

The Selection of the Mary Avenue Underpass with Jughandle Option was not heard at the July 21, 2022 BPAC Meeting due to lack of quorum.



Sunnyvale

Caltrain Grade Separation Feasibility Study

Bicycle and Pedestrian Advisory Commission
July 21, 2022





Project Background

Project Locations

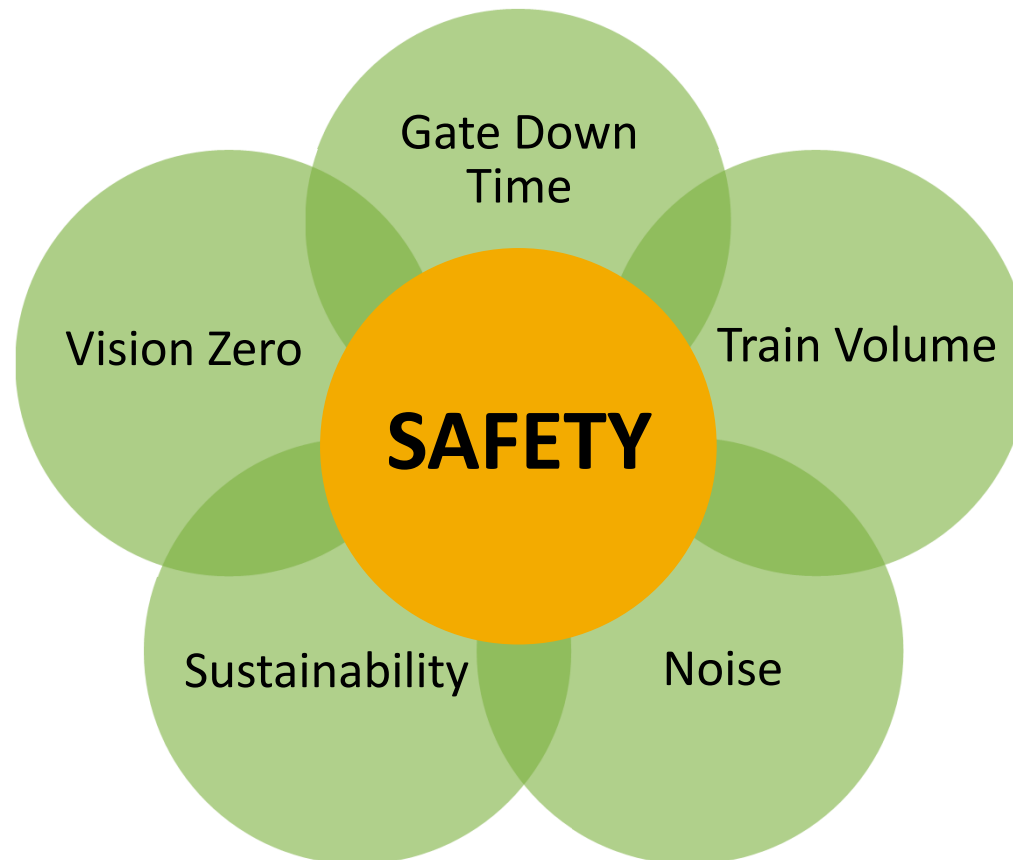


Project Background

- ◆ Initiated Feasibility Study in 2017
- ◆ Evaluated Grade Separation Types
- ◆ Screened and Narrowed Alternatives
- ◆ Performed Extensive Public and Stakeholder Outreach
- ◆ Received City Council Direction
- ◆ Delays due to COVID-19
- ◆ Complete Study in 2022
- ◆ Identify Alternatives for Environmental Phase and Secure Funding



Project Purpose



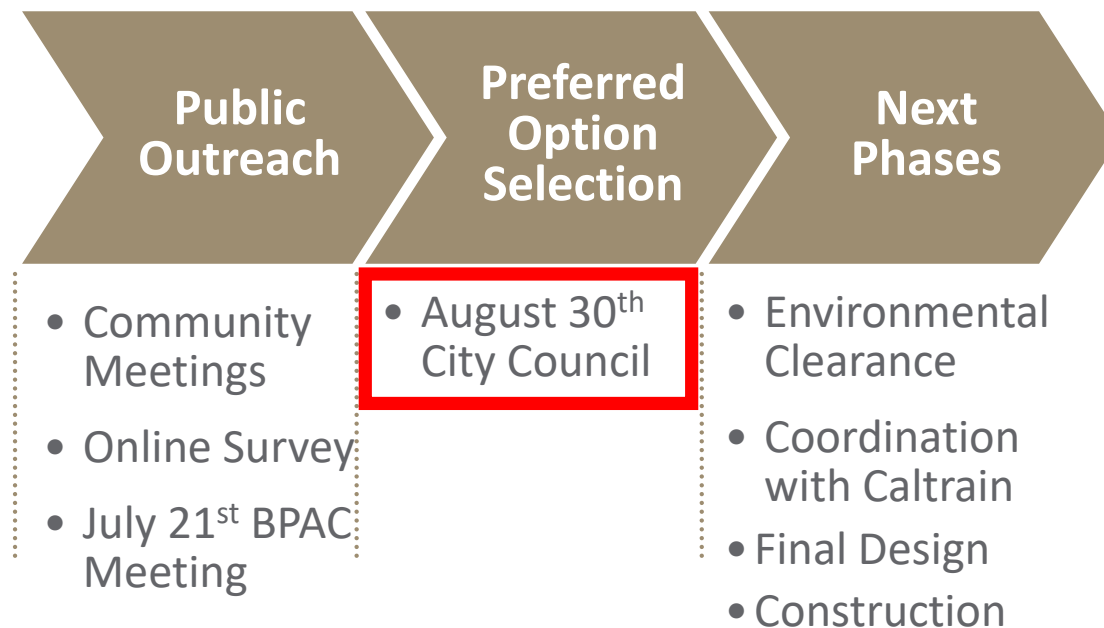
Why is Grade Separation Needed?

HOW MANY TRAINS PER DAY?



Source: Caltrain Business Plan, City of Sunnyvale Booklet, May 2019

Next Steps

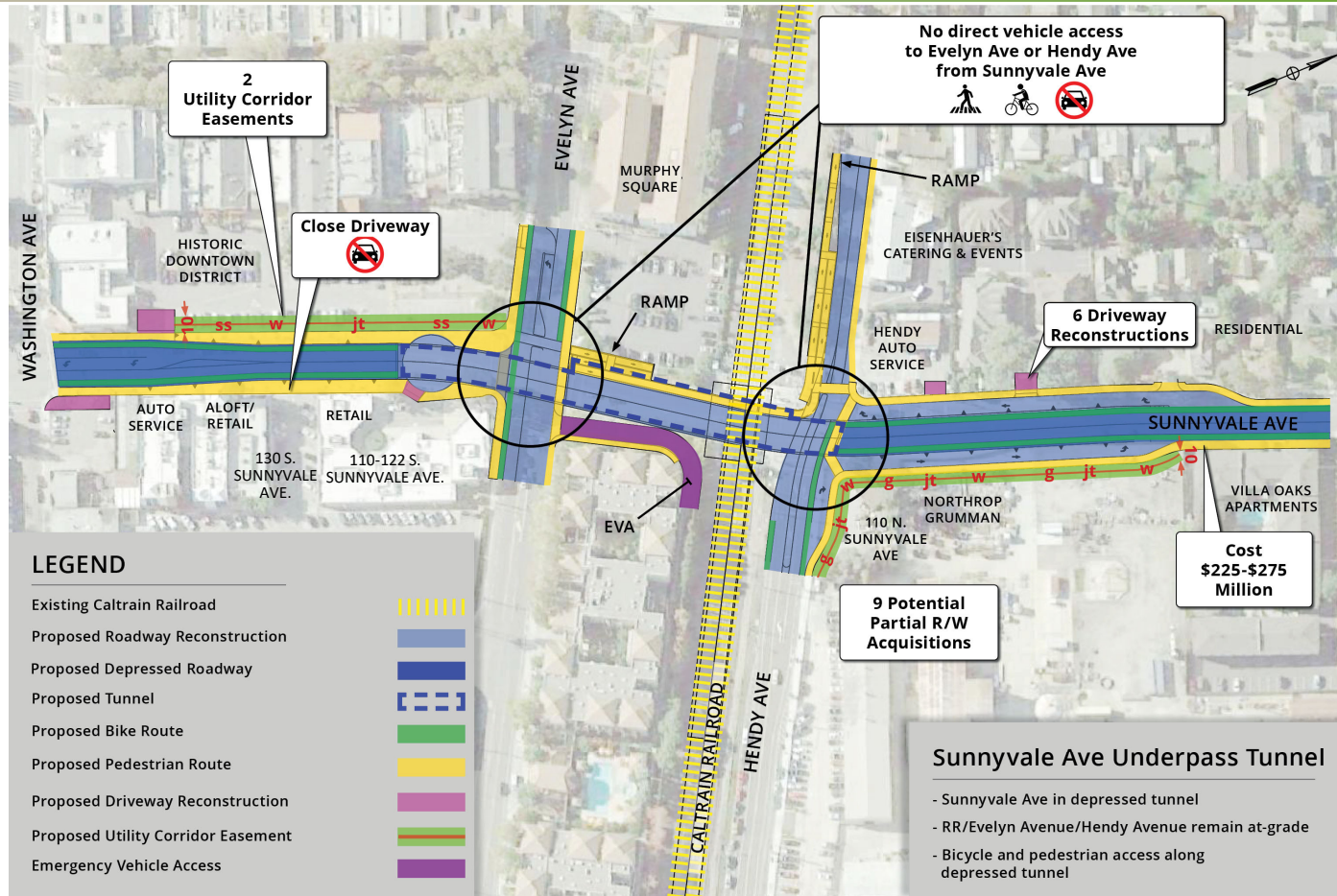




Sunnyvale

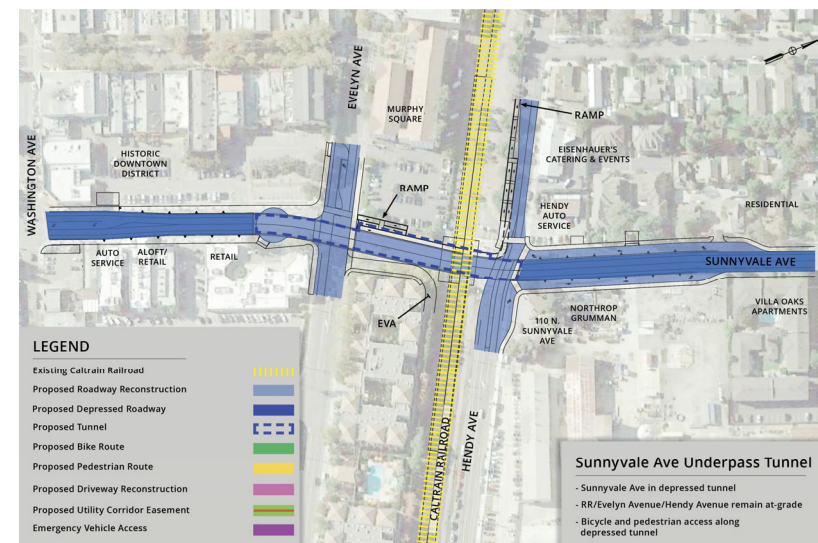
Current Alternatives Sunnyvale Avenue

Sunnyvale Avenue Underpass Tunnel



Sunnyvale Avenue Underpass Tunnel Traffic Study Summary

- ◆ Vehicular circulation changed from “no build”
 - Sunnyvale and Evelyn avenues disconnected
 - Sunnyvale and Hendy avenues mostly disconnected
 - Shifts traffic onto Washington and California avenues
- ◆ Average vehicular delays
 - Eliminated on Sunnyvale Ave.
 - Similar to “no build” on Mathilda and Fair Oaks avenues
 - Less than Bike/Ped Only on Mathilda and Fair Oaks avenues
- ◆ Average vehicular travel times
 - Similar to “no build” on Mathilda and Fair Oaks avenues
 - Greater for vehicles connecting to Evelyn and/or Hendy avenues from Sunnyvale Ave.



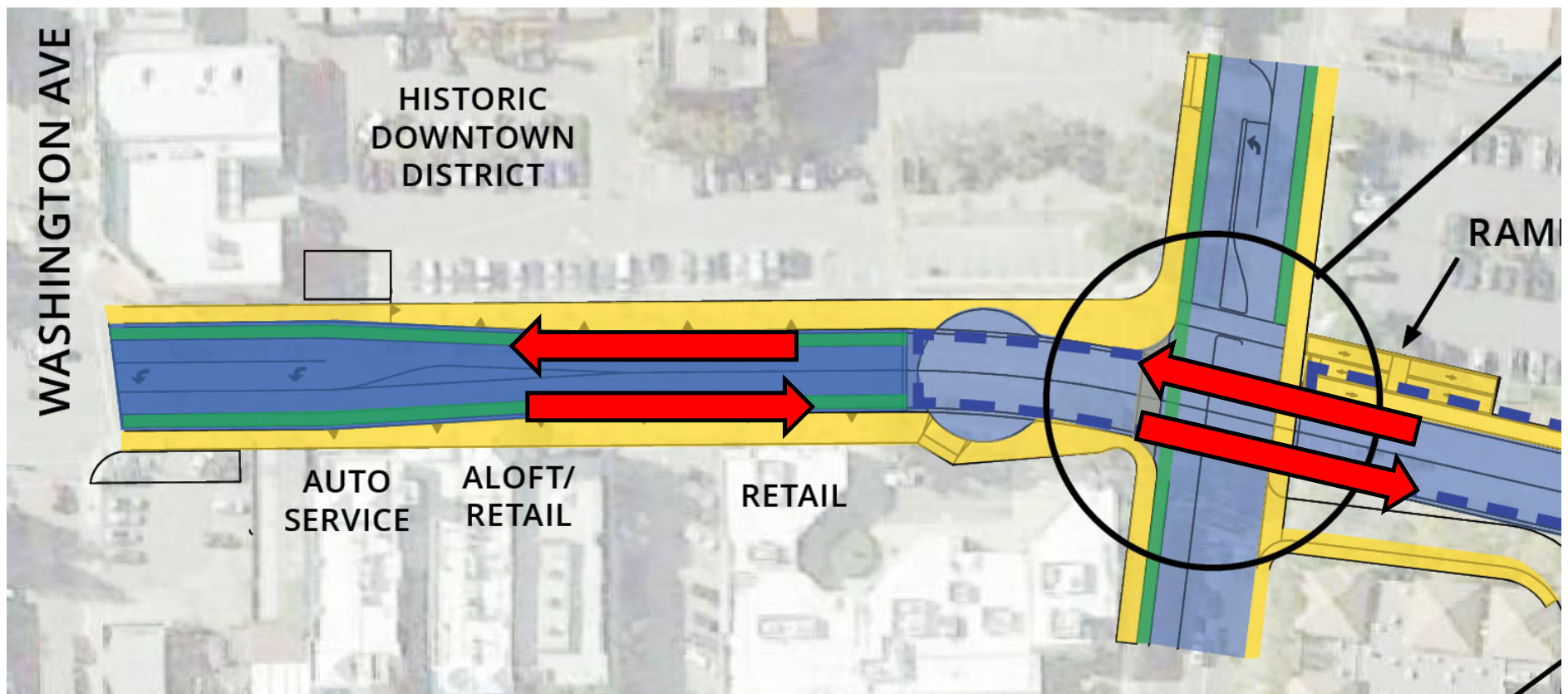
Sunnyvale Avenue Underpass Tunnel Traffic Study Summary - continued



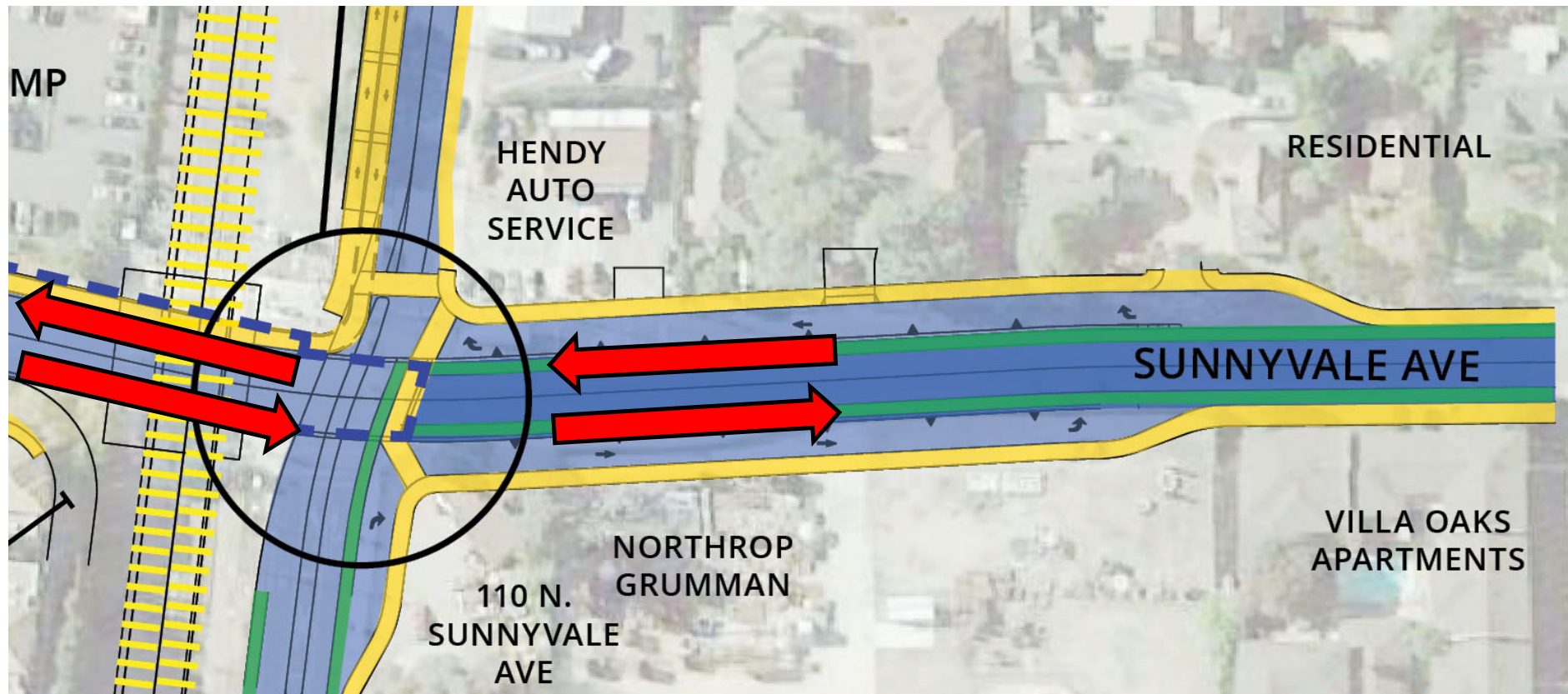
Separate multi-use path on Jefferson Avenue Grade Separation, Redwood City

- ◆ Bicycle circulation
 - Bike lanes along roadway in tunnel
 - Ramps to multi-use path in tunnel
- ◆ Pedestrian circulation
 - Ramps to multi-use path in tunnel
 - Sidewalks along Sunnyvale Ave. at existing elevation
 - Cul-de-sac from Evelyn Ave.
- ◆ Transit circulation
 - Slight impacts to Routes 20 and 55
 - No impacts to Route 21

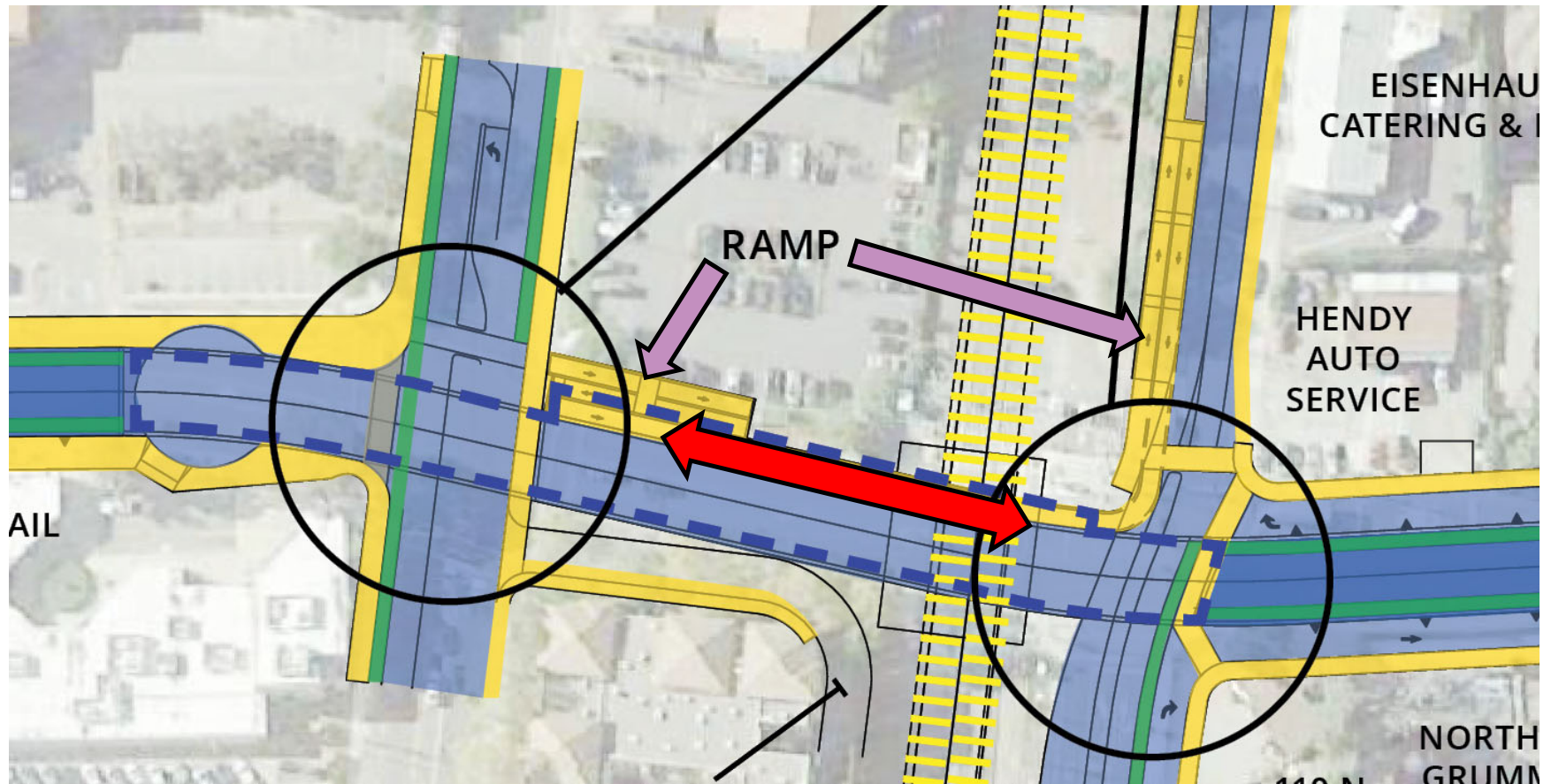
Sunnyvale Avenue Underpass Tunnel Bicycle Circulation



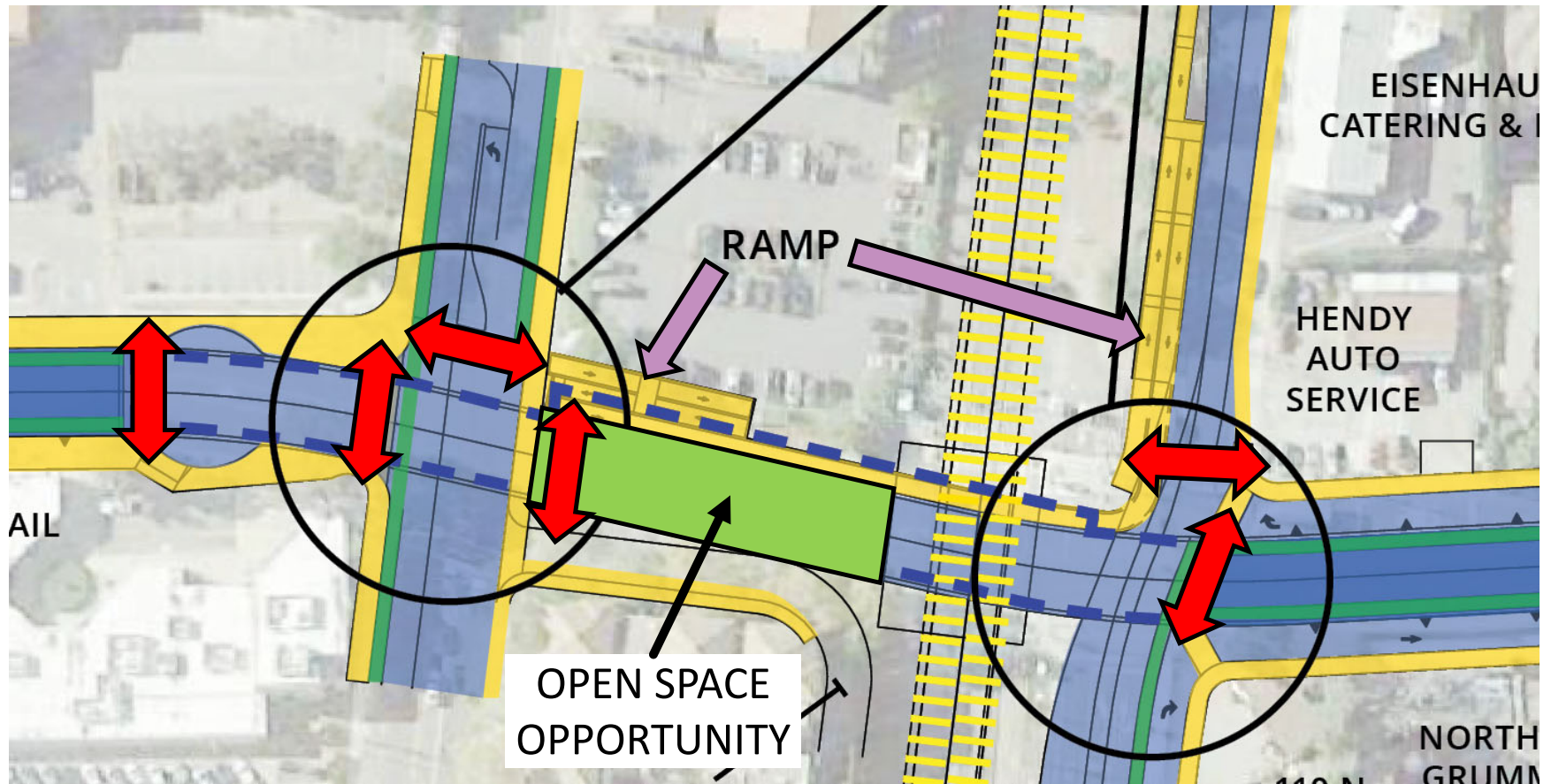
Sunnyvale Avenue Underpass Tunnel Bicycle Circulation



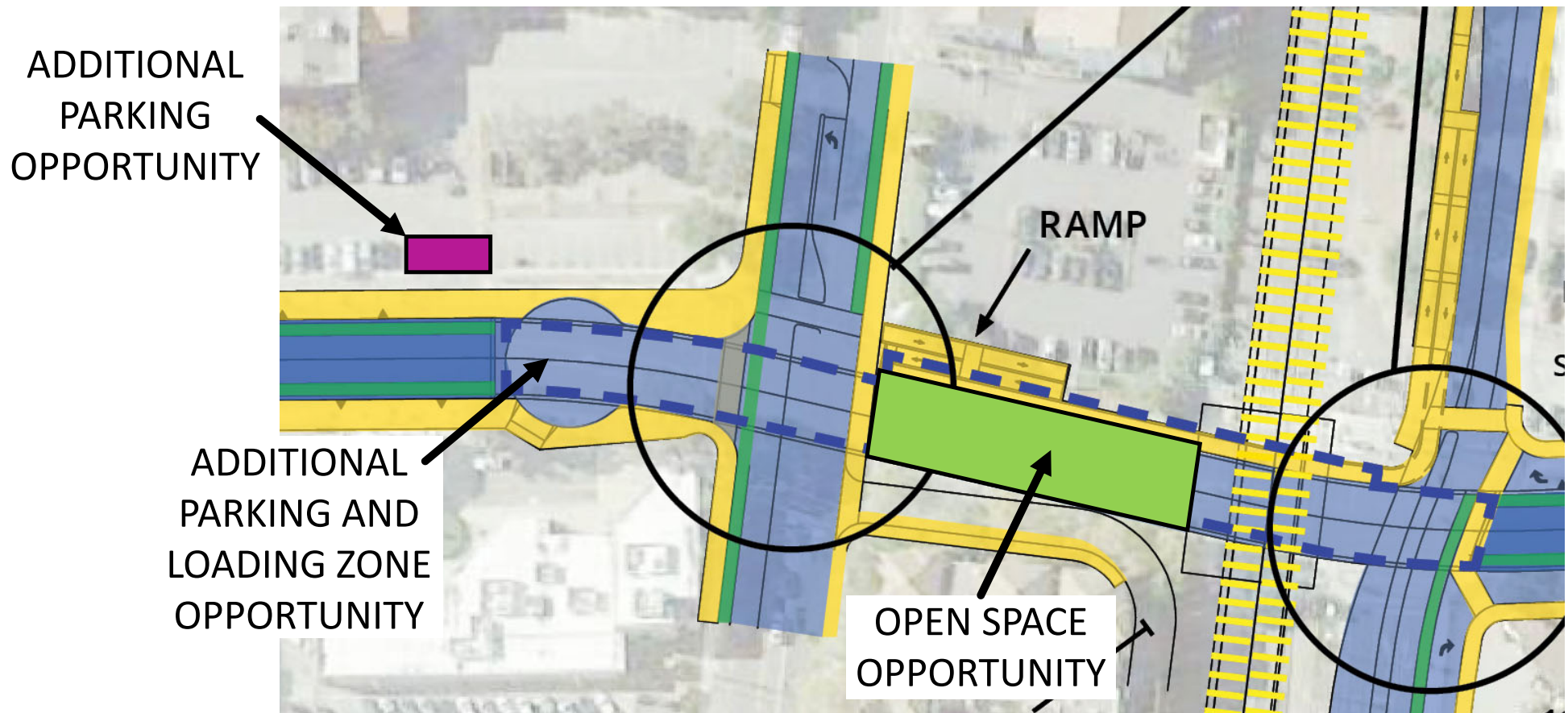
Sunnyvale Avenue Underpass Tunnel Bicycle and Pedestrian Circulation



Sunnyvale Avenue Underpass Tunnel Bicycle and Pedestrian Circulation



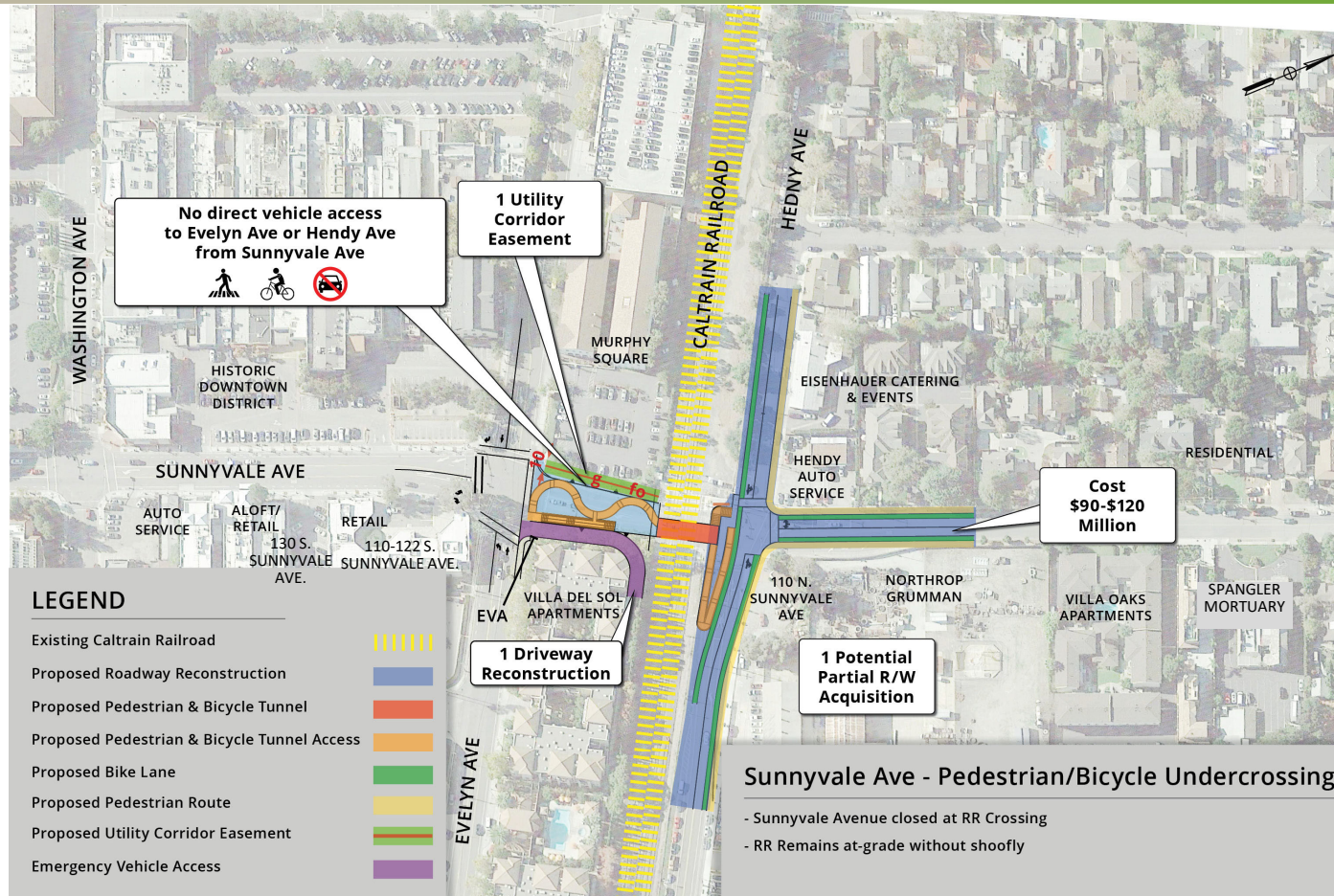
Sunnyvale Avenue Underpass Tunnel Parking and Loading Opportunities



Sunnyvale Avenue Underpass Tunnel

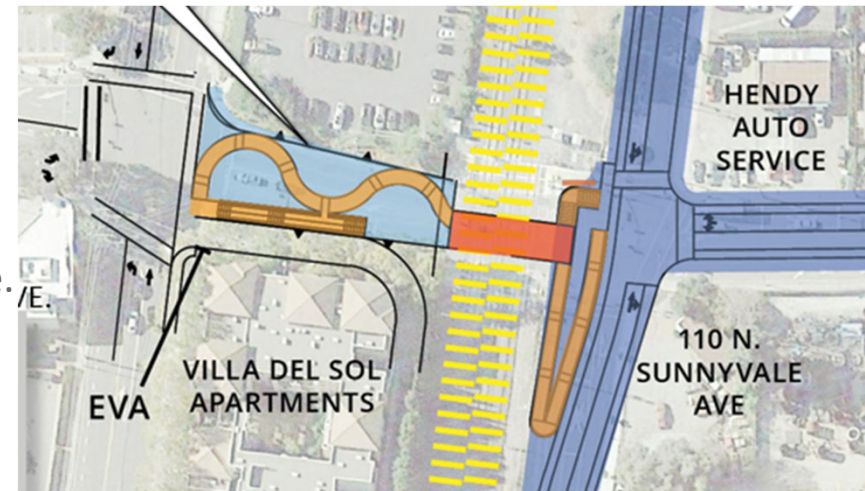


Sunnyvale Avenue Bicycle/Pedestrian Undercrossing

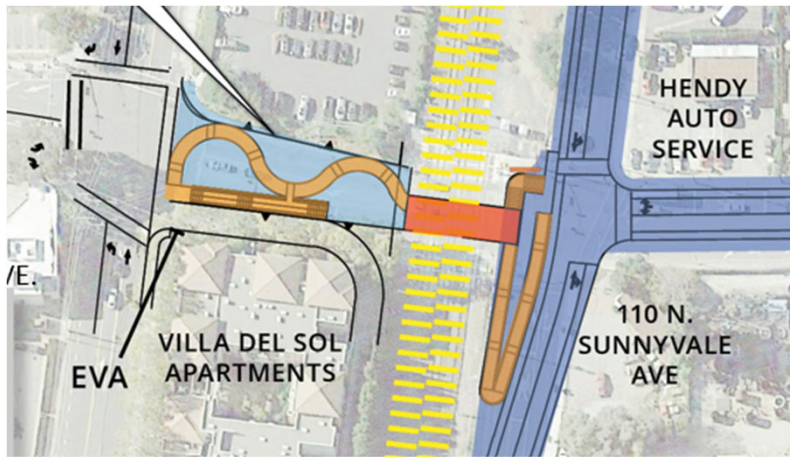


Sunnyvale Avenue Bicycle/Pedestrian Underpass Traffic Study Summary

- ◆ Vehicular circulation changed from “no build”
 - T-intersections at Evelyn and Hendy avenues
 - Sunnyvale Ave. through to use Mathilda or Fair Oaks avenues
- ◆ Average vehicular delays
 - Greater than “no build” and Underpass on Mathilda
 - Greater than “no build” and Underpass on Fair Oaks
 - Less than “no build” at T-intersections on Sunnyvale Ave.
 - ◆ One exception: Greater than “no build” at Sunnyvale/Evelyn in AM peak
- ◆ Average vehicular travel times
 - Greater than or similar to “no build” and Underpass on Mathilda
 - Greater than “no build” and Underpass on Fair Oaks



Sunnyvale Avenue Bicycle/Pedestrian Underpass Traffic Study Summary - continued



- ◆ Bicycle and pedestrian circulation
 - Dedicated undercrossing
 - Removes vehicle conflicts from undercrossing
 - Ramps at Evelyn and Hendy avenues
- ◆ Transit circulation
 - Greater impacts to Route 55
 - Slight or no impacts to travel times of to Routes 20 and 21

Example Bicycle and Pedestrian Undercrossings



Palo Alto Homer Avenue Undercrossing



Santa Clara Caltrain Station Undercrossing

Sunnyvale Avenue Alternative Comparison



Underpass Tunnel

- Safety** • Improved over “no build”
- Noise** • Decreased from “no build”
- Circulation - Vehicle** • **Reduced or similar delays**
 - **Shorter travel times – Sunnyvale Ave.**
 - **Shorter travel times – Mathilda Ave.**
 - **Shorter travel times – Fair Oaks Ave.**
 - **Potential to add parking and loading zone**
- Circulation – Bicycle and Pedestrian** • Provides separate facility
 - **Provides open space opportunity**
 - **Provides connectivity**
- Circulation – Transit** • **VTA bus rerouting closer to “no build”**
- Potential Private Property Impacts** • More complex property impacts
- Construction Impacts** • More driveway impacts – all minor
 - More utility impacts
 - More roadway reconstruction
 - More construction time
- Construction Cost Estimate** • Higher cost: \$225M - \$275M

Ped/Bike Undercrossing

- Improved over “no build”
- Decreased from “no build”
- Increased or similar delays
- Longer travel times – Sunnyvale Ave.
- Longer travel times – Mathilda Ave.
- Longer travel times – Fair Oaks Ave.
- Provides separate facility
- Does not provide open space opportunity
- VTA bus rerouting farther than “no build”
- **Less complex property impacts**
- **Less driveway impacts**
- **Less utility impacts**
- **Less roadway reconstruction**
- **Less construction time**
- **Lower cost: \$90M - \$120M**

Staff Recommendation

- Recommend to City Council the selection of the Sunnyvale Avenue Underpass Tunnel option to be defined as the Proposed Project for the grade separation of the Sunnyvale Avenue crossing of the Caltrain railroad tracks for the Environmental Review



Sunnyvale Avenue Crossing Discussion



Thank you