

Construction**NOVEMBER 2024****Project Title:**Moving Towards Roundabouts in
California**Task Number:** 3973**Start Date:** June 1, 2024**Completion Date:** June 1, 2026**Task Manager:**Edwin Yeung
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Moving Towards Roundabouts in California

Improve the process for adoption and implementation of roundabouts around the state.

WHAT IS THE NEED?

While roundabout have been around since the late 1700's, modern roundabout design wasn't standardized till 1966 in the United Kingdom. There are three main design features that set modern roundabout apart from their predecessors: 1) vehicles in the circle have the right-of-way; 2) they are smaller (70 to 160 feet in diameter versus 300 feet or more for traffic circles and similar designs), and; 3) they have a splitter "island" to reduce speed just before entry. These are known as 'traffic calming' applications that are intended to cause drivers to slow down and pay more attention.

Because of these features, modern roundabout intersections have proven to be significantly safer than signalized intersections and because they don't require most vehicles to stop, they improve mobility in most applications. California in general and the Central Valley in particular has been slow to adopt roundabout intersections. In several cases, public sentiment has affected the decision-making process and resulted in signalized intersections being chosen over roundabout designs.

WHAT ARE WE DOING?

The project team will review existing literature and history of public perceptions and acceptance of different types of roundabouts with different properties, e.g. at single and multi-lane, rural and urban, small and large, etc. Based on results of the literature review, the team will design and conduct a plan to collect public sentiment about different types of roundabouts with different properties. The data collection plan will include a statewide component as well as a local component.

Surveys will be used to assess public sentiment regarding roundabouts across California, in general, and locally in the



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Central Valley. From the survey results, the team will develop messaging strategies, including message content and framing, that may be effective in influencing public sentiment towards roundabout development in their community.

Identify methods to improve the public sentiment towards roundabouts, given their cost, efficiency, and safety advantages. Two specific objectives are:

- Assessing the public sentiment across the state of California, in general, and specifically in the Central Valley, in particular, towards roundabouts, and the different types of roundabouts; and
- Identifying recommendations for messaging strategies, including message content and framing, that may be effective in influencing and improving public sentiment towards roundabouts.

WHAT IS OUR GOAL?

The immediate objectives are to assess public sentiment towards roundabout intersections across the state of California, in general, and specifically in the Central Valley, and develop recommendations for messaging strategies, including message content and framing, that may be effective in influencing and improving public sentiment towards roundabouts.

The longer-term goal is to accelerate the adoption of roundabouts in California communities to improve mobility and safety by reducing fatalities and severe injury accidents.

WHAT IS THE BENEFIT?

Study after study in the U.S., Europe and Australia show that roundabouts improve safety. They do this by reducing vehicle speed; reducing the number of conflict points between vehicles; and channeling everyone to move in the same direction. Even in cases where the number of collisions doesn't go down significantly, the severity of the crashes goes down resulting in far fewer fatalities and severe

injuries. Federal Highway Administration literature shows that roundabouts reduce fatal and injury crashes anywhere from 78% to 82%.

WHAT IS THE PROGRESS TO DATE?

The project had the kick-off meeting back in June to meet with the California Department of Transportation (Caltrans) team and the researcher from CSU Fresno. The research team had proposed a survey to collect public sentiments on roundabouts and we are in the process of making sure this survey will include all the data that this project might need. Furthermore, we have established the project panel and getting ready to have the advisory committee meeting.