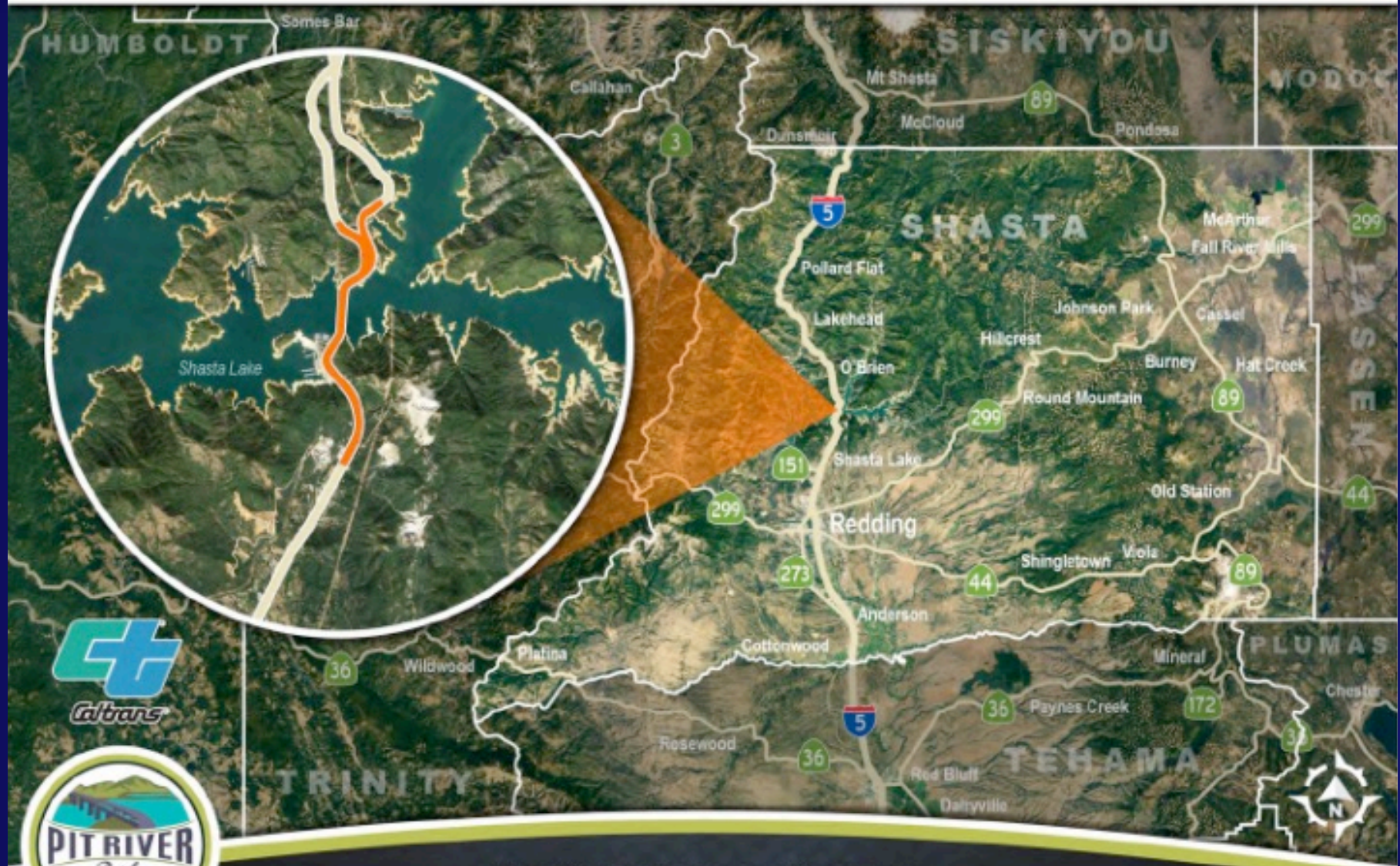




Pit River Bridge Project

Catherine Low, PE, SE
Program and Project Management
District 2

Town Hall Meeting
North State Super Region (NSSR)
California Transportation Commission (CTC)



PIT RIVER BRIDGE PROJECT
LOCATION WITHIN THE REGION



Pit River Bridge Project



-
- Constructed by United States Bureau of Reclamation (USBR)
 - Superstructure designed for Steel Railway Bridges plus highway loads with reference to AASHTO
 - Perpetual easement to Caltrans for highway purposes, originally needed one lane in each direction
 - Maintenance Agreement between USBR and Caltrans ends in the year 2040

Pit River Bridge Project



- Top deck on bridge is highway
- Floor of bridge is freight and passenger rail
- USBR has no bridge functional unit
- In 2012, USBR requests Caltrans investigate future studies on life expectancy
- 2016-2018, Caltrans produced Value Analysis Report and Technical Memos on how to rehabilitate existing bridge

Pit River Bridge Project



District 2 Pit River Bridge
Shasta County, California



Final Quantitative Risk Assessment Report

July 6, 2021

Contract No. 53A0248
Task Order No. 1256

Prepared by
Value Management Strategies, Inc.



- Studies funded by Central Federal Lands
- Prioritized list of needed studies
- 2021, Quantitative Risk Assessment performed by consultant
- 2021-2022, Advance Planning Studies performed by Caltrans for the rehabilitation of the existing bridge and two replacements

Pit River Bridge Project



- 2022-2023, Peer Review performed by consultant HDR and COWI
- Provided review of Advance Planning Studies
- Provided additional long span solutions based on current construction practices
- Results presented in the Project Initiation Document





Pit River Bridge Project



- Constructed late 1930's - 1941
- New alignment for Highway 99
- Caltrans enters into 99 year maintenance agreement with USBR
- Comparable bridge of the era:
 - 5,000 ft railroad bridge in 1930 across Suisun Bay with a longest span of 530 feet.

Pit River Bridge Project



- 1953
 - US Highway 99 became federal freeway I-5
- 1966
 - Highway is upgraded for modern traffic
 - Bridge deck is widened by 10+ feet
- 1962
 - Comparable highway project of the era:
 - New Benicia-Martinez bridge replaces ferry service for highway purposes



Geometric Deficiencies

- 50 mph curves on both roadway approaches

Maintenance Challenges



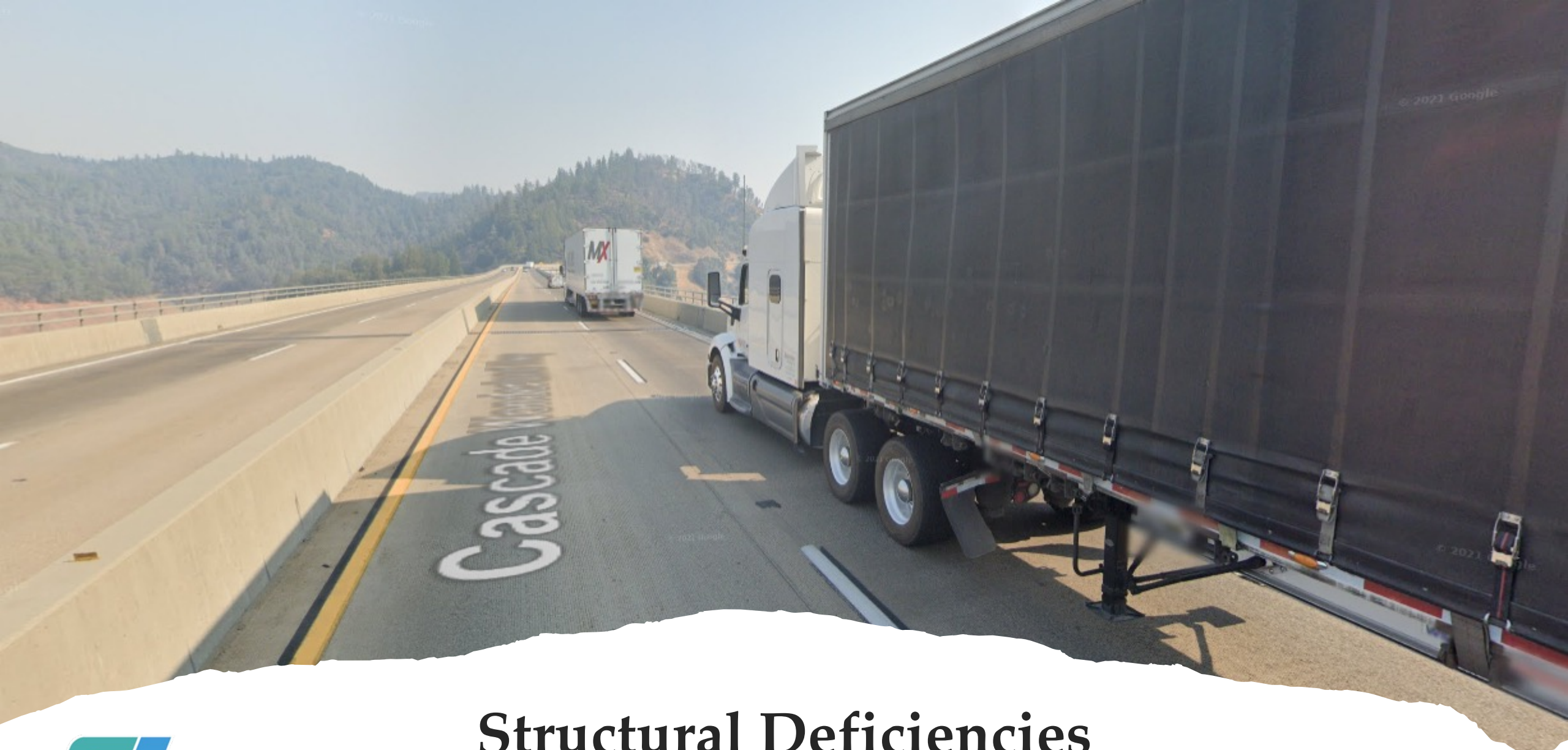
- Routine inspection requires short term lane closure - one lane remains open.
- Worker safety issues during short term lane closure due to lack of escape route.



Maintenance Challenges



- Coordinate with railroad schedule – work window of 20 to 40 minutes.
- Long term lane closure causes hours long delay and permit and extra-long load restrictions.



Structural Deficiencies

- Narrow shoulders

Structural Deficiencies



- Tubular bicycle railing is provided but outside shoulders are 2 ¼ foot wide
- Increasing demand for goods movement.
- Frequency of highway concrete deck replacement is determined by condition.
- Excluded from statewide bridge program to retrofit seismically vulnerable infrastructure owned by Caltrans.

Modality Deficiencies



National Recreation Area in the Shasta-Trinity National Forest

Sightseeing, Camping, Hiking,
Caving, Mushroom Harvesting,
Fishing, Water Sports

- Unauthorized truck parking
- District Office of System Planning urging truck parking opportunities
- Bicyclist impediments
- Pedestrians prohibited

Modality Deficiencies

- Impractical detour options
 - Alternate routes do not carry as much traffic
- Closures occur due to snow conditions and wildfires
 - Delta Fire 2018
- Lack of EV charging stations along corridor



Funding Opportunities

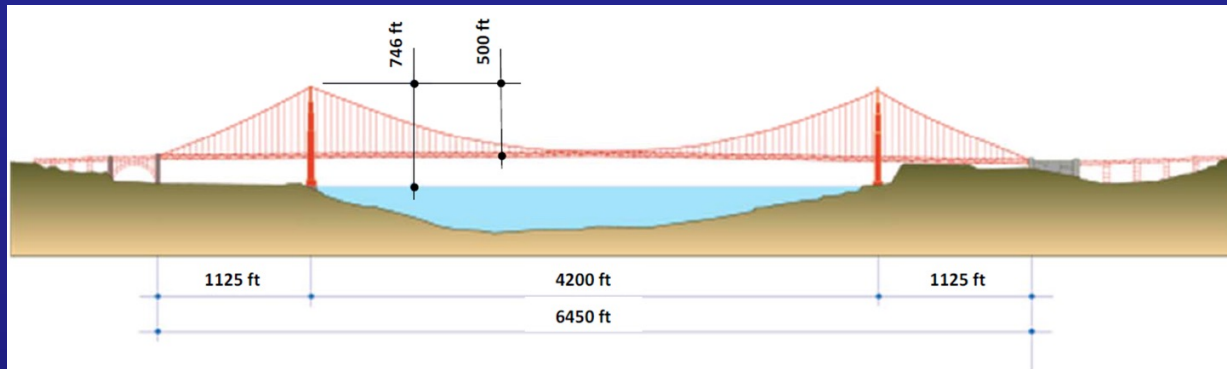


- Project is eligible for Federal-aid funding
- District 2 continues to apply for grants
- A mix of federal and state funds are needed for the Support and Capital costs
- Support costs for Project Approval and Environmental Documents are \$100M - \$150M

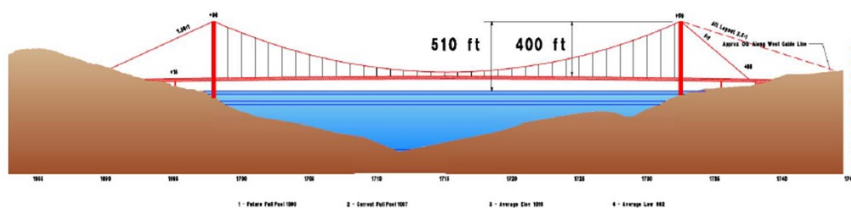
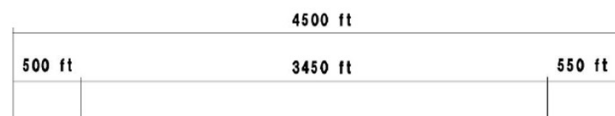
Engagement



Engagement



Golden Gate Bridge



Shasta Lake Bridge



Engagement



- Shasta Regional Transportation Agency
- US Forest Service
- Winnemum Wintu Tribe of Northern California
- California Trucking Association
- City of Shasta Lake
- US Representatives and Senators
- Pit River Tribe
- Central Federal Lands / FHWA
- US Bureau of Reclamation
- Union Pacific Railroad and Amtrack



Thank You