

## Value Pricing Implementation HOT Lane Operations and Enforcement

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## Overview of Presentation

- Defining the operating scheme
- Operational elements
- Enforcement
  - How its being done now
  - Challenges
  - Alternative approaches

## Concept of Operations

- Clarify project objectives and constraints
- Define operating scheme
- Identify technology
- Implement and operate
- Communicate operating scheme
- Monitor, evaluate, make adjustments

## Operational Elements

- Pricing
  - Setting price
  - Monitoring for price adjustments
  - Toll collection
  - Back office operations
- Information dissemination
- Enforcement
- Incident management



## HOT Lane Enforcement

- I-15 FasTrak, San Diego
- SR 91 Express Lanes, Orange County
- QuickRide, Houston
  - I-10W Katy HOV lane
  - US 290 Northwest HOV lane



## HOT Lane Enforcement

Enforcement functions:

1. Verify toll payment
2. Verify vehicle occupancy
3. Verify other exempt users

### I-15 FasTrak San Diego

- HOV2+ free, SOV tolled
- Utilizes dynamic pricing
- CHP verifies occupancy at tolling zone
- 5%-20% violation rate

### I-15 FasTrak San Diego



### SR-91 Express Lanes Orange County, CA

- All vehicles tolled 24/7
  - HOV3+ free (50% toll PM super peak)
  - Motorcycles, ZEV, disabled free
- Variable pricing set by policy based on hourly volumes
- Photo violation enforcement for invalid tags
- 2%-4% violation rate






### SR-91 Express Lanes Orange County, CA



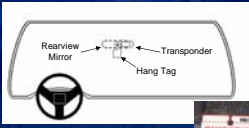
### Katy and NW QuickRide - Houston

- One-lane reversible facilities
- HOV3+ free, HOV2 tolled during super peaks
- Flat fee of \$2.00/trip
- 40%+ violation rate






### Katy and NW QuickRide - Houston

**Old way**



**New way**



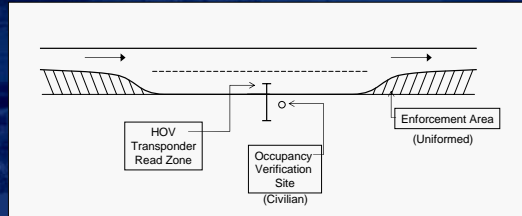


## Enforcement Challenges

- Occupancy verification – by visual inspection only
- Toll payment verification – automated under certain operating scenarios
- Location of billing readers
- Dedicated law enforcement
- Tiered occupancy and pricing
- Legislative and adjudication support

## Self-Declaration/Verification

- All vehicles must have transponder
- Low speed visual occupancy verification – at access ramp or other low-speed location
- Separate reader for HOVs
- VES for toll payment verification



## HOT Lane Operations and Enforcement

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