

HIGHWAY 1 ELKHORN SLOUGH CORRIDOR
CLIMATE RESILIENCY PROJECT

Technical Advisory Committee
November 5, 2026

AGENDA

- Project Overview
- PEL Process
- Alternatives Screening
- Alternatives
- Upcoming Outreach Events

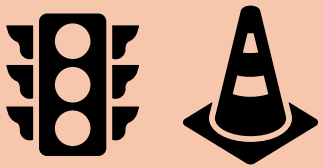




PROJECT GOALS

Improve Highway 1 infrastructure:

- Congestion relief
- Safety and mobility



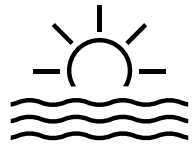
Prepare the Project for future grant opportunities



Reduce tidal flooding and enhance restoration efforts



Long-term resilience



Steering Committee

Sets policy and signs off on recommendations.

Technical Working Group

Provide technical and regulatory input on sea level rise modeling, performance metrics, and resiliency.

Advisory Group

Provide feedback and share materials with their cohorts and constituents.

Community-Based Organizations

These organizations serve as community ambassadors and provide feedback on outreach materials.

Public

Informs the Project through direct public engagement methods, including workshops, surveys, and tabling.



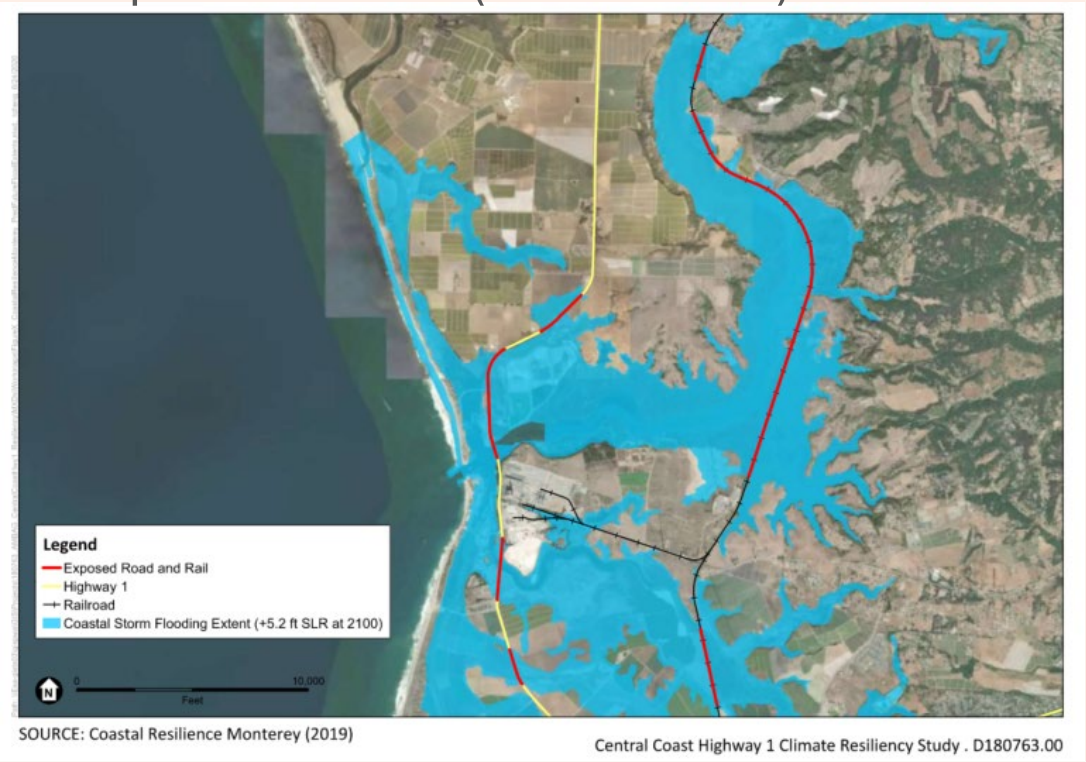
Sea Level Rise and Planning Context

AMBAG Comparison: Outputs

AMBAG 2020:

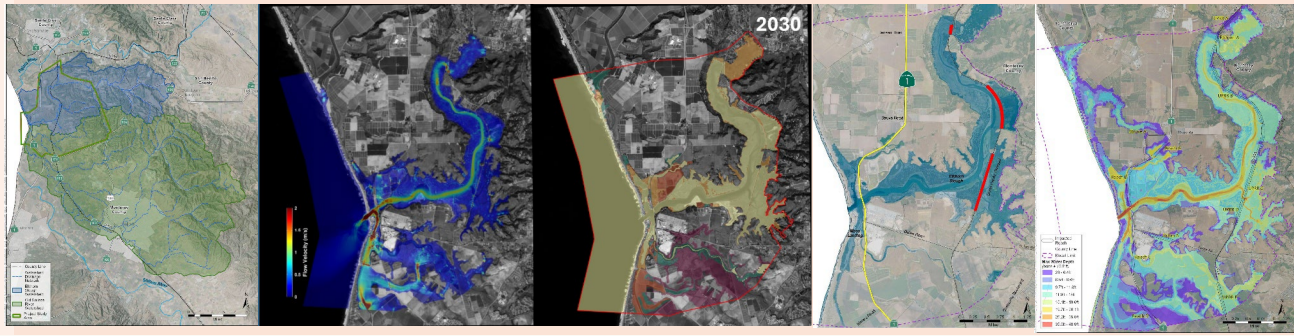
- 2 combination of flood types:
  - 2 time periods: Now and 2100

Maps: Inundation (area flooded)

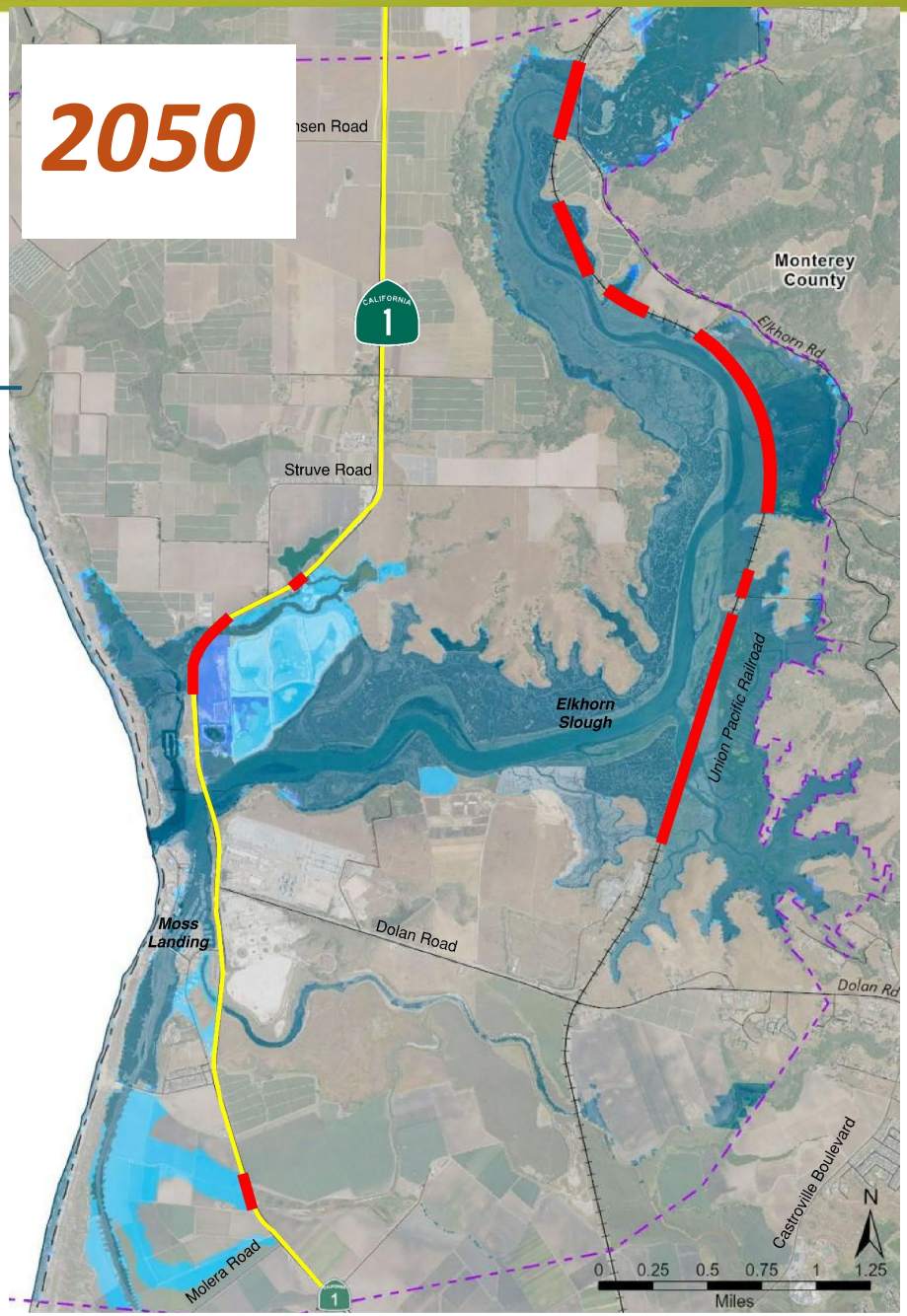


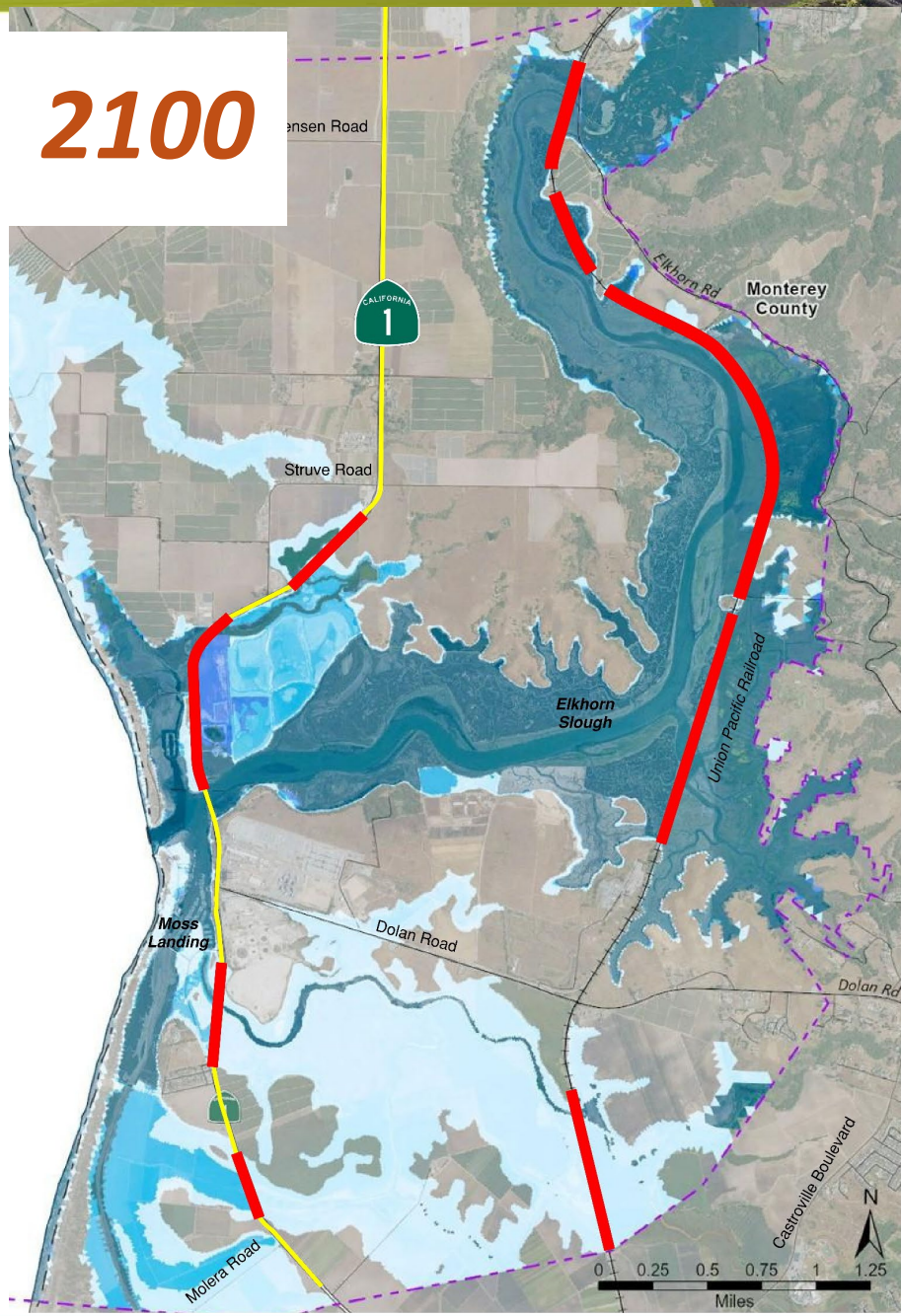
This Study:

- Mapped 30 combinations of flood types
  - 4 time periods: Now, 2030, 2050, 2100
- Maps:
  - Inundation (area flooded)
  - Flood Depth
  - Flood Velocity
  - Flood Components (direction of flooding)
  - Watersheds



Future Flooding: Sea Level Rise & King Tide





Rail & Road flooding



Planning and Environmental Linkages (PEL) Process

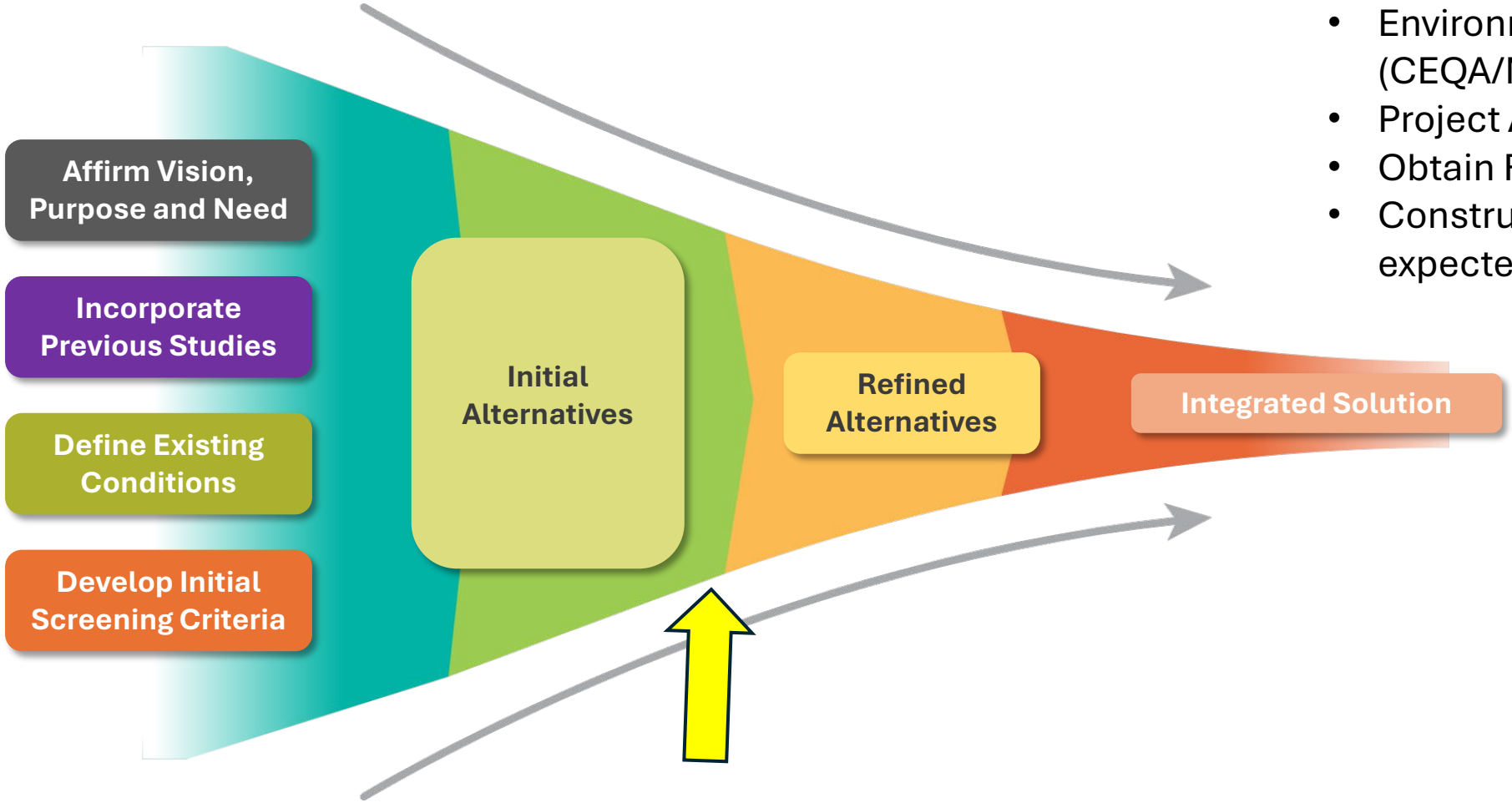
TAMC
TRANSPORTATION AGENCY FOR MONTEREY COUNTY

What is a Planning Environmental Linkages (PEL) Process?

- Long-term vision
- Conceptual
- Gather input and build shared understanding
- Better projects, help expedite later stages



PEL Process Overview



Next Steps:

- Environmental Review (CEQA/NEPA)
- Project Approval
- Obtain Funding
- Construction (Phasing expected)

Summer/Fall 2025 | Winter 25/Spring 26 | Summer/Fall 2026 | Winter 26/Spring 27

Alternative Screening Criteria – Most Important Factors

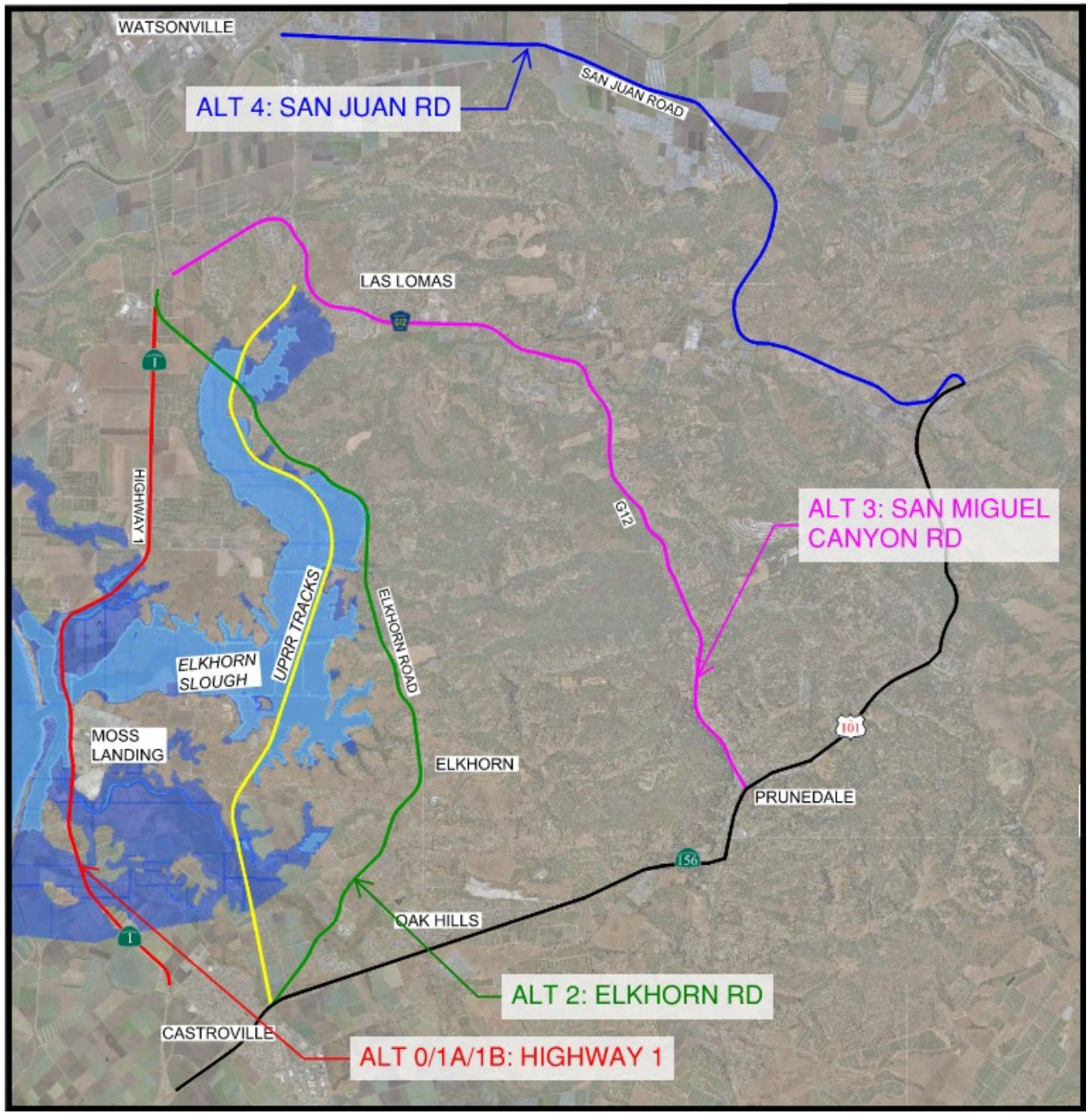
Construction	Operations and Safety	Environmental
Cost to construct	Resilience to flooding	Enhancement opportunities:
Feasibility/complexity	Opportunity to improve safety	• Hydrologic/tidal connectivity and water quality
	Change in access (to properties)	• Protected habitat/sensitive natural communities
	Ability to reduce congestion/meet future travel demand	• Marsh migration
		Opportunity for nature-based solutions

Approaches to Alternatives to Highway 1

- **Protect**
  - Keep Highway 1 in place with protective seawalls, etc.
- **Adapt**
  - Keep Highway 1 generally in place by raising/relocating portions out of flooding danger
- **Retreat**
  - Relocate Highway 1 elsewhere

Initial Alternatives

Alternative 0: No Build
Alternatives 1a (4 lanes) / 1b (2 lanes): Existing Highway 1 ADAPT
Alternative 2: Elkhorn Road RETREAT/ADAPT
Alternative 3: San Miguel Canyon Road (G12) (including connection to Hwy 1) RETREAT
Alternative 4: San Juan Road (including connection to Hwy 1) RETREAT
Rail: Stays on existing alignment; shifted to piles



Construction Cost and Constructability – High Level Estimates

Alternatives	Key Elements	Cost Range*	Construction Duration (Years)
Alternative 1a/1b: Highway 1 (4 or 2 lanes)	• Roadway widening and raising	High	8-10 years, option for phasing
Alternative 2: Elkhorn Road	• Roadway widened/realigned/ raised	Very High	15-20 years
Alternative 3: San Miguel Canyon	• Roadway widening; new interchange		
Alternative 4: San Juan Road	• Roadway widening		

*$0 - Low, $1B-Medium, $4B-High, >$6b - Very High

Operational Reliability

Alternatives	Road Improvements For Operational Reliability	Rail Improvements to achieve Operational Reliability
Alternatives 1a/1b: Highway 1 (4 or 2 lanes)	Adjustments to improve traffic flow and prevent flooding	All alternatives: Rail would be shifted to piles/structures
Alternative 2: Elkhorn Road	Adjustments to improve traffic flow and prevent flooding	
Alternative 3: San Miguel Canyon Rd (G12)	Retreat - would avoid area of anticipated inundation	
Alternative 4: San Juan Road		

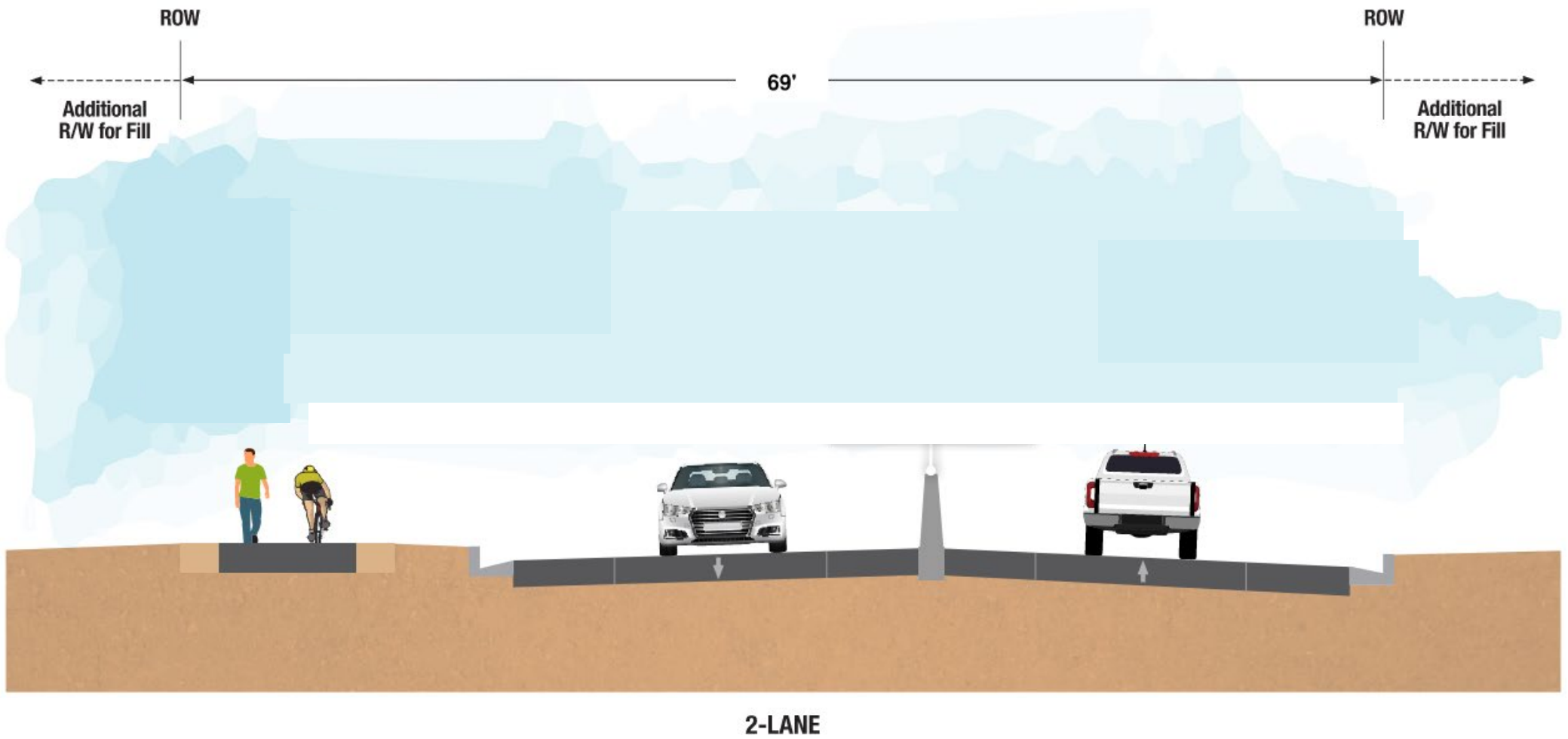
Environmental Enhancement Opportunities

Alternative	Highway 1 Elements	Improvement Opportunities
Alternatives 1a/1b: Highway 1 (2 or 4 lanes)	Adaptation	• Ecotone levees • Viaducts • Marsh expansion, habitat improvements • Recreational access
Alternative 2: Elkhorn Road	Retreat	• Could include piles or ecotone levees
Alternative 3: San Miguel Canyon Rd (G12)		• Wildlife corridor connections, hazard mitigation
Alternative 4: San Juan Road		• Wildlife corridor connections, hazard mitigation

Alternative Alignments Cross Sections

Lane Configuration	Alignment Alternatives				Lane Configuration Options	Bike/Ped
	1a/1b Existing Hwy 1	2 Elkhorn Rd	3 San Miguel Canyon	4 San Juan		
2-Lane	X				2 General Purpose Lanes	Class I
4-Lane	X	X	X	X	2 General Purpose Lanes 2 Managed/Multimodal/Express Lanes	Class I
4-Lane with Frontage	X	X	X	X	2 General Purpose Lanes 2 Managed/Multimodal/Express Lanes	Class I

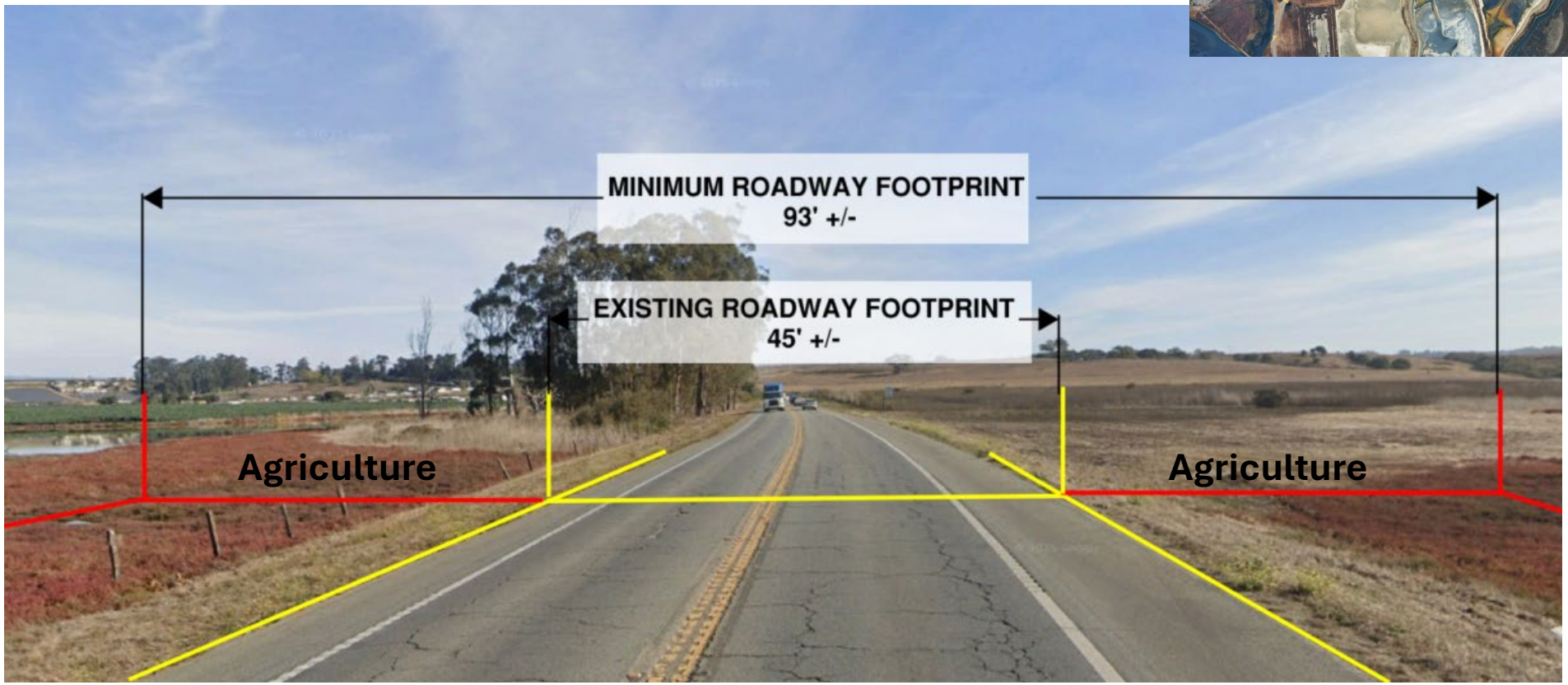
2-Lane Roadway Footprint (Alt 1b)



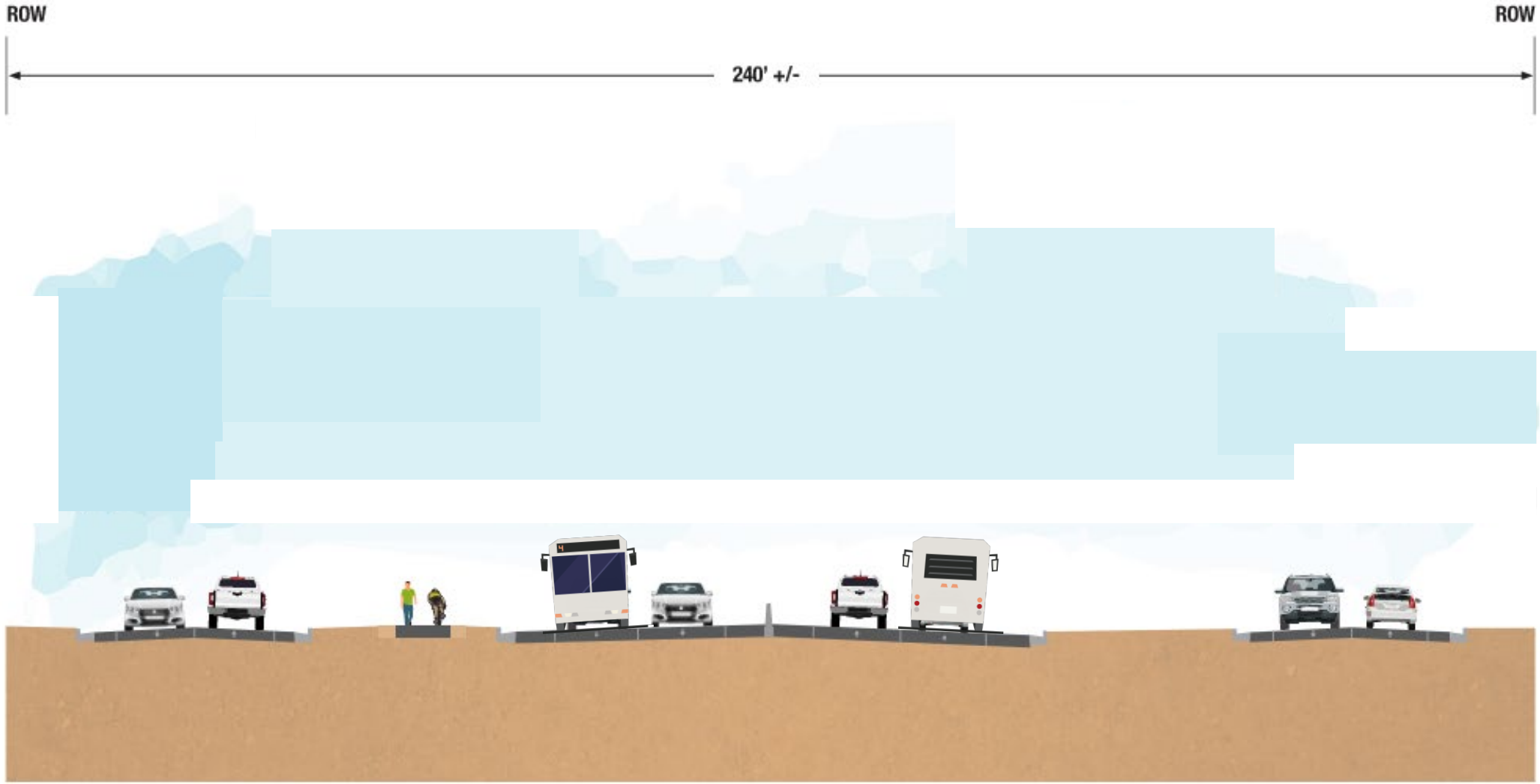
Alternative 1a (4 lanes) Footprint Considerations

Example Footprint Along Highway 1





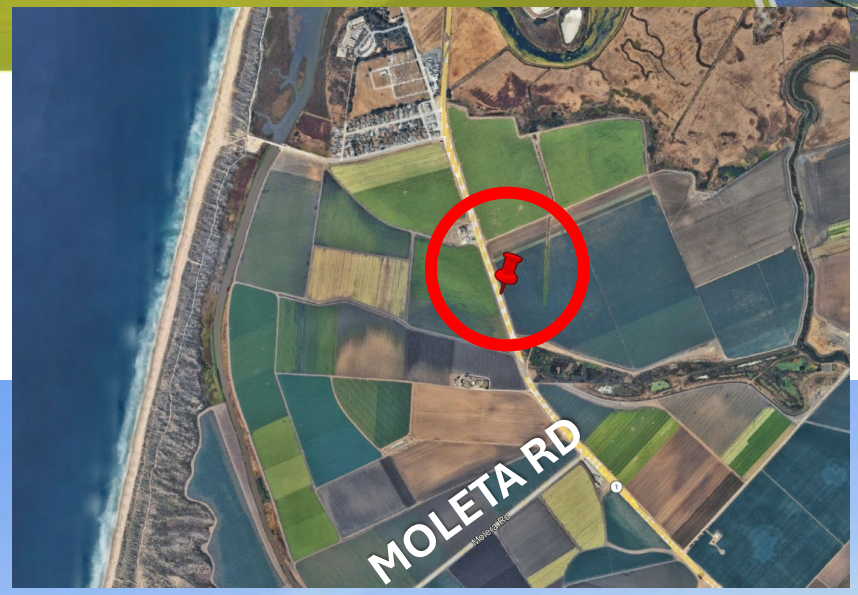
4-Lane with Frontage Footprint (1a, 2, 3, 4)

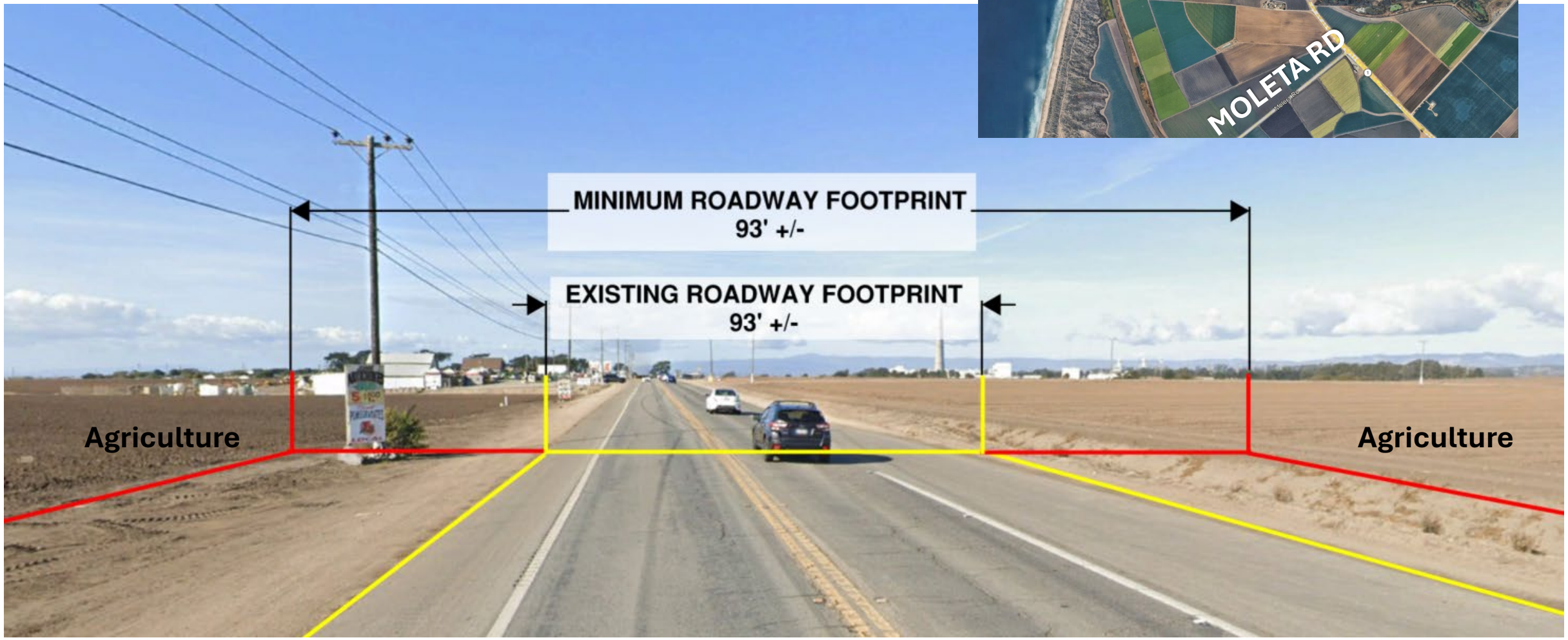


4-LANE W/ FRONTAGE ROADS

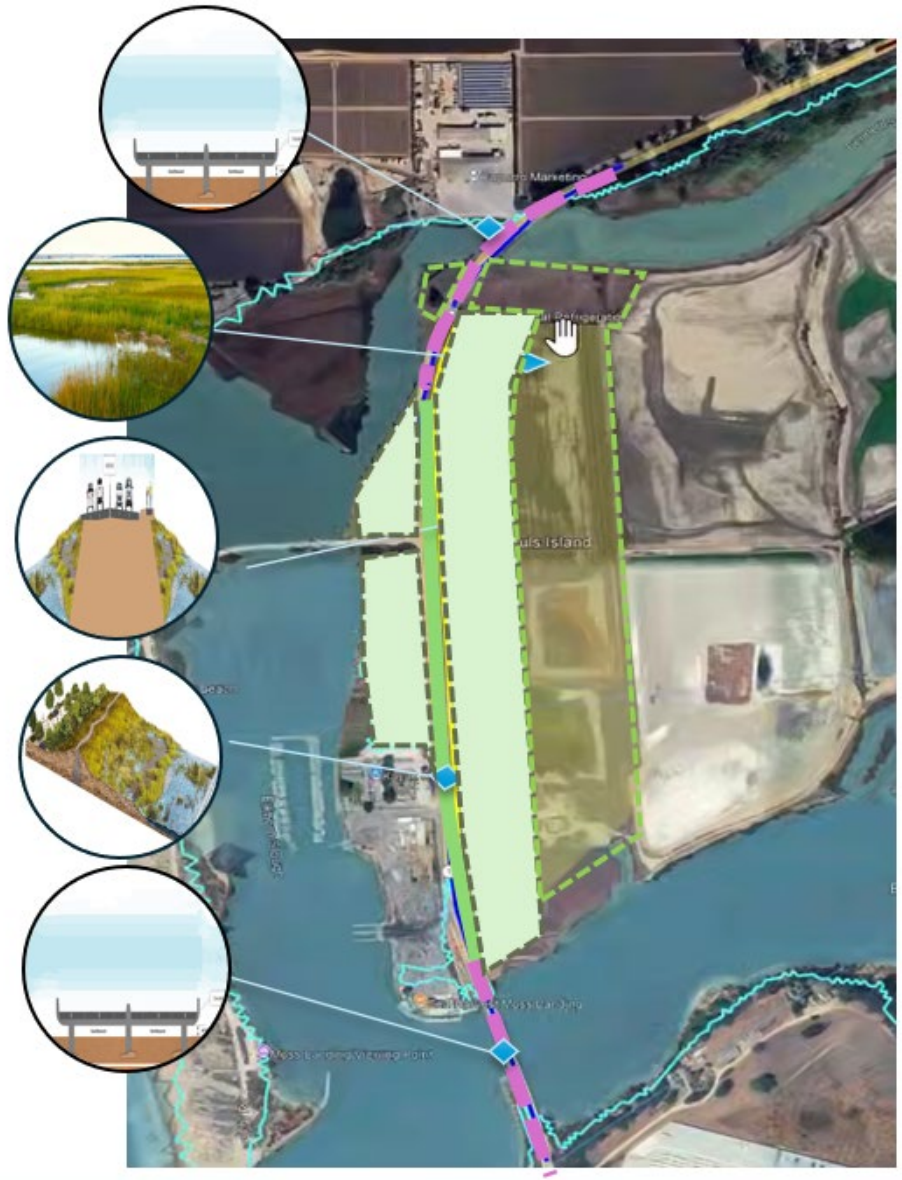
Alternative 1a (4 lanes) Footprint Considerations

Example Footprint Along Highway 1

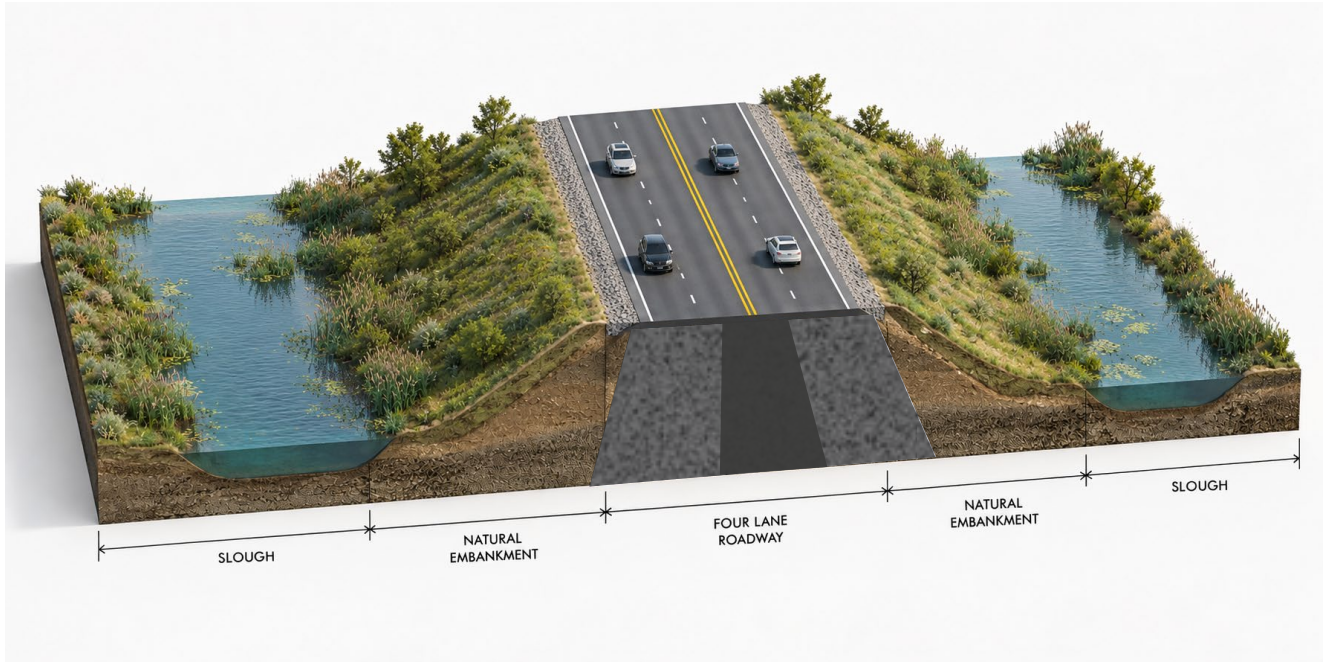




Nature Based Solutions



Ecotone embankment

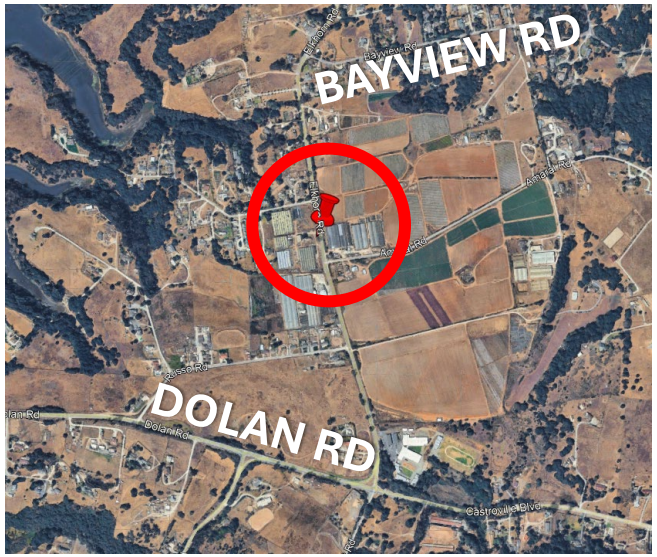


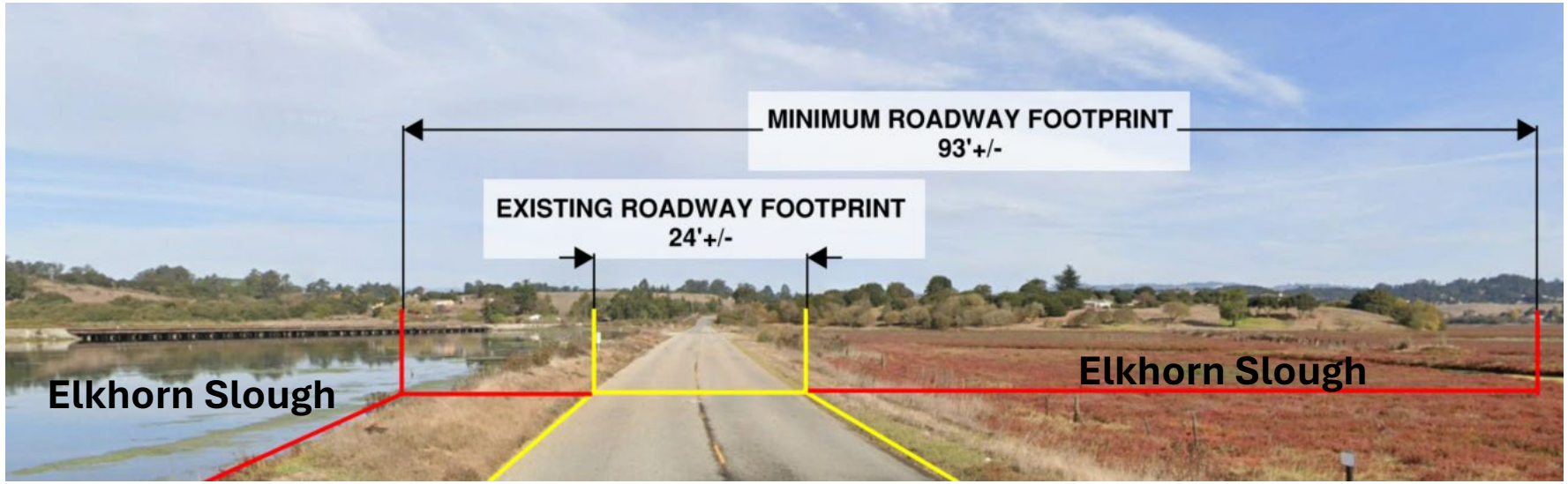
Alternative 1a and 1b Summary

Alternative	1a (4 lanes)	1b (2 lanes)
Cost to construct	High	High
Right-of-way required	93’ – 240’ (differs by location)	69’
Route length	7.5 miles	7.5 miles
Construction duration	8-10 years	8-10 years
Reduces flooding impact to travel?	Yes	Yes
Improves roadway safety?	Yes	Yes
Reduces congestion/Meets anticipated future travel demand?	Lower congestion VMT would increase	High congestion Lowest VMT increase
Access issues needing resolution	29 active driveways, 12 intersections	29 active driveways, 12 intersections
Access to Moss Landing?	Via current Highway 1 alignment	Via current Highway 1 alignment
Hwy 1 improvements include environmental benefits?	Yes	Yes

Alternative 2 Elkhorn Road
Footprint Considerations – 4 Lane Footprint









Alternative 2 Elkhorn Road
Footprint Considerations – 4 Lane Footprint



MINIMUM ROADWAY FOOTPRINT
93' +/-

EXISTING ROADWAY FOOTPRINT
24' +/-

Elkhorn Slough

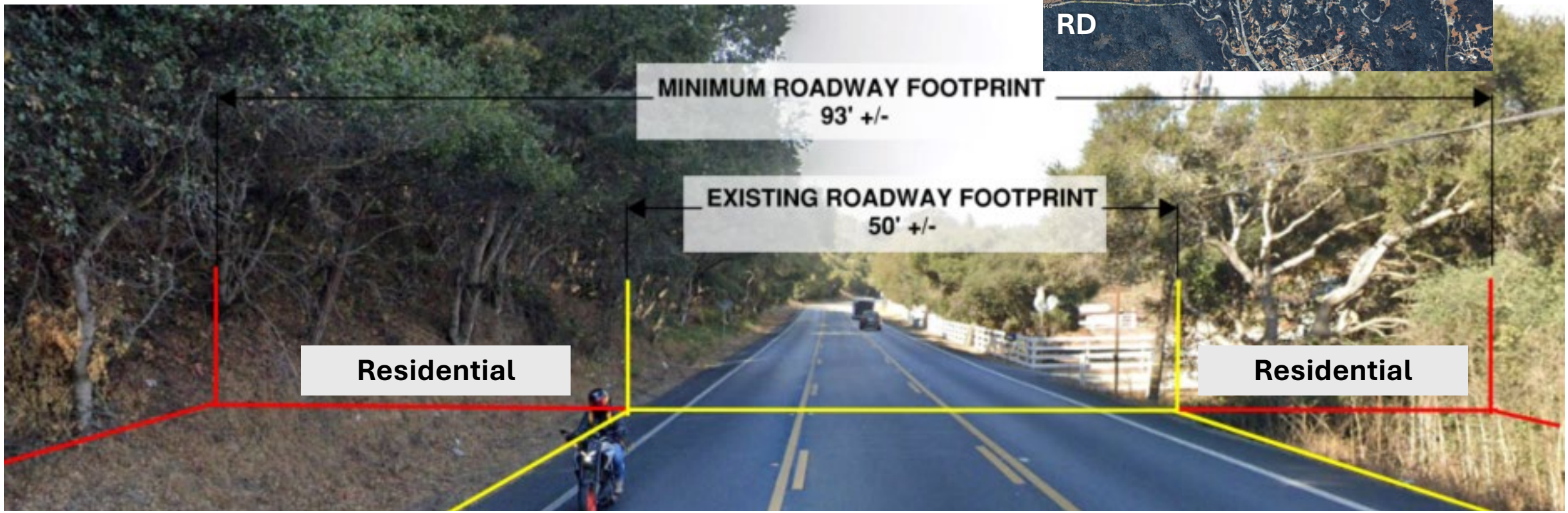
Preserved Habitat

Alternative 2 Summary

Cost to construct	Very high
Right-of-way required	93 – 240 feet
Route length	10 miles
Construction duration	15-20 years
Reduces flooding impact to travel?	Yes
Improves roadway safety?	Yes
Reduces congestion/Meets anticipated future travel demand?	Lower congestion VMT would increase
Access issues needing resolution	21 active driveways, 14 intersections
Access to Moss Landing?	Via Dolan Road (when current Highway 1 abandoned)
Hwy 1 improvements include environmental benefits to slough habitat?	Substantial impacts likely; not likely to be fully offset by any potential benefits

Alternative 3 San Miguel Canyon Rd Footprint Considerations: 4 lanes





Alternative 3 San Miguel Canyon Rd Footprint Considerations: 4 lanes





Alternative 3 San Miguel Canyon Rd Footprint Considerations: 4 lanes



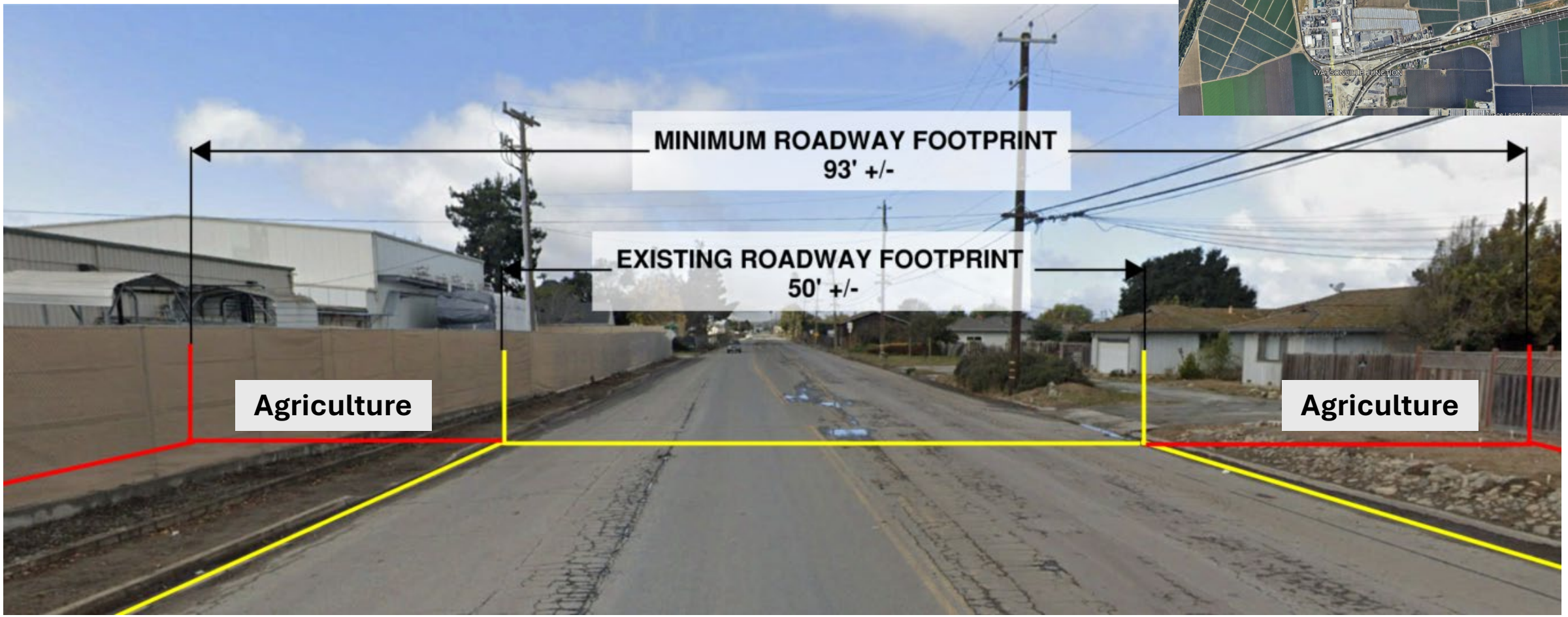


Alternative 3 Summary

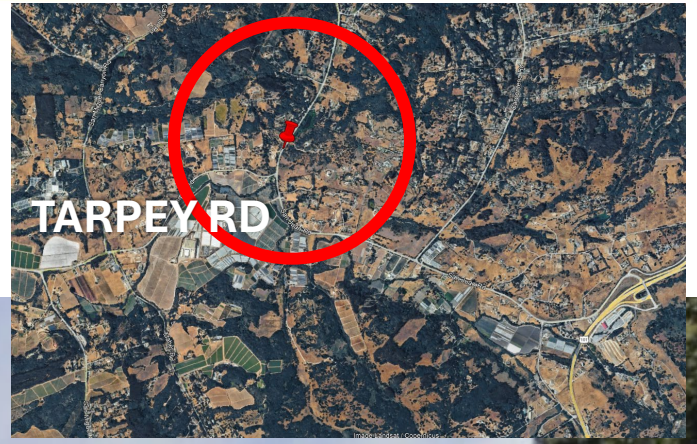
Cost to construct	Very high
Right-of-way required	93 – 240 feet
Route length	16 miles
Construction duration	15-20 years
Reduces flooding impact to travel?	Yes
Improves roadway safety?	Yes
Reduces congestion/Meets anticipated future travel demand?	Lower congestion Large VMT increase
Access issues needing resolution	111 active driveways, 24 intersections
Access to Moss Landing?	Via Dolan Road (when current Highway 1 abandoned)
Hwy 1 improvements include environmental benefits to slough habitat?	None directly; retreat option outside Elkhorn Slough

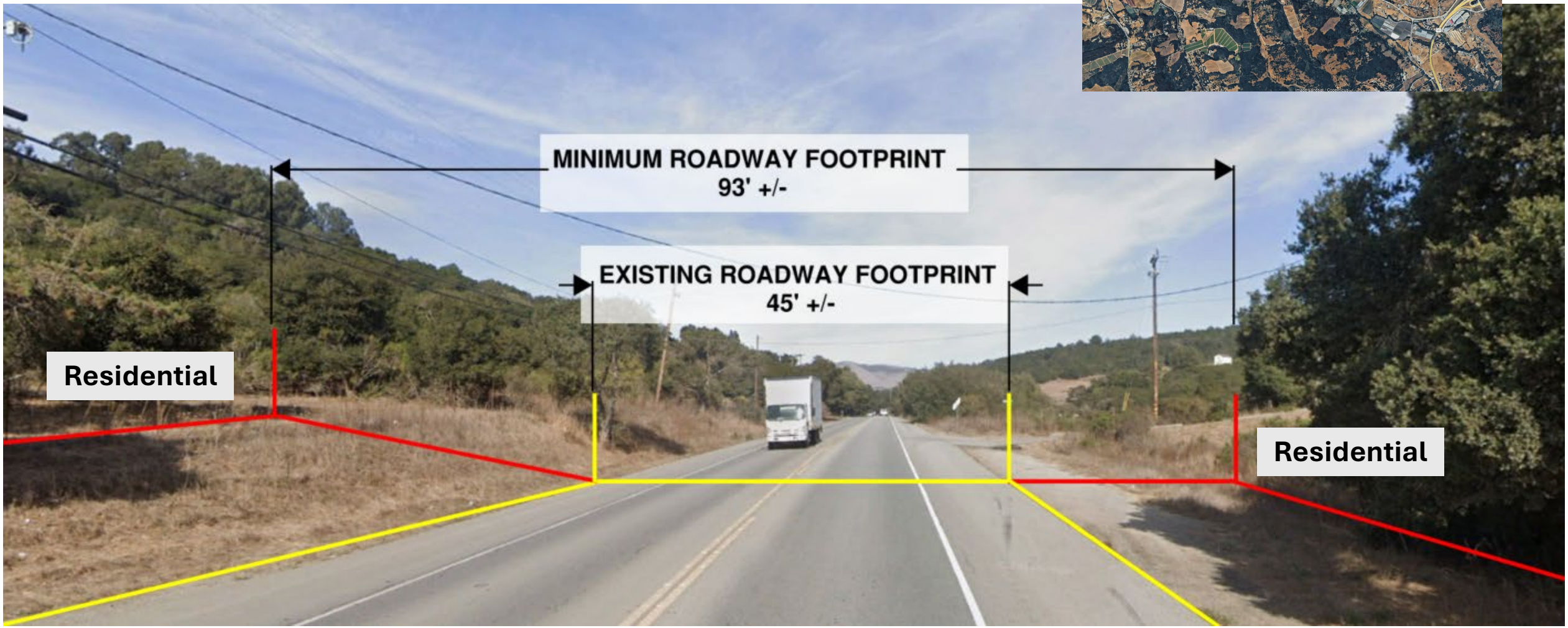
Alternative 4 San Juan Road Footprint Considerations: 4 Lanes





Alternative 4 San Juan Road Footprint Considerations: 4 Lanes

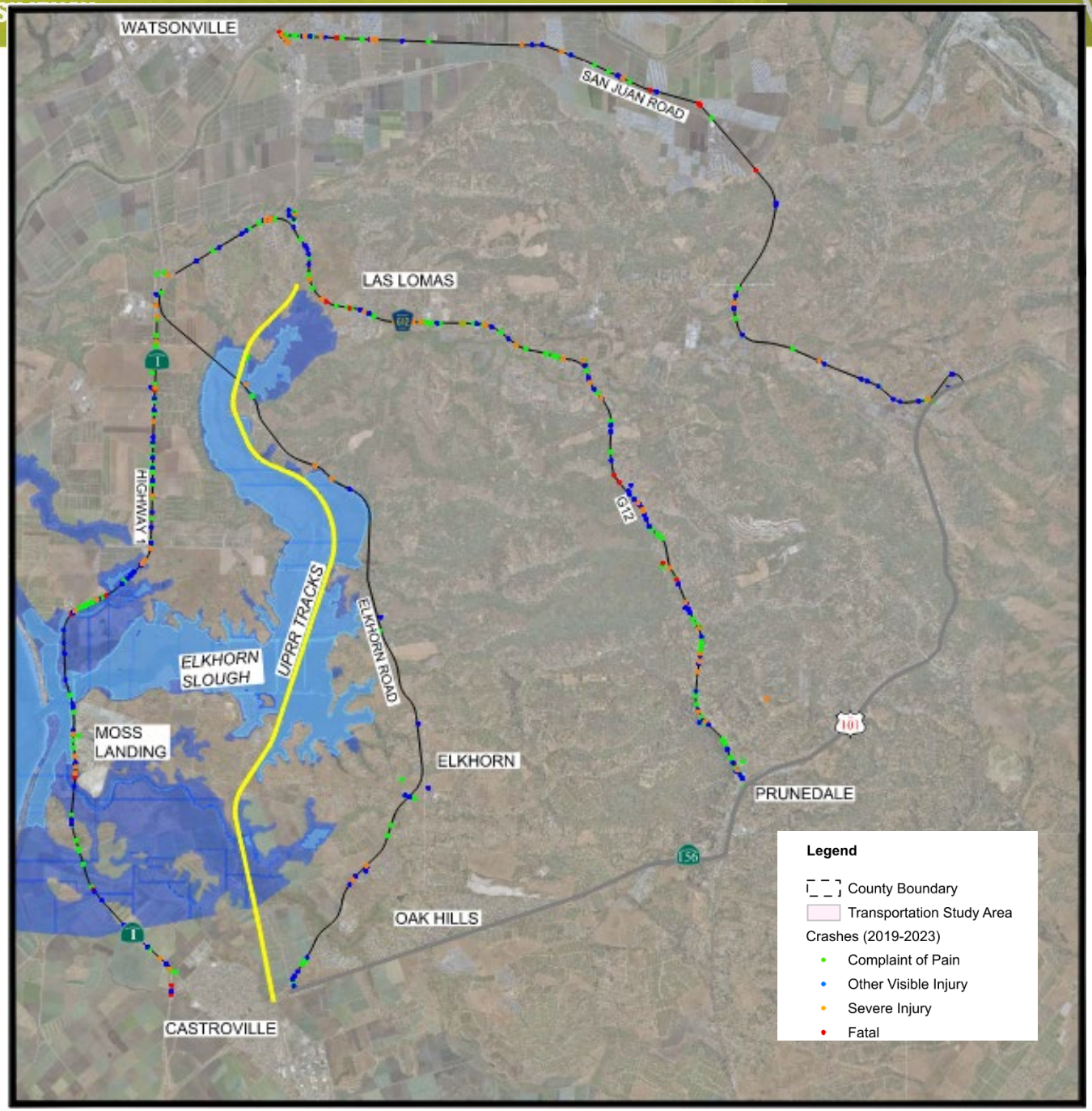




Alternative 4 Summary

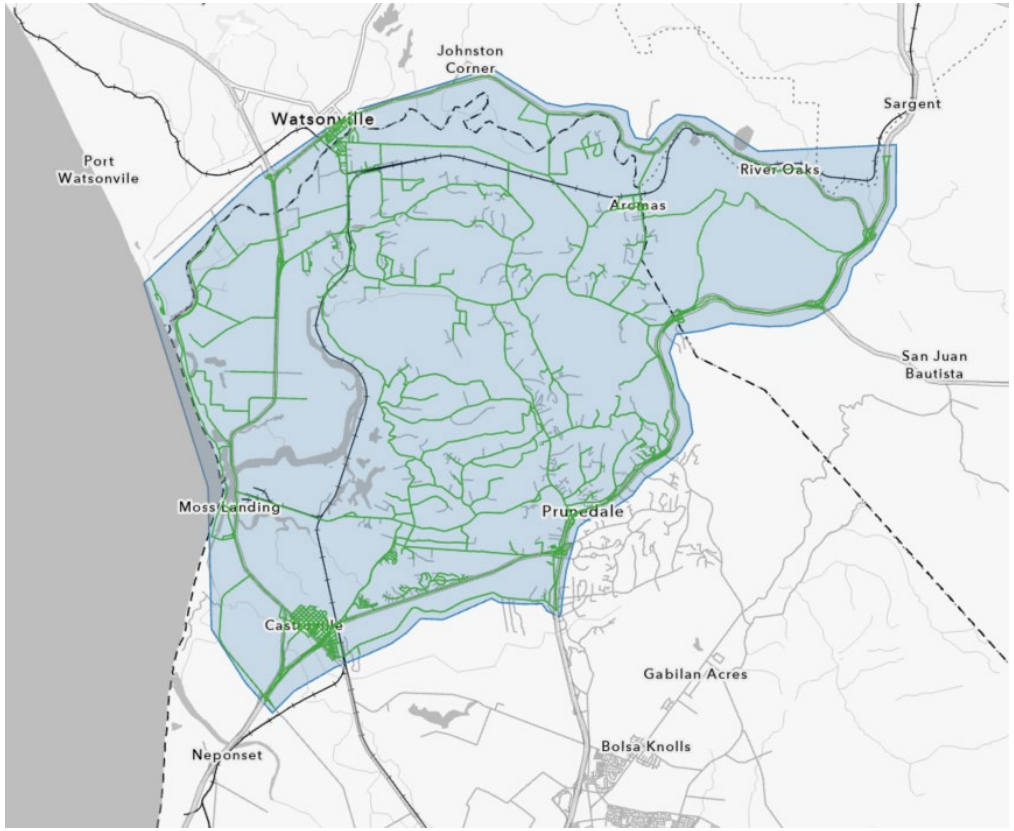
Cost to construct	Very high (highest?)
Right-of-way required	93 – 240 feet
Route length	21 miles
Construction duration	15-20 years
Reduces flooding impact to travel?	Yes
Improves roadway safety?	Yes
Reduces congestion/Meets anticipated future travel demand?	Congestion shifts to shorter routes Largest VMT increase
Access issues needing resolution	114 active driveways, 14 intersections
Access to Moss Landing?	Via Dolan Road (when current Highway 1 abandoned)
Hwy 1 improvements include environmental benefits to slough habitat?	None directly; retreat option outside Elkhorn Slough

Safety: Existing Crash Data



Area Wide Vehicle Miles Traveled Methodology (VMT)

- Association of Monterey Bay Area Governments regional travel demand model.
- 2045 model results to 2050 using annualized VMT growth rates.



Study Area

Next Steps for Stakeholder Engagement

Current Phase: Alternative Identification and Screening

Open House Meeting — *December 3, 2026*

Next Phase: Selecting a Preferred Alternative

Next Advisory Group Meeting — ***Winter/Spring 2027***

Public Meeting — *Spring 2027*

PEL Process Complete! — Spring 2027

Next Steps for Stakeholder Engagement

Questions in the meantime?

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Thank You!