SR 4 Corridor Vision Study

Planning Committee Meeting

June 1, 2023





Project Overview

Create a long-term, sustainable, transportation vision to guide future investments.



Project Purpose:

Develop a Comprehensive Multimodal Corridor Plan (CMCP) for the SR 4 Corridor

- Scope Based on Caltrans CMCP Requirements
 - Automobile
 - ▶ Transit
 - Freight
 - Bicycle
 - Pedestrian
 - Emerging Technology

Study Elements

- Study Builds Upon Extensive Existing Efforts
- Document Existing Plans & Guidelines
- Perform Analysis of:
 - Corridor Safety
 - Freight System
 - Arterial Network Operations
 - Identify Emerging Technologies
- Establish Evaluation Criteria
- Primary and Secondary Screening Select Vision Elements
- Document in SR 4 Corridor Vision
- Next Steps Leverage adopted CMCP to pursue future funding opportunities



Project Structure

Group	Purpose	Membership	Meeting Schedule
Project Development Team (PDT)	Review all project deliverables and provide technical guidance	CCTACaltransConsultantTeam	❖ Monthly
Technical Advisory Committee (TAC)	 Provide technical input on project list, goals, and evaluation criteria Identify constraints, opportunities, and public engagement opportunities 	Local JurisdictionsRegional Partners	 May 2023 (today) Summer 2023 (tentative) October 2023 (tentative)

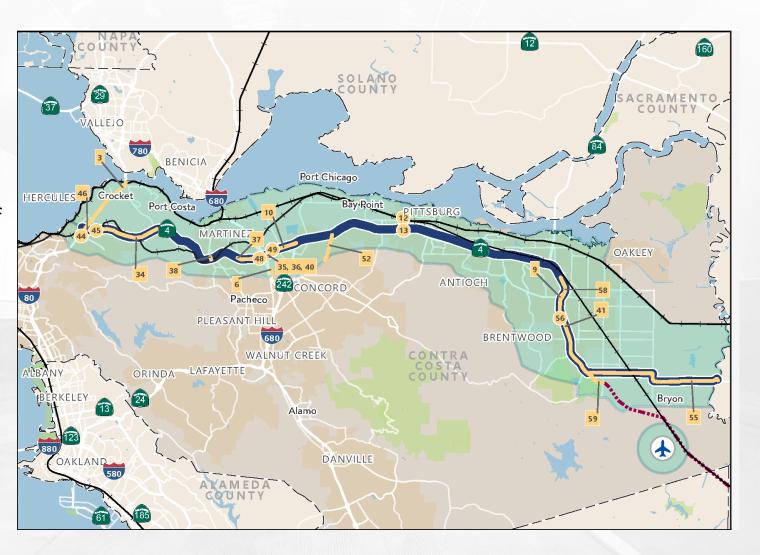
Draft Project Goals

- To define the long-term vision for the corridor
- Develop evaluation criteria for potential improvements within the corridor
- Project Objectives and Performance Measures are provided in the staff report

#	Goal	Weighting
1	Safety	20%
2	Mobility	20%
3	Economic Vitality	10%
4	Social Equity	20%
5	Efficient Land Use	10%
6	Efficiency & Technology	10%
7	Air Quality, Healthy, & Sustainability	10%

Draft List of Relevant Improvement Projects

- Reviewed all relevant existing planning documents and identified relevant projects
 - Reviewed 79 documents
- Relevant projects have been compiled into the Draft List of Relevant Improvement Projects
- 87 projects identified thus far
 - 30 Vehicular
 - 25 Transit
 - 25 Active Transportation
 - 6 Multimodal
 - 1 Goods Movement



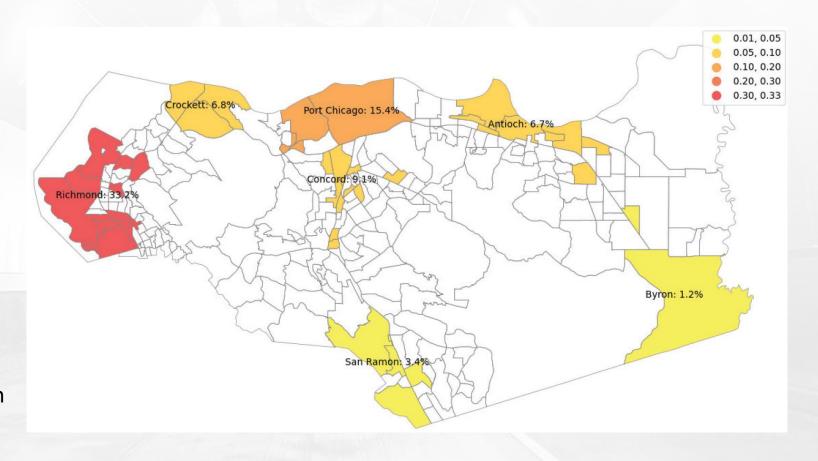
Safety Analysis

- Analyzed for SR 4 and parallel arterials
- Extracted collision data from:
 - TIMS
 - TASAS
- Collisions will be segmented similar to speed and volume data.
- For each segment, a collision rate will be determined
- High collision rate segments will be identified



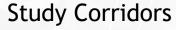
Freight System Analysis

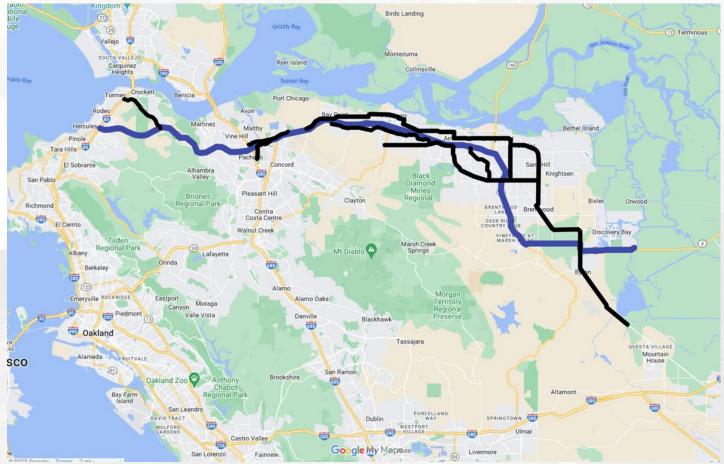
- Approximately 50% of trips ending or starting in Contra Costa are from outside of the county
- Trucks are concentrated in 7 subareas of the County
 - 17% of census tracts generate 75% of trips
- Majority of truck volume occurs between SR 242 and Byron Highway
- SR 4 appears to function as an overflow facility when traffic congestion on I-580 occurs



Arterial Network Operations Analysis

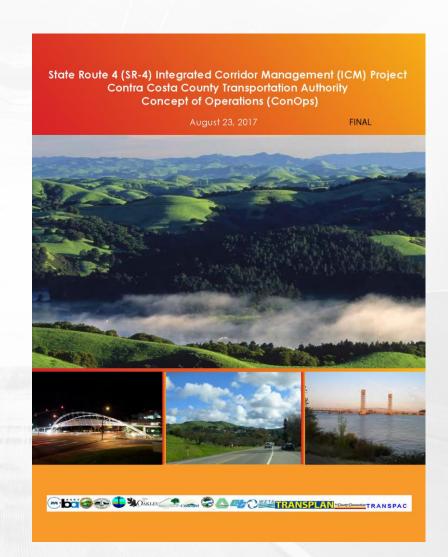
- 9 study corridors analyzed, including SR 4
- Volume and speed data collected from INRIX & StreetLight
- Poor arterial performance is generally caused by:
 - Local land use context
 - Proximity to freeway interchanges
 - Freeway bypass segments
- Problematic segments are generally located between SR 242 and Lone Tree Pkwy





Emerging Technology Analysis

- LIDAR is a growing technology that could prove useful for pedestrian detection and autonomous vehicles
- Wireless services can enhance communications including:
 - 5G Cellular
 - Wi-Fi
 - Connected Vehicle Systems
- CCTA has a Concept of Operations for a SR 4 Interoperable Corridor Management System
- CCTA is developing a County-Wide Fiber Network



Analysis Use Cases

- Additional analysis findings will:
 - Identify problematic areas
 - Compare with Relevant Improvement Projects to highlight areas in need of investment
 - Suggest strategies to addressVision goals and objectives
 - Support Primary and Secondary Screening to select Vision Elements



Stakeholder & Public Engagement

Engagement Stakeholders

- CMCP Guidelines suggest broad engagement such as:
 - Public Agencies
 - Non-Profits
 - Transit Providers
 - Business Groups
 - Developers
 - Environmental Interest Groups
 - Social Equity Organizations
 - Active Transportation and Public Health Advocates
 - Technology and Broadband Stakeholders
 - Others

Engagement Approach

- Led by CCTA
- Project includes:
 - Pop-up Events
 - Public Meetings
 - Project Website
 - Market Research
 - Presenting to and gathering input from:
 - O TAC
 - Citizens Advisory Committee
 - CCTA Planning Committee
 - CCTA Board

TAC, CCTA Committees/Board Schedule

Initial Presentations

May 2nd

- TAC
- (Complete)

May 24th

- CCTA's Citizens Advisory Committee (CAC)
- (Today)

June 1st

• CCTA's Planning Committee (PC)

June 21st

CCTA's Board



Final Presentations









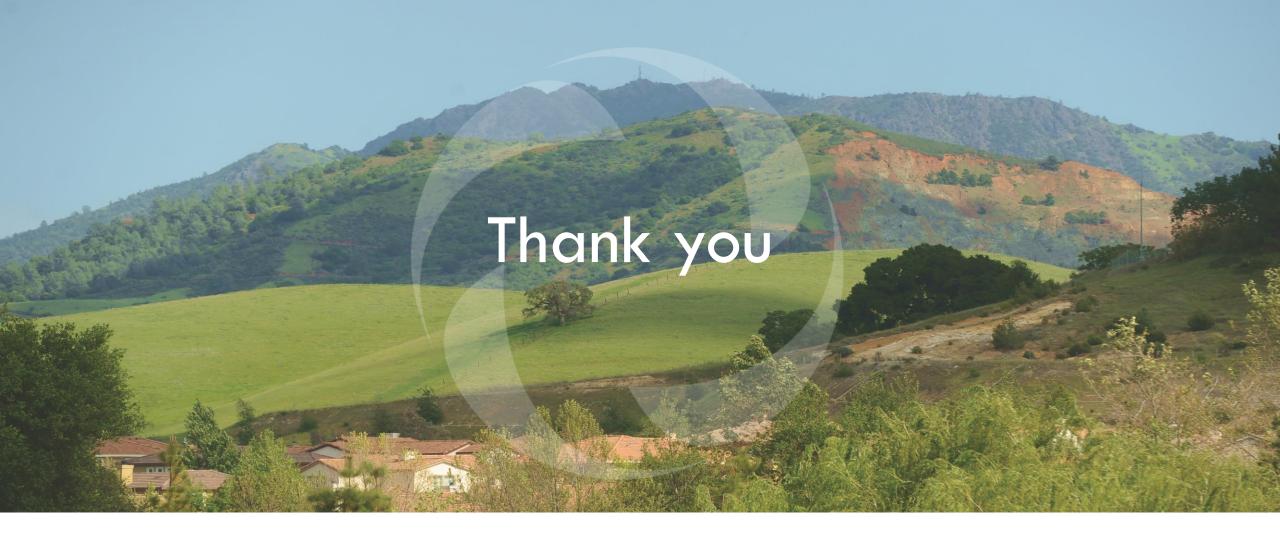
Next Steps

Gather feedback from TAC, CCTA's Committees, & CCTA's Board

Perform Primary and Secondary Screening of Relevant Improvement Projects

Select Vision Elements

Return to TAC, CCTA's Committees, & CCTA's Board for feedback







transportation authority

Technical Advisory Committee





































