Advancing Mode Options in Managed Lane Projects

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Introduction and Overview
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Traveler Expectations are Changing with New Modes Available

Travelers increasingly expect to have **real-time, dynamic, actionable** information before and during their trip making.

Travelers use more and different forms of transportation than ever before.
Emerging Mobility Innovations

- Convergence and integration of infrastructure, services, technology, and policies leads to...
- New options, choices and efficiencies in personal travel for both residents and visitors in a community

Infrastructures
- Smarter Highways
- Managed Lanes

Technology
- Connectivity
- Automation
- Electrification

Services
- Shared Mobility
- Micro-mobility
- Public Transit

Policies
- Support sustainable transportation modes
- Pricing
Emerging Mobility and Managed Lanes

- Role of new Mobility on Demand (MOD) services
- Role of High Occupancy Vehicles (HOV) modes
- Role of subsidies and pricing
- Role of enhanced information
- Role of new players (e.g., Transportation Network Companies (TNCs) such as Uber and Lyft)
- Ability to fulfill objectives
- Impact on finances

How can emerging mobility and contemporary approaches to systems management help fulfill managed lane objectives?
Balancing User Choices and System Efficiency

**Users**
- Choices
- Convenience
- Individual Delay
- Price
- Time Sensitivity
- Cultural/Societal Factors

**System Perspective**
- Reliability
- Safety of Travel
- System Resilience
- Overall Delays
- System Efficiency
- Person capacity

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**Can emerging mobility options, enabling technology, and demand management enhance the overall effectiveness of managed lanes?**
Webinar Purpose

- Provide an understanding of contemporary approaches for enhancing alternative mode options in managed lanes projects
- Strengthen the linkage between traffic operators, travel demand management (TDM) professionals, private sector, and transportation planning professionals in these corridors to take advantage of emerging mobility models
- Elicit discussion on other ways to enhance choices
Upcoming Presentations

- Overview of linking Emerging Mobility and Transportation Management
- Three regional examples that showcase various approaches to enhance travel options for travelers within managed lane corridors
  - Northern Virginia (I-66 and I-395) *presented by Ben Owen NVTC*
  - Los Angeles County (I-10 and I-110) *presented by Silva Mardrussian LA Metro*
  - San Mateo County (US101) *presented by Mary Thomasmeyer, commute.org*
FHWA Transportation Management Resources

TDM Publications and Reference Materials
https://ops.fhwa.dot.gov/tdm/ref_material.htm
Additional FHWA Resources

- **Upcoming Webinar**
  - Advancing Demand Management in Resort Towns and Communities
    - Thursday, July 23, 2020 11am-12:30pm ET

- **Available Grant Programs**
  - Advanced Transportation and Congestion Management Technology Deployment Initiative (ATCMTD)
  - Complete Trip ITS4US
    - [https://beta.sam.gov/opp/09484974f0d04253b27f6469827ee4b5/view](https://beta.sam.gov/opp/09484974f0d04253b27f6469827ee4b5/view)
Opportunity for Leveraging Contemporary Demand Management and Emerging Mobility
Managed Lanes

- Managed lanes in the United States
  - High Occupancy Vehicle (HOV) Lanes (96)
  - High Occupancy Toll (HOT) Lanes (31)
  - Express Toll Lanes (ETL) (22)
- Most provides some preferential treatment for HOV and transit
- HOT lane projects often involved conversion of underutilized HOV lane
- Treatment of carpools varies across projects
Why Enhance Alternative Mode Options?
- Person Throughput
- VMT reduction
- Emission reduction
- Maximize choice

How to Enhance Choices with Emerging Mobility
- Information technology (traffic, mode/route options)
- Rideshare apps
- First/last mile solutions
- Reward programs
Approaches provide travelers with choices throughout the trip chain leading to network performance optimization and increased efficiency.

Key Takeaway: Active management occurs before, during, and at the end of the trip chain.
“MOD envisions a safe, reliable and carefree mobility ecosystem that supports complete trips for all, both personalized mobility and goods delivery.”
Providing Choices to Travelers

- Active transportation infrastructure
- Microtransit/On-demand shuttles
- Dynamic parking management
- Priority treatment for transit and carpooling
- Automated shuttles
- Incentives and Marketing
For Choices to be Effective

- A traveler or a potential traveler must
  - Be aware of available choices
  - Be able to make a choice in a convenient manner
  - Be able to trust in the reliability of the choice
Effective Choices Depend on Partnerships

- **Public – Public**
  - DOT/DOT Coordination
  - DOT/Transit Coordination

- **Public – Private**
  - First and last-mile solutions
  - Incentives

- **Public – Traveler**
  - Citizen Engagement

- **Private – Traveler**
  - Shared Mobility
  - New Travel Options
  - Incentives
The Opportunity

- Provide reliable and safe travel choices in an equitable manner
- Leverage synergies between programs that are historically silo-ed
- Adapt to changing environment that is blurring the lines
- Provide a framework for advancing integrated, holistic transportation management programs