

Traffic Forecasting Order Traffic Counts

Description

The purpose of this procedure is to describe the steps necessary to request the collection of traffic counts for a traffic forecast.

Responsibility

The *TPB Assigned Forecaster (AF)* is responsible for providing the Traffic Survey Group (TSG) staff with a completed and correct data request consisting of: an e-mail (with due date noted); appropriate form(s); and accurate mapping; and copy the State Traffic Forecast Engineer (STFE) on the e-mail requesting traffic counts.

The *State Traffic Forecast Engineer (STFE)*, currently Deborah Hutchings, is responsible for logging in the date of the traffic count request.

The *TPB Group Supervisor (Supervisor)* is responsible for verification that requests for data are complete and accurate, and not excessive.

The *Traffic Survey Group staff (TSG)*, will respond to the requester with an expected delivery date for the traffic counts (within two weeks), and ultimately provide the requested data.

Scheduling and Time Constraints

Traffic Counts should be ordered no later than 3 weeks after receiving the Traffic Forecast assignment. It is highly desirable that ordering traffic occur after the field visit.

A minimum of 10 weeks should be allowed for data collection, validation, and return of requested data (major projects may take longer).

Procedure

| Step | Action |
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| 1 | <p>Plan The Timeframe.</p> <p>Traffic counts should be ordered no later than 3 weeks after receipt of assignment. It is desirable that ordering traffic occur after the field visit. Unless counts were ordered in a timely manner, altering the forecast due date based on the receipt of traffic data will not be permitted.</p> <p>A minimum of 10 weeks should be allowed for receipt of requested data (major projects may take longer).</p> |
| 2 | <p>Make Preliminary List of Locations.</p> <p>Make a preliminary list or highlight the roads where counts / traffic data is needed. Every project should request at least one mainline classification count.</p> <p>NOTE: Typically Y-line locations with less than 1000 AADT should not be identified for turning movements or counts. (Exceptions may occur where the reason is specified.) This is consistent with the Guidelines for Requesting a Traffic Forecast from Debbie Barbour.</p> |
| 3 | <p>Collect available traffic data. to determine if needed traffic data is already available</p> |

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| | <p>prior to requesting new counts.</p> <ul style="list-style-type: none"> • The number of locations where data needs to be collected may be reduced based upon available data. See Procedure Traffic Forecast – Collect Existing Data for Procedure on collection of existing data, including <ul style="list-style-type: none"> ▪ NCDOT AADT Counts ▪ Automatic Traffic Recorder (ATR) and Interstate Control (IC) data. |
| <p>4</p> | <p>Observe the Area.</p> <p>During the Field Trip to the project area, take note of items which could affect locations or request for traffic counts:</p> <ul style="list-style-type: none"> • Note road names that are different in field than on maps. Also note local street names which correspond to secondary routes numbers. • Add requested locations that are not on the printed map as accurately as possible (these may include major shopping center driveways, employment center entrances, etc). • Observe and document locations producing large numbers of trucks. |
| <p>5</p> | <p>Finalize Locations and Type of Count.</p> <p>Choose locations and type of count. The Traffic Survey Group collects three types of counts for use in Traffic Forecasting</p> <ul style="list-style-type: none"> • Hourly Count –Counts are taken for 48 hours. Data received back are raw counts by the hour. They must be adjusted for truck percentages and daily / weekday / monthly factors. • Classification Count – These counts are taken for 48 hours, and provide the same information as the hourly counts, plus information on the vehicle mix. Data provided is in raw form and must be adjusted. • Turning Movement Count – these counts are taken for 16 hours and projected to 24 hours. Included in this type of count is truck classification information on one leg of the intersection. It is necessary in the request to designate which leg to take the truck count on. Data provided is in raw form and must be adjusted. <p>In considering the type and number of counts to request, it may be helpful to keep in mind the typical number of locations which can be collected per technician per week: Hourly counts – 20; Classification Counts – 10, Turning Movement – 2.</p> |
| <p>6</p> | <p>Prepare Mapping:</p> <ul style="list-style-type: none"> • Make a base map(s) of the project area showing the locations of the counts. The map will be used by field staff to locate where the counters should go / navigate around the area which may not be familiar to them. It may be necessary to zoom in on the mapping to show an appropriate level of detail or create multiple maps. • All maps must be in black and white, size 8 ½ X 11. • Separate maps are required for each type of count. TF- Turning Movement Example Map , TF- Class Counts Example Map • For projects requiring multiple maps an overview map should be provided. The overview map may show all types of counts. • Good base mapping is essential. It does not matter what software is used to develop the mapping. Potential sources for a base map include: |

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| | <ul style="list-style-type: none"> • Google Maps or Bing Maps (internet resources) • ArcMap may also be used (GIS data is available at S:\Shared\TPB Reference\Comprehensive Transportation Plan\CTP GIS Data Layers.xls , Recourses Tab) • Label roads on the map with designated SR numbers <u>and</u> names, including all major routes, all routes to be counted, and nearby intersecting routes. This is important for the field staff to be able to find the count locations. • Legend must include types of counts, North arrow, County and City names • Include a symbol (“T”) indicating the location of truck count for turning movements • Export maps to PDF. <p>The preference is for the maps to be sent electronically. Electronically submitted maps must be in 8 ½ X 11 format. Larger maps may be acceptable but they MUST be submitted in paper format.</p> <p>For large areas it may be acceptable to provide plots. Coordinate with TSG (currently David Price) before developing paper plots, to verify acceptability, and number needed.</p> <p>Note: for complex projects, it is advisable for the AF to schedule a meeting with their supervisor and Mike Haley to review the project prior to submitting the request.</p> |
| <p>7</p> | <p>Fill out request forms and follow all instructions:</p> <ul style="list-style-type: none"> • <u>TF- Turning Movement Request Form</u> • <u>TF- Class Count Request Form</u> • <u>TF- Hourly Count Request Form</u> • Review Counts locations with the supervisor • On Classification Count and Hourly Count forms (where there is a space for a “due” date) indicate a date no less than 10 weeks from the date the request is to be sent in. • Separate maps are required for each type of count. For requests where an overview map is required all count types may be placed on the same overview map. <p>Note: Turning Movement request form requires that different counties be submitted on separate forms.</p> |
| <p>8</p> | <p>Send traffic count request submittal:</p> <p>All submittals are to contain the following 3 elements:</p> <ol style="list-style-type: none"> 1. Transmittal e-mail (template is on the S drive at S/Traffic Forecast Tools/Forecast Templates/TSG Request Template) <ul style="list-style-type: none"> • The e mail should note if there are known events in the area that would affect when counts should / should not be taken (for example, when a major university is out of session; the State Fair is in Raleigh, NASCAR events in Metrolina, etc.) • The e mail MUST include the requested due date for the traffic data. The date may be NO LESS than 10 weeks from the date of the count request submittal. If the request must be re-submitted, the 10 weeks applies to the new submittal date. |

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| | <ul style="list-style-type: none"> • The due date may be more than 10 weeks, if the data is not needed before that time. • EXPEDITED traffic data request. Only a SUPERVISOR of the AF may submit a request for Expedited data collection. The expedited request must note reason for the need to expedite. An expedited request is only valid if submitted within 3 weeks of the forecast assignment. The Supervisor shall discuss the project with Mike Haley prior to submittal. <p>2. Form(s) for the type(s) of counts requested (as attachments to the transmittal e-mail); and</p> <p>3. Detailed mapping for all count locations and additional overview map if needed (as attachments to the transmittal e-mail.. Separate maps are required for each type of count.</p> <p>Submit all forms and maps via email to: tpb_trafficrequests@ncdot.gov .</p> <p>The request is to be copied to the STFE – currently dhutchings@ncdot.gov</p> |
| <p>9</p> | <p>Respond to Feedback.</p> <p>Respond to feedback from the Traffic Survey Group, if any. Responsibilities and procedures of the Traffic Survey Group will be detailed in a future procedure. However, as a point of information, the AF should be aware of the following responsibilities of the TSG:</p> <ul style="list-style-type: none"> ○ If the request for data collection is unacceptable, TSG will notify the requester. ○ Within two weeks of submitting the request, TSG will respond with a confirmed due date. If a due date is not received within that time frame, contact tpb_trafficrequests@ncdot.gov and ask for a status update. <p>If collection of a count at a requested location is not possible, TSG will contact the AF with the nearest viable count location or recommend an alternative count type at the requested location. These changes are related to field conditions that impact the safety of the data collector or are due to poor traffic flow. This type of change will not affect the scheduled delivery date of the requested traffic data.</p> |

Policy, Regulatory, and Legal Requirements

None.

Resources

Traffic Forecasting Workbook is available at S:\Traffic Forecast Tools\TF-workbook.htm.
 GIS data is available at S:\Shared\TPB Reference\Comprehensive Transportation Plan\CTP GIS Data Layers.xls , Recourses Tab

- [TF- Turning Movement Request Form](#)
- [TF- Class Count Request Form](#)
- [TF- Hourly Count Request Form](#)
- [TF- Turning Movement Example Map](#)
- [TF- Class Counts Example Map](#)
- [TF- Turning Movement Request Instructions](#)

Background

Project-level traffic forecasts are key inputs into feasibility studies, environmental studies, roadway and pavement design, which lead to construction of transportation improvements. Project-level traffic forecasts estimate future traffic volumes, including intersection movements, for a defined study corridor. When a traffic forecast has been requested, it is necessary to collect the data to develop and support the forecast.

It is expected that the AF will use appropriate business practices and judgment as required of engineering level staff. This procedure is intended to augment training given by the supervisor and does not cover all possible circumstances.

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.

| Version | Section Affected | Description | Effective Date |
|----------------|-------------------------|---|-----------------------|
| 1.1 | Procedures | Changed email address for submittals in Steps 5 and 10. | 07/24/09 |
| 1.2 | Updates throughout | Minor formatting changes for consistency with other procedures. Updated name of Traffic Survey Group. | 01/19/10 |
| 2.1 | Major update | Changes are made to the request forms, links and time frame | 05/27/11 |
| 2.2 | Minor update | Changes are made to for the consistency throughout the procedure, for AF and STFE | 05/7/12 |
| 3 | Procedures | Procedure's template was modified. Content untouched. | 2/5/2013 |

Flowchart