



# NEVADA DEPARTMENT OF TRANSPORTATION RESEARCH DIVISION

## AUTONOMOUS VEHICLE FEASIBILITY STUDY

### Key · Points

**Project Number:**

592-18-803

**Start Date:**

November 14, 2018

**Duration:**

24 months

**Project Cost:**

\$375,453

**Researcher:**

Cambridge  
Systematics, Inc.

**Principal Investigator:**

Mark A. Jensen

**NDOT Champions:**

Project Management  
Division

### PROBLEM

Massive employment growth at the Tahoe Reno Industrial Center (TRI Center) in Northern Nevada, with housing stock primarily in the Reno/Sparks area—and a constrained transportation corridor (I-80) connecting the two—is leading to significant congestion with the potential to slow desired economic development in the region.

### OBJECTIVE

To determine the potential ridership and design standard requirements of a dedicated autonomous vehicle (AV) facility. The Final Report will summarize the results of this research study, and if deemed feasible, will present a Conceptual Framework (i.e. a strategic, program-level Concept of Operations (ConOps)) for a Connected and Autonomous Vehicle (CAV) Enhanced Infrastructure facility that can be used as the foundation for the ITS systems engineering and formal ConOps. This framework will cover the stakeholder needs, project justification, presentation of operational scenarios, summaries of the assessed impacts, benefits, costs, and the potential business case for proceeding with deployment.

### METHODOLOGY

Systematically define the elements necessary to determine the feasibility of CAV Enhanced Infrastructure in the study area in terms of meeting transportation needs in an institutional, technical, safety and economically viable manner. This will result in a rich body of information that can be tailored to the interests of specific stakeholder groups to enable the production of high-quality outreach pieces to garner support for CAV Enhanced Infrastructure in the study area.

Task 1: Project Management

Task 2: Recruit and Facilitate a User Advisory Group

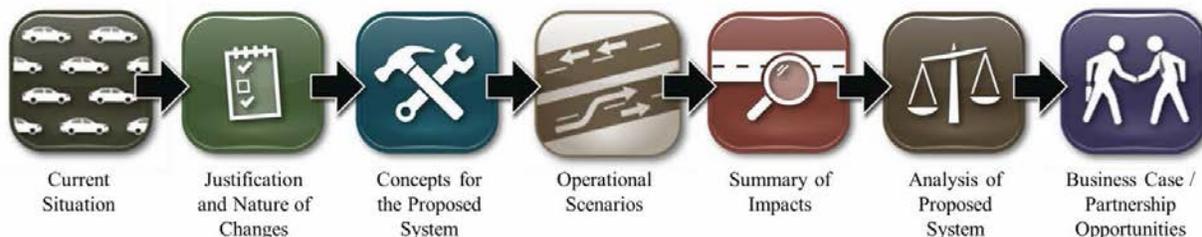
Task 3: Collect Data

Task 4: Feasibility Analysis

Task 5: Develop Conceptual Framework / Report Results

### IMPLEMENTATION POTENTIAL

This research project is at the “Concept Stage” of research deployment and will include some sketch level modeling. The Final Report will outline a recommended implementation plan that will provide a set of descriptive actions NDOT can take to proceed with potential infrastructure planning and CAV systems engineering, needed to deploy a prototype system.



### Contact Information:

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Annex 14-15

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