

## **Chapter 11.16 NOISE CONTROL**

### **Sections:**

- 11.16.010 Declaration of policy.**
- 11.16.020 Definitions.**
- 11.16.030 Measurement of noise levels.**
- 11.16.040 Exterior noise standards.**
- 11.16.050 Exemptions.**
- 11.16.060 Loud noises.**
- 11.16.070 Motor vehicle racing.**
- 11.16.080 Construction.**
- 11.16.090 Vibration.**
- 11.16.100 Enforcement.**
- 11.16.110 Permit to temporarily exceed noise limits.**

### **11.16.010 Declaration of policy.**

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

It is determined that certain sound levels are detrimental to public health, welfare, and safety, and contrary to public interest.

### **11.16.020 Definitions.**

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

“Ambient Noise Level” shall mean the all-encompassing noise level associated with a given environment, being a composite of sounds from all sources, excluding an alleged offensive noise, at a location and approximate time at which a comparison with an 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.

“Chief” shall mean Chief of Police Services.

“Construction” shall mean any demolition or building construction requiring a building permit, and any excavating or filling of earth material requiring a grading permit, or any combination thereof conducted at a site to prepare said site for construction or other improvements thereon.

“Decibel (dB)” shall mean 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.

“Director” shall mean the Director of Community Development.

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

“Dwelling Unit” shall have the same meaning as in Section 9.04.030(D).

“Emergency Machinery, Vehicle or Work” shall mean 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 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.

“Impulsive Noise” shall mean noise of short duration, usually less than one second, with an abrupt onset and rapid decay, such as a sudden bang.

“Industrial Property” means a parcel of real property which is developed and used in part or in whole for manufacturing, storage and distribution, research and development, or other non-commercial, non-residential uses.

“Maintenance of Real Property” refers to the action of maintaining and the overall upkeep of a real property (i.e., fixed property, otherwise referred to as immovable property).

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

“Mobile Noise Source” shall mean any transportation related noise source operating on public roadways.

“Mixed-Use” shall mean the definition of “Mixed-Use” in Section 9.04.030.

“Noise Level” shall mean the “A” weighted Sound Pressure Level in Decibels obtained by using a Sound Level Meter at slow response with a reference pressure of 20 micronewtons per square meter. The unit of measurement shall be designated as dBA.

“Noise-Sensitive Land Use” includes uses listed in Table 1 below.

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

“Residential Property” shall mean a parcel of real property that is developed and used either in part or in whole for residential purposes. This does not include hotels or motels but does include other transitory lodgings.

“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” shall mean a noise characterized by a predominant frequency or frequencies such that other frequencies cannot be readily distinguished.

“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 Level Meter” shall mean an instrument meeting American National Standard 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.

“Sound Pressure Level” of a sound, in Decibels, shall mean 20 times the logarithm to the base 10 of the ratio of the pressure of the sound to a reference pressure, which reference pressure shall be explicitly stated.

“Stationary Noise Source” shall mean a stationary device which creates sounds while fixed in place or motionless, including but not limited to industrial and commercial machinery and equipment, pumps, fans, compressors, generators, air conditioners, and refrigeration equipment. Also, vehicles on private property.

“Vibration-Sensitive Land Use” means residential, hotels, motels, schools, hospitals and medical offices with vibration-sensitive equipment, places of worship, cultural land uses, commercial, office and government uses. Outdoor areas with no buildings and industrial and manufacturing uses are not considered vibration sensitive. All structures should be considered for potential damage analysis related to construction activities.

#### 11.16.030 Measurement of noise levels.

Any Noise Level measurements made pursuant to the provisions of this chapter shall be performed using a Sound Level Meter as defined in Section 11.16.020. While the exterior noise standards in Section 11.16.040 are applied at the property line of the receiving use, the location for measuring Noise Levels may be at any publicly accessible point near the affected property line if it can be determined that the measurement point is acoustically similar to the property line. The measurement shall be made at a point at least four feet from reflective surfaces and at least four feet away from reflective surfaces, and for a duration of at least 15 minutes. 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 11.16.040. If, for any reason, the alleged offending noise cannot be turned off, shut down, or temporarily eliminated from the area, then the Ambient Noise Level shall be estimated by performing a representative measurement in the same general area of the noise source but at a sufficient distance such that the noise is inaudible.

#### 11.16.040 Exterior noise standards.

A. The following exterior noise standards set limits for noise that land uses are allowed to generate as received by other land uses. These standards may be used during Code enforcement of potential noise violations. For purposes of determining potential project impacts during environmental impact review processes pursuant to the California Environmental Quality Act (“CEQA”), the average hourly level ( $L_{eq}$ ) standards shall be utilized unless all sources are impact in nature. The standards shall apply to the corresponding land use in Residential and Mixed-Use zones only. It is unlawful for any person to create any noise either within or outside the City due to a Stationary Noise Source (or any Mobile Noise 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 use in a residential or mixed use zone, to exceed the applicable noise standards listed in Table 1 – *Exterior Noise Standards*:

**TABLE 1 – EXTERIOR NOISE STANDARDS**

Land Use	Noise Level (dBA $L_{eq}$ )	Noise Level (dBA $L_{max}$ )	Time Period
Residential in Residential Zones	60	80	7:00 a.m.–10:00 p.m.
	50	70	10:00 p.m.–7:00 a.m.
Residential Portion of Mixed-Use in Mixed-Use	65	85	7:00 a.m.–10:00 p.m.

Zones	50	70	10:00 p.m.–7:00 a.m.
Places of Worship, Hospitals, and Schools in Residential and Mixed-Use Zones	65	85	All Hours
Places of Worship, Hospitals, and Schools in Commercial and Industrial Zones	70	90	All Hours

B. In the event the alleged offensive noise consists entirely of Impulsive Noise, Simple Tone Noise, amplified speech, music, or any combination thereof, each of the above Noise Levels shall be reduced by five dBA. Such noises are generally considered to be particularly annoying and are a primary source of noise complaints.

C. If the alleged offense affects a property outside the City's jurisdiction, the exterior noise standards shall be enforced at the City boundary.

D. In the event the measured Ambient Noise Level exceeds any of the noise limit categories above, the noise limit as applied to the contribution of the source(s) in question shall be the Ambient Noise Level.

E. If the noise source and the affected property are within different land use categories, the noise standards of the affected property shall apply.

F. For Mixed-Use residential land uses affected by noise on the same property (e.g., commercial sources affecting the residential portion of the same property), the exterior noise standard shall be applicable at exterior areas provided for private or common usable open space purposes. Private usable open space is defined as usable open space intended for use by occupants of one Dwelling Unit, normally including yards, decks, and balconies. Common usable open space is defined as open space intended for common use by any/all residents of a development, including swimming pools, recreation courts, patios, open landscaped areas, and greenbelts with pedestrian walkways and bicycle trails, but not including off-street parking and loading areas or driveways.

#### **11.16.050 Exemptions.**

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

A. Activities, such as school bands, school athletics, and school entertainment events, not constituting "special events" (as defined in Section 5.05.020 of the Municipal Code) conducted on the grounds of any public or private nursery, elementary, intermediate, or secondary school or college.

B. "Special events" as defined in Section 5.05.020 provided said events are conducted pursuant to a special event permit issued as described in Chapter 5.05. However, this exemption shall not preclude use of the standards set forth in Section 11.16.040 ("Exterior noise standards") as a guide for the application, review, or issuance of special event permits.

C. Any mechanical device, apparatus or equipment used, related to, or connected with Emergency Machinery, Vehicles, or Work.

D. Noise sources associated with Construction, repair, remodeling, or grading of any real property, provided that: (1) the City has issued a building permit, grading permit, or similar permit for such activities; (2) said activities do not take place between the hours of 8:00 p.m. and 7:00

a.m., Monday through Saturday, or at any time on Sunday or a legal City of Lake Forest holiday; and (3) the average Construction Noise Levels do not exceed 80 dBA Leq at the first floor of nearby Noise-Sensitive Residential Uses.

E. Noise sources associated with the Maintenance of Real Property and use of Domestic Power Tools, provided said activities take place between 7:00 a.m. and 8:00 p.m. on any day except Sunday or a legal City of Lake Forest holiday, or between the hours of 9:00 a.m. and 8:00 p.m. on Sunday or a legal City of Lake Forest holiday.

F. Any activity to the extent regulation thereof has been preempted by State or Federal law.

G. Noise sources associated with solid waste collection and removal, provided such activities take place in accordance with LPMC Section 16.05.000(D).

#### **11.16.060 Loud Noises**

It is unlawful for any person to:

A. Use, operate, or permit to be operated any sound-amplifying equipment or speaker for producing or reproducing sound that exceeds the noise standards in section 11.16.040.

B. Maintain, manage, or control any business or Residential Property in violation of subsection A.

C. Repair, rebuild, modify, or test any motor vehicle or motorcycle in such a manner as to exceed the noise standards in section 11.16.040.

D. Sound or permit the sounding of any amplified signal from a bell, chime, siren, whistle, vehicle horn or similar device, intended primarily for non-emergency purposes which exceeds the noise standards in section 11.16.040. Devices used in conjunction with schools and places of worship shall be exempt from this provision.

E. Operate or cause to be operated any motor vehicle or motorcycle not equipped with a legally compliant 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.

F. Own, maintain, control, or operate any premises or property where noise in violation of 11.16.040 and/or 11.16.060 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.

G. Violations of this section are hereby declared a nuisance per se.

#### **11.16.070 Motor vehicle racing.**

It is unlawful to conduct motor vehicle racing, testing, timing or similar noise-producing activities at raceways, speedways, off-road vehicle courses, drag strips or other similar places, including, but not limited to, the operation of midget race cars, drag cars, motorcycles, off-road vehicles, and specialty automobiles, between the hours of 11:30 p.m. and 8:00 a.m.

#### **11.16.080 Construction.**

The following regulations set hours, allowed noise levels, and best management practices for construction noise that occurs within the City of Lake Forest. These standards may be used during code enforcement of potential noise violations or used to determine potential project impacts during

environmental review processes pursuant to the California Environmental Quality Act (“CEQA”). The following is required for construction:

A. Construction activities, including delivery of material or equipment, shall not take place between the hours of 8:00 p.m. and 7:00 a.m., Monday through Saturday, or at any time on Sunday or a City holiday; and the average Construction Noise Levels shall not exceed 80 dBA Leq(1-hour) at the first floor of nearby Noise-Sensitive Land Uses.

B. If construction noise has the potential to exceed the standards in section 11.16.090.A., as determined by code enforcement of noise violations, analysis of potential construction noise impacts during a review pursuant to the California Environmental Quality Act, or if construction using heavy equipment is proposed within 100 feet of Noise-Sensitive Land Uses, a Construction Noise Management Plan shall be prepared by a qualified acoustician and submitted by the applicant. The noise reduction measures shall be determined in the plan and shall be quantified to demonstrate that noise levels would not exceed the standards.

### **11.16.090 Vibration**

A. Operating or permitting the operation of any device that creates vibration that exceeds current published Caltrans vibration criteria at a receiving Vibration-Sensitive Land Use is prohibited.

B. For projects implementing a phase or phases of construction that incorporate equipment as presented in Table 2 below: during the pre-building permit issuance phase and after a specific equipment list has been determined: 1) A qualified structural engineer, as approved by the Director of Community Development, or designee shall identify all structures that are located within the distances established in Table 2 and that have the potential to be affected by ground-borne vibration originating from the construction; and 2) A qualified acoustical engineer shall compile a list of proposed construction equipment and compare to the City’s accepted vibration criteria. If it is determined that the proposed equipment would generate vibration levels below the City’s standard of 0.3 inches per second (in/sec) peak particle velocity (PPV), no further vibration assessment is necessary. However, if vibration levels would potentially exceed the City’s standard of 0.3 in/sec PPV, the Project Applicant shall develop a Vibration Monitoring and Construction Contingency Plan for approval by the Director of Community Development, or designee, to ensure that vibration levels would not exceed the City’s accepted vibration damage criteria of 0.3 in/sec PPV. If a Vibration Monitoring and Construction Contingency Plan is deemed necessary, monitoring of vibration during initial construction activities shall be required. Monitoring results may indicate the need for more or less intensive measurements. The Vibration Monitoring and Construction Contingency Plan, at the discretion of the Director of Community Development or designee, shall include the following items as necessary:

- Identification of structures where monitoring would be conducted;
- A vibration monitoring schedule;
- Defined structure-specific vibration limits;
- Photographic, elevation, and crack surveys to document before and after construction conditions; and
- Identification of construction contingencies for when vibration levels approach the limits.

When vibration levels approach the limits specified in this Chapter, construction shall be suspended and contingencies identified in the approved Vibration Monitoring and Construction Contingency



Plan shall be implemented as necessary to lower vibration levels. For some projects, the ability to shield or protect the affected building from potential vibration impacts may be possible as an alternative to changing construction methods.

**TABLE 2: VIBRATION ASSESSMENT GUIDELINES**

<b>Phase of Construction</b>	<b>Distance (ft)</b>
<u>Grading</u>	
-Large Equipment *Example: D9 Dozer, Loaded Dump Truck	15
-Impact Hand tools *Example: Jackhammer	10
<u>Pile Driving</u>	
-Impact Pile Driver	300 or within 5 times the depth of the pile, whichever is less
-Vibratory Pile Driver	150 or within 5 times the depth of the pile, whichever is less

#### **11.16.100 Enforcement.**

A. The Director or Chief and their duly authorized representatives shall enforce the provisions of this chapter. The 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. No person shall interfere with, oppose, or resist any authorized person charged with the enforcement of this chapter while such person is engaged in the performance of his duty.

B. If the Director or 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 limits specified in this chapter, the property owner or responsible party shall be required to pay the City's cost of the noise monitoring tests or readings.

#### **11.16.110 Permit to temporarily exceed noise limits**

A. Applications. The owner or operator of a noise source may file an application for a permit to temporarily exceed the noise limits in this chapter. The application shall set forth: (1) all facts regarding the request, including a detailed description of the noise source and proposed dates and times the noise limits would be exceeded; (2) the reasons why compliance with the noise limits cannot be achieved and the basis for such a determination; (3) all actions the applicant has taken, intends to take, and any proposed methods to minimize noise during the temporary activity; and (4) any such additional information relevant to the request the Director may require.

B. Permit Fee. The application shall be accompanied by a fee in the current amount established by resolution of the City Council. A separate application shall be filed for each noise source; provided, however, that several Mobile Noise Sources under common ownership or several fixed sources on a single property may be combined into one application.

C. Permit Processing. Within five days of receipt of a complete application, the Director shall forward the application to the City Manager for a determination. An applicant shall remain

subject to the terms of this chapter unless and until a permit to temporarily exceed noise limits is granted.

D. City Manager Review, Authority, and Decision. The City Manager shall consider the likely magnitude of nuisance caused by the proposed noise, the uses of property within the area of impingement by the noise, time of day factors related to potential impacts to surrounding property occupants, and any other relevant considerations including, but not limited to, the fact that a noise generator in question commenced operations prior to the existence of a noise-sensitive use affected by noise from such facility, and the general public interest and welfare.

The City Manager is authorized to grant a permit to temporarily exceed the noise limits of this chapter for a period not to exceed 30 days if the City Manager finds such temporary waiver:

1. would be in the public interest and there is no feasible and prudent alternative to the activity, or the method of conducting the activity, for which the temporary waiver is sought; and
2. that strict compliance with the requirements of this chapter will cause practical difficulties, unnecessary hardship, or unreasonable expense.

After reviewing the application and all relevant facts and information, the City Manager shall render a decision on the application. Such decision shall be transmitted to the applicant in written form within ten days of the application submittal. The City Manager's decision shall be final.

E. Permit Requirements. A permit shall be for a limited period and may be subject to any terms, conditions, and requirements as the City Manager deems reasonable to achieve maximum compliance with the provisions of this chapter. Such terms, conditions and requirements may include, but shall not be limited to, limitations on Noise Levels and operating hours, and a requirement to implement noise attenuation measures.