### **Traffic Noise Abatement Process**

Identify Sensitive Receptors

Identify sensitive receptors,

e.g. residential, commercial,

playgrounds, active sport areas, parks,

residences, motels, hotels, schools,

churches, libraries, and hospitals that

have an exterior decibel level of 67

hospitals, schools, etc.:

· Picnic areas, recreation areas,

or higher.

## Measurements are taken in "frequent" human use areas:

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- Residential: Typically in the backyard.
- Commercial Areas: Typically an exterior use area where people are for an extended period of time, 1 hour or more.
- · Schools: Interior noise levels.

Measure Existing
Noise Levels

Predict Future
Traffic Noise
Levels

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### Predict using noise modeling software and the following project features:

- Future peak noisiest-hour traffic.
- Topographic features.

Identify Traffic Noise Impacts

### Traffic noise impacts are predicted to occur when:

- Predicted noise levels with the project exceed existing noise level by 12 dBA (Substantial).
- Predicted noise levels with project approach within 1 dBA, or exceed the Noise Abatement Criteria (NAC).

# Consider Noise Abatement

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### Noise abatement is considered/recommended:

- FHWA requires consideration of noise abatement measures when traffic noise impacts have been identified.
- Noise abatement is only considered where noise impacts are predicted and where frequent human use occurs and a lowered noise level would be of benefit.
- Determine the feasibility of noise abatement: Feasibility - minimum 5 dBA noise reduction at the impacted receivers.
- Determine reasonableness allowance
   Reasonableness takes into
   consideration 5 factors: Absolute noise levels; build vs. existing noise levels; achievable noise reduction; new
   construction, or predate 1978; total noise abatement allowance vs.
   project cost.

# Determine Preliminary Reasonableness

### Noise Abatement Decision Report (NADR):

- Responsibility of Project Engineering to complete.
- Requires input from the Project Development Team.
- Draft of NADR recommendation to be incorporated into the Draft Environmental Document.

#### Regulations, Standards and Policie

• FHWA - Title 23, Part 772 of the Code of Federal Regulations (23 CFR 772)

- California Streets and Highways Code, Section 216
- Traffic Noise Analysis Protocol for New Highway Construction and Reconstruction Projects (Protocol, August 2006)
- Technical Noise Supplement, October 1998
- PDPM Chapter 30 Highway Traffic Noise Abatement

