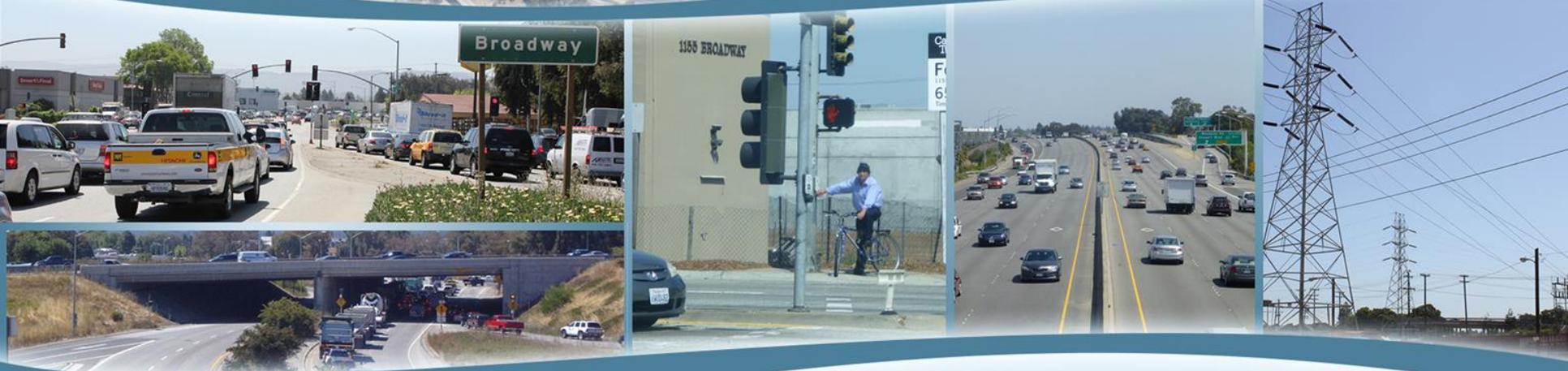


# US 101 / SR 84 (Woodside Road) Interchange Improvement Project

Prepared for the Bay Area Air Quality Conformity Task Force

July 23, 2015

Presented by  
Lynn McIntyre  
AECOM



## The project would:

- **Reconfigure an existing interchange (no change to US 101 mainline).**
- **Widen a 0.4-mile segment of SR 84 (Woodside Road) from 5 to 6 lanes.**
- **Construct new flyover ramps between US 101 and Veterans Boulevard.**
- **Improve the intersections of Woodside Road with Veterans Boulevard, Broadway, and Bay Road to the west of US 101, and Seaport Boulevard/East Bayshore Road/Blomquist Road to the east of US 101.**
- **Construct additional pedestrian and bicycle facilities throughout the project area.**

# PROJECT LOCATON

## US 101 /SR 84 (Woodside Road) Interchange Improvement Project



## ■ The purpose of the project is to improve:

- Peak-hour congestion at the US 101/Woodside Road interchange.
- Traffic operations at nearby intersections along Woodside Road.
- Bicycle and pedestrian access near the interchange.

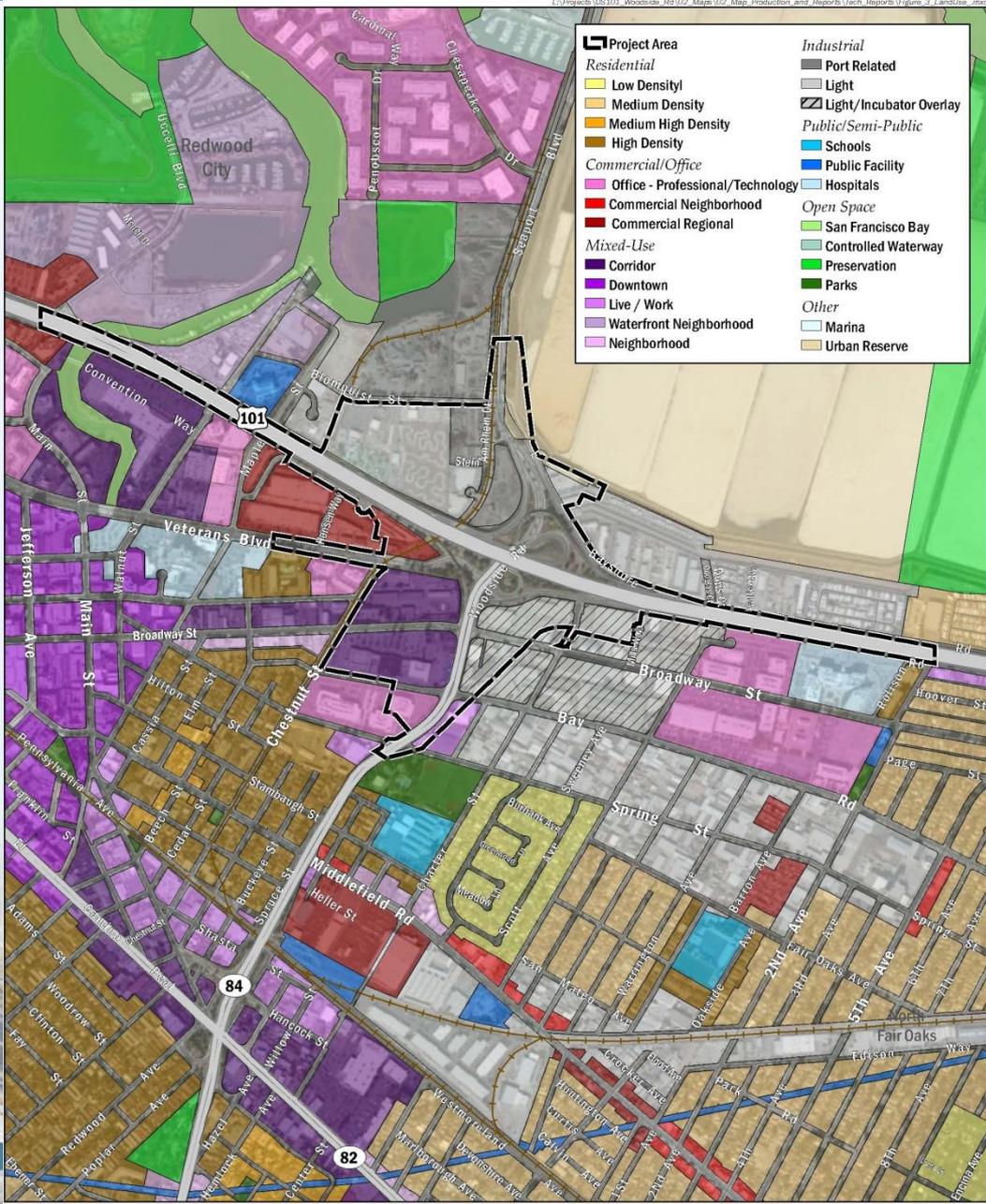


## The Project is needed to address:

- **Backups at local street intersections during peak periods.**
  - *Backups from the Broadway/Woodside Road intersection extend onto the southbound US 101 off-ramp and auxiliary lane.*
- **Lack of sidewalks or bicycle lanes on Woodside Road between Bay Road and Blomquist Street.**
- **Lack of signalized crosswalks near the south side of the interchange.**

# PROJECT LAND USE

## US 101 /SR 84 (Woodside Road) Interchange Improvement Project



- Industrial
- Commercial
- Mixed-Use
- Urban Reserve



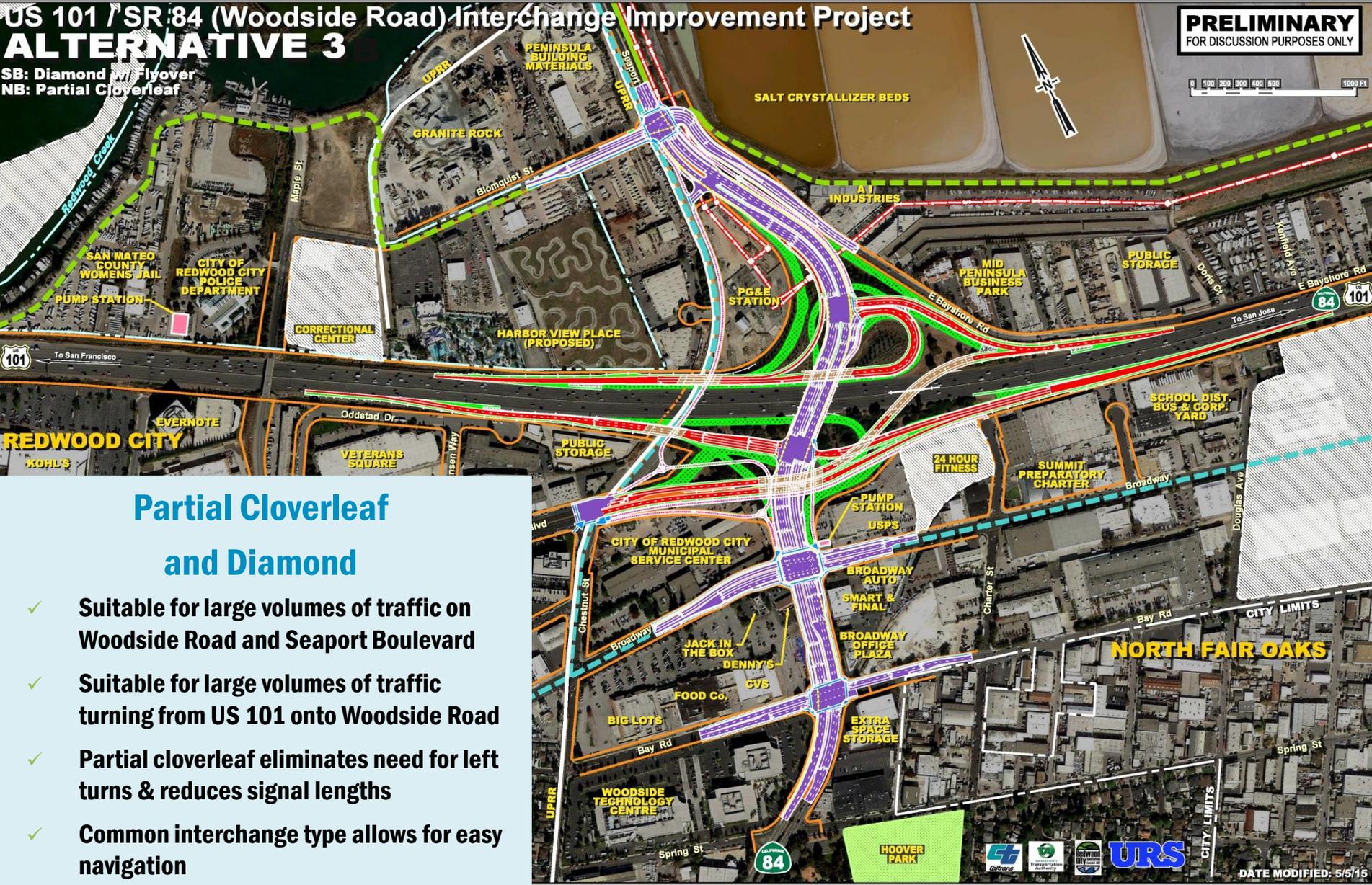
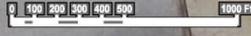
# PROJECT ALTERNATIVES

US 101 /SR 84 (Woodside Road) Interchange Improvement Project

## US 101 /SR 84 (Woodside Road) Interchange Improvement Project ALTERNATIVE 3

SB: Diamond w/ Flyover  
NB: Partial Cloverleaf

**PRELIMINARY**  
FOR DISCUSSION PURPOSES ONLY



### Partial Cloverleaf and Diamond

- ✓ Suitable for large volumes of traffic on Woodside Road and Seaport Boulevard
- ✓ Suitable for large volumes of traffic turning from US 101 onto Woodside Road
- ✓ Partial cloverleaf eliminates need for left turns & reduces signal lengths
- ✓ Common interchange type allows for easy navigation



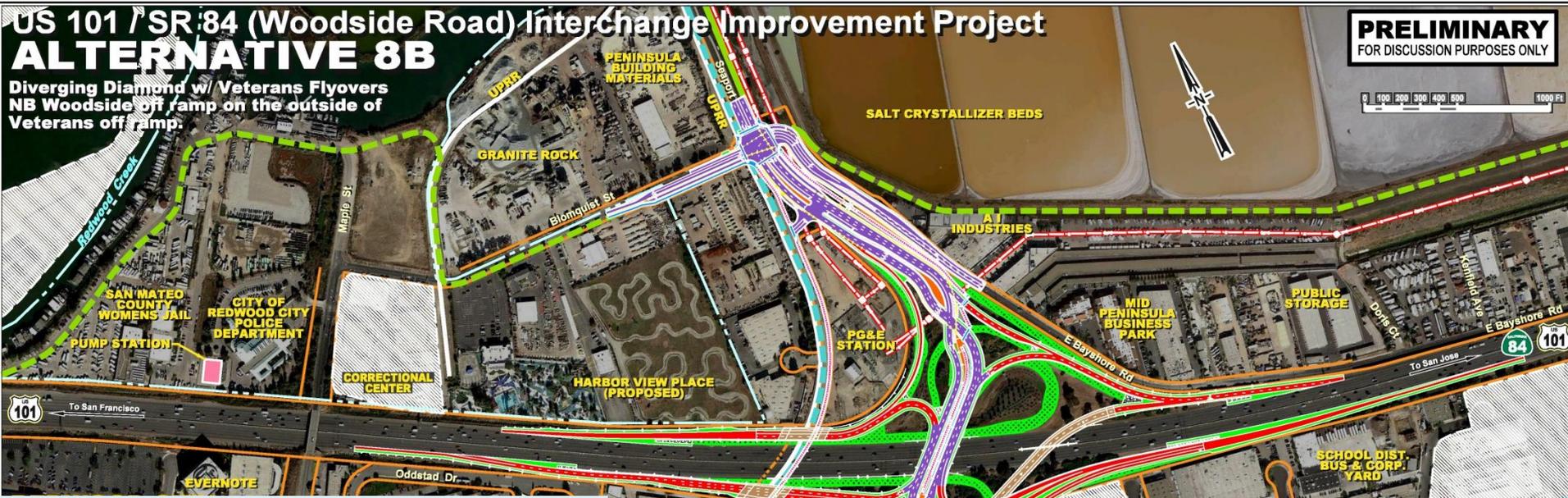
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# PROJECT ALTERNATIVES

## US 101 / SR 84 (Woodside Road) Interchange Improvement Project ALTERNATIVE 8B

Diverging Diamond w/ Veterans Flyovers  
NB Woodside off ramp on the outside of  
Veterans off ramp:

**PRELIMINARY**  
FOR DISCUSSION PURPOSES ONLY



### Diverging Diamond Interchange

- ✓ Shorter pedestrian crossings
- ✓ Reduced conflict points & wrong-way movements
- ✓ Fewer lanes & property impacts than other interchange types
- ✓ Simple left & right turns with increased lane capacity
- ✓ Improved storage between the ramp terminals
- ✓ Better signal network synchronization & reduced cycle lengths



## Opening Year (2022) LOS Summary

Alternative	No. Intersections at LOS F
No Build	10
Alternative 3	3
Alternative 8B	3

## Horizon Year (2042) LOS Summary

Alternative	No. Intersections at LOS F
No Build	8
Alternative 3	4
Alternative 8B	4

## Opening Year (2022)

2022	No Build	Build
<b>AADT</b>	US 101: 231,000 SR 84: 46,200	Same as No Build
<b>% Trucks</b>	US 101: 4.5% SR 84: 15%	Same as No Build
<b>Truck AADT</b>	US 101: 10,400 SR 84: 6,900	Same as No Build

Truck Type by Axle	% of Total Truck AADT <sup>1</sup>	AADT		
		SR 84	US 101	Combined
2 axle <sup>2</sup>	69	4,761	7,176	11,937
3 axle	7	483	728	1,211
Less than 5 axles	16	1,104	1,664	2,768
5 or more axles	5	345	520	865
Buses	3	207	312	519
<b>Total</b>	100	6,900	10,400	17,300

1. Based on field counts.
2. Typically 2-axle trucks are gasoline fueled rather than diesel fueled.

## Horizon Year (2042)

2042	No Build	Build
AADT	US 101: 270,000 SR 84: 50,600	Same as No Build
% Trucks	US 101: 4.5% SR 84: 15%	Same as No Build
Truck AADT	US 101: 12,200 SR 84: 7,600	Same as No Build

Truck Type by Axle	% of Total Truck AADT <sup>1</sup>	AADT		
		SR 84	US 101	Combined
2 axle <sup>2</sup>	69	5,244	8,418	13,662
3 axle	7	532	854	1,386
Less than 5 axles	16	1,216	1,952	3,168
5 or more axles	5	380	610	990
Buses	3	228	366	594
<b>Total</b>	<b>100</b>	<b>7,600</b>	<b>12,200</b>	<b>19,800</b>

1. Based on field counts.
2. Typically 2-axle trucks are gasoline fueled rather than diesel fueled.



## Not a Project of Air Quality Concern:

- **Intersections at LOS D, E or F improve with both Build Alternatives compared to No Build in 2022 and 2042.**
- **Delay times improve by an average of 50% with both Build Alternatives compared to No Build in 2022 and 2042.**
- **The project would not change truck travel demands or truck AADT/% compared to the No Build scenario.**
- **69% of trucks in the project area would be small, non-diesel trucks.**
- **No violations of the federal annual standard for PM<sub>2.5</sub> have been recorded in the last 5 years.**

***Any questions?***

