ROADWAY SAFETY INSTITUTE

Advancing roadway safety with user-centered solutions

UTC Project Information	
Project Title	Evaluation of the Effect MnPASS Lane Design has on Mobility and Safety
University	University of Minnesota
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Funding Source(s) and Amounts Provided (by each agency or organization)	Minnesota Department of Transportation: $169,000
Total Project Cost	$169,000
Agency ID or Contract Number	UTC Grant Number: DTRT13-G-UTC35 MnDOT contract 89261 work order 247 CTS# 2011094
Start and End Dates	05/31/2011 – 06/30/2014
Brief Description of Research Project	High Occupancy Vehicle (HOV) and High Occupancy Toll (HOT) lanes are restricted-use freeway lanes reserved for vehicles with more than one occupant, or equipped to charge single-occupant vehicles (SOV) for using the facility. The goal of HOV/HOT combination lanes is to reduce congestion by promoting ride share while better utilizing the facility by allowing SOV's that pay the toll. The Minnesota Department of Transportation (MnDOT) has so far constructed two such facilities (MnPASS on the median lanes of I-394 and I-35W freeways) and has plans for more. The existing facilities have substantially different access control designs with no concrete evidence which is the most appropriate design for a given geometry and demand. This project aims to evaluate the existing four MnPASS lane designs, indicate which of the existing geometries is the best access control design (if not the current), and develop a design guide to help in future MnPASS lane implementation. Additionally, this project aims to assist MnDOT in developing and estimating MnPASS performance safety criteria.
Describe Implementation of Research Outcomes (or why not implemented) Place Any Photos Here	MnDOT's Regional Traffic Management Center has implemented the results of this report and a few others to develop a reporting system to the Federal Highway Administration. RTMC is also using the research to generate analyses and recommendations for changing locations from open to closed access.

Impacts/Benefits of Implementation (actual, not anticipated)	
Web Links • Reports • Project website	http://www.cts.umn.edu/Research/ProjectDetail.html?id=2011094 http://www.cts.umn.edu/Publications/ResearchReports/reportdetail.html?id=2578