U.S. Department of Transportation
Federal Highway Administration

Oregon Division

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June 17, 2014

In Reply Refer To:
HPL-OR

Ms. Susan Haupt
Chief Environmental Officer
Oregon Department of Transportation
4040 Fairview Industrial Dr., SE; MS #6
Salem, OR 97302-1142

Dear Ms. Haupt:

The Oregon Division of the Federal Highway Administration (FHWA) is pleased to approve the enclosed Oregon Department of Transportation (ODOT) Screening Analysis for Traffic Noise Impacts. This letter serves to more formally document a prior (March 2013) email approval.

Please provide our thanks to your Noise Program Coordinator Carole Newvine, who worked closely with our Division and Headquarters staffs to set in place this streamlined approach for noise analyses that meet the outlined criteria.

ODOT has estimated that an average of 110 hours of project time could be saved by using this screening method for smaller projects. This equates to approximately $18,000 in cost savings per project.

Sincerely,

Michelle Eraut
Program Development Team Leader

Enclosure -- Screening Analysis

cc:
ODOT (Carole Newvine, Acoustical Specialist)
(Natalie Liljenwall, Noise & Air Quality Specialist)
(Darlene Weaver, Environmental Policy Manager)

ODOT Screening Analysis for Traffic Noise Impacts – March 2013

Under the revised 23 CFR 772 traffic noise regulation, use of the 'TNM Look' program is no longer allowed for screening or other analysis. This FHWA-approved screening analysis will be performed using the current FHWA approved TNM model to estimate the existing and design year traffic noise levels at selected distances from the roadway centerline. Where appropriate this screening analysis will use worst case conditions instead of actual roadway design and site topography to produce conservative results. A complete noise technical report is still required, but the analysis section will refer to this screening analysis procedure.

The screening analysis is generally completed for Type I projects where noise impacts are not anticipated or when there are impacts but abatement is not expected to be feasible. The screening analysis is a simple procedure used to predict traffic noise levels and make a reasonable but conservative determination of noise impacts. There are limitations to the screening procedures, and the screening analysis is not applicable to all projects; consult with the ODOT Noise Specialist to determine if the screening analysis is appropriate. The ODOT Noise Specialist must confirm in writing that the screening analysis is appropriate.

Screening Analysis Procedure

A straight line model design using the FHWA Traffic Noise Model (TNM) can be used to screen projects that are unlikely to experience noise impacts, such as low volume roadways, projects or project areas that have no receptors, or where abatement most likely would not be feasible. Validation of the straight line model is not required. A straight line model describes a worst-case scenario with higher sound levels than would be expected in detailed modeling and represents a conservative approach to the noise analysis. The straight line model will be prepared as follows for this screening analysis:

- The model shall use the Existing and the Build condition traffic information, posted speeds, and Project receiver distances from the roadway to determine ODOT noise abatement approach criteria (NAAC) impacts in the Build Condition and compare the Existing condition to the Build condition to determine whether substantial sound level increase impacts (at least a 10 dBA increase) are expected.

- Roadways shall extend at least 1500 feet beyond the final receiver(s) perpendicular to the roadway on either side of the project.

- Any relevant non-traffic noise sources (such as rail or airport noise) shall be considered (may require measurements).

- No topography shall be included in the model, only the roadway(s), receiver(s), and traffic information.

- Project receiver locations must be used. They shall, at a minimum, include receiver location(s) closest to the roadway and receivers placed at 50' increments from the roadway to determine the distance from the roadway to which impacts extend. If the closest receptor to centerline is a Category E, then the closest Category B or C receptor within 400 feet of the roadway shall also be examined.

If the screening analysis results indicate that noise impacts are likely and the placement of typical abatement devices appears to be feasible, a detailed analysis is required. If impacts are noted and abatement is clearly NOT feasible (e.g., driveway access), the screening procedures should suffice and a detailed noise analysis is not required. However, impacts and the rationale behind the feasible determination must be documented in the NEPA document through the noise technical report, with supporting documentation attached. All requirements, including reporting requirements, of 23 CFR 772 must still be met. Noise monitoring may be required to justify the results when the screening analysis has identified impacts and feasible abatement appears unlikely.