

High Occupancy Vehicle (HOV)/
High Occupancy Toll (HOT)/
Managed Lane

**Presentation to
Mecklenburg/Union Metropolitan
Planning Organization**

November 14, 2007



WHAT ARE MANAGED LANES?

- ◆ Separate Dedicated Lane System
- ◆ One or More User Groups
- ◆ Strategies used to Preserve Lane Operating Capacity
- ◆ Unimpeded travel during Periods of Peak Demand



BEFORE

Orange County, SR-91

AFTER



TYPES OF HOV/ MANAGED LANES



Continuous Access
10-inch (painted) buffer

EXAMPLE FROM I-77
CHARLOTTE, NC

Access Prohibited
6-inch (painted) buffer



TYPES OF HOV/ MANAGED LANES



Buffer Separated
I-405 HOV, Orange Co.



Barrier Separated
US 59, Houston, TX.

WHAT ARE HOT/ MANAGED LANES



- ◆ Managed priced lanes giving preference to HOVs.
- ◆ Highest HOVs are typically free.
- ◆ Offers unimpeded travel and reliability benefits during peak periods



I-394 Minneapolis



SR 91, Orange County

State Route 91 Express Lanes
Orange County, California

MANAGED LANE BENEFITS

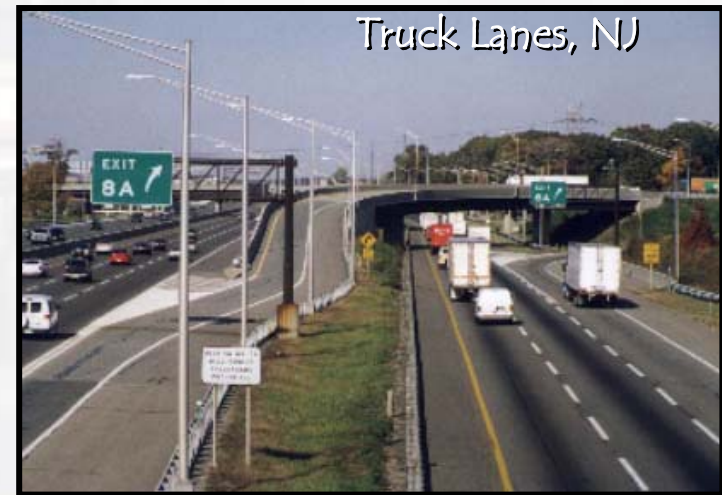


System Benefits

- ◆ Greater throughput
- ◆ Opens up mainline capacity
- ◆ Encourages transit & carpool use
- ◆ Preserves options in corridor
- ◆ Decreased fuel consumption
- ◆ Improved air quality
- ◆ Revenue generation

User Benefits

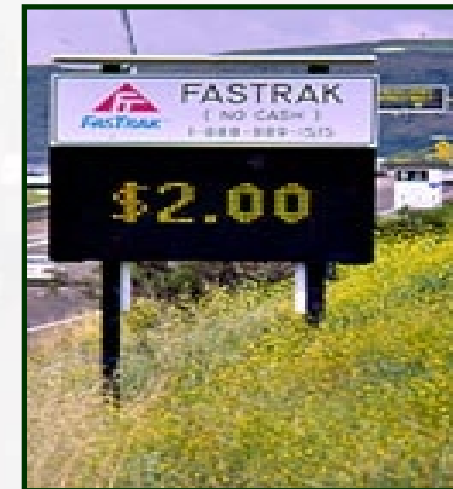
- ◆ Reliable travel time
- ◆ Reduced delay
- ◆ More Choices



FORMS OF LANE MANAGEMENT



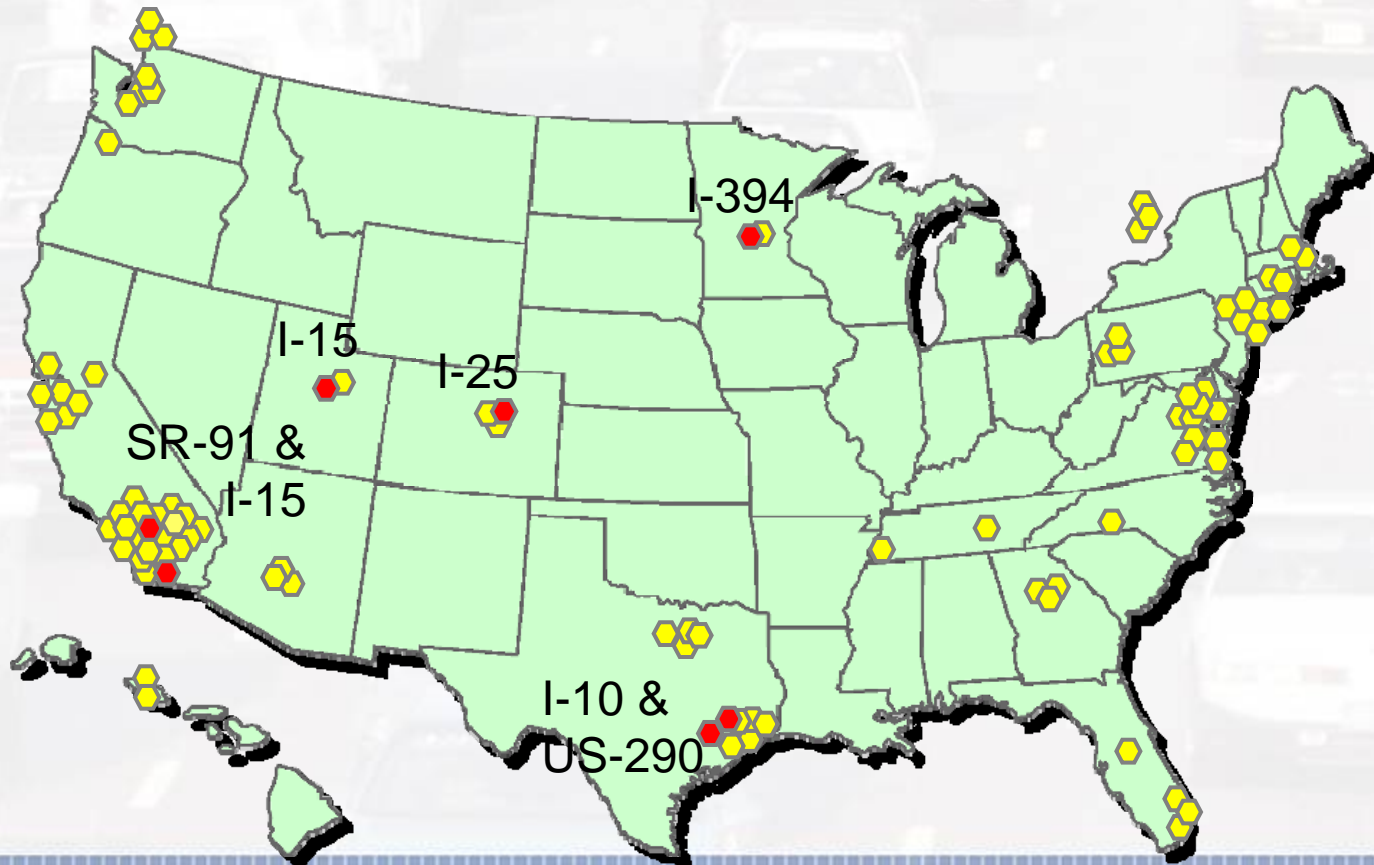
- ◆ Eligibility/Occupancy
- ◆ Access Restrictions
- ◆ Pricing



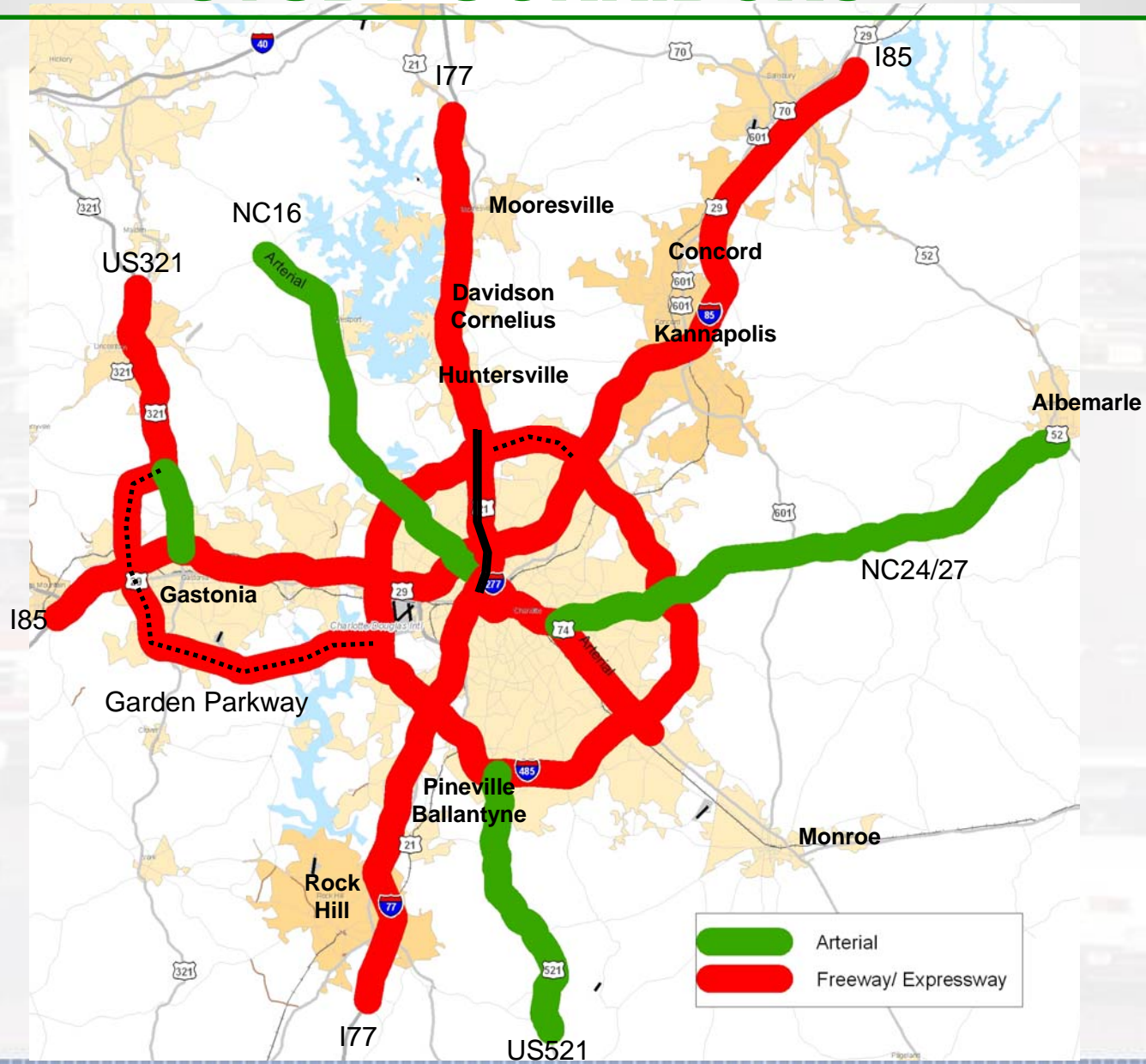
WHERE HOV AND HOT LANES ARE OPERATING?

◇ Currently over **130** managed lanes projects in US and Canada

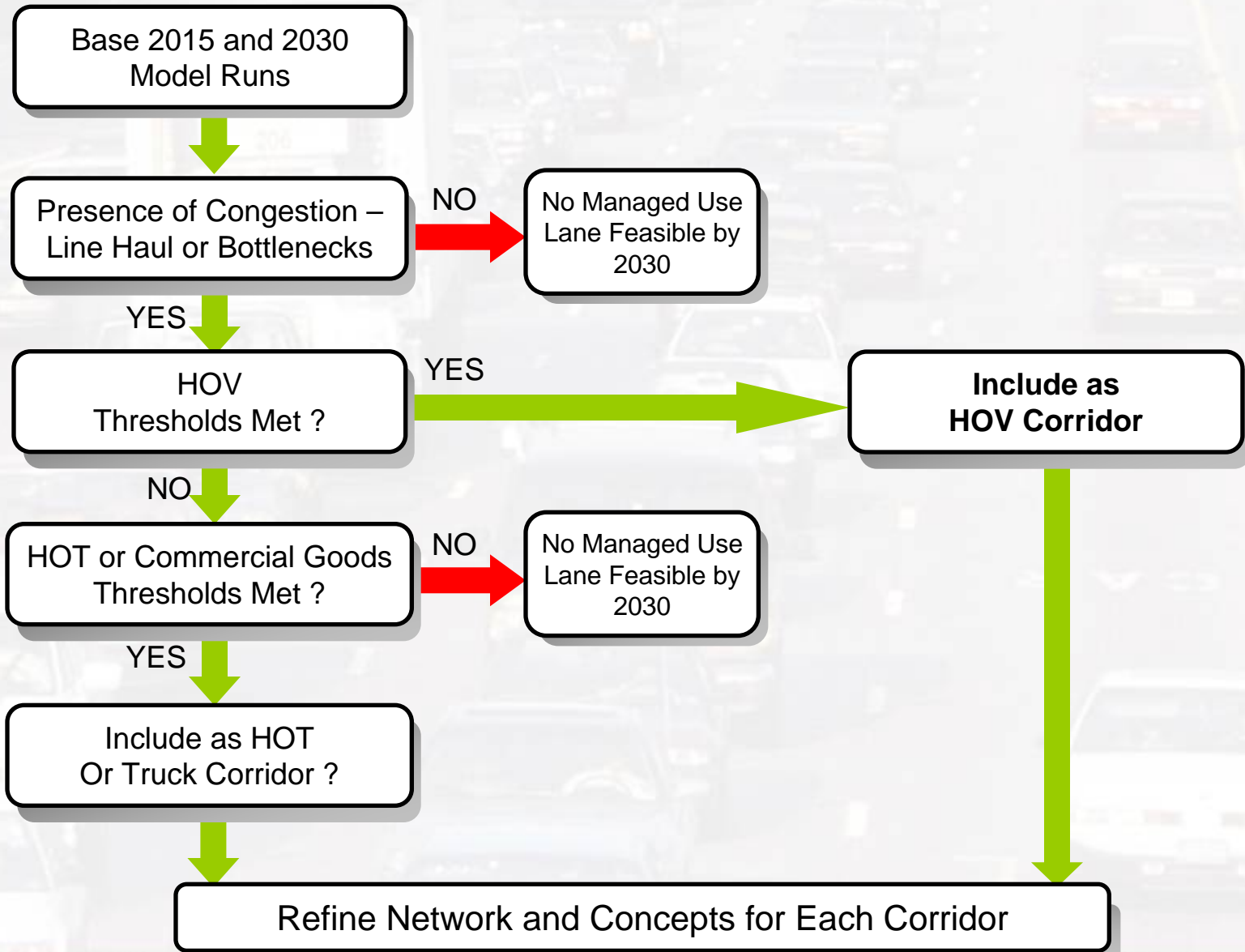
— **7** projects currently use pricing



STUDY CORRIDORS



SCREENING PROCESS



SCREENING CRITERIA



- ◇ **Presence of Congestion**
 - Travel Speeds
 - Volume-Capacity Ratio
- ◇ **HOV Demand**
 - Persons & Vehicles
 - Travel Patterns
- ◇ **HOT/TOT Demand**
 - Vehicle
 - Travel Patterns
 - Revenue Potential
- ◇ **Physical Attributes**

Not good

Less than Average

Average

Above Average

Excellent

1

2

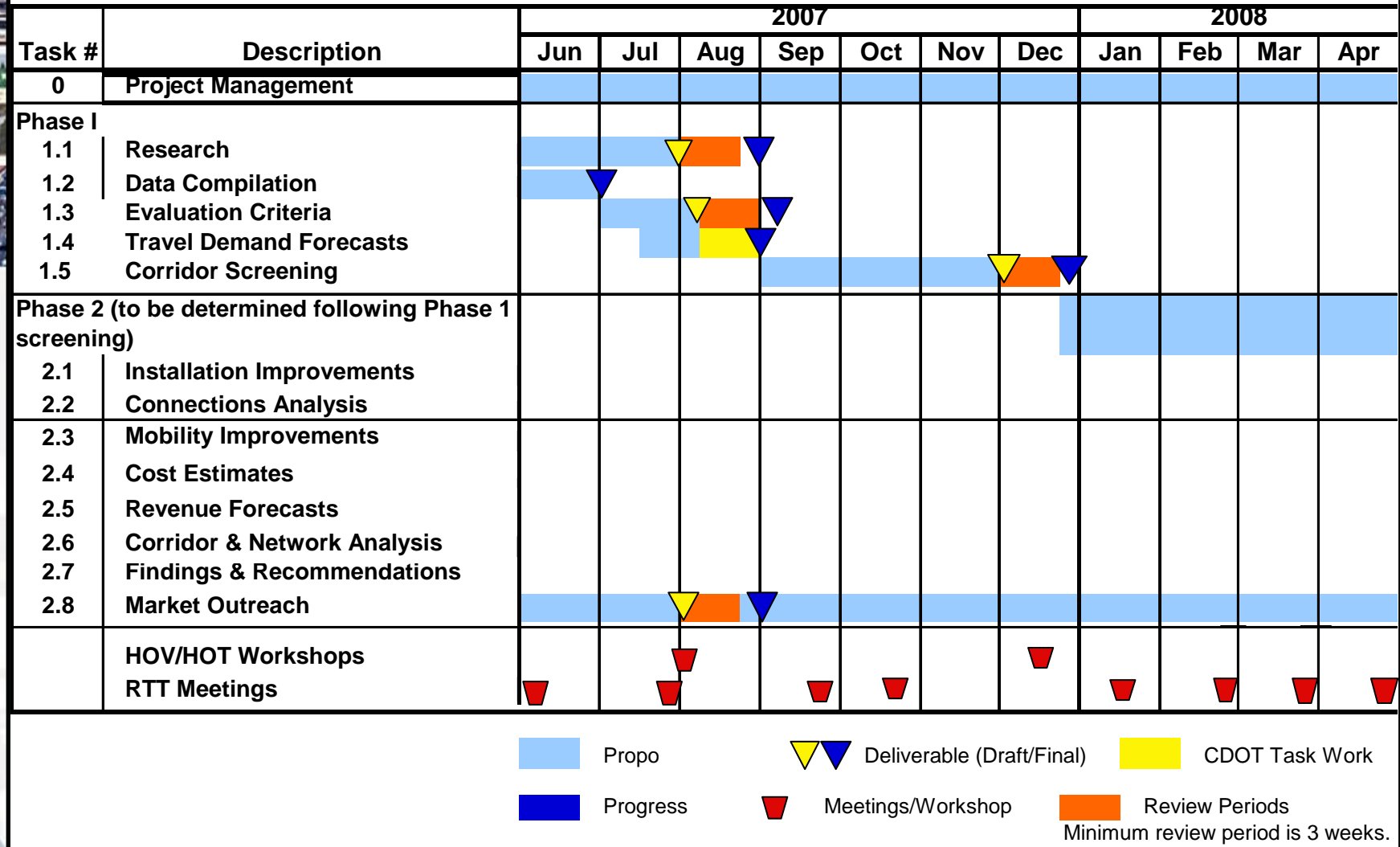
3

4

5

SCHEDULE

Development of a Regional HOV/HOT Managed Lane Analysis



ITEMS IN PROGRESS

HOV / HOT / Managed Lanes Study - Microsoft Internet Explorer

File Edit View Favorites Tools Help

Back Forward Stop Home Search Favorites RSS TV RSS RSS 72° Forecast 78°/55°

Search the Web Search Address http://www.mumpo.org/HOV.htm

MUMPO HOME

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HOV / HOT / Managed Lanes Study

- [Experiences with Managed Lanes in the US](#) (59 Pages)
 - [Executive Summary](#) (3 Pages)
- [Project Timeline](#)
- [Frequently Asked Questions](#)
- [Evaluation Criteria](#)

Work has begun on a High Occupancy Vehicle (HOV) / High Occupancy Toll (HOT) / **Managed Lanes** study that will determine the technical, financial and institutional feasibility of dedicating lanes on major highways in the Charlotte region for active traffic management.

Study Need
This study has been undertaken because it is recognized that traditional approaches to congestion relief (e.g., widening existing roads) alone will likely not be sufficient to solve existing or future problems. In addition, the North Carolina Department of Transportation (NCDOT) is currently studying the feasibility of...

Website

Logo

Flyer/ Information Sheet