



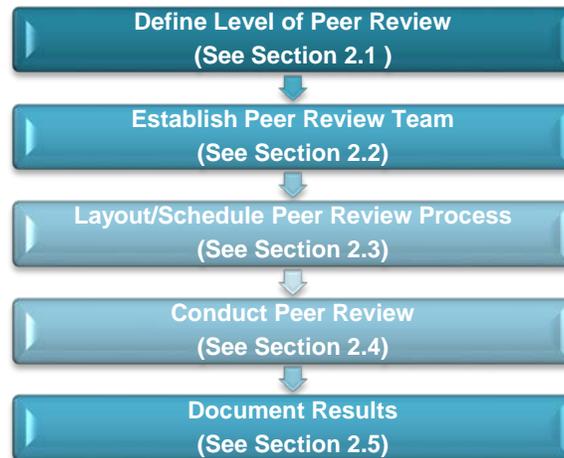
Traffic Guidelines Manual

ORIGINATOR Director, Bureau of Traffic Operations		16-25-1
CHAPTER	16	Traffic Analysis & Modeling
SECTION	25	Traffic Model Peer Review Policy
SUBJECT	1	Introduction

This policy addresses the peer review process for traffic models utilized to conduct traffic operations analysis for the evaluation and design of all transportation improvement projects. For the purpose of this policy, traffic models refer to both the Highway Capacity Manual (HCM)-based traffic analyses and microscopic simulation (microsimulation) analyses. This policy does not cover the travel demand models (TDMs) utilized to generate traffic forecasts. Refer to the [Transportation Planning Manual \(TPM\), Chapter 9](#) for additional details regarding traffic forecasting protocols. The Traffic Model Peer Review Interim Policy provided within this document will become final and be required for all projects that initiate traffic modeling on or *after* January 1, 2016. For projects initiated *prior* to January 1, 2016, the project team *should* coordinate with region traffic operations and (as needed) with the Bureau of Traffic Operations (BTO) to determine how this policy *should* be implemented.

Overview

A peer review is a structured process for reviewing a traffic model to ensure the use of sound engineering judgment. The primary goal of the peer review process is to protect the department's and public's interests by verifying the integrity of the traffic model by assuring that it provides a reasonably accurate representation of traffic conditions that exist in the field. There are four levels of peer review, which are dependent on the complexity of the traffic model. It can take anywhere from six weeks to over four months to conduct a peer review of the traffic model for one analysis scenario. This *may* significantly affect the overall schedule and budget for a project and, *should* thus, be considered early on during project scoping. Figure 1.1 highlights the key steps of the peer review process for HCM and microsimulation traffic models.

Figure 1.1 Traffic Model Peer Review Process Overview

Background

The Wisconsin Department of Transportation's (WisDOT or the department) Traffic Simulation Modeling Process Lean Initiative led by the Bureau of Planning and Economic Development (BPED) - Traffic Forecasting Section (TFS) with input from BTO – Traffic Engineering and Safety Section (TESS) and the Bureau of State Highway Programs (BSHP) – Program Development and Analysis Section (PDAS) outlined a process for the development and review of HCM and microsimulation traffic models (does not include TDMs). Attachment 1.1 provides an illustration (flow chart) of the process defined through the lean initiative.

The lean initiative identified that currently there is a lack of consistency in when and how the department reviews the HCM and microsimulation traffic models. To improve consistency across the state concerning the review of these traffic models, BTO-TESS developed this memorandum, focusing on steps 6 and 11 of the overall traffic model development and review process (see Attachment 1.1). This memorandum will serve as the Traffic Model Peer Review Interim Policy until the final policy is developed. Guidance on the remaining tasks outlined in Attachment 1.1 is forthcoming.

Attachment 1.1 Traffic Model Development & Review Process

Last Updated: September 17, 2015

List of Abbreviations

FHWA = Federal Highway Administration
 BTO = Bureau of Traffic Operations – Traffic Analysis & Safety Unit
 BSHP = Bureau of State Highway Programs (Program Development & Analysis)
 Forecasting = WisDOT Traffic Forecasting Section
 DTSD PT = DTSD Project Team
 RTO = Region Traffic Operations
 RTM = Region Traffic Modeler
 PRT = Peer Review Team
 CT = Consultant Team
 Indep. Consult. = Independent Consultant
 CDR = Concept Definition Report
 PMP = Project Management Plan
 Sim. = Microscopic Simulation

NOTE

The timeline for each task will vary from one project to another depending on the project scope, project limits, & number of alternatives being analyzed. The Project Manager should establish project specific timelines for each task during the project definition/scoping stage.

SECTION	ROLE	DELIVERABLE	TIME LINE
1. DEFINE PROJECT	Lead Role	Project Scope, Project Goals, CDR &/or PMP	Up to 2 Weeks
DTSD PT	DTSD Region		
	Coordinate with DTSD PT as Needed		
	Review CDR &/or PMP		
FHWA (if applicable)			
TASK(S)/GOAL(S)			
i. Establish Project Need, Goals & Scope			
ii. Identify Project Type			
a) Major/Mega Project			
b) Other Non Major/Mega Project			
iii. Prepare CDR &/or PMP			

LEGEND

- DTSD Project Team &/or DTSD Region Leads Task
- Bureau of Traffic Operations (BTO) – Leads Task
- WisDOT Traffic Forecasting Leads Task

