

Traffic Circulation Study in Castro Valley

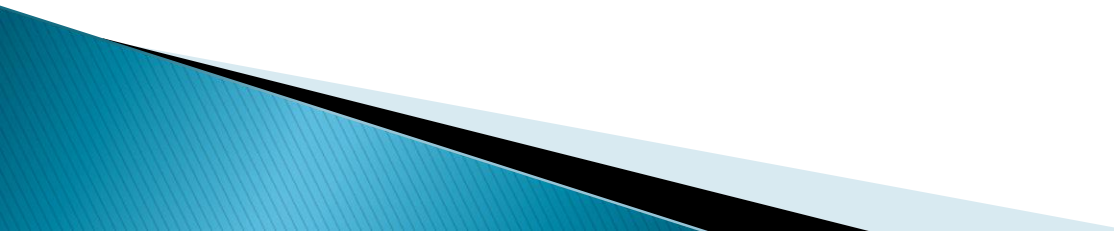
Presented to
Castro Valley Municipal Advisory Council

March 17, 2014

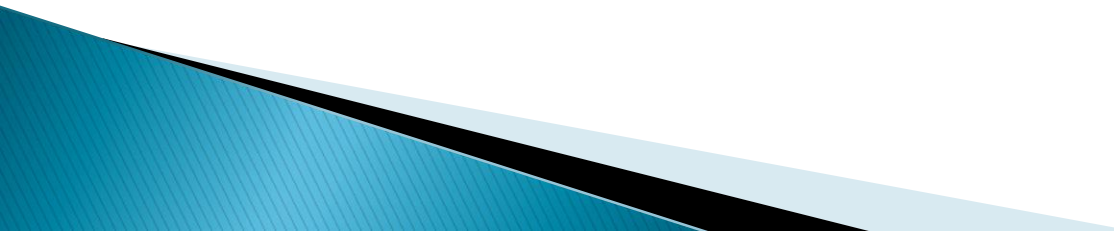


Purpose

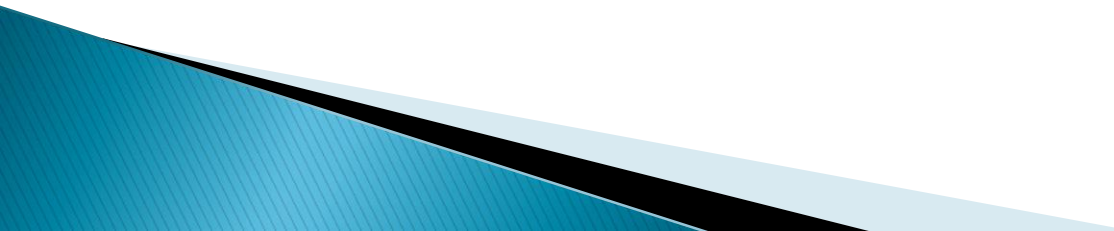
- ▶ Update previous circulation study due to:
 1. Castro Valley Boulevard Streetscape (Completed)
 2. Castro Valley I-580 Interchange Project (Completed)
 3. I-238 Widening Project (Completed)
 4. Proposed new road to link Strobbridge Ave to Castro Valley Boulevard

 - ▶ Identify near term and long term improvements in Castro Valley
- 

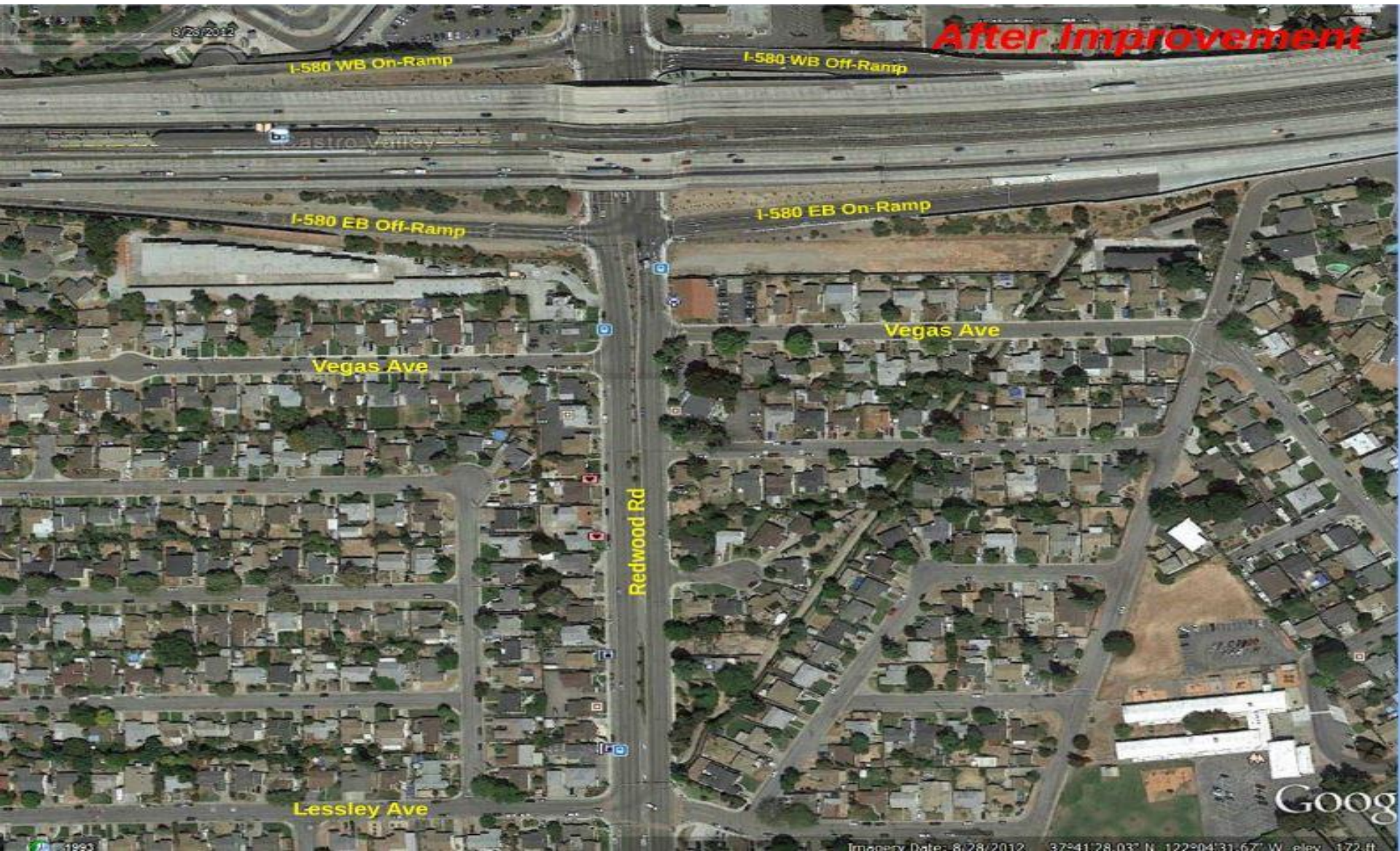
Elements of the Study

- Collect Traffic Count Information
 - Forecast future traffic volumes
 - Conducted level of service analysis
 - Identify needs
 - Recommend Improvements
- 

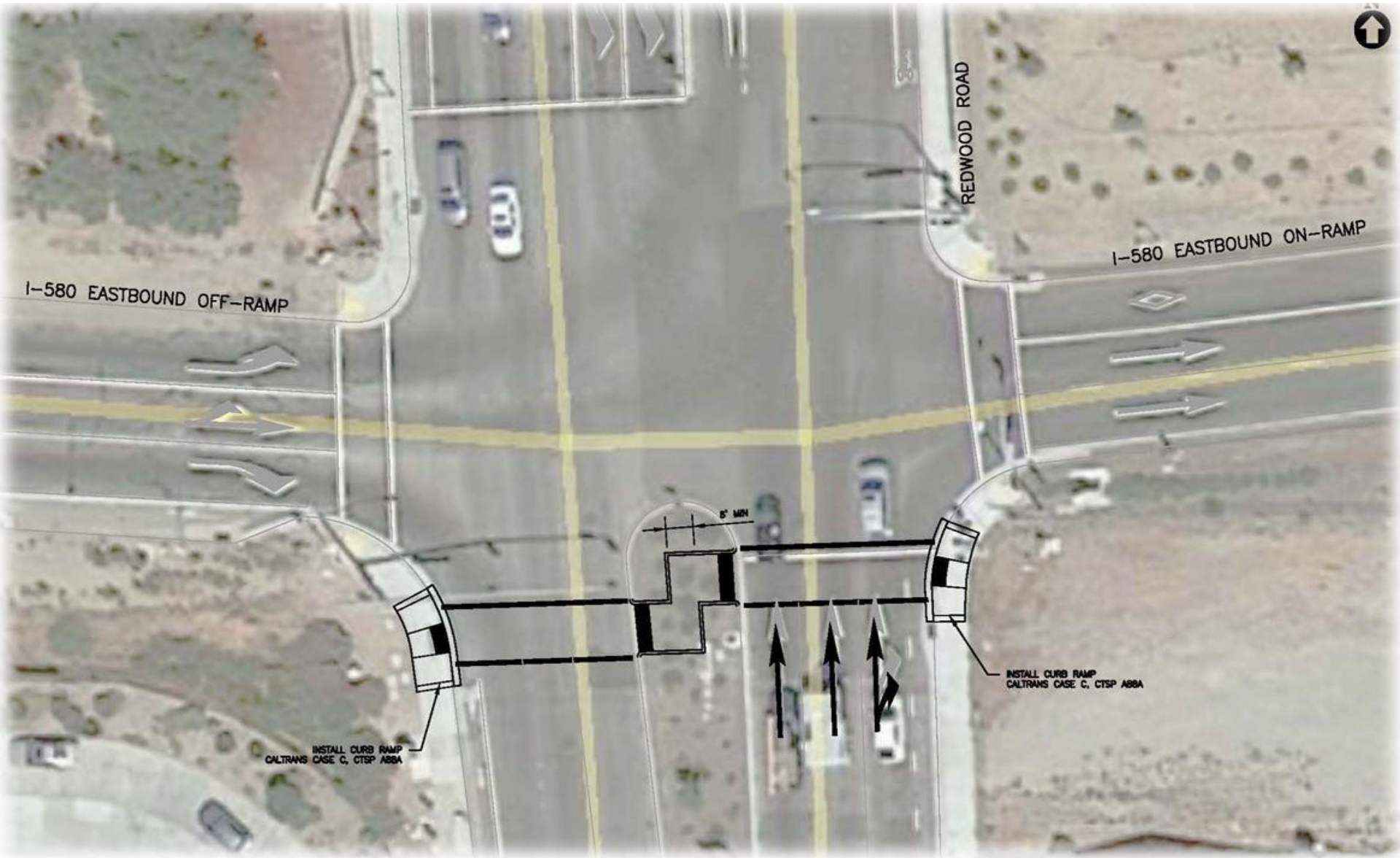
Specific Findings

1. Pedestrian Crosswalk at Redwood Road/I-580 interchange
 2. Redwood Road traffic signal synchronization
 3. Redwood Road improvements
 4. Reconfiguration of Norbridge Avenue and Strobridge Avenue
 5. Strobridge Avenue restriction at Gary Drive
- 

Pedestrian Crosswalk at Redwood Road/I-580 interchange



Pedestrian Crosswalk at Redwood Road/I-580 interchange



Redwood Road Improvements

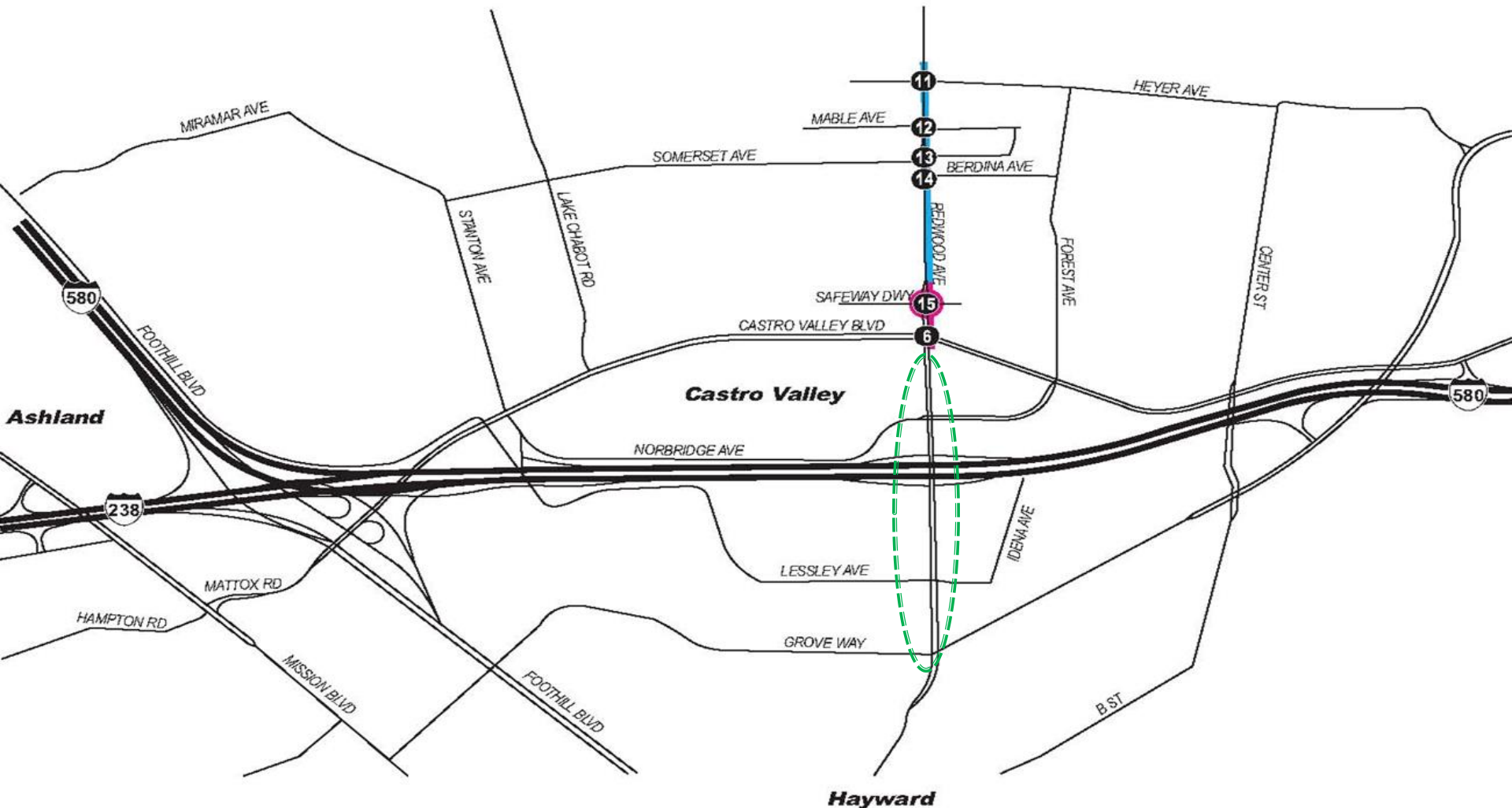
Short Term:

- ▶ Traffic Signal Synchronization

Long Term:

- ▶ Two Way Left-turn lane
- ▶ Improvements on Mabel Ave at Redwood Rd

Redwood Road Traffic Signal Synchronization



Redwood Road Traffic Signal Synchronization

Table: System Measures of Effectiveness (MOEs) – Percent Change from Existing Conditions

<i>Roadway</i>	<i>Approach</i>	<i>Peak Hour</i>	<i>Signal delay/ Vehicle</i>	<i>Stops/ Vehicle</i>	<i>Total Travel Time</i>	<i>Average Speed</i>	<i>CO Emissions</i>	<i>NOx Emissions</i>	<i>LOS Improve.</i>
Redwood Road	Northbound	A.M.	-17	-19	-11	17	-12	-12	E to D
		Midday	-53	-45	-43	43	-44	-44	E to C
		P.M.	-35	-26	-23	33	-21	-21	E to C
	Southbound	A.M.	-35	-29	-23	27	-22	-22	D to C
		Midday	-55	-43	-46	54	-43	-42	D to C
		P.M.	-24	-28	-16	18	-17	-16	D to C

Redwood Road Improvements

- ▶ Redwood Road/ Village Drive Improvement



EXISTING CONDITION



IMPROVEMENT OPTION 2

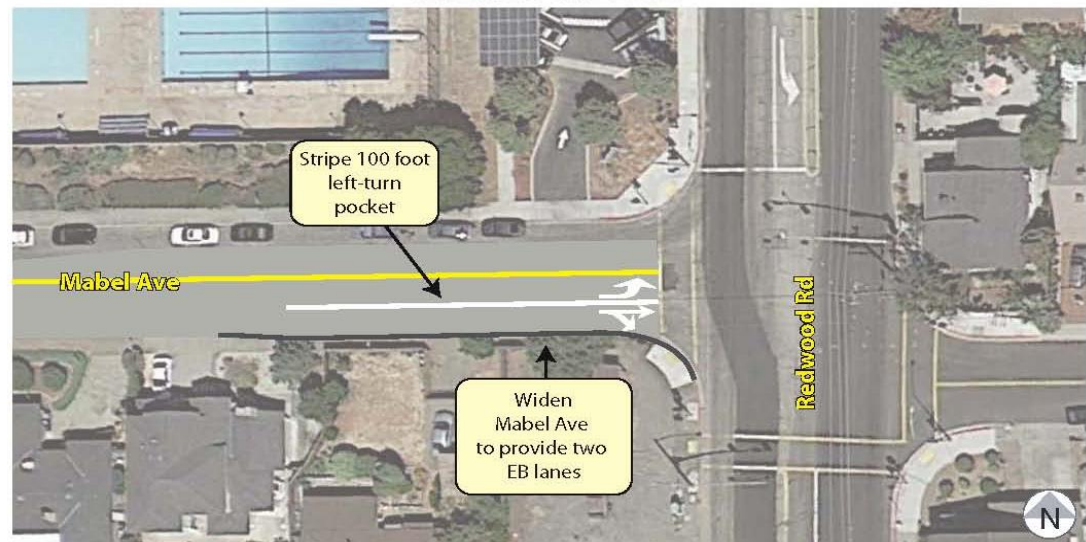
Redwood Road Improvements

- ▶ Redwood Road/ Mabel Avenue Improvements

EXISTING CONDITION



PROPOSED CONDITION



Reconfiguration of Norbridge Avenue and Strobridge Avenue



EXISTING CONDITION



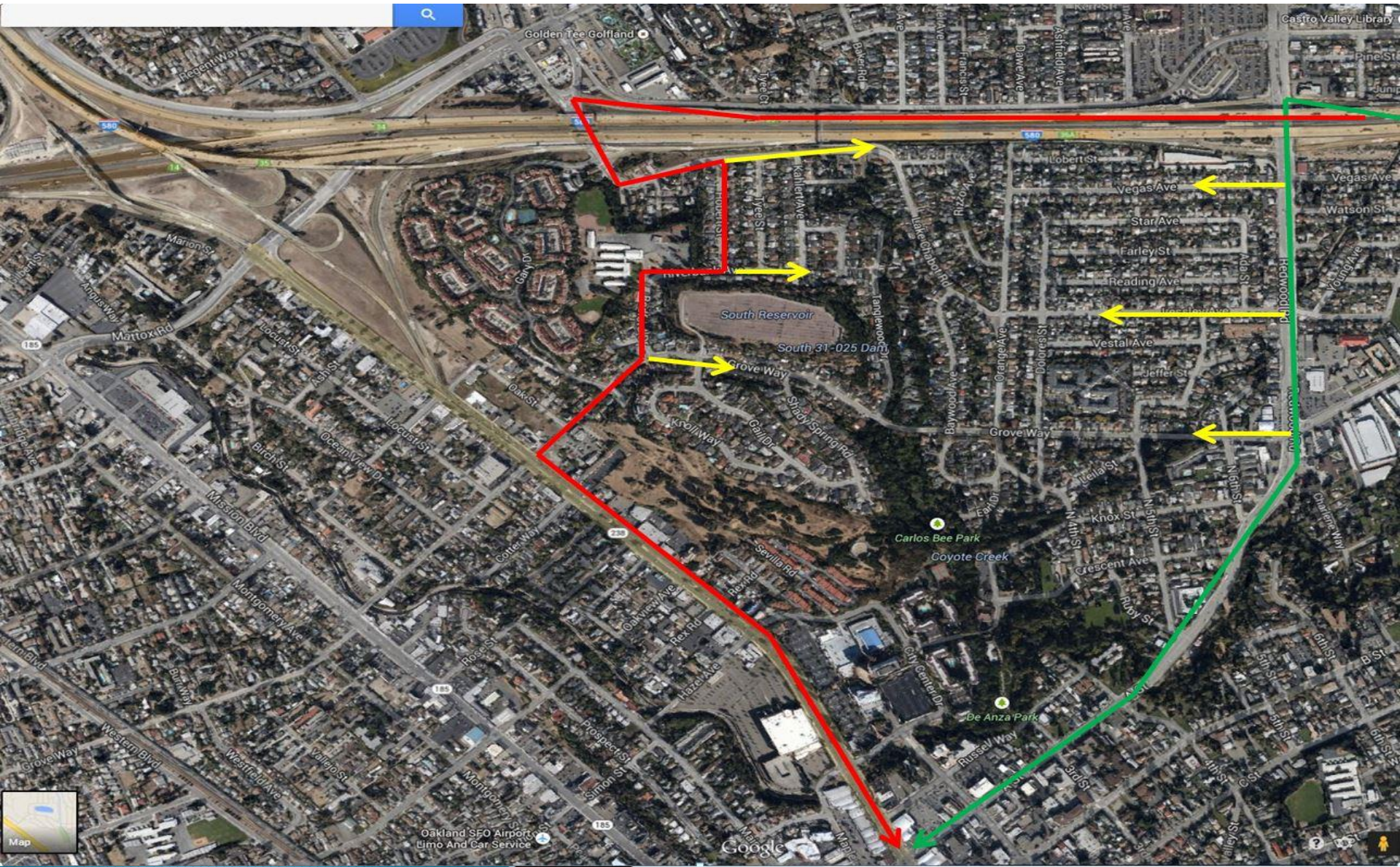
PROPOSED CONDITION

Strobridge Avenue Restriction at Gary Drive

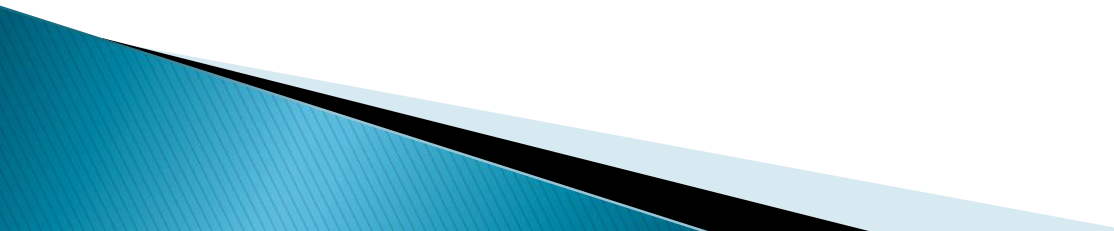
EXISTING CONDITION




Strobridge Avenue Restriction at Gary Drive



Summary of Findings

- Most intersections will operate acceptably under both near term and future traffic conditions
 - Implement Crosswalk on Redwood Road at I-580 Interchange (Caltrans)
 - Implement Synchronization of Traffic Signals on Redwood Road
- 

Summary of Findings

- Include Proposed Redwood Road Improvements in future Development and Capital Improvement Projects
 - Continue to work with Caltrans on implementing the Norbridge/Strobridge Project
 - Remove restriction at Gary Drive with the Norbridge/Strobridge Project
- 

Questions