



U.S. Department  
of Transportation

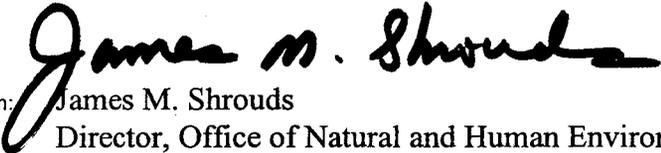
# Memorandum

Federal Highway  
Administration

---

Subject: **INFORMATION:** Highway Traffic Noise -  
Release and Phase-In of the FHWA Traffic Noise  
Model Version 2.5

Date: April 14, 2004

From:   
James M. Shrouds  
Director, Office of Natural and Human Environment

Reply to: HEPN-20

To: Division Administrators  
Federal Lands Highway Division Engineers

The *FHWA Traffic Noise Model (FHWA TNM)* Version 1.0 was initially released in March of 1998. Since then, there have been five additional releases - v1.0a, v1.0b, v1.1, v2.0, and v2.1. These releases have contained fixes to software bugs and Graphical User Interface (GUI) enhancements - there have been no changes to the acoustical algorithms in the model. Phase 1 validation of *FHWA TNM* indicated a general over-prediction in vehicle emission levels, and the final phase-in date for required use of the model was extended until 6 months from the date of the release of an *FHWA TNM* version that effectively addressed the over-prediction.

This memorandum announces the release of *FHWA TNM* Version 2.5, which essentially eliminates the vehicle emission level over-prediction and corrects a case-specific anomaly that is related to diffraction points. Version 2.5 also contains one GUI enhancement: a pop-up warning box is generated if a *TNM* user enters a non-zero top-width for berms, which is also now prohibited (this enforces the recommendation that users should model berms only as wedges, not as flattop berms, with the barrier/berm function). The *FHWA TNM* software will be distributed at no charge to all registered *FHWA TNM* Version 2.1 users [NOTE: As a result of the acoustical changes to the *FHWA TNM*, a comprehensive update to the Phase 1 validation report will be forthcoming, as will revised *FHWA Traffic Noise Model Look-Up Tables (and TNMLOOK)*]. Included with the release of *FHWA TNM* Version 2.5 are updates on its recommended use and an overview of the comprehensive update to the Phase 1 validation report, which is currently being prepared.

The *FHWA TNM*, version 2.5 (or the latest version), will be required for use in all new traffic noise analyses for Federal-aid highway projects that begin six months or later from the date of this memorandum. We strongly encourage those analyses, begun for current projects utilizing either the *FHWA Highway Traffic Noise Prediction Model* (described in Report No. FHWA-RD-77-108) or the *FHWA TNM*, continue to use the same model throughout the life of the project, i.e., planning, environmental analysis and preliminary design, and final design. For projects using the *FHWA TNM*, each State DOT and respective FHWA division office should determine the appropriate version for use on a project-by-project basis.

Questions and comments on the *FHWA TNM* should be directed to Bob Armstrong ([Robert.E.Armstrong@fhwa.dot.gov](mailto:Robert.E.Armstrong@fhwa.dot.gov)) at (202) 366-2073 or Chris Corbisier ([Chris.Corbisier@fhwa.dot.gov](mailto:Chris.Corbisier@fhwa.dot.gov)) at (202) 366-1473 or Mark Ferroni ([Mark.Ferroni@fhwa.dot.gov](mailto:Mark.Ferroni@fhwa.dot.gov)) at (202) 366-3233, respectively.

cc: Directors of Field Services