

TSM&O Focus Area: Operations/ITS

Planning	PD&E/Design
<ul style="list-style-type: none"> • Annual Traffic Trends Report identifies areas of “high efficiencies” to target improvement projects (short and long term) • Prioritization process – projects are placed on a list and selection occurs by committee with some B/C analysis; consideration of high crash locations significant • Committee composition: typically director of transportation and dept. heads, highway operations • Recent trend is to implement smaller projects with less available money • MPOs do not identify deficiencies on turnpike; project identification done by turnpike and work with MPO to place projects on TIP • Feedback takes place through traffic operations center results/reviews • Currently working on incorporating data into annual traffic trends report and identifying problem areas; also the use of toll, Bluetooth, and Inrix data to forecast and assist in planning • Issue – data overload, challenging to compile and turn into usable format 	<ul style="list-style-type: none"> • TSM is part of the PD&E process • Process includes routine examination of TSM&O options • ERC reviews offer opportunity for input • Several checkpoints exist for incorporating TSM&O into proposed designs • No formal post-project evaluation process specific to PD&E, although there is information feedback from contractors after construction is complete that could involve PD&E • VE and critical examination on all design is encouraged
Traffic Operations/FHP/PIO	Construction
<ul style="list-style-type: none"> • Traffic operations takes lead on identifying unmet needs across turnpike and feeding information back to other functional areas • Considers direct customer feedback • When projects are under construction, actively promotes use of existing infrastructure to improve delivery • Receives suggestions for analysis areas from FHP (e.g. high crash areas) • Feedback received from plaza managers – good for identifying repeat issues • TMC is promoted as clearinghouse for issue identification 	<ul style="list-style-type: none"> • Use DMS to communicate to customers, use cameras to check on traffic flow in work zones • Work with PIO and use of social media • Work with traffic operations and production on planning and coordinating closures and diversions • Active traffic payment mechanism (European incentivized contracting method) – looking for pilot project on which to implement • Lane closure review and analysis process informs best time to have lane closures, realtime approval process applied and notification of appropriate TMC takes place

Roadway/Facilities Maintenance	
<p>Roadway Maintenance</p> <ul style="list-style-type: none"> • Manage hurricane evacuation and major plans • Post-evacuation procedures and reporting in place • Manage Road Rangers • Manage communication process for tandem trucks in closures/special events • RISC program contract falls under roadway maintenance 	<p>Facilities Maintenance</p> <ul style="list-style-type: none"> • Manage communication process for toll suspension • Manage reporting procedure for facilities damage and resultant traffic problems
Toll Operations	Business Development/Concessions
<ul style="list-style-type: none"> • Input on traffic patterns and anomalies provided by plaza managers • Coordinate on lane closures and toll suspensions with input from FHP • Response teams in place to react to weather or crash events – coordinated with Ops • Change Control Board (maintenance, engineering, revenue collection) approval process and review • Smaller, toll-specific projects not communicated to Ops, larger projects (like AET) are communicated 	<ul style="list-style-type: none"> • Plaza issues (no fuel, closed restrooms) communicated to TMC for DMS • Service plazas incorporated into emergency evacuation plans • Traffic information (public info display) provided at some pumps, further deployment planned

Key Focus for Improved Operations/ITS Capability: PERFORMANCE MEASUREMENT	
Current Level of Capability	Target Level of Capability and Actions
<ul style="list-style-type: none"> • Level 2 	<ul style="list-style-type: none"> • Level 3 • Use future congestion pricing use data and existing traffic data sources for the purpose of identifying customer oriented metrics (outcomes like travel time reliability) to justify project expenditures and improve customer service • Articulate these outcomes measures to rest of department and customers

TSM&O Focus Area: Traffic Management

<p>Planning</p> <ul style="list-style-type: none"> • Currently looking at TDM and managed lanes • Shoulder use gaining increasing scrutiny • Need to examine cost/benefit of shoulder use versus more costly capacity improvement • Some corridor management evaluation performed related to interchanges • FTE contributing to Central Office development of policy for managed lanes • No process for after-project evaluation and measurement to compare to B/C projections • Consider developing a more standardized process for project benefit measurement (done with small operations improvements but not larger projects) 	<p>PD&E/Design</p> <ul style="list-style-type: none"> • Planning recommendations routinely followed by PD&E • Issue for improvement: there is no mechanism for increasing Road Ranger coverage in work zones as identified during design due to existing contract limitations
<p>Traffic Operations/FHP/PIO</p> <ul style="list-style-type: none"> • Turnpike has often played a leadership role in improving and institutionalizing process coordination among TMCs (turnpike and other districts) 	<p>Construction</p> <ul style="list-style-type: none"> • [same remarks as Operations/ITS] • Focus on analyzing crash locations and causes in work zones and implementing active traffic payment
<p>Roadway/Facilities Maintenance</p>	
<p>Roadway Maintenance</p> <ul style="list-style-type: none"> • Issue: balancing rumble strip deployment and potential shoulder use 	<p>Facilities Maintenance</p> <ul style="list-style-type: none"> • Priority focus on clearing incidents and securing lanes

Toll Operations	Business Development/Concessions
<ul style="list-style-type: none">• Intimately involved in ETC – goal is 75% coverage in urban areas• Recent emphasis on examining managed lanes• Participate in monthly production and AET meetings (e.g. provide input on gantry design and placement of buildings)	<ul style="list-style-type: none">•

TSM&O Focus Area: Modal Management

<p>Planning</p> <ul style="list-style-type: none"> • Consider reuse of toll plaza space no longer in need due to AET <ul style="list-style-type: none"> ○ Prioritizing park-n-ride lots ○ Considering staging areas for tandem truck operations, i.e. need for building up/breaking down trucks when they enter/exit turnpike system • Opportunity to make freight a preferred customer applying above initiatives in combination with technology deployments (realtime info) • Service plaza renovations incorporating conduit for parking spot electrification • Recommend deployment of small roadside signage with truck parking info (like existing service plaza gas price signs) 	<p>PD&E/Design</p> <ul style="list-style-type: none"> • Multimodal considerations typically come from planning or TDM screens • Some recent discussion of buses on shoulders – would examine if requested • Bicycle consideration possible (overpasses)
<p>Traffic Operations/FHP/PIO</p> <ul style="list-style-type: none"> • Some staff involvement in broader freight modeling efforts • Involvement in turnpike interchange analysis that might require consideration of other modes and coordination with other entities (bus stops, pedestrian crossings) 	<p>Construction</p> <ul style="list-style-type: none"> • Need to emphasize pedestrian movement through work zones
<p>Roadway/Facilities Maintenance</p>	
<p>Roadway Maintenance</p> <ul style="list-style-type: none"> • Work with FHP to enforce tandem truck parking • Communicate with tandem trucks on interchange use during special events 	<p>Facilities Maintenance</p> <ul style="list-style-type: none"> •

Toll Operations	Business Development/Concessions
<ul style="list-style-type: none"> • Future study on single toll account for transit • Work with truck fleets and emergency response convoys on transponder distribution (prevents unnecessary suspension of tolls) • Team in place for truck fleet inspection on toll enforcement/compliance 	<ul style="list-style-type: none"> •

Key Focus for Improved Modal Management Capability: COLLABORATION	
Current Level of Capability	Target Level of Capability and Actions
<ul style="list-style-type: none"> • 1.5 (focus on relations with freight) 	<ul style="list-style-type: none"> • Clarify FTE’s policy toward freight customer service • Identify/define a one-stop shop for freight issues/customer relations <ul style="list-style-type: none"> ○ What are the responsibilities? ○ Where does it reside? ○ Consider formation of task force that covers several functional responsibilities

TSM&O Focus Area: Supporting Programs

<p>Planning</p> <ul style="list-style-type: none"> • Performance measurement discussed previously • P3 project delivery embedded in master plan process 	<p>PD&E/Design</p> <ul style="list-style-type: none"> • PD&E follows planning decision-making and recommendations • If project is proposed by developer, Design guides project development and approvals through necessary processes
<p>Traffic Operations/FHP/PIO</p> <ul style="list-style-type: none"> • Potential application focus is on system reliability and how it might feed into performance-based contracting 	<p>Construction</p> <ul style="list-style-type: none"> • Would like to focus on active traffic payment mechanism and its ability to enhance supporting programs
<p>Roadway/Facilities Maintenance</p>	
<p>Roadway Maintenance</p> <ul style="list-style-type: none"> • Focus: performance-based contracting 	<p>Facilities Maintenance</p> <ul style="list-style-type: none"> • Focus: performance-based contracting

Toll Operations	Business Development/Concessions
<ul style="list-style-type: none"> • Performance measurement and formal performance metrics in place for all aspects of tolling (SunPass, toll violations) • Currently performance metrics are very detailed – would like to bring them up to “higher level” • SunPass operation is 75-80% privatized • Goal: increase maintenance to 90% privatized (currently 80-85%) • Goal has been to do as much as possible through remote monitoring (repairs, maintenance) – accelerating use of this approach through SCADA 	<ul style="list-style-type: none"> •

TSM&O Capability Level Criteria Used Operations/ITS and Modal Management Key Focus Area Actions

	LEVELS OF CAPABILITY TO SUPPORT CONTINUOUS IMPROVEMENT TOWARDS FULL EFFECTIVENESS			
	Level 1	Level 2	Level 3	Level 4
Criteria for level	<ul style="list-style-type: none"> • Ad hoc • Fragmented • Informal 	<ul style="list-style-type: none"> • Identified • Understood • Rationalized 	<ul style="list-style-type: none"> • Organized • Standardized • Utilized 	<ul style="list-style-type: none"> • Integrated • Mainstreamed • Routinized

Additional Notes

1. Elizabeth Birriel gave the executive-level overview for TSM&O after self-introductions. NOTE: need to include FTE facilities on the TSM&O dashboard.
2. Steve Lockwood gave the national TSM&O overview presentation.
3. Ingrid Birenbaum introduced the soon-to-be-published FHWA TSM&O Cost-Benefit Desk Reference. NOTE: a copy of the draft guidebook should be placed on the TSM&O Workshop notes pages.
4. John Easterling spoke about Turnpike-specific TSM&O initiatives.
5. Ingrid Birenbaum facilitated the TSM&O workshop which led to a lot of interactive discussions that were captured in tabular format by Reno Giordano.
6. Elizabeth Birriel closed the workshop by outlining action items and speaking about the need to identify TSM&O focus areas and champions.