

NTSB National Transportation Safety Board

Office of Highway Safety

Highway Factors

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Summary of Highway Factors

- General Highway Information
- Highway Design
- Accident History
- Traffic Control Devices



General Highway Information

- Average traffic speed 70 mph
- Design speed 60 mph
- Posted speed limit 55 mph
- Motorcoach traveling 65 mph
- Average daily traffic
- I-75 was 95,920 vehicles
- HOV lane was 6,825 vehicles
- > HOV ramp was 500 vehicles



I-75 Design Information

- Reconstructed 1982
- Four lanes and full-time HOV lane in each direction
- HOV lanes separated from general use lanes by double line pavement markings (solid and dashed)
- HOV left-side exit ramps operated as conventional ramps until 1996



Exit Ramp Characteristics

- Left-side exit ramp
- First left HOV exit along I-75
- Approaching the accident site, roadway curves to the left
- Driver's view obstructed
- Exit ramp is short



Exit Ramp Accident History

- 9 accidents between 1997 and 2007
- 3 were fatal
- 6 of 9 involved single vehicle
- Of the 6 single-vehicle accidents, 5 occurred at night
- None of the drivers were from the Atlanta area



Conventional Left Exit







I-75 HOV Lane Separation



MUTCD Compliance Required

- Traffic Control Devices (TCDs) must comply with the Manual on Uniform Traffic Control Devices
- TCDs include signs, signals, and pavement markings
- The MUTCD provides:
 Standards
 Guidance
 Options



Guide Signs for the HOV Exit

Exit 1 mile

Exit ½ mile

Exit arrow

Exit gore sign



Traffic Control Devices







Traffic Control Devices







Traffic Control Devices









HOV EXIT

Northside Dr





HOV LANE

75

SOUTH



Traffic Control Devices on Ramp



Postaccident Changes







Stop Sign Beacon Added



Pavement Markings

- Guide line markings across direct exits can help minimize errant departures
- FHWA recommends white dashed pavement markings in taper area
- "Exit" or "Exit Only" pavement marking can also be used on ramps



Needed Improvements

- Left EXIT plaques on guide signs and implement within 5 years
- Left exit direction (arrow) sign <u>paired</u>
 with pull-through sign
- Advisory speed limit signs on exits
- Exit pavement markings
- Uniform guidance in the MUTCD





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