1.0 Project Background

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The Minnesota Department of Transportation (Mn/DOT) uses ramp meters to manage freeway access on approximately 210 miles of freeways in the Twin Cities metropolitan area. Mn/DOT first tested ramp meters in 1969 as a method to optimize freeway safety and efficiency in the metro area. Since then, approximately 430 ramp meters have been installed and used to help merge traffic onto freeways and to help manage the flow of traffic through bottlenecks.

While ramp meters have a long history of use by Mn/DOT as a traffic management strategy, some members of the public have recently questioned the effectiveness of the strategy. A bill passed in the past session by the Minnesota Legislature requires Mn/DOT to study the effectiveness of ramp meters in the Twin Cities Region by conducting a shutdown study before the next legislative session.

The study is scheduled to occur in the fall of 2000, with the results to be presented to the Legislature and the public by February 1st, 2001. The goal of the study is to evaluate and report any relevant facts, comparisons, or statistics concerning traffic flow and safety impacts associated with deactivating system ramp meters for a predetermined amount of time.

In response to the Legislative mandate, Mn/DOT has formed two committees to represent the public and ensure the credibility/objectivity of the study, including:

- **Advisory Committee –** Provides policy oversight and input into the consultant selection process, the proposed study work plan, measures of effectiveness and evaluation measures.

- **Technical Committee –** Provides technical guidance, expertise, and quality control. Also provides technical input to the consultant selection process, proposed study work plan, measures of effectiveness and evaluation measures.

On June 19th, 2000, Mn/DOT issued a Request for Proposals (RFP) to study and report on the traffic flow and safety results of deactivating ramp meters in the Twin Cities Region. Members of both the Advisory Committee and the Technical Committee served on a selection committee to design and approve consultant selection criteria and evaluate proposals from consultants received in response to the RFP. A consultant team led by Cambridge Systematics, Inc. was selected to conduct the ramp meter evaluation. Joining Cambridge Systematics on the evaluation team are SRF Consulting Group, N.K. Friedrichs Consulting, and a panel of nationally recognized experts in the field of ramp metering and transportation evaluations.

This document represents the Evaluation Plan developed for the study by the Cambridge Systematics (CS) team with significant input from the Technical and Advisory Committees. This Evaluation Plan identifies:

- Evaluation team members and organizational hierarchy (Section 2);
- Evaluation objectives (Section 3);
- Performance measures and evaluation methodologies (Section 4);
- Technical approach for field data collection (Section 5);
- Technical approach for market research tasks (Section 6);
- Technical approach for conducting the benefit/cost analysis (Section 7);
- Technical approach for conducting secondary research (Section 8); and
- Evaluation schedule, meetings and deliverables (Section 9).

This Evaluation Plan will serve as the guideline for conducting the ramp metering evaluation. As such, this document is intended to be sufficiently detailed to provide valuable guidance to the evaluators; however, the plan also maintains flexibility to address project contingencies that may arise.