Highway Traffic Noise Impact Analysis Guidance Manual Update

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Guidance Manual Updates

1. **Define length of auxiliary lane**

    - **Type I if the auxiliary lane is 2,500 feet or longer**
        - Based on AASHTO Policy on Highway Design or Green Book
    - **Decreases the number of projects that require analysis**

2. **Vegetation as noise mitigation**

    - **Vegetation is not a viable mitigation measure to address highway traffic noise impacts.**
        - FHWA does not allow vegetation as a means of noise abatement for projects subject to the provisions of 23 CFR 772. Studies have shown that vegetation must be a minimum of 100 feet thick, a minimum of 20 feet high and sufficiently dense (100% opacity) to provide a 5-dB(A) noise reduction.
    - **Vegetation may be a good visual screen for locations where abatement is not feasible or reasonable.**

Updates cont'd.

3. Provide test to clearly define Category A Receptors

- Category A receptors include: 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 for the area to continue to serve its intended purpose. Highway agencies shall submit justifications to the FHWA on a case-by-case basis for approval of an Activity Category A designation.

    1. Is the site currently serene and quiet?

    2. Does the site serve an important public need?

    3. Is the preservation of serenity and quiet essential to serve the site's intended purpose?

    4. Is the site frequently used (or available for frequent use) by the public?

VDOT Guidance/Efficiencies

1. **Environmental Traffic Data (ENTRADA)**

   - **Mandates the use of this tool for final design noise analysis**

   - **Provides consistent methodology**

   - **More accurate noise barrier designs**

   - **Positive affect on fiscal constraints**

2. **Loudest-hour tool**

   - **Developed to provide efficiencies**

   - **Utilizes data from the ENTRADA spreadsheet**

   - **Provides consistent methodology to determine loudest-hour**