

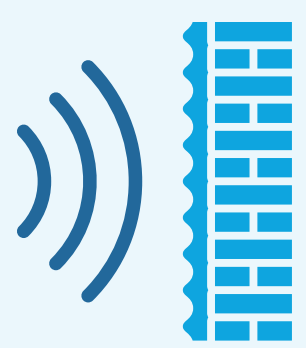
Noise Analysis Process Overview



The Traffic Noise Model (TNM) is used to determine existing sound levels, predict future sound levels, and evaluate potential noise barriers.

→ Noise impacts occur when:

- A receptor with a predicted future traffic sound level which approaches or exceeds the WisDOT Noise Level Criteria (NLC) for Considering Barriers for the applicable land use category. NLC is divided into land use categories that include residential areas, serene/quiet lands, parks, schools, hotels, offices, etc.
- When predicted future traffic sound levels exceed existing levels by 15 dB or more.



In order for a noise barrier to be provided, it must be feasible, reasonable and likely to be incorporated.

Reasonable: Total cost of the noise barrier may not exceed \$125,000 per benefited receptor or \$200,000 per benefited receptor when cost averaging multiple barriers in a project boundary. To be considered benefited, a receptor must receive a minimum of eight (8) dB noise reduction. In addition, a minimum of one (1) receptor or common use area must achieve the department's noise reduction design goal of nine (9) dB.

Feasible: A minimum of one impacted receptor or common use area must achieve a five (5) dB noise reduction. In addition, abatement that is feasible must be constructible, compatible with the project purpose and need, meet design criteria and guidance, and not result in other impacts that would offset noise reduction benefits.

Should a proposed noise barrier be considered reasonable and feasible, a vote would occur after the study and during final design. A barrier must receive a vote of support from a simple majority of all votes cast by the benefited receptors to be constructed. Reasonable and feasible noise barrier proposed locations are displayed on roll plots.

→ Noise Barrier Effectiveness

