



# 10

## NOISE & AIR QUALITY

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## 10. Noise & Air Quality

### GOAL

- Consider existing and future exterior noise levels when planning and designing developments with noise sensitive uses to avoid or attenuate excessive noise levels.



*The periphery of Old Town experiences high ambient noise due to its proximity to the I-5 and I-8.*



*Special events can significantly increase noise levels. Courtyards, like the one shown above, can help keep event noise from spilling over into other, more sensitive areas.*

### INTRODUCTION

The General Plan provides goals and policies to guide compatible land uses and the incorporation of noise attenuation measures for new uses that will protect people living and working in the City from an excessive noise environment. The policies in the Community Plan focus on specific noise land uses compatibility issues. Noise sensitive land uses include residential and schools for children. The Land Use Element provides policies and recommendations for future residential with commercial and business park uses. The Urban Design element addresses building and site design, which can be used to avoid and attenuate excessive noise levels.

Old Town San Diego is a historic community with a mix of commercial and residential uses that is adjacent to major transportation facilities. Areas in the community near freeways and rail corridors experience higher ambient noise level. Figure 10-1 illustrates the future noise contours from freeways and rail lines. The noise contours do not reflect changes in noise levels due to topography such as the freeway elevation above ground level or other physical barriers including vegetation, walls, or buildings.

Community Noise Equivalent Level, or CNEL, is the noise rating scale used for land use compatibility. The CNEL rating represents the average of equivalent noise levels, measured in A-weighted decibels (dBA), at a location for a 24-hour period, with upward adjustments added to account for increased noise sensitivity in the evening and night periods. The A-weighted filter places a greater emphasis on frequencies within the range of the human ear. The General Plan provides compatibility guidelines for evaluating land uses based on noise levels. The General Plan specifies that noise levels at or below 70 dBA are conditionally compatible for multi-family residential uses if sound attenuation measures are included to reduce the interior noise levels to 45 dB. Typical attenuation measures are addressed in the General Plan and include air conditioning or mechanical ventilation systems, double-paned windows, and noise-reducing building insulation and building materials.

## 10.1 Noise

### COMMERCIAL ACTIVITY NOISE

Where residential and other sensitive receptor uses are present or proposed, the potential for noise impacts from commercial activities are important to evaluate, such as deliveries during late night and early morning hours, generate noise that can affect the nearby residential uses. Reducing the effect from commercial activity noise involves site planning and integrating noise attenuation measures in new buildings that will reduce interior sound levels.

### MOTOR VEHICLE TRAFFIC NOISE

Vehicle traffic noise is directly related to the traffic volume, speed, and mix of vehicles. Major roadways that include I-8, I-5, Pacific Highway, and Taylor Street are the primary sources of motor vehicle noise within the community. The Jefferson and Hortensia Sub-Districts have existing and planned residential uses adjacent to I-5. Noise from delivery trucks and coach buses driving within, or parked and idling along roads in the community can also be a source of annoyance for noise sensitive uses. Refer to General Plan policies NE.B.1 through NE. B.8.



*High vehicle speed, volume of cars, and mix of vehicles contribute to the higher noise levels.*



*Rail transportation noise can be minimized by implementation of grade-separated rail crossings.*

### RAIL NOISE

Freight trains, intercity rail (Amtrak), commuter rail (Coaster), and light rail transit (Trolley) can generate high, relatively brief, intermittent noise events within the community in the vicinity of at-grade rail crossings where horns and crossing bells are sounded. Federal regulations require trains to sound their horns at all roadway-rail grade crossings. Horns, whistles and bells on the moving trolley vehicles, and horns from freight trains, combined with stationary bells at grade crossings can generate excessive noise levels that can affect noise sensitive land uses. To minimize excess train horn noise, the federal government allows the establishment of train horn “quiet zones.” This requires the implementation of safety measures to compensate for the loss of the train horn usage. Additionally, the Mobility Element supports roadway-rail grade separation since this will eliminate the need for bells and horns at the existing grade crossing which will reduce the noise level.

### EVENT NOISE

Special events can provide benefits to the community’s residents and businesses through the creation of unique venues for entertainment and culture. Special events at the Core area of the community have the potential to generate noise to adjacent uses. The noise level for special events within the Core area is highly variable depending on the event.

**POLICIES**

- NE-1.1** Support the establishment of a train horn “quiet zone” at the Taylor Street at-grade rail crossing as an interim measure to road-rail grade separation.
- NE-1.2** Ensure that any future residential and other noise-sensitive land uses within or adjacent to the Core Sub-District are compatible with the special events-related noise.
- NE-1.3** Ensure that any future residential and other noise-sensitive land uses adjacent to I-5 and I-8 adequately attenuate freeway noise.
  - a.** Ensure that any private open space provided for residential and other noise-sensitive land uses, such as balconies or patios, is shielded from noise sources through careful site planning and/or other measures.
- NE-1.4** Ensure commercial loading zones are carefully located to minimize impacts to sensitive receptors.



*The Mobility Element supports roadway-rail grade separation that will improve safety and eliminate the need for bells and horns at the existing grade crossing, reducing the noise level.*



*Air quality is important to fostering a healthy living and working environment in Old Town. Old Town's freeway adjacency requires development to incorporate building design that protects sensitive receptor uses from the effects of air pollution.*

**10.2 Air Quality**

Interstates 5 and 8 are primary source of air pollution that affects Old Town. Old Town's residential uses existed before the freeways were constructed. The Community Plan recognizes the importance of Old Town as a residential community. Air pollution diminishes as distance from the freeway increases. For residential and other sensitive-receptor land uses within 500 feet of a freeway, building design features can minimize the effect of air pollution. Building features include individual dwelling ventilation systems with HEPA filters, careful location of HVAC intake vents away from pollution sources, and/or fixed windows facing the freeway.

**POLICIES**

- NE-2.1** Incorporate building features into new residential buildings located within 500 feet of the outside freeway travel lane to reduce the effects of air pollution.