

Scope of Work

ON-CALL ROUNDABOUT DESIGN PEER REVIEW

The Consultant will provide on-call roundabout design peer review by task order. The consultant may be asked to perform any or all the tasks below. There are currently two separate TAMC-sponsored projects that will be prepared by Caltrans. TAMC and Caltrans have a strong, positive working relationship and share the goal of delivering the safe, efficient roundabout projects. Therefore, the Consultant must be able to work effectively and efficiently with both TAMC and Caltrans staff. The Consultant will support the project effort by evaluating roundabout concepts and optimizing roundabout designs. Consultant tasks may include independently evaluating the operational analysis with simulations to confirm roundabout geometrics, preparing presentation graphics for public meetings, reviewing plans, specifications, and estimates (PS&E) submittals, and preparing independent estimates of probable costs. While there may be more roundabout designs to review, there are two anticipated task orders that include evaluation of roundabouts for the following projects:

1) **SR 156 / Castroville Boulevard Interchange**

This project has environmental clearance and is currently under design by Caltrans. The project includes two roundabout intersections at the new Castroville Boulevard ramp termini and one roundabout intersection where the new Castroville Boulevard alignment joins the old Castroville Boulevard alignment.

2) **SR 68 Scenic Corridor**

This project has a completed corridor study and Project Study Report with a preferred alternative that replaces nine existing traffic signals along SR 68 with nine roundabouts. The peer review effort will focus on optimizing roundabout geometry to define the area of potential affect for each intersection. If the preferred alternative is selected and approved, then the consultant will support the Caltrans design effort.

The Consultant will independently evaluate each of these potential operational conflict points for each roundabout:

- “Fast Path” adequacy,
- Truck turn capability,
- Pedestrian and bicycle safety, access and circulation,
- Driver, pedestrian and bicycle rider sight triangles,
- Entry view angles for decision making and capacity,
- Entry and exit path overlaps,
- Geometry for high speed approaches,
- Lane widths, channelization and lane transitions,
- Profiles and cross slopes, signing and striping adequacy,

Task 1: Project Initiation and Project Management

Task 1.1 Conduct Kick-Off meeting at TAMC offices to define roles, schedule and deliverables. Conduct monthly project development team meetings. Coordinate with TAMC and Caltrans.

Task 1.2 Provide Project Management for each project with separate files and invoicing by individual project.

Task 1.3 Review Project Information and Traffic Data

DELIVERABLES: Meeting agendas, minutes, project schedules, monthly invoices.

Task 2: Roundabout Evaluation and Concept Design Review

Task 2.1 Perform fatal flaw traffic operations analysis and optimize inscribed circle diameter, lane requirements, approach angles, splitter island lengths, center island configurations, and exit designs.

Task 2.2 Perform fatal flaw capacity assessment and identify potential design exceptions.

Task 2.3 Perform fatal flaw evaluation of roundabout geometry, vehicle fast path, entry overlap, high speed entry, truck and bus turning movements, pedestrian accessibility, and bicycle circulation.

Task 2.4 Perform review of signing and pavement markings. Perform review of guide signing for advance lane assignments and driver decision making.

Task 2.5 Prepare VISSIM roundabout simulations and optimize roundabout designs.

Task 2.6 Prepare a comparison of performance measures for traffic flow and safety.

Task 2.7 Prepare presentation and graphics and participate at public meetings,

DELIVERABLES: Evaluation reports, VISSIM simulations, design optimizations, presentation graphics, participation at public meetings.

Task 3: PS&E Review

Task 3.1 Perform a peer review of plans, specifications and estimate for 35%, 65%, 95% and final submittals, including layouts, grading, construction details, signing, pavement markings, profiles and cross slopes, construction staging and traffic handling, lighting, landscaping.

Task 3.2 Perform independent estimate of probable costs.

DELIVERABLES: Design comments, estimate of probable costs