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Minnesota Department of Transportation
Metro Division
Guidelines on Shoulder Use by Buses

The Minnesota Department of Transportation (MnDOT) is allowing public transit buses to use the shoulders in an effort to encourage transit use and to fully utilize the capacity of the metropolitan highway system. An evaluation of shoulder use by buses prepared by MathCraft Inc. and JHK & Associates has shown shoulder use resulted in increased transit ridership and decreased operational costs. Shorter, more predictable travel times and fewer missed transfer connections have increased ridership. Operational costs have decreased because more reliable travel times result in less driver overtime. In some cases, travel times have decreased to the point that schedules have been rewritten to eliminate unneeded buses.

Authorization of Buses

The use of designated shoulders by buses, as authorized by the road authority, is limited to those operators identified in Minnesota Statute 169.306 Use of Shoulders by Buses. Operators include regular route transit, Metro Mobility type services, and passenger motor coaches operating in intrastate commerce. Each agency is responsible for ensuring that all drivers using shoulders receive operational instructions and a copy of these guidelines. In addition, the operators of motor coaches must register with the MnDOT's Transit Advantages Engineer who will furnish the Minnesota State Patrol's East and West Metro Captains with an updated list of them.

Roadway Eligibility Criteria

A number of criteria must be in order for a roadway to be considered for bus shoulder use. The primary criterion is that there must be "predictable congestion delays", meaning the running speed of the roadway must be less than 35 mph during the peak period and/or approaches to intersections have continuous back-ups. Additional criteria that must be met for a roadway to be considered for bus shoulder use include

- Congestion delays of one hour or more must occur one or more days per week.
- A minimum of six transit buses per day must use the proposed bus shoulder.
- The expected time savings of using the shoulder must be greater than eight minutes/mile/week.
- The proposed shoulder must have a continuous shoulder width of at least 10 feet.

Operational Guidelines

Whenever shoulders are used, bus drivers must exercise their best judgment in considering the safety of other motorists, as well as that of bus passengers. Bus drivers will use designated

shoulders only when traffic is moving at speeds less than 35 mph. While using the designated shoulders, the bus shall not exceed the speed of traffic by more than 15 mph, the maximum speed being 35 mph. If traffic is stopped, the bus speed shall not exceed 15 mph. Bus speed on shoulders, and especially on bridge decks, should be reduced if water, snow, or ice is present. During the winter months, shoulders may be blocked temporarily by snow, especially on bridges and in areas adjacent to guardrails. In such cases where the bus will not fit on the shoulder, that shoulder shall not be used. If the shoulder is obstructed in any way, the bus driver must re-enter the mainline to avoid the obstruction. Bus drivers must yield to any vehicle that enters the shoulder as well as any vehicle merging or exiting at an interchange ramp. Buses can use the shoulder while “dead heading” or when returning with an empty bus to the beginning of a new route.

Enforcement

The Minnesota State Patrol will notify the applicable transit agency and MnDOT’s Transit Advantages Engineer if they discover drivers that fail to adhere to these operational guidelines. The State Patrol will tow abandoned vehicles in the designated bus shoulder use areas.

Design Criteria

See the Geometric Design Statements under the Technical Information on the Team Transit Web Site

- Shoulder Width
  Shoulders used by buses will be minimum of 10 feet wide. In areas of new construction where bus shoulder use is expected, it is desirable to have 12 foot shoulders for increased pavement longevity and added safety.
- Structural Capacity
  All shoulders proposed for use by buses must be of sufficient strength and must be inspected by the MnDOT Materials Section prior to use.
- Drainage Structures
  MnDOT tested three catch basin designs along I-35W. After evaluating these designs, MnDOT issued a standard catch basin design where bus shoulder use is permitted. All drainage structures will be inspected and evaluated for structural integrity before bus use is allowed. If necessary, grates, frames, and adjusting rings will be reinforced or replaced.

Maintenance

Shoulders used by buses will be cleared of snow and obstructions as a part of normal maintenance activities. Whenever possible, these shoulders will receive maintenance priority over normal shoulders.