



Legislation Text

File #: 19-1140, **Version:** 1

Department of Transportation recommending the Board take the following actions related to the U.S.50/Pioneer Trail Intersection Safety Improvement Project (CIP 72379):

- 1) Receive a presentation regarding engineering and outreach work performed to date on the intersection of U.S. 50 and Pioneer Trail; and
- 2) Select a roundabout as the Board's preferred project alternative. (Est. Time: 30 Min.)

FUNDING: Tahoe Regional Planning Agency Air Quality Mitigation Funds (2.15%), Congestion Mitigation and Air Quality Program (15.35%), Highway Safety Improvement Program (59.30%), Regional Surface Transportation Program - TRPA (22.91%), Regional Surface Transportation Program - Caltrans (0.29%).

DISCUSSION / BACKGROUND

On January 29, 2019 (Item 19), the Board approved a contract with Nichols Consulting Engineers for design and environmental services for the U.S. 50/Pioneer Trail Intersection Safety Improvement Project (Project). During the discussion of January 29 item, the Board directed the Department of Transportation (Transportation) to return to the Board with a 'Roundabout 101' presentation, which occurred on March 19, 2019 (Item 26). At the January 29 meeting, the Board also directed Transportation to return to the Board to provide the Board an opportunity to state its preferred alternative for the Project.

Project Need

Multiple studies and plans have identified the U.S. 50/Pioneer Trail intersection as needing improvements for cyclists and pedestrians, including the Federal Highway Administration's *Meyers, El Dorado County, California Road Safety Audit* from April, 2016 and the *Linking Tahoe: Active Transportation Plan* by the Tahoe Regional Planning Agency from March, 2016. The March 2018 *Meyers Area Plan* also prioritizes intersection improvements at the U.S. 50/Pioneer Trail intersection, specifically stating on page 3-6, "Intersection improvements should maintain or improve level of service, improve traffic flow, reduce vehicle emissions associated with traffic delays, and improve pedestrian and bicycle safety." A cursory review of the existing conditions at this intersection show disjointed, unconnected cyclist and pedestrian facilities that do not adequately serve those users.

In 2016, the South Lake Tahoe office of the California Highway Patrol provided automobile accident data to Transportation that showed that 33 motor vehicle accidents occurred at or near the U.S. 50/Pioneer Trail intersection between January 5, 2007 and March 7, 2016. In addition, in 2011, Transportation designated the U.S. 50/Pioneer Trail intersection as a "high accident location" in its 2011 Annual Accident Location Study.

Grant Application

The data described above were important factors in Transportation's decision to apply for a grant from the Highway Safety Improvement Program in 2016 to replace the existing signal with a roundabout at the U.S. 50/Pioneer Intersection. The grant application was successful, and Transportation was awarded \$3,000,000. Transportation staff selected a roundabout for the grant

application for reasons as follows:

- The geometrics, topography, and right of way at the site are favorable for a roundabout.
- Roundabouts are demonstrably safer for motorists, cyclists, and pedestrians, primarily due to reduced speeds through and adjacent the intersection and the near elimination of head-on and broadside type motor vehicle accidents.
- Roundabouts are generally more efficient than traffic signals at moving traffic through an intersection. The County and its consultant have each independently performed traffic modeling analyses demonstrating this to be the case at the U.S. 50/Pioneer intersection.
- Roundabouts cause vehicles to emit less pollution, since there is less queueing and idling.
- The estimated total project cost to implement an improved signalized intersection is slightly less than the estimated total project cost of a roundabout. However, when accounting for life cycle benefits associated with the roundabout alternative, including reduced motorist delay, reduced number of injury and fatality accidents, decreased pollution, and reduced electrical and maintenance costs, the life cycle benefit/cost ratio for the roundabout alternative is significantly greater than the life cycle benefit/cost ratio for the improved signalization alternative.

Partnering With Caltrans

Since the Project is located on U.S. 50, the County and Caltrans executed a cooperative agreement to define project roles and responsibilities for each agency. This cooperative agreement requires the County to follow Caltrans standards, policies, and directives. This includes Caltrans' Intersection Control Evaluation (ICE) process. Even though a roundabout was specified in the grant application and a roundabout is the alternative that Transportation staff is recommending to the Board, alternative selection is not complete until Transportation completes the ICE process and Caltrans approves a project alternative.

Public Outreach

Transportation has been engaging in public outreach regarding project alternatives over the past several months. Transportation has met with the following individuals and groups:

1. **El Dorado County Sheriff's Office** - Transportation met with Lieutenant Brian Brown on March 21, 2019 and explained the project alternatives. The EDSO position on the project alternatives is neutral - EDSO will respond to calls regardless of which intersection option is implemented.
2. **California Highway Patrol** - Transportation met with CHP Lieutenant Terry Lowther and CHP Officer Gartner on March 21, 2019 and explained the project alternatives. CHP has no objection to a roundabout at U.S. 50/Pioneer Trail.
3. **South Lake Tahoe Recreation Joint Powers Authority Bicycle Advisory Committee** - Transportation attended the May 1, 2019 meeting of the Bicycle Advisory Committee. After providing a presentation to the Committee and answering questions from the Committee, the Committee voted 7-0 to provide a letter endorsing the roundabout option.
4. **Meyers Advisory Council** - Transportation attended the May 1, 2019 meeting of the Meyers Advisory Council. After providing a presentation to the Council and answering questions from the Council and the public, the Council voted 7-0 to provide a letter endorsing the roundabout option.
5. **Lake Valley Fire Protection District** - Transportation met with Fire Chief Tim Alameda and Battalion Chief Brad Zlendick on May 9, 2019. Lake Valley Fire had requests like

rolled/mountable curbs, tree thinning near the project, and ensuring adequate room for traffic inside the circle to move to the right during emergencies. When the design features of the roundabout were explained to Chiefs Alameda and Zlendick, they had no objection to a roundabout at the intersection of U.S. 50 and Pioneer Trail.

6. **Community Mobility Workgroup from the Lake Tahoe Sustainability Collaborative** - Transportation met with the Community Mobility Workgroup on May 28, 2019. After presenting the Project alternatives to the Workgroup and answering questions, the Workgroup provided a letter of support for the roundabout alternative.
7. **Public meeting/open house** - Transportation held a public meeting on June 12, 2019 in Meyers. 73% of attendees that provided comments were in favor of the roundabout option.
8. **Lake Tahoe South Shore Chamber of Commerce** - Transportation met with the Tahoe Chamber on June 20, 2019. After presenting the Project alternatives to the Chamber and answering questions, the Chamber's Board of Directors voted 11-0 with one abstention to provide a letter of support for the roundabout alternative.

Special Conditions at the Project Site

Snow removal will be more difficult if a roundabout is constructed, primarily because there will be additional obstacles (e.g., curbs and islands) around which operators will be required to plow. Snow storage may also inhibit pedestrian use of the intersection for short periods of time. However, the decreased traffic speeds through the roundabout that are present during the summer will also be present during the winter, resulting in a safer intersection for all winter users. Additionally, during an average year, Transportation Maintenance staff estimates that snow removal operations occur at the Project location approximately 50 days per average year. That leaves, on average, 315 days per year (or 86% of a year) on which snow removal does not occur. Transportation has concluded that the challenges posed by snow removal are not significant enough to change the recommendation of implementing a roundabout at the Project location.

Traffic gridlock conditions can occur on U.S. 50 and on some County roads near the Project site several times per year, typically on snowy Sunday afternoons, at the ends of holiday weekends, and at the ends of some summer weekends. Gridlock conditions are caused by the number of vehicles attempting to use U.S. 50 to enter or leave the Tahoe Basin far exceeding the vehicular capacity of U.S. 50 between Echo Summit and the South Lake Tahoe Y. Implementing either a roundabout or an improved signalized intersection will neither help nor hurt gridlock when it occurs. Similar to snow removal days, gridlock days occur infrequently, certainly fewer than 30 days per average year.

ALTERNATIVES

The Board could select the improved signal as its preferred alternative. Transportation would continue to move forward with Caltrans' ICE process, and it is likely that the end result would be Caltrans requiring implementation of a roundabout.

The Board could also direct Transportation to abandon the project and leave the intersection in its current condition. Transportation would have to return all funds to their respective grantors, and the Board would likely need to identify funding sources to pay back the grant funding already expended.

PRIOR BOARD ACTION

See Discussion / Background section above.

OTHER DEPARTMENT / AGENCY INVOLVEMENT

N/A

CAO RECOMMENDATION / COMMENTS

It is recommended that the Board approve this item.

FINANCIAL IMPACT

Since this project is externally funded, there will be no financial impact to the County regardless of whether the Board selects the roundabout or signal option. If the Board instead chooses to cancel the Project, then a County funding source will likely be required to pay grantors back funding already expended.

CLERK OF THE BOARD FOLLOW UP ACTIONS

N/A

STRATEGIC PLAN COMPONENT

Infrastructure

CONTACT

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