



LAKE CHABOT ROAD Update

January 14, 2025

Agenda

- ① **Supplemental Geotechnical Investigation**
- ② **Traffic Calming**
- ③ **One-Way Circulation Evaluation**



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Supplemental Geotechnical Investigation

PREVIOUS GEOTECHNICAL INVESTIGATIONS

Nov 2011 ***Geological & Geotechnical Investigation Lake Chabot Stabilization***

Treadwell & Rollo (Langan)

Jan 2019 ***Materials Report Lake Chabot Road Embankment Stabilization***

Cal Engineering & Geology

Mar 2019 ***Design Alternatives Report Lake Chabot Road Embankment Stabilization***

Cal Engineering & Geology

PREVIOUS GEOTECHNICAL INVESTIGATIONS



November 2011

*Geological & Geotechnical Investigation
Lake Chabot Stabilization
Treadwell & Rollo (Langan)*

- Advanced six (6) borings
 - 13.3' – 39.5' depth

PREVIOUS GEOTECHNICAL INVESTIGATIONS

November 2011

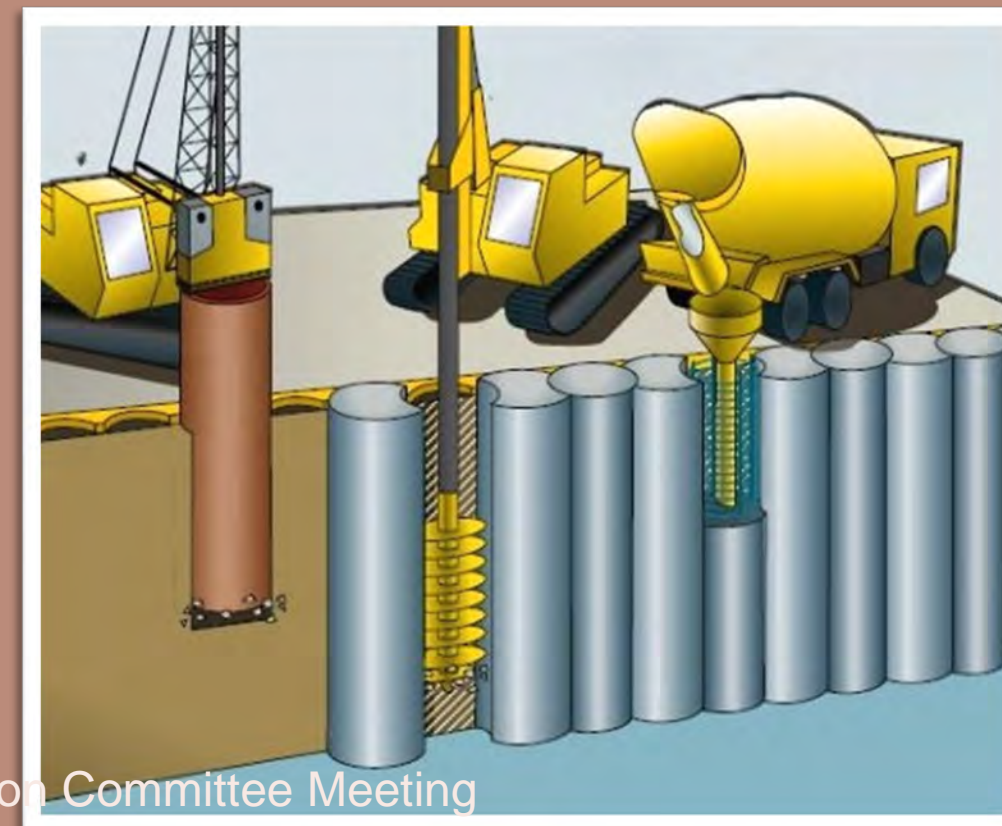
Geological & Geotechnical Investigation Lake Chabot Stabilization
Treadwell & Rollo (Langan)

Conclusions

- Observed roadway distress result of settlement of fill & fill slope creep movement
- Landslides triggered by excessive precipitation or earthquake may cause displacement of road

Recommended Mitigation

- Stitch Pier Retention System



PREVIOUS GEOTECHNICAL INVESTIGATIONS

January – March 2019

Cal Engineering & Geology

Materials Report Lake Chabot Road Embankment Stabilization

Design Alternatives Report Lake Chabot Road Embankment Stabilization

- Topographic Survey
- Seismic refraction profiles
 - Seven (7) additional locations



PREVIOUS GEOTECHNICAL INVESTIGATIONS

January – March 2019

Cal Engineering & Geology

Materials Report Lake Chabot Road Embankment Stabilization

Design Alternatives Report Lake Chabot Road Embankment Stabilization

Conclusions

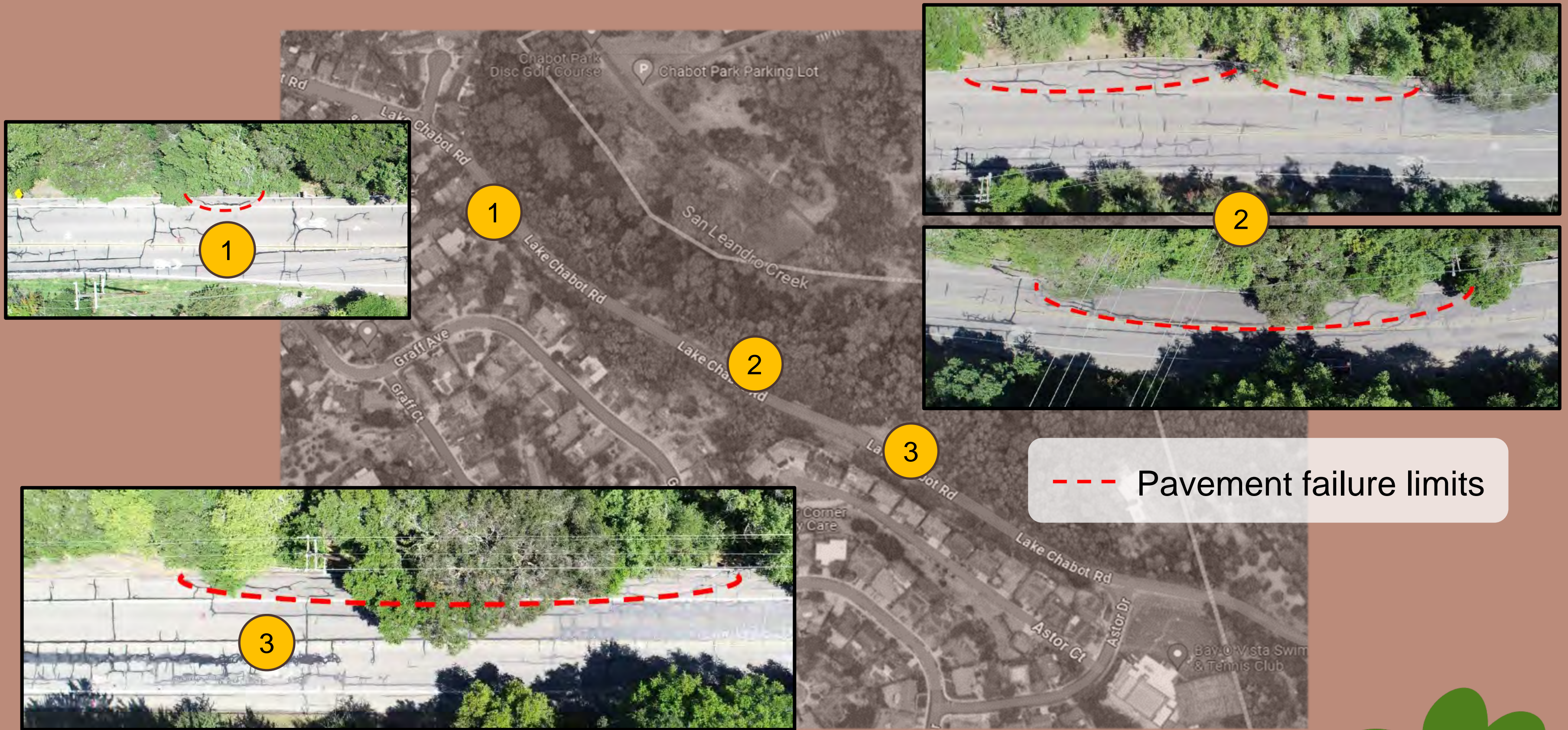
- Substantiated conclusions in 2011 Treadwell & Rollo report
- Identified areas of embankment failure; downslope creep; loss of lateral support

Recommended Mitigation

- CIDH Piles
- Soldier Pile & Lagging Retaining Wall
- Drainage Improvements



PREVIOUS GEOTECHNICAL INVESTIGATIONS



SUPPLEMENTAL GEOTECHNICAL INVESTIGATION

December 2024

Scope & Fee Proposal
Treadwell & Rollo (Langan)

Scope

- Topographic survey; Lidar scan
- Perform slope stability evaluation
 - Geotechnical criteria for stability/safety
- Develop short-term mitigation recommendations

Fee & Schedule

- \$89,500
- 10 to 12 weeks



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Traffic Calming

TRAFFIC CALMING MEASURES

- ❌ Speed Bumps – 85th% speed < 31 mph, steep grades (> 8%)
- ❌ Rumble strips – Not installed on residential streets due to noise
- ✅ Roadway striping improvements
 - Centerline striping
 - Right edge line striping
 - Centerline plus edge line
 - + Less costly to construct
 - + Flexibility to meet future changes
 - + No adverse impact on drainage
 - + Can successfully reduce speeds
 - + Less impacts to emergency response
 - + No noise pollution from acceleration/deceleration



TRAFFIC CALMING MEASURES



Proposed Improvements

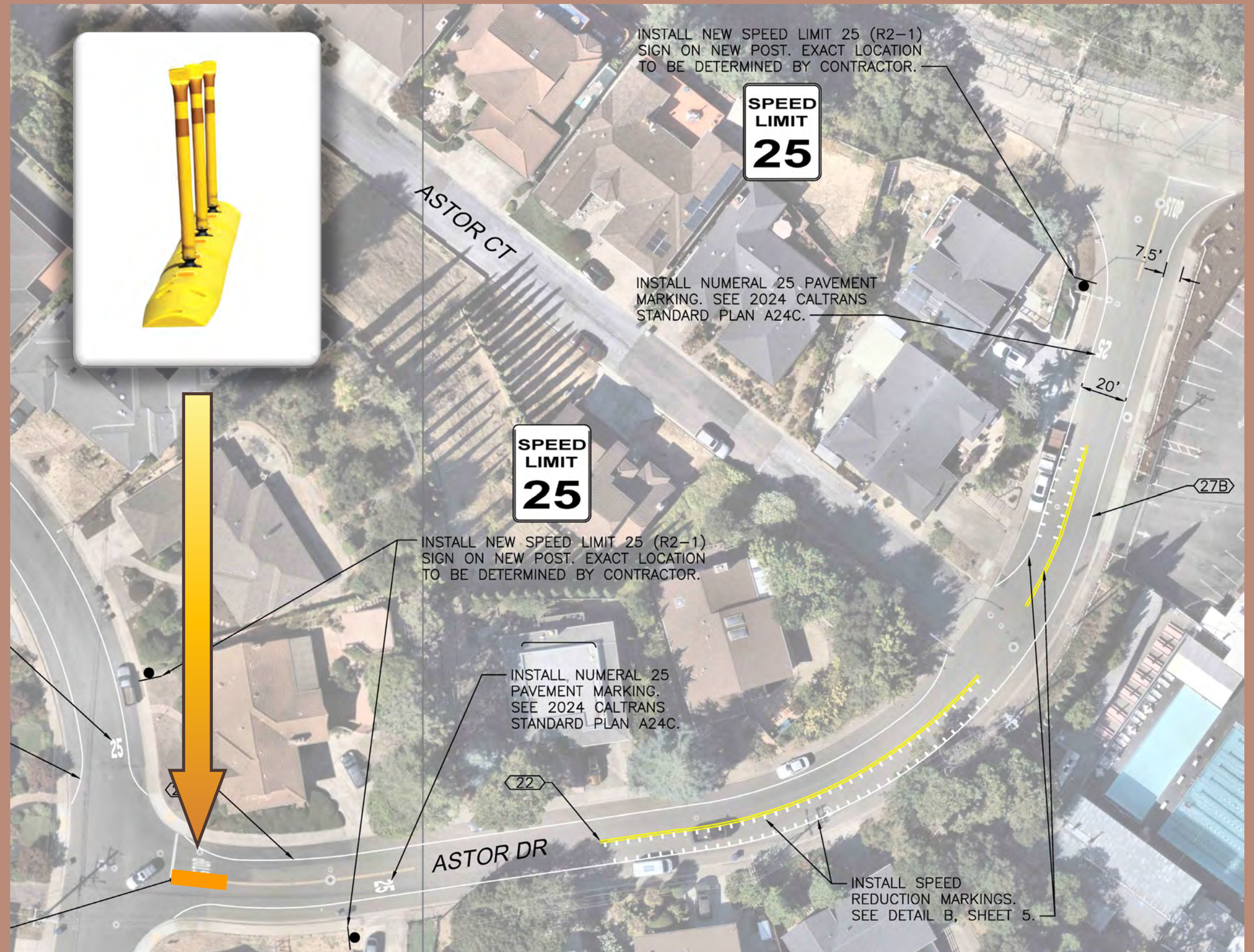
- Center and Parking Lane Striping
- Optical Speed Bars



TRAFFIC CALMING MEASURES

Proposed Improvements

- 25mph Speed Limit Signs & Pavement Markings
- Delineators
Astor Drive & View Drive





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One-Way Circulation Options

Westbound One-Way Operations

Challenges

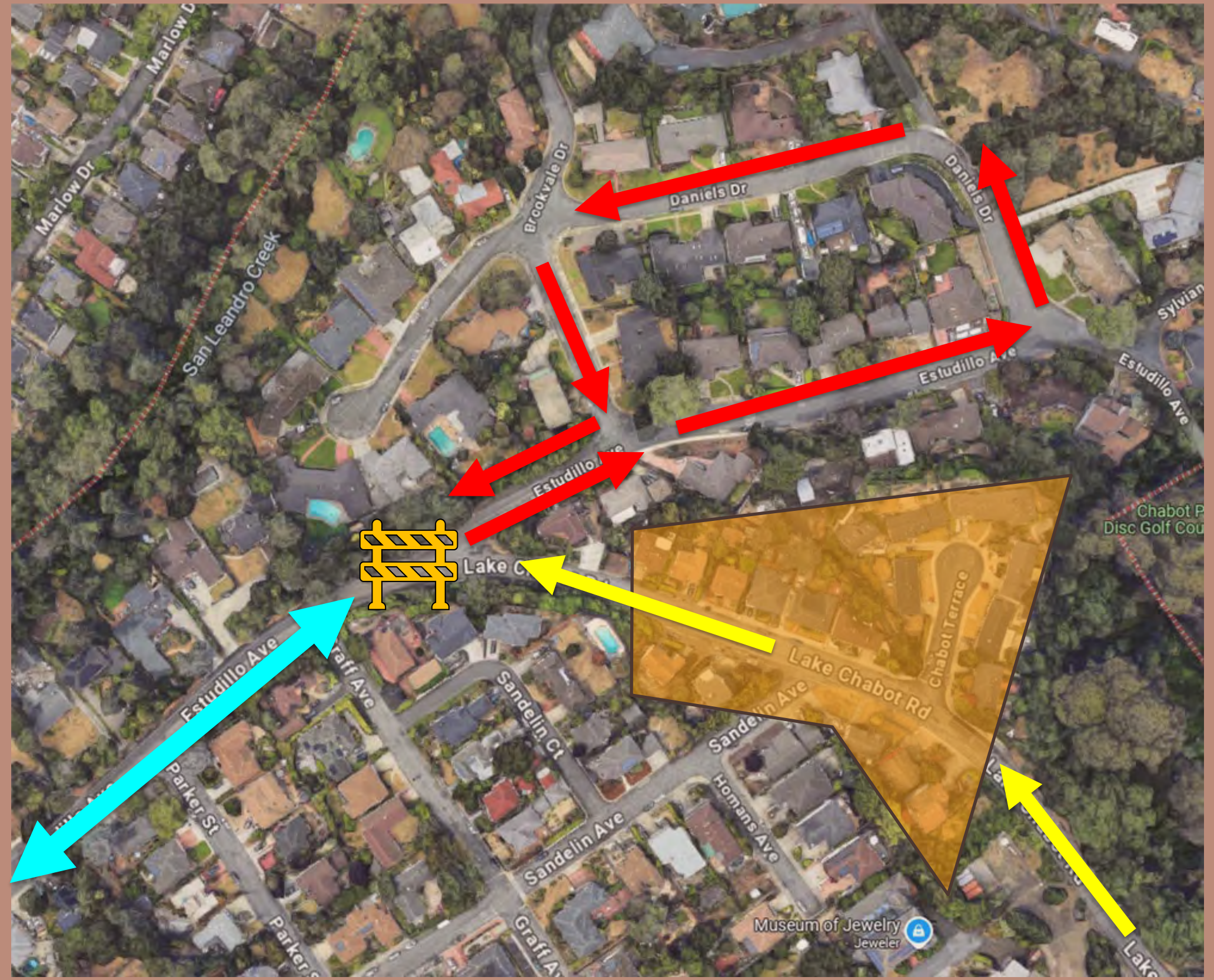
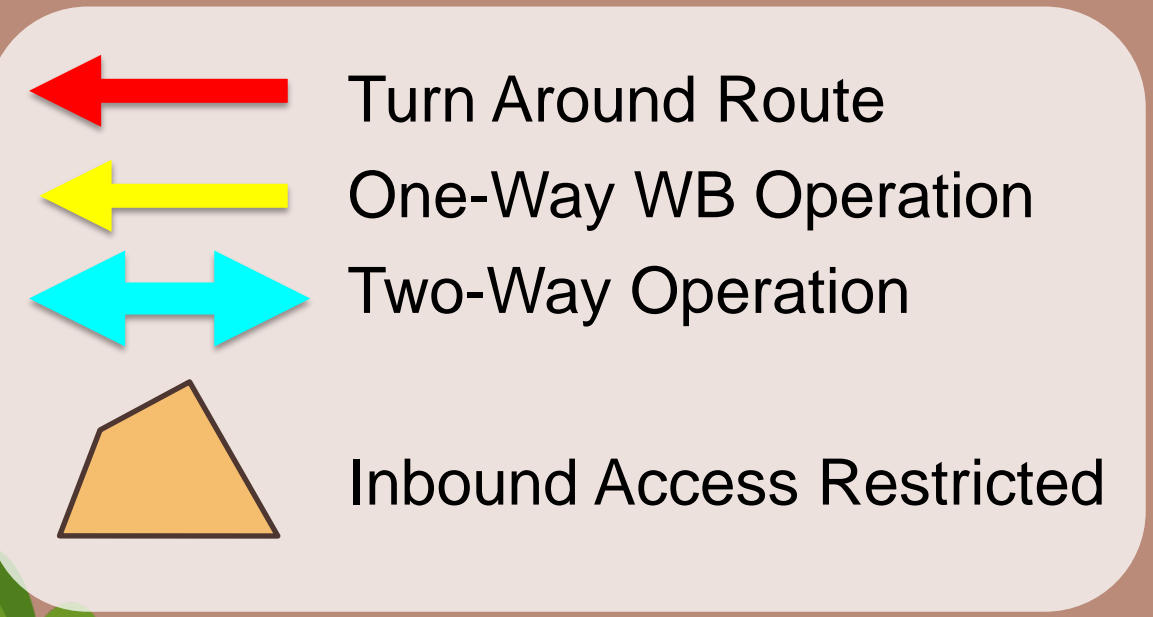
- Detour of Eastbound Traffic
- Inbound access restricted to certain residences
- Reduced Emergency Access
- Unacceptable Sight Lines



Westbound One-Way Operations

Transition at Estudillo Ave Challenges

- Errant eastbound vehicles likely detour to local streets
- Restricted inbound access to certain residences



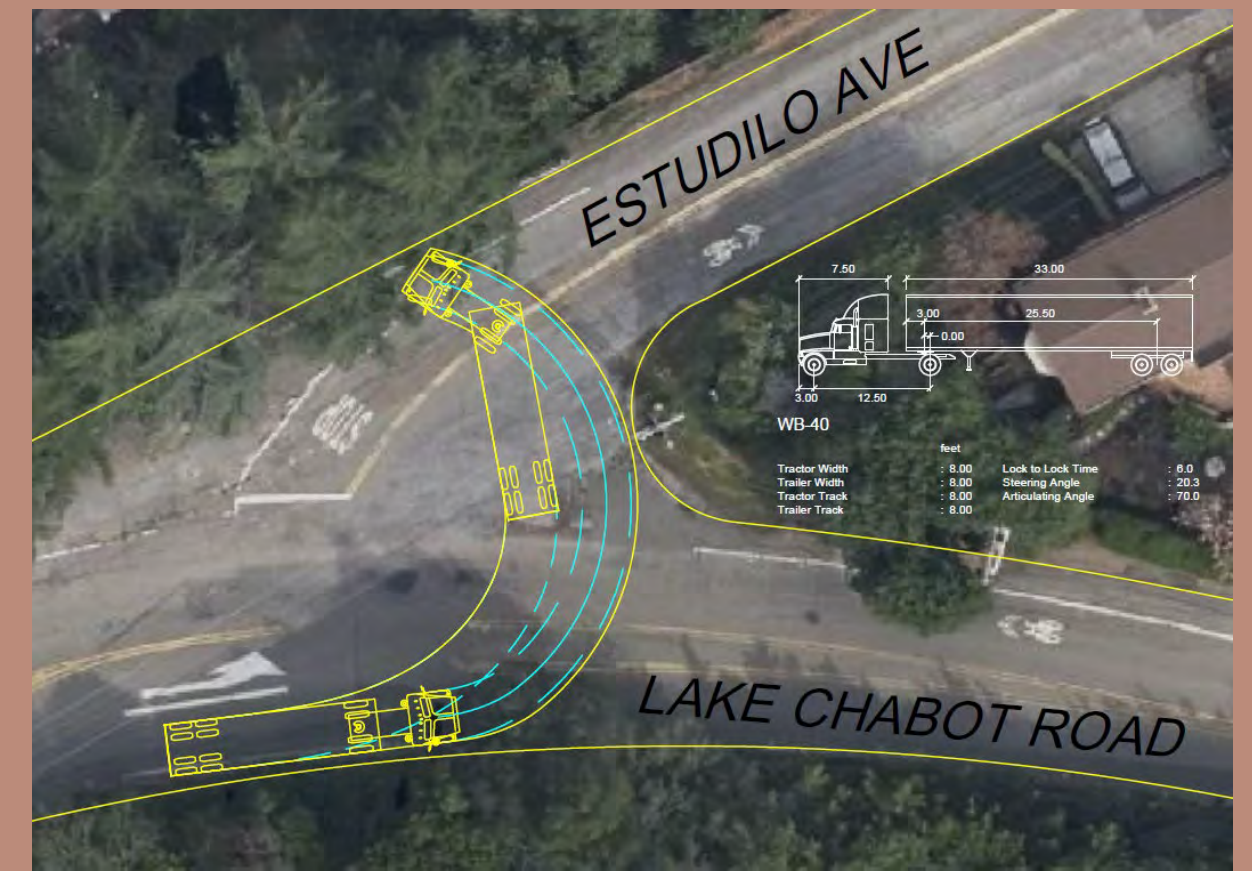
Westbound One-Way Operations



Delivery Truck



Bus



Semi Trailer Truck

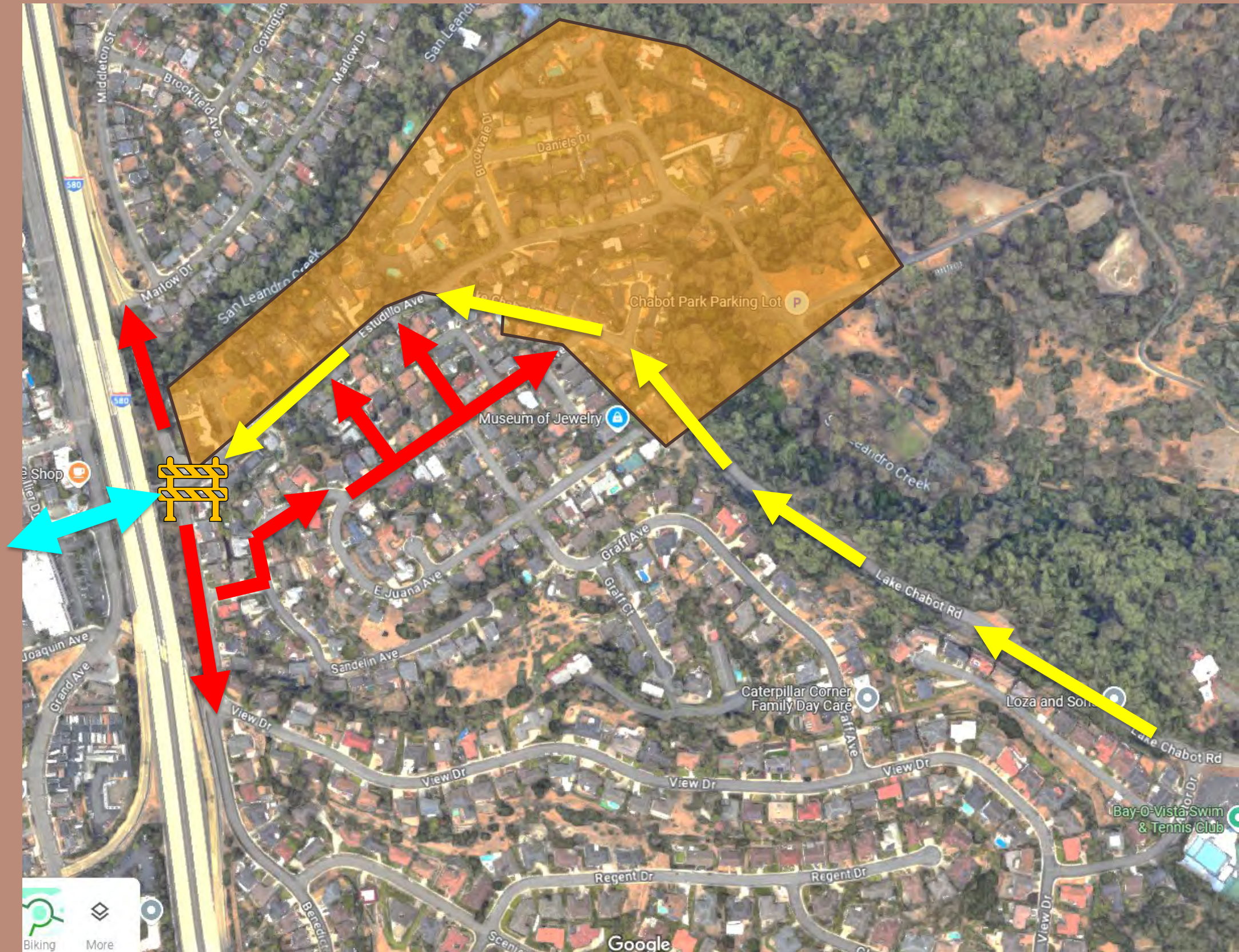
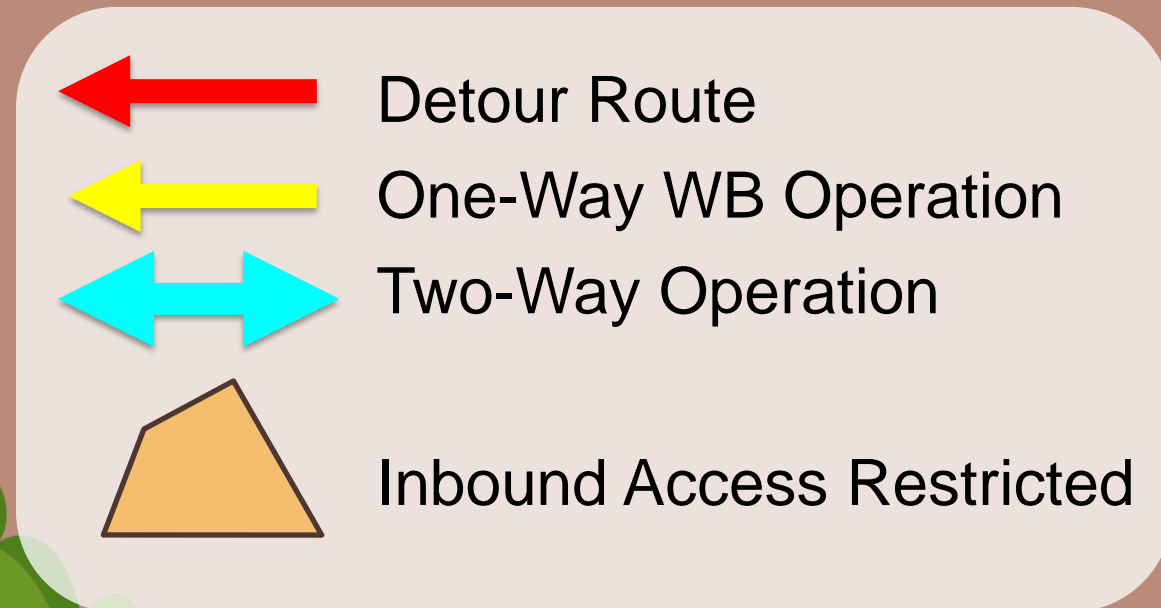
Challenges

- Lake Chabot Rd & Estudillo Ave intersection not suitable for U-Turns

Westbound One-Way Operations

Transition at Benedict Dr Challenges

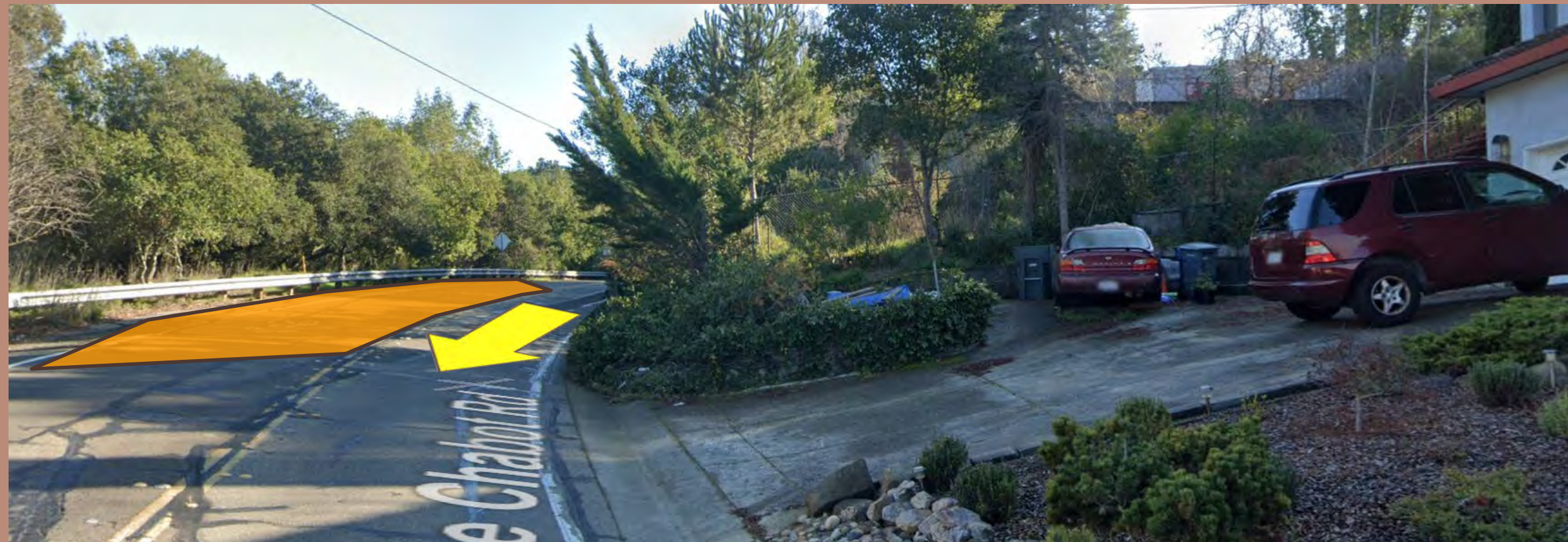
- Residents with restricted inbound access increases
- Emergency access to residents further restricted



Westbound One-Way Operations

Challenges

- Driveway Sightlines



Eastbound One-Way Operations

Challenges

- Detour of Westbound Traffic
- Reduced Emergency Access



NEXT STEPS

Hillside Protection



November 2024
Completed

Environmental Studies and Design



December 2024
Design Contract Awarded

Construction



Summer 2026
(earliest)

STAFF RECOMMENDATIONS

1. KEEP LAKE CHABOT ROAD CLOSED, AS CONFIGURED.
2. FOCUS ON COMPLETING ROAD REPAIRS, AS REQUIRED BY FHWA GRANT.
3. EVALUATE AND IMPLEMENT APPLICABLE TRAFFIC CALMING MEASURES.

DEPARTMENT

JUSTIFICATION

City Manager's Office

1. Risks associated with unrepaired storm damage at 2 slide locations
2. Risks associated natural geological hazard and erosion/slide history

Public Works Department

3. Minimizes vehicle cut-through traffic and waiting queues
4. Preserves pavement structural integrity
5. Streamlines environmental studies, design, and road/hillside inspections
6. Will allow uninterrupted road construction/repair
7. Current temporary traffic control is the lowest cost to implement and maintain

Fire and Police Department

8. Allows emergency vehicle access
9. Minimizes conflict with vehicles in the event of an emergency response
10. Allows public use in emergency circumstances