8.0 Potential Impacts of HOV Lane Removal on Existing Transportation Plans and Programs

8.0 Potential Impacts of HOV Lane Removal on Existing Transportation Plans and Programs

This section of the report provides a general discussion of the potential impacts of the removal of HOV lanes on the function or purpose of existing transportation plans and programs.

Within the HOV study area, there are four primary transportation plans/programs that may be impacted by the removal of HOV-designated lanes. These include:

1. Mn/DOT Statewide Transportation Plan – Moving Minnesota – "ABCs" (**A**dvantages for Transit, **B**ottleneck Removal, and **C**orridor **C**onnections);
2. Metropolitan Council Transportation Policy Plan;
3. Mn/DOT 2005-2025 Transportation System Plan (Metro Division); and
4. 2002-2004 State Transportation Improvement Program.

8.1 Mn/DOT Statewide Transportation Plan – Moving Minnesota – "ABCs"

The Mn/DOT Statewide Transportation Plan represents the State of Minnesota's goals established for maintaining and improving transportation throughout the State. The plan includes statements about improving transit, removing bottlenecks, and improving corridor connections. Opening the HOV lanes to all traffic would have a negative impact on transit advantages in the two HOV corridors. However, it may improve some bottlenecks, at least in the short term.

8.2 Metropolitan Council Transportation Policy Plan

The Metropolitan Council Transportation Policy Plan is the Regional Policy Plan for the seven-county Twin Cities Metropolitan Area. Similar to the Statewide Transportation Plan, this plan addresses potential regional transportation improvement measures. Opening the HOV lanes to all traffic would contradict with the Metropolitan Council's policies and strategies, specifically Policy 11 Highway System Objectives, Strategy 11J, which states, "The Council will continue to support the implementation of high-occupancy vehicle (HOV) lanes, HOV bypasses at metered interchange ramps and bus-only shoulders to provide travel time advantages to transit or ridesharing vehicles incentives."

8.3 Mn/DOT Transportation System Plan

Mn/DOT's 2005-2025 Transportation System Plan (TSP) for the Metro Division is a fiscally constrained plan for the metropolitan area's trunk highway system. The TSP is consistent with the Statewide Transportation Plan in that both address the ABCs and strives to maintain or improve transportation facilities. The improvements listed in this plan do not include site-specific HOV-facility plans, although the development of HOV facilities is a priority of this policy plan.

- In the State Transportation Plan, addendum *Moving Minnesota from 2000 to 2020*. The first objective is for Mn/DOT to focus on multimodal transportation. Elimination of HOV lanes in the Twin Cities is counterproductive to this objective.

- Moving Minnesota strategic direction focus on ABC's Advantages for Transit. Opening HOV lanes to all traffic would be counterproductive to this objective.

- The strategies listed on page 14 of the State Transportation Plan describe what will be done for Transit Advantages. No mention is made of eliminating HOV lanes.

- The plan details issues important to TDM measures, including encouraging alternatives to SOVs. Opening the HOV lanes to all traffic would likely discourage alternatives to SOV travel.

- Chapter 3 of the plan identifies challenges to Mn/DOT Metro Division to provide infrastructure improvements to the trunk highway system that encourage transit. HOV lane removal would likely discourage transit use in these corridors.

8.4 2002-2004 State Transportation Improvement Program

The State Transportation Improvement Program (STIP) lists projects that are expected to have construction costs incurred during 2002-2004 (Table 8.1). Within this list of projects, I-35W construction through the TH 62/I-35W commons area up to 46th Street is the only project for which highway improvements with HOV lanes are included as a detailed component of the construction plans. However, the improvements in the I-35W corridor are a work in progress. Ramp meter bypasses for HOVs are also a priority, especially following the Ramp Meter Study of 2001. The following table lists all projects in the STIP that would have some form of system interaction with the existing HOV lanes.

Table 8.1 STIP Projects

TSP or TIP	Year Planned	Project	Estimated Cost
STIP	2000	I-35E HOV Ramp Meter Bypass on I-35E at Pilot Knob Road	$400,000
STIP	2000	I-94 HOV Ramp Meter Bypass at TH 280 to WB I-94	$600,000
STIP	2001, 2002, and 2003	I-35W At 66th St in Richfield to Minnehaha Creek in Minneapolis – Grading, surfacing, BRS, etc. and HOV Lane (AC Project)	$18,000,000
STIP	2001	I-94 HOV Ramp Meter Bypass at SB TH 51 to WB TH 36 Ramp	$233,585
STIP	2002	I-35W at 95th Ave in Blaine – Construct interchange with Park/Ride, HOV Ramp Meter Bypass	$1,400,000
STIP	2003	I-35W Minnehaha Creek to 42nd St. – Grade, surface, and HOV lane	$8,000,000
STIP	2001-2004	I-35W from I-494 to Minneapolis (noted in the TSP)	$100,000,000
STIP	2003 and 2004	Metro Transit is expanding their I-35W South Corridor Services	$4,763,000

The following section describes potential impacts associated with the removal of HOV lanes. This description applies to all four of the previously described plans. The description has been consolidated as all of the plans have similar HOV policies. The State Transportation Improvement Program (Mn/DOT) includes specific project descriptions, which include HOV lanes for I-35W through the TH 62 interchange north to 46th Street in Minneapolis. The Council's TPP also includes the construction of an HOV lane on I-35W from I-494 to Minneapolis, as well as the I-35W/TH 62 reconstruction.

For purposes of discussing potential HOV removal impacts, all four programs described above have been combined, because they are policy-based plans with an emphasis on general transportation actions, including HOV facilities, as opposed to site-specific improvements.

8.5 Potential Impacts of HOV-Lane Removal on Plans

8.5.1 Traffic Flow

A potential outcome of the removal of HOV lanes on the goals of the plans is the potential reduction of some freeway bottlenecks. However, such action could potentially generate new bottlenecks. The potential impact is dependent upon future decisions regarding the planned operation of HOV lanes. If future planned HOV lanes are converted to mixed-flow lanes, there would be an overall increase in traffic-flow capacity. However, if future planned HOV lanes are not constructed nor built as general use lanes, there is no net capacity increase, and, therefore, no reduction of bottlenecks. Similarly, system continuity impacts may occur.

8.5.2 Transit/Carpool

The removal of HOV lanes would negatively impact transit and regional ridesharing programs, including vanpooling and carpooling. Specifically, without designated lanes, transit/carpooling vehicles must travel in mixed use or bus-shoulder lanes. This would negate some or all of the travel time advantages that would exist with HOV lanes. Even if bus-only shoulders are constructed, the travel time advantages will be significantly less than the advantage that HOV lanes provide for transit. Therefore, the number of transit users and carpooling participants may decrease, especially during peak hours, resulting in an increase in SOV travel. A change in policy away from the development of HOV lanes toward the development of more mixed-use highway capacity could impact larger regional efforts to increase HOV travel. In addition, opening the HOV lanes to all traffic may impact current and future parking plans for downtown Minneapolis.

The transit system itself would likely realize the greatest disbenefit if the HOV lanes were opened to all traffic. It is estimated that the transit riders on the entire length of I-394 would experience a 3.2- to 4.1-minute increase in travel time, 2.5- to 3.6-minute for I-35W transit riders. This travel time increase is likely to result in the need for 15 more transit vehicles to maintain existing headways at a cost of $7.8 million, plus $3.1 million per year in operations and maintenance costs over the next 20 years. In addition, it is estimated that there will be a reduction of approximately 2,350 transit riders in the 6:00 to 8:00 a.m. and 3:00 to 6:00 p.m. peak periods, at a loss of about $1.15 million in fare revenues per year.

As previously listed, several ramp meter bypasses are included in the STIP. With HOV lanes, these bypasses will still provide travel time benefits for transit users and carpooling participants. However, without HOV lanes, future bypass construction would be less effective toward reducing drive-alone habits than if the bypasses are a component of a more robust system with multiple timesaving measures to encourage carpooling.

If the HOV lanes were to be opened to all traffic, further evaluation would be necessary to identify impacts to other programs and services not specifically addressed in Section 7.0, including the Metro Mobility paratransit system and the Metro Commuter Services regional ridesharing program.

8.5.3 Existing Projects

Currently, plans exist for HOV lanes on I-35W between the TH 62 and 46th Street. This project, as well as others shown in Table B.1, are works in progress. Opening the existing HOV lanes to all traffic may require reconsideration and study of these projects.

I-35W north of 46th Street is in early planning stages, for which HOV lanes are currently included in the preferred alternative. Removing the HOV lanes may require additional cost for public involvement, environmental study, and design.

8.6 Summary

In summary, the removal of HOV lanes from the regional transportation system will have an impact on traffic flow, transit/carpooling, and capital costs. Additional studies would be needed to fully determine the degree of these impacts.