

El Dorado County Transportation Commission

June 2, 2022









- Study Purpose and Recap
- US 50 Trip to Green
- US 50 Corridor System User Traveler Analysis
- Financing Investment Strategy Overview
- Next Steps





PDT Role and Make-Up

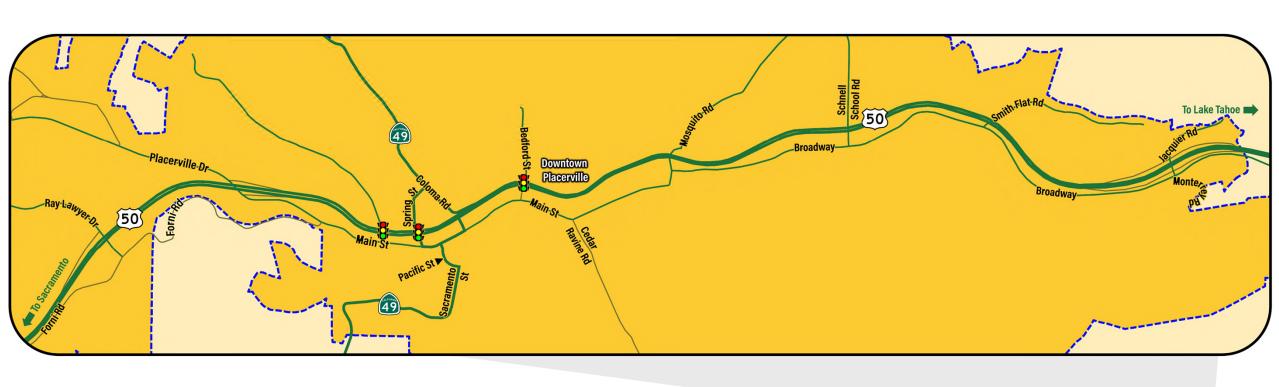


- Collaborate on study processes, findings and recommendations
- Provide technical input and expertise
- Coordinate needs, responsibilities and actions within respective organizations
- Ensure we develop the most effective plan possible for the traveling public



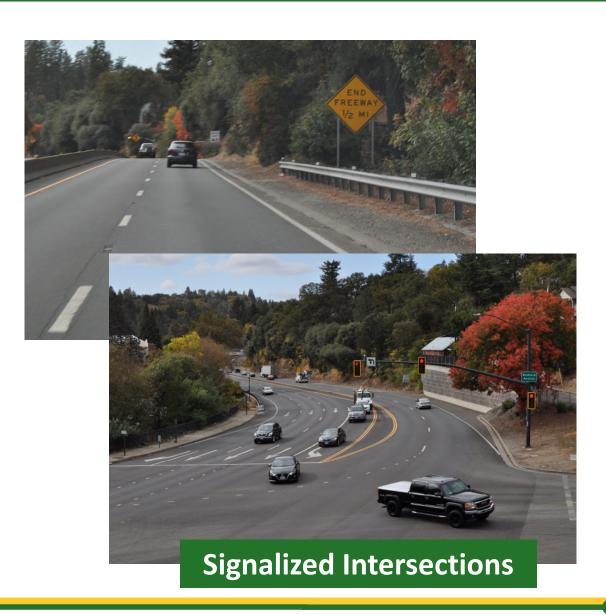


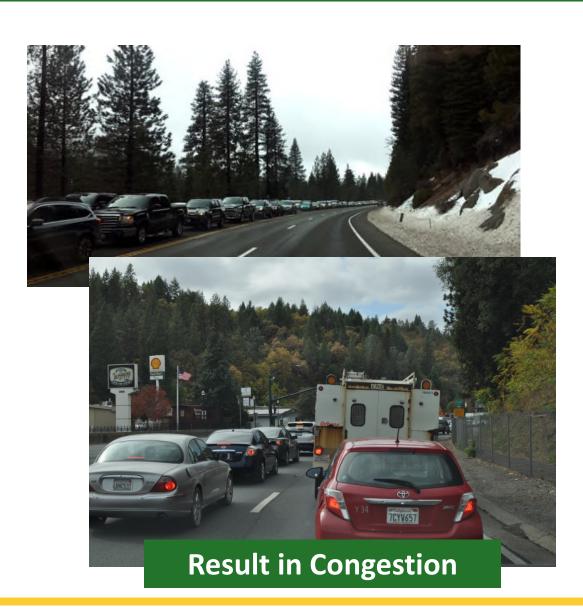
Study Area





Study Purpose



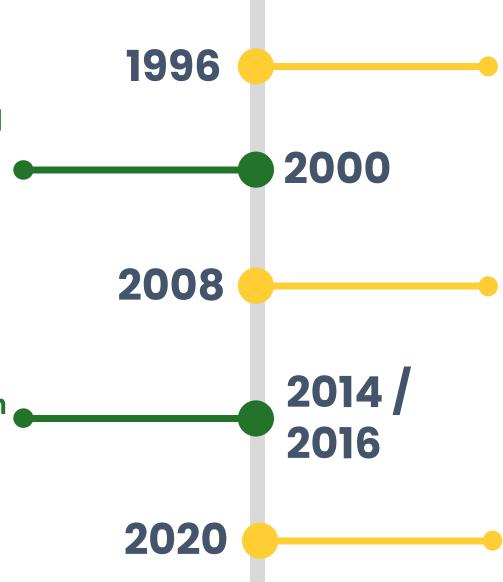




Study Purpose



Bay to Tahoe Basin Tourism and Recreational Travel Impact Study and Agritourism Study Looked at travel characteristics through the study area



Project Study Report

Considered gradeseparations, flyover ramps, and widening

Hwy 50 Operational Improvements Constructed

Eastbound aux lane, Hangtown bridge, and Placerville Dr. connection Project Report 2002

US50 Hot Spot Study

Identified, evaluated, and recommended traffic management strategies



Schedule Overview and Key Tasks

Access Control Plan for US 50 in Placerville







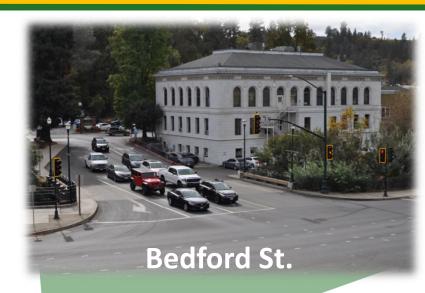




Trip to Green







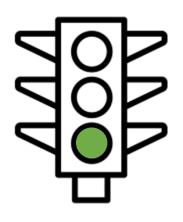




Access Control Plan Proof of Concept



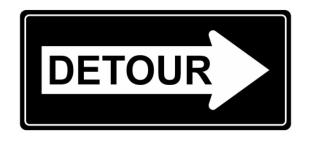
Action Plan Concept Overview



Continuous Green for US 50 Thru Traffic at all 3 Signals in Downtown Placerville



Prohibit Local
Movements Across
US 50 and Limit
Local Access



Reroute Local Access and North/South Movements Across US 50



Trip to Green

2021 Trip to Green Development:

- Planned Trip to Green Implementation:
 - Sept. 24-26, 2021: Friday 12am-Sunday 10pm
 - Oct. 15-17, 2021: Friday 12am-Sunday 10pm
- Caldor Fire: August 14 October 21
- Cancelled Trip to Green Deployment

2022 Trip to Green Deployment:

- Up to 3 Deployments Planned:
 - August 6-7, 2022: Saturday 7am-Sunday 7pm
 - September 3-5, 2022: Saturday 7am-Monday 7pm
 - October 1-2, 2022: Saturday 7am-Sunday 7pm





Lessons Learned from Caldor Fire

Continuous Green and Detours Implemented:

- Set-up takes about 2 hours, can consider daylight hour only versus 24-hours/day during weekends
- Revealed specific locations to intercept detoured traffic
- Ensure plenty of signage for no lefts off US 50
- Close left turns from US 50 first, then close the side streets
- Each intersection does need to be staffed. Experienced a lot of public interactions.
- Bike and pedestrian activity higher than expected
- Identified additional CMS locations





Final Report

Draft Final Report
US 50 ACCESS CONTROL ACTION PLAN
AND PROOF OF CONCEPT









US 50 Access Control Action Plan and Proof of Concept Draft Report

- Documents the development of the Access Control Plan and Proof of Concept
- Includes risk matrix, proof of concept plan sheets, and documents coordination
- Also includes lessons learned from Caldor Fire



Trip to Green Grant Application

INFRA/Rural Grant Application

- Grant application submitted for long term trip to green infrastructure and PSR for future ultimate improvements
- Total grant request of \$12,240,000 (RURAL)

\$10,050,000 (INFRA)

\$16,750,000 (Total Project Cost)

- Submitted May 23, 2022
- Competitive grant process
- Future rounds of grant funding through this program are anticipated





System User Travel Analysis



System User Travel Analysis



Purpose and Methods:

- <u>Purpose</u>: Develop an understanding of US 50 travel patterns including origin/destination, travel characteristics, and traveler information
- Method: Applied the Replica platform leveraging SACOG's license agreement to mine data obtained from location-based devices

Replicahq.com



Average Daily Traffic

PeMS data, Oct. 2019

Average Daily Traffic US 50 West of Placerville Drive

Weekday

US 50 ADT

Total: 45,200

EB: 22,300

WB: 22,900

Saturday

US 50 ADT

Total: 49,600

EB: 25,700

WB: 23,900

Sunday

US 50 ADT

Total: 45,300

EB: 20,500

WB: 24,800



Residents vs Visitors

Replica data, Sept.-Nov. 2019. Weekday as average Thursday

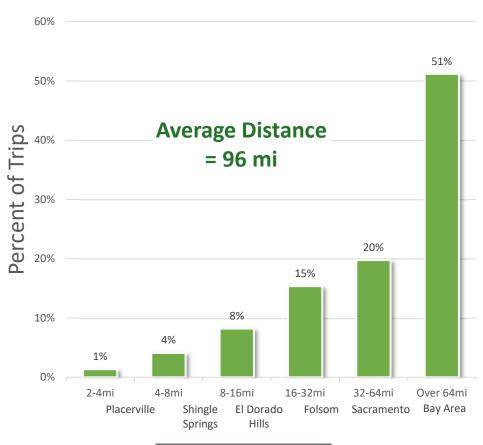
US 50 at Bedford Avenue

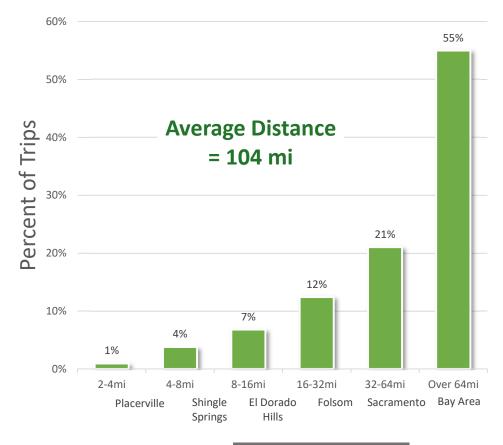




Trip Distance

US 50 at Bedford Avenue





Weekday

Saturday



Trip Distance Takeaways

Summary Data:

76% Percent of vehicles on US 50 in Placerville on Saturdays that are traveling at least 32 miles.

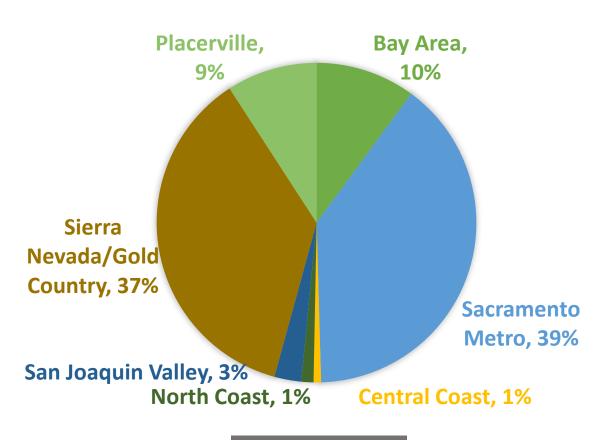
This equates to approximately **38,000** long-distance vehicle trips; or **63,000** long-distance person trips.

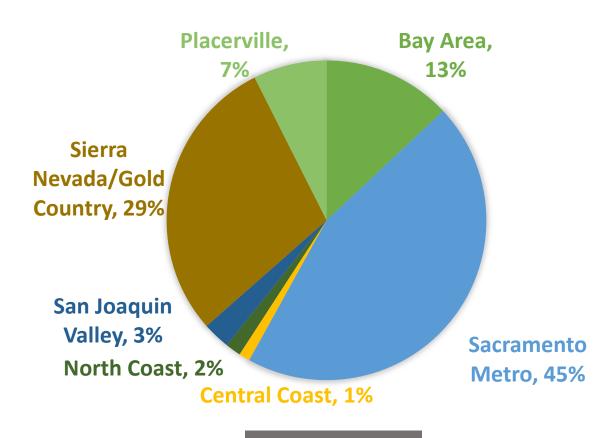
The 63,000 persons making long distance trips on US 50 during one Saturday is equal to nearly 6 times the population of Placerville.



Trip Origins

Eastbound US 50 at Bedford Avenue





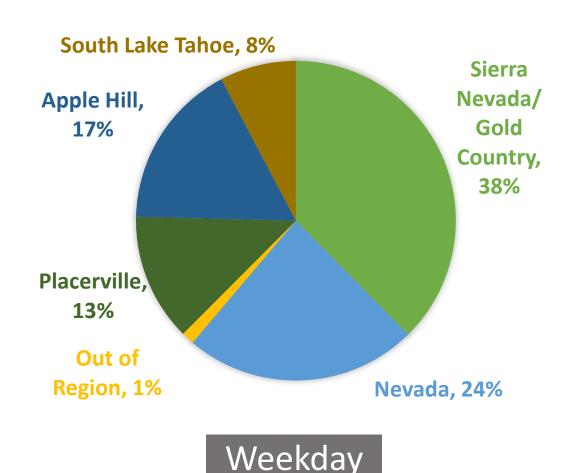
Weekday

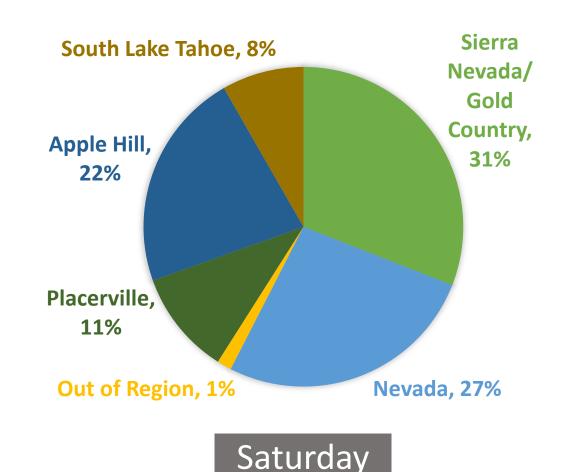
Saturday



Trip Destinations

Eastbound US 50 at Bedford Avenue (Fall)

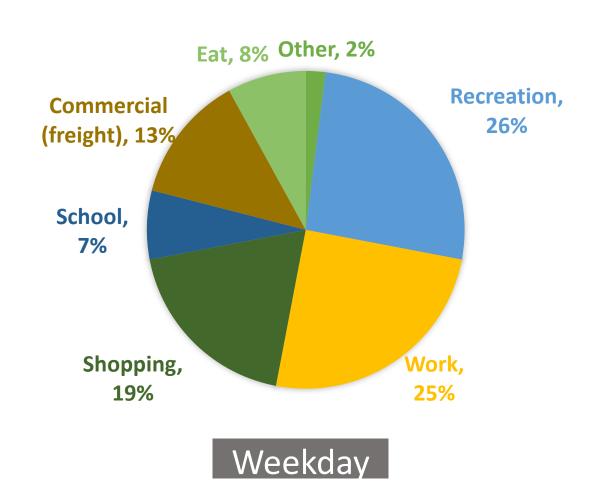






Trip Purpose

US 50 at Bedford Avenue

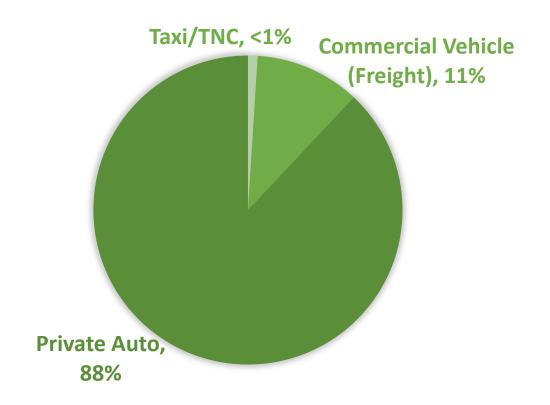






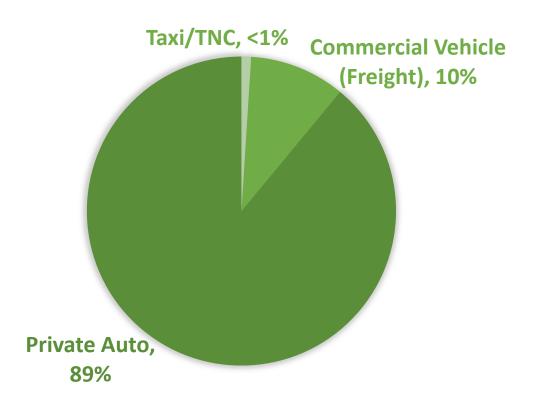
Trip Mode

Eastbound US 50 at Bedford Avenue



Private Auto Occupancy = **1.67** persons per vehicle





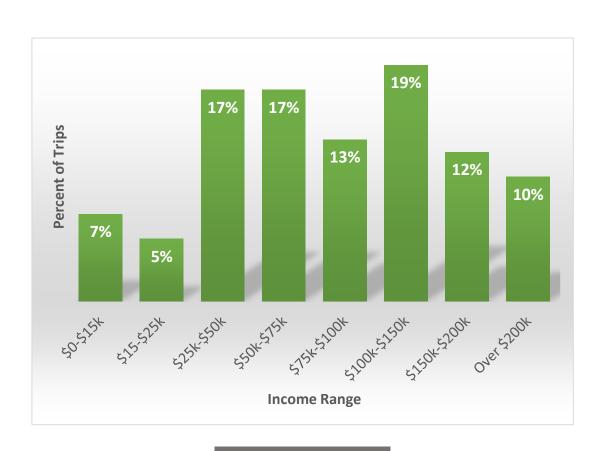
Private Auto Occupancy = **1.90** persons per vehicle

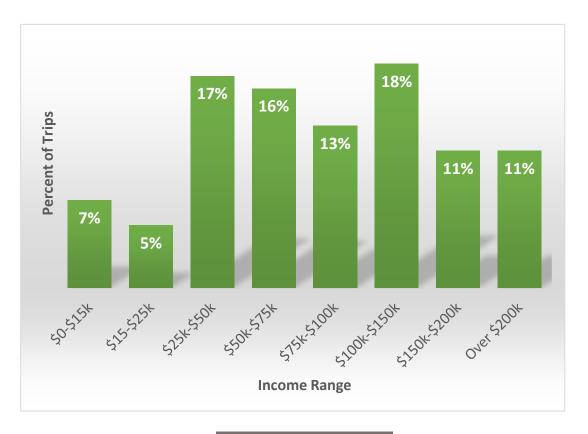
Saturday



Household Income

US 50 at Bedford Avenue





Weekday

Saturday



Financing and Investment Strategy



Financing and Investment Strategy

Purpose and Methods:

- <u>Purpose</u>: Develop a detailed description of financing and investment strategies for potential permanent solutions
- Method: Conduct a sketch-level toll feasibility analysis for a potential permanent concept, as well as considerations for tolling a Trip to Green condition





Toll Facility Development Overview

How do we know how much money we can generate from tolling?



Traffic and Revenue Projection Process

Can we generate enough money to make tolling worthwhile?



Feasibility Assessment

If we can generate enough money, how do we finance it?



Project Financing



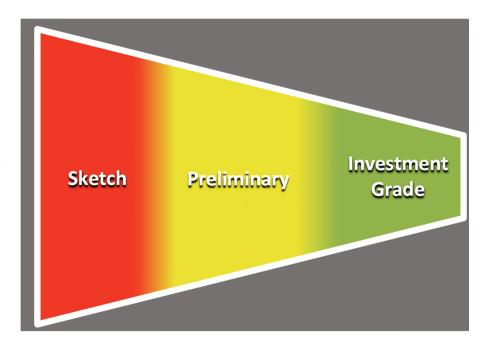
Traffic and Revenue Studies

Types of Studies

- Sketch level
- Preliminary
- Investment Grade

Key Elements

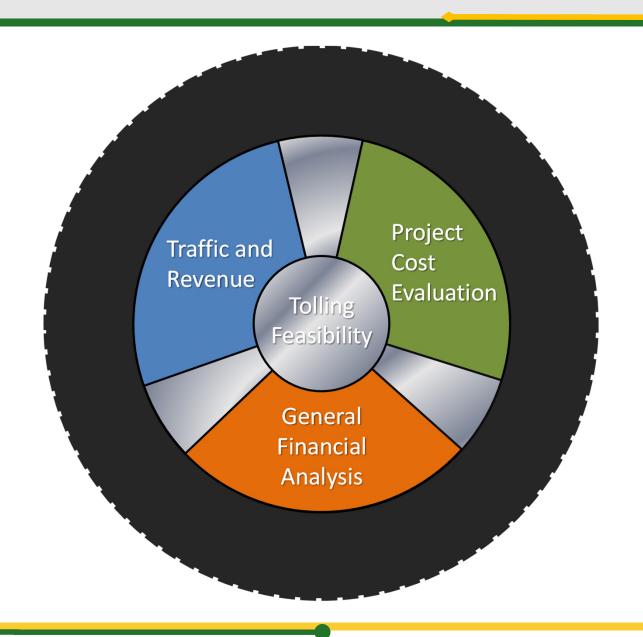
- Data collection
- Economic review
- Travel demand model
- Project assumptions







Elements of a Feasibility Study





Traffic and Revenue: Key Questions

- What is the overall travel demand in the corridor?
- How much will it grow in the future?
- What share of the demand can be expected to use the new facility?
- How much will users be willing to pay?





In Summary

- ✓ Tolling has proven to be an effective funding source for new highway capacity as state and federal tax revenues diminish
 - In many cases, however, tolling cannot support the entire cost of projects
 - Must be supplemented with alternative funding sources
- ✓ Preliminary results suggest tolling would provide only limited funding
 - Express lanes yield ~\$1.37-1.81 million/yr (\$0.50-\$1.75 rate)
 - Trip to Green yields ~\$850k-\$2.5 million/yr (\$1-\$3 rate)
 - Assume 12 weekends per year, tolled
- ✓ Need to further advance feasibility results to inform next steps





Next Steps





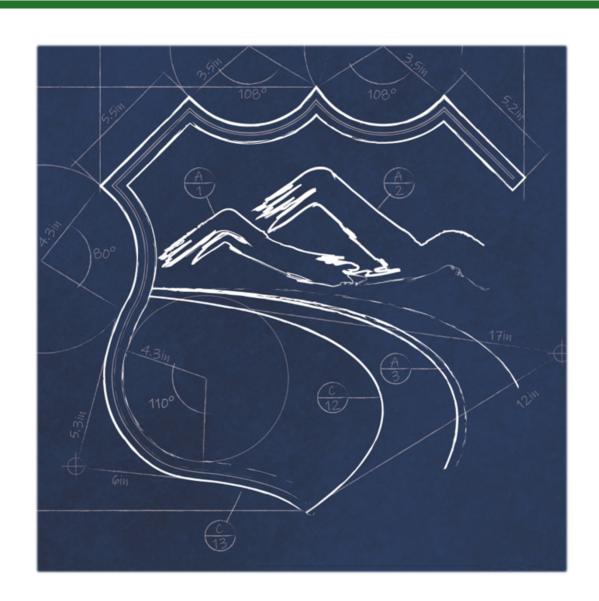








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