FSUTMS and TBEST in FTA New Starts and Small Starts Projects

presented to
MTF Transit Committee

presented by
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The Project

- Development of FSUTMS and TBEST Modeling Guidelines for Local Transit Agencies in Florida Entering into the FTA Starts Process
Changes in Starts Project Evaluation

- FTA changing criteria for evaluation of transit projects
- Currently preparing an Advanced Notice of Proposed Rulemaking
- Comments gathered and Notice of Proposed Rulemaking will be released in next 18 months
## Project Tasks & Schedule

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<tr>
<th>Month</th>
<th>Jan</th>
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<td>Task 1</td>
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**Technical Advisory Group Meeting**
Task 1
Review of Travel Forecast Analysis Requirements for FTA New Starts and Small Starts Projects

- Submission Specifications
  - Travel Forecasts Template
  - Other Required Reports
    - Changes over Time
    - Changes between Alternatives
    - Quality Control
  - Optional Reports
    - Back-Up Materials
    - Case for the Project
    - Supplementary Data (ARRF, Off-Model Estimations, etc.)
- Certification of Technical Methods
- Documentation of Uncertainties
Task 1
Review of Travel Forecast Analysis Requirements for FTA New Starts and Small Starts Projects

- Travel Forecasting Tools
  - Regional Travel Demand Models
    - FSUTMS in Florida
  - SUMMIT Model
    - Developed by FTA to Evaluate User Benefits
  - Supplementary Applications
    - ARRF
    - TBEST
    - Alternative-Specific Effects Analysis
  - Off-Model Methodologies
Task 1
Review of Travel Forecast Analysis Requirements for FTA New Starts and Small Starts Projects

• New Starts
  • Total Cost Greater than $250 Million
  • 20- or 25-Year Forecast Horizon
Task 1
Review of Travel Forecast Analysis Requirements for FTA New Starts and Small Starts Projects

- **Small Starts**
  - Under $75 Million per Year (Total cost less than $250 million)
  - Opening Year Forecast

- **Very Small Starts**
  - Less than $3 Million per Mile (Total cost less than $50 million)
  - Current Ridership Counts
    - Off-Model Mobility Impact Assessment Calculations
    - Requires 3,000 existing weekday riders to benefit from project
Task 2
Review of TBEST for New Starts and Small Starts Applications

- Methodologies
  - Stop-Level Socio-Economic Data
  - Stop to Stop Impedance Matrix
  - Transit Network Inter-Relationships
  - Transit Network Accessibility
  - Direct and Transfer Boardings Estimation
Task 2
Review of TBEST for New Starts and Small Starts Applications

- Input
  - Socioeconomic Data
  - Transit Network
  - Ridership Counts (Route/Stop)

- Output
  - Impacts of Service Changes
  - Land-Use Analysis
  - Query Analysis
  - Route-Level Service Performance Reporting
Task 2
Review of TBEST for New Starts and Small Starts Applications

- Starts Project Application in Florida
  - Feasibility Study Tool
  - Supplementary Measure of Aggregate Ridership

- Potential for Further Development for Application
  - Method of Determining Access Mode
  - Techniques for Alternative Comparison
Task 3
*Review of the FSUTMS Model for New Starts and Small Starts Applications*

- **Data Requirements**
  - Travel Characteristics Data
  - Transit On-Board Surveys
  - Highway Speed and Count Data
  - Transit Speed and Ridership Count Data
Task 3
Review of the FSUTMS Model for New Starts and Small Starts Applications

- Model Processes Related to Starts Projects
  - Major Markets & Travel Patterns
  - Highway Network: Path & Speed
  - Transit Network: Path & Speed
  - Mode Choice Coefficients & Constants
  - Assignment
Task 3
Review of the FSUTMS Model for New Starts and Small Starts Applications

- On-Going Starts Project Application in Florida
  - Tampa Rail Project by HART
  - South Florida East Coast Corridor Study by FDOT 4
Task 4
Analysis of Acceptable Methodologies Used in FTA Starts Projects

- Florida Projects
  - Looking for Florida Submissions
    - Templates/Application Materials
    - Study Details
    - Forecasting Documentation

- National Projects
  - Looking for National Submissions
    - Templates/Application Materials
    - Study Details
    - Forecasting Documentation
Task 5
Development of Recommendations for Use of TBEST & FSUTMS in Starts Applications

- TBEST
- FSUTMS
Task 6

The Florida Guidebook for Model Application in FTA New Starts and Small Starts Projects

- Review of TBEST Methodologies
- Review of FSUTMS Methodologies
- Acceptable Methodologies Used in Existing Submissions
- FTA Requirements
- Recommendations for Enhancement of TBEST & FSUTMS

Florida Guidebook for FTA Starts Forecasting
Task 7
Technical Advisory Group

Meetings: March 15, June 23, & August 25

20 Members from:
- FTA
- FDOT
- MPO
- Transit Agencies
- Universities
- Consultants
Questions or Comments?

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