TNM CHECKLIST

TRAFFIC NOISE MODEL QC CHECKLIST

FDOT ENVIRONMENTAL MANAGEMENT

This checklist is a quality control tool to ensure that noise analysts and operators of the FHWA's Traffic Noise Model (TNM) achieve consistency and produce standardized noise impact results. This form should be used to complete the QC of the Existing, No-Build, Build, Barrier, Validation, and Countour TNM files for all projects ***before*** TNM is run or copies are made of the model(s). To minimize duplication of QC efforts, this checklist assumes that the Existing model is used as the base for the No-Build and Validation models; and the Build model is used as the base for the Contour and Barrier models. Only items that should be re-QC'd are shown, based upon the project scenario selected. Items not shown are assumed to be identical to the base run, and therefore already QC'd.

Project Name:

County:

Project Number (FPID, CSJ, etc.):

DOT District: **Choose District**

TNM Author(s)/Organization:

Date of Field Visit:

Project Scenario

☐ Existing Conditions- Year:

☐ No Build Conditions- Design Year:

☐ Build Alternative- Design Year:

File Name & Date:

Notes:

General Settings	Yes	No	N/A
Run Identification (Title, Org., Project, and Analyst Name)	☐	☐	☐
Units in file = English	☐	☐	☐
Subsource height is 12.0 ft.	☐	☐	☐
Line of Sight Distance Limit is 500.0 ft.	☐	☐	☐
Default Ground Type = Lawn	☐	☐	☐

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Roadways	Yes	No	N/A
Roadway names are present and correlate to traffic data	☐	☐	
All roadways within the Noise Analysis Area for which traffic data was provided are in the model	☐	☐	
Elevations correct (ex., checked in GIS, Earth, elevations match provided TIN file, etc.) and account for overpasses	☐	☐	
Roadway widths and shoulders are overlapping (i.e., 12.2 ft.)	☐	☐	
Roadway directionality is correct	☐	☐	
On-structure notation is correct	☐	☐	☐
Flow Control (signals, stop signs, on-ramps, etc.) identified (if applicable)	☐	☐	☐
Shoulders (inside/outside) are mapped out adequately and accurately	☐	☐	☐
Turn lanes are mapped out adequately and accurately	☐	☐	☐
Arterial roadways/cross-streets extend far enough out from the mainline (i.e., beyond receptors to capture impacts)	☐	☐	☐
Mainline roadways extend far enough out to capture receptor impacts	☐	☐	
Roadways at intersections are close enough to intersection and continue through intersection (without overlapping)	☐	☐	☐
All improvements from OTHER PROJECTS within the corridor have been included if they are to be constructed by the Build Year.	☐	☐	☐

Traffic	Yes	No	N/A
All roadways have traffic data in the model	☐	☐	
Roadway volumes & posted speeds match the correct condition	☐	☐	
Roadways with no traffic data provided have “no traffic” or “shoulder” in the roadway name	☐	☐	☐
All roadway traffic data from the Existing model has been removed and replaced with field-counted traffic data.	☐	☐	

Receivers	Yes	No	N/A
All noise sensitive sites are represented by a receiver and are within the Noise Analysis Area being evaluated for the project.	☐	☐	
Receiver elevations (Z-values) are correct	☐	☐	
Receiver heights (5 ft., 15 ft., etc.) are correct	☐	☐	
All residential balcony areas are identified	☐	☐	☐
Activity Category D receptors are located at the corner of the building closest to the nearest noise source	☐	☐	☐
Activity Category B, C, and E receptors are located at the outdoor use	☐	☐	
Receptor IDs are present and sequential order along roadway mainline	☐	☐	
Build Receivers have been removed; Receivers representing contour locations have been inputted.	☐	☐	
Receivers representing contour locations are named by the distance they represent.	☐	☐	☐
Existing Receivers have been removed; Receivers representing measurement locations have been inputted.	☐	☐	
Receivers representing measurement locations are named by the location/site #.	☐	☐	
Only receivers within the vicinity of the barrier are included in the model and match the Build model.	☐	☐	

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Barriers	Yes	No	N/A
All existing noise barriers represented	☐	☐	☐
All concrete barriers (jersey barriers) represented (where appropriate)	☐	☐	☐
All masonry neighborhood walls represented (No wood, PVC, or metal)	☐	☐	☐
Barrier elevations (Z-values) are correct	☐	☐	
Barrier heights are correct	☐	☐	
On-structure and shielding notations are correct	☐	☐	☐
Barrier locations are correct (X, Y, Length, etc.)	☐	☐	
Barrier perturbations correct (increment up/down)	☐	☐	

Building Rows / Building Barriers	Yes	No	N/A
Building rows used appropriately in the model	☐	☐	☐
All buildings are represented (where appropriate)	☐	☐	
Building row/barriers elevations (Z-values) are correct	☐	☐	
Building row/barrier heights are correct	☐	☐	
Building row/barrier orientation is correct in relation to roadway and receptor(s).	☐	☐	
Building row percent Coverage updated from default (20%)	☐	☐	☐
Building row average height identified	☐	☐	☐
All building barriers/rows have been removed from the model.	☐	☐	

Terrain Lines	Yes	No	N/A
Terrain line limits (length) are correct	☐	☐	☐
Terrain line elevations (Z-values) are correct	☐	☐	☐

Ground Zones	Yes	No	N/A
Designations (pavement, water, etc.) are correct	☐	☐	☐
Ground zone limits (area) are correct	☐	☐	☐

Finalization	Yes	No	N/A
Field notes have been incorporated	☐	☐	☐
Modeling captures a reasonable buffer past the project limits (4-D)	☐	☐	☐
Cross section data verified using “skew view” along several sections of the project, particularly around interchanges and overpasses	☐	☐	☐
Input Check Ran and Passed	☐	☐	☐
All inputs have been identified according to DOT and FHWA regulations, policy and guidance	☐	☐	☐
FDOT Traffic Data Spreadsheet provided for all models	☐	☐	☐

Name of Reviewer:

Date of Review:

Reviewer Notes:

Items to be completed: 0

IMPORTANT: Once complete save this document according to the project scenario and description, clear the form and repeat for the other project scenarios.

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