Transportation Systems and Operations (TSM&O)

FSITE and ITS FL Joint Meeting
November 2, 2017
TSM&O Program Overview

Freeway, arterial and transit performance
Actively manage the multimodal transportation network
Positive safety and mobility outcomes

A real-time approach involving “taking back” capacity lost due to
• Recurring congestion
• Congestion created by traffic incidents
TSM&O Program Overview

Current Challenges in South Florida

• Congestion
• Incident Management
• Organizational
• Funding

Strategies and Priorities

• Reflect greatest needs (safety, traffic, and transit)
• Based on needs (typical day)
• Includes state and non-state roads
Transportation Management Center (TMC)

Broward SMART SunGuide Regional TMC

- Broward County Traffic Engineering Division
- Arterial operations Monday through Friday 7:00 A.M. to 7:00 P.M.
- Freeway operations 24/7 365 days
- Integrating operations
TSM&O Strategies

Traffic Management
- Traveler Information Systems
- Event Management

Intelligent Transportation Systems
- Traffic Detection and Surveillance
- Adaptive Traffic Control

Supporting Programs
- Road Rangers
- Integrated Corridor Management

Modal Management
- Freight and commercial vehicle
- Bus Rapid Transit

Other
- Traffic Management
  - Traveler Information - Weather, Incidents, Delay
  - Traveler Information Systems (for roadway and transit)
  - Incident Management
  - Emergency Management
  - Special Event Management
  - Work Zone Traffic Management
  - Managed/30 lanes
  - Road Weather Management
  - Freeway Management
  - Travel Demand Management
  - Ramp Signals

- Intelligent Transportation Systems
  - 511
  - Regional Traffic Management Centers
  - Regional Traffic Signal Coordination
  - Synchronized Traffic and Adaptive Signals

- Supporting Programs
  - Policies - Quick Clearance Agreement/Open Roads Policy
  - Performance Measurement
  - Data to Support Decision Making
  - Collaboration
  - Systems/Technology
  - Maintenance
  - Outreach
  - Planning

- Modal Management
  - Freight Management
  - Bus Rapid Transit
  - Commercial Vehicle Operations
  - Coordination of Highway, Rail, Transit, Bicycle, and Pedestrian Operations
  - TSP Queue Jump

- Other
  - Electronic Payment/Toll Collection
  - Public/Private Partnerships
Partnerships – Broward Example

• Interagency Coordination
  • South East Florida Regional TMC Operations Committee
  • Broward County Traffic Engineering Division
  • FL 511 Interactive Voice Response System and companion website www.fl511.com
• Traffic Incident Management
• Local Law Enforcement and Fire Rescue
• Special event management
• Broward County Transit
• Regional TSMO Subcommittee (Miami-Dade, Broward, Palm Beach) – FDOT, MPOs, operating agencies, transit
• Port and airport (future)
Demonstrated Benefits

- Data Automation
- Weather Events
- Work Zone Management
- Signal Retiming Activities
- Interagency Coordination
Why Create a TSM&O Master Plan?

- Provide mobility solutions where capacity is limited
- Prioritize based on needs and opportunities
- Leverage existing infrastructure
- Use resources effectively and efficiently
Master Plan – Collaboration & Coordination

Plan, design, install/build, operate and maintain
- Traffic agencies
- Transit Agencies
- MPOs/TPOs
- FDOT districts

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FDOT support
Master Plan steps:
- Strategic Network
- Define projects
  - Extend current
  - Other corridors
  - Small segments
- Prioritize
- Program
TSM&O Implementation based on Master Plan

• Leverage opportunities and integrate with existing state projects
  • Tentative Work Program
  • Long Range Transportation Plan
• Define Standalone Projects
• Partner Requests
  • MPO local program initiatives
  • Safety
  • Transit corridors and hub access
  • Freight
  • Seaport/Airport
Planned Projects as result of Master Plan

Palm Beach County
- US 1 – Broward County line to Spanish River Blvd
- SR 80 – Fiber connection for fog detection

Broward County
- SR A1A – Fort Lauderdale beach/Port Everglades
- Commercial Blvd – CO
- Hallandale Signal Performance – CO
- Rail Monitoring at SR 84

TSMO Push Button Contract

Integrate and coordinate with agencies to optimize arterial and freeway efficiency and capacity
Key Outreach Points

• Technology supports mobility solutions
• Keep learning and trying new ideas as technology advances
• Collaboration and coordination is integral to successful strategies
• Desire to collaborate and coordinate with more agencies
• Plan, design, build, operate, and maintain applies to TSM&O
• Master Plan is a tool to help focus priorities and investments
Jonathan Ford
TSM&O Program Development Manager
FDOT District Four Traffic Operations
(954)777-4380
Jonathan.Ford@dot.state.fl.us

Karen Kiselewski
Cambridge Systematics
(954)331-6116
kkiselewski@camsys.com