

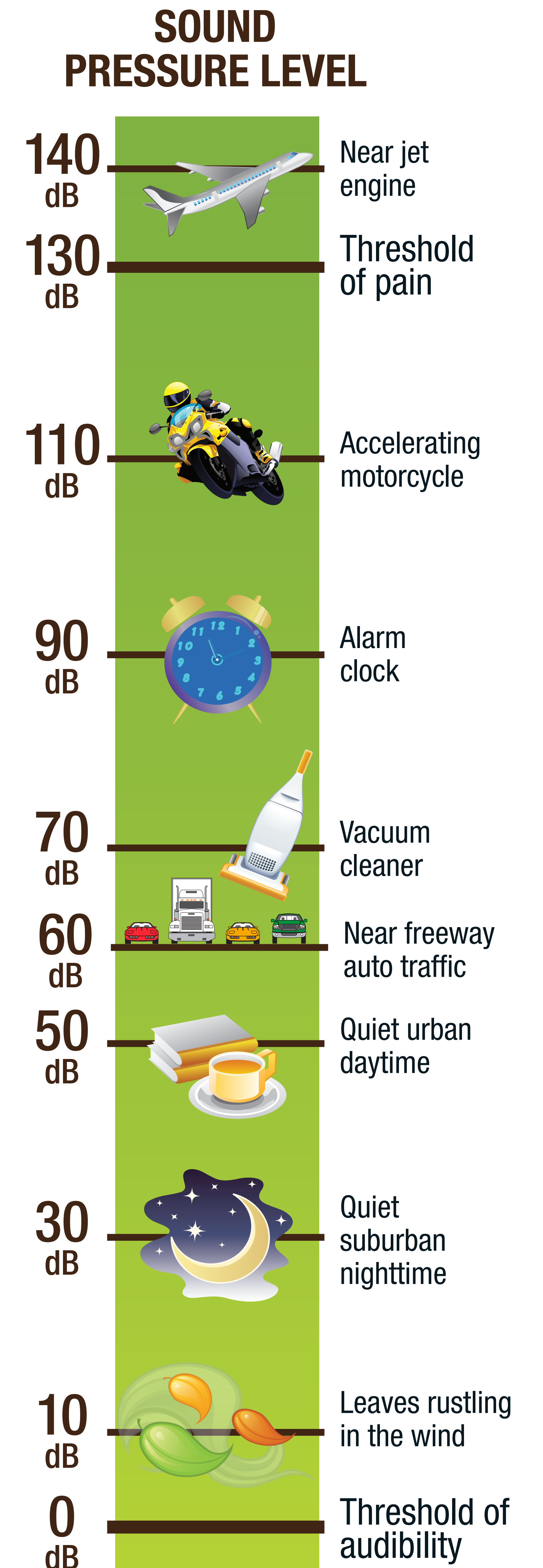


WHAT IS INCLUDED IN A NOISE ANALYSIS?

1 The noise study analyzes changes in the future noise levels in decibels (dB) and Investigates noise reduction measures, such as soundwalls or other approved sound reduction technologies, if necessary.

2 The analysis will investigate the location, height, and length of the noise measures for the maximum benefit to the surrounding neighbors. Input from adjacent property owners will be used in making final decisions on the potential measures.

A noise analysis is underway to analyze potential traffic noise impacts for the Proposed Jefferson Parkway.





Learn More About Noise and Noise Analysis

Activity Category	NAC in Leq(h) (dBA)	Description of Land Use Activity Category
A	56 (Exterior)	Lands on which serenity and quiet are of extraordinary significance and serve an important public need and where the preservation of those qualities is essential if the area is to continue to serve its intended purpose
B	66 (Exterior)	Residential
C	66 (Exterior)	Active sport areas, amphitheaters, auditoriums, campgrounds, cemeteries, day care centers, hospitals, libraries, medical facilities, parks, picnic areas, places of worship, playgrounds, public meeting rooms, public or non-profit institutional structures, radio studios, recording studios, recreational areas, Section 4(f) properties, schools, television studios, trails, and trail crossings
D	51 (Interior)	Auditoriums, day care centers, hospitals, libraries, medical facilities, places of worship, public meeting rooms, public or non-profit institutional structures, radio studios, recording studios, schools, and television studios
E	71 (Exterior)	Hotels, motels, time-share resorts, vacation rental properties, offices, restaurants/bars, and other developed lands, properties, or activities not included in Activity Categories A to D or F
F	—	Agriculture, airports, bus yards, emergency services, industrial, logging, maintenance facilities, manufacturing, mining, rail yards, retail facilities, ship yards, utilities (water resources, water treatment, electrical), and warehousing
G	—	Undeveloped lands that are not permitted for development.

What is Noise Abatement Criteria (NAC)?

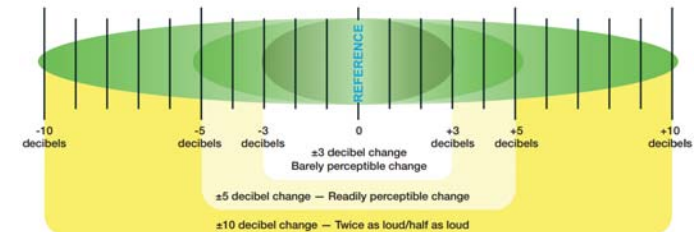
Referred to as the NAC, CDOT and FHWA have established noise levels at which mitigation measures must be considered.

Per CDOT noise guidance, noise impacts can occur in two ways:

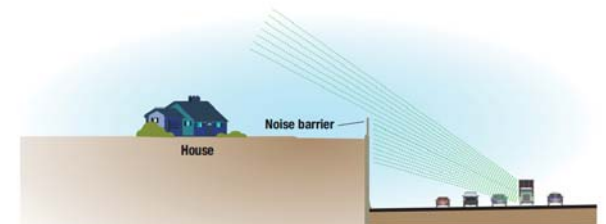
- Project meets or exceeds the NAC, or
- Project substantially increases noise 10 dBA or more over existing conditions

the NAC vary according to the land use activity category.

What you can hear as a change in noise



How do noise barriers work?



Source: CDOT, 2015c

• Leq(h) is the hourly equivalent noise level; the equivalent steady-state sound level that contains the same amount of acoustic energy as the time-varying sound level over a one-hour period; the noise threshold level that is used for all traffic noise analyses for CDOT projects.

• Because the sound energy produced by traffic can vary over time and in a great range of frequencies, the A-weighted system—expressed as dBA—is used to provide a value that represents human response.