



EXECUTIVE SUMMARY

Introduction

State Route 68 is a designated scenic route that connects the world-renowned Monterey Peninsula to US Highway 101 and the Salinas Valley. SR 68 is a key route for bicycle, transit, and auto traffic that facilitates commute travel between Salinas and Monterey for 25,000 to 30,000 vehicles each day, as well as tourism and special event traffic. SR 68 also aids freight and agricultural transport between the City of Salinas and River Road, as well as transport of goods and visitors to the Monterey Peninsula.

Congestion, safety, and reliability issues on SR 68 from Josselyn Canyon Road to Blanco Road have been raised by residents living adjacent to the highway, as well as motorists who regularly commute on SR 68 from the Salinas Valley to the Monterey Peninsula. Along with the destination resort attraction of Monterey Bay, other major attractions within the SR 68 corridor includes: Santa Catalina School, Laguna Seca Raceway, Golf courses, the Monterey Regional Airport, the Stone Creek shopping center, Ryan Ranch, Toro Regional Park, and the connection to SR 218. The regional importance of the SR 68 corridor combined with its diminishing quality of service has been a key policy issue for Caltrans, the Transportation Agency for Monterey County (TAMC), the County of Monterey and cities along the corridor.

In addition to being a key corridor for the traveling public, SR 68 is designated a scenic highway. The highway is bordered by significant wildlife habitat including the 14,650 acre Fort Ord National Monument and rural low density development in the Sierra de Salinas mountain range connecting to the Ventana Wilderness of the Los Padres National Forest. As such, SR 68 can serve as a barrier to wildlife attempting to cross between the habitats on each side of the highway.

Looking to the future, SR 68 will continue to be one of the key routes for travel between the Monterey Peninsula and the Salinas Valley. Without improvements, the issues facing Highway 68 will continue to increase as the demands placed upon the highway exceed its capacity to meet the corridor's transportation needs.

Planning Goal, Objectives, and Approach

In response to the issues facing SR 68, TAMC received a California Department of Transportation (Caltrans) Sustainable Communities Planning Grant. The grant funded this study to evaluate current and future travel patterns between Salinas and the Monterey Peninsula, the feasibility of affordable mid-term operational and capacity improvements in the SR 68 corridor in context to other planned regional improvements, and the potential for wildlife connectivity enhancements.

The goal of the SR 68 Scenic Highway Plan is to identify a preferred SR 68 corridor concept and associated infrastructure improvements that will best meet both the local and regional goals, while providing the highest return on investment of limited regional transportation funding for the next 20 years. Specifically, the following objectives have guided the development of the SR 68 Scenic Highway Plan:

- Apply advanced data collection technology and resources, such as video and Bluetooth, to establish an accurate baseline of vehicle/bicyclist/pedestrian counts, vehicle queue lengths, vehicle speeds, travel behavior, travel time variation trends, animal crossings, and roadkill in the corridor;
- With direct input from the public, develop feasible corridor concept alternatives that: 1) maximize efficiency and safety; 2) achieve acceptable operating conditions relative to projected future demand; 3) enhance wildlife connectivity by providing better opportunities for safe crossings for wildlife; 4) improve air quality; 5) accord with SR 68's rural and scenic character; 6) minimize potential impacts to the natural environment; and,
- Consistent with Caltrans Smart Mobility Framework process, perform a transparent and objective performance-based analysis to identify a preferred corridor concept using advanced intersection and highway analysis tools to calculate life-cycle benefit-costs that will support infrastructure investment decisions made by TAMC, Caltrans, and other stakeholders.





A key element of the planning process was the understanding that early engagement with the public and local stakeholders, plus the integration of the wildlife connectivity analysis with the transportation planning work, was needed to craft a plan that would address the multitude of issues facing the corridor.

Phase 1: Existing Conditions and Future Conditions Analysis

An extensive analysis of the current operational conditions was performed for all modes of travel along SR 68, including drivers, bicyclists, pedestrians, and wildlife movement. This analysis, along with the first phase of public outreach, was used to determine what the baseline conditions currently are for SR 68, and, consequently, where resources would be best allocated to address the needs of the corridor. Some of the key findings were:

- SR 68 suffers from unreliable travel times, which cause travelers to increase the “buffer time” that they must allow to reach their destinations; on a regular basis.
- A significant number of trips begin or end along the corridor, meaning that the corridor is serving both regional commuters (those traveling between Salinas and Monterey) as well as residents and people who are traveling to a destination along the corridor.
- The majority of collisions along SR 68 segments relate to the extensive queuing at intersections.
- The ability to widen SR 68 or reroute it through a Fort Ord Bypass is constrained by the National Monument, very high cost, and environmental considerations.
- The extensive wildlife movement across the corridor creates safety issues for people and animals, resulting in a need to improve existing wildlife pathways and highway drainage culverts to allow wildlife to safely cross underneath SR 68.
- Based on travel demand modeling, traffic along this section of SR 68 is expected to increase by approximately 10% over the next 25 years, but the net effect on performance will be a 70% increase in delay, meaning that SR 68 is at a tipping point and each new trip along the corridor exacerbates existing traffic congestion exponentially.
- Traffic congestion and collisions are concentrated at the many signalized intersections. To address these problems, the study team conducted Intersection Control Evaluations at each major intersection along the corridor. The results of the evaluations supported replacing the current signalized intersections with a corridor of roundabouts along SR 68.
- There is strong public support for improving SR 68, as well as preserving the scenic nature of the corridor.

Phase 2: Corridor Concepts

Based on the technical analysis and comments from the public, the project team has crafted three concepts for improving SR 68. Each concept is intended to be feasible to develop, given the constraints along the corridor. The concepts can be defined as follows:

SR 68 Roundabout Corridor - Concept 1

- Creates new capacity only at intersections
- Converts 11 intersections to roundabouts
- Controls access by limiting some left and right turns
- \$48.2 Million construction cost





SR 68 Widening with Roundabout Control - Concept 2

- Widens 6.4 miles of SR 68 in four segments, from:
 - Olmsted to SR 218
 - Ragsdale to York Road
 - Laureles Grade to Corral De Tierra (West Bound only)
 - Corral De Tierra to existing 4-lanes - Toro Park area
- Converts 9 intersections to roundabouts
- Prohibits more left and right turns to restrict access, increase safety, and improve travel time
- \$107.1 Million construction cost

SR 68 Integrated Corridor Management and Adaptive Signal Control - Concept 3

- Widens and channelizes 6 intersections
- Creates a communications system between signals, known as Adaptive Signal Control, along two sections of SR 68
- Widens the highway to 4-lanes for 1.15 miles from e/o Toro Creek Road to existing 4-lane section.
- \$34.4 Million construction cost

Benefit-Cost Analysis

A detailed benefit-cost analysis of each concept was performed taking into account the following factors:

- Safety
- Travel time
- Air pollution emissions
- Habitat and other resource preservation
- Maintenance cost
- Capital cost

Based on the intersection-specific Benefit-Cost analysis of these factors, Concept 1, roundabouts through the corridor, best balances operations and capacity in concert with resource preservation, safety, emissions, maintenance, and overall cost. Additionally, a micro-simulation analysis of the corridor revealed that a series of roundabouts (i.e., roundabout corridor) will significantly reduce travel delay and improve SR 68 reliability.

Public Outreach

An extensive public outreach effort has been performed throughout the course of SR 68 Scenic Highway Plan development process. The outreach effort included traditional public workshops, community/stakeholder meetings, on-line engagement, and media. The input received through these various channels helped inform the study and ultimately the study recommendations. The benefit-cost analysis also correlated with public opinion, which strongly preferred Concept 1.





Preferred Corridor Concept: Roundabout Corridor: Concept 1–Modified

Based on the above quantitative and qualitative analysis, extensive public outreach, and a comparison of the three alternatives' ability to meet the goals and objectives of the SR 68 Scenic Highway Plan, the project team developed the following preferred concept for the SR 68 corridor. The Preferred Corridor Concept is illustrated in **ES-Figure 1**.

- Convert 11 intersections to roundabout control, including one driveway at Robert Talbott;
- Restricting left turns out of side streets and driveways, to improve safety;
- Evaluate benefits of widening between Corral de Tierra and San Benancio Road roundabouts;
- Construct wildlife connectivity improvements at six locations;
- Install Dynamic Speed Feedback Signs and Intersection Warning Signs at various locations (to be determined) and additional lighting along two segments (York Road to Pasadera Drive and Corral de Tierra to San Benancio Road)
- If Ferrini Ranch proceeds, widen SR 68 to 4 lanes for 1.15 miles from of SR 68 to 4-lanes: east of Toro Creek Road to the existing 4-lane sections (Ferrini Ranch EIR proposed mitigation)

Planning level cost estimates of the Preferred Corridor Concept is \$48.22 Million (cost does not reflect improvements to be paid through Ferrini Ranch developer fees). This does not include an additional \$21.4 Million for the Wildlife Connectivity Improvements.

Implementation and Next Steps

The recommended Preferred Corridor Concept will serve to inform and guide future SR 68 corridor programming decisions based on the available funding. As part of this concept, it is recommended that the preferred corridor concept and associated improvements be phased over time (i.e., immediate-, short-, medium- and long-term). A phasing plan will allow additional funding sources to be identified and leveraged to match the local Measure X funding to better facilitate programming over a 20-year timeframe.

Based on the various operational and safety assessments, the following phases are suggested for implementing the Preferred Corridor Concept:

Immediate-Term (0-3 Years)

- Create a Highway 68 Improvement Corridor Team that includes Caltrans, TAMC, the County of Monterey, the Monterey Regional Airport District, and the cities of Monterey, Del Rey Oaks, and Salinas.
- Prepare and refine engineering-based roundabout layouts (eleven locations) and a corridor-wide Project Initiation Document, in coordination with Caltrans
- Coordinate with property owners for recommended (or desired) roundabout locations at private driveways
- Prepare and Adopt Corridor Level Environmental Review, including evaluation of widening between Corral de Tierra and San Benancio intersections
- Develop project funding plan and apply for matching grants





Short-Term (4-6 Years)

- Construct first set of improvements:
 - Roundabout SR 68 at Olmsted, in coordination with the Monterey Regional Airport Master Plan
 - Roundabout SR 68 at 218
 - Roundabout SR 68 and New Torero Drive
 - Roundabout SR 68 at Corral de Tierra and San Benancio, and associated widening, if applicable (concurrently)
- Wildlife Connectivity improvements at Sites 6, 7, 8 and 9.
- Install Dynamic Speed Feedback Signs, Intersection Warning Signs and additional lighting
- Coordinate with the City of Salinas to develop a comprehensive solution for the intersection of SR 68 and Blanco Road

Mid-Term (7-10 Years)

- Construct the next set of improvements:
 - Roundabout SR 68 and Josselyn Canyon Road
 - Roundabout SR 68 and York Road
 - Roundabout SR 68 and Pasadera Drive
 - Roundabout SR 68 and Laureles Grade (to be developed in coordination with Laguna Seca Raceway to include access changes to the raceway, as desired)
 - Roundabout SR 68 and Business Park Driveway
- Wildlife Connectivity improvements at Sites 2 and 3.

Long-Term (11-20 Years)

- Widening of SR 68, 1.15 miles from 4-lane transition to just east of Toro Creek Road (depending on progress of the Ferrini Ranch Development)

