feet from the edge of Glendon Avenue. Tiverton experiences less traffic than Glendon resulting in lower noise levels at Site 1 than at Sites 3 and 4. Site 4 experienced slightly higher levels than Site 3 because it was located near Weyburn Avenue. Trucks or buses on the adjacent roadways caused the maximum noise levels at these three sites.

The noise level at Site 2 was determined by the fan noise mentioned previously and by a crow in a nearby tree. The noise generated by the fan was essentially a constant 65 dB. Based on the measurements at Sites 1 and 3, this fan appears to have generated a noise level 5 dB greater than the ambient level, in violation of Section 112.02 of the LAMC.

An estimate of highway noise levels in terms of CNEL was computed for the roadways affected by Project traffic. The Highway Noise Model published by the Federal Highway Administration[3] was utilized. The CALVENO noise emission curves developed by Caltrans were used with the FHWA model. These curves better model the California vehicle mix. The FHWA Model uses traffic volume, vehicle mix, vehicle speed, and roadway geometry to compute the "equivalent noise level." A computer code has been written which computes equivalent noise levels for each of the time periods used in the calculation of CNEL. Weighting these noise levels and summing them results in the CNEL for the traffic projections used. CNEL contours are found by iterating over many distances until the distances to the 60, 65, and 70 CNEL contours are found.

The distances to the existing 60, 65 and 70 CNEL contours for the roadways whose noise levels will be affected by Project traffic are given in **Table V.G-3**. These represent the distance from the centerline of the road to the contour value shown. The CNEL at 100 feet from the roadway centerline is also presented. The values given in Table V.G-2 represent existing noise levels and do not take into account the effect of any existing noise barriers or topography that may affect ambient noise levels.[4]

[3] "FHWA Highway Traffic Noise Prediction Model," FHWA-RD-77-108, December 1978.

[4] Noise levels along all roadways examined in the traffic study, along with traffic volumes, speeds and mixes used in calculating these noise levels can be found in the Appendix D of this EIR.

Table V.G-3
Modeled Existing Roadway Traffic Noise Levels

Roadway Segment	CNEL @ 100'†		Distance To CNEL Contour from Centerline of Roadway (feet)	
			65 CNEL	60 CNEL
Montana Blvd.				
East of Sepulveda	60.5	RW	50	108
West of Veteran	59.7	RW	44	95
Gayley Ave.				
East of Veteran	59.9	RW	46	98
South of Lindbrook	61.9	29	62	135
North of Wilshire	61.8	28	61	132
South of Wilshire	58.6	RW	37	80
Levering				
West of Veteran	55.3	RW	23	49
East of Veteran	52.1	RW	RW	30
Leconte Ave.				
East of Hilgard	53.4	RW	RW	36
Weyburn Ave.				
East of Veteran	60.0	RW	46	100
West of Gayley	59.9	RW	46	98
East of Gayley	57.5	RW	32	68
West of Westwood	56.7	RW	28	61
East of Westwood	55.6	RW	24	51
West of Glendon	55.6	RW	24	51
East of Glendon	55.1	RW	RW	47
West of Tiverton	53.7	RW	RW	38
East of Tiverton	52.4	RW	RW	31
West of Hilgard	54.0	RW	RW	40
East of Hilgard	51.0	RW	RW	25
Kinross Ave				
East of Veteran	55.7	RW	24	52
West of Gayley	55.9	RW	25	54
East of Gayley	55.5	RW	23	50
West of Westwood	55.3	RW	23	49
East of Westwood	54.0	RW	RW	40
West of Glendon	55.6	RW	23	51

Table V.G-3 (Cont.)
Modeled Existing Roadway Traffic Noise Levels

Roadway Segment	CNEL @ 100'†		Distance To CNEL Contour from Centerline of Roadway (feet) 65 CNEL	60 CNEL
Lindbrook Ave				
West of Kinross	59.3	RW	41	89
East of Kinross	61.0	RW	54	117
East of Gayley	57.3	RW	31	66
West of Westwood	56.9	RW	RW	62
East of Westwood	58.3	RW	36	78
West of Hilgard	48.4	RW	RW	RW
East of Hilgard	53.4	RW	RW	36
Wilshire Boulevard				
West of Veteran	67.9	73	157	338
East of Veteran	67.4	67	145	312
West of Gayley	67.1	64	137	295
East of Gayley	66.3	56	122	262
West of Westwood	66.4	58	124	268
Veteran Ave.				
South of Sunset	59.2	RW	41	89
North of Montana	59.8	RW	45	97
South of Montana	58.9	RW	39	85
North of Levering	59.1	RW	40	87
South of Levering	60.1	RW	47	102
North of Weyburn	59.9	RW	46	99
Westwood Blvd.				
South of Weyburn	61.8	RW	61	132
North of Kinross	61.8	RW	61	132
South of Kinross	61.9	RW	62	133
North of Lindbrook	62.0	RW	63	137
South of Lindbrook	62.7	RW	70	151
North of Wilshire	62.6	RW	70	150
South of Wilshire	62.2	RW	65	140
North of Wellworth	62.4	RW	67	144
South of Wellworth	62.9	RW	73	156

Table V.G-3 (Cont.)
Modeled Existing Roadway Traffic Noise Levels

Roadway Segment	CNEL @ 100'†		Distance To CNEL Contour from Centerline of Roadway (feet) 65 CNEL	60 CNEL
Glendon Ave.				
South of Weyburn	54.2	RW	RW	41
North of Kinross	53.3	RW	23	49
South of Kinross	56.5	RW	27	58
North of Wilshire	59.1	RW	41	88
South of Wilshire	56.4	RW	27	57
North of Lindbrook	57.0	RW	29	63
South of Lindbrook	60.0	RW	46	99
Tiverton Ave.				
South of Weyburn	51.5	RW	RW	27
North of Lindbrook	54.3	RW	RW	42
Hilgard Ave.				
South of Sunset	60.4	RW	50	107
North of Wyton	60.6	RW	51	110
South of Wyton	60.9	RW	53	114
North of Leconte	61.6	27	59	128
South of Leconte	59.7	RW	45	96
North of Weyburn	59.5	RW	43	93

(a)- From Roadway Centerline

RW= Contour Falls Within Roadway Right-of-Way

Table V.G-3 shows that Wilshire Boulevard and Westwood Boulevard generate significant amounts noise in the Project area. Noise levels from Gayley Avenue and Hilgard Avenue are considerable. Noise levels along Montana Boulevard, Weyburn Avenue, Kinross Avenue, Lindbrook Avenue, Veteran Avenue, and Glendon Avenue are moderate. Traffic noise levels along Levering Avenue, Le Conte Avenue and Tiverton Avenue are minor.

Thresholds of Significance

The following thresholds are based upon and paraphrased from the LA CEQA Thresholds Guide.

Construction Phase Impact Threshold

For construction related noise, a project would have a significant impact any of the three following conditions are met:

- Construction activities last more than one day generate noise levels that exceed the existing ambient exterior noise levels by 10 dBA or more at a noise sensitive use.

- Construction activities last more than 10 days in a three month period that exceed existing ambient exterior noise levels by 5 dBA or more at a noise sensitive use.
- Construction activities would exceed the ambient noise level by 5 dBA at a noise sensitive use between the hours of 9:00 p.m. and 7:00 a.m. Monday through Friday, before 8:00 a.m. or after 6:00 p.m. on Saturday or anytime on Sunday.

Operational Phase Impact Threshold

Operational Impacts from Traffic Noise

A 3 dBA CNEL noise level increase due to the project along any roadway where the resulting noise level at the property line of the affected use is within the "normally unacceptable" or "clearly unacceptable" in the City of Los Angeles Noise Guidelines presented previously in Table V.G-1 is considered significant. Any increase greater than 5 dBA is considered significant regardless of the resulting noise level.

Operational Impacts to Off-Site Uses Threshold

A 3 dBA CNEL noise level increase due to the activities on the Project site where the resulting noise level at the property line of the affected use is within the "normally unacceptable" or "clearly unacceptable" in the City of Los Angeles Noise Guidelines presented previously in Table V.G-1 is considered significant. Any increase greater than 5 dBA is considered significant regardless of the resulting noise level.

Operational Impacts to On-Site Uses Threshold

Long-term on-site impacts are measured against the noise level limits applied by the City of Los Angeles. The exterior noise standard for residential uses is 65 CNEL. Specifically, this limit applies to outdoor private living areas. For interior uses, the applicable City standard is a 45 CNEL limit for habitable residential rooms. The City has not established a specific interior noise standard for retail uses. Exterior noise standards are not typically applied to commercial areas. Based on the land use compatibility matrix, an appropriate interior noise standard for retail uses is 55 CNEL. These noise levels provide an indication of the compatibility of the residential and commercial uses of the Project with surrounding land uses.

Project Impacts

Potential noise impacts are commonly divided into two groups; temporary and long term. Temporary (short-term) impacts are usually associated with noise generated by construction activities. Long-term impacts are further divided into impacts on surrounding land uses generated by the Proposed Project and those impacts that occur at the Proposed Project site.

Construction Phase Impacts

Construction noise represents a short-term impact on ambient noise levels. Noise generated by construction equipment, including trucks, graders, bulldozers, concrete mixers and portable generators can reach high levels. For the proposed Project, the highest noise generating activities will include demolition of the remaining buildings along Glendon Avenue and excavation of the parking garages. Since the time of the NOP, the 29,400 sq. ft. retail structure has been demolished. Therefore, this analysis only considers the effects of the demolition of the movie theater, Glendon Manor, and the remaining asphalt-paved parking lot on the southeast corner of Weyburn Avenue and Glendon Avenue. Noise generated by machinery associated with various phases of construction (i.e.,

demolition, excavation, grading, erection) will be temporary and intermittent throughout the typical workday (see Section III, Project Description for a description of the construction phase).

Worst-case examples of construction noise at 50 feet are presented in **Figure V.G-2**. The peak noise level for most of the equipment that will be used during the construction is 70 to 95 dBA at a distance of 50 feet. At 200 feet, the peak construction noise levels range from 58 to 83 dBA. At 400 feet, the peak noise levels range from 52 to 77 dBA. It should be emphasized that the noise levels presented in Figure V.G-2 represent worst-case conditions and will be of an infrequent and temporary nature. Typically, noise levels near the site will be less, because the noisiest equipment is not used continuously, and the sound attenuates over distance and is further reduced by intervening structures, trees, etc. Noise measurements made by Mestre Greve Associates for similar projects show that the noise levels generated by commonly used grading equipment (i.e., loaders, graders and trucks) generate noise levels that typically do not exceed the middle of the range shown in Figure V.G-2.

The nearest residences that may be impacted by the Project's construction and demolition noise are located across Tiverton Avenue. These residences are located more than 200 feet from the nearest demolition activities. Noise generated by demolition activities could reach as high as 83 dBA at these residences, with typical maximum noise levels of approximately 70 dBA. Average noise levels during demolition will likely be approximately 65 dBA. Average noise levels during demolition will likely be approximately 5 dBA greater than ambient noise levels in the area.

The residences located across Tiverton are approximately 40 feet from the nearest excavation and grading activities. At this distance, peak noise levels could reach as high as 99 dBA for short periods of time but this would only occur on rare occasions, if at all. Typically, as heavy equipment passes near the homes, noise levels would reach a maximum of approximately 80 dBA. As this equipment travels near the center of the Project site, it would be approximately 500 feet from the homes and generate noise levels of approximately 60 dBA. Average noise levels at the residential areas during construction would likely be between 65 and 70 dBA. This represents less than a 10 dB increase over the current measured ambient noise levels as measured in the tests described above.

Construction and demolition activities would generate substantial noise levels at the residences adjacent to the Project and result in a significant short-term noise impact. Mitigation is discussed below.

Compliance with these restrictions will reduce noise; however, Project construction and demolition activities will still result in a short-term significant noise impact.

Operational Impacts to Off-Site Uses

This section examines noise impacts from the Proposed Project on surrounding land uses. Specifically, this section addresses ambient potential noise increases due to Project traffic as well as other activities on the Project site. Activities that could potentially result in noise impacts are parking lot activities, loading dock activities and mechanical equipment.

Traffic Noise

Table V.G-4 shows traffic noise CNEL level changes on the roadways in the vicinity of the Project where noise levels will be affected by the Project. Column 1 lists the roadway segments. Columns 2 and 3 show the increase in future noise levels over existing levels along the roadways listed. Column

Figure V.G-2 Typical Construction Equipment Noise Levels

2 shows in increase without the Project, and Column 3 shows the increase with the Project. The last column of Table V.G-4 shows in increase in future noise levels due to the Project.

Table V.G-4

Traffic Noise Level CNEL Increases (dB)

Roadway Segment	Future (2005) Increase Over Existing CNEL		Future Increase Due to Project
	No Project	With Project	
Montana Boulevard			
East of Sepulveda	0.4	0.5	0.1
West of Veteran	0.5	0.6	0.1
Gayley Ave.			
East of Veteran	0.4	0.4	0.1
South of Lindbrook	0.5	0.6	0.1
North of Wilshire	0.5	0.6	0.1
South of Wilshire	0.5	0.5	0.1
Levering			
West of Veteran	0.3	0.3	0.1
East of Veteran	0.3	0.4	0.1
Leconte Ave.			
East of Hilgard	0.6	0.8	0.2
Weyburn Ave.			
East of Veteran	0.7	0.8	0.1
West of Gayley	0.6	0.7	0.1
East of Gayley	1.0	1.3	0.3
West of Westwood	1.4	1.7	0.3
East of Westwood	1.4	2.1	0.7
West of Glendon	1.4	2.4	0.9
East of Glendon	1.9	2.9	1.1
West of Tiverton	1.4	2.9	1.6
East of Tiverton	1.5	3.2	1.6
West of Hilgard	1.2	2.0	0.8
East of Hilgard	0.9	1.2	0.3
Kinross Ave.			
East of Veteran	1.0	1.2	0.1
West of Gayley	0.8	0.9	0.1
East of Gayley	0.9	1.1	0.2
West of Westwood	0.6	0.8	0.3
East of Westwood	0.5	1.2	0.7
West of Glendon	0.4	1.3	0.9

Table V.G-4 (Cont.)
Traffic Noise Level CNEL Increases (dB)

Roadway Segment	Future (2005) Increase Over Existing CNEL		Future Increase Due to Project
	No Project	With Project	
Lindbrook Ave			
West of Kinross	0.7	0.9	0.3
East of Kinross	0.6	0.7	0.1
East of Gayley	0.3	0.4	0.1
West of Westwood	0.3	0.4	0.1
East of Westwood	0.7	1.0	0.2
West of Hilgard	1.0	1.5	0.5
East of Hilgard	0.6	0.9	0.3
Wilshire Boulevard			
West of Veteran	0.5	0.6	0.1
East of Veteran	0.5	0.5	0.1
West of Gayley	0.5	0.5	0.1
East of Gayley	0.5	0.6	0.1
West of Westwood	0.5	0.5	0.1
Veteran Ave.			
South of Sunset	0.4	0.4	0.1
North of Montana	0.4	0.4	0.1
South of Montana	0.5	0.6	0.1
North of Levering	0.5	0.6	0.1
South of Levering	0.5	0.5	0.1
North of Weyburn	0.7	0.8	0.1
Westwood Blvd.			
South of Weyburn	0.7	0.8	0.1
North of Kinross	0.6	0.7	0.1
South of Kinross	0.6	0.7	0.1
North of Lindbrook	0.6	0.8	0.1
South of Lindbrook	0.7	0.9	0.2
North of Wilshire	0.7	0.9	0.2
South of Wilshire	0.5	0.6	0.1
North of Wellworth	0.6	0.7	0.1
South of Wellworth	0.6	0.7	0.1
Glendon Ave.			
South of Weyburn	0.8	2.8	2.0
North of Kinross	0.6	2.5	2.0
South of Kinross	0.5	1.5	1.0
North of Lindbrook	0.6	1.5	0.9
South of Lindbrook	0.4	0.9	0.4
North of Wilshire	0.8	1.0	0.3
South of Wilshire	0.5	0.6	0.1

Table V.G-4 (Cont.)
Traffic Noise Level CNEL Increases (dB)

Roadway Segment	Future (2005) Increase Over Existing CNEL		Future Increase Due to Project
	No Project	With Project	
Tiverton Ave.			
South of Weyburn	0.7	1.9	1.2
North of Lindbrook	0.2	0.9	0.7
Hilgard Ave.			
North of Wyton	0.6	0.7	0.1
South of Wyton	0.6	0.7	0.1
North of Leconte	0.6	0.7	0.1
South of Leconte	0.8	1.0	0.2
North of Weyburn	0.8	1.0	0.2

The last column of Table V.G-4 shows that the Project itself will not result in noise level increases greater than 1.5 dB, with most increases less than 0.5 dB. Noise level increases at least 3 dBA are considered significant. Accordingly, the 1.5 dB increase in CNEL traffic noise levels due to the Project will not be perceptible to local residents and is not significant.

The table shows that CNEL traffic noise levels are projected to increase more than 3.0 dB over existing conditions with the Project along only one roadway segment, Weyburn Avenue east of Tiverton. The Project contributes 1.6 dB of this increase. However, **Table V.G-5**, shows that the future with Project noise level along this roadway segment will not exceed 65 CNEL. Thus, there would not be any land use that would be exposed to a noise level categorized as Normally Unacceptable or Clearly Unacceptable in the City of Los Angeles Noise Guidelines as a result of the Project. As previously explained, these noise levels were adopted by the City of Los Angeles to serve as guidelines for determining the significance of noise impacts, and no other information suggests unique circumstances that would render these guidelines inappropriate or inapplicable. Further, other noise level increases do not measurably contribute to cumulative noise impacts. Therefore, available evidence indicates that the Project would not result in significant cumulative off-site noise impacts.

The distances to the future (2006) 60, 65 and 70 CNEL contours for the roadways in the vicinity of the Proposed Project site are given in **Table V.G-5**. These represent the distance from the centerline of the road to the contour value shown. The CNEL at 100 feet from the roadway centerline is also presented. The contours do not take into account the effect of any noise barriers or topography that may affect ambient noise levels, so actual noise levels may be lower. Areas with noise barriers or structures that break the line of sight from a receptor to the roadway will experience lower levels[5].

[5] Direct noise impacts occur along the "line of sight" from the source to the receptor. So it is often easy to conceptually determine whether impacts will occur.

Table V.G-5

Future (2005) With Project Traffic Noise Levels

Roadway Segment	CNEL @ 100' †	Distance To CNEL Contour from Centerline of Roadway (feet)		
		70 CNEL	65 CNEL	60 CNEL
Montana Boulevard				
East of Sepulveda	60.9	RW	54	116
West of Veteran	60.2	RW	48	103
Gayley Avenue				
East of Veteran	60.3	RW	49	105
South of Lindbrook	62.4	31	67	145
North of Wilshire	62.3	31	66	142
South of Wilshire	59.0	RW	40	86
Levering				
West of Veteran	55.6	RW	24	51
East of Veteran	52.4	RW	RW	31
Leconte Ave.				
East of Hilgard	54.0	RW	RW	40
Weyburn Ave.				
East of Veteran	60.6	24	51	110
West of Gayley	60.5	23	50	107
East of Gayley	58.5	RW	37	79
West of Westwood	58.2	RW	35	76
East of Westwood	57.0	RW	29	63
West of Glendon	57.0	RW	29	63
East of Glendon	57.0	RW	29	63
West of Tiverton	55.0	RW	RW	47
East of Tiverton	54.0	RW	RW	40
West of Hilgard	55.2	RW	22	48
East of Hilgard	51.8	RW	RW	28
Kinross Ave.				
East of Gayley	56.4	RW	27	57
West of Westwood	55.9	RW	25	53
East of Westwood	54.5	RW	RW	43
West of Glendon	55.9	RW	25	54
Lindbrook Ave				
West of Kinross	59.9	RW	46	98
East of Kinross	61.6	RW	59	127
East of Gayley	57.6	RW	32	69
West of Westwood	57.2	RW	30	65
East of Westwood	59.0	RW	40	86
West of Hilgard	49.4	RW	RW	RW
East of Hilgard	54.0	RW	RW	40

Table V.G-5 (Cont.)

Future (2005) With Project Traffic Noise Levels

Roadway Segment	CNEL @ 100' †		Distance To CNEL Contour from Centerline of Roadway (feet)		
			70 CNEL	65 CNEL	60 CNEL
Veteran Ave.					
South of Sunset	59.5	RW	43	93	
North of Montana	60.1	RW	47	102	
South of Montana	59.4	RW	42	91	
North of Levering	59.5	RW	43	93	
South of Levering	60.5	RW	50	109	
North of Weyburn	60.6	RW	51	110	
Westwood Blvd.					
South of Weyburn	62.5	RW	68	146	
North of Kinross	62.5	RW	68	146	
South of Kinross	62.5	RW	68	146	
North of Lindbrook	62.7	RW	70	151	
South of Lindbrook	63.4	37	79	169	
North of Wilshire	63.3	RW	77	167	
South of Wilshire	62.7	RW	70	152	
North of Wellworth	62.9	RW	73	157	
South of Wellworth	63.5	37	79	170	
Glendon Ave.					
South of Weyburn	54.9	RW	RW	46	
North of Kinross	55.9	RW	25	54	
South of Kinross	57.0	RW	29	63	
North of Lindbrook	57.7	RW	32	70	
South of Lindbrook	60.4	23	49	106	
North of Wilshire	59.9	RW	46	98	
South of Wilshire	56.9	RW	29	62	
Tiverton Ave.					
South of Weyburn	52.3	RW	RW	31	
North of Lindbrook	54.6	RW	RW	43	
Hilgard Ave.					
South of Sunset	61.0	25	54	117	
North of Wyton	61.2	26	56	120	
South of Wyton	61.5	27	58	126	
North of Leconte	62.2	30	65	141	
South of Leconte	60.6	RW	51	109	
North of Weyburn	60.3	RW	49	105	

† - From Roadway Centerline
RW-Contour Falls Within Roadway Right-of-Way

Table V.G-5 shows that Wilshire Boulevard and Westwood Boulevard will continue to generate significant amounts of noise in the area around the Project. Noise levels from Gayley Avenue and Hilgard Avenue will remain considerable. Noise levels along Montana Boulevard, Weyburn Avenue, Kinross Avenue, Lindbrook Avenue, Veteran Avenue, and Glendon Avenue will remain moderate. Traffic noise levels along Levering Avenue, Le Conte Avenue and Tiverton Avenue will remain minor.

Off-Site Effects of On-Site Project Activity

Sources of on-site noise associated with day to day Project operations will include parking lot activity, garbage collection and delivery dock activity, mechanical equipment, outdoor dining and the commonplace noises of the commercial and domestic environment. As noted above, the City's Noise Ordinance regulates the noisiest of these activities. The Noise Ordinance sets noise level restrictions to limit noise at nearby residences. Note that in the case of the parking lots and delivery docks the Noise Ordinance only applies to vehicles when they are on private property. State Law controls the noise generated by the vehicles – on public roadways and local municipalities are prohibited from establishing their own vehicle noise standards.

Parking Lot Activity

Most of the parking areas will be located underground where they will not impact existing or proposed residential areas. Noise from exhaust fans could impact existing residences as well as proposed residences. This is discussed further below under Mechanical Equipment.

The Proposed Project includes ground level residential guest parking adjacent to Tiverton Avenue. The parking area is included within the building structure and will provide screen walls to limit the off-site transmission of noise. Accordingly, residential guest parking lot activity is not expected to result in a significant noise impact on any adjacent land uses.

Garbage Collection/Disposal

Noise generated by garbage collection/disposal can potentially generate significant noise levels, and is regulated by the LAMC. Section 113.01 prohibits garbage collection within 200 feet of residential areas between the hours of 9:00 p.m. and 6:00 a.m. without a permit. Section 113.01 is designed to prevent the collection of garbage during times that would potentially result in noise disturbances to residences and businesses. All garbage associated with the Project would be collected in compliance with this ordinance, and there is no information suggesting that the times established in the ordinance would not be appropriate as guidelines. Therefore, the Project would not result in a significant noise impact.

Loading Dock Activities

Three loading docks are proposed for the Project. The location of these loading docks is noted in Figure V.G-1 (above). The loading dock along Tiverton Avenue will serve the residential portions of the Project. The loading dock located along Glendon Avenue will serve the retail uses. The loading dock located along the Alley between Glendon Avenue and Westwood Boulevard will serve the residential and the retail uses located between Glendon Avenue and the Alley.

Section 114.03 of the City LAMC Noise prohibits loading or unloading any vehicle between the hours of 10:00 p.m. and 7:00 a.m. when the loading dock is located within 200 feet of any residential building. All of the proposed loading docks are located within 200 feet of existing or proposed residential buildings and will be subject to this restriction.

The primary source of noise from deliveries and loading docks is noise generated by the trucks as they arrive and depart the loading docks. Noise generated by actual loading and unloading activities are generally minor with occasional short duration impulse noises. These impulses are typically not great enough in level and duration to significantly affect long-term average noise levels such as CNEL. Noise levels along Tiverton Avenue are the lowest of the three loading dock locations. Residential uses along Tiverton are located approximately 140 feet from the loading dock. It would take more than 80 daily semi-trailer trucks (or 275 medium 2-axle trucks) to result in the future CNEL levels along Tiverton to increase by more than 3 dB. This is much greater than the level of activity expected for the loading docks. Therefore, operation of the loading docks would not result in a CNEL noise increase greater than 3 dB and not result in a significant noise impact.

Mechanical Equipment

Potential sources of mechanical equipment noise include exhaust fans for the underground parking, HVAC equipment serving the retail portions of the Project and HVAC equipment serving the residential portions of the Project. To determine noise levels generated by HVAC and mechanical equipment, specific information regarding the exact type and location of the equipment is required. This information is not typically finalized until the architectural and mechanical drawings are at a building permit level of completion. However, this equipment will be required to comply with Section 112.02 of the LAMC Noise Regulations. These provisions restrict the equipment to no more than a 5dB increase above the ambient noise environment by more than 5 dB. With proper design, the mechanical equipment required for the Project should be able to comply with this requirement. Appropriate design decisions such as the specific piece of equipment, location, ducting and existence of enclosures or barriers will ensure compliance with this requirement. However, if this requirement is not considered during design, the mechanical equipment could exceed the requisite noise levels. Mitigation will be required to assure that the Project mechanical equipment will comply with Section 112.02 of the LAMC Noise Regulations.

Typical mechanical equipment expected for this Project is not expected to generate noise levels at any of the neighboring properties that would approach or exceed the "Normally Unacceptable" or "Clearly Unacceptable" categories in the City's Noise Guidelines presented in Table V.G-1. Therefore, by complying with Section 112.02 of the municipal code and limiting the maximum increase in ambient noise levels to 5 dB, the operation of the Project's mechanical equipment would not result in a significant noise impact.

Outdoor Dining

Noise generated by the outdoor dining areas of the restaurants would be relatively low level. Sources would include low level music, the sounds of patrons talking and the sounds associated with food service to the patio tables. The outdoor dining areas would all be located on Glendon and/or Weyburn Avenues, away from the existing residences on Tiverton, and a substantial distance form the apartments in the Westwood Horizons building (given set backs, etc.) Further, the noise from outdoor dining will be lower in volume than the traffic noise, and thus would not be a significant adverse noise source.

Operational Impacts to On-Site Uses

The purpose of this section is to examine the noise impacts on the Proposed Project. Traffic noise, as well as noise from on-site activities, have the potential to result in a significant noise impact on the proposed residential uses of the Project. On-site noise generating activities associated with the Project include parking lot activity, delivery dock activity and mechanical equipment. The City's

Noise Ordinance regulates these activities. The Noise Ordinance applies to both existing residences, as well as the residences proposed by the Project. Operational impacts on the proposed residences from noise generating activities are discussed below.

Traffic Noise

Noise generated by traffic on Weyburn Avenue, Glendon Avenue and Tiverton Avenue will impact the Proposed Project. The Los Angeles County Municipal Code interior noise level standard requires that future noise levels be predicted for a year which is at least 10 years from issuance of building permit. The traffic study predicted future traffic volumes for the year 2006. The traffic report indicates a general traffic volume growth rate of 1% per year. Applying this growth rate to the 2006 without Project traffic volumes to determine a 2015 no Project traffic volume, and then adding the Project generated traffic volume (i.e., the difference between the with Project and no Project 2006 traffic volume) provides an appropriate estimate of the 2015 traffic volume.

The distances to the future (2015) 60, 65 and 70 CNEL contours for the roadways adjacent to the Proposed Project site are given in **Table V.G-6**. These represent the distance from the centerline of the road to the contour value shown. The CNEL at 100 feet from the roadway centerline is also presented. The contours do not take into account the effect of any noise barriers or topography that may affect ambient noise levels, so actual noise levels may be lower.

Table V.G-6

Modeled Future (2015) Roadway Traffic Noise Levels

Roadway Segment	CNEL @ 100'[(a)]	Distance To CNEL Contour from Centerline of Roadway (feet)		
		70 CNEL	65 CNEL	60 CNEL
Weyburn Ave.				
East of Glendon	58.4	RW	36	78
West of Tiverton	56.9	RW	29	62
Glendon Ave.				
South of Weyburn	57.2	RW	30	65
North of Kinross	58.2	RW	35	75
Tiverton Ave.				
South of Weyburn	53.8	RW	RW	39
North of Lindbrook	55.6	RW	24	51

[(a)] From Roadway Centerline

RW-Contour Falls Within Roadway Right-of-Way

Table V.G-7 indicates how far the proposed buildings are from the centerline of surrounding roadways and the expected CNEL at the building. The CNEL traffic noise levels at the building faces (for a worst case measurement of impacts at the structure) is presented in the third column of the table. The final two columns present the required outdoor-to-indoor noise reduction required to meet the 45 CNEL residential interior noise standard and the 55 CNEL retail interior noise criteria.

Table V.G-7

Future (2015) Roadway Traffic Noise Levels at Project Buildings and Required Outdoor-to-Indoor Noise Reduction

Roadway Segment	Building Distance From Roadway Centerline	CNEL at Building	Required Outdoor-to-Indoor Noise Reduction To Meet	
			Residential Interior Noise Standard	Retail Interior Noise Criteria
Weyburn Ave.				
East of Glendon	**35**	**65**	**20**	**10**
West of Tiverton	**35**	**64**	**19**	**9**
Glendon Ave.				
South of Weyburn	**33**	**64**	**19**	**9**
North of Kinross	**33**	**65**	**20**	**10**
Tiverton Ave.				
South of Weyburn	**45**	**59**	**14**	**4**
North of Lindbrook	**45**	**61**	**16**	**6**

No residential outdoor living areas are located closer to the roadways than the Project building faces. Therefore, the information presented in Table V.G-6 shows that the outdoor noise levels at the residential areas will not exceed the 65 CNEL noise criteria. Therefore, no mitigation is required to meet the outdoor residential noise criteria.

Table V.G-7 demonstrates that the residential units along Weyburn, Glendon and Tiverton will require between 14 and 20 dB of outdoor-to-indoor noise reduction. Typical residential construction achieves at least 20 dB of outdoor-to-indoor noise reduction with windows closed. Modern construction that meets energy conservation requirements often achieves 24 dB of outdoor-to-indoor noise reduction with windows closed. With windows open, the outdoor-to-indoor noise reduction falls to 12 dB. Therefore, the residences proposed by the Project along Weyburn, Glendon and Tiverton will meet the 45 CNEL interior noise standard only with windows closed. If the windows are closed, adequate ventilation (e.g., fans and/or air conditioning) must be provided. Note that the windows do not need to be sealed shut, but must be closeable at the occupant's discretion. Currently, air conditioning, which would satisfy the ventilation requirements, is included for all residential units of the Project. Adequate ventilation will be required for all residential units along Weyburn, Glendon and Tiverton. This is discussed further under Mitigation Measures.

The retail buildings will require between 4 and 10 dB of outdoor-to-indoor noise reduction to achieve the 55 CNEL noise criteria. This level of noise reduction is achievable even with windows and doors open. Therefore, the interior noise levels at the retail uses will not exceed the 55 CNEL interior noise criteria, and no mitigation is required.

On-Site Effects of Project Activity

On-site noise generating activities associated with the Project include parking lot activity, delivery dock activity and mechanical equipment. These activities are regulated by the City's Noise Ordinance. The Noise Ordinance sets noise level restrictions to limit noise at nearby residences. The Noise Ordinance applies to both existing residences as discussed above as well as the residences proposed by the Project. The potential impacts from noise generating activities on the site on the proposed residences are discussed below.

Parking Lot Activity

Most of the parking areas will be located underground where they will not impact the Proposed Project residential areas. Potentially noise from exhaust fans could affect existing residences as well as proposed residences. This is discussed further below under Mechanical Equipment.

As noted above under offsite impacts, the Proposed Project includes ground level residential guest parking adjacent to Tiverton Avenue as well as retail convenience parking along the alley between Glendon Avenue and Westwood Boulevard. The Project residences will be located directly above these parking areas, and there will be no direct line of sight from the residential areas to the parking areas. This will effectively reduce the noise levels from the residential guest parking area to insignificant levels. Therefore, the Proposed Project is not expected to generate noise impacts from the residential guest parking area.

Loading Dock Activities

Three loading docks are proposed for the Project. The location of these loading docks is noted in Figure V.G-1. The loading dock along Tiverton Avenue will serve the residential portions of the Project. The loading dock located along Glendon Avenue will serve the retail use. The loading dock located along the Alley between Glendon Avenue and Westwood Boulevard will serve the residential and the retail uses located between Glendon Avenue and the Alley.

Section 114.03 of the City LAMC Noise Ordinance prohibits loading or unloading any vehicle between the hours of 10:00 p.m. and 7:00 a.m. when the loading dock is located within 200 feet of any residential building. All of the proposed loading docks are located within 200 feet of existing or proposed residential buildings and will be subject to this restriction.

All three of the loading docks are located directly below the Project residences. There will be no direct line of sight from the proposed residential areas to the loading docks. This design configuration will effectively reduce the daytime noise levels from the loading area to an insignificant level. However, the noise levels generated by loading and unloading could approach significant levels if these activities occurred during nighttime hours. The municipal code prohibits these activates after 10:00 p.m., eliminating these noises during late night hours. The Project will further limit loading and unloading to before 8:00 p.m. Therefore, loading dock activities and truck operations will not result in a significant noise impact on the proposed residences.

Mechanical Equipment

As discussed in the Off-Site Operational Impacts section, noise generated by mechanical equipment is regulated by the LAMC. These regulations must be followed both for existing residences as well as the residences proposed for the Project. These conditions will be achievable with proper design of

the mechanical equipment. Mitigation will be required to assure that the Project mechanical equipment will comply with Section 112.02 of the LAMC Noise Regulations.

Mitigation Measures

Construction Phase Mitigation

Construction and demolition activities would result in a significant noise impact. The following mitigation measures would reduce the impacts to an extent, but noise generated by construction and demolition activities would continue to result in a short-term significant noise impact.

1. The Applicant shall comply with the construction hours as specified by the City LAMC Noise Ordinance, Chapter IV, Section 41.40. LAMC, which prohibits construction before 7:00 a.m. or after 6:00 p.m. Monday through Friday, before 8:00 a.m. or after 6:00 p.m. on Saturday or any national holiday, and at anytime on Sunday.
2. The Applicant shall prepare a construction related traffic plan detailing proposed haul routes and staging areas for the transportation of materials and equipment, with consideration for sensitive uses in the neighborhood. A traffic and parking plan for the construction phase will be submitted for approval by LADOT and the Department of Building and Safety prior to the issuance of any permits.
3. The subterranean excavation shall be surrounded by a plywood barrier wall for security and noise protection. This plywood barrier will have a minimum thickness of 3/4" and have no gaps, cracks or holes.
4. All equipment operating on site shall have properly operating mufflers.
5. Equipment and material staging and siting of cranes, hoists, or other semi-stationary heavy equipment shall be as far from noise-sensitive uses as practical.
6. Electrically powered equipment shall be used instead of internal combustion engine driven equipment, where feasible.
7. No deliveries shall be permitted outside the hours of 7 a.m. to 6 p.m.

Operational Phase Mitigation for Impacts to Off-Site Uses

Although operational phase impacts to off-site uses are not significant, the following mitigation measures clarify Project design features and City Code compliance.

8. Mechanical equipment required for the Project includes parking garage exhaust fans and retail and residential HVAC units shall comply with the noise standard contained in Section 112.02 of the City LAMC Noise Regulations. The Project Applicant shall provide equipment specifications to the Department of Building and Safety demonstrating that the equipment meets the City Noise Regulations.

Operational Phase Mitigation for Impacts to On-Site Residences

Operational phase impacts to proposed on-site residences are not significant, given that a design feature for the Project include mechanical ventilation for the residential structures. The following mitigation measure outlines the Project design feature to assure its implementation.

9. In order to allow windows and doors to remain closed, adequate ventilation per the Uniform Building Code must be provided. Note that windows do not need to be sealed shut, but closeable at the occupant's discretion. Air conditioning, which will satisfy the ventilation requirements, shall be included for all affected residential units. While mechanical ventilation

will be provided in all units, the units requiring it for noise compliance are indicated in **Figure V.G-3**.

Significant Project Impacts After Mitigation

The Proposed Project would result in a significant short-term construction noise impact even after mitigation. The Project would not result in significant unavoidable long-term operational noise impacts. The mitigation measures identified above clarify design features and required City Code compliance.

Cumulative Impacts

Construction Phase Cumulative Impacts

Of the projects noted in the related projects table (Chapter IV, Table IV-1), none are close to the Project, or on a similar schedule to create a cumulative construction noise impact. It is very unlikely that trucks hauling materials from the Project combined with other projects would result in traffic CNEL increases greater than 3 dB. For example, it would take 400 trucks along a small roadway with a ADT of 5,000 to result in a 3 dB noise level increase. Therefore, no significant cumulative noise impact is anticipated.

Operational Phase Cumulative Impacts

The noise analysis contained in this section includes cumulative future conditions. No additional cumulative analysis is required. Significant impacts before mitigation occur only to the Project from surrounding streets. The Project's contribution to area noise levels is below the thresholds established in the City of Los Angeles noise requirements. With adherence to City requirements, the Project does not significantly contribute to cumulative noise impacts in the area.

Figure V.G-3 Residential Units Requiring Mechanical Ventilation