

Traffic noise is addressed during three project phases:

- Project Development and Environment (PD&E) Study;
- Design; and
- Construction

PD&E PHASE

The noise evaluation process starts during the PD&E study phase and includes a preliminary analysis of the roadway alternatives developed for the project. At the end of the PD&E study, a Preferred Alternative is selected and a noise analysis is performed on this alternative.

DESIGN PHASE

During the Design phase of a project, the detailed roadway plans are developed, right-of-way requirements are determined, and the right-of-way acquisition process begins. When the roadway plans are approximately 60 percent complete, the engineering details are sufficient to allow for a detailed assessment of noise abatement measures. Following public coordination, all feasible and reasonable measures are then incorporated into the final design plans.

CONSTRUCTION PHASE

The addition of all feasible and reasonable abatement measures, typically concrete noise walls, are built during the construction project.



TRAFFIC NOISE EVALUATION PROCESS

Traffic noise impact evaluations are performed using methodology approved by the Federal Highway Administration (FHWA). Projects evaluated for traffic noise impacts include:

- Construction of a new roadway;
- Alteration of an existing roadway that significantly changes either horizontal or vertical alignment; or
- Alteration of an existing roadway that increases the number of through traffic lanes.

KEY STEPS IN THE EVALUATION PROCESS

STEP 1: IDENTIFICATION OF NOISE SENSITIVE SITES

Noise sensitive sites are defined as any property that would benefit from lower noise levels based on the property's use. Typical noise sensitive areas include residences, schools, churches, and recreational areas.

STEP 2: DETERMINATION OF TRAFFIC NOISE IMPACTS

Construction of a noise wall is considered when the noise study indicates that identified areas will experience noise levels that exceed 66 decibels (dBA) or experience an increase of 15 dBA over existing noise levels. (Future traffic noise levels are also considered and compared to the state and federal criteria)

STEP 3: CONSIDERATION OF NOISE REDUCTION MEASURES FOR AREAS MEETING THE CRITERIA

The noise impact study addresses the feasibility and reasonableness of a noise wall. To be considered reasonable, a noise wall must result in a minimum noise reduction of 5 dBA. Feasibility is evaluated using criteria such as cost, desire of the community and public officials, land use, predicted noise level increases, aesthetics, etc.

STEP 4: INSTALLATION OF A NOISE WALL

Current projects are considered for a noise wall if the noise impact study determines that installation is both reasonable and feasible.



IF YOU HAVE QUESTIONS ABOUT NOISE WALLS, PLEASE

CONTACT: Public Information Officer
4974 ORL Tower Road
Orlando, Florida 32807
Phone: (407) 690-5343
E-mail: Construction@CFXway.com

NOISE WALL SAMPLES

COMMON OUTDOOR NOISE LEVELS	DBA	COMMON INDOOR NOISE LEVELS
<ul style="list-style-type: none"> • Jet Flyover at 1000 ft. • Train Whistle Noise at 100 ft 	110	<ul style="list-style-type: none"> • Dance Club Music
<ul style="list-style-type: none"> • Gas Lawnmower at 3 ft • Air Hammer 	100	<ul style="list-style-type: none"> • Inside NY Subway Train
<ul style="list-style-type: none"> • Diesel Truck at 50 ft • Freight Train at 100 ft • Noisy Urban Daytime 	90	<ul style="list-style-type: none"> • Food Blender at 3 ft • Garbage Disposal at 3 ft • Very Loud Speech at 3 ft
<ul style="list-style-type: none"> • Gas Lawnmower at 100 ft 	80	<ul style="list-style-type: none"> • Vacuum Cleaner at 10 ft
<ul style="list-style-type: none"> • Commercial Area 	70	<ul style="list-style-type: none"> • Normal Speech at 3 ft
<ul style="list-style-type: none"> • Heavy Traffic at 300 ft 	60	<ul style="list-style-type: none"> • Large Business Office • Conversational Speech at 3 ft • Dishwasher Next Room
<ul style="list-style-type: none"> • Quiet Urban Area at Night 	50	<ul style="list-style-type: none"> • Small Theater • Large Conference Room
<ul style="list-style-type: none"> • Quiet Suburban Area at Night 	40	<ul style="list-style-type: none"> • Library
<ul style="list-style-type: none"> • Quiet Rural Area at Night 	30	<ul style="list-style-type: none"> • Bedroom at Night • Concert Hall (Background)
<ul style="list-style-type: none"> • Rustling Leaves 	20	<ul style="list-style-type: none"> • Broadcast & Recording • Studio
	10	<ul style="list-style-type: none"> • Threshold of Hearing
	0	

