

Traffic Management Centers and Traffic Incident Management Lessons Learned

26th NEITS Annual Interchange

Thursday, October 9, 2025
Boston, MA

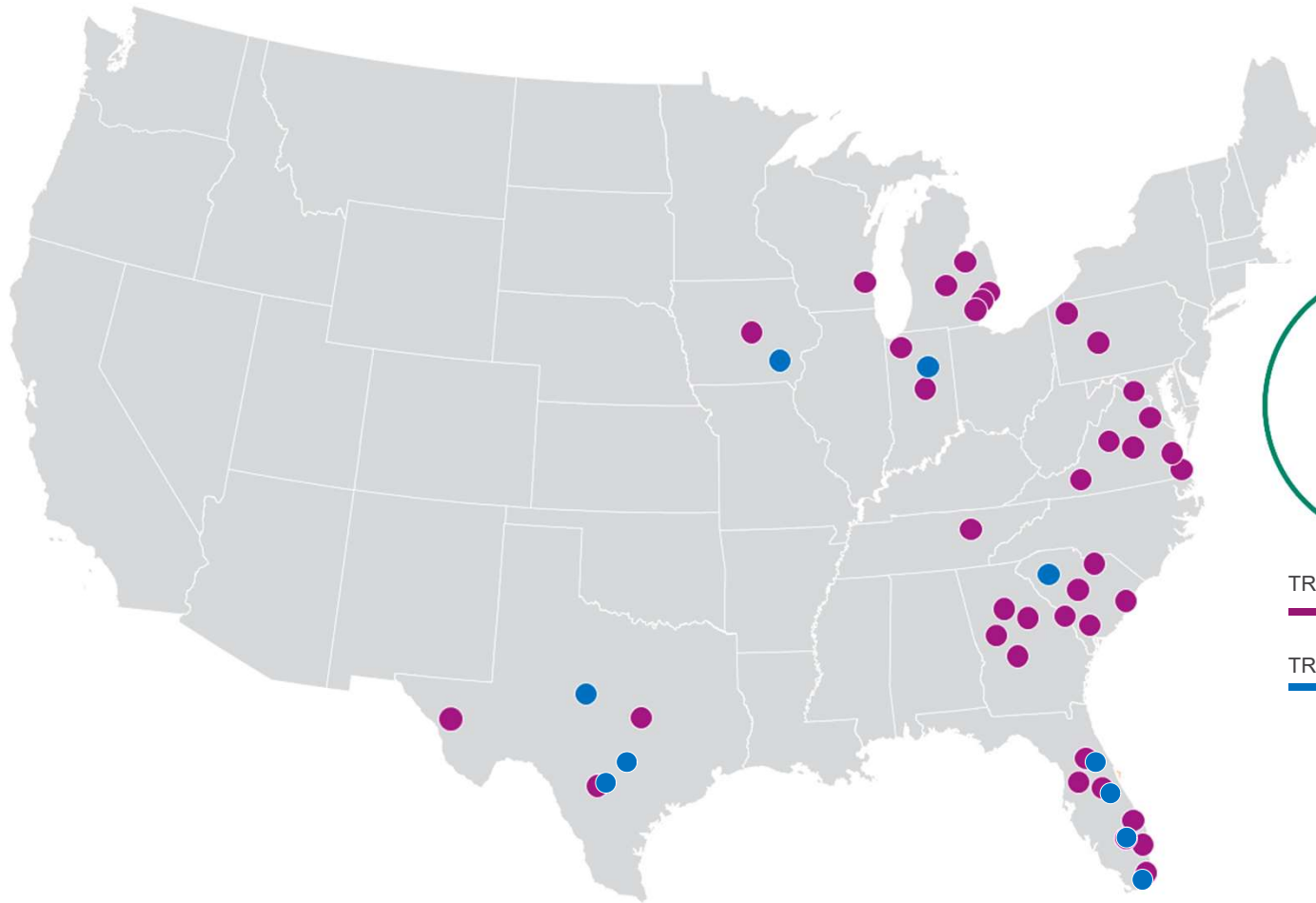
About

Robert 'Bob' Murphy



- 25 Years of ITS & Traffic Incident Management (TIM) Experience
- Graduated from Temple University, BA in Communications
- Lead SME for AECOM's North American TIM Operations, 6 Projects and Numerous Primary Consultant Contracts
- Based in West Palm Beach, FL

AECOM TMC Experience

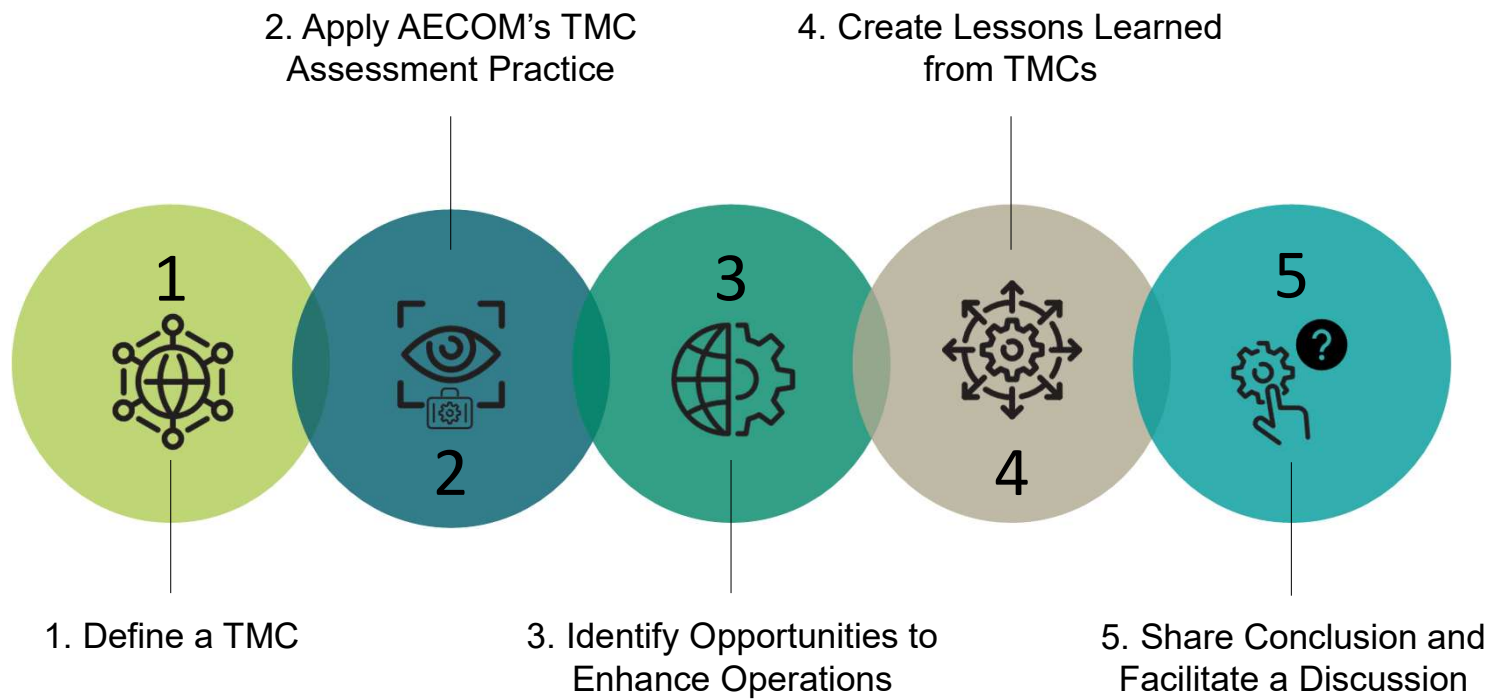


42
TMC/TIM Projects

TRANSPORTATION MANAGEMENT CENTER (TMC) PROJECTS

TRAFFIC INCIDENT MANAGEMENT (TIM) PROJECTS

Topics and Outline



1

Define a TMC

What is a TMC?

A TMC is...



A TMC is...



A TMC is...



A TMC is...



A TMC is...



A TMC is...



A TMC is...



A TMC is...



2

Apply AECOM's TMC Assessment Practice

Assessment Process Overview

Assessment Process Overview

1

Pre-Assessment
Kick-Off

2

On-site
Assessment

3

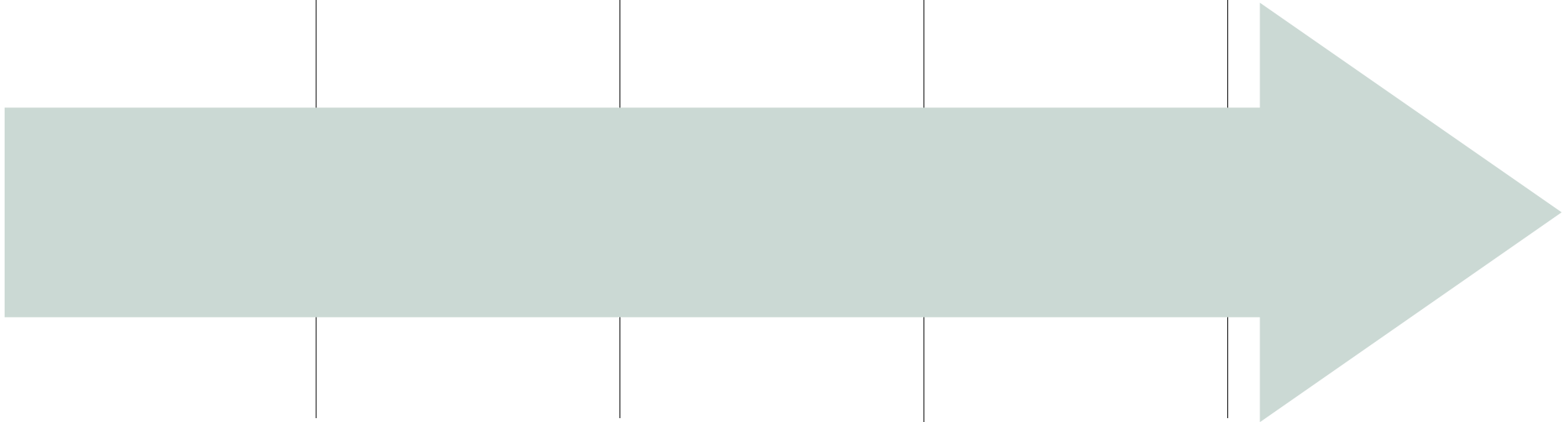
Summarize
Findings

4

Research
Solutions

5

Present Assessment
Results



Assessment Process Overview

- TMC Conditions
- TMC Observation
- TMC Training
- Human Resource Compliance
- Safety Awareness
- Audits and Quality Control
- Staffing Protocols
- Documentation
- Other Specialized Functions:

- Operator and Management Assessment
- Traffic Incident Management
- Dispatch Functions
- Emergency Operations
- Signal / Arterial Operations
- Performance Metrics
- ATMS Details
- Asset and Maintenance Mgmt. Functions
- Unique Services Performed

Evaluation Criteria

In-House Quick Fix

The recommended enhancement would be simple to incorporate from the existing program management and front-line staff.

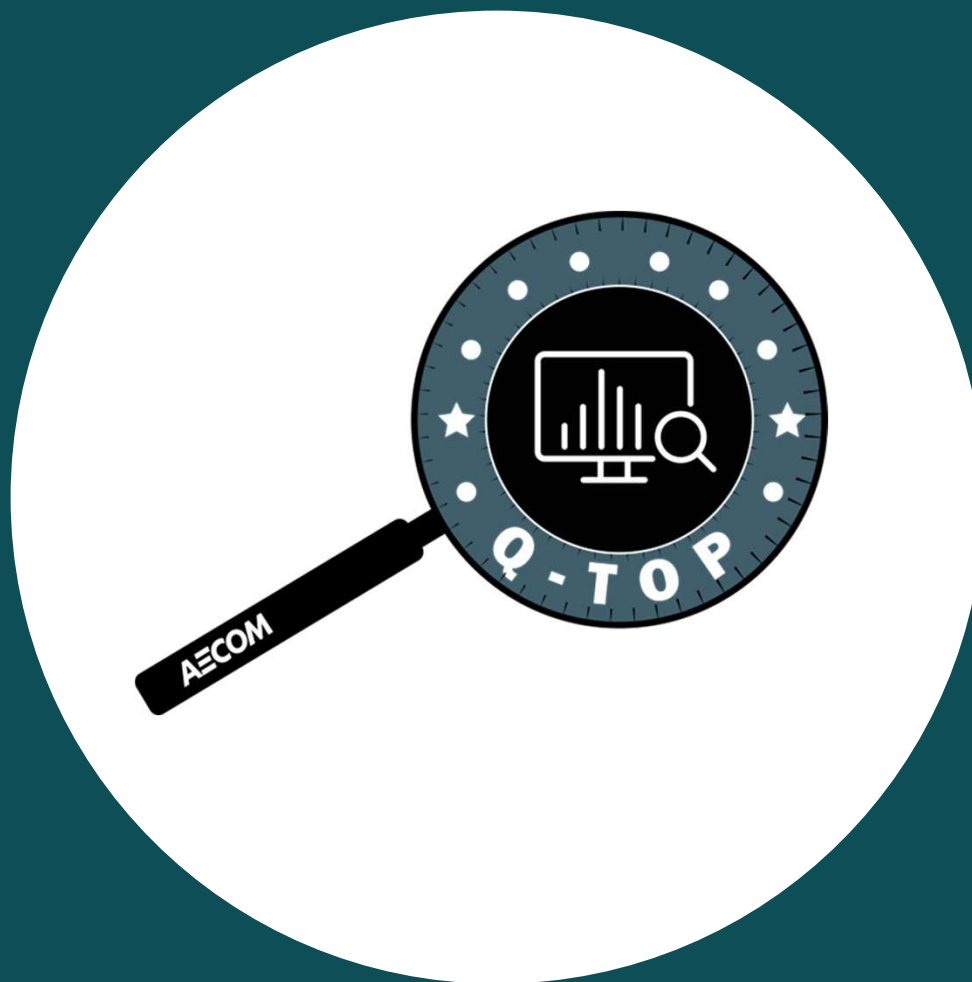
Investment

The TMC operation would incur a financial impact (big or small) to accommodate this recommendation.



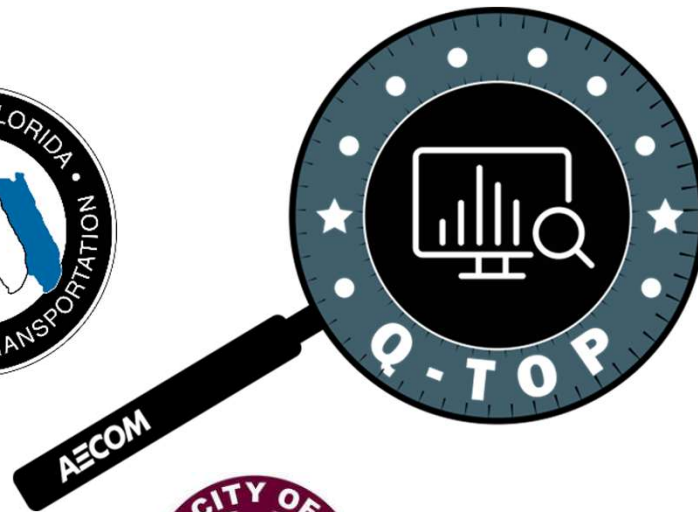
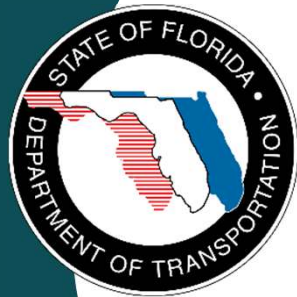
Awareness Only

The topic being presented is intended for awareness only. It should not be considered a high priority but could be addressed in the future to further polish the operation.





AECOM



Delivering a better world

 aecom.com

3

Identify Opportunities to Enhance Operations

Top 5 Strategies for Streamlining Processes

Opportunities Identified

Subject Area: Standardized Procedures

Findings

- Outdated or absent Standard Operating Procedures (SOP)
- Non-uniform processes
- No correlation to staff training

Recommendations

- Develop and maintain SOP
- Create Quick Reference Guides (QRGs)
- Promote accessibility



Opportunities Identified

Subject Area: Concept of Operations (ConOps)

Findings

- Lack of ConOps
- Limited services
- Outdated ConOps

Recommendations

- Identify a “Program Champion”
- Develop a ConOps – it is never too late!
- Engage stakeholders



Opportunities Identified

Subject Area: Maintenance Management

Findings

- Lack of Asset Management System (AMS)
- Overlooked warranties
- No inventory management
- Missing trouble ticket system
- No hardware replacement plan

Recommendations

- Acquire AMS
- Implement barcoding
- Develop maintenance plans
- Establish obsolescence schedule



Opportunities Identified

Subject Area: TIM Training

Findings

- Lack of Shared Training Resources
- Inconsistent Knowledge of Policies Between TMC and First Responders
- Disconnect Between Urban and Rural Training Opportunities

Recommendations

- Develop a resource and contact database (statewide)
- Schedule joint agency TIM training programs (solicit hot topics)
- Host regional tabletop exercises and training opportunities



Opportunities Identified

Subject Area: Traffic Incident Management Program

Findings

- Poor participation, missing agencies
- Limited responses to FHWA TIM Self-Assessment
- Lack of mission

Recommendations

- Dedicate leadership to the program, identify first responder champions
- Creation of TIM Committees that are chaired by first responders
- Implement a 'Program Charter'



4

Create Lessons Learned from TMCs

Top 5 Best Practices for Traffic Management Centers

Innovations Realized

Subject Area: TMC / TIM Outreach Programs

Findings

- Statewide First Responder Educational Sessions
- Shared Training Program Facilitation and Audiences
- Tailored Performance Measure / Mobility Reports



Innovations Realized

Subject Area: Facility Utilization

Findings

- Agency Colocation
- Effective Use of Space
- Video wall considerations



Innovations Realized

Subject Area: Continuity of Operations

Findings

- Establishment of backup locations
- Availability of remote access
- Network, operations, and communication redundancy testing



Innovations Realized

Subject Area: TIM Program Integration into TMC Operations

Findings

- Joint Leadership Meetings (TMC, TIM, Motorist Assist)
- Mutually Beneficial User-Driven Dashboard Development
- TIM and TMC SOP Integration and/or Cross Reference



Innovations Realized

Subject Area: Artificial Intelligence (AI)

Findings

- Decision Support Systems, Incorporation and Enhancements
- Predictive Analytics
- Discussion on use of AI in TMC operations



Thank you.

Robert Murphy
Robert.Murphy2@aecom.com
561-214-0005