

# Caltrain Safety Enhancements

## Caltrain completed two major <u>safety upgrades</u> in Palo Alto as part of its Enhanced Crossing Strategy pilot.

### **High-Security Fencing**

- West side of tracks from University Avenue Station to Churchill Avenue
- Closed major corridor gap next to public property

### **Churchill Intersection Safety**

- Surface markings, delineators, wider crosswalks with gates
- Solar-powered markers for nighttime
- Anti-trespass panels
- Rail Sentry/Al Lidar
- Waze/Google/Apple Maps collaboration to reduce driver confusion

### **Pilot & Next Steps**

- Modeled after Broadway (Burlingame) and Churchill pilots
- Positive pilot results; corridor-wide expansion planned
- VTA expediting \$950k Measure B funding for remaining Palo Alto crossings (Palo Alto, Meadow, Charleston)





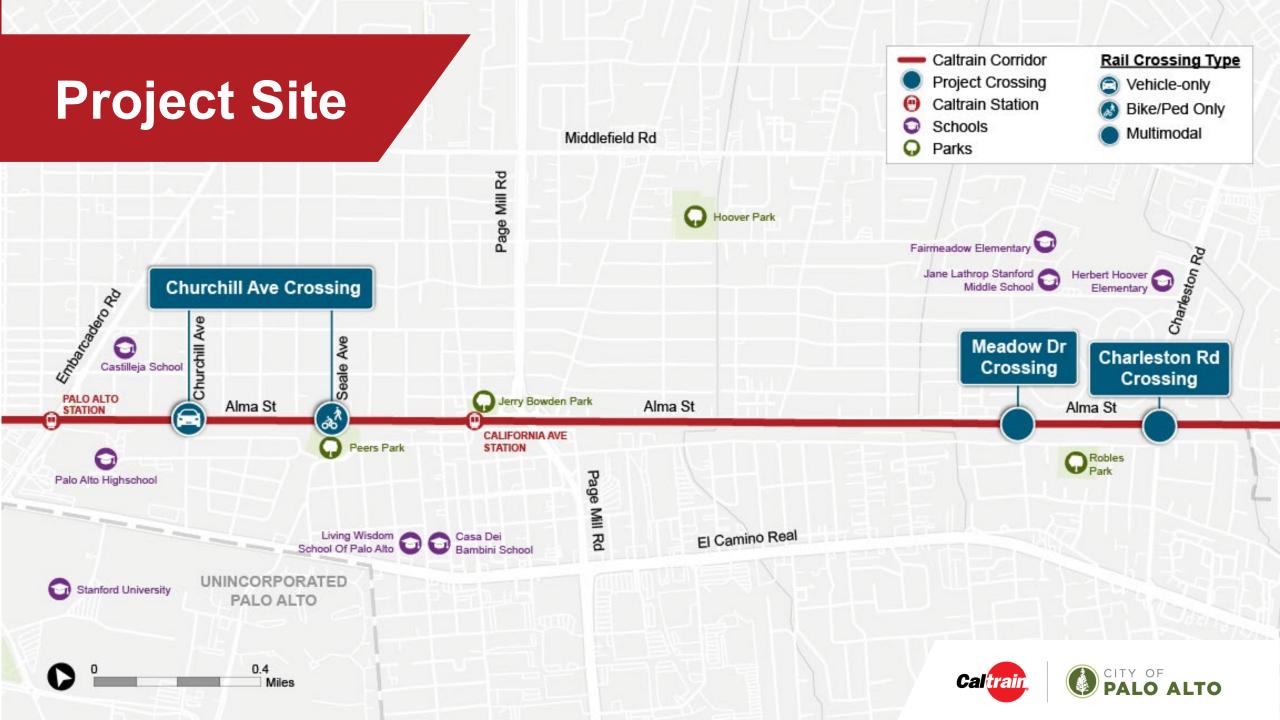
## **Meeting Purpose**

Review draft refined concepts

Receive community input to inform concept refinement and alternatives to advance









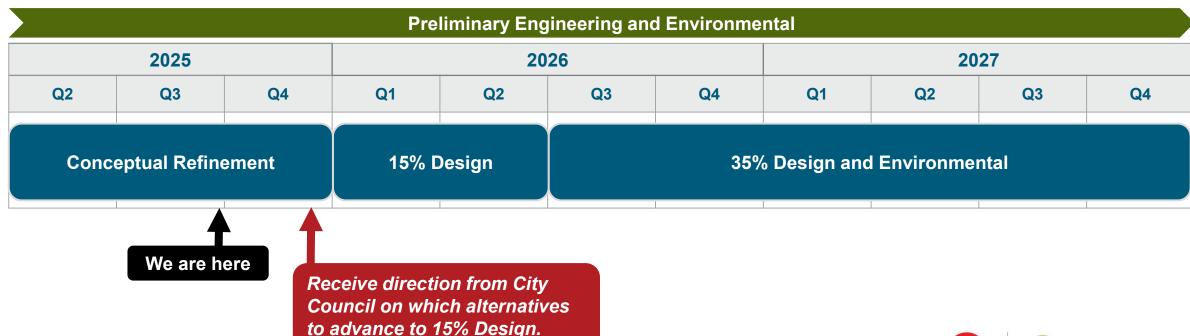
## **Current Project Phase**



### **Funding**

**Total:** \$20 Million (VTA Measure B = \$14 M + FRA Rail Crossing Elimination = \$6 M)

Deadline: Complete 35% Design and Environmental Documentation by the end of 2027









## **June 2024 Council Direction**

# Churchill Avenue Alternatives

Motion approved to recommend Seale
Avenue as the Bicycle and Pedestrian
crossing location for the Partial Underpass
Alternative at Churchill Avenue to advance
into the Preliminary Engineering and
Environmental Documentation phase, with
the Bicycle and Pedestrian Crossing (Street
Closure) alternative as a backup.

# Meadow Drive and Charleston Road Alternatives

Motion approved to advance Hybrid (including mixed wall/column approach) and Underpass alternatives into the Preliminary Engineering and Environmental Documentation phase.

Council requested updates through the alternatives' refinements (during 15% design) with opportunities to change course and refocus on one option, if desired.







## **Conceptual Alternatives**

Meadow Drive

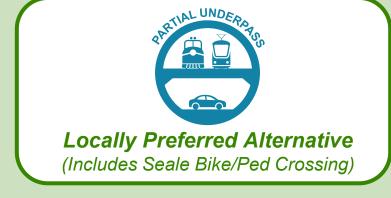








Churchill Avenue











## **Project Goals and Desired Outcomes**



Improve safety



Establish **project footprint** for environmental clearance & minimize **environmental impacts** 



Improve mobility and minimize congestion



Minimize potential private property impacts







## Recent Technical Activities







- Topographic Survey
- Geotechnical Exploration
- Existing Utility Research

## **Technical Analysis**

- Multimodal and Circulation Analysis
- Drainage and Stormwater Analysis



## **Design Development**

- Basis of Design Development
- Constructability Workshops
- Risk Identification and Management





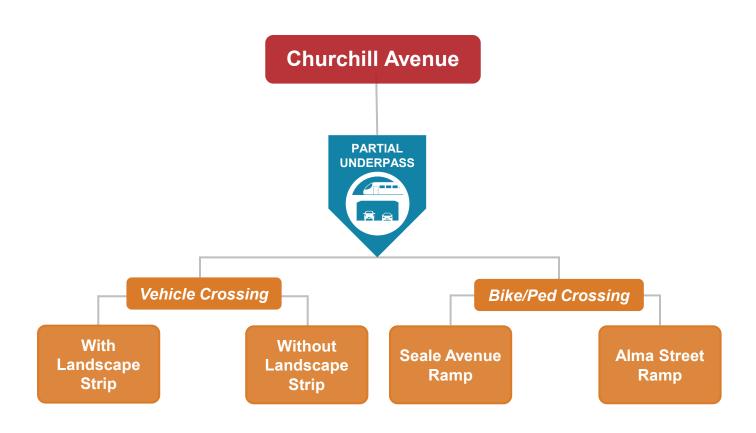


## **Summary of Concepts**

**CROSSING** 

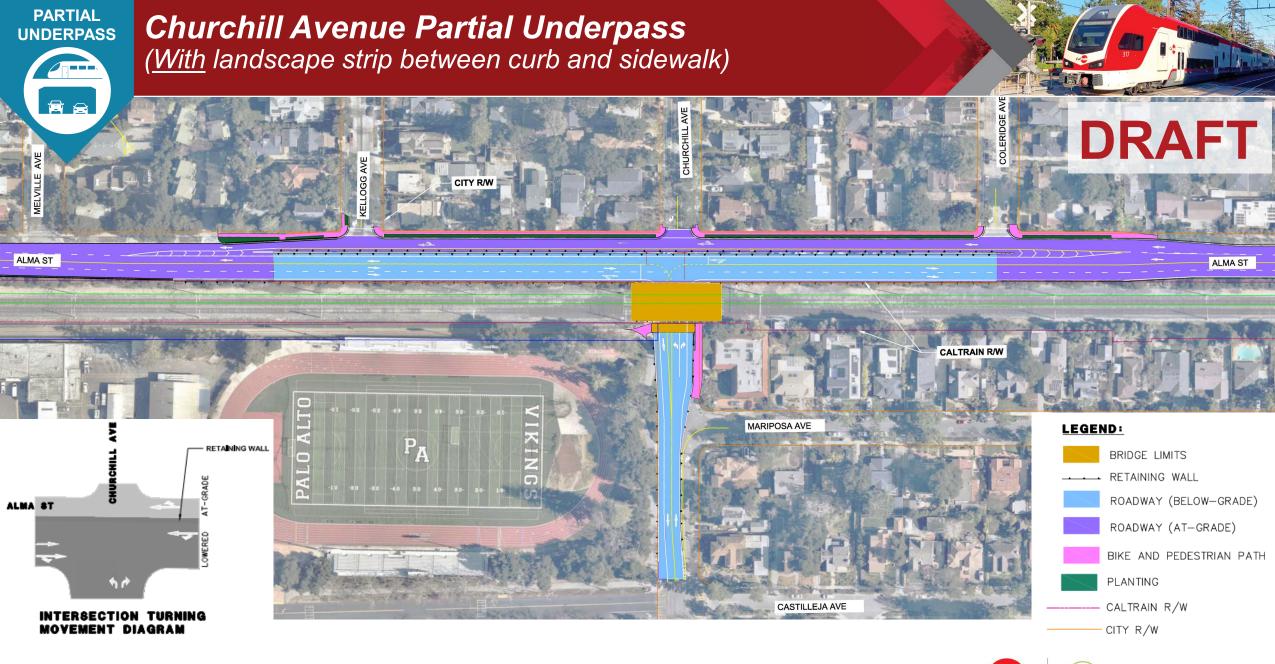
ALTERNATIVE

**NOILL** 



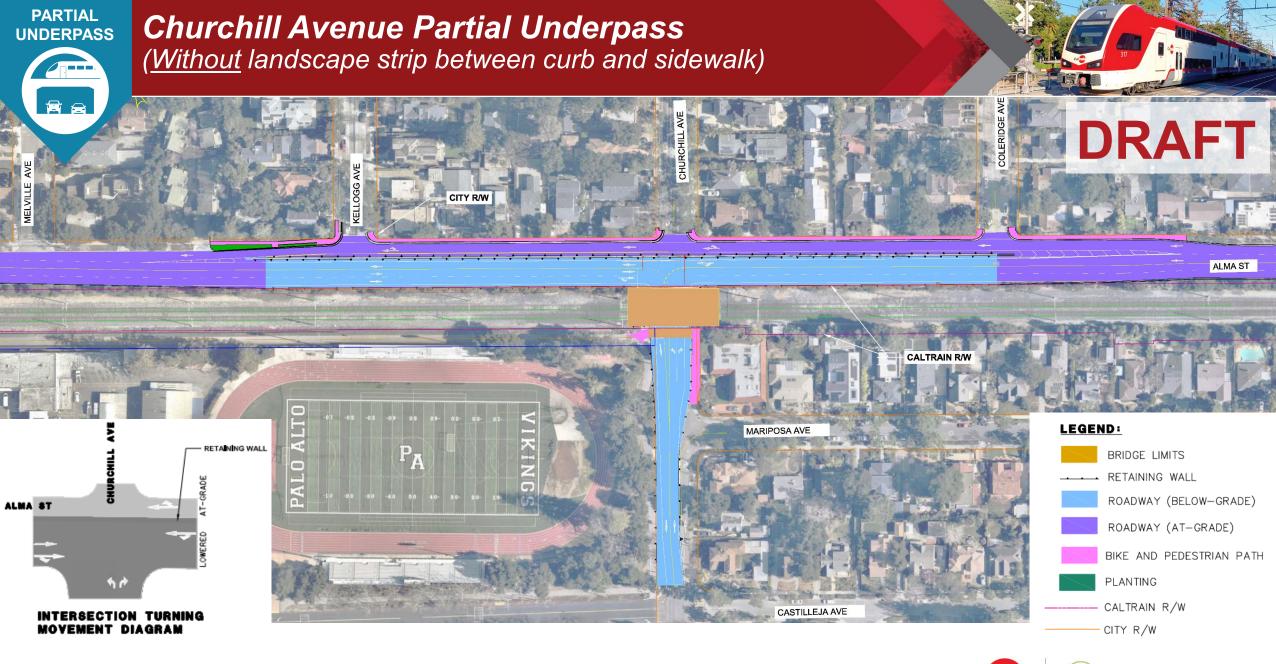












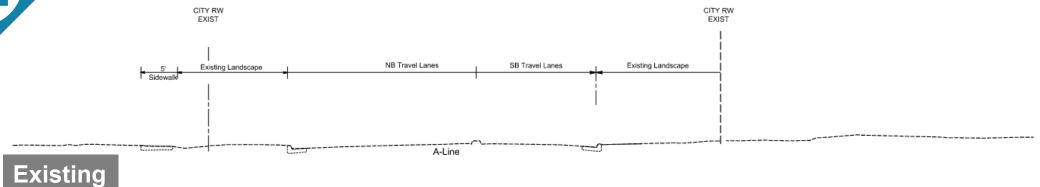






## Churchill Avenue Partial Underpass (PREVIOUS) Alma Street Cross-Section with Landscape Strip





70' City Right-of-Way 70' Caltrain Right-of-Way 4.5'± **UPPER ALMA STREET** 2.3'± 🕆 Sidewalk 5.3'± 5.3'± 25.2' ± LOWER ALMA STREET MT-2 Track **Approximately** 4.5'± into private property PREVIOUS Design (with landscape strip)

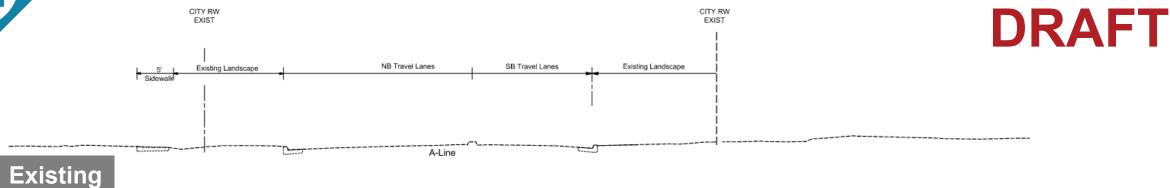


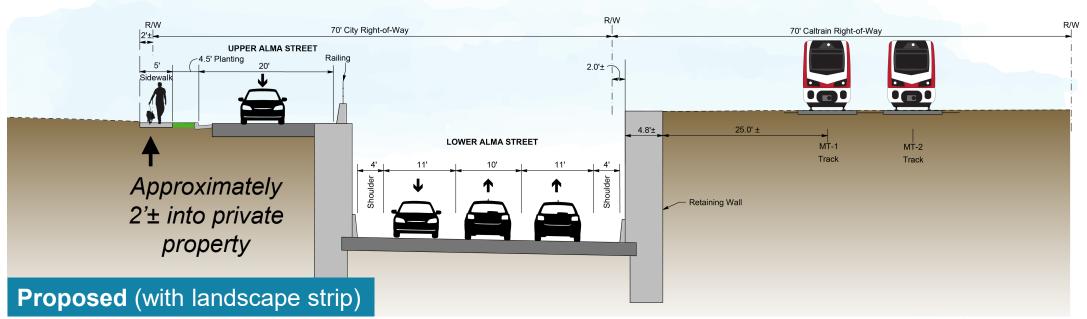




# Churchill Avenue Partial Underpass Alma Street Cross-Section with Landscape Strip







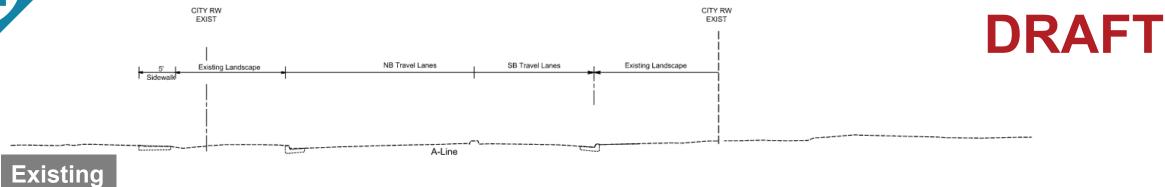


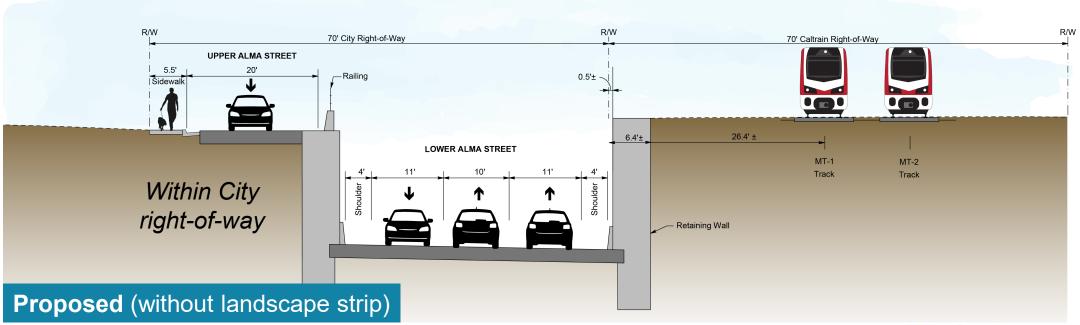




## Churchill Avenue Partial Underpass Alma Street Cross-Section without Landscape Strip



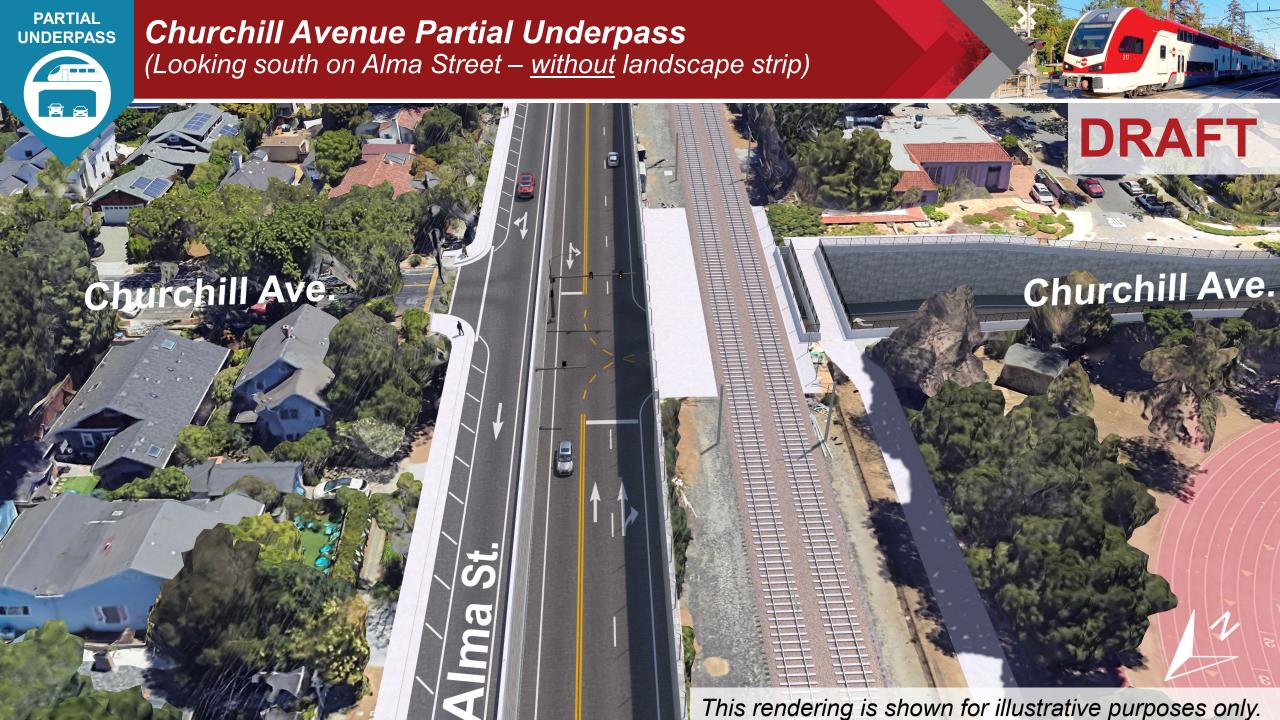














## Seale Avenue: Seale Avenue Ramp

### **Bike/Ped Crossing**

- East ramp centered in Seale Avenue
- Tunnel under Alma Street and railroad tracks
- West ramp connects to Park Boulevard near Stanford Avenue
- Removes on-street parking on Seale Avenue
- Potential partial property acquisition on Seale Avenue





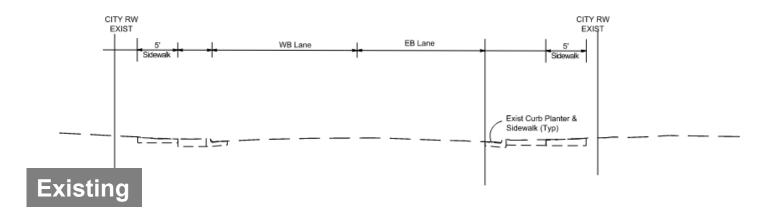


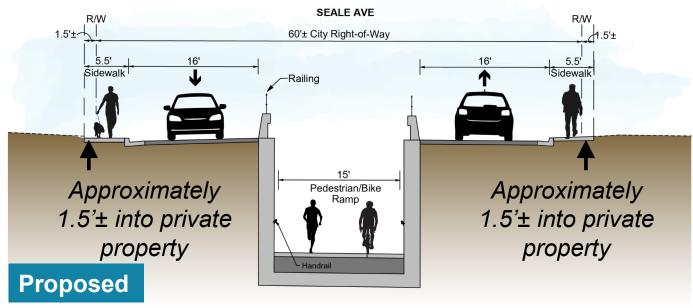


### Seale Avenue: Seale Avenue Ramp Seale Avenue Cross-Section



## **DRAFT**

















## Seale Avenue: Alma Street Ramp

# 317

## **Bike/Ped Crossing**

- Ramp on east side of Alma Street
- Tunnel under Alma Street and railroad tracks
- Ramp to Castilleja Avenue
- Potential partial property acquisition on both sides of Alma Street





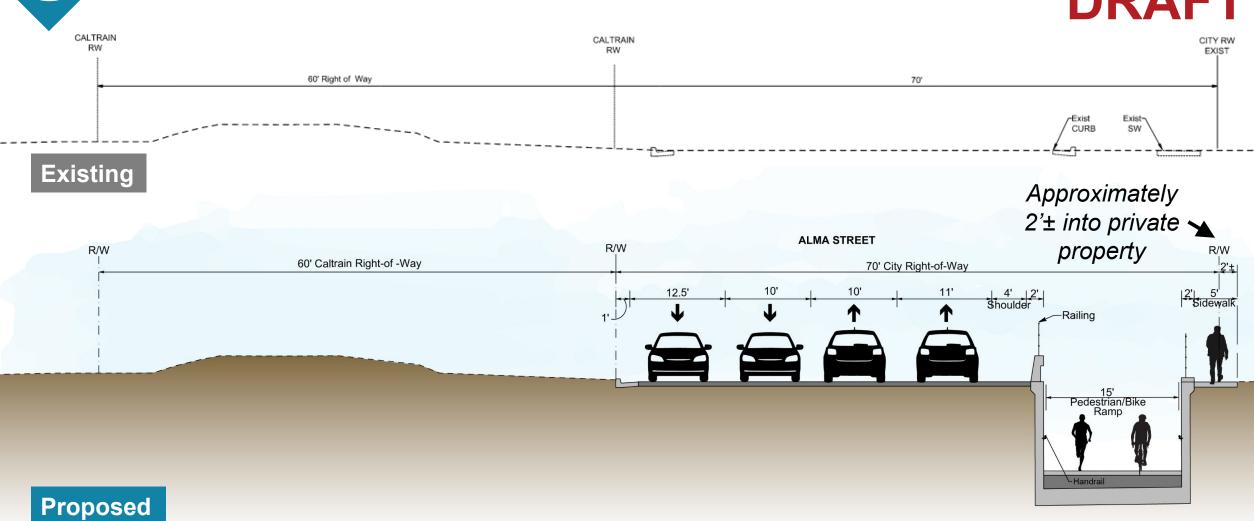




### Seale Avenue: Alma Street Ramp Alma Street Cross-Section



## **DRAFT**















## **Initial Considerations**

## **Churchill Avenue Partial Underpass**

### With Landscape Strip

- Potential Parcel Acquisition
  - 16 to 18 *partial*

### Without Landscape Strip

Potential Property Acquisition at Intersection corners

### Seale Avenue Bike/Ped

### **Seale Avenue Ramp**

- Potential Parcel Acquisition
  - 14 to 16 *partial*
- Removes Seale Avenue on-street parking

### **Alma Street Ramp**

- Potential Parcel Acquisition
  - 3 to 4 *partial*
- Peers Park entrance closer to Paly







## **Project Lookahead**

### October

Synthesize Rail
Committee and
Community Meeting
comments and input

## November

# 11/18 Rail Committee

Refined concept review and recommendations to advance to 15%

## **December**

# 12/8 City Council

Decision to advance 1 or 2 concepts to 15% for each crossing







## **Community Input**



## **Stations and Content**





Churchill Avenue Seale Avenue

- Roll Plot of Each Concept
- **Crossing Trade Off Sheets**
- Station Activity and Instructions
- Comment Form

Use color-coded sticky notes to identify opportunities, interests, support, and/or questions

Provide feedback via

- Comment form
- Website (use QR code) or link

Note: For those not able to attend the Meadow Drive and Charleston Road meeting, concepts are also are provided for review.







## **Additional Input Opportunities**



**Project Website** 

### **Materials Provided on Website:**

- Refined concepts for review
- Recorded presentation
- Comment form
- Comment Period: October 3 October 17



