

# Model Team Coordination

Transportation Planning Branch		Approved: August 26, 2008 Version 1
[Contents]		
<a href="#">Purpose</a>	<a href="#">Warnings and Precautions</a>	
<a href="#">Background</a>	<a href="#">Resources and Tools</a>	
<a href="#">Responsibility</a>	<a href="#">Contacts</a>	
<a href="#">Policy, Regulatory, and Legal Requirements</a>	<a href="#">Glossary</a>	
<a href="#">Scheduling and Time Constraints</a>	<a href="#">User Access</a>	
<a href="#">Procedures</a>	<a href="#">Flowchart</a>	

## **Purpose**

The purpose of this procedure is to describe the steps in obtaining travel demand modeling, TransCAD and ArcGIS technical assistance from the Model Research and Development Group.

## **Background**

Travel demand models and GIS are essential tools for transportation planning and traffic forecasting. One of the main tasks of the Model Research and Development Group is to serve as the Branch's technical experts in travel demand modeling and GIS, and to provide individual technical guidance and assistance to TPB engineers. This assistance may be either through the Model Research and Development Group staff (Model Engineer) directly, or through the use of on-call Private Engineering Firms (PEF).

## **Responsibility**

It is the responsibility of the **Project Manager (PM)/Project Engineer (PE)** to:

- Coordinate appropriately with their Group Supervisor on the initial request and throughout the process of getting the request fulfilled;
- Define the tasks for which technical assistance is needed;
- Provide the [Technical Assistance Request Form](#) to the Model Research and Development Group Supervisor;
- Develop an initial schedule for a travel demand modeling project and finalize the schedule based on the agreed roles and responsibilities of local government, PM/PE, and assigned Model Engineer (ME);
- Provide the final schedule to their Group Supervisor, the ME and Model Research and Development Group Supervisor; and
- Provide necessary information for the ME to perform the requested tasks.

It is the responsibility of the **Model Research and Development Group Supervisor** to:

- Review the technical assistance request and determine if the requested tasks can be handled in-house, or if an on-call PEF will be utilized;
- Identify and assign an appropriate ME to the tasks, if the requested task(s) can be handled in-house; and
- Coordinate with the PM/PE and assigned ME to define the roles and responsibilities of the PM/PE and assigned ME, and schedule for the tasks.

It is the responsibility of the **Model Engineer (ME)** to:

- Review and provide input on the initial schedule developed by the PM/PE;
- Perform the requested tasks within the required time frame;
- Monthly inform the Model Research and Development Group Supervisor of the status of the assigned tasks and any issues (such as requiring additional resource, a change in schedule, etc); and
- When the requested tasks are complete, fill out the two columns “Date Completed” and “Time spent” on the [Technical Assistance Request Form](#) and provide the form to the Model Research and Development Group Supervisor and the PM/PE’s Group Supervisor.

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

None

## ***Scheduling and Time Constraints***

The PM/PE should develop an initial time frame schedule for the travel demand modeling project, provide it to the Model Research and Development Group Supervisor and the assigned ME for their review and feedback, and then finalize the schedule based on the agreed roles and responsibilities of local government, PM/PE, and assigned ME.

PM/PE should allow a reasonable time frame when requesting travel demand modeling, TransCAD and ArcGIS technical assistance from the Model Research and Development Group.

## ***Procedures***

There are separate procedures for travel demand modeling technical assistance ([Section A](#)) and for TransCAD and ArcGIS technical assistance ([Section B](#)). Travel demand modeling tasks are more likely to be major tasks and usually need to be scheduled at the beginning of the modeling project, while TransCAD and ArcGIS technical assistance tasks tend to involve minor tasks and are usually provided on an as needed basis.

### **Section A: Travel Demand Modeling Assistance Requests**

Procedure Inputs: identified travel demand modeling tasks for technical assistance; required time frame; and [Technical Assistance Request Form](#).

Procedure Outputs: completed tasks; and completed Technical Assistance Request Form.

The PM/PE will follow the steps below to obtain travel demand modeling technical assistance:

Step	Action
1	Upon determination that travel demand modeling assistance is needed, the PM/PE: <ul style="list-style-type: none"> <li>• coordinates with their Group Supervisor about the intent to develop a request for technical assistance from the Model Research and Development Group, and</li> </ul>

	<ul style="list-style-type: none"> <li>continues to coordinates with their Group Supervisor as appropriates throughout the process</li> </ul>
2	<p>The PM/PE:</p> <ul style="list-style-type: none"> <li>develops a list of tasks for which technical assistance is needed and an initial schedule (due dates) for each task, and then</li> <li>obtains a copy of the <a href="#">Technical Assistance Request Form</a> and fills out the columns of “Tasks Requested” and “Due Date”.</li> </ul>
3	<p>The PM/PE contacts the Model Research and Development Group Supervisor to discuss the draft Technical Assistance Request Form (i.e., the tasks to be requested, their initial schedule, and required time frame).</p>
4	<p>The Model Research and Development Group Supervisor:</p> <ul style="list-style-type: none"> <li>reviews the requested tasks and initial schedule,</li> <li>assesses the capability and availability of MEs in the Model Research and Development Group, and</li> <li>identifies and assigns an appropriate ME to complete the requested tasks, or</li> <li>informs the PM/PE that an on-call PEF will be used</li> </ul> <p><b>Note:</b> If the requested tasks cannot be handled in-house, the Model Research and Development Group Supervisor recommends utilizing technical assistance from an on-call PEF. Refer to the “<a href="#">Contract Administration – Developing Limited Service Contract Task Orders (Modeling)</a>” procedure for major tasks (e.g., model development) and the “<a href="#">Model Assistance as Requested for Minor Tasks</a>” procedure for minor tasks (e.g., running model for new scenarios, modifying networks).</p>
5	<p>The PM/PE, assigned ME and Model Research and Development Group Supervisor meet to determine the:</p> <ul style="list-style-type: none"> <li>type of technical assistance (on an as needed basis or pre-assigned for certain tasks) needed,</li> <li>roles and responsibilities of the PM/PE and assigned ME for the project, and</li> <li>initial schedule</li> </ul>
6	<p>The PM/PE:</p> <ul style="list-style-type: none"> <li>finalizes the schedule based on the agreed role and responsibilities of local government, PM/PE, and ME,</li> <li>revises the <a href="#">Technical Assistance Request Form</a> (Tasks Requested and Due Date), if needed, and</li> <li>provides a new <a href="#">Technical Assistance Request Form</a> to their Group Supervisor, the ME and Model Research and Development Group Supervisor</li> </ul>
7	<p>The PM/PE and assigned ME work together to complete the requested tasks.</p> <p><b>Note:</b> The ME should monthly inform the Model Research and Development Group Supervisor of the status of the modeling project and any modeling issues (such as additional tasks, requiring additional resource, any change in schedule, etc).</p>
8	<p>When the requested tasks are complete, the ME:</p> <ul style="list-style-type: none"> <li>fills out the two columns “Date Completed” and “Time spent” on the <a href="#">Technical Assistance Request Form</a>, and then</li> <li>provides the form to the Model Research and Development Group Supervisor and</li> </ul>

	the PM/PE's Group Supervisor
--	------------------------------

## Section B: TransCAD and ArcGIS Assistance Requests

Procedure Inputs – identified TransCAD and ArcGIS technical assistance; and [Technical Assistance Request Form](#).

Procedure Outputs – completed tasks; and completed Technical Assistance Request Form.

The PM/PE will follow the steps below to obtain TransCAD and ArcGIS technical assistance:

Step	Action
1	When technical assistance is needed for TransCAD and/or ArcGIS, the PM/PE: <ul style="list-style-type: none"> <li>• informs their Group Supervisor of the need for technical assistance from the Model Research and Development Group,</li> <li>• obtains a copy of the <a href="#">Technical Assistance Request Form</a>, and</li> <li>• fills out the columns of “Tasks Requested” and “Due Date”.</li> </ul>
2	The PM/PE contacts the Model Research and Development Group Supervisor to discuss the draft <a href="#">Technical Assistance Request Form</a> (tasks to be requested and their required time frame).
3	The Model Research and Development Group Supervisor: <ul style="list-style-type: none"> <li>• reviews the requested tasks and initial schedule,</li> <li>• assesses the capability and availability of MEs in the Model Research and Development Group, and</li> <li>• identifies and assigns an appropriate ME to complete the requested tasks,</li> <li>• OR informs the PM/PE that an on-call Private Engineering Firm (PEF) will be used.</li> </ul> <p><b>Note:</b> If the requested tasks cannot be handled in-house, the Model Research and Development Group Supervisor recommends utilizing technical assistance from an on-call PEF. Refer to the “<a href="#">Contract Administration–Developing Limited Service Contract Task Orders (Modeling)</a>” procedure for major tasks (e.g., model development) and the “<a href="#">Model Assistance as Requested for Minor Tasks</a>” procedure for minor tasks (e.g., running model for new scenarios, modifying networks).</p>
4	The PM/PE: <ul style="list-style-type: none"> <li>• revises the <a href="#">Technical Assistance Request Form</a> (Tasks Requested and Due Date) based on a discussion with the Model Research and Development Group Supervisor, if needed, and</li> <li>• provides a new <a href="#">Technical Assistance Request Form</a> to the ME and Model Research and Development Group Supervisor</li> </ul>
5	The PM/PE and assigned ME work together to complete the requested tasks.
6	When the requested tasks are complete, the ME: <ul style="list-style-type: none"> <li>• fills out the two columns “Date Completed” and “Time spent” on the <a href="#">Technical Assistance Request Form</a>, then</li> <li>• provides the form to the Model Research and Development Supervisor, and</li> <li>• provides the form to the PM/PE's Group Supervisor <u>only</u> if the tasks are over eight (8) hours.</li> </ul>

## ***Warnings and Precautions***

All travel demand modeling, TransCAD and ArcGIS technical assistance requests should be made first to the Model Research and Development Group Supervisor, with the exception of either simple questions or very simple tasks made directly to MEs in the Model Research and Development Group.

If an on-call PEF will be utilized, the [Department's Policies and Procedures for Major Professional and Specialized Services Contracts](#) should be followed.

## ***Resources and Tools***

- [Technical Assistance Request Form](#)
- [“Contract Administration – Developing Limited Service Contract Task Orders \(Modeling\)”](#) procedure
- [“Model Assistance as Requested for Minor Tasks”](#) procedure

## ***Contacts***

- For suggestions to change this procedure contact: Earlene Thomas (919) 733-4705 ext. 47
- For questions about performing this procedure contact: Tae-Gyu Kim (919) 715-5482 ext. 373

## ***Glossary***

For a complete listing of terms, definitions and acronyms, go to the [Master Glossary](#).

## ***User Access***

NCDOT Internal Use Only

## ***Flowchart***

None