



## Peninsula Interchange Project Update

February 3, 2020

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Senior Engineer

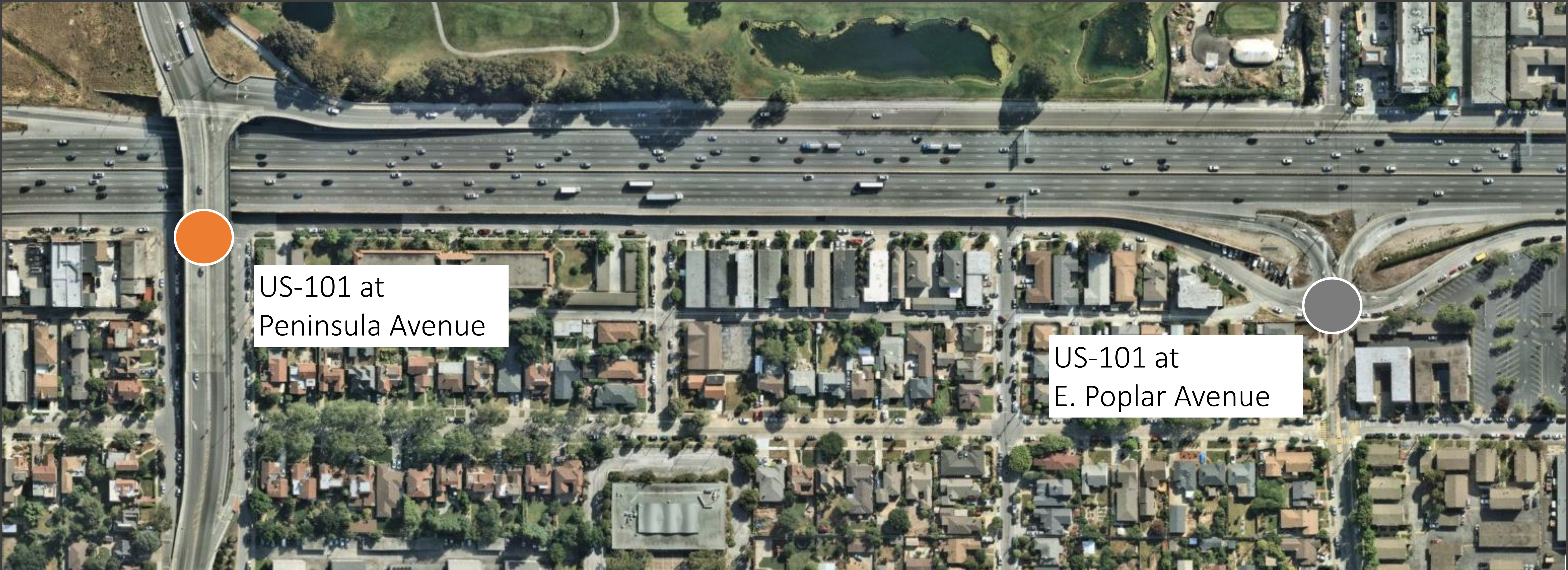




# Presentation Outline

- Project Overview and Description
- Traffic Analysis
- Project Design Concepts and Right-of-Way
- Cost Summary
- Potential Project Next Steps






## Project Description

*Relocate US-101 southbound ramps from  
E. Poplar Avenue to Peninsula Avenue*



An aerial photograph of a highway interchange. A multi-lane highway runs horizontally across the top of the image. It curves downwards into a loop interchange. The interchange has two main loops. The left loop has a long, narrow ramp that curves around a residential area with houses and trees. The right loop has a similar ramp that curves around a parking lot with many cars. The area between the loops is a grassy field. The overall scene shows a complex highway interchange with surrounding residential and commercial areas.

## SB US-101 at E. Poplar Avenue

- Mitigate safety issues at E. Poplar Avenue
  - Non-standard ramp length
  - High vehicle speeds exiting the freeway
  - Traffic queuing
  - Congestion





## Short-Term Improvements

- Center median
- Eliminated freeway access from SB N. Amphlett
- Dedicated left turn lane for off-ramp traffic
- Reduced complexity of intersection



# US-101 Full Access Ramps



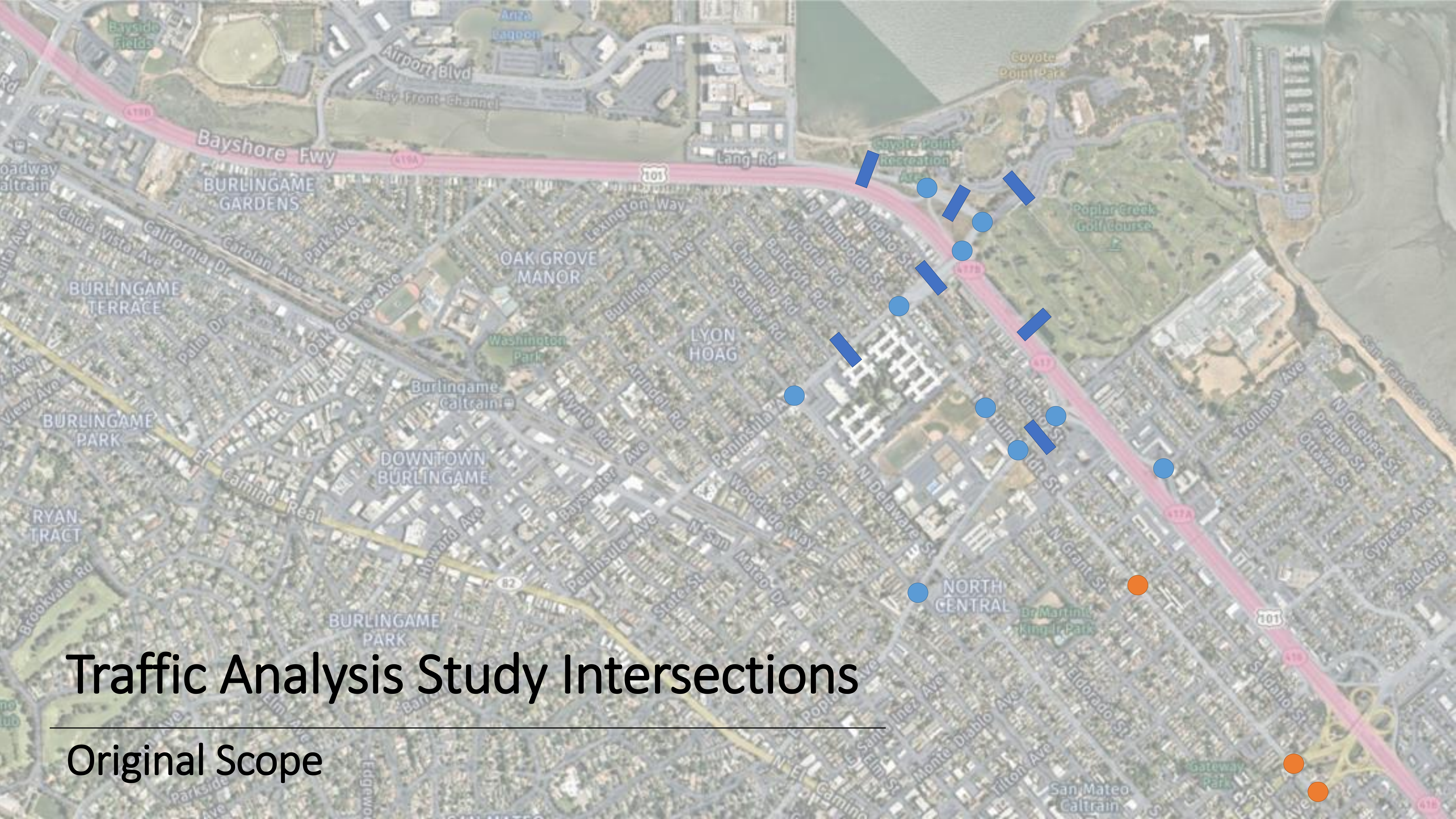
US-101/Peninsula

US-101/  
Poplar

US-101/3rd

US-101/Broadway

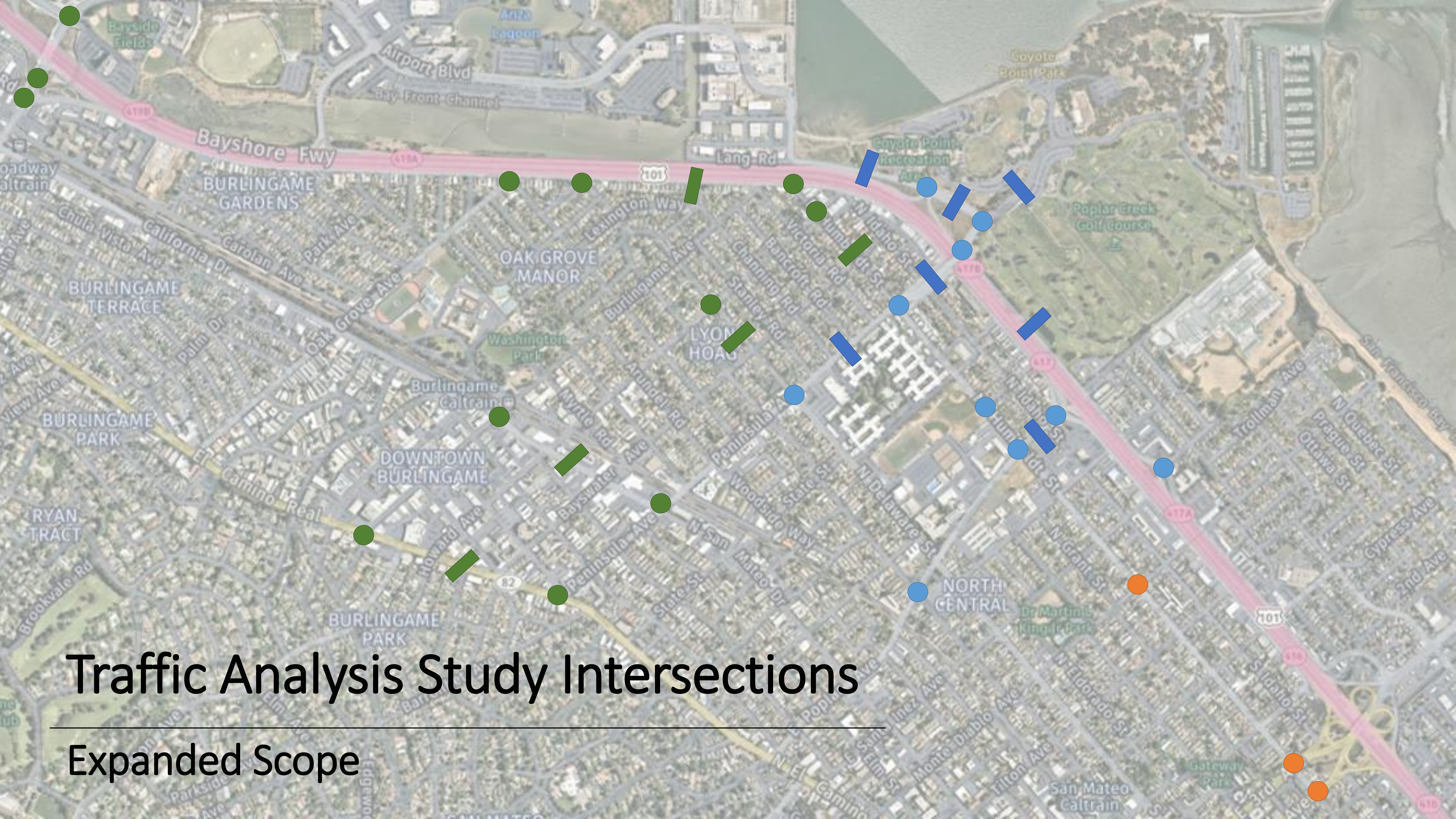




# Traffic Analysis Study Intersections

Original Scope

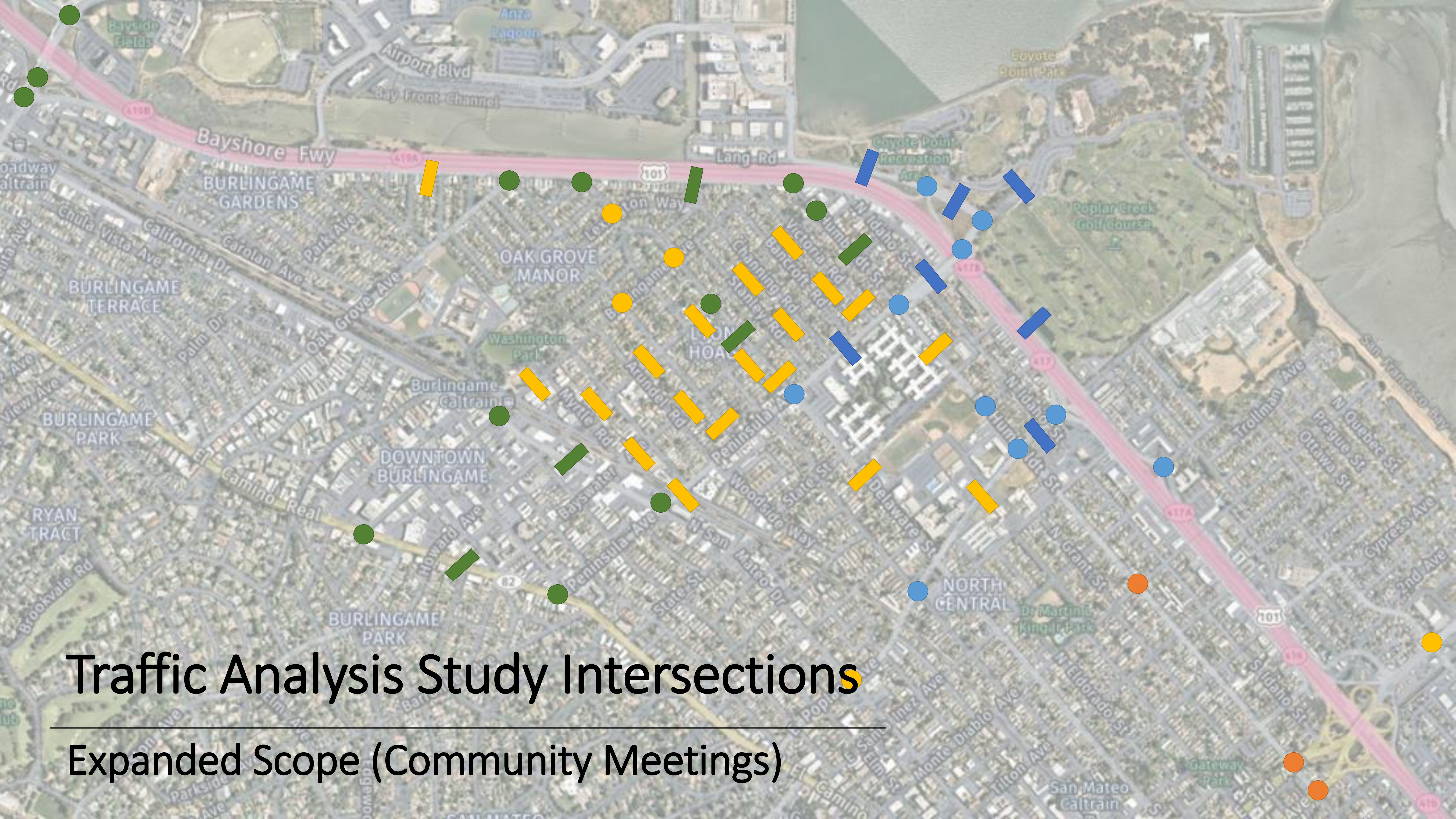




# Traffic Analysis Study Intersections

Expanded Scope

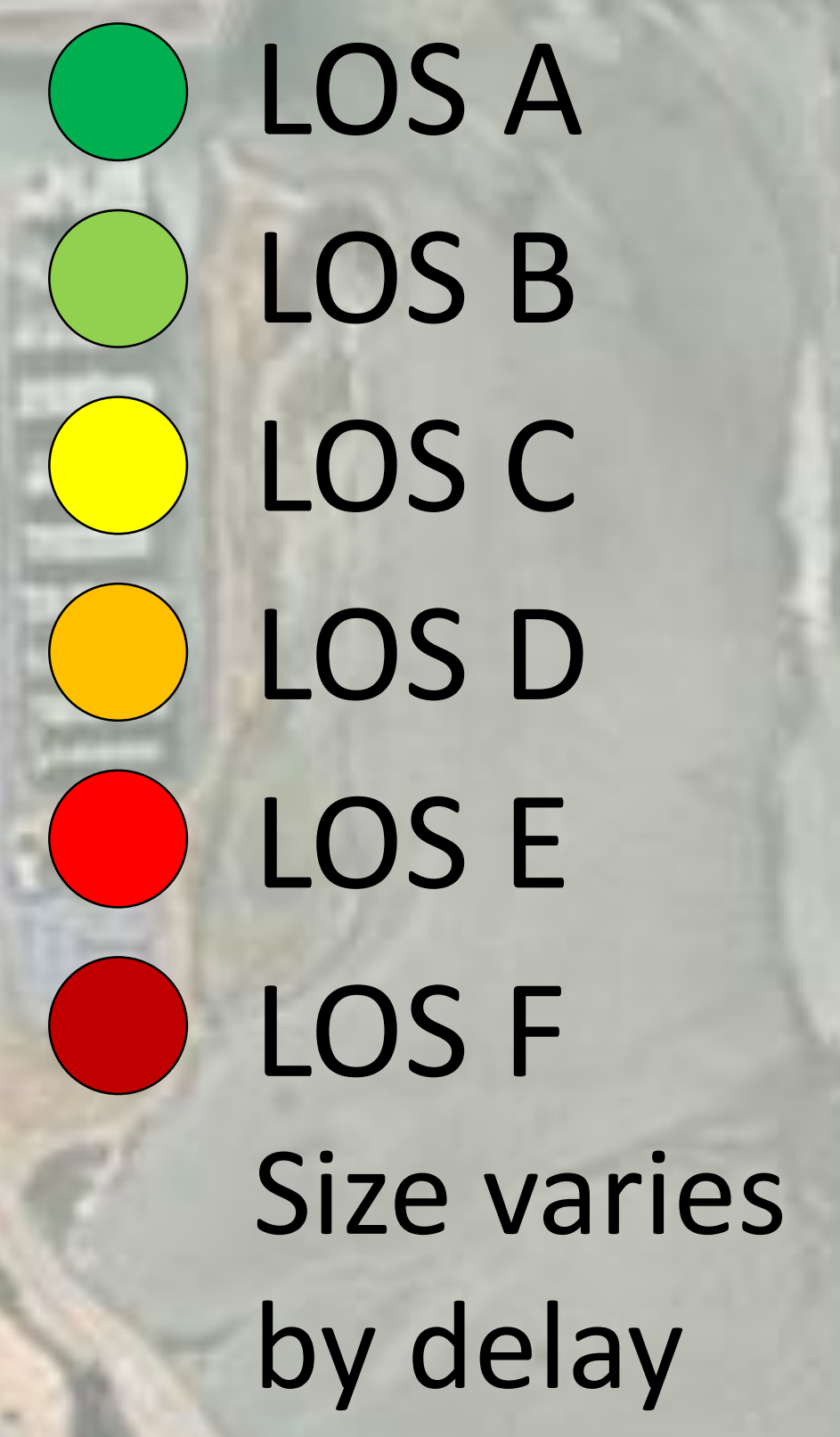




# Traffic Analysis Study Intersections

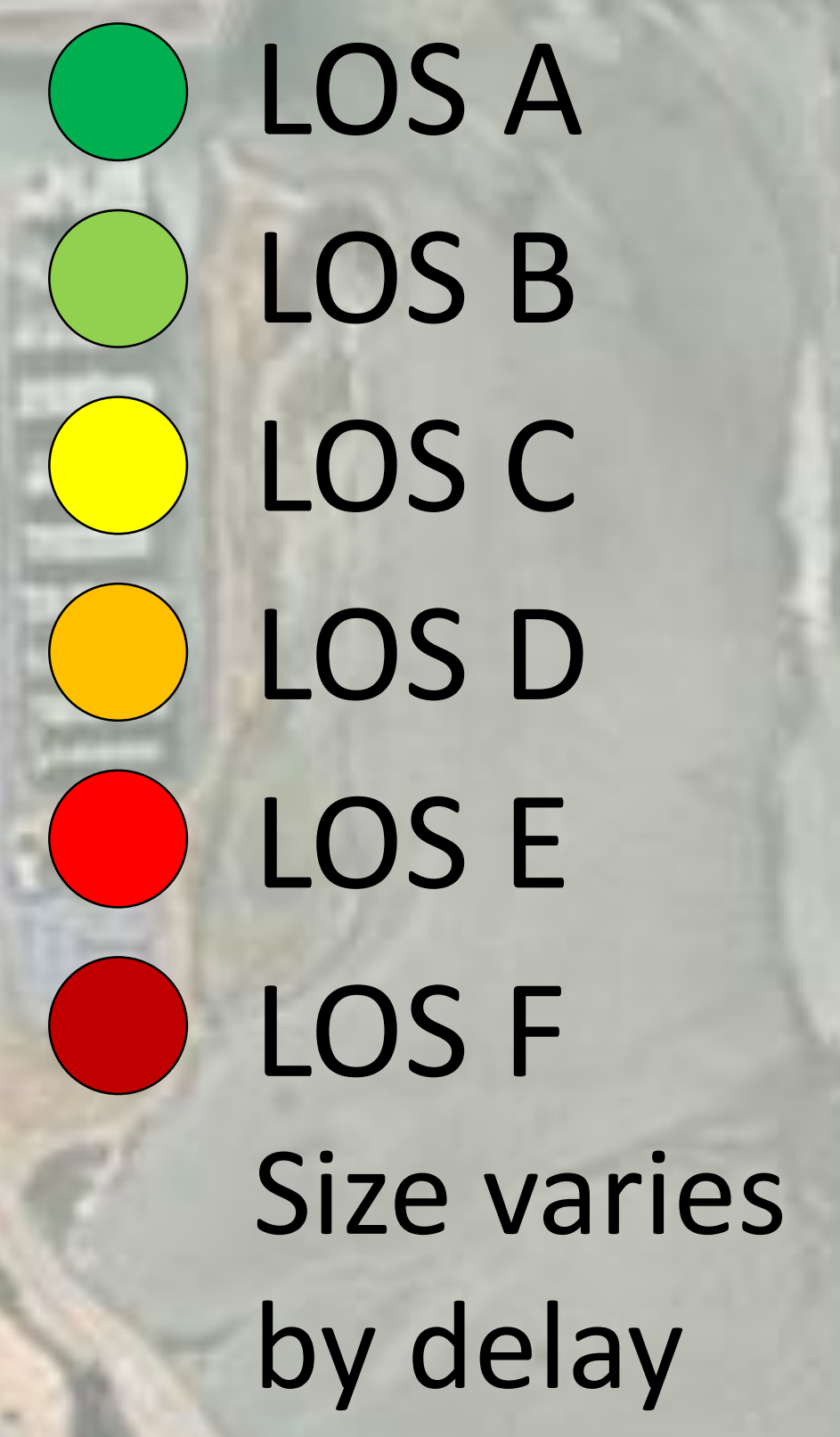
Expanded Scope (Community Meetings)





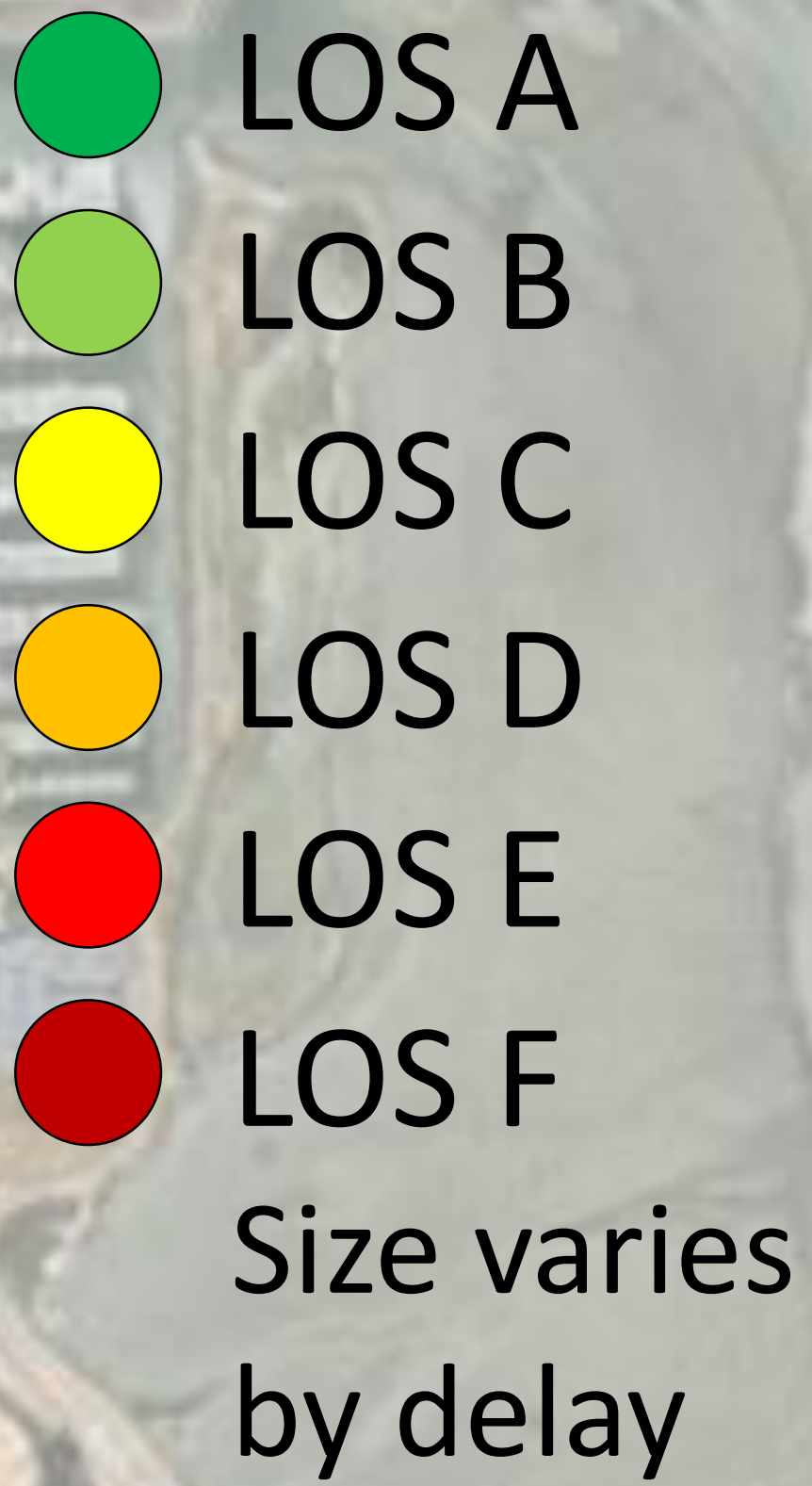
# 2045 AM Peak Hour – No Build Scenario





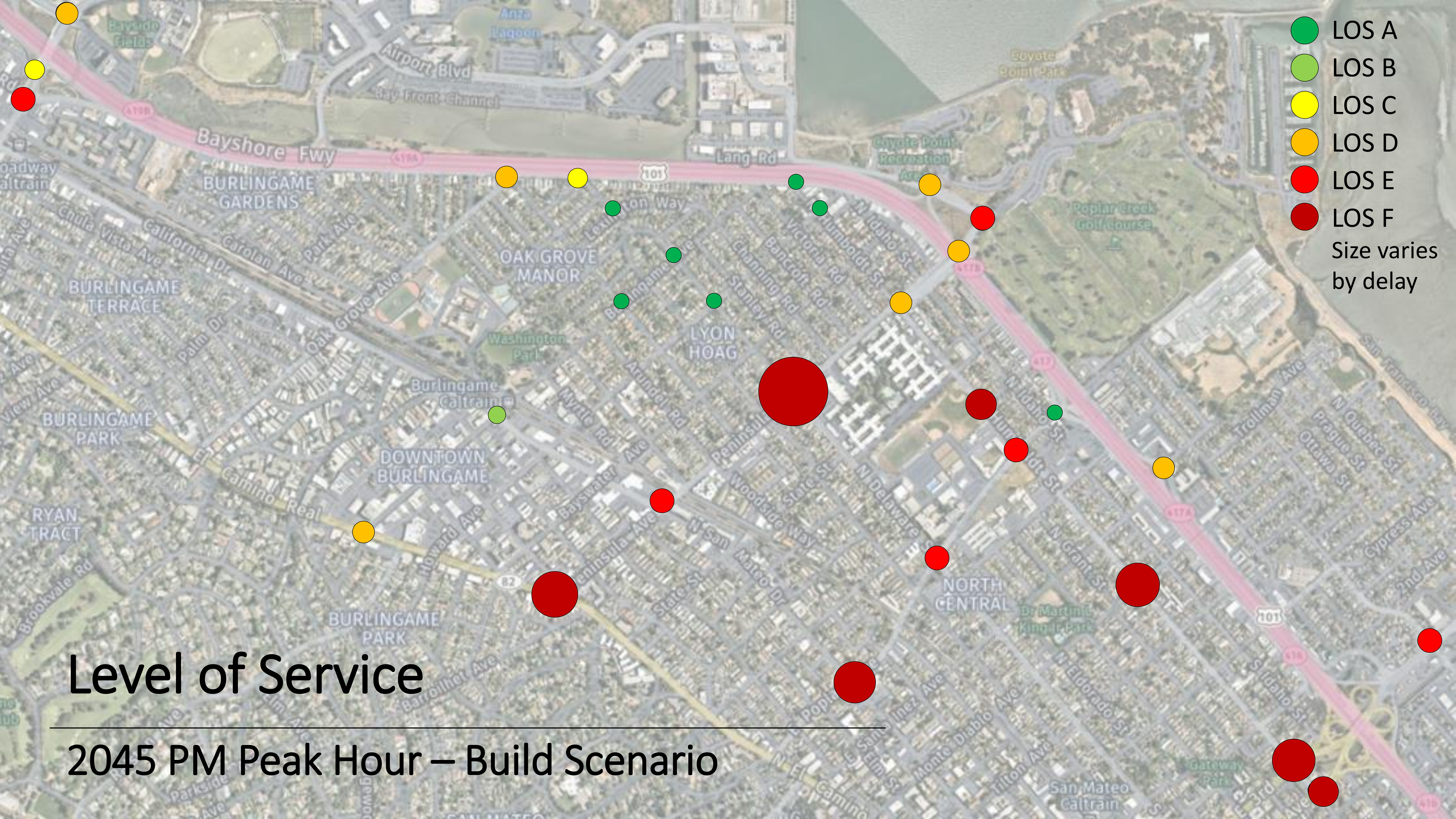
# 2045 AM Peak Hour – Build Scenario





# 2045 PM Peak Hour – No Build Scenario









Year	Peak Hour	With Project (mins)	Without Project (mins)	Time Savings (mins)
2025	AM	3.1	5.3	2.2
	PM	4.7	8.1	3.4
2045	AM	6.4	11.8	5.4
	PM	7.4	19.0	11.6

# Travel Time Comparison

Southbound US-101 to Peninsula/Delaware/Dwight





Year	Peak Hour	With Project (mins)	Without Project (mins)	Time Savings (mins)
2025	AM	3.1	12.6	9.5
	PM	4.4	8.3	3.9
2045	AM	5.9	23.5	17.6
	PM	9.7	26.3	16.3

# Travel Time Comparison

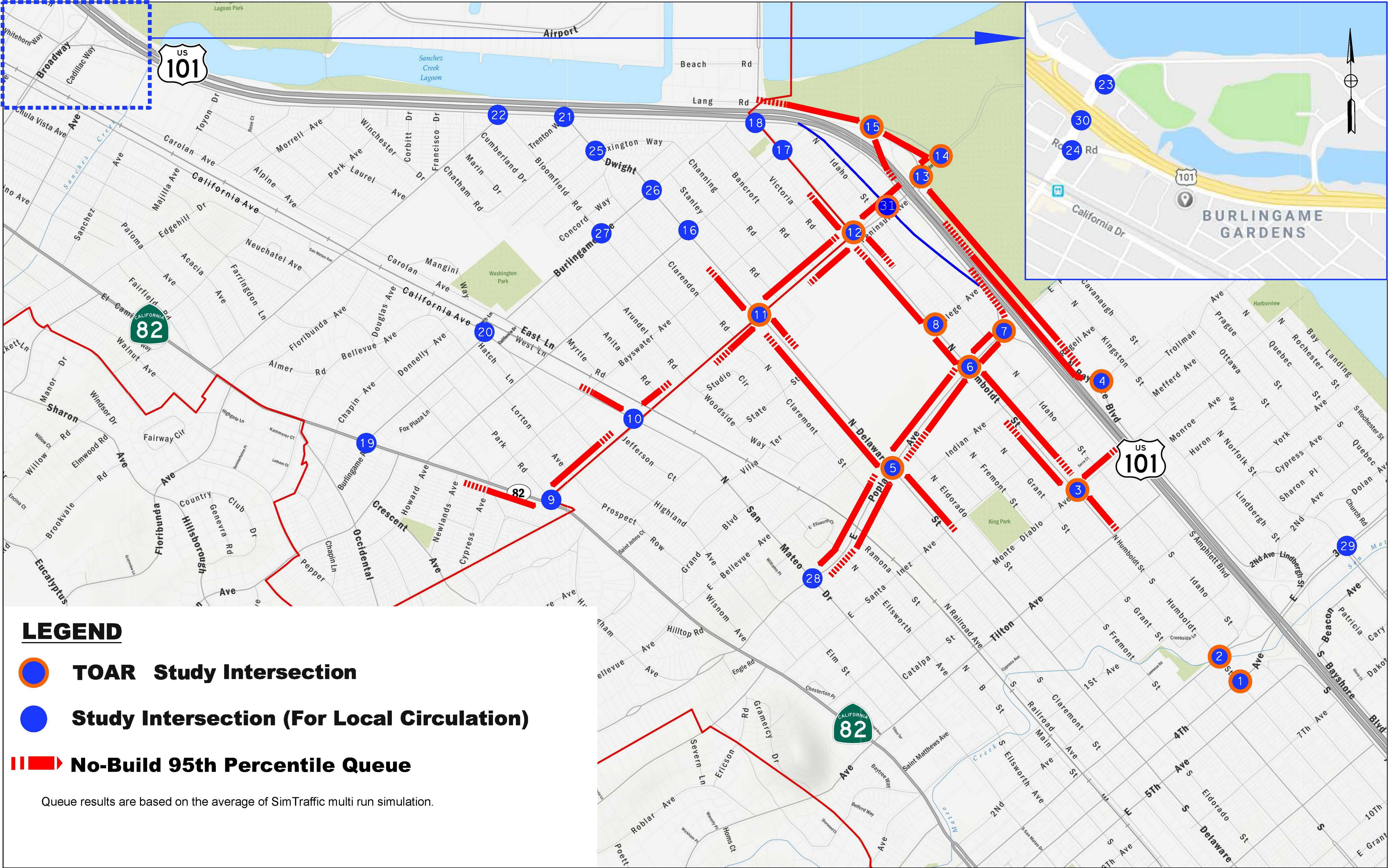
Peninsula/Delaware/Dwight to Southbound US-101



# US 101/ PENINSULA AVENUE INTERCHANGE PROJECT

## DESIGN YEAR 2045 NO-BUILD PM PEAK HOUR QUEUE SUMMARY

Preliminary Results - Subject to Change

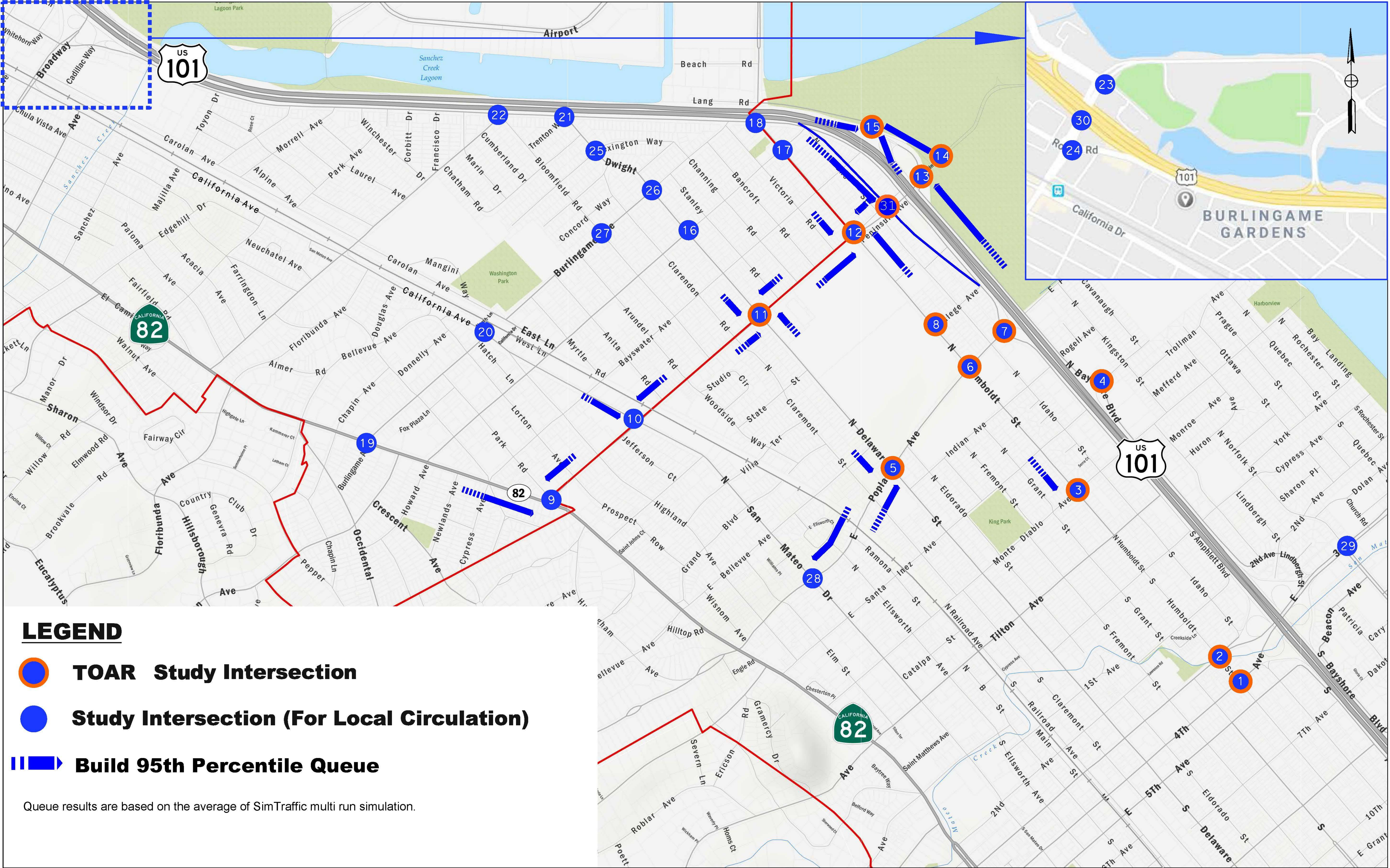




# US 101/ PENINSULA AVENUE INTERCHANGE PROJECT

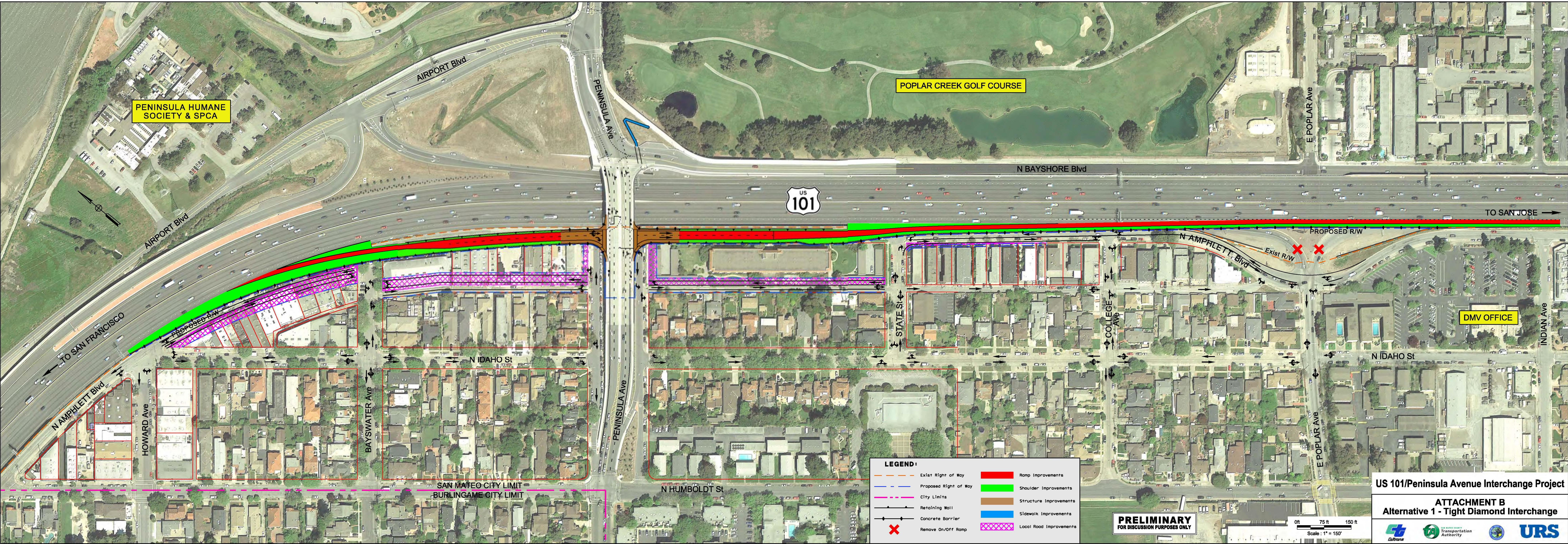
## DESIGN YEAR 2045 BUILD PM PEAK HOUR QUEUE SUMMARY

*Preliminary Results - Subject to Change*

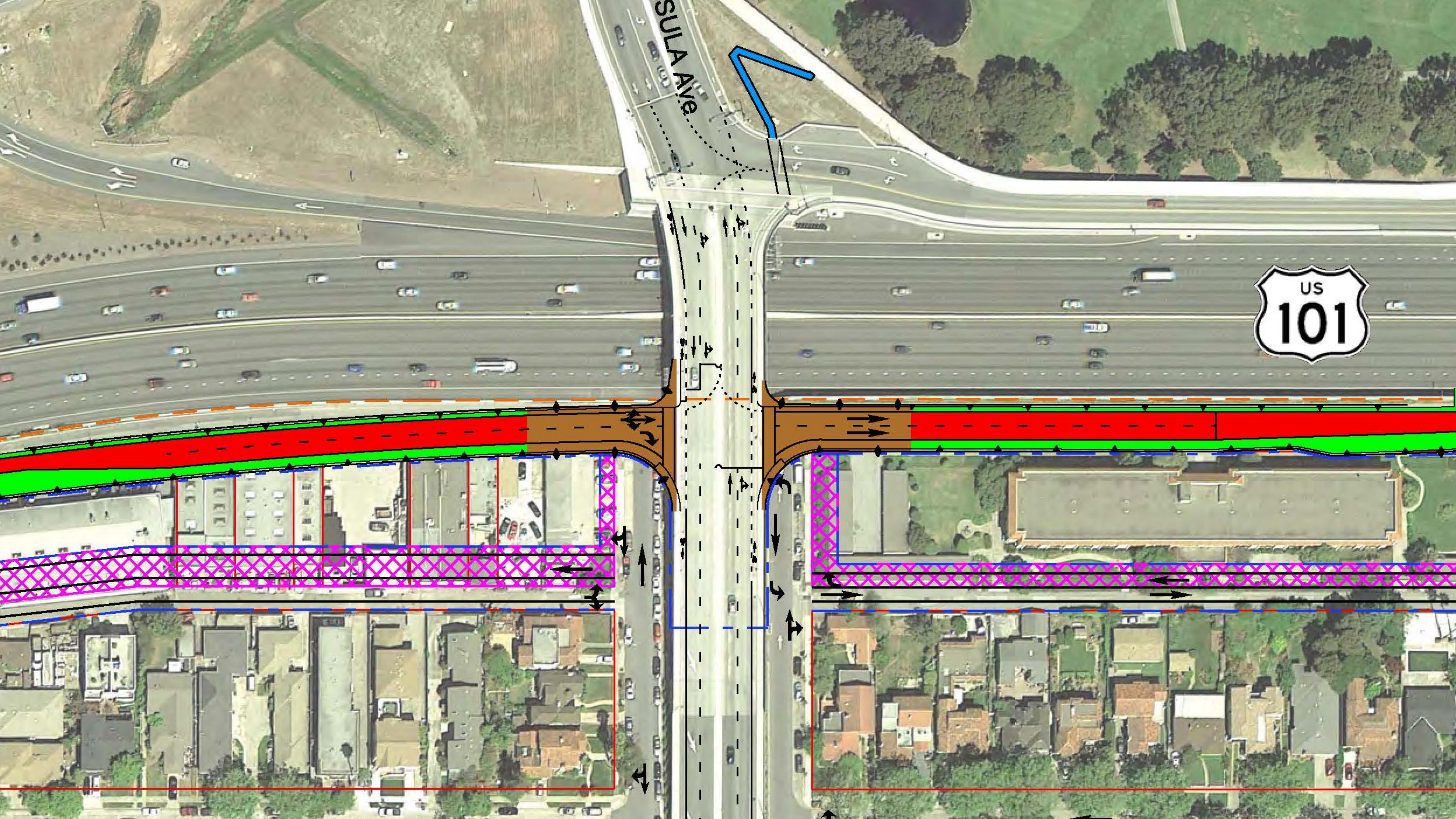




# Design Concept No. 1 – Tight Diamond Interchange





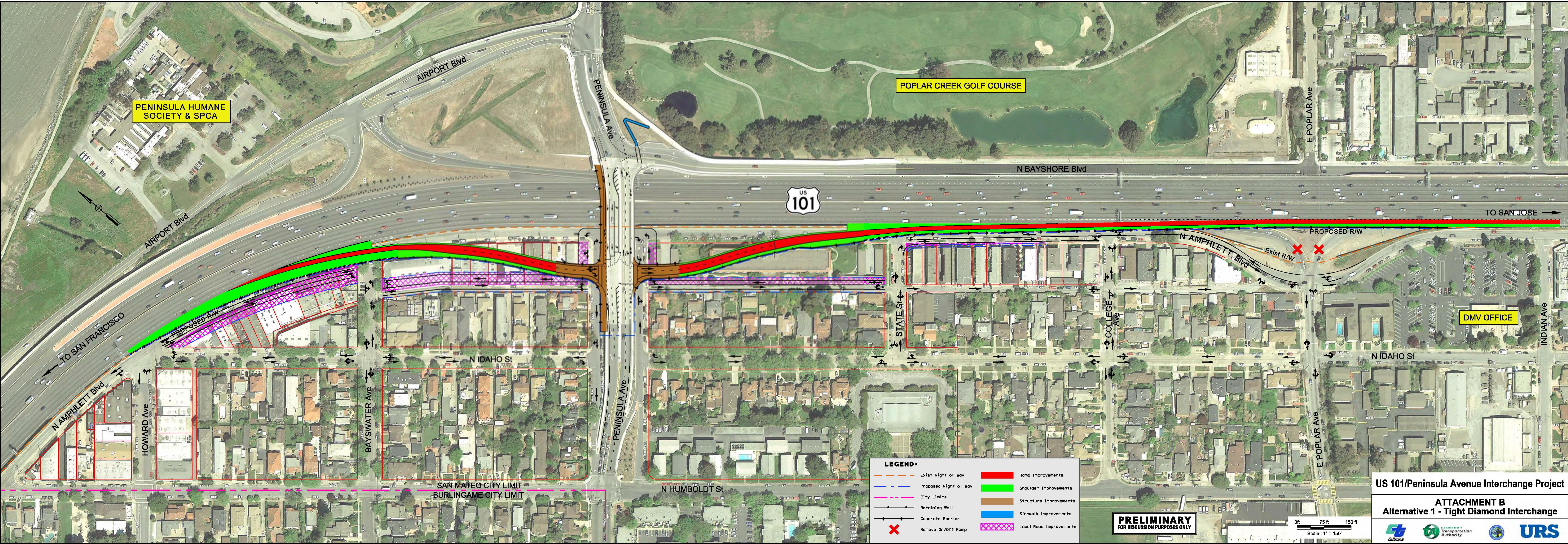


SULLA AVE

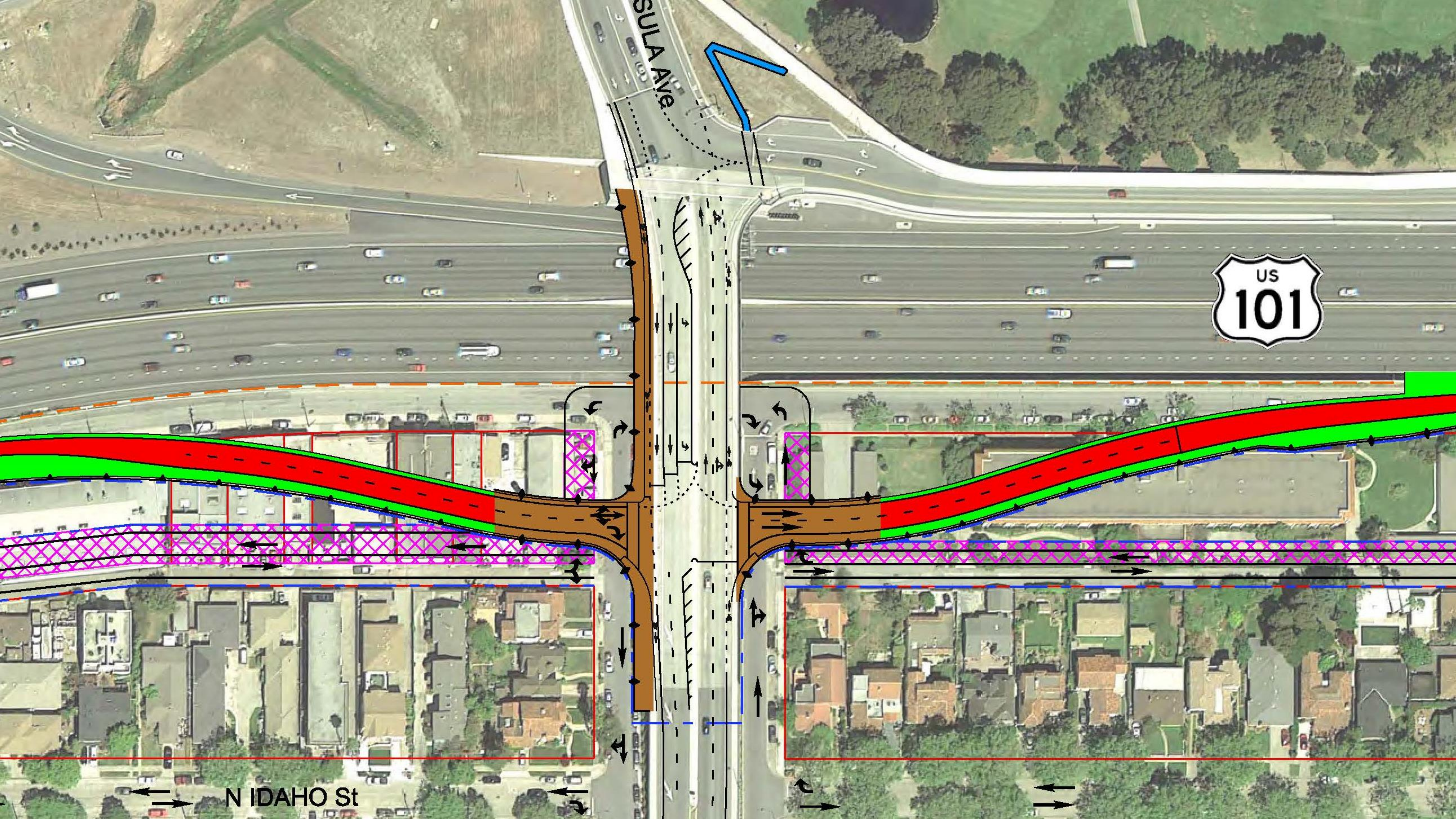




# Design Concept No. 2 – Spread Diamond Interchange





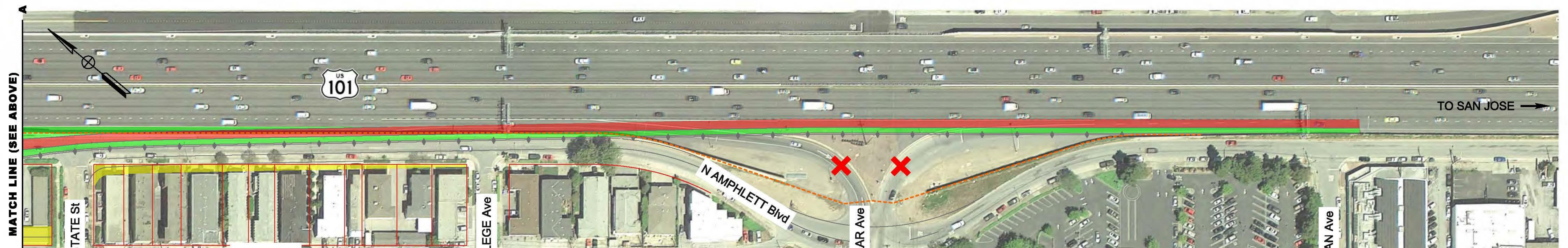
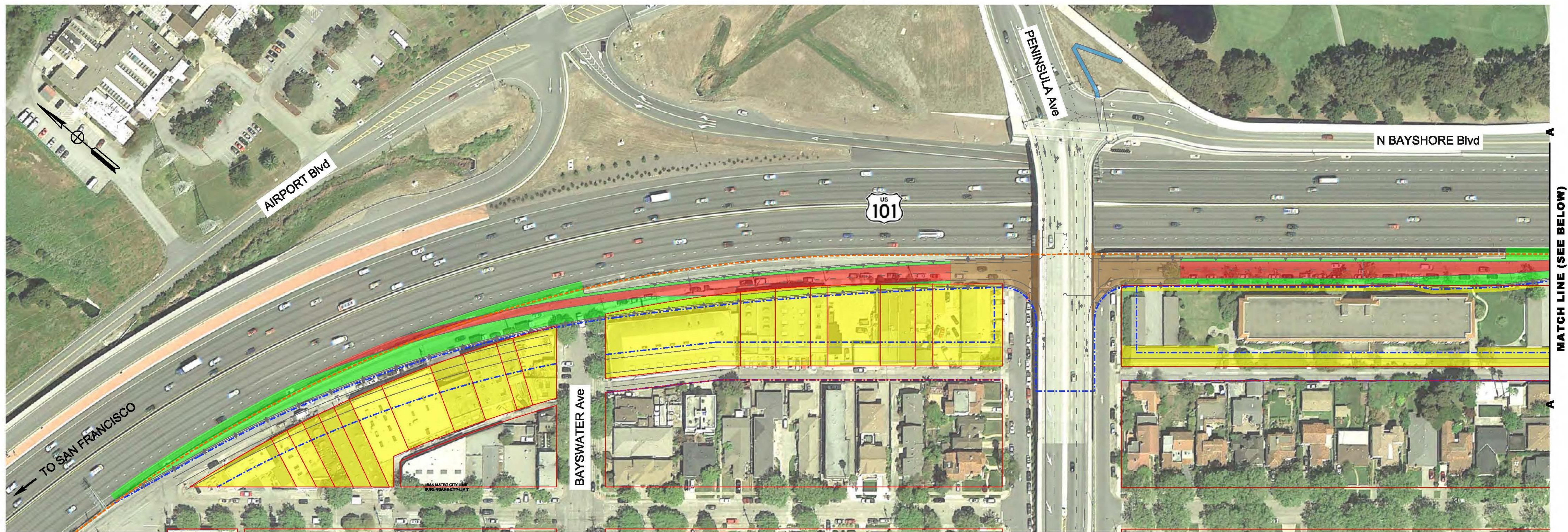


SULA AVE



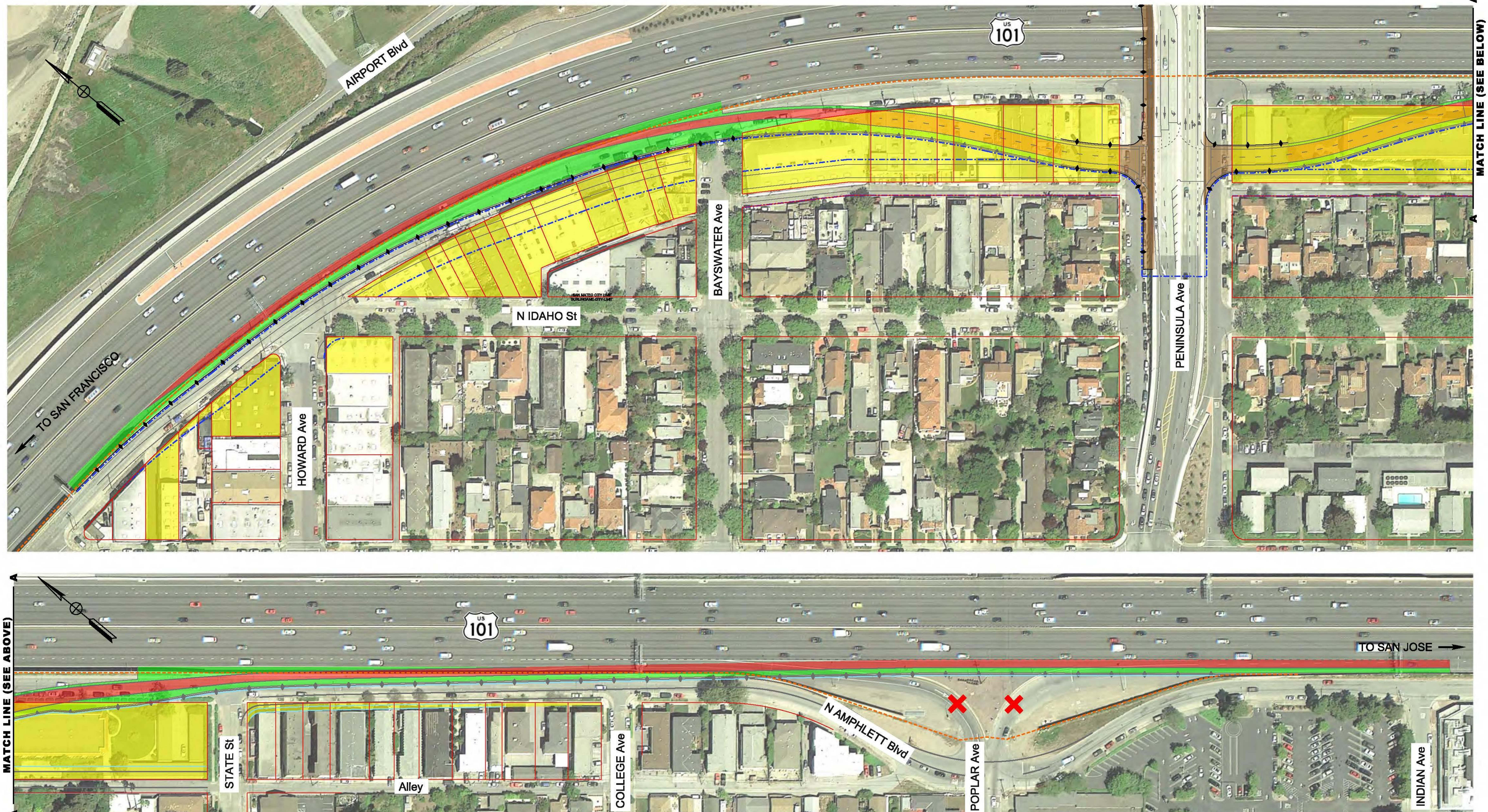
N IDAHO St





Design Concept No. 1 – Right-of-Way Impact





Design Concept No. 2 – Right-of-Way Impact



# Project Cost Estimates

Project Phase	Design Concept No. 1	Design Concept No. 2
PA/ED (Environmental)	\$3 M	\$3 M
PS&E (Design)	\$4 M	\$4 M
Utilities & Right-of-Way	\$57 M	\$71 M
Construction	\$42 M	\$42 M
	(+\$5M cost escalation to 2025)	(+\$6M cost escalation to 2025)
<b>Total</b>	<b>\$106 M</b>	<b>\$120 M</b>



# Potential Project Next Steps

Submit TOAR to Caltrans for approval

Community meeting to share traffic results

Continue remaining studies in PA/ED

- Tentative completion – end of 2020

Long-term (assuming funding is identified):

- 2021 – Seek funding for PS&E and R/W acquisition
- 2023 – Start PS&E and R/W acquisition
- 2025 – Start construction



## Council Feedback

Does Council recommend moving forward with the project considering:

- Additional funding for remaining portions of the PA/ED
- Right-of-way need
- Total project costs





Thank you for your time.



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