

# Traffic Forecasting Overview

## Description

The purpose of this procedure is to provide an overview of the Traffic Forecast processes.

## Responsibility

The *TPB Assigned Forecaster (AF)* is responsible for coordination with the Requester; development and documentation of the forecast; and creation of the official file.

The *TPB Group Supervisors (Supervisor)* is responsible to assure that their staff is aware of and follows correct procedures; for review the Forecast, Cover Letter and documentation for both form and content; and to ensure that the Official Folder contains all necessary data.

The *State Traffic Forecast Engineer (STFE)*, currently Deborah Hutchings, is responsible for receipt and assignment of Traffic Forecasts; review of forecasts; and tracking and documenting the status of each forecast.

## Scheduling and Time Constraints

There are multiple time constraints in the process that are listed in the individual Procedures. Additionally, the Branch has established the following time frames for the development of forecasts (from receipt of request to delivery of final product):

- Simple Project (*typically 0 to 3 intersections*) - up to 4 Months.
- Moderate Project (*typically 5 to 8 intersections, primarily widening*) - up to 5 Months.
- Large Project - up to 6 months.
- Complex Project (*Examples include major Bypass; project with a high number of intersections; or multiple scenarios.*) up to 7 Months. If a Due Date in excess of 6 months is desired approval of the Branch Manager will be required.

## Procedure

Step	Action
1	<p><b>Receive Traffic Forecast Request</b></p> <p>The Traffic Forecast request is received from another NCDOT Business Unit. This is documented in the procedure <a href="#">Traffic Forecast Assignment</a>. In this procedure the STFE:</p> <ul style="list-style-type: none"> <li>• Provides a cursory review of the Request for completeness;</li> <li>• Develops documentation files;</li> <li>• Coordinates with Group Supervisors for assignment of the Forecast;</li> <li>• Distributes the Forecast Request and Assignment Memorandum.</li> </ul>
2	<p><b>Forecast Initiation</b></p>

	<p>The Traffic Forecast assignment is received by the AF. The AF then:</p> <ul style="list-style-type: none"> <li>• Reviews the request;</li> <li>• Reviews project history; and</li> <li>• Distributes the <a href="#">Traffic Forecast – Contact Memorandum</a> within two weeks of receipt of the Assignment Memorandum.</li> </ul>
<b>3</b>	<p><b>Order Traffic Counts – Traffic Survey Group (TSG) Data</b></p> <p>The AF develops the request for traffic counts. <a href="#">Traffic Forecast – Order Traffic Counts</a> outlines the procedure to request traffic counts.</p> <p>The request should be submitted within two to three weeks of receipt of the assignment. It is highly desirable that the field trip be prior to the ordering of counts.</p> <p>Eight to ten weeks should be allotted for delivery of the counts.</p>
<b>4</b>	<p><b>Prepare Forecast</b></p> <p>The AF collects information and prepares the Traffic Forecast. Numerous procedures are utilized in this work.</p> <ul style="list-style-type: none"> <li>• The first step is to gather existing data and to see what additional data may be needed. The <a href="#">Traffic Forecast – Collect Existing Data</a> procedure outlines various sources of available data. This includes not only traffic data, but also land use and socio-economic data.</li> <li>• Step 3 above (Order Traffic Counts) should be done after it is determined what / if additional traffic data is required.</li> <li>• The development of the figures can begin prior to receipt of the Traffic Data. NCDOT has several templates and Procedures to standardize the look and information provided on the Forecast figures. <ul style="list-style-type: none"> <li>○ <a href="#">Traffic Forecast – Location Map</a></li> <li>○ <a href="#">Traffic Forecast Diagram</a></li> </ul> </li> <li>• As the data is being collected, the AF should begin the documentation of the project. At the end of the process, a formal (standardized) report is completed. See <a href="#">Traffic Forecast – Report</a> procedure.</li> <li>• The traffic data collected is used to determine the Design Factors. This includes the Directional Distribution (D), Peak Hour Factor (K), and truck percentages (Duals, TTST). Traffic Forecast – Traffic Factors (<a href="#">future link</a>) is the procedure which discusses the development of these factors.</li> <li>• The Base Year No-Build scenario of the forecast is the first scenario developed. It is based primarily on field data (available and collected for the project). See Traffic Forecast – Develop Base Year (<a href="#">future link</a>)</li> <li>• Project Data to future year. How this is done is dependent upon the tools available for use. <ul style="list-style-type: none"> <li>○ Traffic Forecast – Project Data Using Model (<a href="#">future link</a>)</li> <li>○ Traffic Forecast – Project Data Using Hand Allocation (<a href="#">future link</a>)</li> <li>○ See Traffic Forecast - Develop Future Year (<a href="#">future link</a>)</li> </ul> </li> <li>• Finalize the forecast. A Traffic Forecast is comprised of three elements: the</li> </ul>

	Cover Letter (see <a href="#">Traffic Forecast – Cover Letter</a> procedure), the Diagrams (see <a href="#">Traffic Forecast Diagram</a> procedure) , and Documentation (See <a href="#">Traffic Forecast – Report</a> procedure).
<b>5</b>	<p><b>Review / Finalize Forecast</b></p> <p>Once the Forecast has been completed it must be reviewed and approved by the Supervisor. Each Group Supervisor develops their own procedure for this step.</p> <p>Upon approval, the Forecast is provided to the STFE to begin the formal approval process. (See <a href="#">Traffic Forecast – Formal Review Process</a> procedure). A minimum of two weeks should be allotted for this step (preferably more). Reviewers typically have a minimum of seven days of review time.</p> <p>Distribution of the forecast by the AF follows completion of the Formal Review Process, including resolution of issues raised in the comments received as part of the process.</p>
<b>6</b>	<p><b>Records</b></p> <p>The STFE enters the Forecast Cover Letter, Diagrams and Report in Project Store after the AF has completed distribution of the Forecast. (Where there is no Project Store file, the STFE may save the documents on the share drive - under S\Traffic Forecast Tools\Forecasts not in Project Store.)</p> <p>The AF is responsible for completion of the Official Forecast File. The File is to be completed within 4 weeks of the Distribution of the forecast. The <a href="#">Traffic Forecast – Official File</a> procedure outlines responsibilities related to the file including:</p> <ul style="list-style-type: none"> <li>• The AF assembles the file;</li> <li>• The Supervisor of the AF is responsible for verifying that the file is complete;</li> <li>• Administrative Staff is responsible for logging and filing of folder.</li> </ul>

### ***Policy, Regulatory, and Legal Requirements***

None.

### ***Resources***

[\*Traffic Forecast Request – Assignment\*](#)

[\*Traffic Forecast – Collect Existing Data\*](#)

[\*Traffic Forecast – Contact Memorandum\*](#)

[\*Traffic Forecast – Cover Letter\*](#)

[\*Traffic Forecast – Diagrams\*](#)

[\*Traffic Forecast – Report\*](#)

[\*Traffic Forecast – Official File\*](#)

[\*Traffic Forecast – Order Traffic Counts\*](#)

## **Background**

This provides a general Overview of the Traffic Forecasting process. See individual Procedures for more detail.

## **Record of Revision**

*The information contained in this procedure is deemed accurate and complete when posted. Content may change at any time without notice. We cannot guarantee the accuracy or completeness of printed copies. Please refer to the online procedure for the most current version.*

<b>Version</b>	<b>Section Affected</b>	<b>Description</b>	<b>Effective Date</b>
1.1	Entire procedure	Activated links, minor clarifications.	01/19/10
1.2	Entire procedure	Updated links to TF-Report procedure	03/7/11
2	Entire Procedure	Updated template and links, content didn't change.	2/5/2013

Flowchart

