Variable Speed Limit Implementation

87th Annual Transportation Short Course
October 16, 2013 – Traffic Operations II

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Presentation Overview

• The Big Picture
• Variable Speed Limits Defined
• State Experiences to Date
• Pending Texas Applications
• Questions
Active Transportation and Demand Management

• Dynamic management, control, and influence of travel demand, traffic demand, and traffic flow of transportation facilities.

• Achieve specific operational objectives.
Active Traffic Management

- The ability to dynamically manage recurrent and non-recurrent congestion based on prevailing and predicted traffic conditions.

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Variable Speed Limits

- Adjust speed limits based on real-time traffic, roadway, and/or weather conditions.
- Enforceable (regulatory) or recommended speed advisories.
- Applied to an entire roadway segment or individual lanes.
Seattle, Washington: I-5

- Smarter Highways
- 7 mile corridor
- 15 new sign bridges
- 97 new electronic signs
- 7 miles of new fiber optic cable

Signs every half mile warn of slower traffic and blocked lanes ahead to prevent collisions.

Information instills trust; trust means compliance.
Seattle, Washington: SR 520

- Smarter Highways
- 8 mile corridor
- 19 sign locations
- 70 new electronic signs
- 16 miles of new fiber optic cable

Improving safety and reducing congestion for SR 520 drivers now and during construction of the new bridge and other SR 520 improvements like the Eastside Transit & HOV Project
Seattle, Washington: Weather VSL

- Snoqualmie Pass
- Implemented in 1998
- Displays calculated safe speeds based on traffic speed and weather condition data.
Minneapolis, Minnesota: I-35W

- Priced dynamic shoulder lane north of 42nd St on NB 35W.
- Maintains existing 4 lanes with an added PDSL Lane.
- Extends the HOT lane to downtown Minneapolis.
- Intelligent lane control signals provide advisory speed limits and lane usage.
St. Louis, Missouri: I-270/I-255

- VSL changed to variable advisory speeds in 2011.
- Reduction in congestion and crashes experienced.
Pending Texas Applications

• HB 2204 authorized VSL program.
  • Congestion.
  • Road construction.
  • Inclement weather.
  • Other condition affecting safe and orderly movement of traffic on a roadway.

• Displayed on a stationary or portable changeable message sign.
VSL Pilot Projects

• To be deployed in three locations.
  • Construction work zone.
  • Weather.
  • Urban congestion.
• Before and after evaluation.
  • Common performance measures.
  • Motorist survey.
• Complete by October 2014.
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