



# HOV, HOT, and Managed Lanes: A Tool in ATDM

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# Agenda

- Overview of Active Transportation and Demand Management
- ATDM Examples
- The role of HOV, HOT, and Managed Lanes in ATDM



## Active Transportation and Demand Management

- Active Transportation and Demand Management (ATDM)
- Blending of travel demand management and active traffic management
- Focused on action and management

**Static**

**Responsive**

**Proactive**



# Tenets of ATDM

- Dynamic management and control
- Pro-active approach
- Addressing congestion before breakdown
- Transportation supply and demand
- Reliability as a central objective



# Motivation for ATDM

- Outcomes
  - Reliability
  - Mobility
  - Safety
  - Environmental sustainability
  - Economic competitiveness
  - Accountability for performance

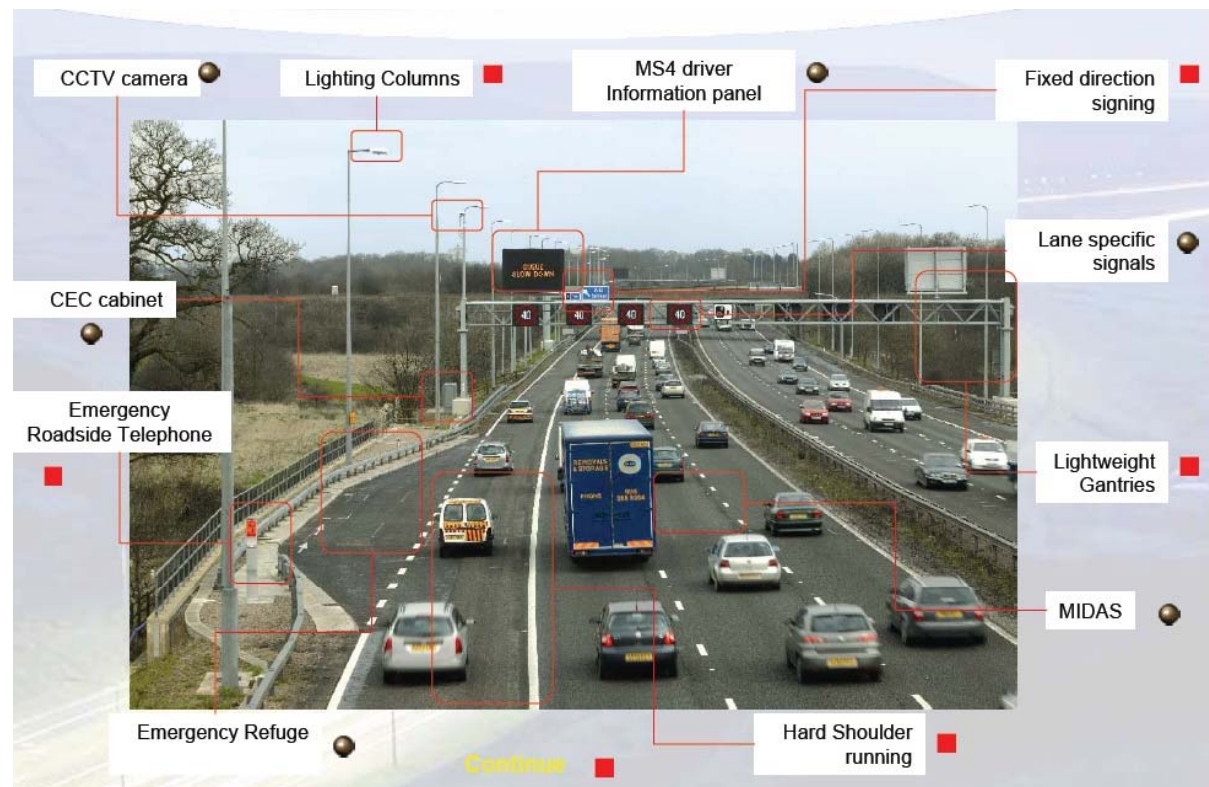


# Genesis of ATDM

- International Experiences
  - Successful ATM and MTD Integration
  - United Kingdom, Netherlands, Germany, . . .
- Domestic Experiences
  - Successful UPA deployments, ICM development, and MTD adoption
  - Seattle, Minneapolis, Miami, San Diego, Dallas, . . .

# ATM-M42 Birmingham, UK

- Hard shoulder running
- Dynamic speed control
- CCTV
- Refuge areas
- Information panels
- Enforcement

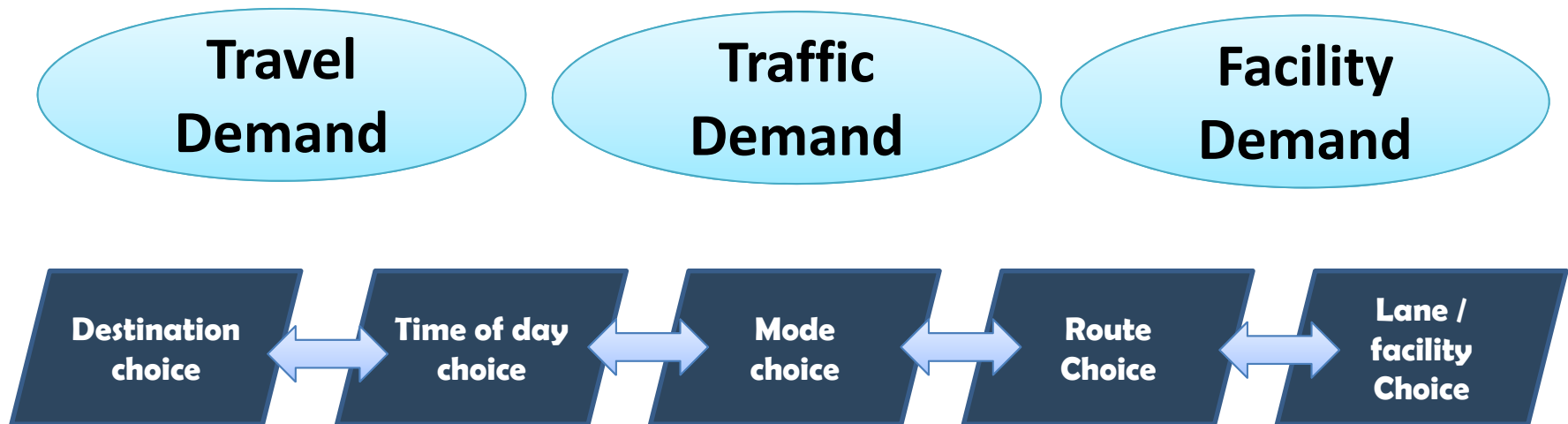


# ATM-Seattle

- Variable speed limits
- Lane control
- Real-time traffic information



# Trip Chain



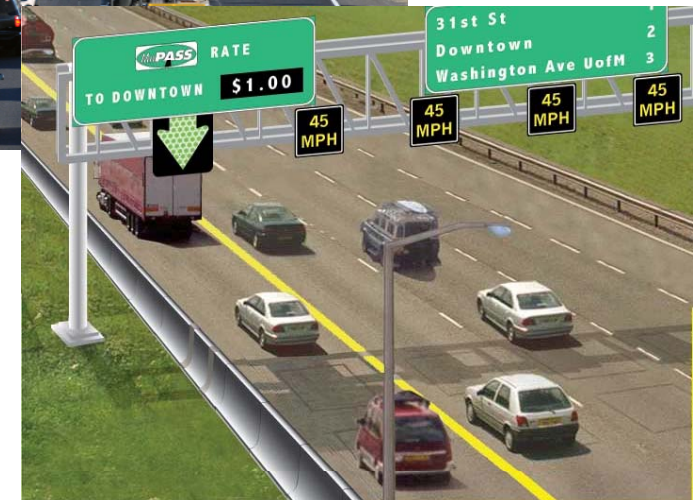


# HOV, HOT, and Managed Lanes in ATDM

- Dynamic strategies influence traveler decisions along the trip
- Increase system user options
- More efficient use of current infrastructure

# ATM-Minneapolis

- Priced Dynamic Shoulder Lane (PDSL) and lane controls
  - Intelligent lane control signals
  - Advisory variable speed limits
- Choice for SOV for fee
- Car-and vanpoolers and bus users have free access and priority use
- Automated fee collection





# Dynamic Ridesharing

- Social networking and smart phone driven
- Fully on demand and real-time
  - Pick up any where along route
  - Driver utilizes traveler information for real-time decision to carpool
  - Rider connects with driver through smart phone and GPS location





# Final Remarks

- Direct user benefits
  - Opportunity to save time
  - Opportunity to save money
  - Flexibility in travel options
- Dynamic nature will improve as technology evolves
- In line with tenets of ATDM
- Enhances ATDM benefits