May 2023

Section 70 (old) – This section was moved to Section 80.

Section 70.1-70.5 (new) – These sections regarding traffic forecasting for WisDOT Local Program projects were added.

November 2022

Section 1.1 – Traffic Forecasting Section Chief contact info updated.

Section 70.1 – Updated to reflect current traffic forecasting contacts.

October 2020

Entire TPM – To reflect updated terminology, references to automated traffic recorders (ATR) were changed to continuous count sites (CCS). References to the WisDOT Traffic Forecasting Section were updated to the preferred abbreviation (TFS). General minor edits were also made throughout to improve clarity.

Section 1.1 – Traffic Forecasting Section Chief contact info updated.

Section 1.3 – Clarified roles of WisDOT central office Traffic Forecast Section and WisDOT regions regarding planning-level and project-level traffic forecasts.

Section 1.4 – Revised to reflect current policy for determination of forecast need and type (planning-level or project-level). Table 1.4.1 was updated to eliminate discrepancy between which project types were listed as requiring forecasts and which had project needs necessitating a forecast. Table 1.4.1 was simplified so that forecast need and type is now determined based on FIIPS Improvement Concept Codes as defined in the WisDOT Program Management Manual (PMM) 5-10-5, rather than project location and whether or not the project is a preservation project. Policies for determining forecast need and type based on a project's environmental documentation, location on an NHS-route or local road, and special needs which necessitate detailed analysis of future traffic volumes is now described in the body of text rather than outlined in Table 1.4.1. The flowchart Figure 1.4.1. was removed.

Section 1.4.a – Added reference to location of new ArcGIS Online tool for planning-level forecasting data and planning-level forecasting SharePoint site. Removed redundant bulleted list describing the types of projects which require a planning-level traffic forecast, which is outlined in Table 1.4.1.

Section 1.4.b – Removed redundant bulleted list describing the types of projects which require a project-level traffic forecast, which is outlined in Table 1.4.1.

Section 1.4.c – Revised policy regarding updating a previously completed forecast using new data. Final determination shall now be made by the Traffic Forecasting Section Chief, rather than the WisDOT Secretary's Office. The process for requesting a project-level traffic forecast using form DT1601 was updated to reflect current workflow using SharePoint rather than email.

Section 1.4.d – Added language describing policy for requesting new mainline traffic counts and the use of balanced traffic volumes for a traffic forecast.

Section 1.4.e – Updated language regarding consultation with MPOs and how assumptions made in the development of a forecast should be documented.

Section 1.4.f – Added reference to the Traffic Analysis Project Information System (TAPIS), which is used by the Traffic Forecasting Section to administer, reference, and index project-level traffic forecast requests. Updated screenshot of standard project-level forecast report to reflect current format.

Section 1.5 (old) – Section removed

Section 10.7 (old) – Section removed

Section 30.6 (old) – Section removed

Section 40.3 – Added reference to location of new ArcGIS Online tool for planning-level forecasting data and updated link for new CCS DHV Tool.

Section 40.6 (old) – Section removed

Section 50.4 (old) – Section removed

Section 60.2 (old) – Section removed

Section 70.1 – Updated to reflect current traffic forecasting contacts.

March 2018

Entire TPM – Any outdated references to the Facilities Development Manual (FDM) were updated or removed. General edits were also made throughout the manual.

Section 1.1 – Statements referencing *National Cooperative Highway Research Program Report #765* were added.

Section 1.3 – Information in this section was consolidated into bullet points.

Section 1.4.a – A new section was added regarding forecasts for projects on the local system. WisDOT will no longer conduct or review forecasts on the local road system unless the forecast is tied to a state trunk highway project.

Section 1.4 – This section was revised to reflect updated policies regarding traffic forecasting requirements. The National Highway System (NHS) designation, jurisdiction of the roadway, and the project improvement type help determine if a forecast is required and the type of forecast necessary. Table 1.4.1 and Figure 1.4.1 were added to illustrate the requirements. WisDOT will not conduct or review traffic forecasts on local roads unless the project is on a Connecting Highway or tied to a state trunk highway project.

Section 1.4.a – This section was added to describe planning-level forecasts, which are used to fulfill the requirements for preservation projects on the state trunk highway system and Connecting Highways that are part of the NHS. Preservation projects for the purposes of forecasting requirements include resurfacing, reconditioning, pavement replacement, roadway maintenance, and bridge rehabilitation. A link was added to the WisDOT website page which contains planning-level forecasts, vehicle classification data, and geometric design values.

Section 1.4.b –This section was added to describe project-level forecasts which are performed for non-preservation projects. Non-preservation projects for the purposes of forecasting requirements include new construction, reconstruction, expansion, bridge replacement, Interchange Access Justification Report (IAJR), Intersection Control Evaluation (ICE), Traffic Impact Analysis (TIA), freeway/expressway designation, and projects with an Environmental Impact Statement (EIS) or Environmental Assessment (EA).

Section 1.4.c – This section was edited and reorganized. The necessity of a forecast for a project is determined during project scoping and only one forecast is required for required projects. Policy statements about incorporating new data and the determination if an updated forecast is required were added. New data cannot be used until it is usable, analyzed, and integrated into WisDOT forecasting's tools. The WisDOT Bureau of Planning and Economic Development must make the preliminary determination that an updated forecast is required in consultation with the WisDOT Secretary's Office before an updated forecast (using new data) can be completed. The WisDOT regional traffic forecasting contact table (old Table 1.4.2) has been brought up to date and was moved to the Appendix (Section 70). The Central Office contact for traffic forecast request forms (DT1601 and DT1594) is now DOTTrafficForecasting@dot.wi.gov.

Section 1.4.d – Statements about traffic count requirements were revised. The updated policy states that forecasts will use traffic counts taken as part of the Bureau of State Highway Programs' normal count program. The request for new traffic counts or use of traffic counts from other sources in a forecast, other than those taken as part of the normal count program, shall only be initiated by the Bureau of Planning and Economic Development, if approved by the WisDOT Division of Transportation Investment Management Administrator.

Section 1.4.e – This section was renamed "Forecast Requests and Documentation," edited, and combined with the following (old) section entitled "Roadway Traffic Forecasting Questions and Records of Older Forecasts." A statement regarding the documentation of assumptions during project level forecasts was added.

Section 1.4.f – This section was renamed "Project-Level Forecast Deliverables." Information about the types of projects that require forecasts was removed from this section. The sub-section entitled "Model Alternative Forecasts" was renamed "Roadway Build Scenario Forecasts" and revised. A new sub-section called "Land Use Build Scenarios" was added. References to the FDM, the WisDOT Bureau of Traffic Operations' Traffic Impact Analysis Guidelines, and Section 50 replaced the text in the section on TIA forecasts. The section entitled "Extended Forecasts" was deleted.

Section 1.5 – This summary section was edited to reflect the changes in Section 1.4.

Section 10.1.b – The travel demand model and metropolitan planning areas map was brought up to date.

Section 10.2.a – The travel demand model data request form (DT1599) contact is now DOTTrafficForecasting@dot.wi.gov.

Section 10.4.c – This end of this section was revised and more detail about the situations when the various travel demand model adjustment equations are used was added. The policy regarding the minimum annual traffic growth rate for no-build traffic forecasts was modified from 0.5% to 0%. The specification of a maximum traffic growth rate for a no-build forecast was removed.

Section 10.5 – This section was revised and more detail was added about the comparison of TAFIS and travel demand model forecasts WisDOT may use when conducting or reviewing project-level forecasts.

Section 10.6 – Links to FDM 11-5-3.7 and Traffic Engineering, Operations and Safety Manual (TEOpS) 16-20-4 were added for more information regarding traffic analysis tools and supported simulation programs.

Section 10.6.a – This section was added to outline the WisDOT Traffic Forecasting Section's role in the review of microsimulation models. In accordance with the (TEOpS), the Traffic Forecasting Section reviews microsimulation models in coordination with the Bureau of Traffic Operations. Reviews are documented using form DT2340.

Section 10.7 – Policy statements regarding microsimulation model review and annual growth rates applied for no-build forecasts were added to this summary section.

Sections 20.1 – Information from (old) Sections 20.1-20.6 was consolidated into a table and the extra sections were deleted.

Sections 30.1-30.3 – These sections were updated and revised to reflect changes to the Traffic Analysis Forecasting Information System (TAFIS). Changes to TAFIS include:

- Exponential smoothing of traffic counts.
- Smoothed traffic counts within the last 20 years are used in TAFIS. Previously, all traffic counts since 1976 were used.
- Lambda values between 2.5 and 4.0 are now used for Box-Cox regressions instead of 2.0-3.5.
- The growth rates applied to TAFIS Model 4.1 sites are based on the average growth rate of all Model 1.1, 1.2 and 1.3 sites in the respective county. Previously, a 1.2% growth rate was used for all sites in the state.
- The growth rate applied to TAFIS Model 4.2 sites was changed from 0.5% to 0%.
- The accepted confidence level required for significant regressions was modified.

Section 30.4 – This section was renamed "Traffic Forecasts and Meta-Manager." The truck percentages that are provided to Meta-Manager are from Highway Performance Monitoring System (HPMS) data. The estimated percent of AADT provided to Meta-Manager includes estimates for the highest traveled hour of the year. A link to planning-level forecast data was added. A reference to Facilities Development Manual (FDM) 11-5-3 was also added for more information regarding Level-of-Service (LOS).

Section 30.5 – This section was renamed "Manual Regressions for Traffic Forecasting" and a statement was added regarding when the use of a "manual" regression may be utilized instead of TAFIS. Policy statements regarding the application of exponential smoothing to historical traffic counts for manual regressions and the consideration of travel demand models, if available for the location, were also added.

Section 30.6 – A policy statement regarding applying exponential smoothing to historical traffic counts for manual regressions was added to this summary section.

Section 40.1 – The introductory paragraph was revised. A link to geometric design value data was added.

Section 40.3.a – This section was added to provide detail on the development of design hour volumes. A link to data for Automatic Traffic Recorder (ATR) design hour volumes and K-factor regressions were added.

Section 40.3.b – The K-factor regression tables were removed and a link was added to the new location of the data.

(Old) Section 40.3.c – This section was removed.

Section 40.5 – The current length-based vehicle classification groupings were brought up to date. The groupings used from 2015-2016 and from 2011-2014 were added.

Section 40.5.a – Text regarding the estimation of truck percentages and judgement was removed. This section was combined with (old) section 40.5.b. A link to vehicle classification data was added.

Section 40.6 – This summary section was edited to reflect the removal of text in sections 40.5.a. and (old) 40.5.b.

Section 50.1.a – This section was simplified and links to the FDM and Traffic Impact Analysis Guidelines were added.

Section 50.1.b – Links to Traffic Impact Analysis Guidelines were added in place of duplicative content.

(Old) Section 50.2.a – This section was removed.

(Old) Section 50.2.b – This section was removed.

Section 50.3 – (Old) sections 50.3.a-50.3.d. were removed.

Section 50.4 – This summary section was edited to reflect the changes and deletions in Sections 50.1-50.3.

Section 60.1 – Information describing the uses of various types of surveys was moved from (old) section 60.2 and added to the first paragraph in this section.

(Old) Section 60.1.c – This section was removed.

(Old) Sections 60.2-60.5 – These sections were removed.

Section 60.2 – This summary section was renamed from Section 60.6 and edited to reflect the simplifications and removal of text in Section 60.

Section 70.1 – This section now contains the WisDOT regional traffic forecasting contact table which was moved from Section 1.4.

September 2016

Section 1.4 – The statement regarding WisDOT policy for conducting forecasts with the Traffic Analysis Forecasting Information System (TAFIS) and travel demand models was clarified and moved to section 10.5.

Section 1.5 – The statement regarding WisDOT policy for conducting forecasts with the Traffic Analysis Forecasting Information System (TAFIS) and travel demand models was clarified and moved to section 10.5.

Section 10.1.a. – The statement regarding WisDOT policy for conducting forecasts with the Traffic Analysis Forecasting Information System (TAFIS) and travel demand models was clarified and moved to section 10.5.

Section 10.3.c. – The statement regarding WisDOT policy for conducting forecasts with the Traffic Analysis Forecasting Information System (TAFIS) and travel demand models was clarified and moved to section 10.5.

Section 10.4 – The statement regarding WisDOT policy for conducting forecasts with the Traffic Analysis Forecasting Information System (TAFIS) and travel demand models was clarified and moved to section 10.5.

Section 10.5 – The statement regarding WisDOT policy for conducting forecasts with the Traffic Analysis Forecasting Information System (TAFIS) and travel demand models was clarified.

Section 10.7 – The statement regarding WisDOT policy for conducting forecasts with the Traffic Analysis Forecasting Information System (TAFIS) and travel demand models was clarified and added to this section.

April 2015

Section 1.4.a. – The Central Office contact for Traffic Forecast Request forms is now Vu Dang. He can be reached at (608) 266-2571 or by email at Vu.Dang@dot.wi.gov.

Section 10.1.b. – The St. Croix County Travel Demand Model no longer includes portions of Polk and Pierce Counties.

Section 10.2.a. – The Travel Demand Model Data Request Form contact person is now Vu Dang. He can be reached at (608) 266-2571 or by email at Vu.Dang@dot.wi.gov.

Section 20 – This section was revised to reflect changes from recent travel demand model updates.

Section 60.2.h. – The travel survey contact is now Vu Dang. He can be reached at (608) 266-2571 or by email at Vu.Dang@dot.wi.gov.

August 2013

Section 1.3 and 1.4- New form DT1594, to be used when a traffic forecast not completed by WisDOT needs review for approval, has been included with instructions on how to submit it and hyperlinked access to the form.

Section 1.4.a- The WisDOT Regional Traffic Forecasting Contact table (Table 1.4.2) has been brought up-to-date. New forecasting request contact, Robert Elkin in the Southeast Region, has been included.

Section 1.4.f- Changes to requirements for a base TIA forecast have been noted. A base TIA forecast may be required now if a development generates more than 100 peak hour driveway trips.

Section 1.5- The WisDOT policy to receive requests to review traffic forecasts done by others using form DT1594 has been added.

Section 10.2- The Travel Demand Model Data Request Form contact person is now Urvashi Martin, who can be reached at (608) 267-3640 or by email at urvashi.martin@dot.wi.gov.

Section 30.2- TAFIS model percentages have been updated based on updates to the TAFIS system.

Section 50.1 – The section title was renamed from "TIA Base Forecasts" to "TIA Forecasts."

Section 50.1.b – This new section was added to summarize the basic procedures/policies for conducting development forecasts (forecasts which includes the traffic generated by the development added onto the base forecasts). As part of this new subsection, a new figure (Figure 50.1.1) was generated to outline the process for determining if a development project is already incorporated into the base traffic forecast or if it needs to be added prior to generating the final traffic forecast.

Section 50.3.d – The cost sharing policy was clarified to indicate that the WisDOT policy defined in this section is outlined in the program management procedures and that it is applicable whether or not a TIA is being prepared.

Section 50.4 – The following changes were made to the summary of related section polices:

- o The first policy was expanded to indicate that a traffic forecast is also required when directed by region staff when the development generates more than 100 peak hour driveway trips.
- o The reference to the policy to maintain a database to traffic impact analysis was eliminated.
- o A new policy was added to identify that it is WisDOT policy to "Reference a completed/approved TIA to determine the trip generation potential, new trips, pass-by/linked trips, trip distribution/traffic assignment, and phasing schedule for the development traffic to be added onto the base forecast."