MPO Travel Demand Model Update

GAMPO Annual Work Session June 27th, 2014





BACKGROUND

- Federal legislation requires Long-Range
 Transportation Plan (LRTP) updates every five years
- The LRTP covers a minimum 20-year planning horizon with fiscal constraint
- MAP-21 Moving Ahead for Progress in the 21st
 Century
 - LRTP requirements are similar to SAFETEA-LU
 - More focused on performance-based approach



WHAT IS A TRAVEL DEMAND MODEL AND ITS PURPOSE?

Model Inputs

Transportation Network Characteristics

Demographic Data



Travel Demand Model



- 1. Trip Generation How Many Trips?
- 2. Trip Distribution Where are they going?
- 3. Mode Choice What mode are they using?
- 4. Trip Assignment What route will they use?



Model Outputs

Transportation network with forecasted volumes and other metrics

Identify deficiencies and prioritize projects



WHAT THE MPO'S REGIONAL TRAVEL DEMAND MODEL CAN PROVIDE?

- <u>Daily</u> volumes and capacity on functionally classified routes within the MPO area
- Ability to identify roadway deficiencies where daily volumes exceed the capacity
- Ability to evaluate major interstate and highway improvements
- Ability to evaluate transportation system performance



WHAT THE MPO'S REGIONAL TRAVEL DEMAND MODEL CANNOT PROVIDE?

- Time-of-Day Estimates (Peak Hour or Peak Periods)
- Freight Demand
- Non-Motorized Travel
- Logical Termini Determination



MAJOR ACTIVITIES/LEAD AGENCIES

- Kick-off meeting GDOT
- Prepare and review base year SE data MPO
- Base year model development and validation -GDOT
- Prepare and Review future year SE data MPO
- Model presentation GDOT @ TCC/PC Meeting
- Project list for LRTP network scenarios MPO
- Develop each of the LRTP scenarios GDOT



CRITICAL PATH ITEMS THAT IMPACT SCHEDULE

- Provided by MPO:
 - SE data and any revisions
 - Project lists for each network scenario
 - Review/Approval Final networks by TCC/PC
- Provided by GDOT:
 - Model update and validation
 - LOS maps for each network scenario

TIMELINE AND RESPONSIBLE PARTIES



IMPROVEMENTS TO CURRENT PROCEDURE GUIDELINES

- Major Activities, Timeline and Responsible Parties
- Base Year Model Development and Validation
 - Highway Network
 - Defining Traffic Analysis Zones
 - Base Year Socio-economic Data Development and Review
- Guidance for Developing LRTP Networks
- Others
 - Potential treatment for military basis





GDOT's Travel Demand Model Website

http://www.dot.ga.gov/projects/programs/Pages/default.aspx

