

| Land Use Category                                                                | Community Noise Equivalent Level (CNEL) or Day-Night Level (Ldn), dB |                          |                          |                          |                       |                      |    |
|----------------------------------------------------------------------------------|----------------------------------------------------------------------|--------------------------|--------------------------|--------------------------|-----------------------|----------------------|----|
|                                                                                  | 55                                                                   | 60                       | 65                       | 70                       | 75                    | 80                   | 85 |
| Residential- Low-Density Single-Family, Duplex, Mobile Homes                     |                                                                      |                          | Conditionally Acceptable | Normally Unacceptable    | Clearly Unacceptable  |                      |    |
| Residential- Multi-Family                                                        |                                                                      |                          | Conditionally Acceptable | Normally Unacceptable    | Clearly Unacceptable  |                      |    |
| Commercial- Motels, Hotels, Transient Lodging                                    |                                                                      |                          | Conditionally Acceptable | Normally Unacceptable    | Clearly Unacceptable  |                      |    |
| Schools, Libraries, Churches, Hospitals, Nursing Homes                           |                                                                      |                          | Conditionally Acceptable | Normally Unacceptable    | Clearly Unacceptable  |                      |    |
| Amphitheaters, Concert Hall, Auditorium, Meeting Hall                            | Conditionally Acceptable                                             | Conditionally Acceptable | Conditionally Acceptable | Normally Unacceptable    | Clearly Unacceptable  |                      |    |
| Sports Arenas, Outdoor Spectator Sports                                          | Conditionally Acceptable                                             | Conditionally Acceptable | Conditionally Acceptable | Normally Unacceptable    | Clearly Unacceptable  |                      |    |
| Playgrounds, Neighborhood Parks                                                  |                                                                      |                          |                          | Conditionally Acceptable | Normally Unacceptable | Clearly Unacceptable |    |
| Golf Courses, Riding Stables, Water Rec., Cemeteries                             |                                                                      |                          |                          | Conditionally Acceptable | Normally Unacceptable | Clearly Unacceptable |    |
| Office Buildings, Business, Commercial, Professional, and Mixed-Use Developments |                                                                      |                          |                          | Conditionally Acceptable | Normally Unacceptable | Clearly Unacceptable |    |
| Industrial, Manufacturing Utilities, Agriculture                                 |                                                                      |                          |                          | Conditionally Acceptable | Normally Unacceptable | Clearly Unacceptable |    |

**Nature of the noise environment where the CNEL or Ldn level is:**

**Below 55 dB**

Relatively quiet suburban or urban areas, no arterial streets within 1 block, no freeways within 1/4 mile.

**55-65 dB**

Most somewhat noisy urban areas, near but not directly adjacent to high volumes of traffic.

**65-75 dB**

Very noisy urban areas near arterials, freeways or airports.

**75+ dB**

Extremely noisy urban areas adjacent to freeways or under airport traffic patterns. Hearing damage with constant exposure outdoors.

 **Normally Acceptable**

Specific land use is satisfactory, based on the assumption that any building is of normal conventional construction, without any special noise insulation requirements

 **Conditionally Acceptable**

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

 **Normally Unacceptable**

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

 **Clearly Unacceptable**

New construction or development should generally not be undertaken.

The Community Noise Equivalent Level (CNEL) and Day-Night Noise Level (Ldn) are measures of the 24-hour noise environment. They represent the constant A-weighted noise level that would be measured if all the sound energy received over the day were averaged. In order to account for the greater sensitivity of people to noise at night, the CNEL weighting includes a 5-decibel penalty on noise between 7:00 p.m. and 10:00 p.m. and a 10-decibel penalty on noise between 10:00 p.m. and 7:00 a.m. of the next day. The Ldn includes only the 10-decibel weighting for late-night noise events. For practical purposes, the two measures are equivalent for typical urban noise environments.

Figure CS-6  
Noise/Land Use Compatibility Criteria