MAKING COUNTS COUNT: WHY USE A TRAFFIC FORECASTER?

Partnering Conference 2012
Highway District Office: Joseph Mosley, PE
Central Office: Daniel Hulker
Consultant: Tom Creasey, PhD, PE (Stantec)
Not every project needs a full-scale, in-depth, detailed forecast; ones that don’t:
- Bridge Replacements
- Resurfacing
- Safety

Finding Thresholds
- 400 ADT for bridges
- 1,000 ADT for turning movements

Put the effort where it makes a difference

Make counts count
Optimization of public investment is critical
Multimillion-dollar decisions based on how much, how long, when, etc.
“Two percent per year” not an appropriate approach any more
OPTIMIZATION INVESTMENT

- Planning - Scoping and Official Orders
- Design - Highway and Structures
- Environmental - Air and Noise
- Traffic Operations - Signal Warrants and Timing
- Scenario Analysis - Location and Material
OPTIMIZATION INVESTMENT

- Forecast development
  - Right level at each phase
  - Establish analysis years

- Planning ahead for traffic counts
  - Special counts take time/money
  - School, events, winter

- Sizing requirements better understood
  - Number of turning movements
  - Analysis years
Transportation Demand Models
- Only IF needed
- To produce right model for context

Subject Matter Expert (SME) to evaluate:
- Scope of work, hours, assumptions, process/plan, timetable/milestones.
The Subject Matter Expert is that individual who exhibits the expertise in performing a specialized job, task, or skill within the organization.

An SME is anybody with in-depth knowledge of the subject you are attempting to document. You need to talk to SMEs in the research phase of a documentation project (to get your facts straight) and you need to involve them in the technical validation & interpretation of your drafts (to make sure that your information matches theirs). (SixSigma)
DECISION MAKING

- Documentation of fundamental geometric design parameters
- It can prevent over-design
  - Important to know thresholds
    - Auxiliary turning lanes
    - Add through lanes
    - Turning movements
    - Pavement design
    - Future development plan impacts
    - Alternative design scenarios and analysis
    - The great unknown...
When to Contact the Forecaster?

- Involve Multimodal Branch early
  - Submit advertisement drafts
  - Understand how to proceed
  - Can follow the forecast to its completion
WHEN TO CONTACT THE FORECASTER?

- As soon as you know you will need one
- Traffic counts usually the starting point for forecasts
- Counts can take awhile ( $$$ + Time )
  - Traffic Impact
  - KYTC or Consultants
- Counts require people and equipment
  - What is the desired coverage?
  - Does the area get congested?
WHEN TO CONTACT THE FORECASTER?

- Invite the forecaster to team meetings
- Schedule pre-project meetings to fit the forecast within the time and money allocated
- Earliest start will result in the least cost by keeping it off the project’s critical path
- Alternative Scenario Analysis if needed
RIGHT TOOL FOR THE JOB

**IF** a model is needed:

- **Time-**
  - 8+ months, depending on coverage
    - Scenarios/Alternative Analysis
    - Design decisions
    - Public Meeting Tool
  - Micro-simulations take more data, time, and $’s
It’s never too late.
It WILL cost you.
The Multimodal Branch is rolling out a new policy manual.

- Establishes procedure - central/district/consultant
- Formalizes Traffic Forecasts & Models as unique elements in project decisions
- Creates a defined location for documentation
- State of the Practice
  - Research-NCHRP 8-83
TYPES OF TRAFFIC FORECASTERS

- Division of Planning
  - *Central Office-Multimodal Branch-
  - Highway District Office

- Consultant
  - Planning Forecast Consultants
  - Project Consultant

- External Agency
  - MPO
  - ADD
  - City/County
Forecasts: Cornerstone of a Project!

- Consistency in approach
  - Corridor
  - Phase to Phase

- Proofing for errors or conflicts in the report
  - Reasonable use of assumptions & factors
  - Missing results
  - Reasonable conclusions

- Verify critical considerations
  - Especially when near thresholds
ProjectWise is the electronic folder

What a folder will contain:
- Forecast request form and map
- Project forecast correspondence and meetings minutes
- Existing counts and research materials
- Special count request form, maps and counts
- Final project report
REMEMBER

- Involve traffic forecasters early and often
- If a traffic model is needed - adds time and cost
- Traffic Forecaster SME are in Planning’s Multimodal Branch
- ProjectWise is location for traffic forecast