# Houston VALUFRICING Pilot Program



## HOT Lanes on the Katy and Northwest Freeways

The High Occupancy Vehicle (HOV) lanes in Houston have been highly successful - so successful that two of them (Katy and Northwest) routinely reach capacity during the morning peak.

Houston METRO and the Texas Department of Transportation (TxDOT) are managing that high level of demand through a value pricing project named "QuickRide." QuickRide allows two-person carpools (HOV2) to use the HOV lane for \$2 per trip during peak hours, while larger carpools (HOV3+) and buses use the HOV lane for free. These High Occupancy Toll (HOT) lanes are the first in Texas and among the first in the United States.

Besides the Katy and Northwest HOV lanes, traffic conditions on other Houstonarea HOV lanes are getting congested, requiring a long-term traffic management strategy that is applicable to all of the HOV lanes.

Reconstruction of the Katy Freeway corridor will begin soon and the Katy HOV lane could be a valuable asset in managing traffic, both peak and off-peak.

**Project Objectives:** Working in support of the project partners, TxDOT and METRO, the Texas Transportation Institute (TTI) is developing QuickRide program refinements that will accomplish these objectives:

◆ Increase usage ◆ Improve customer satisfaction ◆ Reduce net operating costs ◆ Smooth traffic flow

In addition to improving the effectiveness and efficiency of current QuickRide operations, TTI is assisting TxDOT and METRO with two major challenges: 1) how to maximize effective use of the Katy HOV lane during an upcoming massive reconstruction project, and 2) how to use current and future program improvements on the Northwest HOV lane as a model for expansion of QuickRide to other HOV lanes as congestion warrants.

## Katy HOV Lane

**Overview:** 

- Katy Freeway is very congested, serving more than 210,000 vehicles per day
- ♦ First permanent HOV lane in Texas, operating since 1984
- 13-mile HOV lane in the median of Interstate 10 (West from Loop 610) with direct connectors to park and ride lots
- HOV lane serves more than 24,000 person-trips per day
- QuickRide program implemented in 1998 allowing HOV2 vehicles peak hour access for a \$2 fee
- Freeway will soon undergo a massive multi-year reconstruction project to increase the number of existing lanes and expand the HOV lane to four managed lanes
- **Goals:** To use the HOV lane to help manage congestion during multi-year construction and prepare the public for the transition to toll-managed lanes in the future.





# Northwest HOV Lane

### **Overview:**

- Northwest Freeway serves more than 245,000 vehicles per day
- 15-mile HOV lane in the median of US 290 (Northwest from Loop 610) with direct connectors to park and ride lots
- HOV lane serves more than 18,000 person-trips per day
- QuickRide program implemented in 1999 allowing HOV2 vehicles peak hour access for a \$2 fee
- **Goals:** To achieve maximum effectiveness of the HOV lane by improving utilization and refining HOV lane management to serve as a model for the expansion of the QuickRide program to other HOV lanes in Houston as traffic congestion warrants.



- **Project Tasks:** The Texas Transportation Institute is developing recommendations for current and future use of the Houston HOV lanes through the following tasks:
  - Enforcement: Optimize the collection of fares and assure the lanes are being properly used
    - *Pricing:* Design pricing scenarios that match user needs and preferences with sound traffic operations and HOV priorities using comprehensive surveys, focus groups and locally-calibrated price elasticity estimates
    - *Signing:* Improve the effectiveness of HOV and QuickRide static and dynamic signing to facilitate use and enhance safe and smooth traffic operations
    - *Marketing:* Increase QuickRide enrollment, participation, and customer satisfaction through public awareness, education and feedback

### **Project Status:**

- Project began September 2002
- Baseline operational data collected
- Completed comprehensive survey of all QuickRide users and tested effects of "half-price" month
- Technology and enforcement strategies to enhance compliance in progress
- Tests to assess signing needs, leading to recommended changes or additions, also in progress
- Analysis of alternative operating strategies, toll collection and account management options nearing completion



Sponsored by: Texas Department of Transportation Houston METRO Federal Highway Administration For more information, contact:

Bill Stockton, P.E., Associate Director Texas Transportation Institute (979) 845-9947 email: bill.stockton@tamu.edu

David Fink, P.E., Transportation Operations Engineer Texas Department of Transportation - Houston District (713) 881-3061 email: dfink1@houstontranstar.org