



**REGIONAL TRANSPORTATION TECHNICAL ADVISORY  
MODELING SUBCOMMITTEE**

Tuesday, March 17, 2009 – 1:30 PM to 4:00 PM  
FDOT District 4, Administrative Conference Room

**Agenda**

- I. 1:30 - 1:40 Call to Order and Introductions/Overview**  
Wilson Fernandez
- II. 1:40 - 2:00 Update on SERPM Needs Plan Network Coding**  
Shi-Chiang Li and Srin Varanasi
- III. 2:00 – 2:30 Summary of Needs Plan Consistency Review**  
Rob Schiffer
- IV. 2:30 – 3:00 MPO Plans/Schedules for Needs Alternatives Testing**  
Broward MPO  
Miami-Dade MPO  
Palm Beach MPO
- V. 3:00 - 3:30 Discussion of Outstanding Needs Plan/Coding Issues**  
Shi-Chiang Li and Srin Varanasi
- VI. 3:30 - 3:40 Other Business**  
Wilson Fernandez
- VII. 3:40 - 4:00 Schedule Update/Next Meeting**  
Wilson Fernandez, Rob Schiffer
- VIII. 4:00 Adjournment**

## December 3, 2008 Meeting Minutes

### *Regional Transportation Technical Advisory Committee (RTTAC)*

#### *Modeling Subcommittee*

Date: December 16, 2008

Project #: 8055.002

To: Wilson Fernandez, RTTAC Modeling Subcommittee Chair

From: Rob Schiffer, Cambridge Systematics, Inc.  
Jessica Josselyn, Kittelson & Associates, Inc.  
John Zegeer, PE, Kittelson & Associates, Inc.

The following is a summary of the RTTAC Modeling Subcommittee meeting held on December 3, 2008. Meeting presentations may be found in Attachment A.

#### **MEETING TIME AND LOCATION**

Florida Department of Transportation, District IV  
Executive Conference Room  
Fort Lauderdale, Florida

#### **MEETING ATTENDEES** (*alphabetical order by agency/firm*)

1. Ashutosh Kumar (by phone), AECOM Consult, [Ashutosh.kumar@aecom.com](mailto:Ashutosh.kumar@aecom.com)
2. David Schmitt (by phone), AECOM Consult, [david.schmitt@aecom.com](mailto:david.schmitt@aecom.com)
3. Sung Ryong Han, BCC Engineering, [shan@bcceng.com](mailto:shan@bcceng.com)
4. Ed Sirianni, Broward County MPO, [esirianni@broward.org](mailto:esirianni@broward.org)
5. Lina Kulikowski, Broward County MPO, [lkulikowski@broward.org](mailto:lkulikowski@broward.org)
6. Ossama Al Aschkar, Broward County MPO, [oalashkar@broward.org](mailto:oalashkar@broward.org)
7. Rob Schiffer, Cambridge Systematics, Inc., [rschiffer@camsys.com](mailto:rschiffer@camsys.com)
8. Dan Glickman, Citizen, [danglick@hotmail.com](mailto:danglick@hotmail.com)
9. Min-Tang Li, FDOT D4, [min-tang.li@dot.state.fl.us](mailto:min-tang.li@dot.state.fl.us)
10. Shi-Chang Li, FDOT D4, [shi-chiang.li@dot.state.fl.us](mailto:shi-chiang.li@dot.state.fl.us)
11. Ken Jeffries, FDOT D6, [ken.jeffries@dot.state.fl.us](mailto:ken.jeffries@dot.state.fl.us)
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13. Yongqiang Wu, Gannett Fleming, [Yongqiang.wu@gfnet.com](mailto:Yongqiang.wu@gfnet.com)
14. Franco Saraceno, Gannett Fleming, [fsarasceno@gfnet.com](mailto:fsarasceno@gfnet.com)
15. Jessica Josselyn, Kittelson & Associates, Inc., [jjosselyn@kittelson.com](mailto:jjosselyn@kittelson.com)
16. Thuha Lyew, Kittelson & Associates, Inc., [flyew@kittelson.com](mailto:flyew@kittelson.com)
17. John Zegeer, Kittelson & Associates, Inc., [jzegeer@kittelson.com](mailto:jzegeer@kittelson.com)
18. Arturo Perez (by phone), Leftwich, [ajp@lce-fl.com](mailto:ajp@lce-fl.com)
19. Larry Foutz, Miami-Dade MPO, [lfoutz@miamidade.gov](mailto:lfoutz@miamidade.gov)
20. Wilson Fernandez, Miami-Dade MPO, [Wilson@miamidade.gov](mailto:Wilson@miamidade.gov)
21. Carlos Roa, Miami-Dade MPO, [rcf@miamidade.gov](mailto:rcf@miamidade.gov)
22. Paul Larsen, Palm Beach MPO, [plarsen@pbcgov.com](mailto:plarsen@pbcgov.com)

23. Vinod Sandanasomy, Palm Beach MPO, [vsandanasomy@pbcgov.org](mailto:vsandanasomy@pbcgov.org)
24. Sandeep Obulareddy, The Corradino Group, [sobulareddy@corradino.com](mailto:sobulareddy@corradino.com)
25. Srin Varanasi, The Corradino Group, [svaranasi@corradino.com](mailto:svaranasi@corradino.com)
26. Andrew Velasquez, URS/FDOT Turnpike, [andrew.velasquez@dot.state.fl.us](mailto:andrew.velasquez@dot.state.fl.us)

## **MEETING NOTES**

Below is a summary of the key points discussed at the meeting. The comments have been organized by agenda topic.

### **I. Call to Order and Introductions**

Wilson Fernandez called the meeting to order and everyone introduced themselves. After introductions Wilson made the point that we have an ambitious agenda with lots of action items that we need to get passed today.

### **II. Needs Plan Development Methodology**

Rob Schiffer presented the methodology for developing the Needs Assessment. A common background network is needed for developing the Needs Plan. The E+C and 2030 Cost-Feasible plans are available in the current version of SERPM. Rob suggested that the 2030 Cost-Feasible Plan would be a good background network since these projects would likely be included in any 2035 needs alternatives. Recent LRTP amendments could also be incorporated.

Ossama said that it would be much easier if we were to use the E+C network. We would coordinate cross-county improvements to make the appropriate adjustments. If FDOT takes charge of the coding, then we could use the 2030 network. Shi-Chiang Li asked the question: do we need to identify the regional needs to develop a Needs Plan for an individual county? If yes, then we need to determine how to use the model to create this network. Larry Foutz said at the time that the scope for this RL RTP project was developed, the assumption was that the Needs Network would serve as a basis for testing alternatives. . In determining the needs assessments, the E+C network is sufficient. Then the three county Needs Plans can be aggregated by the regional LRTP team and identify inconsistencies. Carlos Roa said that all three counties have already used the E+C plans to identify deficiencies. Phil Steinmiller said that the starting point would be the E+C network except for the cross-county (regional) corridors, where the Cost-Feasible Plan projects should prevail.

Rob reminded the group that the 2030 Cost-Feasible Plans have already been coded, except for project amendments. Larry Foutz said that each county should have the ability to run Needs scenarios on any network that they choose. Wilson noted that each county would still develop their own Needs networks (lists of projects to be considered). The background network would be provided to the MPOs and their consultants to code these projects into a Needs Plan. Each county would then run scenarios to test specific projects. The E+C network requires the county to make assumptions about what will happen in the other two counties. In Palm Beach County, the transit needs will not be based on the travel demand model. One Needs Plan will be developed. Three Cost-Feasible Plans will be developed (roadway emphasis, transit emphasis, and blended). One plan will then be selected. Phil Steinmiller says that since there is divergence among the Cost-Feasible Plans, then in each county, the problem is that needs projects will need

to be removed and then recoded. Phil thinks that the 2030 cost-feasible network could represent 2035 needs projects since 2035 funds will be less than 2030 funds. In Miami-Dade, there are some major facilities under consideration for the 2035 Needs Plan that are not in the 2030 Cost-Feasible Plan.

This motion was passed unanimously: In order to create a regional needs network, each county will individually develop a list of projects that describes their project needs. The three counties will provide this list of projects to FDOT D4 and their consultants, who will then code a network that includes the three county lists of projects. The regional consultant will then review the list of projects for inconsistencies and bring those inconsistencies to this group for comment. (At that point, each county can test alternative needs scenarios using the regional model.)

### **III. Model Performance Measurement Tools and Statistics**

Rob presented a set of performance measures that have been derived from models during previous LRTPs and that could be used to assess projects either for the regional plan or for the individual county plans. He led the group through a presentation and discussion of quantitative measures by model step and indicated which of these are currently produced by SERPM as outputs and which are not, or are only measured regionally (i.e., not by individual county). FDOT and their consultants indicated that most regional performance statistics could also be summed by County through additional scripting work with SERPM. FDOT D4 agreed to add average trip lengths and transit trips by county as SERPM outputs.

A discussion ensued on the pros and cons of intrazonal trips - relates not only to land use mix, but also the zone size and congestion on adjacent corridors. A point was made that percent of population and employment within ¼ mile of transit can also be impacted by the transit projects in the alternative. We could substitute "attractions" within ¼ mile in place of "employment". VHT/HH might be a better mobility measure than VMT/HH. HBW transit trips are still the same thing as AM trips in mode choice within SERPM. It was suggested looking at the relationship between linked and unlinked transit trips as a passenger convenience measure.

After measures of effectiveness (performance measures) have been chosen by the counties, these measures will be provided to the regional consultant, FDOT, and their consultants. The measures of effectiveness should be quantitative, not qualitative, as the alternatives will largely be judged based on differences in quantitative measures. "Cost per unit of facility" added should be considered against improvement in travel time or mode shift to transit. An integrated transportation-land use model (which is not available to us) would allow us to measure sustainability. While the group had a few comments, there was no motion provided at this time.

### **IV. Understanding v/c Ratios**

A study was conducted at the intersection of Atlantic Boulevard and U.S. 1. This intersection is operating at a volume-to-capacity ratio of approximately 1.0 for the westbound through lane group. The approach delay averages at about 70 seconds per vehicle. The average queue length is about 34 vehicles at a v/c ratio of 1.0. The conclusion of this research was that v/c is not necessarily a good surrogate for highway level-of-service. However, when we convey v/c ratios

to the public, we can relate this to measures that they understand, like queue length, signal failures, or seconds of delay. Likewise, no motion was made to address the use of  $v/c$  ratios.

## **V. Other Business**

This group was formed to deal with project-based modeling issues in addition to the regional LRTP. FTA will have a modeling workshop in March that may provide guidance on the question of what background network will be assumed for the FEC Corridor in the Needs Plan for the region. The question that we should address is whether any major capital transit improvement is cost-feasible. The FTA New Starts process includes an attempt to verify the modeling for a future transit corridor. There is separation between the New Starts process and the LRTP.

ETDM will be required for all Needs Plan projects that are federally-funded. The Cost-Feasible projects must have projected volumes included with the list of projects.

The minutes from the last meeting were approved.

## **VI. Schedule**

The Needs assessment list should be submitted and ready for coding no later than February 13. A mid-March review of the Needs network will then occur. The projects should have termini and number of lanes. A GIS format or model format would be preferred. This network will then be coded by the Corradino Group. We will tentatively have our next meeting on Wednesday, March 11. This will allow for the Regional Needs model to be completed in April.