

Appendix 5.5-1 Noise Analysis

Appendices

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2 LAND USE

Introduction to Land Use

Land uses in Westminster are characterized as a diverse collection of residential, commercial, light industrial, and public uses that provide residents and visitors with the opportunity to: live in safe and established neighborhoods, dine in a variety of locally owned establishments, work in small businesses, recreate in local parks and bike trails, and create strong ties to the community through civic uses and events. The mix and diversity of uses is essential to the community's ability to thrive and be sustainable over time. As population growth continues, Westminster will need to think strategically about where growth and development will occur in the City and how to accommodate land uses to respond to the community's changing needs, all without compromising the integrity of the uses and experiences the community values the most and would like to preserve.

The quality of life for residents of Westminster—and for people who visit—is shaped by the types and mix of uses that:

- » Contribute to or create a sense of place and well-being
- » Are flexible enough to respond quickly to market conditions and trends
- » Respect and sustain natural resources
- » Support the City's fiscal sustainability
- » Reflect the City's diversity and entrepreneurial spirit
- » Recognize the community's culture and history

The Land Use element includes goals and policies that structure and guide future growth and development, ensure the provision of a range of land uses to support the community's vision of diverse housing options and a vibrant economy, and provide direction on how uses should relate to one another to safeguard safety and compatibility.

The Land Use element combines two state-mandated General Plan Elements—the Land Use Element and the Noise Element. California Government Code Section 65302(a) stipulates that a general plan designate the proposed general distribution, general location, and extent of the uses of the land for housing, commerce, industry, open space, education, and public facilities. It further requires that the land use element include a statement of the standards of population density and building intensity. The Noise Element is required by state law to "identify and appraise noise problems in the community," and noise contours shown in the element are "used as a guide ...for minimizing the exposure of community residents to excessive noise." (California Government Code [CGC § 65302 [f]).

In This Element...

- » Managing Future Growth
- » Land Use Designations
- » Mixed-Use Areas
- » Land Use Buildout Summary
- » Land Use Compatibility
- » Airport Land Use Planning
- » Noise



The Land Use Plan was carefully crafted to preserve single-family neighborhoods and direct growth and development to corridors and mixed-use areas. Pictured above is the Abbey Drive neighborhood's annual 4th of July Parade.

GOAL LU-4: LAND USE COMPATIBILITY

Compatible residential, commercial, and industrial development that is sensitively integrated with existing development and neighborhoods and minimizes impacts on surrounding land uses.

POLICIES

- LU-4.1 Development Compatibility.** Require that development is located and designed to ensure compatibility among land uses, addressing such elements as building orientation and setbacks; buffering; visibility and privacy; automobile and truck access; impacts of noise, lighting, and glare; landscape quality; and aesthetics.
- LU-4.2 Transitions in Scale.** Require that the scale and massing of new development in higher-density centers and corridors provide appropriate transitions in building height and bulk that are sensitive to the physical and visual character of lower density adjoining neighborhoods.
- LU-4.3 Code Compliance.** Ensure land use compatibility through adherence to the policies, standards, and regulations in the Municipal Code, Development Code, Community Design Element, and other regulations or administrative procedures that manage the form and relationship of projects and uses.
- LU-4.4 Mitigation.** Require new uses to provide buffers between existing uses where potential adverse impacts could occur, such as decorative walls, setbacks and landscaping, restricted vehicular access, parking enclosures, and lighting control.
- LU-4.5 Interagency Cooperation.** Establish and maintain an ongoing liaison with Caltrans, the railroads, utility companies, and other major government and private agencies to help minimize the traffic, noise, and visual impacts of their facilities and operations.
- LU-4.6 Residential Compatibility.** Discourage duplexes, triplexes, quadplexes, and apartments from being constructed in predominantly single-family residential neighborhoods to preserve the character and integrity of neighborhoods.
- LU-4.7 Commercial and Industrial Development.** Require new commercial and industrial developments to clearly demonstrate that they will have no significant detrimental impacts upon the City and its residents, including, but not limited to, significant adverse traffic, noise, air pollution, and fiscal impacts.
- LU-4.8 Single-Family Home Size and Scale.** Consider the size and scale of new homes proposed in single-family neighborhoods when evaluating the compatibility of a proposed project with the existing environment.

Community and Military Land Use Planning

The City of Westminster is also required to consider, as part of its Land Use Element, the compatibility between land uses in the City and nearby military facilities, in particular compatibility with airports and military operations and readiness. For Westminster, two relevant facilities are located nearby: the Los Alamitos Joint Forces Training Case (JFTB) and the Naval Weapons Station Seal Beach.

Airport Compatibility

Approximately 50 percent of Westminster (generally north of Westminster Boulevard and west of Goldenwest Street) is within the airport planning area of the Los Alamitos Joint Forces Training Base (JFTB), which is northwest of Westminster in the City of Los Alamitos. The JFTB is home to an Army Aviation Support Facility and the 1st Battalion of the 140th Aviation Regiment of the California Army National Guard, as well as other units not related to aviation.

The JFTB is within the oversight of the Orange County Airport Land Use Commission (ALUC), which is required to prepare and adopt an airport environs land use plan (AELUP) for each of the airports within its jurisdiction. The AELUP is a land use compatibility plan that is intended to protect the public from adverse effects of aircraft noise, to ensure that people and facilities are not concentrated in areas susceptible to aircraft accidents, and to ensure that no structures or activities adversely affect navigable space. Although half of the City of Westminster is within the airport planning area, the noise contours of the airport do not encroach into the community, as illustrated on *Figure 2-3, Airport Land Use Planning*. The ALUC is also responsible for reviewing applications for the development of new heliports. The only existing heliport within the City limits is the Huntington Beach Service Center Heliport.

The AELUP identifies standards for development in the airport's planning area based on noise contours, accident-potential zones, and building heights. Land uses in Westminster that are within the airport planning area boundaries, as delineated on *Figure 2-3*, are required to conform to safety, height, and noise restrictions established in the AELUP for the JFTB. Goal and policy direction supporting these restrictions is provided in this section to ensure long-term land use compatibility with JFTB operations.

GOAL LU-5: AIRPORT LAND USE PLANNING

Development that is consistent with the Airport Environs Land Use Plans for the Joint Forces Training Base and Orange County heliports.

Policies

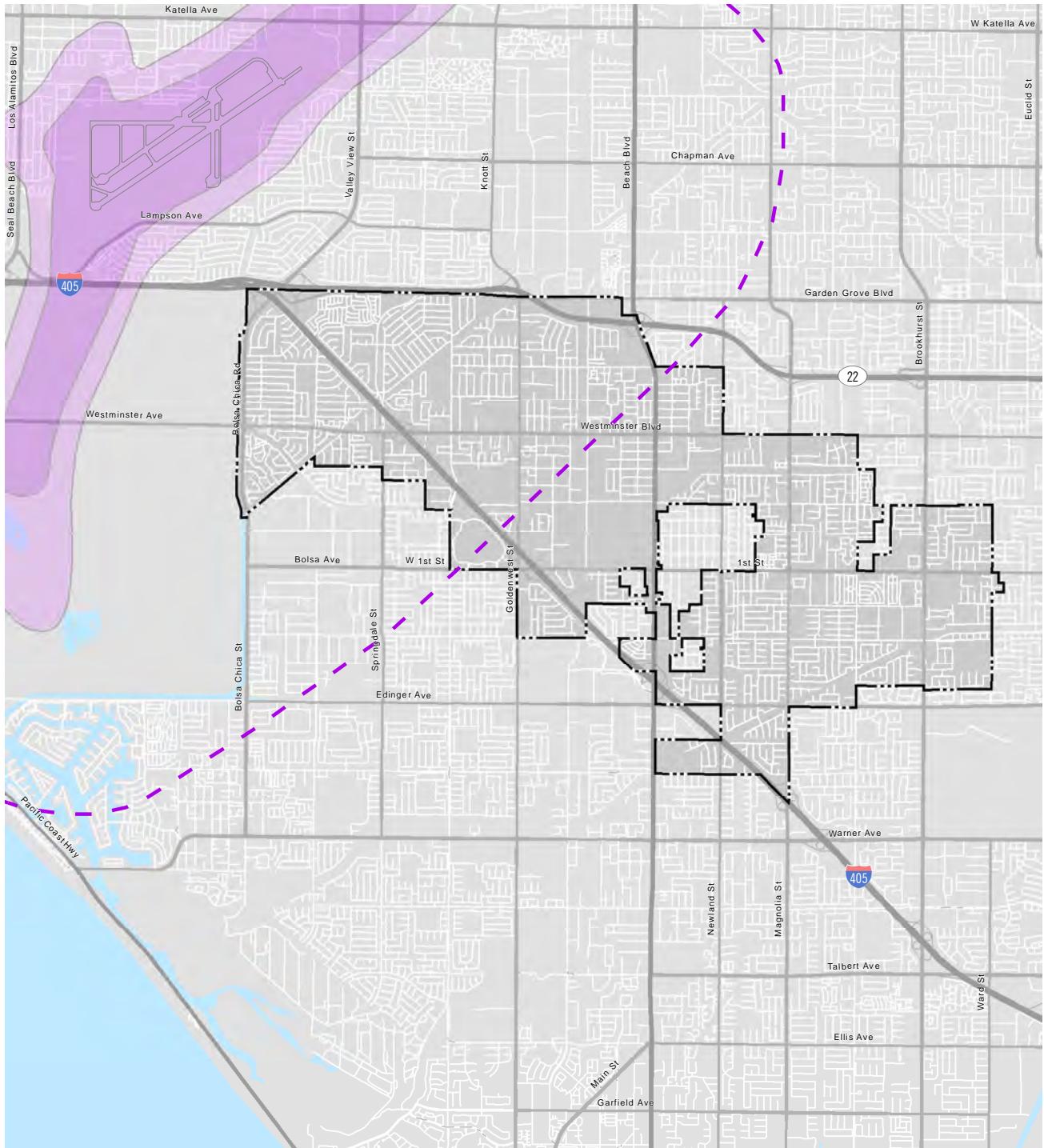
LU-5.1 Airport Operations Monitoring. Maintain regular communication and coordination with Joint Force Training Base (JFTB), Los Alamitos, and request advance notice of any operations that could adversely impact the community, even if those impacts are temporary.

LU-5.2 Federal Aviation Regulation Part 77. Do not approve buildings and structures that would penetrate Federal Aviation Regulation (FAR) Part 77 Imaginary Obstruction Surfaces for JFTB Los Alamitos unless found consistent by the Orange County Airport Land Use Commission (ALUC). Additionally, in accordance with FAR Part 77, require applicants proposing buildings or structures that penetrate the 100:1 Notification Surface to file a Form 7460-1 Notice of Proposed Construction or Alteration with the Federal Aviation Administration (FAA) and provide a copy of the FAA determination to the City and the ALUC.





LU-5.3 Structures above 200 Feet. For development projects with structures higher than 200 feet above existing grade, the City shall inform the ALUC and submit materials to the ALUC for review. Proposed projects that would exceed a height of 200 feet above existing grade shall be required to file Form 7460-1 with the FAA.

LU-5.4 Heliport/Helistop Approval and Requirements. Approve the development of a heliport or helistop only if it complies with the AELUP for heliports. Ensure that each applicant seeking a conditional use permit or similar approval for the construction or operation of a heliport or helistop complies fully with the state permit procedure provided by law and with all conditions of approval imposed or recommended by the FAA, Orange County ALUC, and Caltrans/Division of Aeronautics. This requirement shall be in addition to all other City development requirements.

Figure 2-3
Airport Land Use Planning



Source: Airport Land Use Commission for Orange County, 2002

-  City of Westminister Boundary
 -  60 CNEL
 -  65 CNEL
 -  Airport Planning Area
- Los Alamitos JFTB

Noise and Vibration

Noise is defined as unwanted sound—anything from a barking dog to the clatter of a jackhammer—and can disrupt the way people live and work. Many sources of excessive noise—such as freeways—also produce excessive vibration, which can adversely affect health and well-being. Based on the known effects of noise and vibration, local, state, and federal government agencies have established noise thresholds to protect public health and safety.

The greatest source of noise throughout Westminster is vehicle traffic on the I-405 and SR-22 freeways and the City's high-volume corridors, including Beach Boulevard (SR-39), Westminster Boulevard, McFadden Avenue, and Magnolia Street. Other major noise sources are trains passing through the City, stationary equipment at commercial and industrial uses, and parks with active sports fields.

Certain land uses are more sensitive to higher levels of noise and vibration. Residential uses, schools, health care centers, libraries, churches, senior homes, and recreational areas are much more sensitive to noise than commercial and industrial uses. Siting new development of any of these sensitive receptors in the vicinity of substantial traffic or noise-intensive industrial uses can adversely affect sensitive receptors and is considered a land use conflict. The goals and policies in this element promote a healthy noise environment in Westminster for sensitive receptors and commercial and industrial uses.

Noise Environment

Noise sources throughout Westminster include roadways, commercial and industrial uses, and construction. The three types of noise sources are mobile sources, stationary sources, and neighborhood sources.

Mobile Sources

The most common mobile noise source in Westminster is automobile and truck traffic. Noise from motor vehicles is generated by engine vibrations, the interaction between tires and the road, and vehicle exhaust systems. Since traffic will likely increase with new development in the City's mixed-use areas, so will the noise levels in surrounding areas. *Figure 2-4, Future Roadway Noise Contours*, illustrates potential noise impacts of buildout of the Land Use Plan.

In addition, a rail line runs north-south through the City adjacent to Hoover Street. This line is used by the Southern Pacific Railroad and the Union Pacific Railroad, both of which carry freight trains. Any increase in rail traffic on this line would increase noise levels and could impact existing and future noise-sensitive land uses (residential, schools, hospitals, convalescent homes, libraries, churches).

Measuring Noise

Sound is a pressure wave that travels through the air. It is described in terms of loudness, frequency or pitch, and duration.

The standard measurement unit for loudness is the decibel (dB). Changes of 1 to 3 dB are detectable under quiet, controlled conditions, and changes of less than 1 dB are usually indiscernible. A change of 5 dB is readily discernible to most people in an exterior environment.

The human ear is not equally sensitive to all frequencies. In the context of community planning and environmental noise, the A-weighted decibel, or dBA, is used to adjust sound levels to reflect the way humans hear.

Because people are more sensitive to noise during the evening and at night, state law requires additions to the measured noise levels during these times for planning purposes. The Community Noise Equivalent Level (CNEL) averages sound level over 24 hours, with 5 dB added from 7 pm to 10 pm and 10 dB added from 10 pm to 7 am.



Schools are considered sensitive facilities and should be protected from noise-generating uses.



Construction could generate noise impacts that must be mitigated so adjacent uses are not significantly impacted.

Stationary Sources

All types of land uses may have stationary sources of noise. In residential areas, neighborhood noise is generated by human activity throughout the community, and sources include air conditioners, lawn mowers, leaf blowers, pool equipment, radio/stereo/television, schools, sports arenas, and other entertainment venues. Noise from these sources can become excessive and pose a nuisance to City residents. Commercial uses generate noise from HVAC systems, loading docks, and other sources. Industrial uses generate noise from HVAC systems, loading docks, and machinery, and may generate continual noise depending on the specific type of industry.

Construction equipment is considered a stationary noise source. However, construction activities are usually temporary, occurring in any one location for a relatively limited period of time. Both construction noise and industrial noise can adversely affect sensitive receptors if they are close by and/or not properly regulated.

Noise/Land Use Compatibility

Westminster is responsible for protecting its residents and visitors from unacceptable noise and vibration and controls noise through local, state, and federal programs and policies. Best practices in land use planning require that incompatible uses be separated and cases of incompatibility be mitigated. The California Department of Health Services' Office of Noise Control has adopted a land use compatibility matrix (Table 2-3) that defines ranges of acceptability. The matrix illustrates noise/land use compatibility guidelines for making land use decisions and shows a range of noise standards for various land use categories.

Noise Standards

Chapter 8.28, Noise Control, of the Westminster Municipal Code regulates noise at its source (except transportation sources), protects noise-sensitive land uses, regulates vibration levels, and specifies permitted periods for construction and grading. The City regulates noise levels based on two noise zones. The entire City is designated Noise Zone 1, except multifamily properties, which are designated Noise Zone 2. These zones protect noise-sensitive areas (residential) without excessively inhibiting nonsensitive areas (industrial). Chapter 8.28 also defines how noise is measured as well as special uses that are exempt from the City's noise regulations. The goal and associated policies, below, should be used in tandem with the direction provided in the municipal code.

TABLE 2-3 LAND USE COMPATIBILITY WITH COMMUNITY NOISE ENVIRONMENTS

LAND USES	ENERGY AVERAGE (CNEL) in dB						
	<55	55	60	65	70	75	80+
Amphitheater, concert hall, auditorium, meeting hall	B	B	C	C	D	D	D
Mobile home	A	A	B	C	C	D	D
Hospital, library, school, faith/religious uses	A	A	B	C	C	D	D
Hotel, motel, transient lodging	A	A	B	B	C	C	D
Single family, multifamily, faith/religious uses	A	A	B	B	C	D	D
Parks	A	A	A	B	C	D	D
Office building, research & development, professional office, city office building, and hotel	A	A	A	B	B	C	D
Amusement park, miniature golf, go-cart track, health club, equestrian center	A	A	A	B	B	D	D
Golf courses, nature centers, cemeteries, wildlife reserves, wildlife habitat	A	A	A	A	B	C	C
Commercial retail, bank, restaurant, movie theater	A	A	A	A	B	B	C
Automobile service station, auto dealer, manufacturing, warehousing, wholesale, utilities	A	A	A	A	B	B	B
Agriculture	A	A	A	A	A	A	A

Source: Governor’s Office of Planning and Research, Appendix C: Noise Element Guidelines, in *General Plan Guidelines*, October 2003.

Notes: Compatibility zones indicate the degree to which the land uses listed are compatible with the noise levels (CNEL) shown in the table.

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 or development should normally be discouraged. If new construction or development does proceed, a detailed analysis or noise reduction requirements must be made and needed noise insulation features must be included in the design.

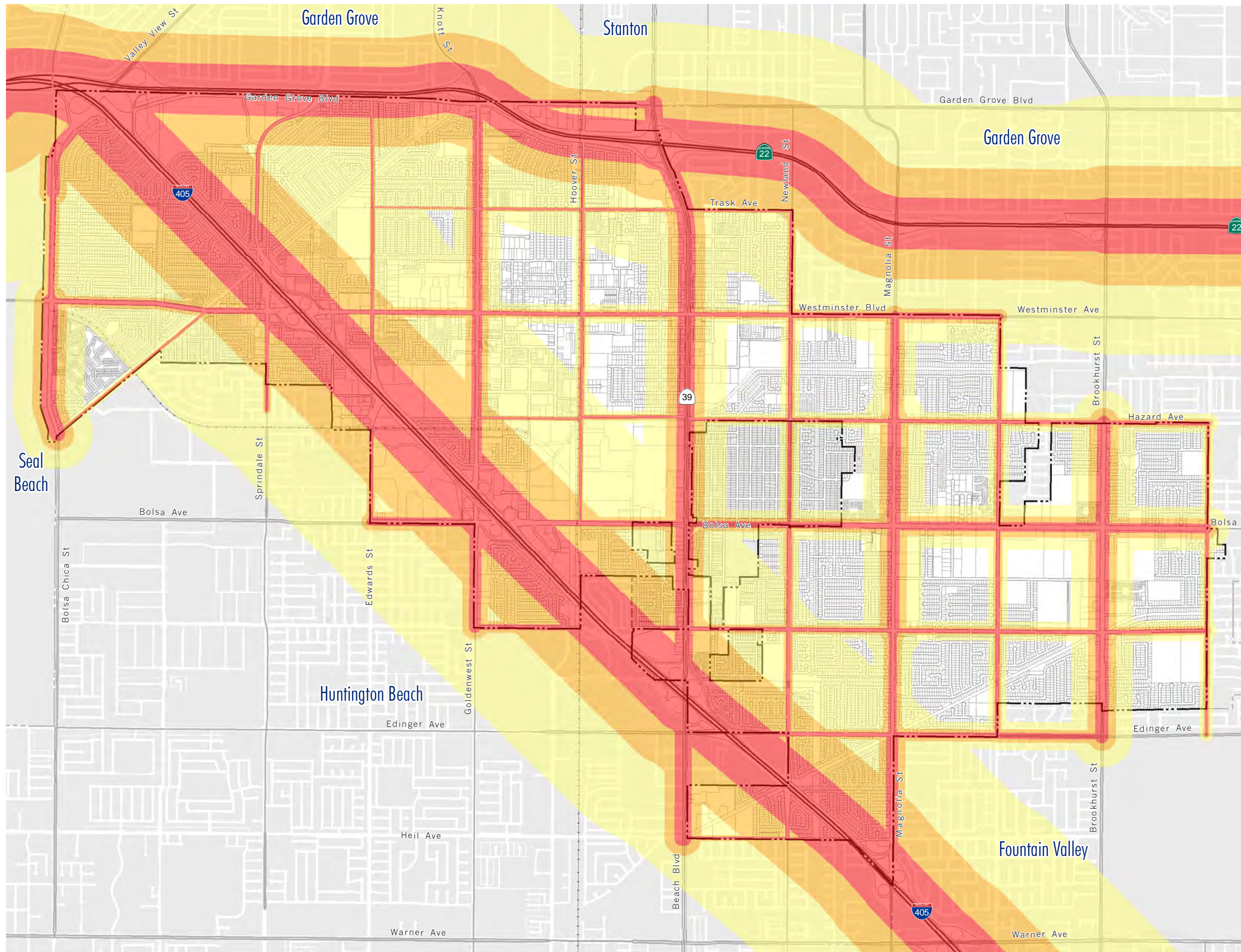
Zone D. Clearly Incompatible. New construction or development should generally not be undertaken.

GOAL LU-7: NOISE

Community noise and vibration levels that balance the need for peaceful environments for sensitive land uses with the needs of local businesses and regional land uses.

Policies

- LU-7.1 Land Use Noise Compatibility.** Assess the compatibility of proposed land uses with the noise environment when preparing, revising, or reviewing development project applications.
- LU-7.2 Noise Insulation and Vibration Standards.** Require new projects to comply with noise insulation and vibration standards of local, regional, and state building code regulations.
- LU-7.3 Sensitive Facilities.** Locate sensitive facilities such as schools, hospitals, libraries, churches, and convalescent homes away from sources of excessive noise unless proper mitigation measures are in place.
- LU-7.4 Noise Control.** Utilize noise abatement, design techniques, and other mitigation strategies—including staggered operating hours, insulation, building setbacks, noise barriers, insulation, placement of parking and utility areas, and building orientation—to ensure that noise levels do not exceed the limits in the Westminster Municipal Code.
- LU-7.5 Roadway Noise.** Encourage nonmotorized transportation alternatives for local trips and the implementation of noise sensitivity measures, including traffic-calming road design, lateral separation, natural buffers, and setbacks to decrease excessive motor vehicle noise along major arterials.
- LU-7.6 Highway Noise.** Continue to coordinate with the California Department of Transportation (Caltrans) to achieve maximum noise abatement in the design of new highway projects or improvements along 1-405 and SR 22; abatement techniques could include alignment, barriers, lateral separation, or other techniques.
- LU-7.7 Railroad Noise.** Continue to coordinate with railroad companies to support and maintain reasonable limits on rail traffic, the use of bells and whistles, and the speed and hours of rail operation in affected areas of the City, and maintain adequate setbacks and buffer zones along rail lines to reduce adverse noise impacts on sensitive receptors.
- LU-7.8 Interjurisdictional Coordination.** Coordinate with Orange County and the cities of Seal Beach, Huntington Beach, Garden Grove, and Fountain Valley to minimize noise conflicts between land uses along the City's boundaries.



Land Use

Figure 2-4
Future Roadway Noise Contours

- City of Westminster Boundary
- City of Westminster Sphere of Influence
- Other City Boundaries
- 70 CNEL
- 65 CNEL
- 60 CNEL

Westminster Municipal Code

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8.28.010 Declaration of policy.

A. In order to control unnecessary excessive and annoying noise and vibration in the city, it is declared to be the policy of the city to prohibit such noise and vibration generated from or by all sources, as specified in this chapter. It shall be the policy of the city to maintain quiet in those areas which exhibit low noise levels and to implement programs aimed at reducing noise in those areas within the city where noise levels are above acceptable values.

B. It is determined that certain noise levels and vibrations are detrimental to the public health, welfare and safety, and are contrary to public interest. Therefore, the city council of the city does ordain and declare that creating, maintaining, causing or allowing to be created, caused or maintained, any noise or vibration in a manner prohibited by or not in conformity with the provisions of this chapter, is a public nuisance and shall be punishable as such. (Ord. 1851 § 1, 1978; prior code § 3800)

8.28.020 Definitions.

The following words, phrases and terms, as used in this chapter, shall have the meaning as indicated below:

A. “Ambient noise level” means the all-encompassing noise level associated with a given environment, being a composite of sounds from all sources, excluding the alleged offensive noise, at the location and approximate time at which a comparison with the alleged offensive noise is to be made. Reference is made to the city’s adopted noise element for acceptable ambient noise-level standards.

B. “Cumulative period” means an additive period of time composed of individual time segments, which may be continuous or interrupted.

C. “Decibel (dB)” means a unit which denotes the ratio between two quantities which are proportional to power: the number of decibels corresponding to the ratio of two amounts of power is ten times the logarithm to the base ten of this ratio.

D. “Dwelling unit” means a single unit providing complete independent living facilities for one or more persons, including permanent provisions for living, sleeping, eating, cooking and sanitation.

E. “Emergency machinery, vehicle or work” means any machinery, vehicle or work used, employed or performed in an effort to protect, provide or restore safe conditions in the community or for the citizenry, or work by private or public utilities when restoring utility service.

F. “Fixed noise source” means a stationary device which creates sounds while fixed or motionless, including, but not limited to, industrial and commercial machinery and equipment, pumps, fans, compressors, generators, air conditioners and refrigeration equipment.

G. “Grading” means any excavating or filling of earth material, or any combination thereof, conducted at a site to prepare said site for construction or other improvements thereon.

H. “Impact noise” means the noise produced by the collision of one mass in motion with a second mass which may be either in motion or at rest.

I. “Mobile noise source” means any noise source other than a fixed noise source.

J. “Noise level” means the “A” weighted sound-pressure level in decibels obtained by using a sound-level meter at slow response with a reference pressure of twenty microNewtons per square meter. The unit of measurement shall be designated as dB (A).

K. “Person” means a person, firm, association, copartner ship, joint venture, corporation, or any entity, public or private in nature.

L. “Residential property” means a parcel of real property which is developed and used either in part or in whole for residential purposes, other than transient uses such as hotels and motels.

M. “Simple tone noise” means a noise characterized by a predominant frequency or frequencies so that other frequencies cannot be readily distinguished.

N. “Sound level meter” means an instrument meeting American National Standards Institute’s Standard S1.4-1971 for Type 1 or Type 2 sound level meters, or an instrument and the associated recording and analyzing equipment which will provide equivalent data.

O. “Sound-pressure level” of a sound in decibels means twenty times the logarithm to the base ten of the ratio of the pressure of the sound to a reference pressure, which reference pressure shall be explicitly stated. (Ord. 1851 § 1, 1978: Prior code § 3800.1)

8.28.030 Noise zone designated.

A. The entire territory of the city is designated as “Noise Zone 1” except for those properties specifically designated as “Noise Zone 2.” (Ord. 2033 § 1, 1985; Ord. 1851 § 1, 1978: Prior Code § 3800.2)

B. All properties designated as being within land use districts R2, R3, R4 and R5 as shown on the sectional district maps adopted pursuant to Title 17 of this code are designated as “Noise Zone 2.” (Ord. 2033 § 1, 1985)

8.28.040 Standards—Exterior noise.

A. The following noise standards, unless otherwise specifically indicated, shall apply to all residential property within a designated noise zone:

EXTERIOR NOISE STANDARDS

Noise Zone	Noise Level	Time Period
1	55 dB(A)	7:00 a.m.-10:00 p.m.
	55 dB(A)	10:00 p.m.- 7:00 a.m.
2	60 dB(A)	7:00 a.m.-10:00 p.m.
	55 dB(A)	10:00 p.m.- 7:00 a.m.

(Ord. 2033 § 1, 1985; Ord. 1851 § 1, 1978; prior code § 3800.3)

B. In the event the alleged offensive noise consists entirely of impact noise, simple tone noise, speech, music, or any combination thereof, each of the above noise levels shall be reduced by 5dB(A).

C. It is unlawful for any person at any location within the incorporated area of the city to create any noise, or to allow the creation of any noise, on property owned, leased, occupied, or otherwise controlled by such person, when the foregoing causes the noise level, when measured on any other residential property, to exceed:

1. The noise standard for a cumulative period of more than thirty minutes in any hour; or
2. The noise standard plus 5dB(A) for a cumulative period of more than fifteen minutes in any hour; or
3. The noise standard plus 10dB(A) for a cumulative period of more than five minutes in any hour; or
4. The noise standard plus 15dB(A) for a cumulative period of more than one minute in any hour; or
5. The noise standard plus 20dB(A) for any period of time.

D. In the event the ambient noise level exceeds any of the first four noise limit categories above, the cumulative period applicable to said category shall be increased to reflect the ambient noise level. In the event the ambient noise level exceeds the fifth noise limit category, the maximum allowable noise level under said category shall be increased to reflect the maximum ambient noise level. (Ord. 1851 § 1, 1978; prior code § 3800.3)

8.28.050 Standards—Interior noise.

A. The following noise standards, unless otherwise specifically indicated, shall apply to all residential property within a designated noise zone:

INTERIOR NOISE STANDARDS

Noise Zone	Noise Level	Time Period
1	55 dB(A)	7:00 a.m.-10:00 p.m.
	45 dB(A)	10:00 p.m.- 7:00 a.m.
2	60 dB(A)	7:00 a.m.-10:00 a.m.
	50 dB(A)	10:00 p.m.- 7:00 a.m.

(Ord. 2033 § 3, 1985: Prior code § 3800.4)

B. In the event the alleged offensive noise consists entirely of impact noise, simple tone noise, speech, music, or any combination thereof, each of the above noise levels shall be reduced by 5dB(A).

C. It is unlawful for any person at any location within the incorporated area of the city to create any noise, or to allow the creation of any noise on property owned, leased, occupied, or otherwise controlled by such person, when the foregoing causes the noise level, when measured within the boundaries of the city, to exceed:

1. The interior noise standard for a cumulative period of more than five minutes in any hour; or
2. The interior noise standard plus 5dB(A) for a cumulative period of more than one minute in any hour; or
3. The interior noise standard plus 10dB(A) for any period of time.

D. In the event the ambient noise level exceeds either of the first two noise limit categories above, the cumulative period applicable to said category shall be increased to reflect the ambient noise level. In the event the ambient noise level exceeds the third noise limit category, the maximum allowable noise level under said category shall be increased to reflect the maximum ambient noise level. (Prior code § 3800.4)

8.28.060 Exemptions.

The following activities shall be exempted from the provisions of this chapter:

- A. Activities conducted on the grounds of any public or private nursery, elementary, intermediate or secondary school or college;
- B. Outdoor gatherings, public places and shows, provided said events are conducted pursuant to a permit issued by the city pursuant to this code;
- C. Activities conducted on any park or playground, provided such park or playground is owned and operated by a public entity;
- D. Any mechanical device, apparatus or equipment used, related to or connected with emergency machinery, vehicles or work;
- E. Noise sources associated with construction repair, remodeling, or grading of any real property, provided said activities do not take place between the hours of eight p.m. and seven a.m. on weekdays, including Saturday, or at any time on Sunday or a federal holiday;
- F. All mechanical devices, apparatus or equipment which are utilized for the protection or salvage of agricultural crops during periods of potential or actual frost damage or other adverse weather conditions;
- G. Mobile noise sources associated with agricultural operations, provided such operations do not take place between the hours of eight p.m. and seven a.m. on weekdays, including Saturday, or at any time on Sunday or a federal holiday;
- H. Mobile noise sources associated with agricultural pest control through pesticide application; provided, that the application is made in accordance with restricted material permits issued by or regulations enforced by the Agricultural Commissioner;
- I. Noise sources associated with the maintenance of real property, provided said activities take place between seven a.m. and eight p.m. on any day except Sunday or a federal holiday;

J. Any activity to the extent regulation thereof has been preempted by state or federal law;

K. Existing air conditioners on residential property shall be exempt from the provisions of this chapter for a period of five years after its adoption. (Prior code § 3800.5)

8.28.070 Noise level measurement.

The location selected for measuring exterior noise levels shall be at any point on the affected property. Interior noise measurements shall be made within the affected dwelling unit. The measurement shall be made at a point at least four feet from the wall, ceiling or floor nearest the alleged offensive noise source, and may be made with the windows of the affected unit open. (Prior code § 3800.6)

8.28.080 Noise variance board.

A. The noise variance board established by the county shall be the noise variance board for the city, and the procedural rules established by the county shall be followed by applicants for variance within the city.

B. Any variance granted by the board shall be by resolution, and shall be transmitted to the city and the health officer for enforcement. Any violation of the terms of said variance shall be unlawful. Appeal from the decision of the variance board may be made to the city council in accordance with the rules established for zone variances. (Prior code § 3800.7)

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- 8.40.113 Vibration
- 8.40.120 Manner of Enforcement
- 8.40.130 Permit Process
- 8.40.150 Appeals

Note

* **Note:** §§ 8.40.140, 8.40.160 and 8.40.170 repealed by Ord. 3940-7/12.

8.40.010 Declaration of Policy

A. In order to control unnecessary, excessive and annoying sounds emanating from incorporated areas of the City, it is hereby declared to be the policy of the City to prohibit such sounds generated from all sources as specified in this chapter.

B. It is determined that certain noise levels are detrimental to the public health, welfare and safety and contrary to public interest; therefore, the City Council does ordain and declare that creating, maintaining, causing or allowing to create, maintain or cause any noise in a manner prohibited by, or not in conformity with the provisions of this chapter, is a public nuisance and shall be punishable as such. (2379-7/79)

8.40.020 Definitions

The following words, phrases and terms as used in this chapter shall have the meaning as indicated below:

“**Ambient noise level**” means the all-encompassing noise level associated with a given environment, being a composite of sounds from all sources, excluding the alleged offensive noise, at the location and approximate time at which a comparison with the alleged offensive noise is to be made.

“**A-weighted decibel (dBA)**” means the overall frequency-weighted sound level in decibels that approximates the frequency response of the human ear as represented by the A-weighted network. The reference pressure is 20 micropascals.

“**Commercial property**” means a parcel of real property which is developed and used either in part or in whole for commercial purposes including, but not limited to, retail and wholesale businesses and professional offices.

“**Cumulative period**” means an additive period or time composed of individual time segments which may be continuous or interrupted.

“**Decibel (dB)**” means a unit which denotes the ratio between two quantities which are proportional to power; the number of decibels corresponding to the ratio of two amounts of power is 10 times the logarithm to the base 10 of this ratio.

“Domestic power tool” means a mechanically-powered saw, sander, drill, grinder, lawn or garden tool, snow blower, leaf blower or similar device that is used in residential areas for work that is typically done by or for residential occupants.

“Emergency machinery, vehicle or work” means any machinery, vehicle or work used, employed or performed in an effort to protect, provide or restore safe conditions in the community or for the citizenry, or work by private or public utilities when restoring utility service.

“Equivalent continuous sound level (Leq)” means the value of an equivalent, steady sound level which, in a stated time period, has the same sound energy as the time-varying sound. Thus, the Leq metric is a single numerical value that represents the equivalent amount of variable sound energy received at a location over the specified duration.

“Fixed noise source” means a stationary device or point source which creates sounds while fixed or motionless, including, but not limited to, industrial and commercial machinery and equipment, pumps, fans, compressors, generators, air conditioners and refrigeration equipment, or an area source such as a special event on a property. That is, all sources that are non-mobile transportation sources (e.g., vehicle traffic on public roads and aircraft).

“Grading” means any excavating or filling of earth material, or any combination thereof, conducted to prepare said site for construction or the placement of the improvements thereon.

“Impact noise” means the noise produced by the collision of one mass in motion with a second mass which may be either in motion or at rest.

“Impulsive noise” means sound of short duration, usually less than one second, with an abrupt onset and rapid decay.

“Industrial property” means a parcel of real property which is developed and used in part or in whole for manufacturing purposes including research and development uses.

“Leaf blower” means any machine, however powered, used to blow leaves, dirt and other debris off sidewalks, driveways, lawns and other surfaces.

“Maximum sound level (Lmax)” means the highest RMS sound level measured during the measurement period.

“Mobile noise source” means any noise source other than a fixed noise source.

“Motorboat” means any vessel which operates on water and which is propelled by a motor, including, but not limited to, boats, barges, amphibious craft, water ski towing devices and hover craft.

“Noise level” means the “A” weighted sound pressure level in decibels obtained by using a sound level meter at slow response with a reference pressure of 20 micropascals (micronewtons per square meter). The unit of measurement shall be designated as dBA.

“Parcel” means an area of real property with a separate or distinct number or other designation shown on a plat recorded in the office of the County Recorder. Contiguous parcels owned by the same individual or entity shall be considered one parcel for purposes of this chapter.

“Person” means a person, firm, association, co-partnership, joint venture, corporation or any entity, public or private in nature.

“Predominant tone noise” means a noise characterized by a predominant frequency or frequencies so that other frequencies cannot be readily distinguished.

“Residential property” means a parcel of real property which is developed and used either in part or in whole for residential purposes, other than transient uses such as hotels or motels.

“Root-mean-square sound level (RMS)” means the square root of the average of the square of the sound pressure over the measurement period.

“Simple tone noise” means a noise characterized by a predominant frequency or frequencies so that other frequencies cannot be readily distinguished. In case of dispute, a simple tone noise shall exist if the one-third octave band sound pressure level in the band with the tone exceeds the arithmetic average of the sound pressure levels of the two contiguous one-third octave bands by five dB for center frequencies of 500 Hz and above and by eight dB for center frequencies between 160 and 400 Hz and by 15 dB for center frequencies less than or equal to 125 Hz.

“Sound amplifying equipment” means any machine or device used for the amplification of the human voice, music, or any other sound, excluding standard automobile stereos when used and heard only by the occupants of the vehicle and, as used in this chapter, warning devices on authorized emergency vehicles or horns or other warning devices on any vehicle used for traffic safety purposes.

“Sound pressure level” of a sound, in decibels, means 20 times the logarithm to the base of 10 of the ratio of the pressure of the sound to the reference pressure of 20 micropascals.

“Vibration decibel (VdB)” means a measure of vibration expressed on a logarithmic scale with the reference velocity of one micro-inch per second (1×10^{-6} in/sec).

“Vibration-sensitive use” means residential, hotels, motels, schools, hospitals and medical offices with vibration-sensitive equipment, churches, cultural land uses, commercial, office and government uses. Outdoor areas with no buildings and industrial and manufacturing uses are not considered vibration sensitive. (2379-7/79, 4222-9/21)

8.40.030 Noise Level Measurement Criteria

Any noise level measurements made pursuant to the provisions of this chapter shall be performed using a sound level meter which meets at least American National Standards Institute (ANSI) Type 2 standards. While the exterior noise standards in Section 8.40.050 are applied to the property line of the receiving use, the location for measuring noise levels may be at any legally accessible vantage point where a reasonable person would conclude the noise may exceed this chapter's noise standards. All noise level measurements shall be performed in accordance with the procedures established by the City and shall be at a height of at least four feet, at least four feet away from reflective surfaces, and for a duration of at least 15 minutes, where feasible. The measurement shall be made using the A-weighting network (dBA) with "slow" meter response. Impulsive or impact noises shall be measured using "fast" meter response. The purpose of the measurement is to determine if the alleged noise violation exceeds the standards established in Section 8.40.050. If for any reason the alleged offending noise cannot be turned off, shut down or temporarily removed from the area, then the ambient noise shall be estimated by performing a representative measurement in the same general area of the source but at a sufficient distance such that the noise source is inaudible. (2379-7/79, 3940-7/12, 4222-9/21)

8.40.050 Exterior Noise Standards

A. The following exterior noise standards shall apply to the applicable land use. It is unlawful for any person at any location within the incorporated area of the City to create any noise due to a fixed noise source (or any mobile source not pre-empted by State or Federal laws), or to allow the creation of any noise on property owned, leased, occupied, or otherwise controlled by such person, which causes the noise level when measured at the property line of any residential, hotel, motel, public institutional, recreational, or commercial property, either within or outside the City, to exceed the applicable noise standards:

Exterior Noise Standards

Land Use	Leq Noise Level dBA	Lmax Noise Level dBA	Time Period
Low-Density Residential	55	75	7 a.m.–10 p.m.
	50	70	10 p.m.–7 a.m.
Medium-, High-Density Residential, Hotels, Motels	60	80	7 a.m.–10 p.m.
	50	70	10 p.m.–7 a.m.
Schools	55	75	Hours of Operation
Hospitals, Churches, Cultural, Museum, Library, Public Park, Recreational	60	80	Hours of Operation
Commercial/Office	65	85	Hours of Operation

B. The above standard does not apply to the establishment of multifamily residence private balconies and patios. Multifamily developments with balconies or patios that do not meet noise standards are required to provide occupancy disclosure notices to all future tenants regarding potential noise impacts.

- C. The above daytime (7:00 a.m.–10:00 p.m.) standards for hotels, motels and commercial uses shall apply only to active outdoor use areas such as a pool or outdoor courtyard.
- D. In the event the alleged offensive noise consists entirely of impact or impulsive noise, simple tone noise, speech, music, or any combination thereof, each of the above noise levels shall be reduced by five dBA.
- E. If the alleged offense affects a property outside the City's jurisdiction, the exterior noise standards shall be enforced at the City boundary.
- F. In the event the measured ambient noise level exceeds any of the noise limit categories above, the noise limit shall be increased to reflect said ambient noise level.
- G. In the event that the noise source and the affected property are within different land use categories, the noise standards of the affected property shall apply. (2379-8/79, 2788-9/85, 3940-7/12, 4222-9/21)

8.40.090 Special Provisions

The following activities shall be exempt from the provisions of this chapter:

- A. School bands, school athletics and school entertainment events, provided such events are conducted on school property or authorized by special permit from the City.
- B. Activities lawfully permitted in public parks, public playgrounds and public or private school grounds.
- C. Any mechanical device, apparatus or equipment used, related to or connected with emergency City work, including City contractors.
- D. Noise sources associated with construction, repair, remodeling, or grading of any real property, provided that: (1) the City has issued a building, grading or similar permit for such activities; (2) said activities do not take place between the hours of 7:00 p.m. and 7:00 a.m., Monday through Saturday, or at any time on Sunday or a Federal holiday; and (3) the average construction noise levels do not exceed 80 dBA Leq at nearby noise-sensitive land uses. If outdoor construction activities are permitted by the City after 7:00 p.m. or before 7:00 a.m., the average construction Noise Levels at nearby noise-sensitive land uses shall be limited to 50 dBA Leq.
- E. Mobile noise sources associated with pest control through pesticide application, provided that the application is made in accordance with restricted material permits issued by or regulations enforced by the Agricultural Commissioner.
- F. Noise sources associated with the maintenance of real property and use of domestic power tools provided said activities take place between the hours of 8:00 a.m. and 7:00 p.m. Monday through Saturday or between the hours of 9:00 a.m. and 6:00 p.m. on Sunday or a Federal holiday. Noise from typical and occasional property maintenance and the use of domestic power tools which does not require a building permit shall not be subject to the noise limits in subsection D of this section.
- G. Leaf blower noise shall be governed by Section [8.40.095](#).

H. Any activity or equipment to the extent that design regulation thereof has been pre-empted by State or Federal laws.

I. Noise sources associated with temporary public or private events located on private or public property, provided that a permit has been obtained from the City.

J. Noise generated outdoors by business operations which are temporarily prohibited from occurring indoors due to City-declared emergency conditions. This applies only to City-approved businesses whose operations would typically occur indoors. Noise generated by sound amplifying equipment such as stereos or megaphones is not exempt. (2379-7/79, 3131-4/92, 3940-7/12, 4222-9/21)

8.40.095 Leaf Blowers

A. **Unlawful to Propel Debris Beyond Parcel Boundary.** It is unlawful for any person to use or operate any leaf blower in such a manner as to blow, dispel or make airborne, dust, leaves, grass cuttings, paper, trash or any other type of unattached debris or material, beyond the parcel boundaries of the parcel being cleaned, unless the consent of the adjoining owner or person in possession is obtained. It is unlawful for any person to use or operate any leaf blower within the City in such a way as to blow leaves, dirt and other debris onto the public rights-of-way or private property and to allow such debris to remain there in excess of 30 minutes.

B. **Special Prohibitions.** It is unlawful for any person to operate a leaf blower within a residential zone or within 100 feet of a residential zone of the City of Huntington Beach, except under the following conditions:

1. **Time Restriction.** Noise sources associated with the maintenance of real property provided said activities take place between the hours of 8:00 a.m. and 7:00 p.m. Monday through Saturday or between the hours of 9:00 a.m. and 6:00 p.m. on Sunday or a Federal holiday.
2. **Distance Restriction.** Leaf blowers shall not be operated within a horizontal distance of 10 feet of any operable window, door, or mechanical air intake opening or duct.
3. **Duration of Use Restriction.** Leaf blowers shall not be operated for more than 15 minutes per hour, per day, on parcels less than one-half acre and no more than 30 minutes per hour on parcels greater than one-half acre up to one acre. Leaf blowers shall not be operated for more than two hours on parcels of one acre or more.
4. **Number Restriction.** No person shall operate more than one leaf blower per parcel on one-half acre, no more than two leaf blowers on parcels greater than one-half acre and no more than three leaf blowers on parcels greater than one acre or more.
5. The maximum decibel level of 70 dBA as measured 10 feet from the leaf blower shall not be exceeded. (3131-4/92, 4222-9/21)

8.40.100 Schools, Hospitals and Churches—Special Provisions

It is unlawful for any person to create any noise which causes the noise level at any school, hospital or church while same is in use, to exceed the noise limits specified for exterior noise standards in Section 8.40.050, or which noise level unreasonably interferes with the use of such institutions, including, unreasonably disturbs or annoys persons at a school, hospital or church, provided conspicuous signs are displayed in three separate locations within one-tenth of a mile of the institution indicating the presence of a school, hospital or church. (2379-7/79, 4222-9/21)

8.40.111 Prohibited Noises

- A. It is unlawful for any person to willfully make or continue, or cause to be made or continued, any loud, unnecessary or unusual noise which disturbs the peace or quiet of any neighborhood or which causes discomfort or annoyance to any reasonable person of normal sensitiveness residing in the area.
- B. In determining whether a violation of the provisions of this section exists, the City will determine:
1. The level of the noise;
 2. The level and intensity of background noise, if any;
 3. The proximity of the noise to residences;
 4. The zoning where the noise emanates;
 5. The density of the area within which the noise emanates;
 6. The time the noise occurs;
 7. The duration of the noise and its tonal content; and
 8. Whether the noise is recurrent, intermittent or constant. (3216-12/93, 4222-9/21)

8.40.112 Loud Noises

It is unlawful for any person to:

- A. Use, operate, or permit to be operated any radio, receiving set or device, television set, musical instrument, phonograph, digital music player, CD, DVD, tape player, juke box, or other sound-amplifying device for producing or reproducing sound in such a manner as to disturb the peace, quiet, and comfort of other persons.
- B. Make or allow to be made any noise which continues for more than a five-minute period between the hours of 10:00 p.m. and 7:00 a.m. if such noise is audible for 50 feet or more from the source of the noise.
- C. Maintain, manage, or control any business or residential property in violation of subsection A or B of this section.

- D. When within 200 feet of residences, load, unload, open, close or other handling of boxes, crates, containers, building materials, refuse handling or similar objects, between the hours of 10:00 p.m. and 7:00 a.m. in such a manner as to cause a noise disturbance across a noise-sensitive property line. This includes, but is not limited to, noise disturbances related to commercial delivery operations, vehicle idling, vehicle queuing, vehicle backup alarms, and vehicle refrigeration equipment.
- E. Repair, rebuild, modify, or test any motor vehicle, motorcycle, or motorboat in such a manner as to cause a noise disturbance across a noise-sensitive property line.
- F. Operate, play or permit the operation of any sound amplifying equipment in any place of public entertainment at a sound level greater than 90 dBA as read by the slow response on a sound level meter at any point that is normally occupied by customers, unless a conspicuous and legible sign is located immediately outside or near the public entrance stating, "Warning: Sound Levels Within May Cause Permanent Hearing Impairment."
- G. Sound or permit the sounding of any amplified signal from such as a bell, chime, siren, whistle, vehicle horn or similar device, intended primarily for non-emergency purposes which causes a noise disturbance across a noise-sensitive property line. Devices used in conjunction with school and place of worship shall be exempt from this provision.
- H. Operate or permit the operation of any motorboat in such a manner to cause a noise disturbance across a noise-sensitive property line.
- I. Operate or cause to be operated any motor vehicle or motorcycle not equipped with a muffler or other sound dissipative device in good working order and in constant operation. No person shall remove or render inoperative, or cause to be removed or rendered inoperative, other than for purposes of maintenance, repair, or replacement, any muffler or sound dissipative device on a motor vehicle or motorcycle.
- J. Own, maintain, control, or operate any premises or property where noise continues after being informed, anytime within the preceding 30 days by the Police Department or Community Development Department that a violation of this chapter has been committed on said premises.
- K. Violations of this section are hereby declared a nuisance per se. (3514-12/01, 4222-9/21)

8.40.113 Vibration

Notwithstanding other sections of this chapter, it is unlawful for any person to create, maintain or cause any operational ground vibration on any property which exceeds 72 VdB at nearby vibration-sensitive land uses. The vibration limit at vibration-sensitive uses with high sensitivity such as operations conducting medical research and imaging shall be 65 VdB. (4222-9/21)

8.40.120 Manner of Enforcement

A. The Director of Community Development (“Director”) or Police Chief and his or her duly authorized representatives are directed to enforce the provisions of this chapter. The Director or Police Chief and their duly authorized representatives are authorized pursuant to [Penal Code](#) Section 836.5 to arrest any person without a warrant when they have reasonable cause to believe that such person has violated a provision of this chapter in their presence.

B. If the Director or Police Chief and their duly authorized representatives conduct noise monitoring tests or other noise measurement readings for purposes of enforcement, and the noise level is found to exceed the noise levels in this chapter, the property owner or the operator of the noise source shall be required to pay the City’s cost of the noise monitoring tests or readings. (2379-7/79, 2533-2/82, 3216-12/93, 3940-7/12, 4222-9/21)

8.40.130 Permit Process

A. An application for a temporary permit to deviate from this chapter (“noise deviation permit”) shall be submitted to the Director with all prescribed information and fees. In part, the application shall set forth: (1) all facts regarding the request for deviation; (2) all actions the applicant took to comply with the provisions of this chapter; (3) the reasons why compliance with this chapter cannot be achieved; (4) any proposed methods to minimize noise during the temporary activity; and (5) any such additional information the Director may require.

B. Within 10 days after receipt of a complete application, the City will notify all property owners within 300 feet of the proposed application.

C. A separate application shall be filed for each noise source; provided, however, that several mobile sources under common ownership, or several fixed sources on a single property may be combined into one application.

D. In all cases, the Director shall process the application in compliance with the California Environmental Quality Act.

E. The Director may approve, conditionally approve or deny the noise deviation permit no sooner than 20 days after notification was provided to property owners within 300 feet of the proposed noise source of the application. In acting upon the application, the Director shall weigh the factors set forth at subsection A above, and those set forth in [Section 8.40.111](#) of this chapter.

F. The Director’s decision on the permit shall be served by mail upon the applicant and all property owners within 300 feet of the proposed noise source. The Director’s decision shall be effective 11 days after the mailing of the decision unless an appeal is filed.

G. An applicant for a permit shall remain subject to this chapter until a permit is granted, and all rights to a hearing and appeal are exhausted. (2379-7/79, 3940-7/12, 4222-9/21)

8.40.150 Appeals

Appeal Process. A person desiring to appeal the Director's decision on a noise deviation permit shall file a written notice of appeal with the director within 10 days after the Director's decision. Notice of appeal shall be accompanied by a fee as set forth in the City's current fee resolution and shall follow the hearing requirements in Chapter 248 of the Huntington Beach Zoning and Subdivision Ordinance. (3940-7/12, 4222-9/21)

Chapter 8.42 USE OF POLICE SERVICES AT LOUD PARTIES OR OTHER ACTIVITIES

8.42.005 Intent and Purpose

The intent of this chapter is to address inadequate supervision of parties and other types of events or gatherings of people on private property resulting in loud and/or unruly behavior that constitutes a threat to the peace, health, safety, and/or general welfare of the public. This chapter is also intended to address the problem of hosts of such gatherings who fail to ensure that alcoholic beverages are not served to, possessed by, or consumed by underage persons. Hosts of parties, gatherings or events will be more likely to properly supervise or stop the consumption of alcohol by minors if they are held responsible for enabling or tolerating such conduct. (3972-4/13)

8.42.010 Definitions

The following words, phrases and terms as used in this chapter shall have the meaning as indicated below:

"Alcohol" means ethyl alcohol or hydrated oxide of ethyl from whatever source or by whatever process produced.

"Alcoholic beverage" means alcohol, spirits, liquor, wine, beer, and every liquid or solid containing alcohol, spirit, wine, or beer, and which contains one-half of one percent or more of alcohol by volume and which is fit for beverage purposes either alone or when diluted, mixed, or combined with other substances.

"Host" is the person who owns the property where the party, gathering or event takes place; the person in charge of the premises and/or the person who organized the event. If the host is a minor, then the parents or guardians of that minor will be jointly and severally liable for the fee incurred for police services.

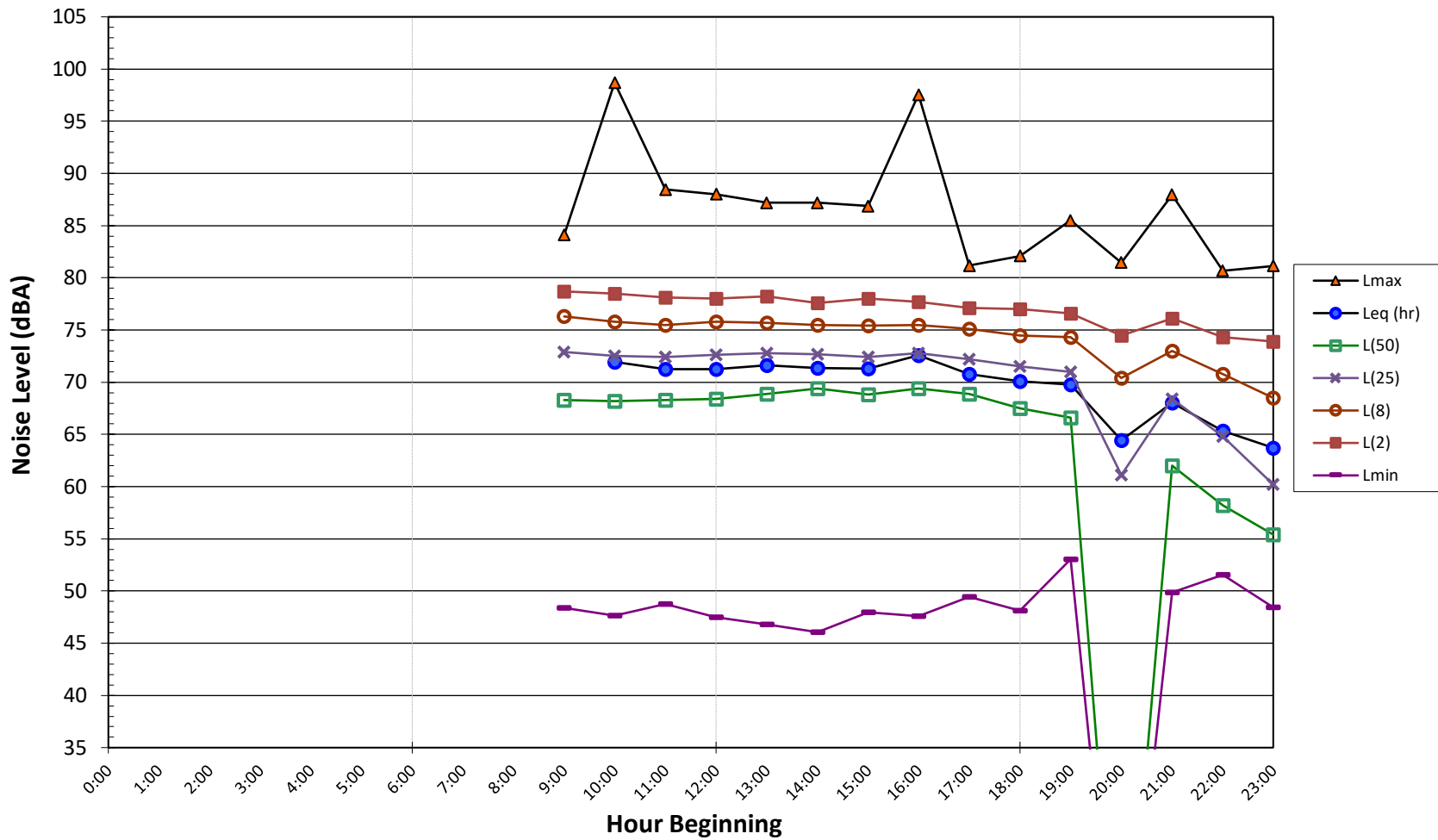
"Juvenile" means any person less than 18 years of age.

"Large party, gathering or event" is a group of persons who have assembled or are assembling for a social occasion or for a social activity.

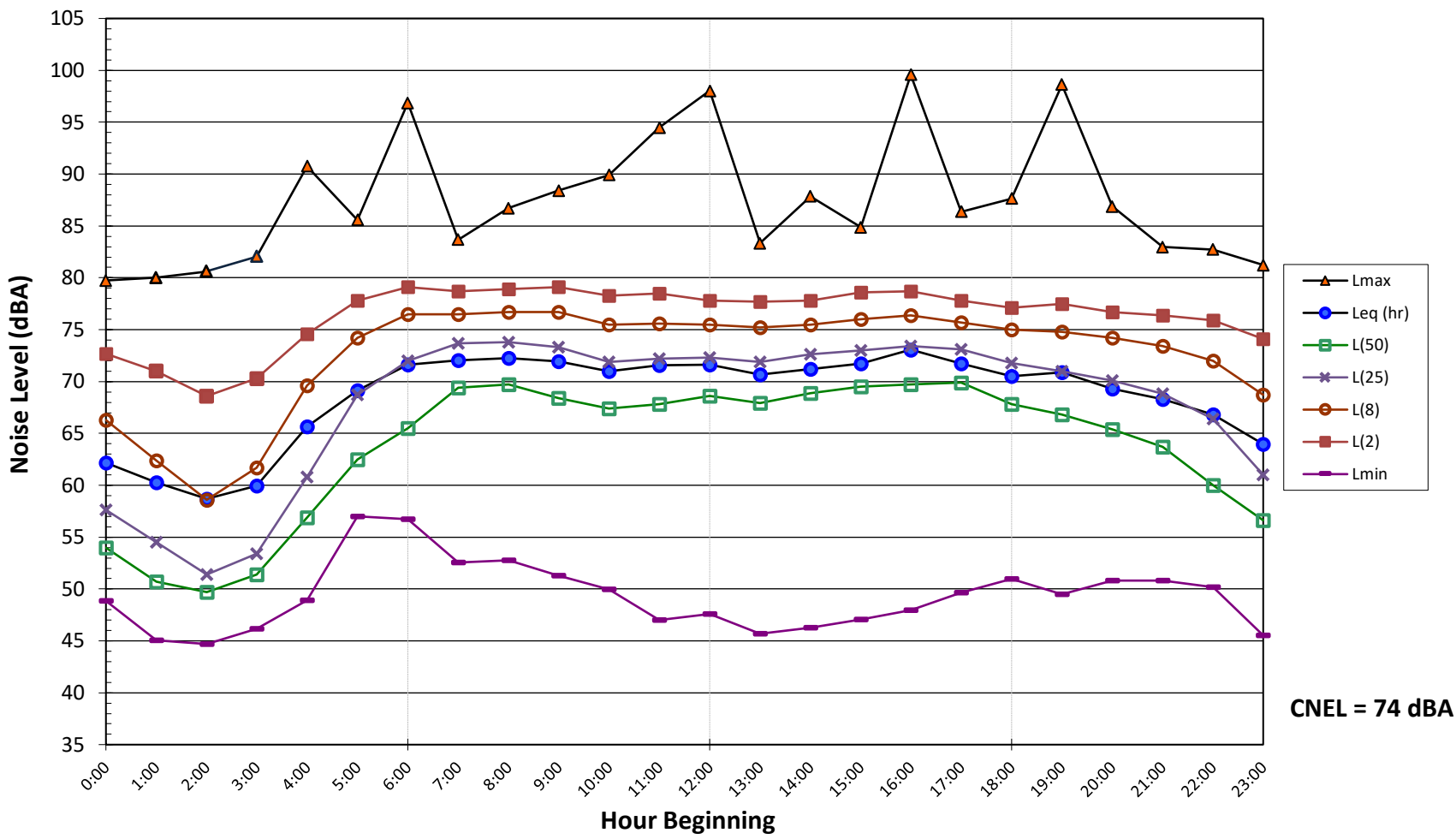
"Parent or legal guardian" means a person who is a natural parent, adoptive parent, foster parent, or step-parent of another person, or a person who, under court order, is the guardian of another person, or a public or private agency with which a minor has been placed by the court.

AMBIENT NOISE MONITORING RESULTS

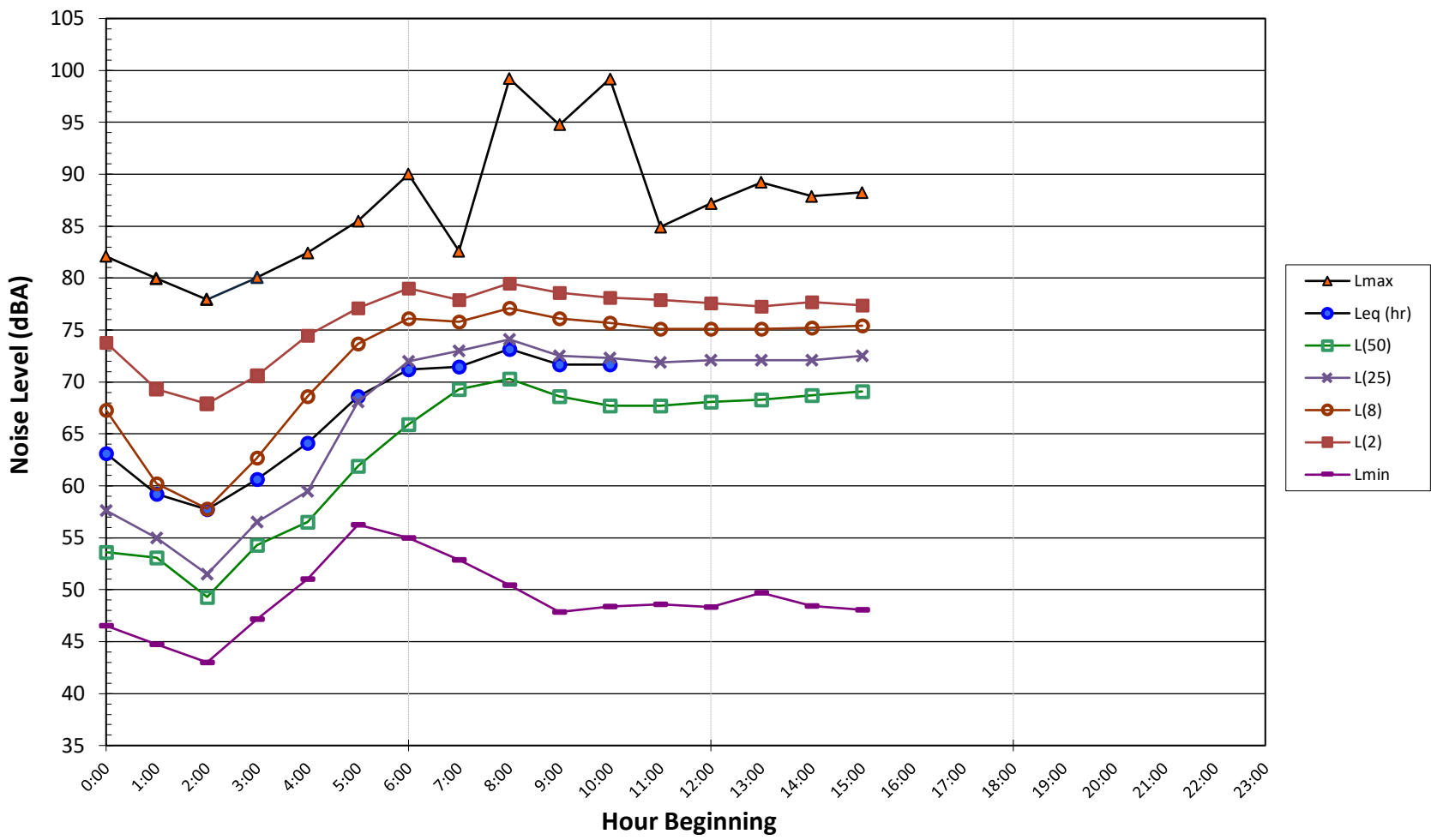
**Noise Levels at LT-1
Edwards Street, Huntington Beach, CA
Tuesday, December 10, 2019**



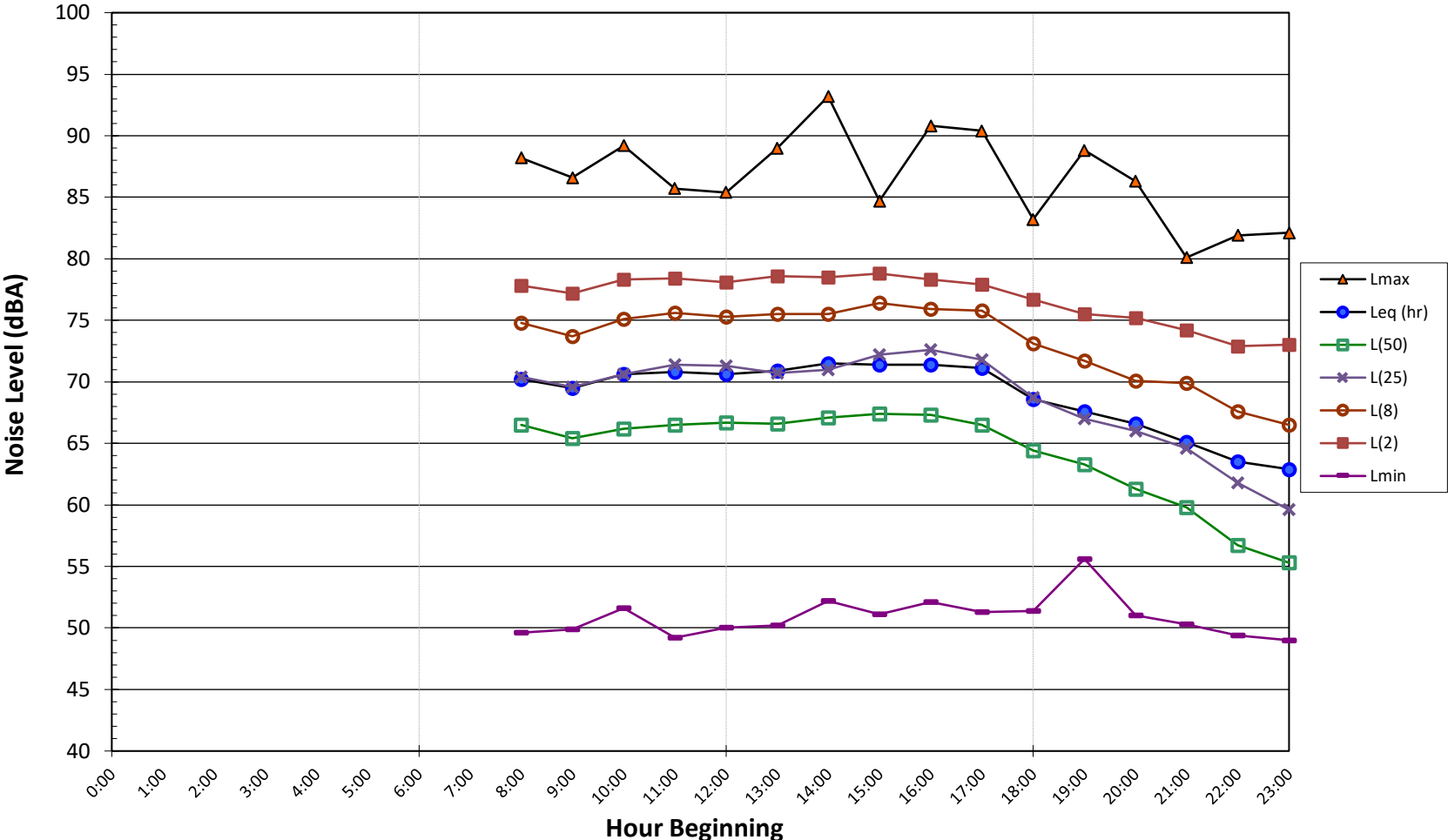
Noise Levels at LT-1 Edwards Street, Huntington Beach, CA Wednesday, December 11, 2019



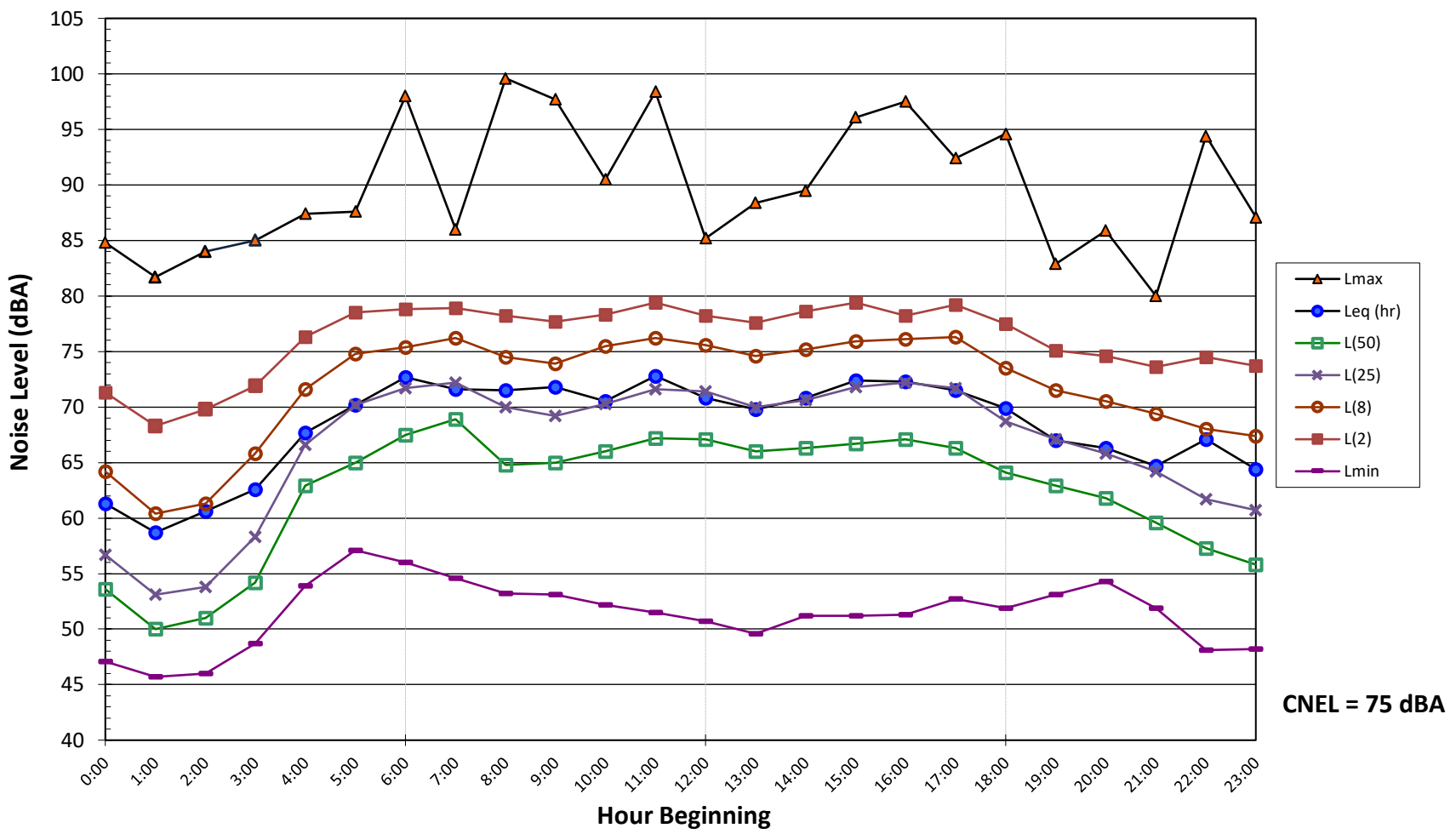
Noise Levels at LT-1
Edwards Street, Huntington Beach, CA
Thursday, December 12, 2019



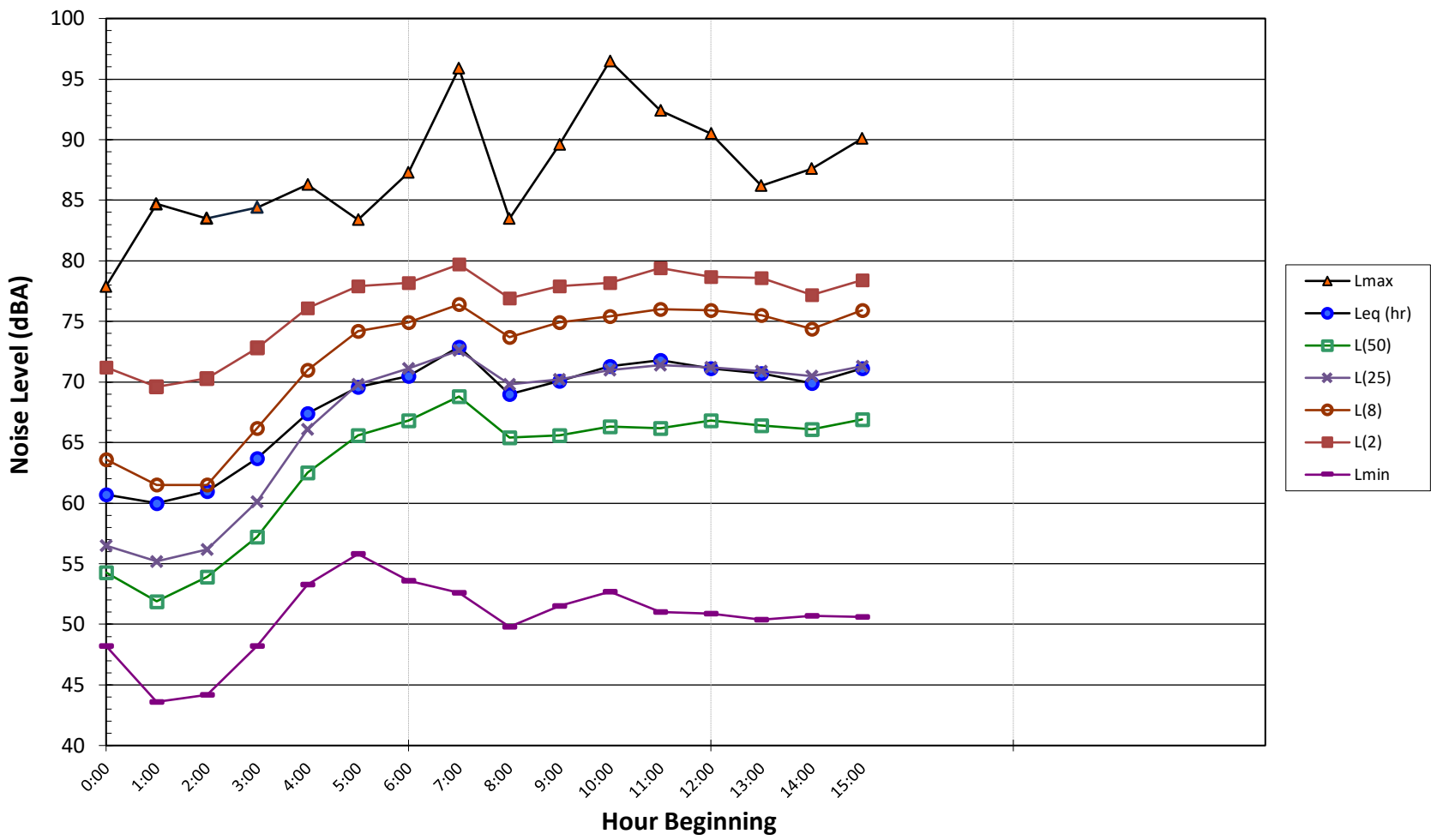
Noise Levels at LT-2
Bolsa Avenue, Huntington Beach, CA
Tuesday, December 10, 2019



Noise Levels at LT-2
Bolsa Avenue, Huntington Beach, CA
Wednesday, December 11, 2019



Noise Levels at LT-2
Bolsa Avenue, Huntington Beach, CA
Thursday, December 12, 2019



TRAFFIC NOISE INCREASE CALCULATIONS

Traffic Noise Calculator: FHWA 77-108 Project Title: CWE-16

Output						Inputs															
dBA at 50 feet			Distance to CNEL Contour			Roadway		Segment		ADT	Posted Speed Limit	Grade	% Autos	% Med Trucks	% Heavy Trucks	% Daytime	% Evening	% Night	Number of Lanes	Site Condition	Distance to Receiver
L _{eq-24hr}	L _{dn}	CNEL	70 dBA	65 dBA	60 dBA																
69.8	74.3	74.6	145	458	1448	Westminster Boulevard	West of Edwards Street	29,540	40	0.0%	94.0%	2.8%	3.2%	70.0%	10.0%	20.0%	4	Hard	50		
69.6	74.0	74.4	137	432	1367	Westminster Boulevard	Between Edwards Street & Goldenwest Street	27,450	40	0.0%	94.0%	2.8%	3.2%	70.0%	10.0%	20.0%	5	Hard	50		
67.7	72.2	72.5	90	283	896	Westminster Boulevard	East of Goldenwest Street	23,540	35	0.0%	94.0%	2.8%	3.2%	70.0%	10.0%	20.0%	4	Hard	50		
65.9	70.4	70.7	59	187	591	Edwards Street	North of Westminster Blvd	15,530	35	0.0%	94.0%	2.8%	3.2%	70.0%	10.0%	20.0%	4	Hard	50		
67.1	71.6	71.9	78	247	780	Edwards Street	South of Westminster Blvd	20,480	35	0.0%	94.0%	2.8%	3.2%	70.0%	10.0%	20.0%	4	Hard	50		
67.6	72.1	72.4	88	277	877	Edwards Street	North of Royal Oaks Drive	17,890	40	0.0%	94.0%	2.8%	3.2%	70.0%	10.0%	20.0%	4	Hard	50		
67.8	72.3	72.6	91	288	909	Edwards Street	Between Royal Oaks Drive and Mar Vista Drive	18,550	40	0.0%	94.0%	2.8%	3.2%	70.0%	10.0%	20.0%	4	Hard	50		
68.9	73.4	73.7	117	371	1172	Edwards Street	Between Mar Vista Drive & Bolsa Avenue	23,910	40	0.0%	94.0%	2.8%	3.2%	70.0%	10.0%	20.0%	4	Hard	50		
68.5	73.0	73.3	108	341	1079	Edwards Street	South of Bolsa Avenue	22,020	40	0.0%	94.0%	2.8%	3.2%	70.0%	10.0%	20.0%	4	Hard	50		
68.3	72.7	73.1	101	321	1014	Bolsa Avenue	East of Edwards Street	19,950	40	0.0%	94.0%	2.8%	3.2%	70.0%	10.0%	20.0%	6	Hard	50		
69.4	73.9	74.2	132	417	1319	Bolsa Avenue	Between Edwards Street & Goldenwest Street	25,950	40	0.0%	94.0%	2.8%	3.2%	70.0%	10.0%	20.0%	6	Hard	50		
70.9	75.4	75.7	187	592	1873	Bolsa Avenue	Between Goldenwest Street & Chestnut Street	29,710	45	0.0%	94.0%	2.8%	3.2%	70.0%	10.0%	20.0%	5	Hard	50		
70.0	74.4	74.8	150	473	1496	Bolsa Avenue	West of Chestnut	23,730	45	0.0%	94.0%	2.8%	3.2%	70.0%	10.0%	20.0%	5	Hard	50		
70.6	75.0	75.4	172	543	1718	Goldenwest Street	North of Westminster Blvd	33,790	40	0.0%	94.0%	2.8%	3.2%	70.0%	10.0%	20.0%	6	Hard	50		
70.5	75.0	75.3	169	533	1687	Goldenwest Street	Between Goldenwest Street & Hazard Avenue	33,860	40	0.0%	94.0%	2.8%	3.2%	70.0%	10.0%	20.0%	5	Hard	50		
71.6	76.0	76.4	217	685	2166	Goldenwest Street	Between Hazard Avenue & Westminster Mall Road	42,600	40	0.0%	94.0%	2.8%	3.2%	70.0%	10.0%	20.0%	6	Hard	50		
71.7	76.2	76.5	223	704	2226	Goldenwest Street	Between Westminster Mall Road & Bolsa Avenue	43,780	40	0.0%	94.0%	2.8%	3.2%	70.0%	10.0%	20.0%	6	Hard	50		
72.8	77.3	77.6	286	904	2860	Goldenwest Street	Between Bolsa Avenue & Oxford Drive	44,440	45	0.0%	94.0%	2.8%	3.2%	70.0%	10.0%	20.0%	6	Hard	50		
72.6	77.0	77.4	272	860	2719	Goldenwest Street	Between Oxford Drive & McFadden Avenue	42,260	45	0.0%	94.0%	2.8%	3.2%	70.0%	10.0%	20.0%	6	Hard	50		
72.4	76.9	77.2	264	834	2638	Goldenwest Street	South of McFadden Avenue	40,990	45	0.0%	94.0%	2.8%	3.2%	70.0%	10.0%	20.0%	6	Hard	50		
60.5	64.9	65.3	17	53	168	Hazard	West of Goldenwest Street	7,940	25	0.0%	94.0%	2.8%	3.2%	70.0%	10.0%	20.0%	2	Hard	50		
69.8	74.2	74.6	143	452	1428	McFadden Avenue	East of Goldenwest Street	23,020	45	0.0%	94.0%	2.8%	3.2%	70.0%	10.0%	20.0%	4	Hard	50		
70.4	74.9	75.2	167	529	1672	McFadden Avenue	West of Goldenwest Street	26,950	45	0.0%	94.0%	2.8%	3.2%	70.0%	10.0%	20.0%	4	Hard	50		

Traffic Noise Calculator: FHWA 77-108

Project Title: CWE-16

Output			Inputs																			
dBA at 50 feet			Distance to CNEL Contour																	Number of Lanes	Site Condition	Distance to Receiver
L _{eq,24hr}	L _{dn}	CNEL	70 dBA	65 dBA	60 dBA	Roadway	Segment	ADT	Posted Speed Limit	Grade	% Autos	% Med Trucks	% Heavy Trucks	% Daytime	% Evening	% Night						
69.9	74.4	74.7	148	469	1484	Westminster Boulevard	West of Edwards Street	30,280	40	0.0%	94.0%	2.8%	3.2%	70.0%	10.0%	20.0%	4	Hard	50			
69.6	74.1	74.4	137	435	1374	Westminster Boulevard	Between Edwards Street & Goldenwest Street	27,590	40	0.0%	94.0%	2.8%	3.2%	70.0%	10.0%	20.0%	5	Hard	50			
67.9	72.3	72.7	92	292	925	Westminster Boulevard	East of Goldenwest Street	24,280	35	0.0%	94.0%	2.8%	3.2%	70.0%	10.0%	20.0%	4	Hard	50			
66.1	70.6	70.9	62	195	615	Edwards Street	North of Westminster Blvd	16,160	35	0.0%	94.0%	2.8%	3.2%	70.0%	10.0%	20.0%	4	Hard	50			
67.4	71.9	72.2	83	262	829	Edwards Street	South of Westminster Blvd	21,760	35	0.0%	94.0%	2.8%	3.2%	70.0%	10.0%	20.0%	4	Hard	50			
68.2	72.7	73.0	100	318	1004	Edwards Street	North of Royal Oaks Drive	20,490	40	0.0%	94.0%	2.8%	3.2%	70.0%	10.0%	20.0%	4	Hard	50			
68.3	72.8	73.1	103	324	1025	Edwards Street	Between Royal Oaks Drive and Mar Vista Drive	20,920	40	0.0%	94.0%	2.8%	3.2%	70.0%	10.0%	20.0%	4	Hard	50			
69.6	74.1	74.4	137	435	1374	Edwards Street	Between Mar Vista Drive & Bolsa Avenue	28,040	40	0.0%	94.0%	2.8%	3.2%	70.0%	10.0%	20.0%	4	Hard	50			
68.7	73.2	73.5	111	352	1114	Edwards Street	South of Bolsa Avenue	22,730	40	0.0%	94.0%	2.8%	3.2%	70.0%	10.0%	20.0%	4	Hard	50			
68.4	72.9	73.2	105	333	1052	Bolsa Avenue	East of Edwards Street	20,690	40	0.0%	94.0%	2.8%	3.2%	70.0%	10.0%	20.0%	6	Hard	50			
70.6	75.0	75.4	172	544	1720	Bolsa Avenue	Between Edwards Street & Goldenwest Street	33,830	40	0.0%	94.0%	2.8%	3.2%	70.0%	10.0%	20.0%	6	Hard	50			
71.2	75.7	76.0	199	630	1991	Bolsa Avenue	Between Goldenwest Street & Chestnut Street	31,590	45	0.0%	94.0%	2.8%	3.2%	70.0%	10.0%	20.0%	5	Hard	50			
70.1	74.6	74.9	154	486	1538	Bolsa Avenue	West of Chestnut	24,400	45	0.0%	94.0%	2.8%	3.2%	70.0%	10.0%	20.0%	5	Hard	50			
70.8	75.3	75.6	181	571	1807	Goldenwest Street	North of Westminster Blvd	35,540	40	0.0%	94.0%	2.8%	3.2%	70.0%	10.0%	20.0%	6	Hard	50			
71.0	75.5	75.8	190	602	1903	Goldenwest Street	Between Goldenwest Street & Hazard Avenue	38,200	40	0.0%	94.0%	2.8%	3.2%	70.0%	10.0%	20.0%	5	Hard	50			
72.2	76.7	77.0	252	798	2523	Goldenwest Street	Between Hazard Avenue & Westminster Mall Road	49,630	40	0.0%	94.0%	2.8%	3.2%	70.0%	10.0%	20.0%	6	Hard	50			
72.2	76.7	77.0	251	794	2510	Goldenwest Street	Between Westminster Mall Road & Bolsa Avenue	49,360	40	0.0%	94.0%	2.8%	3.2%	70.0%	10.0%	20.0%	6	Hard	50			
73.0	77.5	77.8	300	950	3004	Goldenwest Street	Between Bolsa Avenue & Oxford Drive	46,680	45	0.0%	94.0%	2.8%	3.2%	70.0%	10.0%	20.0%	6	Hard	50			
72.8	77.3	77.6	286	905	2863	Goldenwest Street	Between Oxford Drive & McFadden Avenue	44,500	45	0.0%	94.0%	2.8%	3.2%	70.0%	10.0%	20.0%	6	Hard	50			
72.7	77.1	77.5	278	880	2782	Goldenwest Street	South of McFadden Avenue	43,230	45	0.0%	94.0%	2.8%	3.2%	70.0%	10.0%	20.0%	6	Hard	50			
60.7	65.2	65.5	18	57	179	Hazard	West of Goldenwest Street	8,480	25	0.0%	94.0%	2.8%	3.2%	70.0%	10.0%	20.0%	2	Hard	50			
69.8	74.2	74.6	143	452	1428	McFadden Avenue	East of Goldenwest Street	23,020	45	0.0%	94.0%	2.8%	3.2%	70.0%	10.0%	20.0%	4	Hard	50			
70.4	74.9	75.2	167	529	1672	McFadden Avenue	West of Goldenwest Street	26,950	45	0.0%	94.0%	2.8%	3.2%	70.0%	10.0%	20.0%	4	Hard	50			

Traffic Noise Calculator: FHWA 77-108

Project Title: CWE-16

Output			Inputs																			
dBA at 50 feet			Distance to CNEL Contour																			
L _{eq-24hr}	L _{dn}	CNEL	70 dBA	65 dBA	60 dBA	Roadway	Segment	ADT	Posted Speed Limit	Grade	% Autos	% Med Trucks	% Heavy Trucks	% Daytime	% Evening	% Night	Number of Lanes	Site Condition	Distance to Receiver			
70.0	74.5	74.8	151	477	1507	Westminster Boulevard	West of Edwards Street	30,750	40	0.0%	94.0%	2.8%	3.2%	70.0%	10.0%	20.0%	4	Hard	50			
69.8	74.2	74.6	143	451	1426	Westminster Boulevard	Between Edwards Street & Goldenwest Street	28,630	40	0.0%	94.0%	2.8%	3.2%	70.0%	10.0%	20.0%	5	Hard	50			
67.9	72.4	72.7	93	294	928	Westminster Boulevard	East of Goldenwest Street	24,380	35	0.0%	94.0%	2.8%	3.2%	70.0%	10.0%	20.0%	4	Hard	50			
69.2	73.7	74.0	125	397	1254	Edwards Street	North of Westminster Blvd	32,940	35	0.0%	94.0%	2.8%	3.2%	70.0%	10.0%	20.0%	4	Hard	50			
67.4	71.9	72.2	83	263	833	Edwards Street	South of Westminster Blvd	21,880	35	0.0%	94.0%	2.8%	3.2%	70.0%	10.0%	20.0%	4	Hard	50			
67.8	72.2	72.6	90	284	899	Edwards Street	North of Royal Oaks Drive	18,350	40	0.0%	94.0%	2.8%	3.2%	70.0%	10.0%	20.0%	4	Hard	50			
67.9	72.4	72.7	94	297	940	Edwards Street	Between Royal Oaks Drive and Mar Vista Drive	19,180	40	0.0%	94.0%	2.8%	3.2%	70.0%	10.0%	20.0%	4	Hard	50			
69.0	73.5	73.8	121	383	1211	Edwards Street	Between Mar Vista Drive & Bolsa Avenue	24,710	40	0.0%	94.0%	2.8%	3.2%	70.0%	10.0%	20.0%	4	Hard	50			
68.8	73.3	73.6	115	363	1147	Edwards Street	South of Bolsa Avenue	23,410	40	0.0%	94.0%	2.8%	3.2%	70.0%	10.0%	20.0%	4	Hard	50			
68.5	73.0	73.3	107	340	1074	Bolsa Avenue	East of Edwards Street	21,130	40	0.0%	94.0%	2.8%	3.2%	70.0%	10.0%	20.0%	6	Hard	50			
69.5	74.0	74.3	135	428	1354	Bolsa Avenue	Between Edwards Street & Goldenwest Street	26,630	40	0.0%	94.0%	2.8%	3.2%	70.0%	10.0%	20.0%	6	Hard	50			
71.3	75.8	76.1	203	640	2025	Bolsa Avenue	Between Goldenwest Street & Chestnut Street	32,130	45	0.0%	94.0%	2.8%	3.2%	70.0%	10.0%	20.0%	5	Hard	50			
70.2	74.7	75.0	158	498	1576	Bolsa Avenue	West of Chestnut	25,000	45	0.0%	94.0%	2.8%	3.2%	70.0%	10.0%	20.0%	5	Hard	50			
70.7	75.2	75.5	179	566	1789	Goldenwest Street	North of Westminster Blvd	35,180	40	0.0%	94.0%	2.8%	3.2%	70.0%	10.0%	20.0%	6	Hard	50			
70.6	75.1	75.4	174	550	1740	Goldenwest Street	Between Goldenwest Street & Hazard Avenue	34,940	40	0.0%	94.0%	2.8%	3.2%	70.0%	10.0%	20.0%	5	Hard	50			
71.7	76.1	76.5	221	700	2213	Goldenwest Street	Between Hazard Avenue & Westminster Mall Road	43,530	40	0.0%	94.0%	2.8%	3.2%	70.0%	10.0%	20.0%	6	Hard	50			
71.8	76.3	76.6	230	728	2301	Goldenwest Street	Between Westminster Mall Road & Bolsa Avenue	45,250	40	0.0%	94.0%	2.8%	3.2%	70.0%	10.0%	20.0%	6	Hard	50			
72.9	77.4	77.7	296	936	2960	Goldenwest Street	Between Bolsa Avenue & Oxford Drive	46,000	45	0.0%	94.0%	2.8%	3.2%	70.0%	10.0%	20.0%	6	Hard	50			
72.6	77.1	77.4	278	878	2775	Goldenwest Street	Between Oxford Drive & McFadden Avenue	43,130	45	0.0%	94.0%	2.8%	3.2%	70.0%	10.0%	20.0%	6	Hard	50			
72.5	77.0	77.3	270	855	2703	Goldenwest Street	South of McFadden Avenue	42,000	45	0.0%	94.0%	2.8%	3.2%	70.0%	10.0%	20.0%	6	Hard	50			
60.7	65.2	65.5	18	56	177	Hazard	West of Goldenwest Street	8,400	25	0.0%	94.0%	2.8%	3.2%	70.0%	10.0%	20.0%	2	Hard	50			
70.0	74.5	74.8	152	480	1517	McFadden Avenue	East of Goldenwest Street	24,460	45	0.0%	94.0%	2.8%	3.2%	70.0%	10.0%	20.0%	4	Hard	50			
70.7	75.2	75.5	178	564	1785	McFadden Avenue	West of Goldenwest Street	28,770	45	0.0%	94.0%	2.8%	3.2%	70.0%	10.0%	20.0%	4	Hard	50			

Traffic Noise Calculator: FHWA 77-108 Project Title: CWE-16

Output			Inputs																		
dBA at 50 feet			Distance to CNEL Contour			Roadway		Segment		ADT	Posted Speed Limit	Grade	% Autos	% Med Trucks	% Heavy Trucks	% Daytime	% Evening	% Night	Number of Lanes	Site Condition	Distance to Receiver
L _{eq,24hr}	L _{dn}	CNEL	70 dBA	65 dBA	60 dBA																
70.1	74.6	74.9	154	488	1544	Westminster Boulevard	West of Edwards Street	31,490	40	0.0%	94.0%	2.8%	3.2%	70.0%	10.0%	20.0%	4	Hard	50		
69.8	74.2	74.6	143	453	1432	Westminster Boulevard	Between Edwards Street & Goldenwest Street	28,760	40	0.0%	94.0%	2.8%	3.2%	70.0%	10.0%	20.0%	5	Hard	50		
68.0	72.5	72.8	96	302	956	Westminster Boulevard	East of Goldenwest Street	25,110	35	0.0%	94.0%	2.8%	3.2%	70.0%	10.0%	20.0%	4	Hard	50		
66.5	70.9	71.3	67	212	669	Edwards Street	North of Westminster Blvd	17,580	35	0.0%	94.0%	2.8%	3.2%	70.0%	10.0%	20.0%	4	Hard	50		
67.7	72.1	72.5	88	279	882	Edwards Street	South of Westminster Blvd	23,160	35	0.0%	94.0%	2.8%	3.2%	70.0%	10.0%	20.0%	4	Hard	50		
68.3	72.8	73.1	102	323	1022	Edwards Street	North of Royal Oaks Drive	20,840	40	0.0%	94.0%	2.8%	3.2%	70.0%	10.0%	20.0%	4	Hard	50		
68.5	72.9	73.2	106	334	1056	Edwards Street	Between Royal Oaks Drive and Mar Vista Drive	21,540	40	0.0%	94.0%	2.8%	3.2%	70.0%	10.0%	20.0%	4	Hard	50		
69.7	74.2	74.5	141	447	1414	Edwards Street	Between Mar Vista Drive & Bolsa Avenue	28,840	40	0.0%	94.0%	2.8%	3.2%	70.0%	10.0%	20.0%	4	Hard	50		
68.9	73.4	73.7	118	373	1179	Edwards Street	South of Bolsa Avenue	24,050	40	0.0%	94.0%	2.8%	3.2%	70.0%	10.0%	20.0%	4	Hard	50		
68.7	73.1	73.5	111	351	1108	Bolsa Avenue	East of Edwards Street	21,800	40	0.0%	94.0%	2.8%	3.2%	70.0%	10.0%	20.0%	6	Hard	50		
70.7	75.1	75.5	175	555	1754	Bolsa Avenue	Between Edwards Street & Goldenwest Street	34,500	40	0.0%	94.0%	2.8%	3.2%	70.0%	10.0%	20.0%	6	Hard	50		
71.5	76.0	76.3	214	678	2143	Bolsa Avenue	Between Goldenwest Street & Chestnut Street	34,000	45	0.0%	94.0%	2.8%	3.2%	70.0%	10.0%	20.0%	5	Hard	50		
70.3	74.8	75.1	162	512	1619	Bolsa Avenue	West of Chestnut	25,680	45	0.0%	94.0%	2.8%	3.2%	70.0%	10.0%	20.0%	5	Hard	50		
71.0	75.4	75.7	188	594	1878	Goldenwest Street	North of Westminster Blvd	36,930	40	0.0%	94.0%	2.8%	3.2%	70.0%	10.0%	20.0%	6	Hard	50		
70.9	75.3	75.7	184	583	1845	Goldenwest Street	Between Goldenwest Street & Hazard Avenue	37,040	40	0.0%	94.0%	2.8%	3.2%	70.0%	10.0%	20.0%	5	Hard	50		
72.1	76.5	76.9	242	766	2422	Goldenwest Street	Between Hazard Avenue & Westminster Mall Road	47,640	40	0.0%	94.0%	2.8%	3.2%	70.0%	10.0%	20.0%	6	Hard	50		
72.3	76.8	77.1	258	817	2585	Goldenwest Street	Between Westminster Mall Road & Bolsa Avenue	50,840	40	0.0%	94.0%	2.8%	3.2%	70.0%	10.0%	20.0%	6	Hard	50		
73.1	77.6	77.9	310	982	3104	Goldenwest Street	Between Bolsa Avenue & Oxford Drive	48,240	45	0.0%	94.0%	2.8%	3.2%	70.0%	10.0%	20.0%	6	Hard	50		
72.9	77.3	77.7	292	923	2919	Goldenwest Street	Between Oxford Drive & McFadden Avenue	45,360	45	0.0%	94.0%	2.8%	3.2%	70.0%	10.0%	20.0%	6	Hard	50		
72.8	77.2	77.6	285	900	2847	Goldenwest Street	South of McFadden Avenue	44,240	45	0.0%	94.0%	2.8%	3.2%	70.0%	10.0%	20.0%	6	Hard	50		
61.0	65.4	65.8	19	60	189	Hazard	West of Goldenwest Street	8,940	25	0.0%	94.0%	2.8%	3.2%	70.0%	10.0%	20.0%	2	Hard	50		
70.0	74.5	74.8	152	480	1517	McFadden Avenue	East of Goldenwest Street	24,460	45	0.0%	94.0%	2.8%	3.2%	70.0%	10.0%	20.0%	4	Hard	50		
70.7	75.2	75.5	178	564	1785	McFadden Avenue	West of Goldenwest Street	28,770	45	0.0%	94.0%	2.8%	3.2%	70.0%	10.0%	20.0%	4	Hard	50		

CNEL at 50 Feet				CNEL Increase			Project Increase		Cumulativ
Existing	Existing Pus Project	Future No Projcet	Future Plus Project	Project	Cummulative Increase	Project Cumulative Contribution	Greater than 65?	Greater than 1.5 Increase	Greater than 65?
74.6	74.7	74.8	74.9	0.1	0.3	0.1	Yes	No	Yes
74.4	74.4	74.6	74.6	0.0	0.2	0.0	Yes	No	Yes
72.5	72.7	72.7	72.8	0.1	0.3	0.1	Yes	No	Yes
70.7	70.9	74.0	71.3	0.2	0.5	-2.7	Yes	No	Yes
71.9	72.2	72.2	72.5	0.3	0.5	0.2	Yes	No	Yes
72.4	73.0	72.6	73.1	0.6	0.7	0.6	Yes	No	Yes
72.6	73.1	72.7	73.2	0.5	0.6	0.5	Yes	No	Yes
73.7	74.4	73.8	74.5	0.7	0.8	0.7	Yes	No	Yes
73.3	73.5	73.6	73.7	0.1	0.4	0.1	Yes	No	Yes
73.1	73.2	73.3	73.5	0.2	0.4	0.1	Yes	No	Yes
74.2	75.4	74.3	75.5	1.2	1.2	1.1	Yes	No	Yes
75.7	76.0	76.1	76.3	0.3	0.6	0.2	Yes	No	Yes
74.8	74.9	75.0	75.1	0.1	0.3	0.1	Yes	No	Yes
75.4	75.6	75.5	75.7	0.2	0.4	0.2	Yes	No	Yes
75.3	75.8	75.4	75.7	0.5	0.4	0.3	Yes	No	Yes
76.4	77.0	76.5	76.9	0.7	0.5	0.4	Yes	No	Yes
76.5	77.0	76.6	77.1	0.5	0.6	0.5	Yes	No	Yes
77.6	77.8	77.7	77.9	0.2	0.4	0.2	Yes	No	Yes
77.4	77.6	77.4	77.7	0.2	0.3	0.2	Yes	No	Yes
77.2	77.5	77.3	77.6	0.2	0.3	0.2	Yes	No	Yes
65.3	65.5	65.5	65.8	0.3	0.5	0.3	Yes	No	Yes
74.6	74.6	74.8	74.8	0.0	0.3	0.0	Yes	No	Yes
75.2	75.2	75.5	75.5	0.0	0.3	0.0	Yes	No	Yes

e Increase

**Greater than
1.5 Increase**

No

No

No

No

No

No

No

No

No

No

No

No

No

No

No

No

No

No

No

No

No

No

No