

ADC40: Transportation-Related Noise and Vibration

Federal Highway Administration Updates



U.S. Department of Transportation
Federal Highway Administration

portsmouth, new hampshire: 07.21.2014

Research on 23 CFR 772, update

- Provide additional guidance on:
 - Activity Category A designations
 - Evaluation methodologies that are acceptable/unacceptable for nonresidential land uses.
- Noise Barrier Acceptance Criteria:
 - Analysis
 - Evaluation Tools
- Programmatic Agreements: 3 scenarios to encourage State DOTs to use.
- Streamlining: expand Type III project listing by at least two candidate activities.



Guidance

- Noise Policy FAQs:
 - Medical facilities
 - When should the solicitation of viewpoints occur?
 - Auxiliary lanes
 - Cemeteries and areas of frequent human use
 - Bike lanes



Noise Barrier Inventory

- Currently collecting data on noise barriers constructed in 2011, 2012 and 2013.
- Due date: September 30, 2014
- MS Excel Spreadsheet with macros
 - Add newly constructed noise barriers
 - Add/delete/modify existing noise barriers



Noise Modeling Activities

- TNM 3.0 (Volpe):
 - Received final deliverables: Fall 2013
 - Conducted sensitivity testing (third-party)
 - Update TNM Validation Study to include TNM v3.0
 - Pending results:
 - Changes may be made to the model
 - Update User's Guide and Technical Manual



Noise Modeling Activities, cont.

- TNM 3.0 (GeoDecisions)
 - Completion on schedule for December 2014
 - Options to be provide:
 - Standalone desktop with updated GUI
 - Extensions: allows users to work within ArcGIS, AutoCAD or Microstation.
- Cost:
 - Standalone versions (Volpe and GeoDecisions) will be free of charge
 - Extensions free of charge – user must purchase the base program



Noise Modeling Activities, cont.

- Potential process for release:
 - Receive final deliverables from GeoDecisions
 - Have Volpe incorporate the GeoDecisions deliverables into the planned TNM 3.0 validation study.
 - Release after validation study completion
- Required Use:
 - Allow voluntary use upon release
 - Phase-in and required will be dependent on a Notice of Proposed Rulemaking.



Noise Modeling Activities, cont.

- Consistent with the Methodology of TNM
 - Consistency Test Suite/Acceptable Margin Answer Key
 - Currently being reviewed by our Chief Counsel.
- Best Practices for use of the FHWA TNM
 - The objective is to develop best practices for modeling of:
 - TNM data sources;
 - Sensitivity of TNM traffic inputs;
 - Improve TNM output tables;
 - Improve noise barrier optimization methods; and,
 - To identify quality assurance review processes.



Specific Pavements in Noise Modeling

- Results of Federal Register Notice
 - Pavements are an important variable at needs to be better accounted for in noise modeling.
 - Do not want Type I projects to include:
 - Change to louder pavement type
 - No longer achieving acoustical benefit of pavement
- Update 2005 guidance memo
 - Not considering additional QPPPs
 - Not considering pavement as an federal abatement measure
 - States can continue to research which pavements are quieter and use these pavements as a standard construction practice.



Specific Pavements in Noise Modeling, cont.

- Considering ways to better account for specific pavements in noise modeling:
 - Updating the REMELS
 - Updating/expanding: “Average” pavement and pavement bins for existing
 - Pilots with State DOTs to use OBSI in noise modeling
 - Looking to pilot with up to six states
 - The updated TNM/OBSI version would only be available to to the pilot states.



QUESTIONS?

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