

Abstract geometric lines in the top left corner of the slide, consisting of several thin white lines forming a complex, overlapping pattern of triangles and polygons.

Sand City California/Playa Intersection Analysis

Presented by:

Lisa Rheinheimer, Assistant General Manager

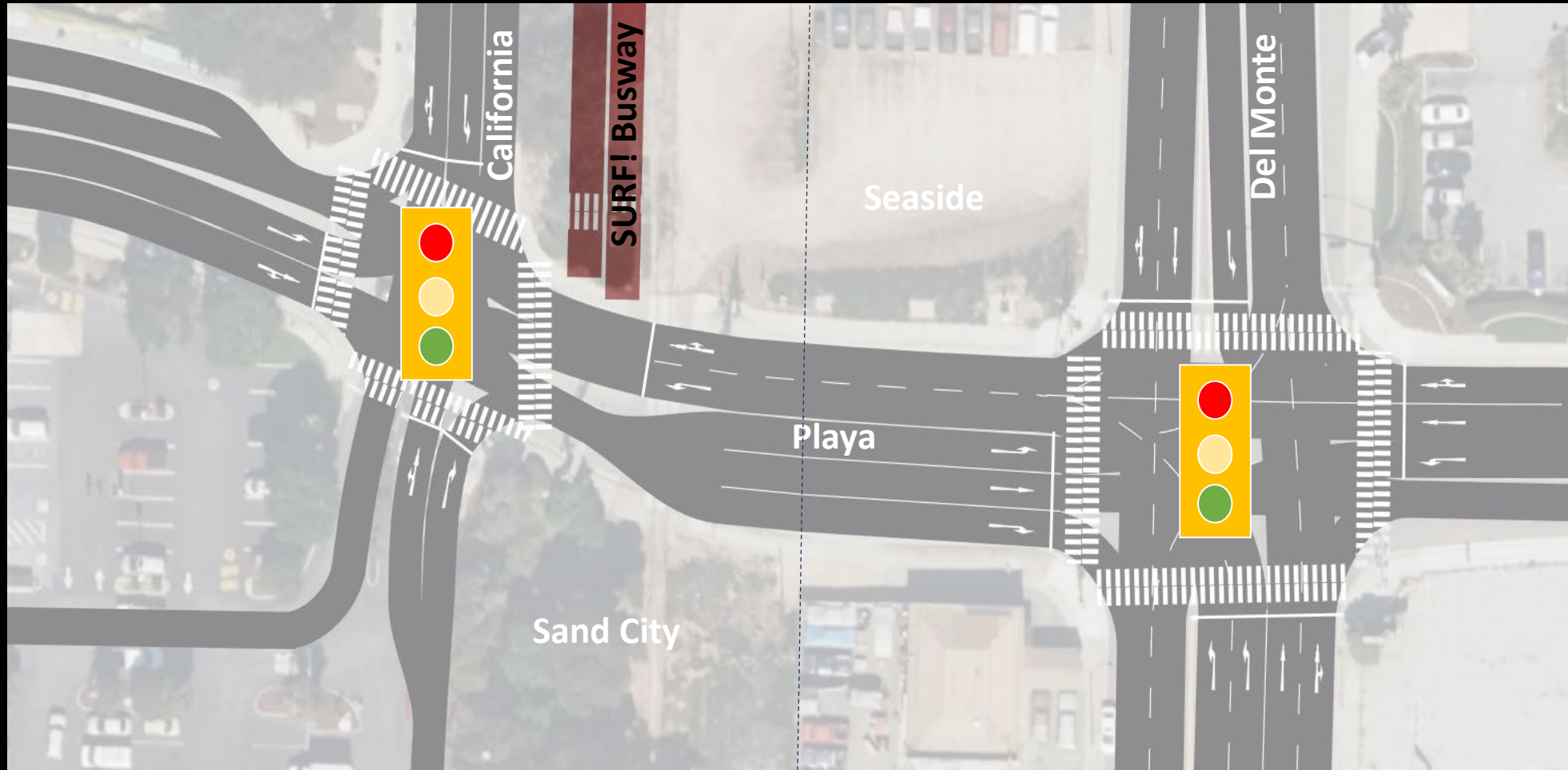
Frederik Venter, Kimley-Horn

December 11, 2023

Outline

- SURF! Project at 95% Design
- MST Transit Service Operations
- Traffic Signal Vs Roundabout Analysis
- Traffic Simulations
- Non-Viable Options
- Viable Long-Term Options
- Recommendation

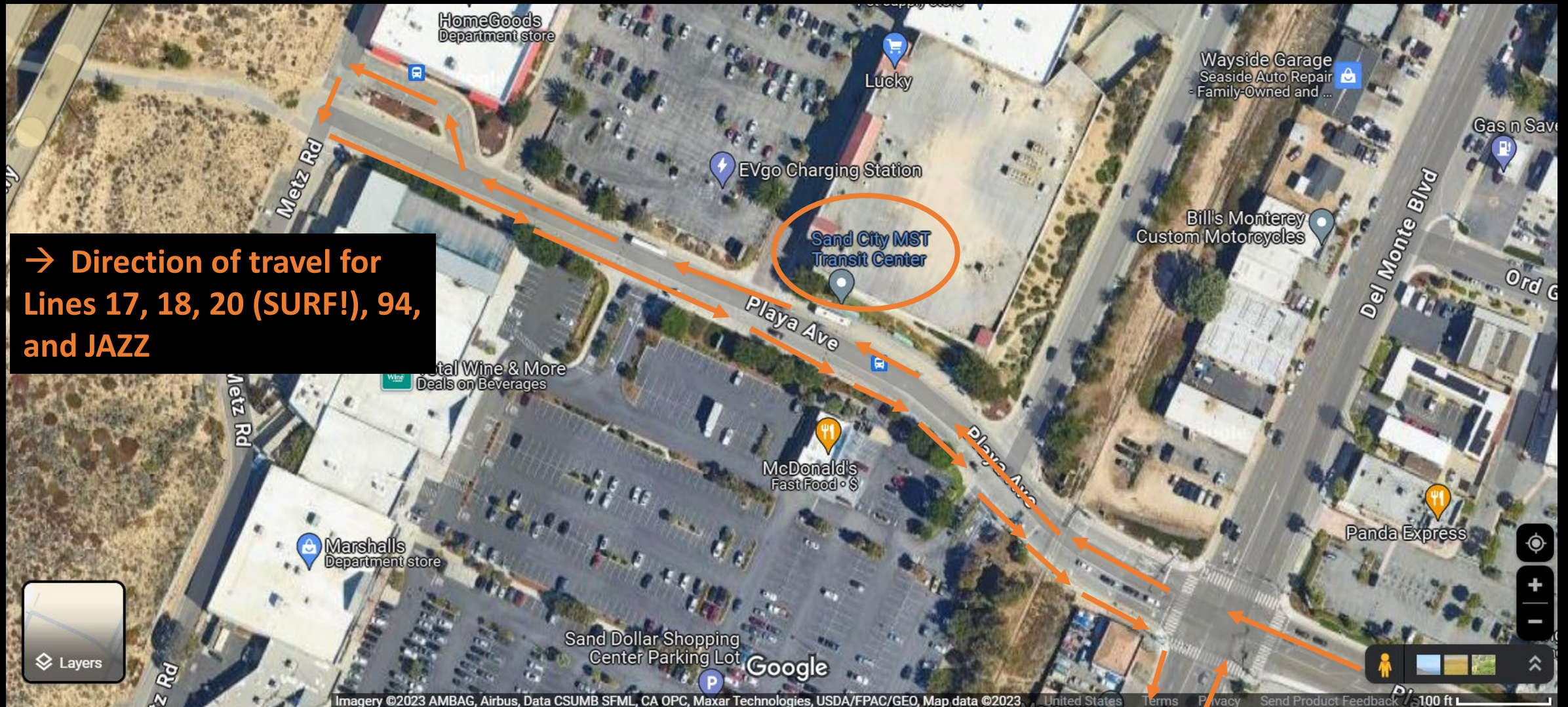
SURF! PROJECT AT 95% DESIGN



SURF! Project at 95% Design

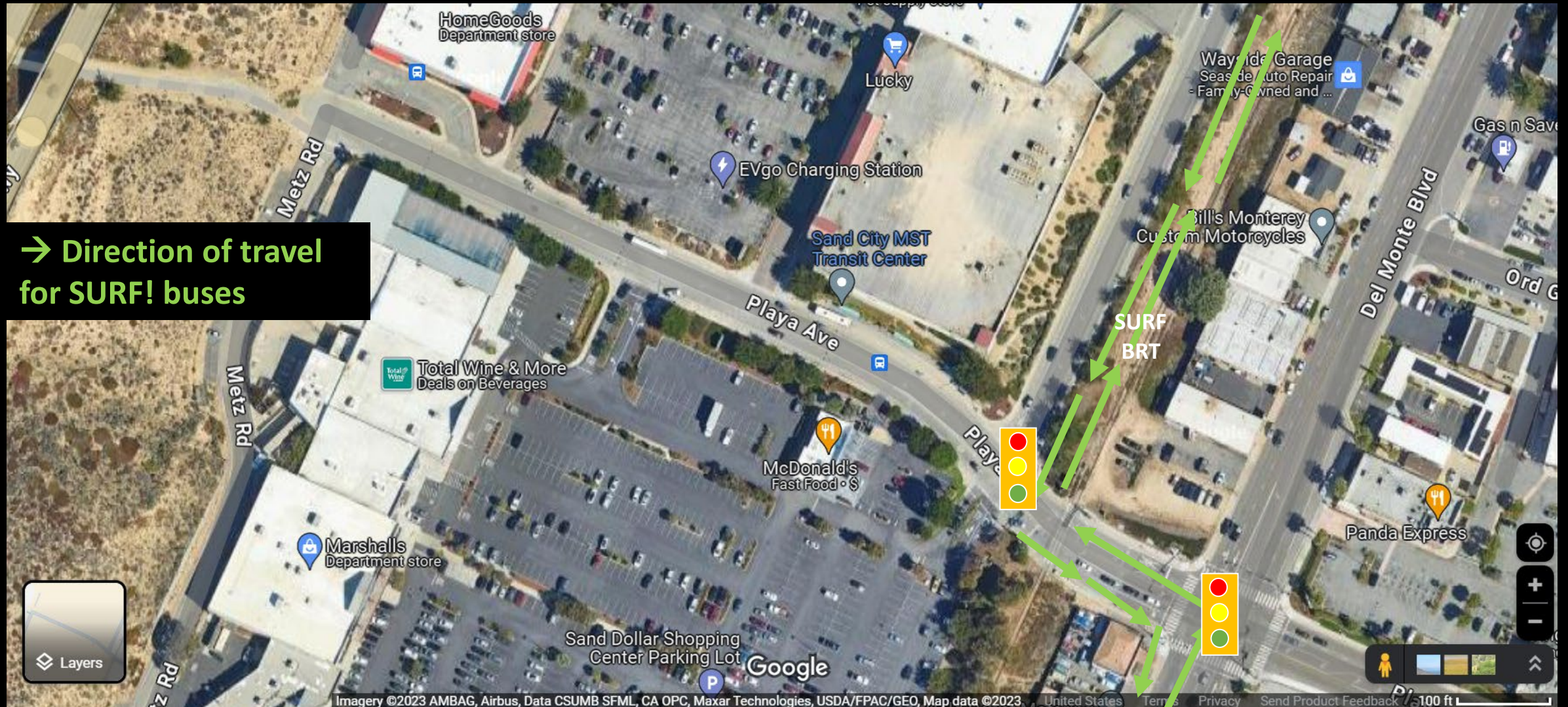


MST Transit Service Operations - Existing



MST SURF! Transit Operations – 95% Design

(New Traffic Signal at California/Playa)

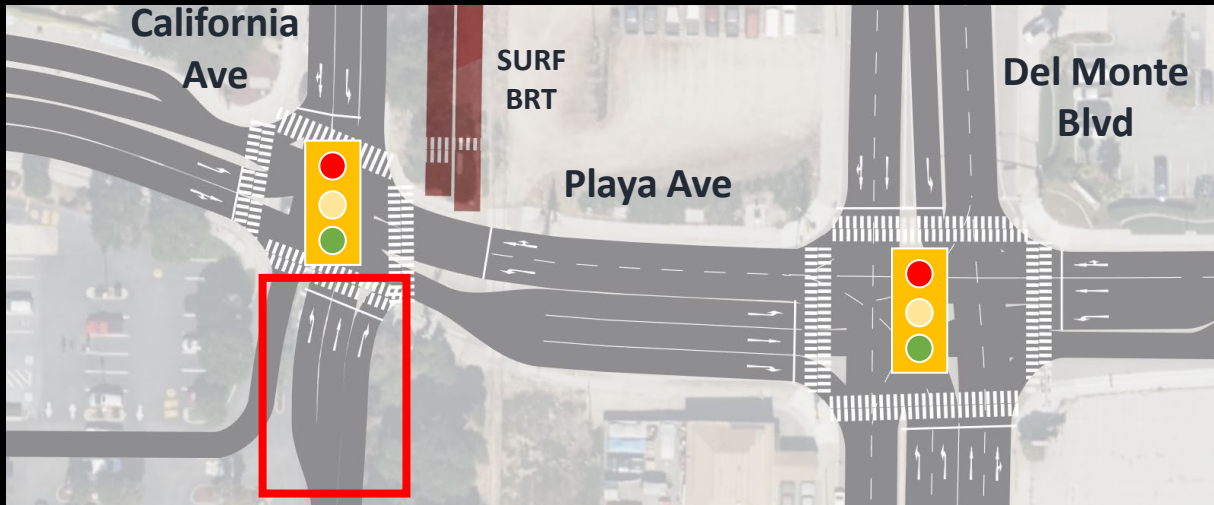
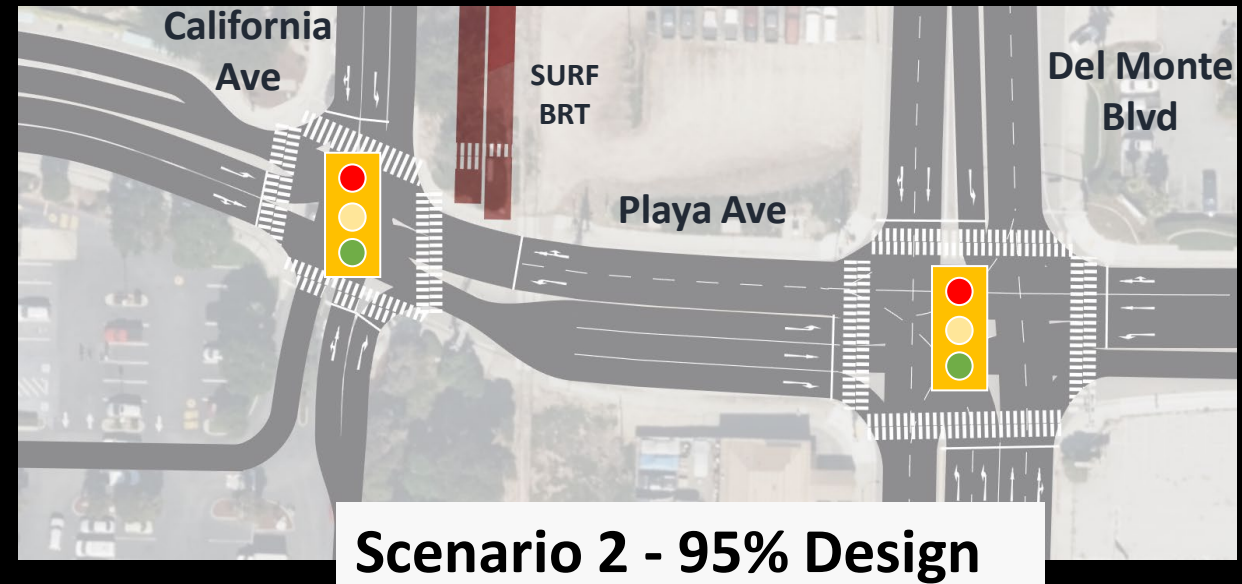


Traffic Signal vs Roundabout Analysis

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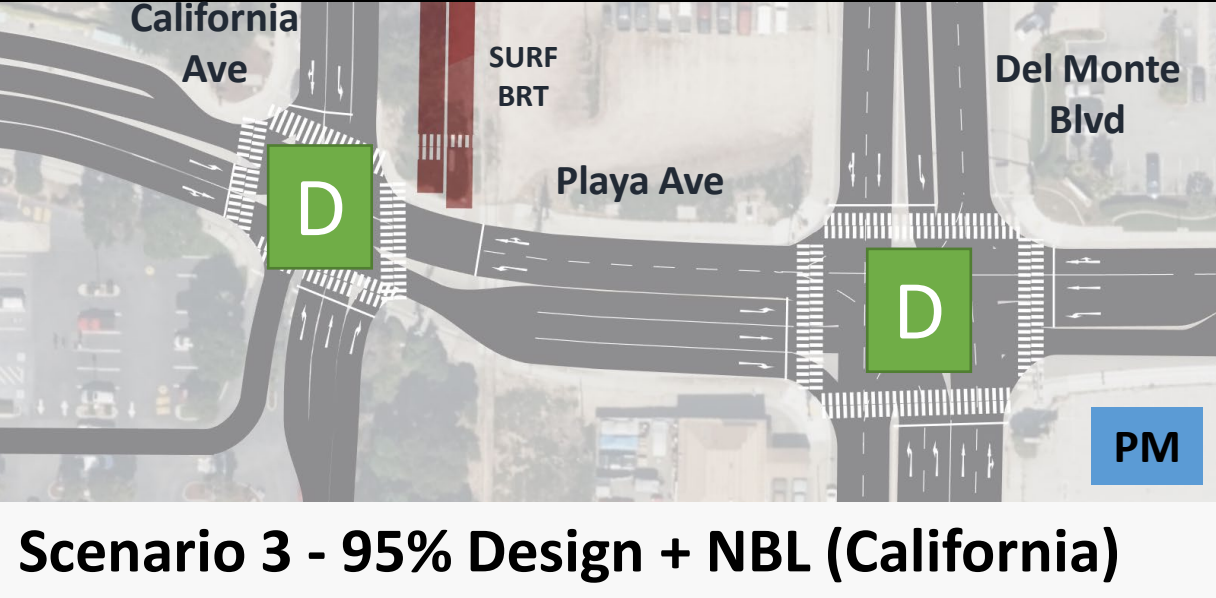
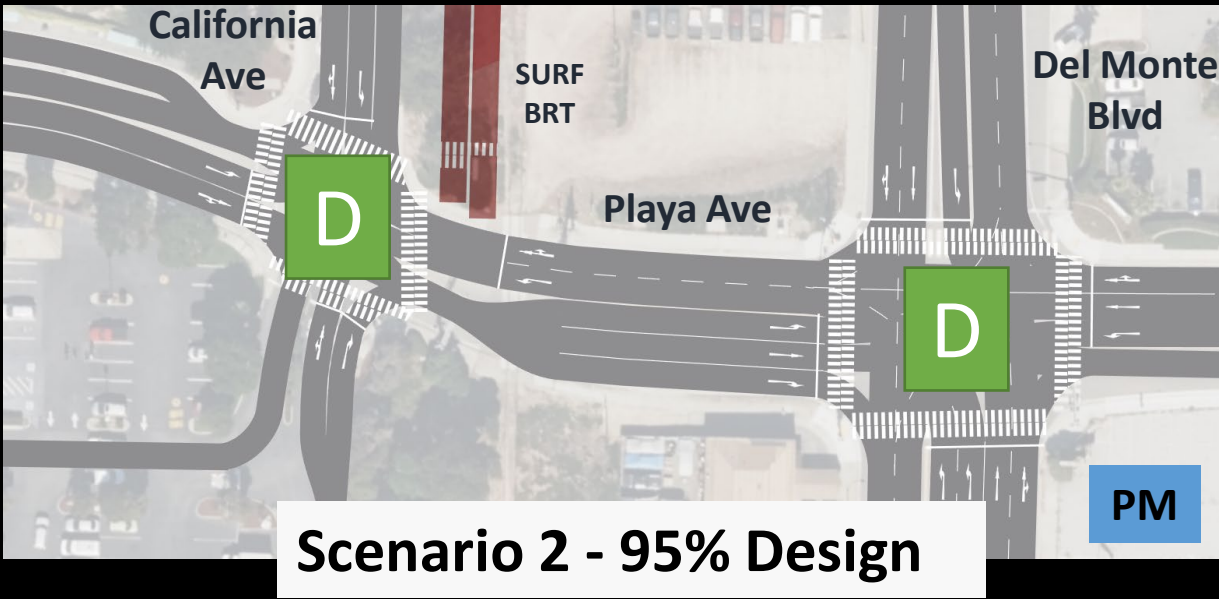
- Weekend traffic counts provided by Sand City traffic engineer
- Planning horizon year is 2045
- Based on AMBAG Traffic Model

Four (4) Scenarios Analyzed

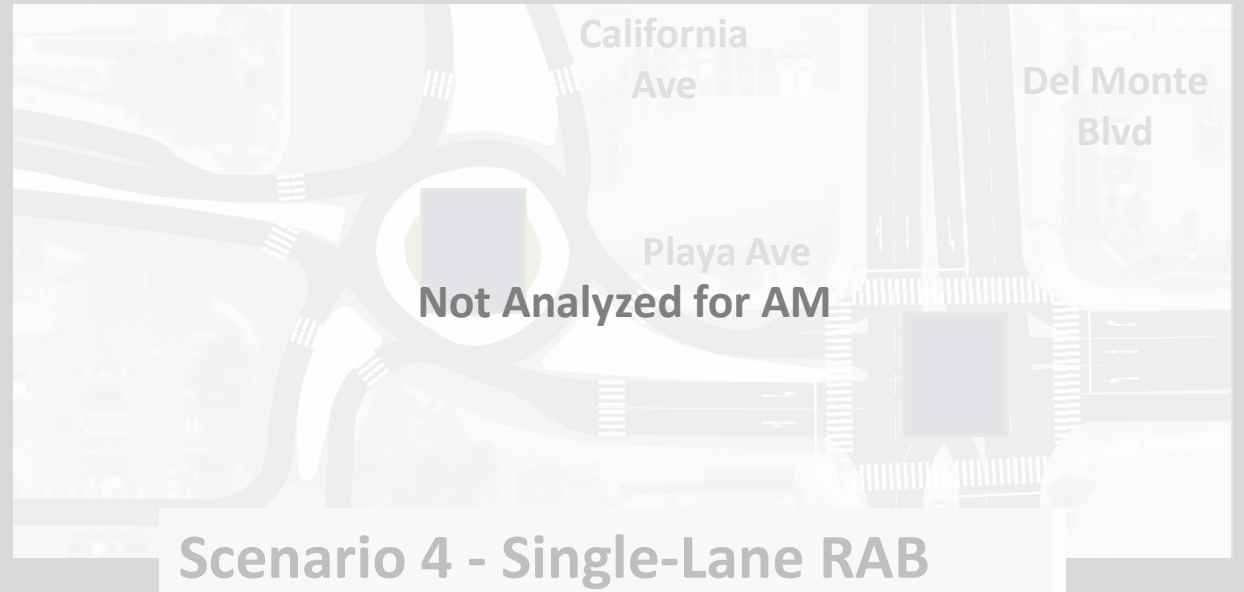
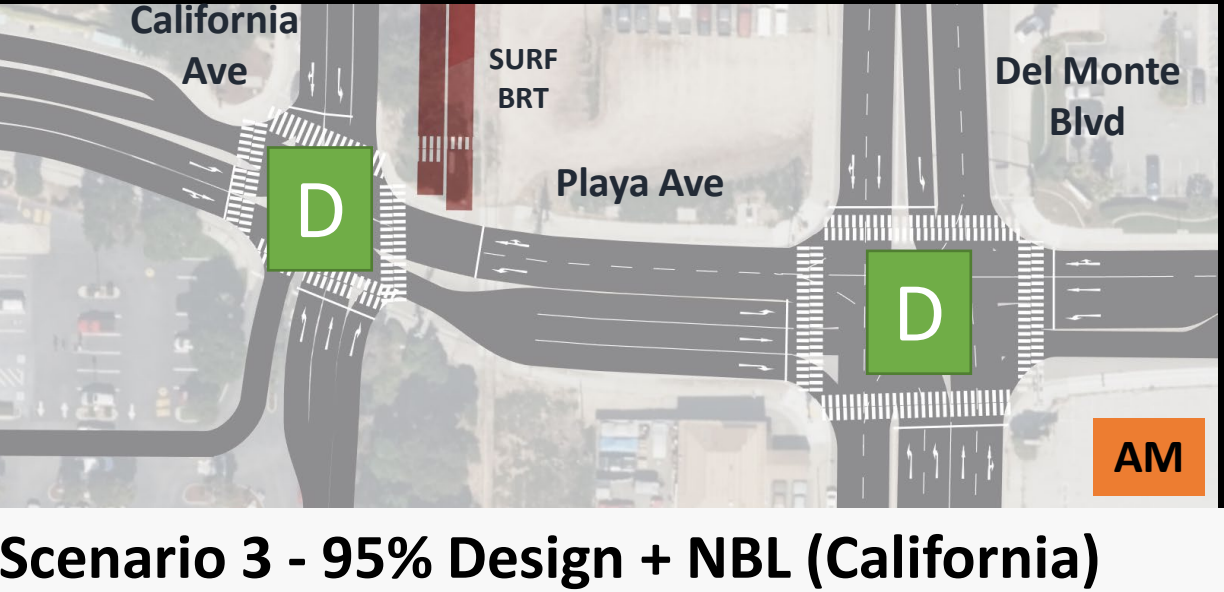
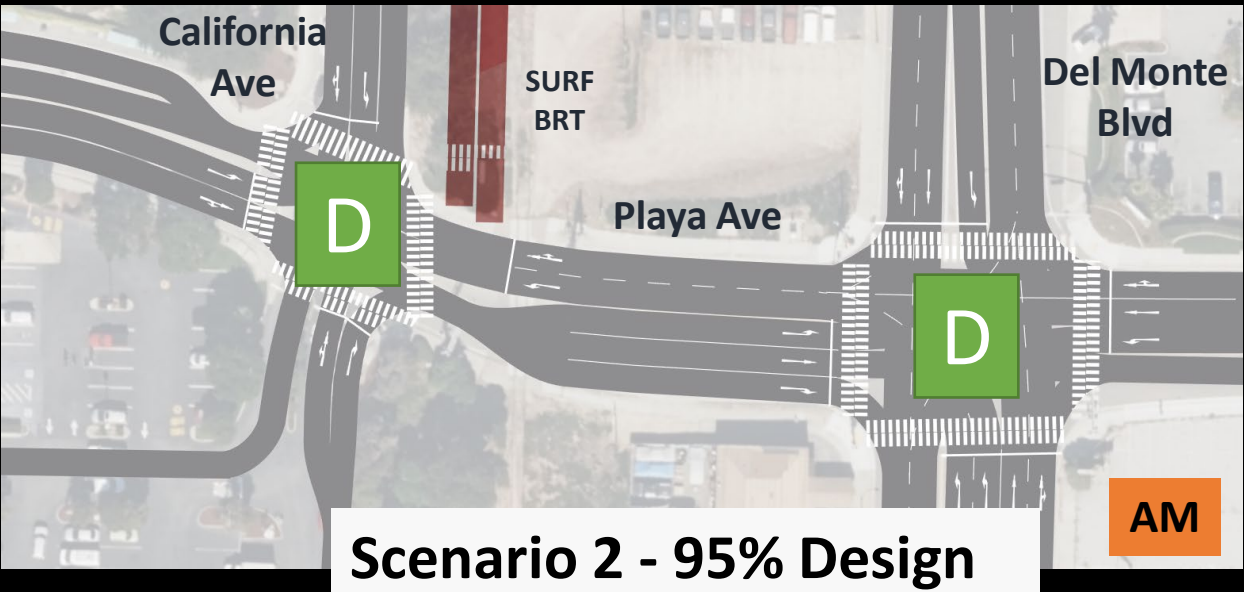


Cumulative 2045 PM Peak Level of Service (LOS) Summary

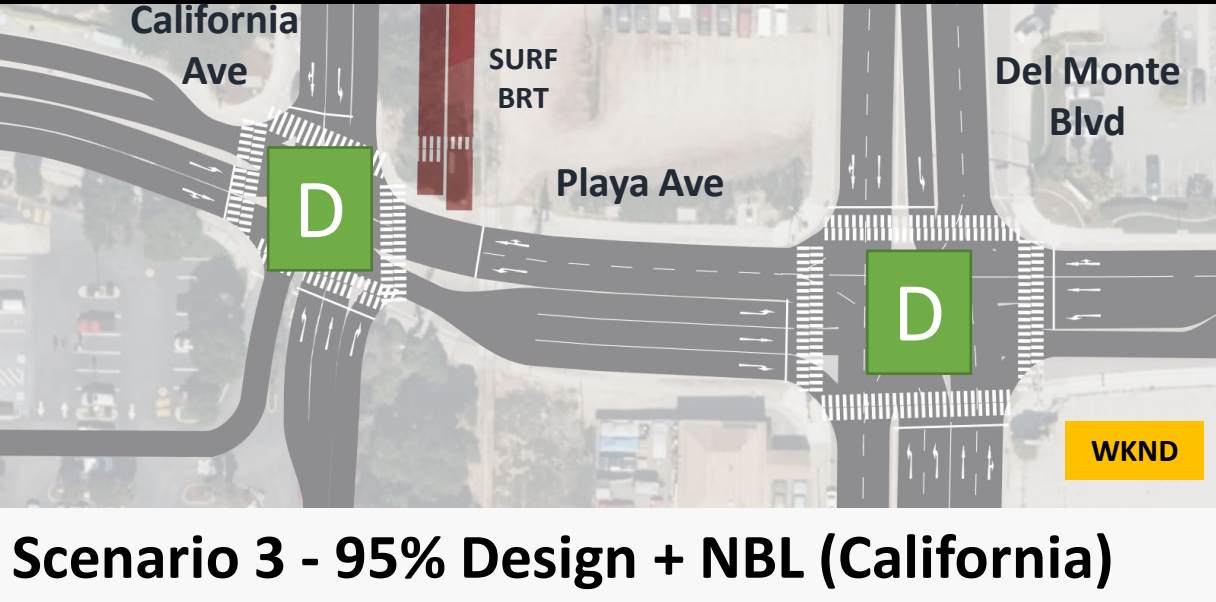
F = Exceeds Capacity



Cumulative 2045 **AM Peak** LOS Summary

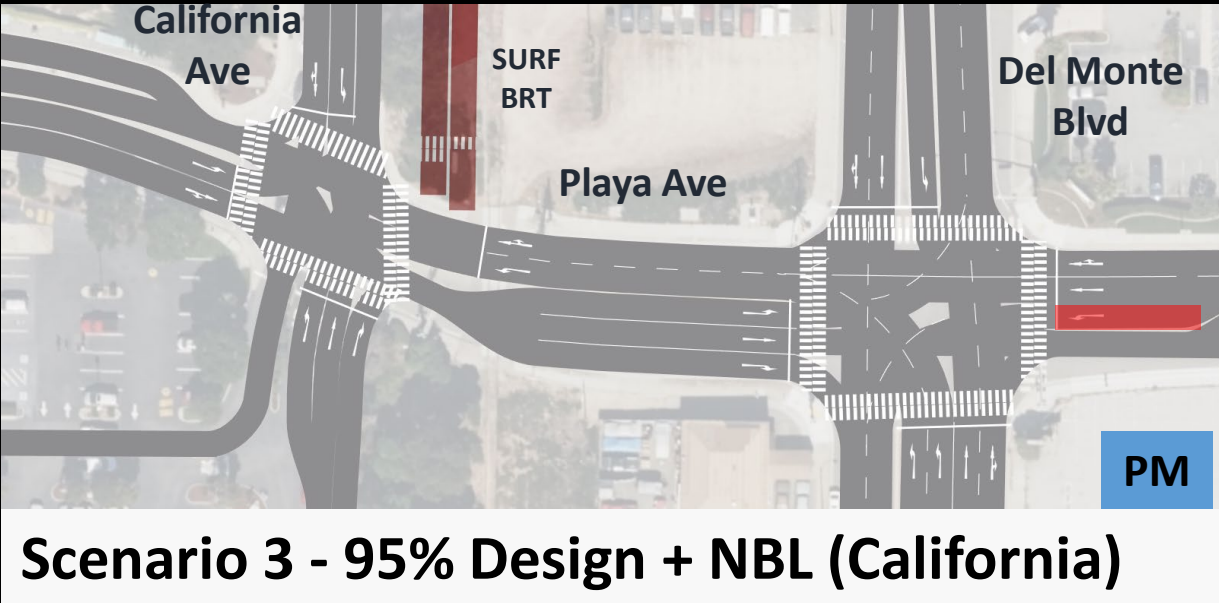
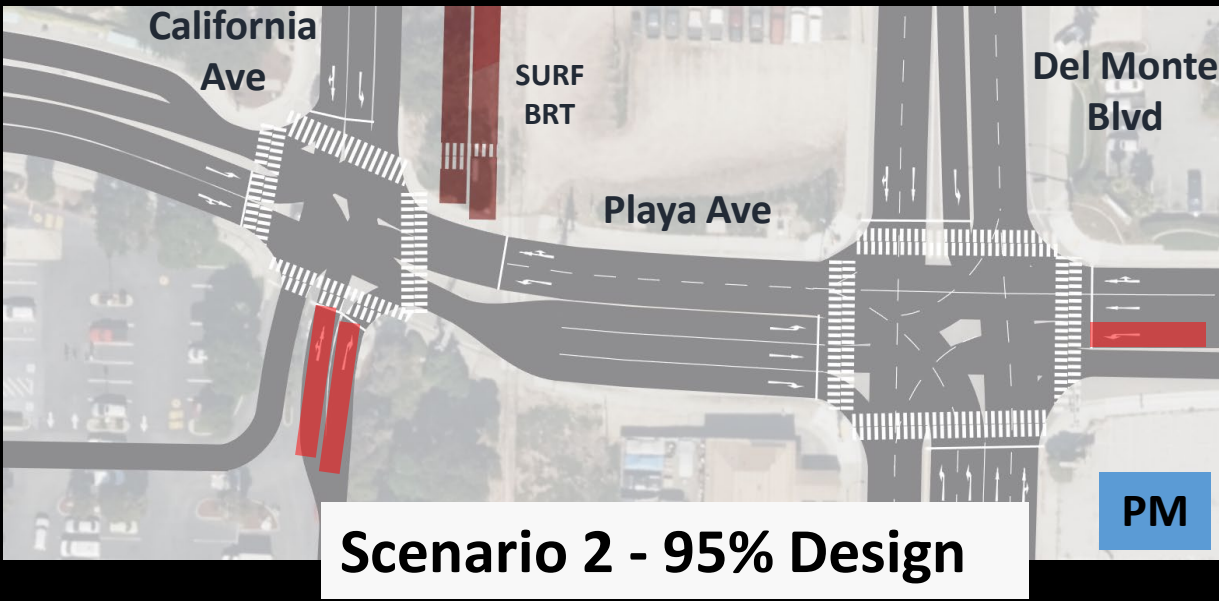


Cumulative 2045 Weekend Midday Peak LOS Summary



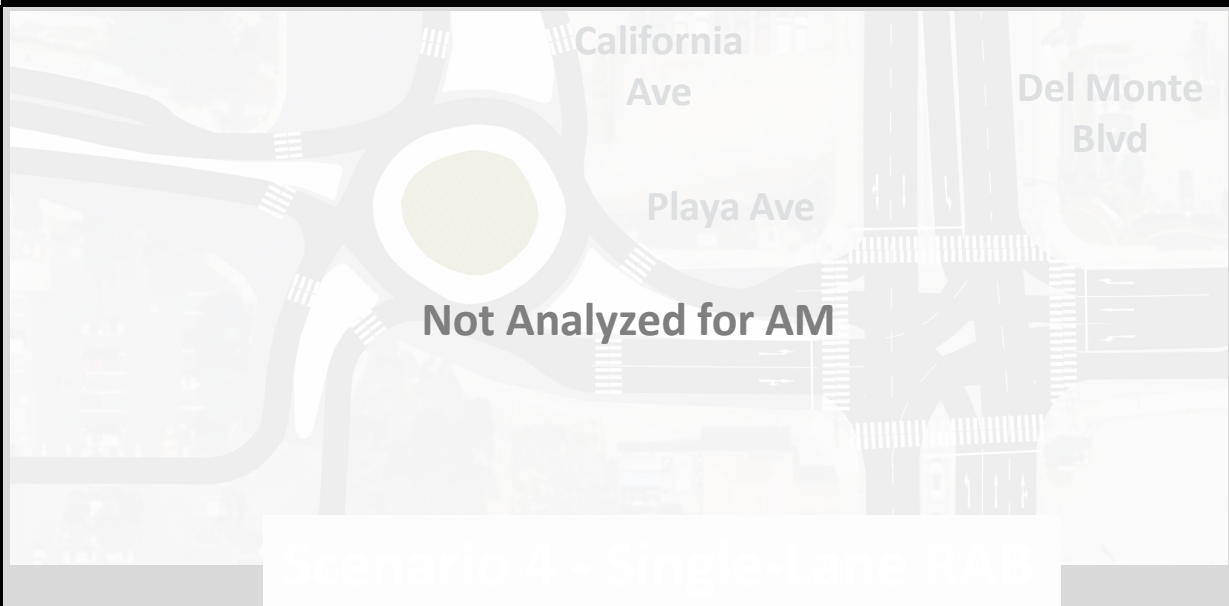
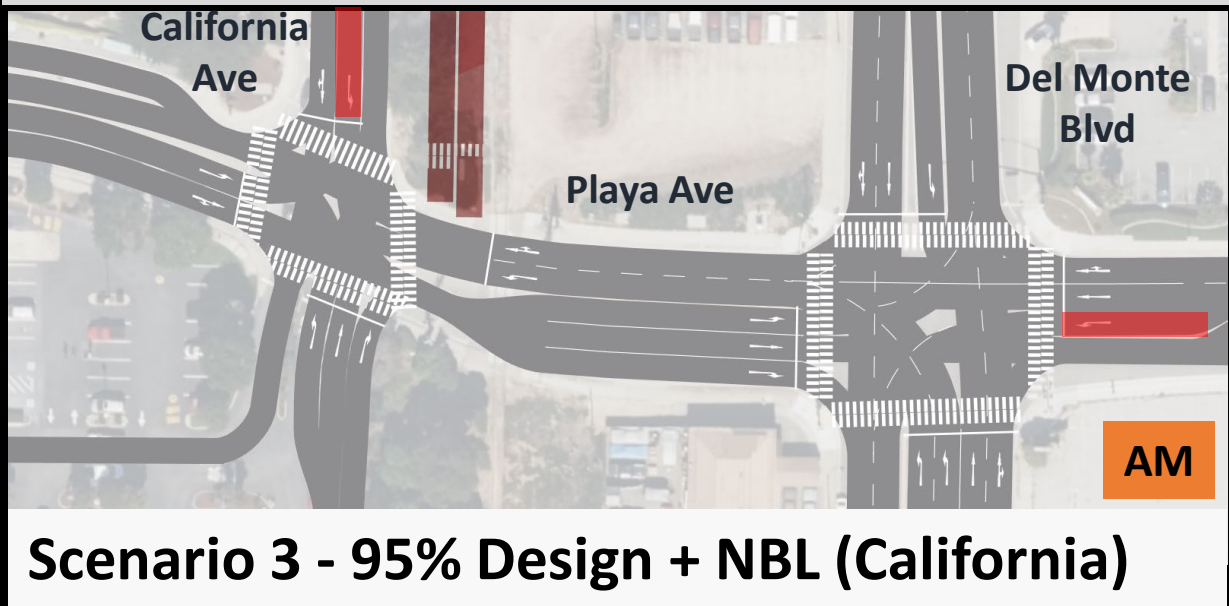
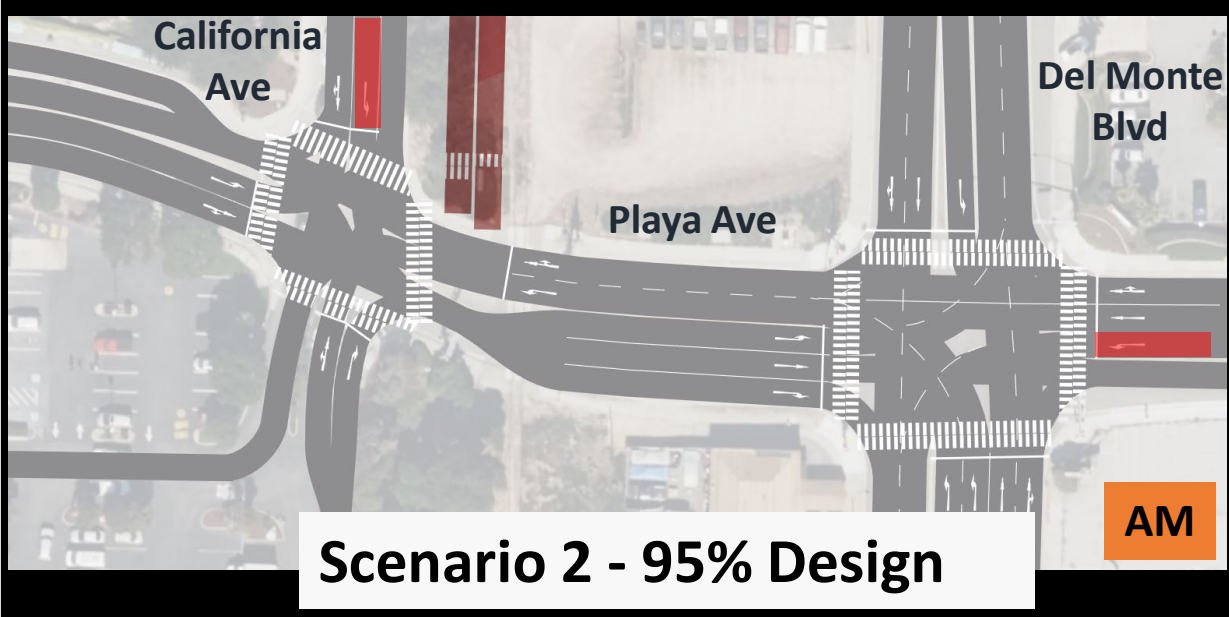
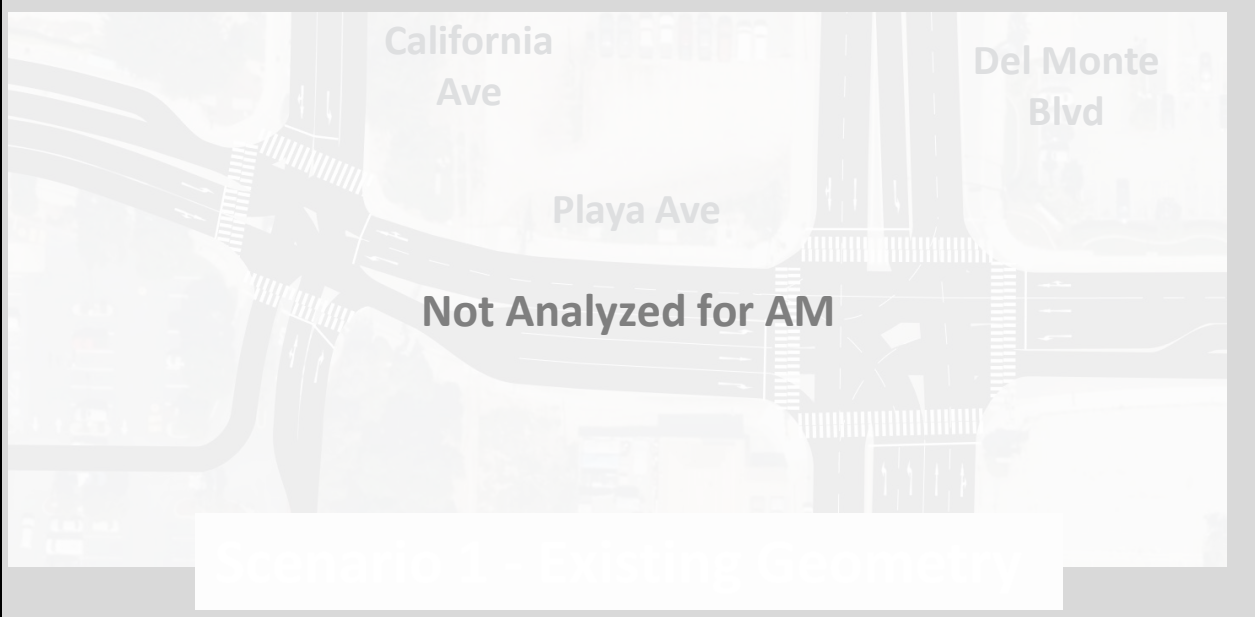
Cumulative 2045 PM Peak Queueing Summary

Red = Exceeds Capacity



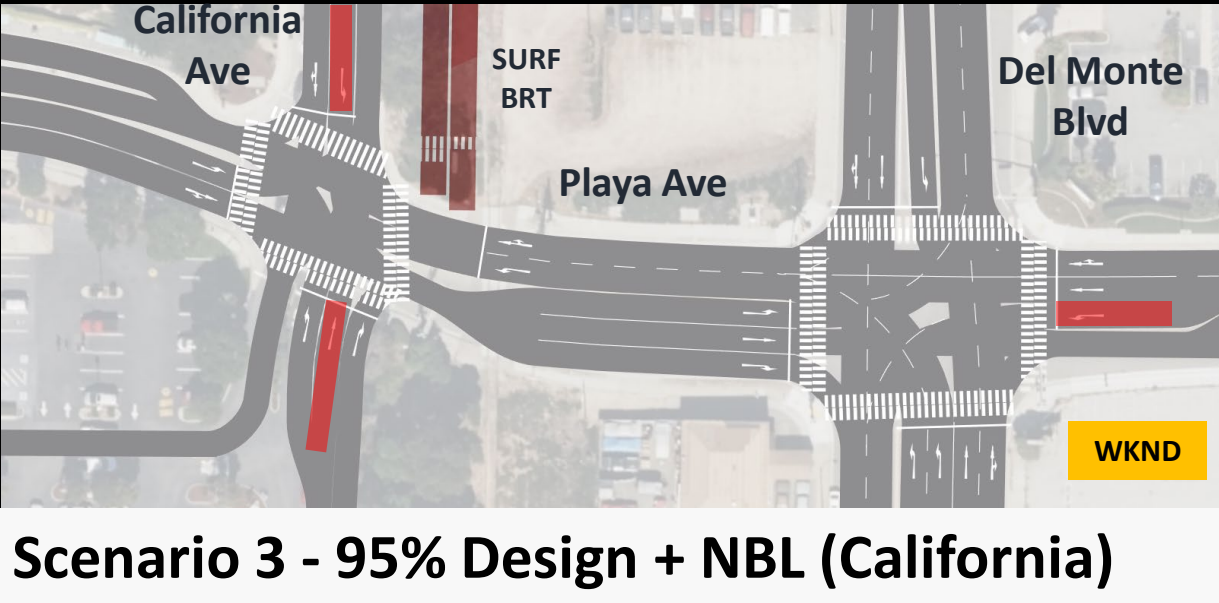
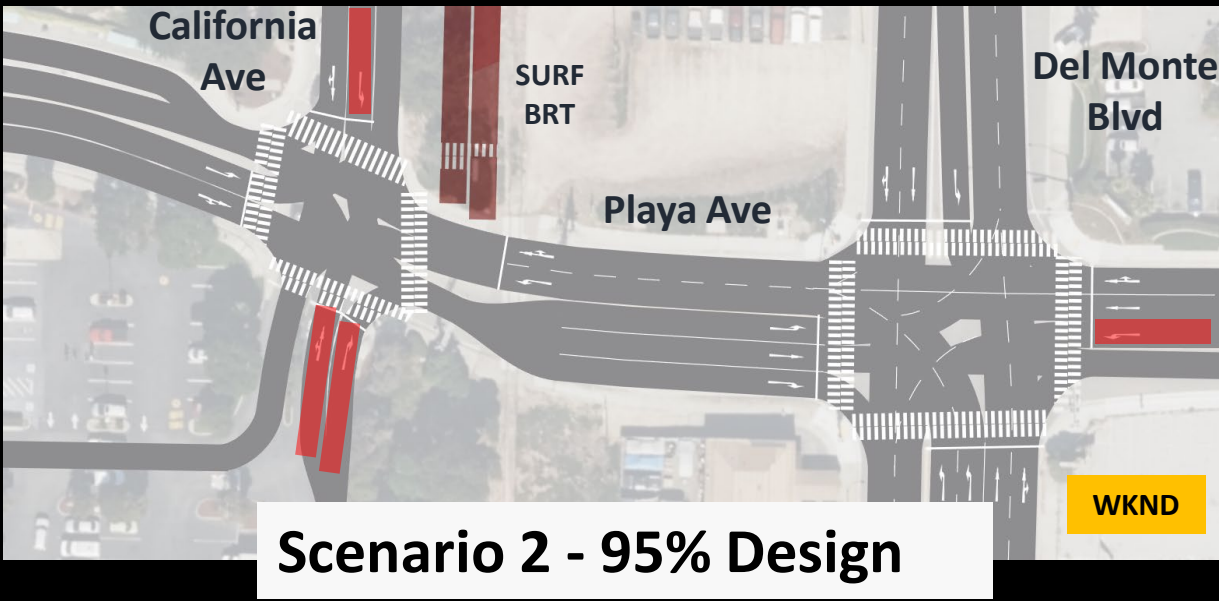
Cumulative 2045 AM Peak Queueing Summary

Red = Exceeds Capacity

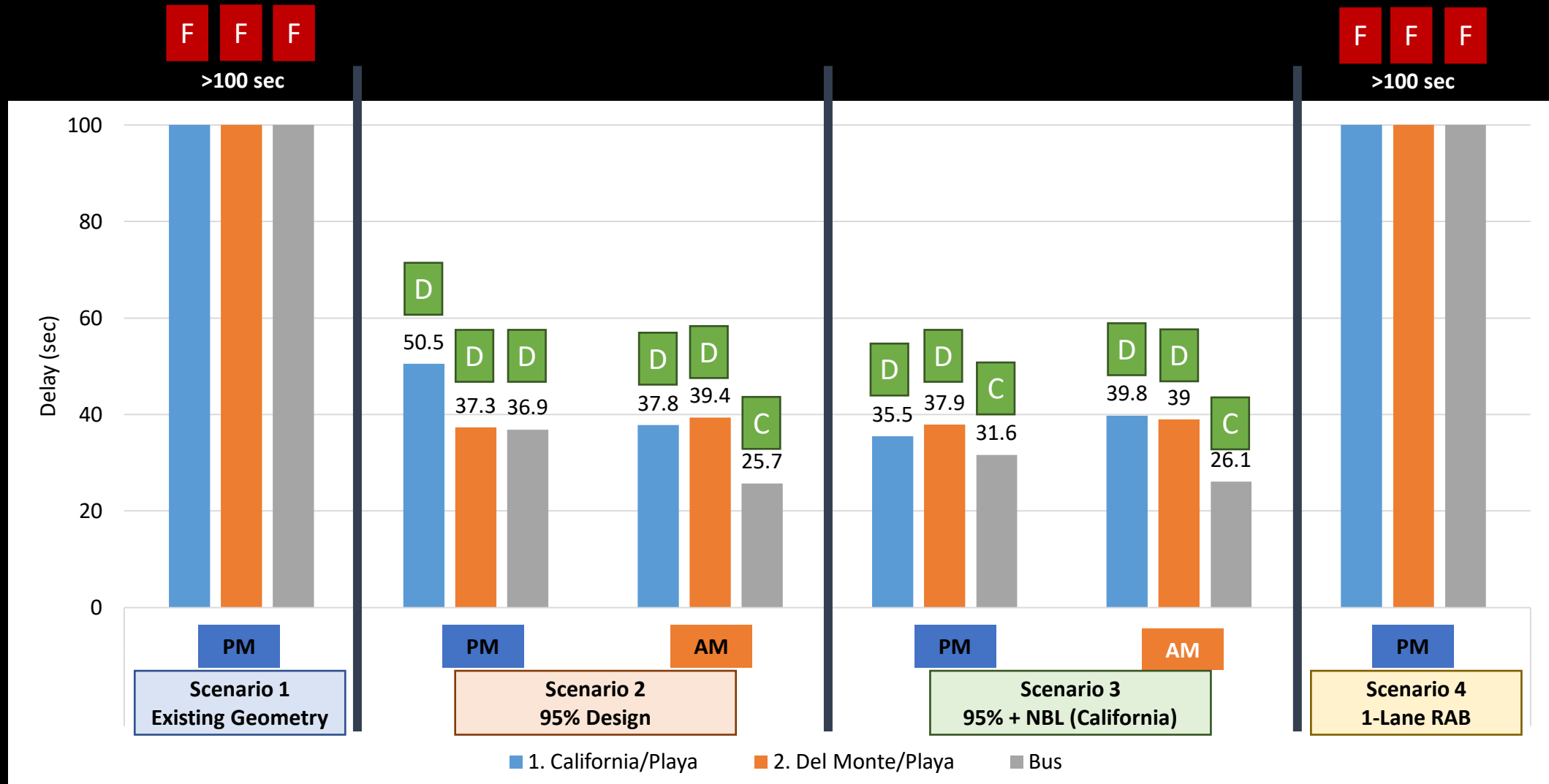


Cumulative 2045 Weekend Midday Peak Queueing Summary

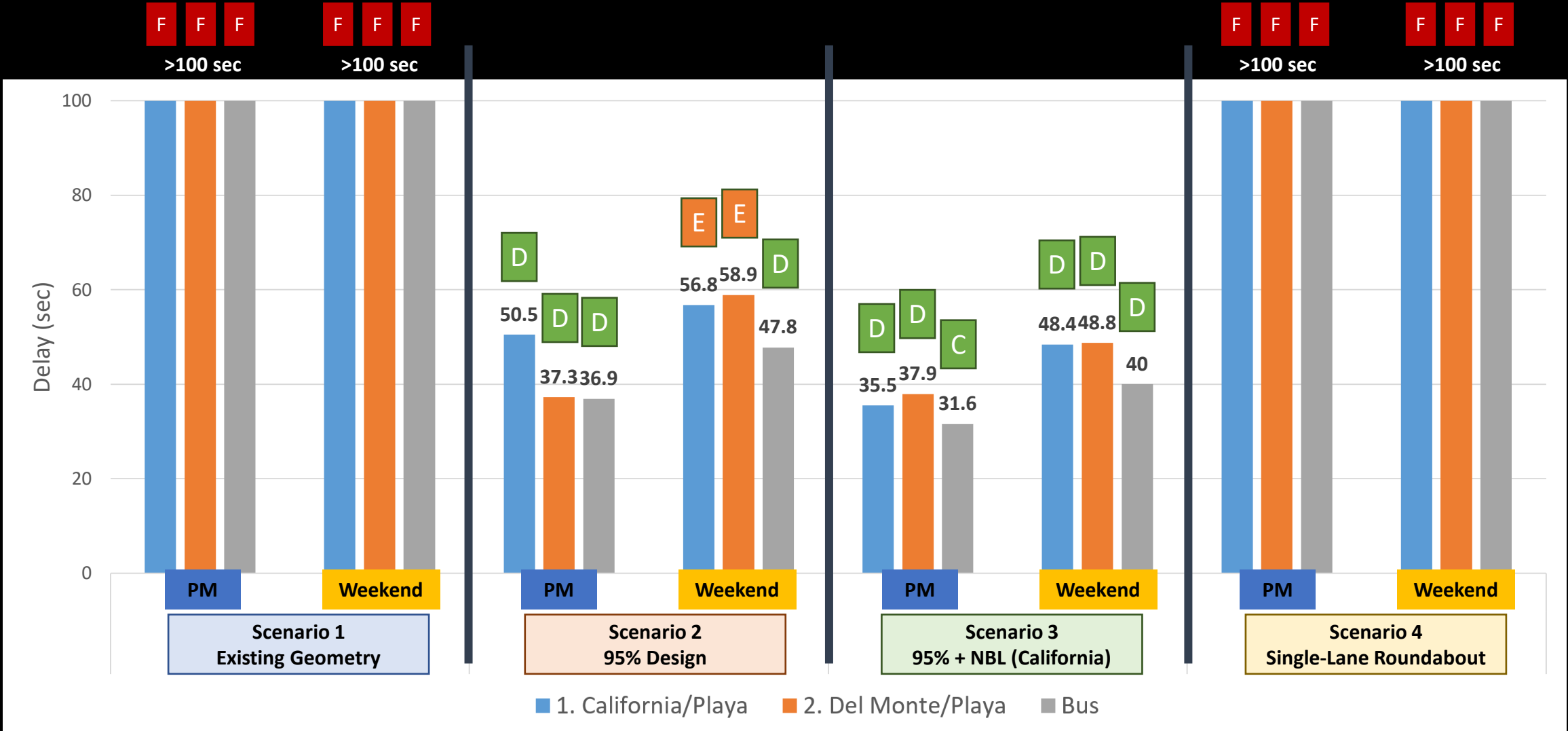
Red = Exceeds Capacity



Cumulative 2045 PM Peak vs. AM Peak Delay Summary Graph



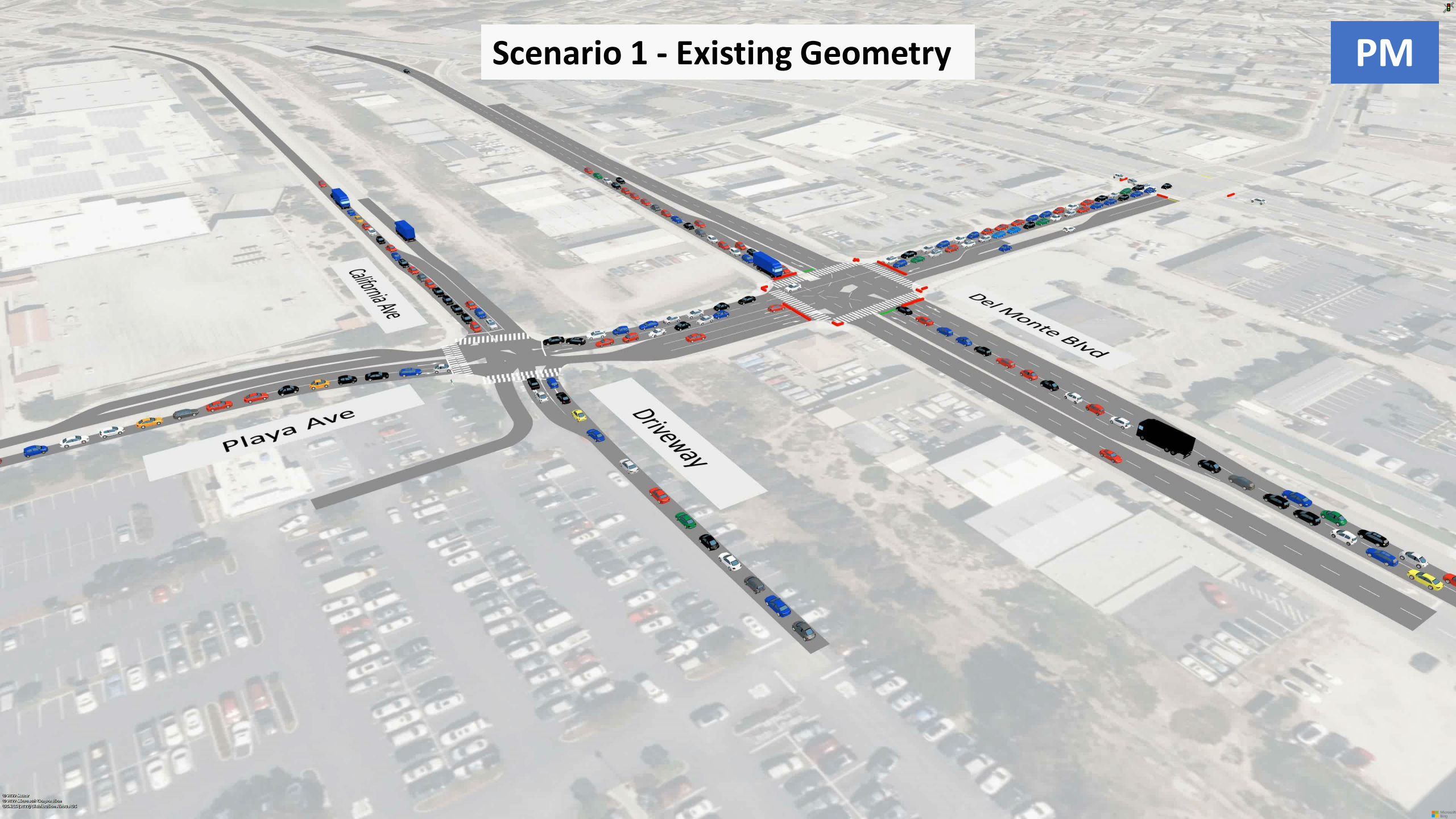
Cumulative 2045 PM Peak vs. Weekend Midday Peak Delay Summary Graph



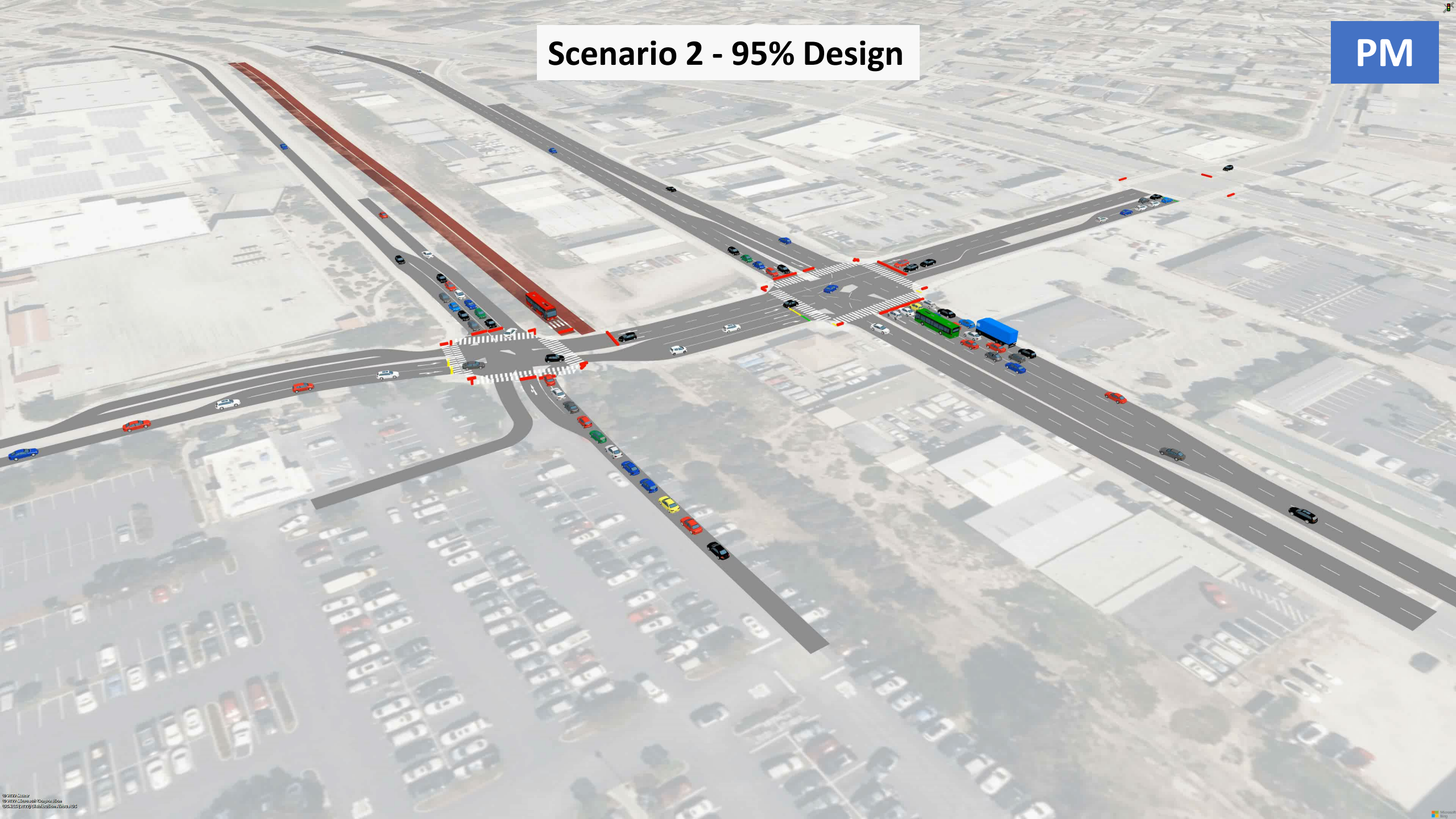
Traffic Simulations

Scenario 1 - Existing Geometry

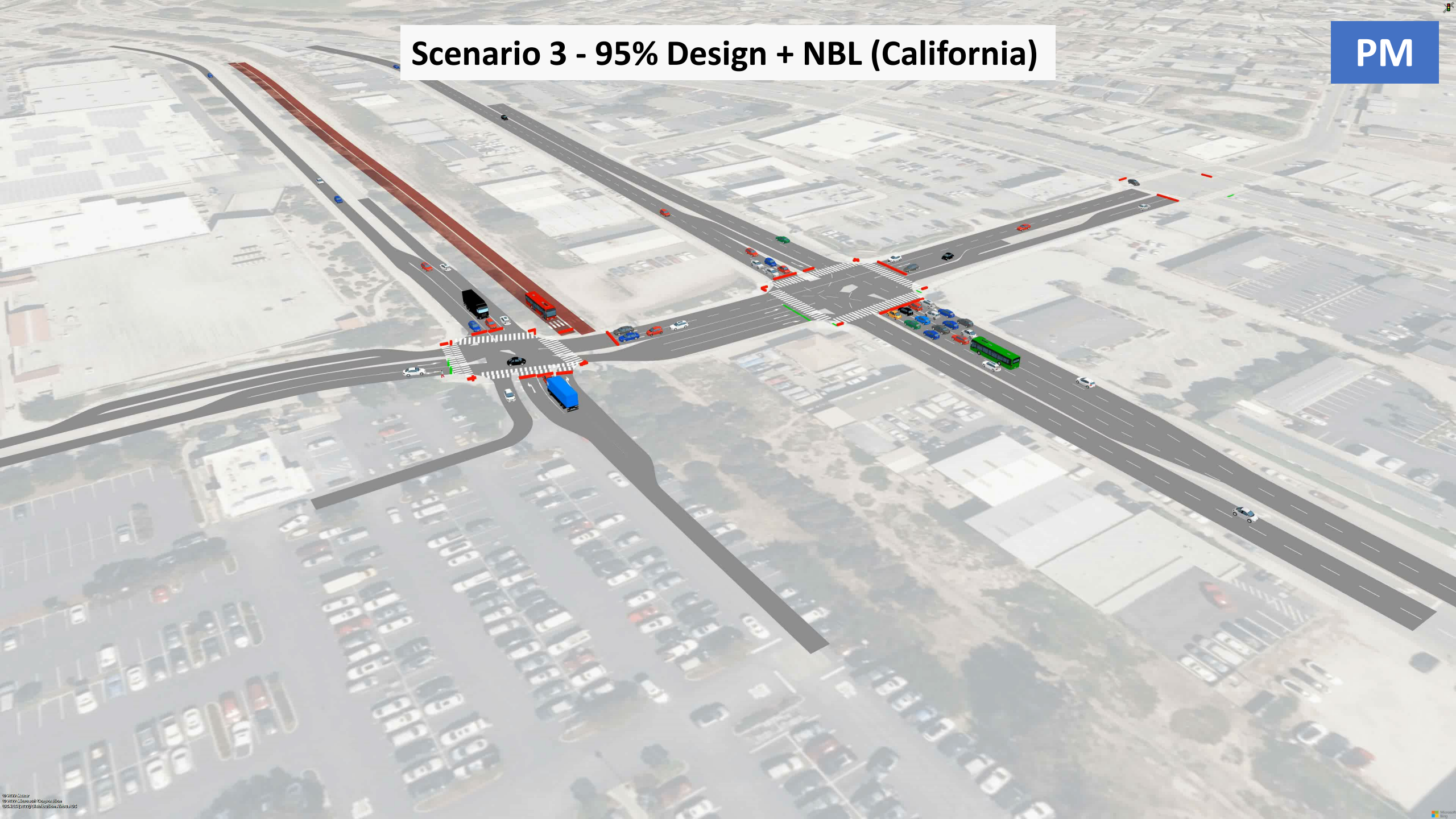
PM



Scenario 2 - 95% Design



Scenario 3 - 95% Design + NBL (California)



Scenario 4 - Single-Lane RAB

PM



Summary

	Scenario 1 Existing Geometry	Scenario 2 95% Design		Scenario 3 95% Design + NBL* (California)		Scenario 4 Single-Lane Roundabout
SURF!	No	Yes	Acceptable LOS Operations Compared to Existing Geometry Minimal Queueing at Both Intersections	Yes	15 sec Time Savings at California/Playa vs. Scenario 2 (PM) 5 Second Time Savings for Bus vs. Scenario 2 (PM)	No
Sand City	No	Yes		Yes+*		No
Seaside	No	Yes		Yes		No

* NBL cannot be included in SURF! project due to Right-of-Way requirements – CEQA and NEPA.

NON-VIABLE OPTIONS

Start/end busway at Highway 1 southbound onramp and use existing intersection at California/Playa



Scenario 1 - Existing Geometry

Start/end busway at Highway 1 southbound onramp and use single-lane roundabout at California/ Playa

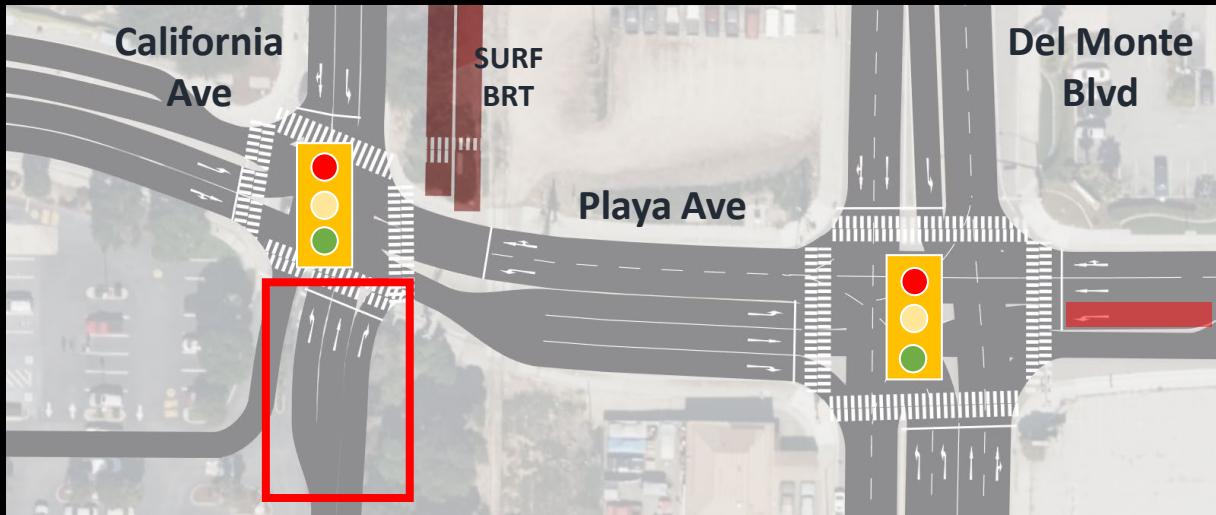
Built by others



Scenario 4 - Single-Lane RAB

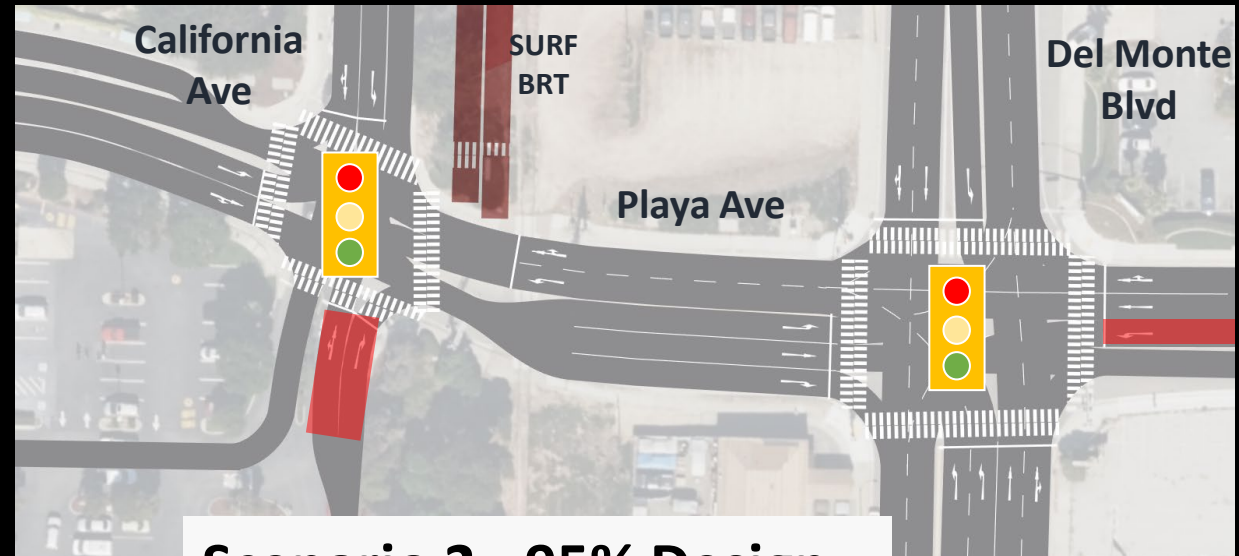
VIABLE LONG-TERM OPTIONS

Traffic signal at California/Playa for safe/efficient movement of transit vehicles



Scenario 3 - 95% Design + NBL (California)

Traffic signal at California/Playa for safe/efficient movement of transit vehicles



Scenario 2 - 95% Design

Recommendation:

1. Direct MST staff to continue planning the SURF! project (Scenario 2) with a traffic signal at California and Playa.
2. Encourage Sand City to support, plan, and construct Scenario 3 in tandem and coordination with MST and its contractors.

Schedule:

Letter from Sand City – does not change staff recommendation

January – FTA Risk Assessment to review SURF! project readiness

March – complete critical third-party agreements (permits)

August – grant agreement for \$22.1M in federal funding