

5. Environmental Analysis

5.8 NOISE

This section of the Draft Supplemental Environmental Impact Report (SEIR) evaluates potential noise impacts in areas proposed for land use changes under the Newport Beach General Plan LUE Amendment. It also discusses the fundamentals of sound; examines federal, state, and local noise guidelines, policies, and standards; and assesses whether General Plan policies adequately address project noise impacts related to the proposed project. Calculation worksheets and model outputs are included in Appendix G to this Draft SEIR.

5.8.1 Environmental Setting

5.8.1.1 NOISE DESCRIPTORS

Noise is most often defined as unwanted sound. Although sound can be easily measured, the perception of noise and the physical response to sound complicate the analysis of its impact on people. People judge the relative magnitude of sound sensation in subjective terms such as “noisiness” or “loudness.”

The following are brief definitions of terminology used in this chapter:

- **Sound.** A disturbance created by a vibrating object, which, when transmitted by pressure waves through a medium such as air, is capable of being detected by a receiving mechanism, such as the human ear or a microphone.
- **Noise.** Sound that is loud, unpleasant, unexpected, or otherwise undesirable.
- **Decibel (dB).** A unitless measure of sound on a logarithmic scale.
- **A-Weighted Decibel (dBA).** An overall frequency-weighted sound level in decibels that approximates the frequency response of the human ear.
- **Equivalent Continuous Noise Level (L_{eq}).** The mean of the noise level, energy-averaged over the measurement period.
- **Day-Night Level (L_{dn}).** The energy-average of the A-weighted sound levels occurring during a 24-hour period, with 10 dB added to sound levels from 10:00 PM to 7:00 AM.
- **Community Noise Equivalent Level (CNEL).** The energy-average of the A-weighted sound levels occurring during a 24-hour period with 5 dB added to the levels from 7:00 PM to 10:00 PM, and 10 dB added to the sound levels from 10:00 PM to 7:00 AM.

5.8.1.2 CHARACTERISTICS OF SOUND

When an object vibrates, it radiates part of its energy as acoustical pressure in the form of a sound wave. Sound can be described in terms of amplitude (loudness), frequency (pitch), or duration (time). The human hearing system is not equally sensitive to sound at all frequencies. Therefore, to approximate the human,

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frequency-dependent response, the A-weighted filter system is used to adjust measured sound levels. The normal range of human hearing extends from approximately 0 dBA (the threshold of detection) to 140 dBA (the threshold of pain).

Unlike linear units such as inches or pounds, decibels are measured on a logarithmic scale. Because of the physical characteristics of noise transmission and perception, the relative loudness of sound does not closely match the actual amounts of sound energy. Table 5.8-1, *Change in Apparent Loudness*, presents the subjective effect of changes in sound pressure levels.

Table 5.8-1 Change in Apparent Loudness

± 3 dB	Threshold of human perceptibility
± 5 dB	Clearly noticeable change in noise level
± 10 dB	Half or twice as loud
± 20 dB	Much quieter or louder

Source: Bies and Hansen 1988.

Sound is generated from a source and the decibel level decreases as the distance from that source increases. Sound dissipates exponentially with distance from the noise source. This phenomenon is known as spreading loss or distance attenuation.

When sound is measured for distinct time intervals, the statistical distribution of the overall sound level during that period can be obtained. For example, L_{50} is the noise level that is exceeded 50 percent of the time: half the time the noise exceeds this level and half the time it is less than this level. This is also the level that is exceeded 30 minutes in an hour. Similarly, the L_{02} , L_{08} , and L_{25} values are exceeded 2, 8, and 25 percent of the time or 1, 5, and 15 minutes per hour. The energy-equivalent sound level (L_{eq}) is the most common parameter associated with community noise measurements. The L_{eq} metric is a single-number noise descriptor of the energy-average sound level over a given period of time. Other values typically noted during a noise survey are the L_{min} and L_{max} . These values are the minimum and maximum root-mean-square (RMS) noise levels obtained over the stated measurement period.

Because community receptors are more sensitive to unwanted noise intrusion during the evening and nighttime hours, state law requires that, for planning purposes and to account for this increased receptiveness of noise, an artificial decibel increment is to be added to quiet-time noise levels to calculate the 24-hour CNEL noise metric.

5.8.1.3 PSYCHOLOGICAL AND PHYSIOLOGICAL EFFECTS OF NOISE

Physical damage to human hearing begins at prolonged exposure to noise levels higher than 85 dBA. Exposure to high noise levels affects the entire system, with prolonged noise exposure in excess of 75 dBA increasing body tensions, thereby affecting blood pressure and functions of the heart and the nervous system. Extended periods of noise exposure above 90 dBA would result in permanent cell damage, which is the main driver for employee hearing protection regulations in the workplace. For community environments, the ambient or background noise problem is widespread, through generally worse in urban areas than in outlying,

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less-developed areas. Elevated ambient noise levels can result in noise interference (e.g., speech interruption/masking, sleep disturbance, disturbance of concentration) and cause annoyance. Since most people do not routinely work with decibels or A-weighted sound levels, it is often difficult to appreciate what a given sound pressure level (SPL) number means. To help relate noise level values to common experience, Table 5.8-2 shows typical noise levels from noise sources.

Table 5.8-2 Typical Noise Levels

Common Outdoor Activities	Noise Level (dBA)	Common Indoor Activities
	110	Rock Band
Jet Flyover at 1,000 feet	100	
Gas Lawn Mower at three feet	90	
Diesel Truck at 50 feet, at 50 mph	80	Food Blender at 3 feet Garbage Disposal at 3 feet
Noisy Urban Area, Daytime	70	Vacuum Cleaner at 10 feet Normal speech at 3 feet
Commercial Area Heavy Traffic at 300 feet	60	
Quiet Urban Daytime	50	Large Business Office Dishwasher Next Room
Quiet Urban Nighttime Quiet Suburban Nighttime	40	Theater, Large Conference Room (background)
Quiet Rural Nighttime	30	Library Bedroom at Night, Concert Hall (background)
	20	
	10	Broadcast/Recording Studio
Lowest Threshold of Human Hearing	0	Lowest Threshold of Human Hearing

Source: Caltrans 2009.

5.8.1.4 VIBRATION FUNDAMENTALS

Vibration is an oscillatory motion through a solid medium in which the motion's amplitude can be described in terms of displacement, velocity, or acceleration. Vibration is normally associated with activities such as railroads or vibration-intensive stationary sources, but can also be associated with construction equipment such as jackhammers, pile drivers, and hydraulic hammers. Vibration displacement is the distance that a point on a surface moves away from its original static position. The instantaneous speed that a point on a surface moves is the velocity, and the rate of change of the speed is the acceleration. Each of these descriptors can

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be used to correlate vibration to human response, building damage, and acceptable equipment vibration levels. During construction activities, the operation of construction equipment can cause groundborne vibration. During the operational phase of a project, receptors may be subject to levels of vibration that can cause annoyance due to noise generated from vibration of a structure or items within a structure. These types of vibration are best measured and described in terms of velocity and acceleration.

Vibration amplitudes are usually described in terms of either the peak particle velocity (PPV) or the root mean square (RMS) velocity. PPV is the maximum instantaneous peak of the vibration signal and RMS is the square root of the average of the squared amplitude of the signal. PPV is more appropriate for evaluating potential building damage, whereas RMS is typically more suitable for evaluating human response.

The units for PPV and RMS velocity are normally inches per second (in/sec). Often, vibration is presented and discussed in dB units in order to compress the range of numbers required to describe the vibration. In this study, all PPV and RMS velocity levels are in in/sec and all vibration levels are in dB relative to one microinch per second (abbreviated as VdB). Typically, groundborne vibration generated by human activities attenuates rapidly with distance from the source of the vibration. Even the more persistent Rayleigh waves decrease relatively quickly as they move away from the source of the vibration. Man-made vibration problems are, therefore, usually confined to short distances (500 to 600 feet or less) from the source (FTA, 2006).

Construction operations generally include a wide range of activities that can generate groundborne vibration. In general, blasting and demolition of structures generate the highest vibrations. Vibratory compactors or rollers, pile drivers, and pavement breakers can generate perceptible amounts of vibration at up to 200 feet. Heavy trucks can also generate groundborne vibrations, which can vary, depending on vehicle type, weight, and pavement conditions. Potholes, pavement joints, discontinuities, differential settlement of pavement, etc., all increase the vibration levels from vehicles passing over a road surface. Construction vibration is normally of greater concern than vibration from normal traffic flows on streets and freeways with smooth pavement conditions. Trains generate substantial quantities of vibration due to their engines, steel wheels, heavy loads, and wheel-rail interactions.

5.8.1.5 REGULATORY FRAMEWORK

To limit population exposure to physically and/or psychologically damaging as well as intrusive noise levels, the federal government, the State of California, various county governments, and most municipalities in the state have established standards and ordinances to control noise. Below are the regulations that are applicable to the proposed project.

California State Regulations

Noise standards have been incorporated as part of the California Building Code and California Noise Insulation Standards (Title 24 and 25, California Code of Regulations) and are the noise standards required for new construction in California.

Title 21, Subchapter 6, of the California Code of Regulations (Airport Noise Standards) establishes 65 dBA CNEL as the acceptable level of aircraft noise for persons living in the vicinity of airports. Title 21 applies to

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airports that have been designated “noise problem airports,” which includes John Wayne Airport. Noise-sensitive land uses in locations where the aircraft exterior noise level exceeds 65 dBA CNEL are generally incompatible, unless (1) an aviation easement for aircraft noise has been acquired by the airport proprietor or (2) the residence is a high-rise apartment or condominium that has an interior CNEL of 45 dBA or less in all habitable rooms despite aircraft noise and an air circulation or air conditioning system, as appropriate. Assembly Bill (AB) 2776 requires any person who intends to sell or lease residential properties within an airport influence area to disclose that fact to the person buying the property.

City of Newport Beach Noise Standards

Noise Compatibility

The City of Newport Beach General Plan Noise Element discusses the effects of noise exposure on the population and sets goals designed to protect residents and businesses from excessive and persistent noise intrusions. The 2006 General Plan Noise Element contains noise thresholds for development located adjacent to the mobile or transportation noise sources and thresholds for stationary noise sources. The City applies the state’s Community Noise and Land Use Compatibility standards, summarized in Table 5.8-3, to assess the compatibility of new development with ambient noise.

Table 5.8-3 identifies clearly compatible, normally compatible, normally incompatible, and clearly incompatible noise levels for various land uses. A normally compatible designation implies new construction or development should be undertaken only after a detailed analysis of the noise reduction requirements for each land use is made and needed noise insulation features are incorporated in the design. A clearly compatible designation indicates that standard construction can occur with no special noise reduction requirements.

In no case would it be desirable for any land use to have noise exceeding the highest “normally compatible” noise level shown in Table 5.8-3. For the purpose of residential uses, the highest exterior noise level is 65 dBA CNEL. It should be noted that California requires that interior noise levels in multifamily residential uses not exceed 45 Ldn; this is commonly used as an interior standard for all residential uses, but is not required under the California Administrative Code, Title 24, Part 2.

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Table 5.8-3 Land Use Compatibility Matrix

Categories	Land Uses	CNEL (dBA)						
		<55	55-60	60-65	65-70	70-75	75-80	>80
Residential	Single-Family, Two-Family, Multiple-Family	A	A	B	C	C	D	D
Residential	Mixed Use	A	A	A	C	C	C	D
Residential	Mobile Home	A	A	B	C	C	D	D
Commercial Regional, District	Hotel, Motel, Transient Lodging	A	A	B	B	C	C	D
Commercial Regional, Village, District, Special	Commercial Retail, Bank, Restaurant, Movie Theatre	A	A	A	A	B	B	C
Commercial, Industrial, Institutional	Office Building, Research and Development, Professional Offices, City Office Building	A	A	A	B	B	C	D
Commercial Recreational	Amphitheatre, Concert Hall Auditorium, Meeting Hall	B	B	C	C	D	D	D
Institutional Civic Center								
Commercial Recreation	Children's Amusement Park, Miniature Golf Course, Go-Cart Track, Equestrian Center, Sports Club	A	A	A	B	B	D	D
Commercial General, Special	Automobile Service Station, Auto Dealership, Manufacturing, Warehousing, Wholesale, Utilities	A	A	A	A	B	B	B
Industrial, Institutional								
Institutional	Hospital, Church, Library, Schools' Classroom	A	A	B	C	C	D	D
Open Space	Parks	A	A	A	B	C	D	D
Open Space	Golf Course, Cemeteries, Nature Centers Wildlife Reserves, Wildlife Habitat	A	A	A	A	B	C	C
Agriculture	Agriculture	A	A	A	A	A	A	A

Source: City of Newport Beach, Newport Beach General Plan, adopted November 2006.

Notes:

Zone A: Clearly Compatible – Specified land use is satisfactory, based upon the assumption that any buildings involved are of normal conventional construction without any special noise insulation requirements.

Zone B: Normally Compatible – New construction or development should be undertaken only after detailed analysis of the noise reduction requirements are made and needed noise insulation features in the design are determined. Conventional construction, with closed windows and fresh air supply systems or air conditioning, will normally suffice.

Zone C: Normally Incompatible – New construction development should generally be discouraged. If new construction or development does not proceed, a detailed analysis of noise reduction requirements must be made and needed noise insulation features included in the design.

Zone D: Clearly Incompatible – New construction or development should generally not be undertaken.

In addition to the noise/land use compatibility guidelines in the 2006 General Plan Noise Element, the City of Newport Beach has adopted Community Noise Control policies and standards as part of its municipal code in order to limit unnecessary, excessive, and annoying noise in the City. These noise standards are discussed below and displayed in Table 5.8-4, *City of Newport Beach Exterior Noise Standards (L_{eq})*.

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Table 5.8-4 City of Newport Beach Exterior Noise Standards (L_{eq})

Noise Zone	Time Interval	Maximum Daytime Noise Levels (dBA)	
		L _{eq}	L _{max}
Zone I – Single-, two-, or multiple-family residential	7 AM to 10 PM	55	75
	10 PM to 7 AM	50	70
Zone II – Commercial	7 AM to 10 PM	65	85
	10 PM to 7 AM	60	80
Zone III – Residential portions of mixed use properties	7 AM to 10 PM	60	80
	10 PM to 7 AM	50	70
Zone IV – Industrial or manufacturing	7 AM to 10 PM	70	90
	10 PM to 7 AM	70	90
Institutional	7 AM to 10 PM	55	75
	10 PM to 7 AM	50	70

Source: Section 10.26.025, Exterior Noise Standards, of the City of Newport Beach Municipal Code and Table N3, Noise Standards, of the City of Newport Beach 2006 General Plan Noise Element.

Notes:

These noise standards do not apply to heating ventilation and air conditioning (HVAC) systems or construction pursuant to Section 10.26.035 of the Municipal Code. In the event the ambient noise level exceeds the noise standard, the maximum allowable noise level under said category shall be increased to reflect the maximum ambient noise level.

The Noise Zone III standard shall apply to that portion of residential property falling within 100 feet of a commercial property, if the intruding noise originates from that commercial property.

If the measurement location is on boundary between two different noise zones, the lower noise level standard applicable to the noise zone shall apply.

Policy N 1.8 requires the employment of noise mitigation measures for existing sensitive uses when a significant noise impact is identified for new development impacting existing sensitive uses, as presented in Table 5.8-5.

Table 5.8-5 City of Newport Beach Incremental Noise Impact Criteria for Noise-Sensitive Uses (dBA CNEL)

No Project Noise Exposure	Allowable Noise Exposure Increment
55	3
60	2
65	1
70	1
75	0

Source: City of Newport Beach General Plan and General Plan EIR. Adopted November 2006.

Stationary (Nontransportation) Noise

The City applies the Noise Ordinance standards (Newport Beach Municipal Code Section 10.26.025, Exterior Noise Standards) to nontransportation, stationary noise sources. These standards are summarized in Table 5.8-4, and are included as the exterior noise standards in Table N 3, Noise Standards, of the Noise Element. These standards are not applicable to mobile noise sources (such as heavy trucks) that are traveling on public

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roadways. Control of the mobile noise sources on public roads is preempted by federal and state laws. The City's Noise Ordinance is designed to protect people from objectionable nontransportation noise sources such as music, machinery, pumps, and air conditioners. These standards do not gauge the compatibility of developments in the noise environment, but provide restrictions on the amount and duration of noise generated at a property, as measured at the property line of the noise receptor.

Equipment sound ratings of new heating ventilation and air condition (HVAC) equipment installed in the City of Newport Beach are reviewed during plan check and tested in the field after installation. According to Section 10.26.045 of the City of Newport Beach Municipal Code, new permits for HVAC equipment in or adjacent to residential areas shall be issued only where the sound rating of the proposed equipment does not exceed 55 dBA, and it is installed with a timing device that will deactivate the equipment during the hours of 10 PM to 7 AM.

Sound-Amplifying Equipment

The City of Newport Beach requires that any sound-amplifying equipment used in the City apply for and obtain a permit from the Finance Director (City of Newport Beach Municipal Code Chapter 10.32, Sound-Amplifying Equipment). According to the City's Municipal Code, the volume of sound shall be controlled so that it will not be audible for a distance in excess of 100 feet from the sound-amplifying device, and so that the volume is not unreasonably loud, raucous, jarring, disturbing, or a nuisance to persons within the range of allowed audibility. Furthermore, use of sound-amplifying equipment is prohibited outdoors between the hours of 8:00 PM and 8:00 AM.

Construction Noise

The City realizes that the control of construction noise is difficult and therefore provides exemption for this type of noise. According to the City of Newport Beach Municipal Code Section 10.26.035, Exemptions, noise sources associated with construction, repair, remodeling, demolition, or grading of any real property are exempt from the noise level limits shown in Table 5.10-3, above. Such activities shall instead be subject to the provisions of the City of Newport Beach Municipal Code Section 10.28.040, Construction Activity – Noise Regulations. According to this chapter, construction is permitted on weekdays between the hours of 7:00 AM and 6:30 PM and Saturdays between the hours of 8:00 AM and 6:00 PM. Construction is not permitted on Sundays or any federal holiday. Exceptions to these construction hours can be made when the maintenance, repair, or improvement cannot feasibly be conducted during normal business hours, as outlined in Section 10.28.040 of the City's municipal code.

Vibration Standards

The City of Newport Beach does not have specific limits or thresholds for vibration. The Federal Transit Administration (FTA) provides criteria for acceptable levels of groundborne vibration for various types of special buildings that are sensitive to vibration.

Vibration Annoyance

Table 5.8-6, *Groundborne Vibration Criteria: Human Annoyance*, shows the FTA's vibration criteria to evaluate vibration-related annoyance due to resonances of the structural components of a building. These criteria are

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based on extensive research that suggests humans are sensitive to vibration velocities in the range of 8 to 80 Hertz (Hz).

Table 5.8-6 Groundborne Vibration Criteria: Human Annoyance

Land Use Category	Max L _v (VdB) ¹	Description
Workshop	90	Distinctly felt vibration. Appropriate to workshops and nonsensitive areas
Office	84	Felt vibration. Appropriate to offices and nonsensitive areas.
Residential – Daytime	78	Barely felt vibration. Adequate for computer equipment.
Residential – Nighttime	72	Vibration not felt, but groundborne noise may be audible inside quiet rooms.

Source: FTA 2006.

¹ L_v is the velocity level in decibels, as measured in 1/3-octave bands of frequency over the frequency ranges of 8 to 80 Hz.

Vibration-Related Architectural Damage

Structures amplify groundborne vibration, and wood-frame buildings such as typical residential structures are more affected by ground vibration than heavier buildings. The level at which groundborne vibration is strong enough to cause architectural damage has not been determined conclusively. The most conservative estimates are reflected in the FTA standards, shown in Table 5.8-7, *Groundborne Vibration Criteria: Architectural Damage*.

Table 5.8-7 Groundborne Vibration Criteria: Architectural Damage

Building Category	PPV (in/sec)	L _v (VdB) ¹
I. Reinforced concrete, steel, or timber (no plaster)	0.5	102
II. Engineered concrete and masonry (no plaster)	0.3	98
III. Non-engineered timber and masonry buildings	0.2	94
IV. Buildings extremely susceptible to vibration damage	0.12	90

Source: FTA 2006.

¹ L_v is the velocity level in decibels, as measured in 1/3-octave bands of frequency over the frequency ranges of 8 to 80 Hz.

5.8.1.6 EXISTING NOISE ENVIRONMENT

The following discusses the existing noise environment in the City.

On-Road Vehicles

To assess the potential for mobile-source noise impacts, it is necessary to determine the noise currently generated by vehicles traveling through the project area. Noise from motor vehicles is generated by engine vibrations, the interaction between tires and the road, and the exhaust system. Noise levels were modeled with a version of the Federal Highway Administration's Traffic Noise Model. Average daily traffic (ADT) volumes were based on the existing daily traffic volumes provided by Urban Crossroads (see Appendix I, *Traffic Impact Analysis*). The modeling results indicate that average noise levels along arterial segments currently range from approximately 52 dBA to 75 dBA CNEL as calculated at a distance of 100 feet from the centerline of the road. Noise levels for existing conditions along analyzed roadways are presented in Table 5.8-8, *Existing Traffic Noise Levels*.

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Table 5.8-8 Existing Traffic Noise Levels (dBA CNEL)

Roadway	Segment	Existing Year 2013				
		ADT Volumes	CNEL (dBA @ 100 ft)	Distance to CNEL Contour (Feet from Centerline)		
				65 (dBA CNEL)	70 (dBA CNEL)	75 (dBA CNEL)
Adams Avenue	Brookhurst Street to Harbor Boulevard	46,000	71.2	120	260	559
Victoria Street	Brookhurst Street to Placentia Avenue	30,000	68.0	74	158	341
Coast Highway	Brookhurst Street to Superior Avenue	49,000	72.8	154	333	717
Bristol Street	SR-55 to Santa Ana Avenue	24,000	68.6	80	173	372
Mesa Drive	SR-55 to Orange Avenue	6,000	59.5	20	43	92
Del Mar Avenue	SR-55 to Orange Avenue	14,000	62.0	29	63	136
Monte Vista Avenue	SR-55 to Orange Avenue	3,000	53.3	8	17	36
Santa Isabel Avenue	SR-55 to Orange Avenue	4,000	54.5	9	20	43
23rd Street	SR-55 to Orange Avenue	2,000	51.5	6	13	27
22nd Street	SR-55 to Orange Avenue	13,000	59.6	20	44	95
21st Street	SR-55 to Orange Avenue	3,000	53.3	8	17	36
Bay Street	SR-55 to Orange Avenue	5,000	55.5	11	23	50
20th Street	SR-55 to Orange Avenue	3,000	53.3	8	17	36
19th Street	SR-55 to Orange Avenue	29,000	64.8	45	97	209
18th Street	SR-55 to Orange Avenue	2,000	51.5	6	13	27
17th Street	SR-55 to Orange Avenue	38,000	67.5	68	146	315
16th Street	Newport Boulevard to Santa Ana Avenue	4,000	54.5	9	20	43
15th Street	Newport Boulevard to Santa Ana Avenue	2,000	51.5	6	13	27
Hospital Road	Newport Boulevard to Old Newport Boulevard	8,000	61.2	26	56	120
Old Newport Boulevard	n/o Coast Highway	3,000	56.5	13	27	58
Coast Highway	Newport Boulevard to Tustin Avenue	57,000	70.9	115	247	532
Campus Drive	Carlson to University Drive	20,000	69.5	92	199	428
MacArthur Boulevard	University Drive to Jamboree Road	29,000	72.5	148	318	685
Jamboree Road	University Drive to Bristol Street	50,000	74.6	201	433	934
Coast Highway	Dover Drive to Bayside Drive	64,000	74.0	184	396	853
Bison Avenue	MacArthur Boulevard to SR-73	8,000	65.3	48	104	225
Ford Road	MacArthur Boulevard to Buffalo	32,000	69.6	94	202	436
San Joaquin Hills Road	MacArthur Boulevard to San Miguel Road	23,000	69.9	99	214	460
San Miguel Drive	Avocado Avenue to San Joaquin Hills Road	13,000	63.2	35	75	162
Harbor View Drive	MacArthur Boulevard to Marguerite Avenue	3,000	53.3	8	17	36
Coast Highway	MacArthur Boulevard to Goldenrod Avenue	51,000	68.9	85	183	395
Coast Highway	e/o Newport Coast Drive	38,000	72.7	152	328	706
Baker Street	SR-73 to SR-55	28,000	67.7	70	152	327
Bristol Street	n/o Bear St.	29,000	68.2	75	162	349
Red Hill Avenue	Bristol Street to Baker St.	20,000	68.7	82	176	380
Airport Way	n/o MacArthur Boulevard	17,000	62.5	32	68	147
MacArthur Boulevard	n/o Campus Drive	39,000	71.1	119	257	554
Von Karman Boulevard	n/o Campus Drive	15,000	66.2	56	120	259
Jamboree Road	n/o Campus Drive	43,000	72.3	143	308	663

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Table 5.8-8 Existing Traffic Noise Levels (dBA CNEL)

Roadway	Segment	Existing Year 2013				
		ADT Volumes	CNEL (dBA @ 100 ft)	Distance to CNEL Contour (Feet from Centerline)		
				65 (dBA CNEL)	70 (dBA CNEL)	75 (dBA CNEL)
University Drive	MacArthur Boulevard to California Avenue	29,000	71.3	122	263	566
Bison Avenue	California Avenue to SR-73	22,000	66.8	61	131	282
Bonita Canyon Drive	Newport Coast Drive to SR-73	20,000	68.7	82	177	382
Placentia Avenue	19th Street to Victoria Street	30,000	67.9	73	157	338
Pomona Avenue	19th Street to Victoria Street	9,000	59.7	21	44	96
Harbor Boulevard	19th Street to Victoria Street	42,000	69.7	95	205	441
Newport Boulevard E	20th Street to Victoria Street	13,000	64.2	41	88	190
Newport Boulevard W	21st Street to Victoria Street	13,000	64.2	41	88	190
Orange Avenue	22nd Street to 21st Street	6,000	56.3	12	26	57
Santa Ana Avenue	22nd Street to 21st Street	6,000	56.3	12	26	57
Tustin Avenue	22nd Street to 21st Street	3,000	54.9	10	21	46
Irvine Avenue	22nd Street to 21st Street	25,000	67.1	65	139	299
Jamboree Road	Ford Road to San Joaquin Hills Road	50,000	74.2	190	409	880
MacArthur Boulevard	Ford Road to San Joaquin Hills Road	61,000	74.9	212	457	984
San Miguel Drive	Ford Road to Spyglass Hill Road	8,000	64.7	44	95	204
Newport Coast Drive	Bonita Canyon Drive to SR-73	11,000	67.3	66	143	308
Superior Boulevard	Hospital Road to Coast Highway	26,000	67.4	67	145	312
Newport Boulevard	Hospital Road to Coast Highway	52,000	70.8	114	245	527
Riverside Avenue	Tustin Avenue to Coast Highway	10,000	60.2	22	48	103
Dover Drive	Riverside Avenue to Coast Highway	30,000	69.6	94	202	434
Tustin Avenue	s/o 15th Street	2,000	51.5	6	13	27
Old Newport	n/o Coast Highway	3,000	56.5	13	27	58
Jamboree Road	n/o Coast Highway	35,000	72.5	148	319	686
Newport Center Drive	n/o Coast Highway	14,000	66.3	56	121	261
MacArthur Boulevard	San Miguel Drive to Coast Highway	34,000	72.3	142	306	660
Avocado Avenue	San Miguel Drive to Coast Highway	11,000	64.8	45	98	210
Goldenrod Avenue	n/o Coast Highway to Coast Highway	2,000	51.5	6	13	27
Marguerite Avenue	San Joaquin Hills Road to Coast Highway	6,000	60.9	25	54	116
Poppy Avenue	n/o Coast Highway	2,000	51.5	6	13	27
Newport Coast Drive	n/o Coast Highway	12,000	68.8	83	179	385

Note: Calculations included in Appendix G.

5.8.1.7 AIRCRAFT NOISE

Newport Beach is immediately south of John Wayne Airport (JWA) and is under the primary departure corridor. JWA is owned and operated by Orange County; it serves both general aviation and scheduled commercial passenger airline and cargo operations. JWA experienced 252,943 aircraft operations (arrivals and departures) in 2012, and of those, 169,870 were general aviation operations, 79,658 were air carrier

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operations, 3,188, were air taxi (commuter) operations, and 227 were military operations (OC Air 2014). Although aircraft noise can be heard throughout Newport Beach, the highest noise levels are experienced just south of JWA, in the Airport Area, Santa Ana Heights Area, Westcliff, Dover Shores, the Bluffs, and Balboa Island, and are generated by aircraft departures (Newport Beach 2006, Noise Element).

The California Public Resources Code, Section 21096, requires that when preparing an environmental impact report for any project within an airport influence area as defined by an Airport Land Use Compatibility Plan (ALUC), the lead agency shall utilize the California Airport Land Use Planning Handbook as a technical resource with respect to airport noise and safety compatibility issues. The basis for compatibility zone delineation for airports is the CNEL contours created with the Federal Aviation Administration (FAA) Integrated Noise Model for private and public airports. Noise from aircrafts at the John Wayne Airport is produced from takeoffs, flyovers/overflights, approaches, and landings. Each of these events results in noise exposure to noise-sensitive receptors within close proximity to the airport. Based on the most recent, publicly available, annual noise contour map (2012) prepared by John Wayne Airport, portions of the City just south of the airport's runways are exposed to noise levels due to airport operations between 65 and 70 dBA CNEL (see airport noise contours in Figure 5.8-1).

Stationary Source Noise

Stationary sources of noises may occur from all types of land uses. Residential uses would generate noise from landscaping, maintenance activities, and air conditioning systems. Commercial uses would generate noise from bar/restaurant/entertainment establishments, HVAC systems, loading docks, and other sources. Industrial uses may generate HVAC systems, loading docks, and possibly machinery. Noise generated by residential or commercial uses are generally short and intermittent. Industrial uses may generate noise on a more continual basis. Numerous restaurants, bars, and entertainment establishments are in Mariners Mile, Corona del Mar, the Peninsula, and Balboa Island. Retail areas are mostly scattered thru the City, and industrial uses mostly concentrated in the Airport Area. Noise from stationary sources is regulated through the City's standards for stationary noise sources, as shown on Table 5.8-4.

5.8.2 Thresholds of Significance

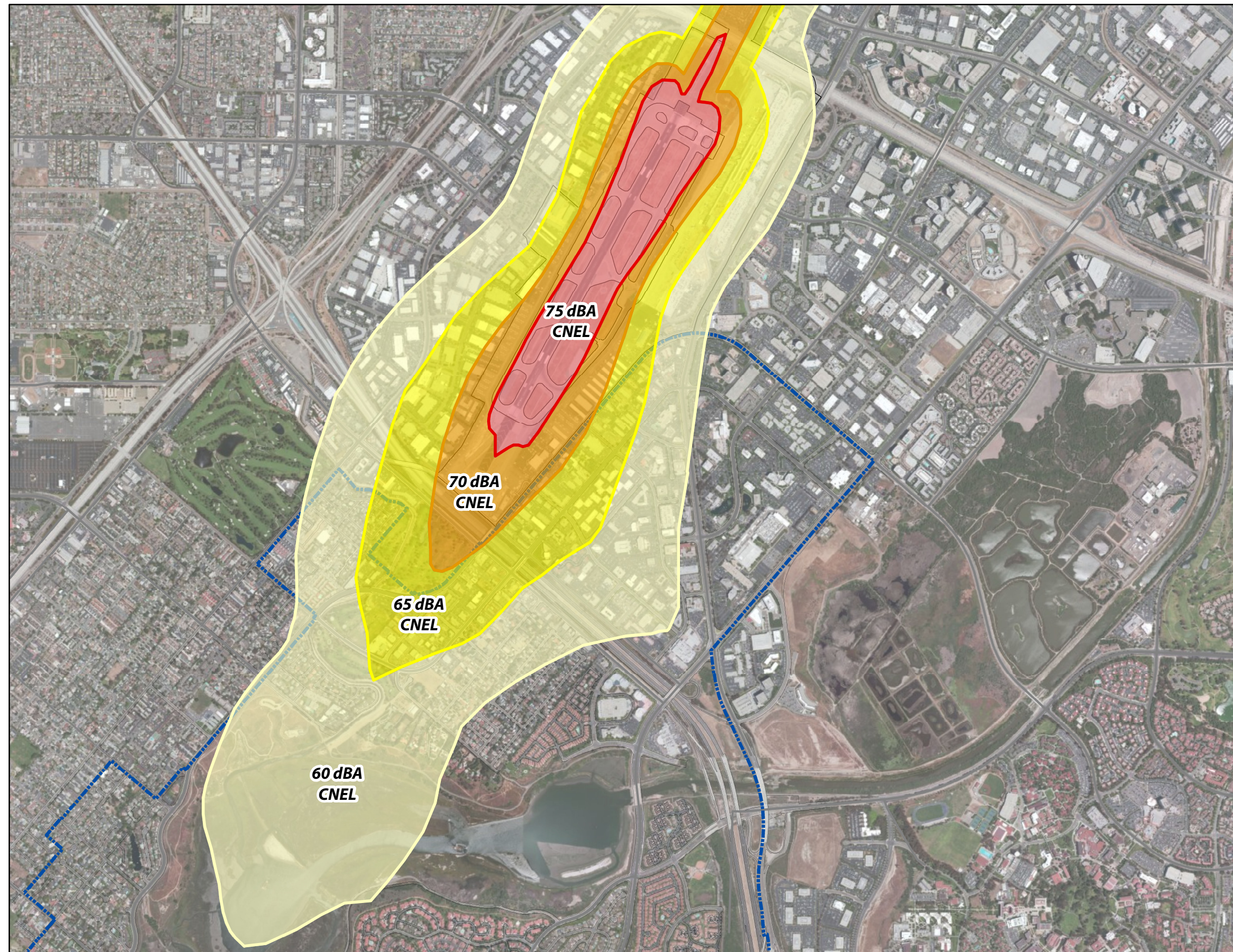
According to Appendix G of the CEQA Guidelines, a project would normally have a significant effect on the environment if the project would result in:

- N-1 Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies.
- N-2 Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels.
- N-3 A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project.

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Figure 5.8-1

John Wayne Airport 2012 Annual Noise Level Contours



--- City Boundary

John Wayne Airport 2012 Annual Noise Contours

- 60 dBA CNEL
- 65 dBA CNEL
- 70 dBA CNEL
- 75 dBA CNEL



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- N-4 A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project.
- N-5 For a project located within an airport land use plan or where such a plan has not been adopted, within two miles of a public airport or public use airport, expose people residing or working in the project area to excessive noise levels.
- N-6 For a project within the vicinity of a private airstrip, expose people residing or working the project area to excessive noise levels.

The Initial Study, included as Appendix A, substantiates that impacts associated with the following thresholds would be less than significant:

- Threshold N-6

This impact will not be addressed in the following analysis.

5.8.3 Environmental Impacts

2006 General Plan

The following summarizes the conclusions of the noise and vibration analysis for the 2006 General Plan EIR:

- Construction activities would be an ongoing occurrence in the City. Existing and future noise would be exempt from the City code, and when construction noise occurs, construction noise impacts would be considered less than significant because they would comply to municipal code standards prohibiting excessive construction noise and limiting construction to daytime hours.
- Construction activities will occur at discrete locations in the City, and vibration from such activity may impact existing buildings and their occupants if they are close enough to the construction sites. As there is no feasible mitigation available for the impact, when construction vibration occurs, impacts would be significant and unavoidable.
- Locations throughout the City would experience changes in noise levels as a result of an increase in motor vehicle traffic. The changes in motor vehicle trips and circulation patterns would increase noise levels within the City by a maximum of 3.7 dBA CNEL, although most increases in noise would be between 1 and 3 dBA. Noise-sensitive receptors along several roadway segments would be exposed to a substantial permanent increase in ambient noise levels. Impacts would be significant.
- For residences that could be developed within the 65 dBA CNEL noise contour, exterior noise would exceed allowable noise levels. This would occur only if, consistent with Policy LU 6.15.24, the City makes appropriate findings for an override to allow residential development within the 65 dBA CNEL. In these areas, impacts on exterior noise levels at new land uses in the vicinity of the airport would be significant.

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General Plan LUE Amendment (Proposed Project)

The following impact analysis addresses thresholds of significance for which the Initial Study disclosed potentially significant impacts. The applicable thresholds are identified in brackets after the impact statement.

Impact 5.8-1 **Changes to the land uses would not result in stationary, nontransportation noise exceeding the standards established in the 2006 General Plan or the municipal code. [Thresholds N-1 and N-3]**

Impact Analysis: The proposed project involves changing land use designations and development capacities in multiple subareas of Newport Beach (see Figure 3-3, *Proposed Areas of Change*). As described in Table 3-3, *Proposed Areas of Change*, subareas proposed for a change in land use designation include:

- **Gateway Park, 3531 Newport Boulevard:** This site would change from a General Commercial (GC) designation to Parks and Recreation (PR). The site is currently vacant, located off Newport Boulevard, and is surrounded by residential and commercial uses. Development of the site as a park would be subject to separate, project-level CEQA review to identify and if appropriate mitigate impacts to comply with the City of Newport Beach standards for nontransportation noise sources shown in Table 5.8-4. Due to the size of the site, no major sources of noise sometimes found at parks, such as spectator bleachers and a skatepark, could be developed in the site. In addition, traffic on Newport Boulevard would overshadow noise from use of the park to nearby residential uses. Offsite noise impacts from operations at this site would be less than significant.

- **150 Newport Center Drive:** This site would change from a General Commercial Office (CO-R) designation to Mixed-Use Horizontal (MU-H3). The site is currently developed as the Newport Sports Museum and offices, is located off Newport Center Drive, and is adjacent to office uses. The development of mixed use would not result in a substantial change in noise and would introduce noise sources such as HVAC units that currently occur in the vicinity of the site. Development of the site as mixed use or expansion of existing uses would be subject to separate, project-level CEQA review to identify and if appropriate mitigate impacts to comply with the City of Newport Beach standards for nontransportation noise sources shown in Table 5.8-4. Offsite noise impacts from operations at this site would be less than significant.

- **100 Newport Center Drive:** This site would change from a General Commercial Office (CO-R) designation to Mixed-Use Horizontal (MU-H3). The site is currently developed as a car wash, is located off Newport Center Drive, and is adjacent to office uses. The development of mixed use would not result in a substantial change in noise and would introduce noise sources such as HVAC units that currently occur in the vicinity of the site. Development of the site as hotel or office mixed use would be subject to separate, project-level CEQA review to identify and if appropriate mitigate impacts to comply with the City of Newport Beach standards for non-transportation noise sources shown in Table 5.8-4. Offsite noise impacts from operations at this site would be less than significant.

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- **Saunders Properties:** This site would change from an Airport Office and Supporting Uses (AO) designation to Mixed Use Horizontal (MU-H2). The site is currently developed as office and commercial uses, is located off Campus Drive and MacArthur Boulevard, and is adjacent to office and commercial uses. The land use designation change would not introduce new noise sources not anticipated under the existing land use designation and would not result in a substantial change in noise. Development of the site would be subject to separate, project-level CEQA review to identify and if appropriate mitigate impacts to comply with the City of Newport Beach standards for nontransportation noise sources shown in Table 5.8-4. Offsite noise impacts from operations at this site would be less than significant.
- **The Hangars:** This site would change from a General Commercial Office (CO-G) designation to General Commercial (GC). The site is currently developed as office, commercial and light industrial uses, is located off Birch Street and Dove Street, and is adjacent to office uses. As the current designation already allow for commercial uses, the land use designation change would not introduce noise sources and would not result in a substantial change in noise. Development of the site as a commercial use would be subject to separate, project-level CEQA review to identify and if appropriate mitigate impacts to comply with the City of Newport Beach standards for nontransportation noise sources shown in Table 5.8-4. Offsite noise impacts from operations at this site would be less than significant.
- **UAP Companies, 4699 Jamboree Road and 5190 Campus Drive:** This site would change from an Office (CO-G) designation to Mixed Use Horizontal (MU-H2). The site is currently developed as office uses, is located off Campus Drive and Jamboree Road, and is adjacent to office uses. The land use designation change would not introduce new noise sources not anticipated under the approved land use designation and would not result in a substantial change in noise. Development of the site would be subject to separate, project-level CEQA review to identify and if appropriate mitigate impacts to comply with the City of Newport Beach standards for nontransportation noise sources shown in Table 5.8-4. Offsite noise impacts from operations at this site would be less than significant.
- **1526 Placentia Avenue:** This site would change from Multi-Unit Residential (RM) to General Commercial (GC). The site is currently developed with a liquor store/market and is located off Placentia Avenue and is surrounded by high density residential and commercial/office uses. Typical noise sources from General Commercial uses are HVAC units and truck deliveries. Subsequent projects would be subject to separate, project-level CEQA review to identify and if appropriate mitigate impacts to comply with the City of Newport Beach standards for nontransportation noise sources shown in Table 5.8-4. Several measures can be implemented at a project level to comply with the standards, such as selecting quiet HVAC units, parapet walls, or equipment enclosure, and restricting truck deliveries to areas facing Placentia Avenue. Impacts would be less than significant at this site.
- **813 E. Balboa Boulevard:** This site would change from Two-Unit Residential (RT) to Mixed-Use Vertical (MU-V). This site is currently developed with a commercial building and is located in the peninsula facing Balboa Boulevard and is surrounded by mixed-use and residential areas. The site would also accommodate a mixed-use development. The development of mixed use would not result in a substantial change in noise and would introduce noise sources such as HVAC units that currently occur in

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the vicinity of the site. Subsequent projects would be subject to separate, project-level CEQA review to identify and if appropriate mitigate impacts to comply with the City of Newport Beach standards for nontransportation noise sources shown in Table 5.8-4. Impacts would be less than significant.

In summary, it can reasonably be anticipated that none of these land uses would result in sufficiently loud or continuous sources of noise that would result in a violation of the ambient noise standards adopted by the City. Noise from the sites where land use changes would occur would be compatible with noise-sensitive land uses and would not substantially affect nearby uses in the vicinity of each site. Excessive noise generation from building mechanical or HVAC systems or other site-specific sources for discretionary projects would be addressed through compliance with the City's existing noise ordinance, which provides standards and adequate remedies in the event that any of these sources unexpectedly results in the generation of noise sufficiently loud, continuous, or obnoxious as to result in a violation. CEQA project-level review and implementation of the mitigation measures to meet City's standards would ensure the impacts identified above are *less than significant*.

Impact 5.8-2 Changes to the land uses would not result in substantial traffic-related noise increases to sensitive receptors or exceed the thresholds established in Policy N 1.8 of the General Plan. [Thresholds N-1 and N-3]

Impact Analysis: According to the traffic analysis prepared for the project (Urban Crossroads 2014), the proposed project would generate a citywide net average daily traffic (ADT) volume increase of 8,221 when compared to the 2006 General Plan. The following analysis describes the anticipated noise levels from traffic generated by the buildout of General Plan LUE Amendment in comparison to the 2006 General Plan. Traffic noise modeling was conducted for long-range 2030 conditions for the 2006 General Plan and for the General Plan LUE Amendment scenarios.

The traffic noise levels for this project were estimated using the Federal Highway Administration (FHWA) Highway Traffic Noise Prediction Model (RD-77-108). The FHWA model predicts noise levels through a series of adjustments to a reference sound level. These adjustments account for distances from the roadway, traffic flows, vehicle speeds, car/truck mix, length of exposed roadway, and road width. The distances to the 70, 65, and 60 CNEL contours for selected roadway segments in the vicinity of proposed project site are included in Appendix G. Table 5.8-9 compares the noise levels at 100 feet from the centerline of each roadway segment for both scenarios and shows the traffic noise increase that would result from the proposed land use plan in comparison to the 2006 approved land use plan. Traffic noise increases due to the land use changes would range from -1.0 to 0.6 dBA. Policy N 1.8 includes noise increase thresholds due to project-related traffic. Based on the screening calculation at areas within 100 feet from the road centerlines and the applicable criteria presented in Table 5.8-5, the following segments could experience noise increases due to project-related traffic:

- Jamboree Road from Bristol Street to MacArthur Boulevard
- MacArthur Boulevard from San Joaquin Hills Road to Ford Road
- MacArthur Boulevard from Ford Road to Bison Avenue

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Table 5.8-9 Buildout Conditions Project Offsite Contributions

Roadway	Segment	CNEL at 100 feet (dBA)			
		No Project	With Project	Project Contribution	Potential Impact?
15th Street	Newport Boulevard to Santa Ana Avenue	51.5	51.5	0.0	No
16th Street	Newport Boulevard to Santa Ana Avenue	55.5	55.5	0.0	No
17th Street	SR-55 to Orange Avenue	67.7	67.7	0.0	No
18th Street	SR-55 to Orange Avenue	53.3	53.3	0.0	No
19th Street	SR-55 to Orange Avenue	62.5	62.5	0.0	No
20th Street	SR-55 to Orange Avenue	53.3	53.3	0.0	No
21st Street	SR-55 to Orange Avenue	51.5	51.5	0.0	No
22nd Street	SR-55 to Orange Avenue	60.8	60.8	0.0	No
23rd Street	SR-55 to Orange Avenue	51.5	51.5	0.0	No
32nd Street	e/o Newport Boulevard	54.5	54.5	0.0	No
32nd Street	w/o Newport Boulevard	60.3	60.3	0.0	No
Adams Avenue	Brookhurst Street to Harbor Boulevard	71.4	71.4	0.0	No
Airport Way	n/o MacArthur Boulevard	63.2	63.4	0.2	No
Avocado Avenue	n/o San Nicolas Drive	62.1	62.1	0.0	No
Avocado Avenue	n/o San Miguel Drive	61.3	61.3	0.0	No
Avocado Avenue	n/o Coast Highway	65.2	65.2	0.0	No
Avocado Avenue	s/o San Nicolas Drive	61.3	61.3	0.0	No
Avocado Avenue	s/o San Miguel Drive	65.6	65.6	0.0	No
Baker Street	SR-73 to SR-55	68.9	68.9	0.0	No
Bay Street	SR-55 to Orange Avenue	54.5	54.5	0.0	No
Bayside Drive	n/o Coast Highway	56.3	56.3	0.0	No
Bayside Drive	s/o Coast Highway	64.6	64.6	0.0	No
Bayview Place	s/o Bristol Street S	56.7	56.7	0.0	No
Bayview Way	w/o Jamboree Road	59.0	58.0	-1.0	No
Birch Street	n/o Bristol Street N	69.2	69.4	0.2	No
Birch Street	n/o Bristol Street S	68.4	68.6	0.2	No
Birch Street	s/o Bristol Street S	67.7	67.7	0.0	No
Birch Street	e/o MacArthur Boulevard	66.6	66.8	0.2	No
Birch Street	w/o MacArthur Boulevard	66.6	67.2	0.6	No
Birch Street	w/o Jamboree Road	66.0	66.0	0.0	No
Bison Avenue	e/o Jamboree Road	67.7	68.0	0.3	No
Bison Avenue	e/o MacArthur Boulevard	67.0	67.0	0.0	No
Bison Avenue	w/o Jamboree Road	51.5	51.5	0.0	No

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Table 5.8-9 Buildout Conditions Project Offsite Contributions

Roadway	Segment	CNEL at 100 feet (dBA)			
		No Project	With Project	Project Contribution	Potential Impact?
Bison Avenue	w/o SR-73	66.7	66.7	0.0	No
Bison Avenue	w/o MacArthur Boulevard	68.1	68.3	0.2	No
Bluff Road	n/o Coast Highway	65.2	65.2	0.0	No
Bluff Road	n/o 15th Street	66.8	66.8	0.0	No
Bonita Canyon Drive	w/o SR-73 SB Ramps	69.3	69.1	-0.2	No
Bristol Street	SR-55 to Santa Ana Avenue	69.1	69.1	0.0	No
Bristol Street	n/o Bear Street	68.7	68.7	0.0	No
Bristol Street N	e/o Campus Drive	69.5	69.5	0.0	No
Bristol Street N	e/o Birch Street	69.3	69.3	0.0	No
Bristol Street N	w/o Campus Drive	70.0	70.1	0.1	No
Bristol Street N	w/o Birch Street	69.5	69.5	0.0	No
Bristol Street N	w/o Jamboree Road	67.7	67.9	0.2	No
Bristol Street S	e/o Campus Drive	67.6	67.8	0.2	No
Bristol Street S	e/o Birch Street	67.5	67.7	0.2	No
Bristol Street S	w/o Campus Drive	69.5	69.7	0.2	No
Bristol Street S	w/o Birch Street	67.6	67.8	0.2	No
Bristol Street S	w/o Bayview Way	69.3	69.5	0.2	No
Bristol Street S	w/o Jamboree Road	70.0	70.2	0.2	No
Campus Drive	n/o Bristol Street N	70.8	70.9	0.1	No
Campus Drive	n/o Bristol Street S	71.2	71.3	0.1	No
Campus Drive	s/o Bristol Street S	71.6	71.7	0.1	No
Campus Drive	e/o MacArthur Boulevard	69.7	69.7	0.0	No
Campus Drive	e/o Von Karman Avenue	66.7	66.9	0.2	No
Campus Drive	e/o Jamboree Road	70.3	70.5	0.2	No
Campus Drive	w/o MacArthur Boulevard	70.4	70.8	0.4	No
Campus Drive	w/o Von Karman Avenue	69.1	69.3	0.2	No
Campus Drive	w/o Jamboree Road	67.4	67.6	0.2	No
Coast Highway	e/o Superior Avenue	73.4	73.4	0.0	No
Coast Highway	e/o Prospect Street	73.3	73.3	0.0	No
Coast Highway	e/o Bluff Road	71.8	71.7	-0.1	No
Coast Highway	e/o Superior Avenue	72.4	72.4	0.0	No
Coast Highway	e/o Riverside Avenue	71.2	71.2	0.0	No
Coast Highway	e/o Tustin Avenue	73.1	73.1	0.0	No

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Table 5.8-9 Buildout Conditions Project Offsite Contributions

Roadway	Segment	CNEL at 100 feet (dBA)			
		No Project	With Project	Project Contribution	Potential Impact?
Coast Highway	e/o Dover Drive	74.9	74.9	0.0	No
Coast Highway	e/o Bayside Drive	74.4	74.4	0.0	No
Coast Highway	e/o Jamboree Road	73.2	73.1	-0.1	No
Coast Highway	e/o Newport Center Drive	73.0	72.9	-0.1	No
Coast Highway	e/o Avocado Avenue	70.8	70.8	0.0	No
Coast Highway	e/o MacArthur Boulevard	69.4	69.3	-0.1	No
Coast Highway	e/o Goldenrod Avenue	68.5	68.4	-0.1	No
Coast Highway	e/o Marguerite Avenue	68.0	67.8	-0.2	No
Coast Highway	e/o Poppy Avenue	66.9	66.6	-0.3	No
Coast Highway	e/o Newport Coast Drive	72.7	72.7	0.0	No
Coast Highway	w/o Superior Avenue	72.7	72.7	0.0	No
Coast Highway	w/o Riverside Avenue	71.8	71.8	0.0	No
Coast Highway	w/o Tustin Avenue	71.2	71.2	0.0	No
Coast Highway	w/o Dover Drive	70.8	70.8	0.0	No
Coast Highway	w/o Bayside Drive	74.9	74.9	0.0	No
Coast Highway	w/o Jamboree Road	75.3	75.3	0.0	No
Coast Highway	w/o Newport Center Drive	73.6	73.5	-0.1	No
Coast Highway	w/o Avocado Avenue	73.0	72.9	-0.1	No
Coast Highway	w/o MacArthur Boulevard	73.2	73.2	0.0	No
Coast Highway	w/o Goldenrod Avenue	68.7	68.6	-0.1	No
Coast Highway	w/o Marguerite Avenue	68.5	68.4	-0.1	No
Coast Highway	w/o Poppy Avenue	68.0	67.8	-0.2	No
Coast Highway	w/o Newport Coast Drive	73.7	73.6	-0.1	No
Del Mar Avenue	SR-55 to Orange Avenue	63.8	63.8	0.0	No
Dover Drive	n/o Westcliff Drive	61.7	61.7	0.0	No
Dover Drive	n/o 16th Street	68.4	68.4	0.0	No
Dover Drive	n/o Coast Highway	69.6	69.6	0.0	No
Dover Drive	s/o Westcliff Drive	68.4	68.4	0.0	No
Dover Drive	s/o 16th Street	68.8	68.8	0.0	No
Dover Drive	e/o Irvine Avenue	61.7	61.7	0.0	No
Dover Drive	w/o Irvine Avenue	62.6	62.6	0.0	No
Ford Road	e/o Jamboree Road	66.5	66.5	0.0	No
Ford Road	e/o MacArthur Boulevard	69.5	69.3	-0.2	No

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Table 5.8-9 Buildout Conditions Project Offsite Contributions

Roadway	Segment	CNEL at 100 feet (dBA)			
		No Project	With Project	Project Contribution	Potential Impact?
Ford Road	w/o Jamboree Road	64.3	64.3	0.0	No
Ford Road	w/o MacArthur Boulevard	66.5	66.5	0.0	No
Goldenrod Avenue	n/o Coast Highway	53.3	53.3	0.0	No
Harbor Boulevard	19th Street to Victoria Street	69.7	69.7	0.0	No
Harbor View Drive	MacArthur Boulevard to Marguerite Avenue	54.5	54.5	0.0	No
Highland Drive	e/o Irvine Avenue	51.5	51.5	0.0	No
Highland Drive	w/o Irvine Avenue	53.3	53.3	0.0	No
Hospital Road	w/o Placentia Avenue	59.6	59.6	0.0	No
Hospital Road	e/o Superior Avenue	60.8	60.8	0.0	No
Hospital Road	e/o Newport Boulevard	61.9	61.9	0.0	No
Hospital Road	w/o Newport Boulevard	63.6	63.9	0.3	No
Irvine Avenue	n/o Mesa Drive	71.5	71.6	0.1	No
Irvine Avenue	n/o University Drive	67.7	67.8	0.1	No
Irvine Avenue	n/o Santiago Drive	68.8	68.8	0.0	No
Irvine Avenue	n/o Highland to Drive	68.7	68.7	0.0	No
Irvine Avenue	n/o Dover Drive	68.7	68.7	0.0	No
Irvine Avenue	n/o Westcliff Drive	68.1	68.1	0.0	No
Irvine Avenue	s/o Mesa Drive	71.4	71.5	0.1	No
Irvine Avenue	s/o University Drive	69.2	69.4	0.2	No
Irvine Avenue	s/o Santiago Drive	68.1	68.1	0.0	No
Irvine Avenue	s/o Highland Drive	68.7	68.7	0.0	No
Irvine Avenue	s/o Dover Drive	68.1	68.1	0.0	No
Irvine Avenue	s/o Westcliff Drive	66.2	66.2	0.0	No
Jamboree Road	n/o Campus Drive	73.8	73.8	0.0	No
Jamboree Road	n/o Birch Street	72.9	72.8	-0.1	No
Jamboree Road	n/o Bristol Street N	74.6	74.6	0.0	No
Jamboree Road	n/o of Bristol Street S	75.0	75.1	0.1	Yes
Jamboree Road	n/o Bayview Way	74.8	74.9	0.1	No
Jamboree Road	n/o University Drive	74.8	74.9	0.1	No
Jamboree Road	n/o Bison Avenue	73.2	73.5	0.3	No
Jamboree Road	n/o Ford Road	73.8	74.0	0.2	No
Jamboree Road	n/o San Joaquin Hills Road	74.8	75.0	0.2	No
Jamboree Road	n/o Santa Barbara Drive	74.1	74.1	0.0	No

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Table 5.8-9 Buildout Conditions Project Offsite Contributions

Roadway	Segment	CNEL at 100 feet (dBA)			
		No Project	With Project	Project Contribution	Potential Impact?
Jamboree Road	n/o Coast Highway	73.3	73.3	0.0	No
Jamboree Road	s/o Campus Drive	72.9	72.8	-0.1	No
Jamboree Road	s/o Birch Street	73.2	73.3	0.1	No
Jamboree Road	s/o Bristol Street N	67.1	67.6	0.5	No
Jamboree Road	s/o Bristol Street S	74.8	74.9	0.1	No
Jamboree Road	s/o Bayview Way	74.8	74.9	0.1	No
Jamboree Road	s/o University Drive	73.4	73.5	0.1	No
Jamboree Road	s/o Bison Avenue	74.1	74.2	0.1	No
Jamboree Road	s/o Ford Road	74.8	75.0	0.2	No
Jamboree Road	s/o San Joaquin Hills Road	74.1	74.1	0.0	No
Jamboree Road	s/o Santa Barbara Drive	73.6	73.7	0.1	No
Jamboree Road	s/o Coast Highway	63.9	63.9	0.0	No
Jamboree Road	e/o MacArthur Boulevard	73.4	73.5	0.1	No
Jamboree Road	w/o MacArthur Boulevard	74.6	74.6	0.0	No
MacArthur Boulevard	n/o Campus Drive	71.6	71.8	0.2	No
MacArthur Boulevard	n/o Birch Street	72.8	73.0	0.2	No
MacArthur Boulevard	n/o Von Karman Avenue	71.6	71.7	0.1	No
MacArthur Boulevard	n/o Jamboree Road	71.4	71.6	0.2	No
MacArthur Boulevard	n/o Bison Avenue	76.0	76.0	0.0	No
MacArthur Boulevard	n/o Ford Road	76.3	76.4	0.1	Yes
MacArthur Boulevard	n/o San Joaquin Hills Road	75.3	75.4	0.1	Yes
MacArthur Boulevard	n/o San Miguel Drive	73.3	73.4	0.1	No
MacArthur Boulevard	n/o Coast Highway	72.8	72.8	0.0	No
MacArthur Boulevard	s/o Campus Drive	72.7	72.9	0.2	No
MacArthur Boulevard	s/o Birch Street	70.5	70.5	0.0	No
MacArthur Boulevard	s/o Von Karman Avenue	71.4	71.6	0.2	No
MacArthur Boulevard	s/o Jamboree Road	73.4	73.4	0.0	No
MacArthur Boulevard	s/o Bison Avenue	76.3	76.4	0.1	Yes
MacArthur Boulevard	s/o Ford Road	75.1	75.2	0.1	Yes
MacArthur Boulevard	s/o San Joaquin Hills Road	73.3	73.4	0.1	No
MacArthur Boulevard	s/o San Miguel Drive	72.9	72.9	0.0	No
Marguerite Avenue	n/o San Joaquin Hills Road	53.3	53.3	0.0	No
Marguerite Avenue	n/o Coast Highway	60.9	60.9	0.0	No

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Table 5.8-9 Buildout Conditions Project Offsite Contributions

Roadway	Segment	CNEL at 100 feet (dBA)			
		No Project	With Project	Project Contribution	Potential Impact?
Marguerite Avenue	s/o San Joaquin Hills Road	62.7	62.2	-0.5	No
Mesa Drive	e/o Irvine Avenue	66.7	66.7	0.0	No
Mesa Drive	w/o Irvine Avenue	62.8	62.8	0.0	No
Mesa Drive	SR-55 to Orange Avenue	61.7	61.7	0.0	No
Monte Vista Avenue	SR-55 to Orange Avenue	53.3	53.3	0.0	No
Newport Boulevard	n/o Hospital Road	70.2	70.2	0.0	No
Newport Boulevard	n/o Via Lido	73.5	73.5	0.0	No
Newport Boulevard	n/o 32nd Street	66.9	66.9	0.0	No
Newport Boulevard	s/o Hospital Road	71.4	71.4	0.0	No
Newport Boulevard	s/o Via Lido	66.7	66.7	0.0	No
Newport Boulevard	s/o 32nd Street	66.0	66.0	0.0	No
Newport Boulevard E	20th Street to Victoria Street	63.8	63.8	0.0	No
Newport Boulevard W	21Street to Victoria Street	64.2	64.2	0.0	No
Newport Center Drive	n/o Coast Highway	67.1	67.3	0.2	No
Newport Coast Drive	n/o SR-73	68.4	68.1	-0.3	No
Newport Coast Drive	n/o San Joaquin Hills Road	71.5	71.3	-0.2	No
Newport Coast Drive	n/o Coast Highway	70.0	69.1	-0.9	No
Newport Coast Drive	s/o SR-73	71.5	71.3	-0.2	No
Newport Coast Drive	s/o San Joaquin Hills Road	71.3	70.6	-0.7	No
Old Newport Boulevard	n/o Coast Highway	59.5	59.5	0.0	No
Orange Avenue	22nd Street to 21st Street	57.5	57.5	0.0	No
Placentia Avenue	e/o Superior Avenue	62.6	62.6	0.0	No
Placentia Avenue	w/o Superior Avenue	64.0	64.0	0.0	No
Placentia Avenue	19th Street to Victoria Street	67.5	67.6	0.1	No
Pomona Avenue	19th Street to Victoria Street	59.2	59.2	0.0	No
Poppy Avenue	n/o Coast Highway	51.5	51.5	0.0	No
Red Hill Avenue	Bristol Street to Baker Street	69.5	69.7	0.2	No
Riverside Avenue	n/o Coast Highway	60.6	60.6	0.0	No
San Joaquin Hills Road	e/o Jamboree Road	68.9	69.1	0.2	No
San Joaquin Hills Road	e/o Santa Cruz Drive	67.1	67.1	0.0	No
San Joaquin Hills Road	e/o Santa Rosa Drive	69.6	69.8	0.2	No
San Joaquin Hills Road	e/o MacArthur Boulevard	69.9	70.1	0.2	No
San Joaquin Hills Road	e/o San Miguel Drive	68.8	68.8	0.0	No

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Table 5.8-9 Buildout Conditions Project Offsite Contributions

Roadway	Segment	CNEL at 100 feet (dBA)			
		No Project	With Project	Project Contribution	Potential Impact?
San Joaquin Hills Road	e/o Marguerite Avenue	68.4	68.4	0.0	No
San Joaquin Hills Road	e/o Spy Glass Hill Road	68.2	68.2	0.0	No
San Joaquin Hills Road	w/o Santa Cruz Drive	68.9	69.1	0.2	No
San Joaquin Hills Road	w/o Santa Rosa Drive	67.1	67.1	0.0	No
San Joaquin Hills Road	w/o MacArthur Boulevard	70.6	71.0	0.4	No
San Joaquin Hills Road	w/o San Miguel Drive	69.3	69.6	0.3	No
San Joaquin Hills Road	w/o Marguerite Avenue	69.0	69.0	0.0	No
San Joaquin Hills Road	w/o Spy Glass Hill Road	68.4	68.4	0.0	No
San Joaquin Hills Road	w/o Newport Coast Drive	68.7	69.0	0.3	No
San Miguel Drive	n/o San Joaquin Hills Road	64.7	64.7	0.0	No
San Miguel Drive	s/o San Joaquin Hills Road	65.0	65.0	0.0	No
San Miguel Drive	e/o Avocado Avenue	66.8	67.0	0.2	No
San Miguel Drive	e/o MacArthur Boulevard	65.0	65.0	0.0	No
San Miguel Drive	e/o Spy Glass Hill Road	65.8	65.8	0.0	No
San Miguel Drive	w/o Avocado Avenue	63.6	64.0	0.4	No
San Miguel Drive	w/o MacArthur Boulevard	66.8	67.0	0.2	No
San Miguel Drive	w/o Spy Glass Hill Road	65.4	65.4	0.0	No
Santa Ana Avenue	22nd Street to 21st Street	57.5	57.5	0.0	No
Santa Barbara Drive	e/o Jamboree Road	66.0	66.6	0.6	No
Santa Cruz Drive	n/o San Joaquin Hills Road	51.5	51.5	0.0	No
Santa Cruz Drive	s/o San Joaquin Hills Road	63.3	63.7	0.4	No
Santa Isabel Avenue	SR-55 to Orange Avenue	53.3	53.3	0.0	No
Santa Rosa Drive	n/o San Joaquin Hills Road	56.8	56.8	0.0	No
Santa Rosa Drive	s/o San Joaquin Hills Road	60.4	60.7	0.3	No
Santiago Drive	e/o Irvine Avenue	53.3	53.3	0.0	No
Santiago Drive	w/o Irvine Avenue	58.0	58.0	0.0	No
Spy Glass Hill Road	n/o San Joaquin Hills Road	60.1	60.1	0.0	No
Spy Glass Hill Road	s/o San Miguel Drive	60.1	60.1	0.0	No
Superior Avenue	n/o Placentia Avenue	66.9	67.1	0.2	No
Superior Avenue	n/o Coast Highway	65.8	65.8	0.0	No
Superior Avenue	s/o Placentia Avenue	65.0	65.0	0.0	No
Superior Avenue	s/o Coast Highway	64.3	64.3	0.0	No
Tustin Avenue	n/o Coast Highway	53.3	53.3	0.0	No

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Table 5.8-9 Buildout Conditions Project Offsite Contributions

Roadway	Segment	CNEL at 100 feet (dBA)			
		No Project	With Project	Project Contribution	Potential Impact?
Tustin Avenue	22nd Street to 21st Street	56.2	56.2	0.0	No
University Drive	e/o Irvine Avenue	55.0	55.0	0.0	No
University Drive	e/o Jamboree Road	67.5	67.8	0.3	No
University Drive	w/o Irvine Avenue	61.0	61.0	0.0	No
University Drive	w/o Jamboree Road	64.2	64.2	0.0	No
University Drive	MacArthur to California Avenue	73.2	73.2	0.0	No
Via Lido	e/o Newport Boulevard	61.8	61.8	0.0	No
Victoria Street	Brookhurst Street to Placentia Avenue	67.7	67.7	0.0	No
Von Karman Avenue	s/o Campus Drive	66.9	67.1	0.2	No
Von Karman Avenue	e/o MacArthur Boulevard	65.9	66.1	0.2	No
Von Karman Avenue	w/o MacArthur Boulevard	63.3	63.7	0.4	No
Westcliff Drive	e/o Irvine Avenue	64.4	64.4	0.0	No
Westcliff Drive	w/o Dover Drive	61.1	61.1	0.0	No
SR-55	btwn SR-73 and Baker Street	76.8	76.8	0.0	No
SR-55	btwn 19th Street and Victoria Street	75.0	75.0	0.0	No
SR-73	btwn SR-55 and Santa Ana Avenue	75.9	75.9	0.0	No
SR-73	e/o Newport Coast Drive	73.7	73.7	0.0	No
SR-73	btwn Bonita Canyon Road and Newport Coast Drive	74.1	74.1	0.0	No
SR-73	e/o Jamboree Road	74.2	74.2	0.0	No

Notes: e/o = east of; w/o=west of; s/o=south of; n/o=north of.
Contours on freeway segments (SR-55 and SR-73) were calculated 200 feet from the centerline.
Calculation output sheets included in Appendix G.

The following discusses potential noise impacts at the receptors along these streets, given the land use types, distance from the road, and features that provide a more accurate estimate of the actual noise levels that the affected uses are exposed to and the severity of impacts.

Jamboree Road from Bristol Street to MacArthur Boulevard. The segment of Jamboree Road from Bristol Street to MacArthur Boulevard does not have noise-sensitive uses located long this roadway segment. No impacts would occur along this segment.

MacArthur Boulevard from San Joaquin Hills Road to Ford Road. The noise impacts at the segments of MacArthur Boulevard from Ford Road to San Joaquin Hills Road without the project would range from 75.1 to 75.3 at 100 feet from the centerline. However, the nearest home uses along this segments are at distances greater than 150 feet and behind masonry sound walls. Noise drops at a rate of approximately 3 dBA per doubling distance, and with noise barrier attenuation, these homes would be exposed to noise levels below 75

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dBa CNEL, where the allowable increases would be up to 1.0 dBA. Project-related traffic would increase the noise levels by 0.1 dBA, which is below the threshold of significance. No impact would occur at this segment.

MacArthur Boulevard from Ford Road to Bison Avenue. The noise impacts at the segments of MacArthur Boulevard from Ford Road to Bison Avenue without the project would be 76.3 at 100 feet from the centerline. However, the nearest home uses along this segment are at distances greater than 150 feet and behind masonry sound walls. A few unmitigated homes are approximately 300 feet from the centerline of MacArthur Boulevard. Noise drops at a rate of approximately 3 dBA per doubling distance, and with noise barrier attenuation, these homes would be exposed to noise levels below 75 dBA CNEL, where the allowable increases would be up to 1.0 dBA. Project-related traffic would increase the noise levels by 0.1 dBA, which is below the threshold of significance. No impact would occur at this segment.

In summary, no roadway segments would exceed the thresholds for transportation noise impacts in Table 5.8-5; therefore, this increase would be less than significant.

Impact 5.8-3 Changes to the land uses would not expose noise-sensitive uses to excessive noise levels. [Thresholds N-1 and N-3]

This impact statement addresses land use compatibility associated with sites where changes in land uses designations would occur, as identified in Table 3-3, *Proposed Areas of Change*. Specific impacts related to aircraft noise in the Airport Area are addressed in Impact 5.8-4.

Land use compatibility is a function of the type of receptor and the ambient noise exposure. The City's Noise Element includes guidelines to assess land use and noise compatibility. Table 5.8-3 presents noise levels that are "clearly compatible," "normally compatible," "normally incompatible," and "clearly incompatible" for the development of the proposed uses that would include residential, open space/park, commercial, and office. Sites where no land use changes would occur would have to meet the same noise standards and be subject to the same requirements. There would be no impacts at each individual site where the only changes would be the density/intensity of land uses.

As described in Table 3-3, subareas proposed for a change in land use designation would be:

- **Gateway Park, 3531 Newport Boulevard:** This site would change from a General Commercial (GC) designation to Parks and Recreation (PR). The major source of noise in the vicinity of this site is traffic on Newport Boulevard. According to the noise contours calculated for long-range conditions, traffic noise from Newport Boulevard in this vicinity is approximately 66 dBA CNEL, which would be considered "normally compatible" with park uses. Development of the site as a park would be subject to separate, project-level CEQA review to identify and if appropriate mitigate impacts to comply with the City of Newport Beach standards for nontransportation noise sources shown in Table 5.8-4. Impacts would be less than significant.
- **150 Newport Center Drive:** This site would change from a General Commercial Office (CO-R) designation to Mixed-Use Horizontal (MU-H3). The major source of noise in the vicinity of this site is traffic on Newport Center Drive. According to the noise contours calculated for long range conditions,

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traffic noise from Newport Center Drive in this vicinity is approximately 67 dBA CNEL, which would be considered “normally incompatible” with the residential uses and “normally compatible” or “clearly compatible” with nonresidential uses, depending on type. Development of the site as a mixed-use project would be subject to separate, project-level CEQA review to identify and if appropriate mitigate impacts to comply with the City of Newport Beach standards for nontransportation noise sources shown in Table 5.8-4. Impacts would be less than significant.

- **100 Newport Center Drive:** This site would change from a General Commercial Office (CO-R) designation to Mixed-Use Horizontal (MU-H3). The major source of noise in the vicinity of this site is traffic on Newport Center Drive. Due to low traffic volumes and speeds of approximately 35 miles per hour on the Newport Center Drive circle, traffic noise in that road is typical of a secondary road, and the development of this site would be “normally compatible” with the proposed residential and office designation. Development of the site as a mixed-use project or expanded other uses would be subject to separate, project-level CEQA review to identify and if appropriate mitigate impacts to comply with the City of Newport Beach standards for nontransportation noise sources shown in Table 5.8-4. Impacts would be less than significant.
- **Saunders Properties:** This site would change from an Airport Office and Supporting Uses (AO) designation to Mixed Use Horizontal (MU-H2). The major source of noise in the vicinity of this site is traffic on MacArthur Boulevard and Campus Drive. According to the noise contours calculated for long-range conditions, traffic noise from Campus Drive in the vicinity of the site is approximately 71 dBA CNEL, and on MacArthur Boulevard 73 dBA CNEL, which would be considered “normally incompatible” with residential uses. Under this ambient noise exposure, new construction can proceed with a detailed analysis of noise reduction requirements and noise reduction features in the design. The nonresidential portions would be in the “normally compatible” and “clearly compatible” categories. Development of the site as a mixed-use project would be subject to separate, project-level CEQA review to identify and if appropriate mitigate impacts to comply with the City of Newport Beach standards for nontransportation noise sources shown in Table 5.8-4. Impacts related to traffic noise and stationary noise sources would be less than significant. Impact 5.8-4 addresses potential noise impacts related to aircraft noise from John Wayne Airport operations.
- **The Hangars:** This site would change from a General Commercial Office (CO-G) designation to General Commercial (GC). The major source of noise in the vicinity of this site is traffic on Birch Street. According to the noise contours calculated for long-range conditions, traffic noise on Birch Street would be 70 dBA CNEL, and the development of this site would be considered “clearly compatible” with commercial developments. Commercial uses are not considered noise-sensitive uses. Impacts related to traffic noise and stationary noise sources would be less than significant. Impact 5.8-4 addresses potential noise impacts related to aircraft noise from John Wayne Airport operations.
- **UAP Companies, 4699 Jamboree Road and 5190 Campus Drive:** This site would change from an Office (CO-G) designation to Mixed Use Horizontal (MU-H2). A congregate care facility could be developed at this site if the amendment is approved. The major source of noise in the vicinity of this site

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is traffic on Jamboree Road. According to the noise contours calculated for long-range conditions, traffic noise on Jamboree Road would be 73 dBA CNEL and on Campus Drive 68 dBA CNEL. The development of this site would be considered “normally incompatible” with residential developments. Under this ambient noise exposure, new construction can proceed with a detailed analysis of noise reduction requirements and insulation features in the design. The nonresidential portions would be in the “normally compatible” and “clearly compatible” categories. Redevelopment of this would be subject to separate, project-level CEQA review to identify and if appropriate mitigate impacts to comply with the City of Newport Beach standards for nontransportation noise sources shown in Table 5.8-4. Impacts related to traffic noise and stationary noise sources would be less than significant. Impact 5.8-4 addresses potential noise impacts related to aircraft noise from John Wayne Airport operations.

- **1526 Placentia Avenue:** This site would change from Multi-Unit Residential (RM) to General Commercial (GC). The major source of noise in the vicinity of this site is traffic on Placentia Avenue. Commercial uses are not noise-sensitive uses. Impacts would be less than significant.
- **813 E. Balboa Boulevard:** This site would change from Two-Unit Residential (RT) to Mixed-Use Vertical (MU-V). The major source of noise at this site is traffic on Balboa Boulevard. Due to low traffic volumes and speeds on this section of Balboa Boulevard, the development of residential uses at this site would be compatible. Impacts would be less than significant.

A program-level review of noise levels at each site was performed as outlined above. Development of projects would be subject to separate, project-level CEQA review to identify and if necessary mitigate impacts to ensure that the proposed uses would be compatible with the future ambient noise levels and that exterior and interior noise levels comply with the City of Newport Beach standards. Impacts would be less than significant.

Impact 5.8-4: The proximity of the sites to the John Wayne Airport would result in exposure of future residents and workers to airport-related noise. [Threshold N-5]

Impact Analysis: A large portion of Newport Beach is located within the boundaries of the AELUP of John Wayne Airport. The Airport Area is a subarea proposed for considerable changes from the existing land use plan and might be affected by airport noise. The project proposes changes to four properties within the subarea: Saunders Properties, The Hangars, Lyon Communities, and UAP Companies (see Figure 3-4, *Airport Area Proposed Changes*). Currently, the four properties only consist of office and retail buildings. The proposed project would allow for increased square footage for retail and office uses as well as residential dwelling units and hotel rooms.

Policy N 3.2 of the Noise Element requires that residential development in the Airport Area be located outside of the 65 dBA CNEL noise contour no larger than shown in the 1985 JWA Airport Environs Land Use Plan (AELUP). In addition, it requires that residential developers notify prospective purchasers or tenants of aircraft overflight and noise.

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The Airport Land Use Commission (ALUC) of Orange County adopted an Airport Environs Land Use Plan (AELUP, amended April 17, 2008) that included JWA. The AELUP is a land use compatibility plan that is intended to protect the public from adverse effects of aircraft noise. The four properties listed above in the Airport Area are within portions of the Airport Influence Area (AIA) defined by the AELUP. In most instances, the airport influence area is designated by the ALUC as its planning area boundary for the airport, and the two terms can be considered synonymous. The aircraft noise contours that are used for planning purposes by the County of Orange and Airport Land Use Commission are found in the AELUP and derived from the 1985 Master Plan for JWA and the accompanying EIR 508. These noise contours are based on fleet mix and flight level assumptions developed in EIR 508 and are shown in Figure 5.8-2. The Planning Area is the furthest extent of the 60 dBA CNEL contour.

The AELUP identifies noise impacts zones based on the airport noise contour projections and are shown in Appendix D of the AELUP.

- **Noise Impact Zone “1”** is the high noise impact that would occur in areas within the 65 dBA CNEL noise contour. The ALUC does not support residential development within this zone. All residential units would be inconsistent in this area unless it can be shown that the interior 45 dBA CNEL noise level is not exceeded in interior areas with an accompanying avigation easement for noise. Commercial, industrial, and recreational uses may be acceptable in this zone providing that commercial and industrial structures are sufficiently sound attenuated to allow normal work activities. The 12-hour Leq interior noise standards due to exterior noise measured from 7 AM to 7 PM, or other appropriate, approved time periods are shown below:
 - private offices, church sanctuary, board room, conference room = 45 dBA
 - general office, reception, clerical = 50 dBA
 - bank lobby, retail store, restaurant = 55 dBA
 - manufacturing, kitchen, warehousing = 65 dBA

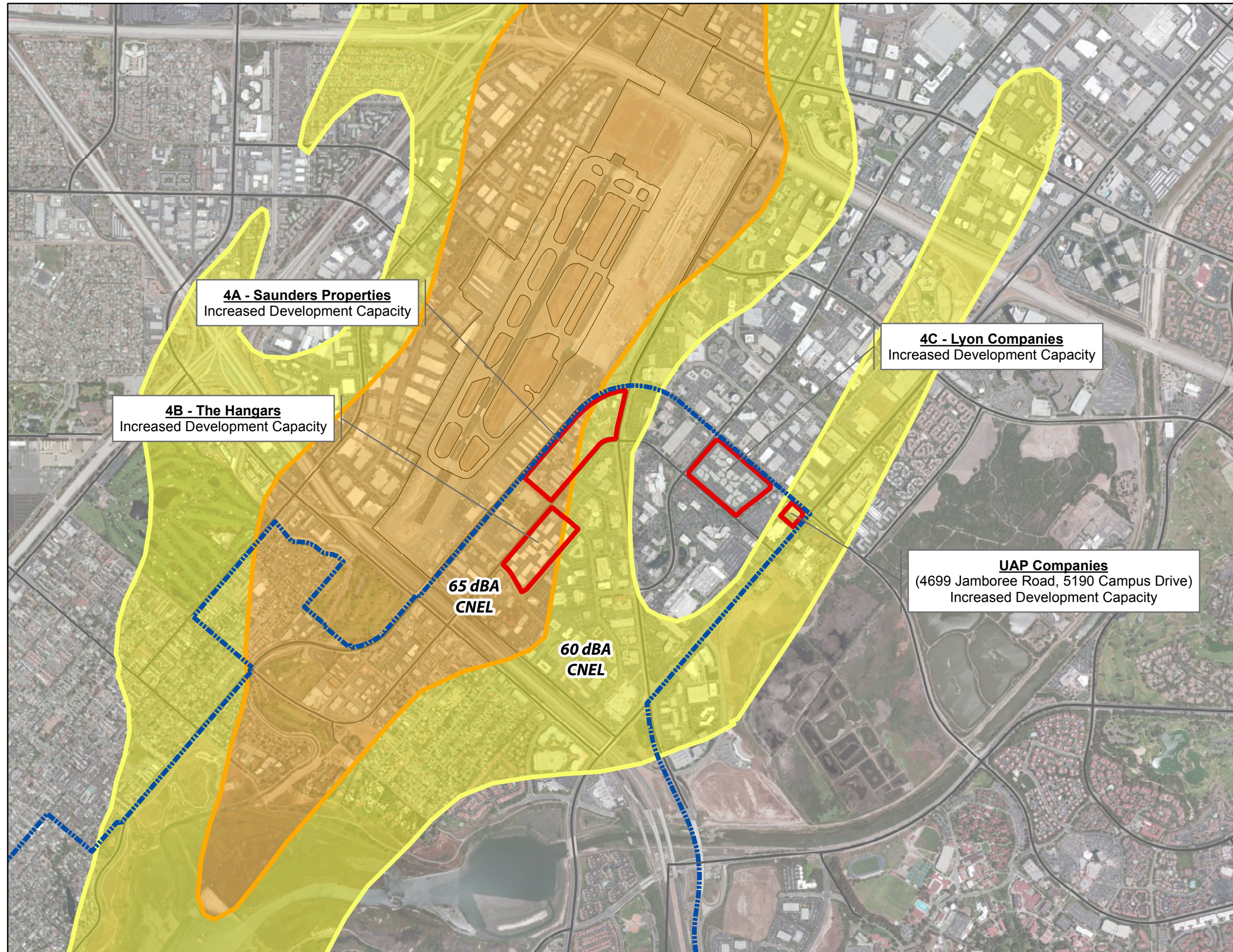
- **Noise impact Zone “2”** is the moderate noise impact that would occur in areas within the 60 dBA CNEL noise contour. Even though the it would not find residential units incompatible in this area, the ALUC strongly recommends that residential units be limited or excluded from this area unless sufficiently sound attenuated. The residential use interior sound attenuation requirement shall be a CNEL value not exceeding an interior level of 45 dBA.

The noise impact zones and the four sites that the project would allow for increased development are depicted in Figure 5.8-2. The AELUP defines land uses that are “normally consistent,” “conditionally consistent,” and “conditionally inconsistent” with aircraft noise. The ALUC for Orange County compatibility guidelines are presented in Figure 5.8-3.

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Figure 5.8-2

John Wayne Airport Noise Impact Zones & Sites of Proposed Land Use Changes



- City Boundary
- Areas of Land Use Changes
- Noise Impact Zones**
 - 60 dBA CNEL Contour
 - 65 dBA CNEL Contour

Source: (NEED SOURCE)

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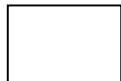
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Figure 5.8-3

Airport Land Use Commission for Orange County Noise Compatability Guidelines

LAND USE CATEGORY	COMMUNITY NOISE EQUIVALENT LEVEL dB						
	55	60	65	70	75	80	
Residential (all types): Single and Multi-Family Residences							
Community Facilities: Churches, Libraries, Schools, Preschools, Day-Care Centers, Hospitals, Nursing/Convalescent Homes, & Other noise sensitive uses							
Commercial: Retail, Office							
Industrial:							



NORMALLY CONSISTENT

Conventional construction methods used. No special noise reduction requirements.



CONDITIONALLY CONSISTENT

Must use sound attenuation as required by the California Noise Insulation Standards, Title 25, California Code of Regulations. Residential use sound attenuation required to ensure that the interior CNEL does not exceed 45 dB. Commercial and industrial structures shall be sound attenuated to meet Noise Impact Zone "1" criteria (refer to Section 3.2.3).



NORMALLY INCONSISTENT

All residential units are inconsistent unless are sound attenuated to ensure that the interior CNEL does not exceed 45 dB, and that all units are indoor oriented so as to preclude noise impingement on outdoor living areas.



Land Use Element Update
Supplemental EIR

Note: Applicable to aircraft noise sources.

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The Hangars

The Hangars site is currently designated as General Commercial Office. It would allow for an increase in development intensity and to allow for office and retail uses. As shown on Figure 5.8-2, most of The Hangars site is within Noise Impact Zone 1. According to the noise compatibility guidelines, these uses within Zone 1 would be “conditionally consistent” with the exposed aircraft noise. A remaining small portion of the site is within Noise Impact Zone 2, in which the development of office and retail uses would be “normally consistent” with the exposed ambient noise level. There would be no change in terms of compatibility because the proposed sites are subject to the same compatibility guidelines as the approved uses. Impacts would be less than significant.

The Saunders Properties

The Saunders Properties site is currently designated as airport office and supporting uses. It would allow for an increase in development intensity and for Mixed-Use developments with Office and Residential uses. As shown on Figure 5.8-2, a large portion of the Saunders Properties site is within Noise Impact Zone 1. According to the noise compatibility guidelines, office uses would be “conditionally consistent” with the exposed aircraft noise. There would be no change in terms of compatibility for the office uses because the current designation is also “conditionally consistent.” JWA AELUP policies do not allow residential uses within Noise Impact Zone 1. In addition, the 2006 General Plan (Policy N 3.2) requires that residential development in the Airport Area be located outside of the 65 dBA CNEL noise contour no larger than shown in the 1985 JWA Master Plan and requires that residential developers notify prospective purchasers or tenants of aircraft overflight and noise. Notification of aircraft noise is consistent with AB 2776, which requires any person who intends to sell or lease residential properties within an airport influence area to disclose that fact to the person buying the property.

With implementation of Policy N 3.2, no residential areas would be constructed in the portions of the site within Noise Impact Zone 1, and residential developers would notify prospective purchasers or tenants of aircraft overflight and noise. For residential projects developed in Noise Impact Zone 2, the AELUP notes that residents occupying residential units may experience “inconvenience, annoyance, or discomfort arising from noise of aircraft at the airport.” As outlined in the AELUP, the residential use interior sound attenuation in this noise impact zone is required to achieve a CNEL value not exceeding an interior level of 45 dBA. Title 21 of the California Code of Regulations requires an interior noise level of 45 dBA CNEL due to exterior noise, and these uses would be constructed with the necessary noise insulation requirements to meet the standard. With implementation of Policy N 3.2 and the building construction requirements from Title 21 of the California Code of Regulations, development at the Saunders Properties would be consistent with the policies of the JWA AELUP, and no additional mitigation would be required.

The remaining office areas to be developed in the Noise Impact Zone 2 would be “normally consistent” with aircraft noise, and no mitigation would be required for these areas. Future project-related residential uses that would fall within Noise Impact Zone 2 would be required to adhere to the 45 dBA CNEL interior noise standard per Title 21 of the California Code of Regulations, and outlined in the AELUP for JWA. If residential areas would be constructed within Noise Impact Zone 2, residential use interior sound attenuation

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requirement shall be a CNEL value not exceeding an interior level of 45 dBA. Impacts would be less than significant.

Lyon Companies

The Lyon Companies site is currently designated as mixed-use horizontal. It would allow for an increase in development intensity and allow for retail, office, residential and hotel uses. As shown on Figure 5.8-2, a portion of the Lyon Companies site is outside the AIA and outside the Noise Impact Zone 2. All uses would be “normally consistent,” and no mitigation measures would be required.

UAP Companies

The UAP Companies site is currently designated as mixed use horizontal and allows for office uses. The project would allow for an increase in development intensity and allow for office and congregate care uses. For the purpose of this analysis, congregate care uses are treated as residential. As shown on Figure 5.8-2, a portion of the UAP Company site is within Noise Impact Zone 2, and no portions are within Noise Impact Zone 1. According to the noise compatibility guidelines, office uses would be “normally consistent” with the exposed aircraft noise. Congregate care uses would be “conditionally consistent” with the exposed aircraft noise. Future congregate care uses that would proposed to be placed within Noise Impact Zone 2 would be required to adhere to the 45 dBA CNEL interior noise standard outlined in Title 21 of the California Code of Regulations and the AELUP for JWA.

It should be noted that the County of Orange is currently preparing an EIR to analyze potential impacts associated with the Settlement Agreement Amendment Project identified in the Notice of Preparation released on October 1, 2013. The NOP/IS identified that this project would have the potential of increasing cumulative noise levels (e.g., CNEL) at the Airport in exceedance of established thresholds. The proposed amendment to the Settlement Agreement would expand the number of annual passengers and average daily departures from January 1, 2021, to December 31, 2035. Increased activity could expand the areas under Noise Impact Zones 1 and 2, exposing the sites in the airport area, identified above, to higher noise levels. However, until the County of Orange’s EIR analysis is completed, it is not possible and speculative at best to identify with precision the probable environmental effects of the Settlement Agreement Amendment Project related to noise. Application of Policy N 3.2 and compliance with Title 21 would ensure that the proposed land use changes are consistent with City and JWA AELUP policies.

In summary, with (1) application of Policy N 3.2 of the Noise Element and (2) compliance with Title 21 of the California Code of Regulations, the proposed changes in land uses would be consistent with JWA AELUP’s noise policies. Impacts would be less than significant, and no mitigation would be required.

Impact 5.8-5: The proposed land use changes would not result in substantial temporary noise increases in the vicinity of the proposed areas for changes. [Threshold N-4]

Impact Analysis: Development pursuant to the proposed project may result in a temporary or periodic increase in ambient noise above existing levels. This analysis focuses on the construction in areas that would allow a change in development capacity under the proposed General Plan LUE Amendment.

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Construction noise is an existing noise source in the City. Although the 2006 General Plan limits construction activities to specific days of the week and hours of the day, construction equipment generates high noise levels, as shown in Table 5.8-10. Section 10.26.035 of the municipal code (Exemptions) exempts “noise sources associated with construction, repair, remodeling, demolition, or grading of any real property.”

Table 5.8-10 lists maximum construction equipment noise levels from a reference distance of 50 feet away and the industry standard duty cycles for typical development activities.

Table 5.8-10 Construction Equipment Noise Levels

Equipment	Noise Level (dBA) at 50 ft	Typical Duty Cycle
Auger Drill Rig	85	20%
Backhoe	80	40%
Blasting	94	1%
Chain Saw	85	20%
Clam Shovel	93	20%
Compactor (ground)	80	20%
Compressor (air)	80	40%
Concrete Mixer Truck	85	40%
Concrete Pump	82	20%
Concrete Saw	90	20%
Crane (mobile or stationary)	85	20%
Dozer	85	40%
Dump Truck	84	40%
Excavator	85	40%
Front End Loader	80	40%
Generator (25 KVA or less)	70	50%
Generator (more than 25 KVA)	82	50%
Grader	85	40%
Hydra Break Ram	90	10%
In situ Soil Sampling Rig	84	20%
Jackhammer	85	20%
Mounted Impact Hammer (hoe ram)	90	20%
Paver	85	50%
Impact Pile Driver	95	20%
Pneumatic Tools	85	50%
Pumps	77	50%
Rock Drill	85	20%
Scraper	85	40%
Tractor	84	40%
Vacuum Excavator (vac-truck)	85	40%
Vibratory Concrete Mixer	80	20%

Source: Thalheimer 2000.
KVA = kilovolt amps

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As with the 2006 General Plan, development of sites throughout the City would cause temporary noise impacts during construction at adjacent land uses. The General Plan LUE Amendment proposes specific land uses changes in focused areas, which include areas with reduced development capacity and areas with increased development capacity. The most significant reduction in development capacity would occur at the Newport Coast subarea, which upon approval of the amendment would allow 1,001 fewer hotel units and a reduction of 37,875 square feet of neighborhood commercial use. Areas proposed for increased development capacity through increasing square footage, rooms, or dwelling units include Newport Center/Fashion Island, Harbor Day School, the Airport Area, 150 Newport Center Drive, and 100 Newport Center Drive.

One of the most significant changes from the existing land use plan would be in the Newport Center/Fashion Island subarea. This subarea is currently a major commercial area with a variety of existing retail, office, residential, and hotel uses. The proposed land use element amendment would increase allowable square footage for regional office space, regional commercial space, and multifamily dwelling units. The Airport Area is another subarea proposed for changes from the existing land use plan.

Construction would be localized and would occur intermittently for varying periods of time. Land uses that could potentially be affected by the proposed project are the areas in the vicinity of the sites identified in Figures 3-3 to 3-10. Potentially affected areas would include noise-sensitive uses such as residential, hotels, and commercial and office uses. It is likely that areas with reduced development capacity would require less construction equipment and less earthmoving when compared to the 2006 General Plan. Conversely, areas with increased capacity may require more excavation for underground parking and more building construction to allow for greater building heights. The following evaluates potential impacts associated with increased and change in development capacity at the sites where noise-sensitive receptors are located. It describes the sites, the type of noise-sensitive uses near each site, and how the project would have the potential to result in greater impacts than development at each site under the 2006 General Plan:

- **Gateway Park, 3531 Newport Boulevard:** This site would change from a General Commercial (GC) designation to Parks and Recreation (PR). The site is currently vacant (landscaping), located off Newport Boulevard, and is surrounded by residential and commercial uses. as the site is already landscaped as a park with turf and a wall, any improvements related to park uses, temporary construction noise impacts with the General Plan LUE Amendment would be less than significant compared to the 2006 General Plan.
- **1526 Placentia Avenue:** This site would change from Multi-Unit Residential (RM) to General Commercial (GC). The site is currently developed as a liquor store/market located off Placentia Avenue and is surrounded by high-density residential and commercial/office uses. This is a relatively small site, and it is already developed as commercial. As the site is already developed as commercial, no construction is anticipated, there would be no impacts at uses surrounding this site.
- **813 E. Balboa Boulevard:** This site would change from Two-Unit Residential (RT) to Mixed-Use Vertical (MU-V). This site is on the peninsula facing Balboa Boulevard is currently developed with a single story commercial building and is surrounded by mixed use and residential areas. The site would also accommodate a mixed use development. This is a relatively small site, and it is anticipated that

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development of the site as mixed use vertical would require similar construction equipment for fine grading, trenching for utilities, and building construction as it would for a two-unit residential project. Therefore, it is anticipated that the uses allowed under the General Plan LUE Amendment would result in similar construction noise impacts as the uses under the 2006 General Plan. Impacts would be less than significant at uses surrounding this site.

The remaining parcels would not be near noise-sensitive uses, or they anticipate a reduction of development capacity. Subsequent projects would be subject to separate, project-level CEQA review to identify and mitigate associated impacts. Prior to construction of each site, for projects that are not subject to separate environmental review, construction noise impacts would be addressed through compliance with the City's General Plan and municipal code through the City's building permitting process. Several methods can be implemented to reduce noise during construction, such as equipment selection, selecting staging areas as far as possible from nearby noise-sensitive areas, and temporary construction walls.

Because construction noise levels at individual construction sites identified under the General Plan LUE Amendment would not substantially differ from the 2006 General Plan, construction noise impacts with implementation of the General Plan LUE Amendment would be less than significant.

Impact 5.8-6: Changes of land uses would substantially increase groundborne vibration and groundborne noise related to construction activities. [Threshold N-2]

Impact Analysis: The effect on buildings in the vicinity of a construction site varies depending on soil type, ground strata, and receptor-building construction. The results from vibration can range from no perceptible effects at the lowest vibration levels, to low rumbling sounds and perceptible vibrations at moderate levels, to slight structural damage at the highest levels. Vibration from construction activities rarely reaches the levels that can damage structures, but groundborne vibration and groundborne noise can reach perceptible and audible levels in buildings that are close to the construction site. Table 5.8-11 lists vibration levels for construction equipment.

Table 5.8-11 Construction Equipment Vibration Levels, Approximate RMS Velocity(VdB)

Equipment	25 Feet	50 Feet	100 Feet	200 Feet
Vibratory Roller	94 ¹	88	82	76
Large Bulldozer	87	81	75	75
Jackhammer	79	73	67	67
Small Bulldozer	58	52	46	46
Loaded Trucks	86	80	74	74
FTA Criteria – Human Annoyance (Daytime)	78	78	78	78
FTA Criteria – Architectural Damage	—	—	—	—

Source: FTA 2006.

¹ RMS velocity calculated from vibration level (VdB) using the reference of 1 microinch/second and a crest factor of 4.

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As shown in Table 5.8-11, vibration generated by construction equipment has the potential to be substantial. However, groundborne vibration is almost never annoying to people who are outdoors, so it is usually evaluated in terms of indoor receivers (FTA 2006). Significant vibration impacts may occur from construction activities for the sites where land use changes may occur, as discussed in Impact 5.8-5, above. Development in accordance with the proposed land use changes would include areas with increased intensity, but specific construction details are not available at this time.

Construction would be localized and would occur intermittently for varying periods of time. Grading and demolition activities typically generate the highest vibration levels. Impact pile driving and rock blasting can generate high levels in excess of 100 PPV at 25 feet away. However, typical construction projects do not require these methods, or if necessary, they can be typically mitigated with alternate methods, such as nonexplosive rock breaking instead of rock blasting and drilled piles instead of impact pile driving. Except for pile driving and rock blasting, maximum vibration levels measured at a distance of 25 feet from an individual piece of typical construction equipment do not exceed the thresholds for architectural damage, and they do not reach levels that are considered annoying at distances greater than 200 feet.

Subsequent projects would be subject to separate, project-level CEQA review to identify and mitigate associated impacts. Construction activities will occur at discrete locations in the City, and vibration from such activity may impact existing buildings and their occupants if they are close enough to the construction sites. As discussed in the 2006 General Plan EIR, there is no feasible mitigation available to eliminate potential vibration impacts if receptors are in close proximity and equipment generates high vibration levels, such as pile driving. As identified in the 2006 General Plan EIR, intensification of land uses at some of the identified sites could result in vibration impacts greater than the 2006 General Plan. This impact would be significant.

5.8.4 Relevant General Plan Policies

Existing Policies

Noise Element (N)

Goal N 1 - Noise Compatibility: Minimized land use conflicts between various noise sources and other human activities.

- **N 1.1 - Noise Compatibility of New Development:** Require that all proposed projects are compatible with the noise environment through use of Table N2 (presented here as Table 5.8-3), and enforce the interior and exterior noise standards shown in Table N3 (presented here as Table 5.8-4).
- **N 1.2 - Noise Exposure Verification for New Development:** Applicants for proposed projects that require environmental review and are, located in areas projected to be exposed to a CNEL of 60 dBA and higher, as shown on Figure N4, Figure N5, and Figure N6 of the Noise Element may conduct a field survey, noise measurements or other modeling in a manner acceptable to the City to provide evidence that the depicted noise contours do not adequately account for local noise exposure circumstances due to such factors as, topography, variation in traffic speeds, and other applicable conditions. These findings shall be used to determine the level of exterior or interior, noise attenuation needed to attain an

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acceptable noise exposure level and the feasibility of such mitigation when other planning considerations are taken into account.

- **N 1.4 - New Developments in Urban Areas:** Require that applicants of residential portions of mixed-use projects and high density residential developments in urban areas (such as the Airport Area and Newport Center) demonstrate that the design of the structure will adequately isolate noise between adjacent uses and units (common floor/ceilings) in accordance with the California Building Code.
- **N 1.5 - Infill Projects:** Allow a higher exterior noise level standard for infill projects in existing residential areas adjacent to major arterials if it can be shown that there are no feasible mechanisms to meet the exterior noise levels. The interior standard of 45 dBA CNEL shall be enforced for any new residential project.
- **N 1.6 - Mixed Use Developments:** Encourage new mixed-use developments to site loading areas, parking lots, driveways, trash enclosures, mechanical equipment, and other noise sources away from the residential portion of the development.
- **N 1.7 - Commercial/Entertainment Uses:** Limit hours and/or requires attenuation of commercial/entertainment operations adjacent to residential and other noise sensitive uses in order to minimize excessive noise to these receptors.
- **N 1.8 - Significant Noise Impacts:** Require the employment of noise mitigation measures for existing sensitive uses when a significant noise impact is identified for new development impacting existing sensitive uses, as presented in Table 5.8-5.

Goal N 2: Minimized motor vehicle traffic and boat noise impacts on sensitive noise receptors

- **N 2.1 - New Development:** Require that proposed noise-sensitive uses in areas of 60 dBA and greater, as determined the analyses stipulated by Policy N1.1, demonstrate that they meet interior and exterior noise levels.
- **N 2.2 - Design of Sensitive Land Uses:** Require the use of walls, berms, and interior noise insulation, double paned windows, or other noise mitigation measures, as appropriate, in the design of new residential or other new noise sensitive land uses that are adjacent to major roads. Application of the Noise Standards in Table N3 (Table 5.8-4) shall govern this requirement.
- **N 2.3 - Limiting Truck Deliveries:** Limit the hours of truck deliveries to commercial uses abutting residential uses and other noise sensitive land uses to minimize excessive noise unless there is no feasible alternative. Any exemption shall require compliance with nighttime (10:00 P.M. to 7:00 A.M.) noise standards.

Goal N 3: Protection of Newport Beach residents from the adverse noise impacts of commercial air carrier operations at John Wayne Airport as provided in the City Council Airport Policy.

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- **N 3.1 - New Development:** Ensure new development is compatible with the noise environment by using airport noise contours no larger than those contained in the 1985 JWA Master Plan, as guides to future planning and development decisions.
- **N 3.2 - Residential Development:** Require that residential development in the Airport Area be located outside of the 65 dBA CNEL noise contour no larger than shown in the 1985 JWA Master Plan and require residential developers to notify prospective purchasers or tenants of aircraft overflight and noise.
- **N 3.3 - Avigation Easement:** Consider requiring the dedication of avigation easements in favor of the County of Orange when noise sensitive uses are proposed in the JWA planning area, as established in the JWA Airport Environs Land Use Plan (AELUP).

Goal N 4 - Minimization of Nontransportation-Related Noise: Minimized nontransportation-related noise impacts on sensitive noise receptors.

- **N 4.1 - Stationary Noise Sources:** Enforce interior and exterior noise standards outlined in Table N3 (Table 5.8-4), and in the City's Municipal Code to ensure that sensitive noise receptors are not exposed to excessive noise levels from stationary noise sources, such as heating, ventilation, and air conditioning equipment.
- **N 4.2 - New Uses:** Require that new uses such as restaurants, bars, entertainment, parking facilities, and other commercial uses where large numbers of people may be present adjacent to sensitive noise receptors obtain a use permit that is based on compliance with the noise standards in Table N3 and the City's Municipal Code.
- **N 4.3 - New Commercial Developments:** Require that new commercial developments abutting residentially designated properties be designed to minimize noise impacts generated by loading areas, parking lots, trash enclosures, mechanical equipment, and any other noise generating features specific to the development to the extent feasible.
- **N 4.4 - Limiting Hours of Recreational Activities:** Limit hours when recreational activities in parks and the harbor can take place.
- **N 4.6 - Maintenance or Construction Activities:** Require the enforcement of the Noise Ordinance noise limits and limits hours of maintenance or construction activity in or adjacent to residential areas, including noise that results from in-home hobby or work related activities.

Goal N 5: Minimized excessive construction-related noise.

- **N 5.1 - Limiting Hours of Activity:** Enforce the limits on hours of construction activity.

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Land Use Element (LU)

Goal LU 5.3: Districts where residents and businesses are intermixed that are designed and planned to ensure compatibility among the uses, that they are highly livable for residents, and are of high quality design reflecting the traditions of Newport Beach.

- **LU 5.3.1 - Mixed-Use Buildings:** Require that mixed-use buildings be designed to convey a high level of architectural and landscape quality and ensure compatibility among their uses in consideration of the following principles:
 - Design and incorporation of building materials and features to avoid conflicts among uses, such as noise, vibration, lighting, odors, and similar impacts
 - Visual and physical integration of residential and nonresidential uses
 - Architectural treatment of building elevations and modulation of their massing
 - Separate and well-defined entries for residential units and nonresidential businesses
 - Design of parking areas and facilities for architectural consistency and integration among uses
 - Incorporation of extensive landscape appropriate to its location; urbanized streetscapes, for example, would require less landscape along the street frontage but integrate landscape into interior courtyards and common open spaces.

Goal LU 6.1: A diversity of governmental service, institutional, educational, cultural, social, religious, and medical facilities that are available for and enhance the quality of life for residents and are located and designed to complement Newport Beach's neighborhoods.

- **LU 6.1.3 - Architecture and Planning that Complements Adjoining Uses:** Ensure that the City's public buildings, sites, and infrastructure are designed to be compatible in scale, mass, character, and architecture with the district or neighborhood in which they are located, following the design and development policies for private uses specified by this Plan. Design impacts on adjoining uses shall be carefully considered in development, addressing such issues as lighting spillover, noise, hours of operation, parking, local traffic impacts, and privacy.

Goal LU 6.2: Residential neighborhoods that contain a diversity of housing types and supporting uses to meet the needs of Newport Beach's residents and are designed to sustain livability and a high quality of life.

- **LU 6.2.5 - Neighborhood Supporting Uses:** Allow for the integration of uses within residential neighborhoods that support and are complementary to their primary function as a living environment such as schools, parks, community meeting facilities, religious facilities, and comparable uses. These uses shall be designed to ensure compatibility with adjoining residential addressing such issues as noise, lighting, and parking.

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- **LU 6.2.6 - Home Occupations:** Allow for small scale home occupations in Newport Beach’s residential neighborhoods provided that they do not adversely impact traffic, parking, noise, lighting, and other neighborhood qualities.

Goal LU 6.15: A mixed-use community that provides jobs, residential, and supporting services in close proximity, with pedestrian-oriented amenities that facilitate walking and enhance livability.

- **LU 6.15.3 - Airport Compatibility:** Require that all development be constructed in conformance with the height restrictions set forth by Federal Aviation Administration (FAA), Federal Aviation Regulations (FAR) Part 77, and Caltrans Division of Aeronautics, and that residential development be located outside of the 65 dBA CNEL noise contour specified by the 1985 JWA Master Plan.
- **LU 6.15.15 - Aircraft Notification:** Require that all neighborhood parks be posted with a notification to users regarding proximity to John Wayne Airport and aircraft overflight and noise.

Goal LU 6.16: Development along arterial corridors that is compatible with adjoining residential neighborhoods and open spaces, is well designed and attractive, minimizes traffic impacts, and provides adequate parking.

- **LU 6.16.6 - Design Compatibility with Adjoining Residential Neighborhoods:** Require that building elevations facing adjoining residential units be designed to convey a high-quality character and ensure privacy of the residents, and that properties be developed to mitigate to the maximum extent feasible impacts of lighting, noise, odor, trash storage, truck deliveries, and other business activities. Building elevations shall be architecturally treated and walls, if used as buffers, shall be well-designed and landscaped to reflect the area’s residential village character.

New and/or Revised Policies

The proposed General Plan Land Use Element Amendment includes the following new and/or revised policies that are relevant to land use and noise. The proposed changes are shown in underlined/~~strikeout~~ for new and eliminated text, respectively. The goal for a revised policy is provided, even if the goal itself is unchanged.

Goal LU 5.5: Districts that provide for the manufacturing of goods and research, and development that are attractive, compatible with adjoining nonindustrial uses, and well maintained.

- **LU 5.5.1 - Site Planning and Building Design:** Require that new and renovated industrial properties and structures be designed to exhibit a high quality of design and maintenance characterized by the following:
 - Incorporation of extensive on-site landscaping
 - Incorporation of landscape, decorative walls, and other elements that visually screen areas used for outdoor storage, processing, and other industrial operations from public places

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- Architectural treatment of all visible building elevations
- Consistent and well-designed signage
- Control of on-site lighting, noise, odors, vibrations, toxic materials, truck access, and other elements that may impact adjoining nonindustrial land uses.

5.8.5 Existing Regulations

- Section 10.26.025, City of Newport Beach Municipal Code: Exterior Noise Standards.
- Section 10.26.045, City of Newport Beach Municipal Code: Heating, Venting and Air Conditioning Special Provision.
- City of Newport Beach Municipal Code Chapter 10.32, Sound-Amplifying Equipment
- Section 10.28.040, City of Newport Beach Municipal Code: Construction Activity – Noise Regulations.
- State of California Interior and Exterior Noise Standards are incorporated into the California Building Code (Title 24 and Title 25, California Code of Regulations) and are the noise standards required for new construction in California.
- Community noise standards adopted by the City of Newport Beach in the General Plan Noise Element.
- Assembly Bill 2776, which requires any person who intends to sell or lease residential properties within an airport influence area to disclose that fact to the person buying the property.

5.8.6 Level of Significance Before Mitigation

Upon implementation of regulatory requirements and standard conditions of approval, the following impacts would be less than significant: 5.8-1, 5.8-2, 5.8-3, 5.8-4, 5.8-5.

Without mitigation, the following impacts would be **potentially significant**:

- **Impact 5.8-6:** Construction activities as a result of higher development intensity would have the potential to result in substantial vibration impacts to uses adjacent to the sites identified for changes in land uses and intensities.

5.8.7 Mitigation Measures

Impact 5.8-6

N-1 Because the operation of heavy construction equipment and pile driving activities may be required in close proximity to nearby uses, it cannot be guaranteed that feasible mitigation measures would be available to reduce impacts to less than significant levels.

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5.8.8 Level of Significance After Mitigation.

Impact 5.8-6

Similar to the 2006 General Plan, development in accordance with the proposed project would increase groundborne vibration related to construction activities. Grading and demolition activities typically generate the highest vibration levels during construction activities. In particular, pile driving and rock blasting can generate high levels in excess of 100 PPV at 25 feet away. Typical construction projects do not require these methods, or if necessary, can usually be mitigated with alternative methods such as non-explosive rock breaking (instead of rock blasting) and drilled piles (instead of impact pile driving), which do not exceed the thresholds for architectural damage, and do not reach levels that are considered annoying at distances greater than 200 feet. However, as discussed in the 2006 General Plan EIR, since construction equipment for subsequent projects are unknown as of now, there would be no feasible mitigation available to eliminate potential vibration impacts if receptors are located in close proximity and pile driving/rock blasting equipment or other activities that generate high levels are necessary for future developments. Furthermore, intensification of land uses at some of the proposed project's subareas could result in vibration impacts greater than the 2006 General Plan. Therefore, impacts would be significant and unavoidable.

5.8.9 References

- Orange County Airport Land Use Commission (OCALUC). 2008, April 17. Airport Environs Land Use Plan for John Wayne Airport. http://www.ocair.com/commissions/aluc/docs/JWA_AELUP-April-17-2008.pdf.
- Federal Transit Administration (FTA). 2006, May. Transit Noise and Vibration Impact Assessment. United States Department of Transportation. FTA-VA-90-1003-06.
- Thalheimer, E., 2000, Construction Noise Control Program and Mitigation Strategy as the Central Artery/Tunnel Project. Institute of Noise Control Engineering.