Sunnyvale

Caltrain Grade Separation Feasibility Study

Study Issue DPW No. 14-13

City Council Public Hearing
August 30, 2022

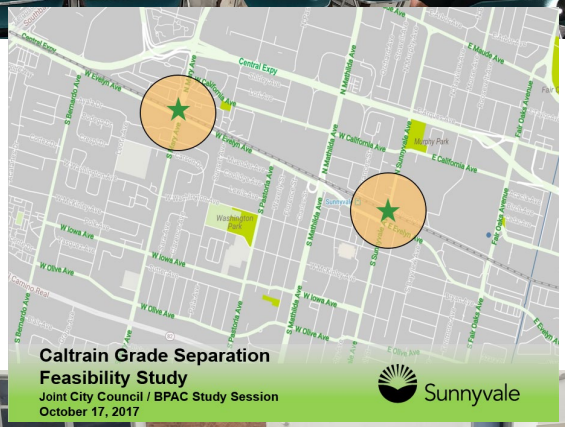
Sunnyvale

Project Background

Project Locations

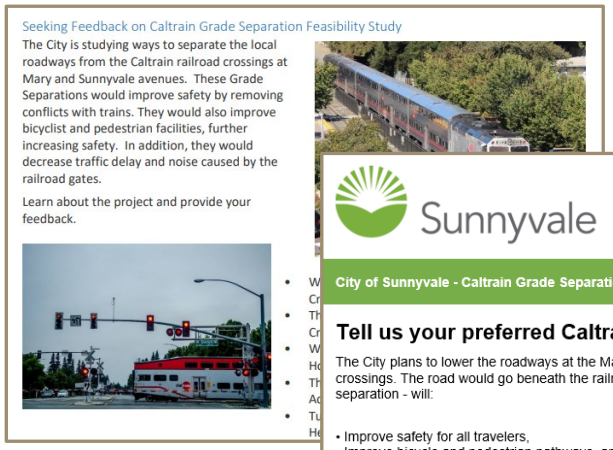
Community Outreach & Public Meetings

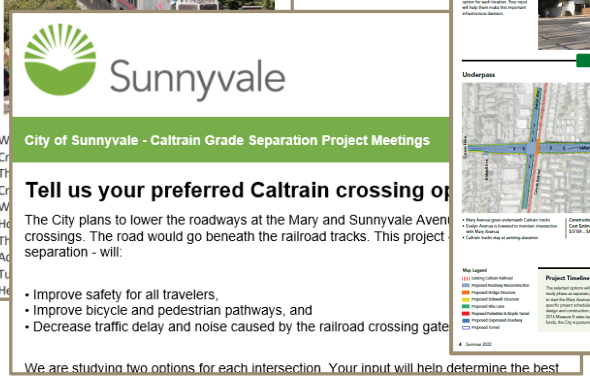
- Email list created
- Project webpage
- On-going Business Outreach Meetings
- July 12, 2017 – Agency Stakeholder Meeting
- July 26, 2017 – Business Outreach Meeting
- Aug. 10, 2017 - Mary Avenue Community Meeting (100 participants)
- Aug. 17, 2017 - Bicycle and Pedestrian Advisory Commission Meeting
- Aug. 22, 2017 - Mary Avenue Expressions Complex Meeting
- Aug. 24, 2017 - Sunnyvale Avenue Community Meeting (65 participants)
- Sept. 2017 - Mary Avenue Online Survey (128 responses)
- Sept. 2017 - Sunnyvale Avenue Online Survey (77 responses)
- Sept. 6, 2017 - Sunnyvale Downtown Association Meeting
- Oct. 17, 2017 - City Council and BPAC Joint Meeting
- Jan. 23, 2018 - City Council Meeting

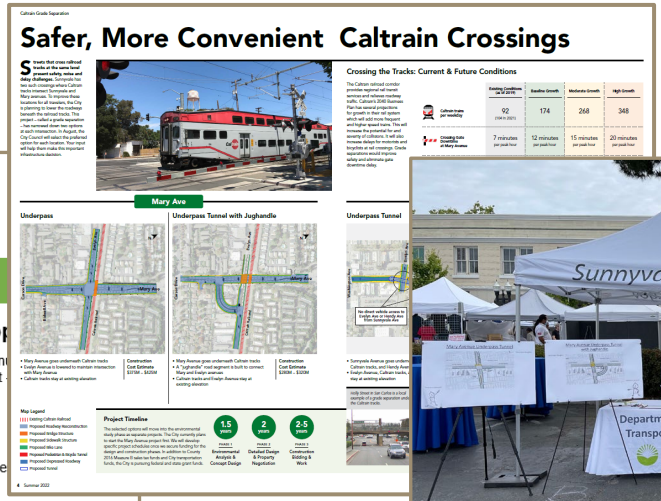


Community Outreach & Public Meetings, cont.

- City Council Study Session (April 5, 2022)
- City Manager's Update (May 13, 2022)
- Multiple Email blasts
- Art & Wine Festival booth (June 4-5, 2022)
- Multiple NextDoor posts
- Multiple Facebook posts
- Horizon article (Summer 2022)
- Mary Avenue Community Meeting (June 8, 2022)
- Sunnyvale Avenue Community Meeting (June 9, 2022)
- Survey from June 13 to July 31, 2022 (462 responses)
- Downtown Association Board
- Chamber of Commerce Policy and Business Committee
- Chamber of Commerce Board
- Agency Stakeholder Meetings
- Direct emails, letters and meetings:
  - Local Businesses
  - Residents
  - Property Owners
  - Impacted Stakeholders
  - HOAs
  - Community Groups
  - Schools
  - Places of worship
  - VTA







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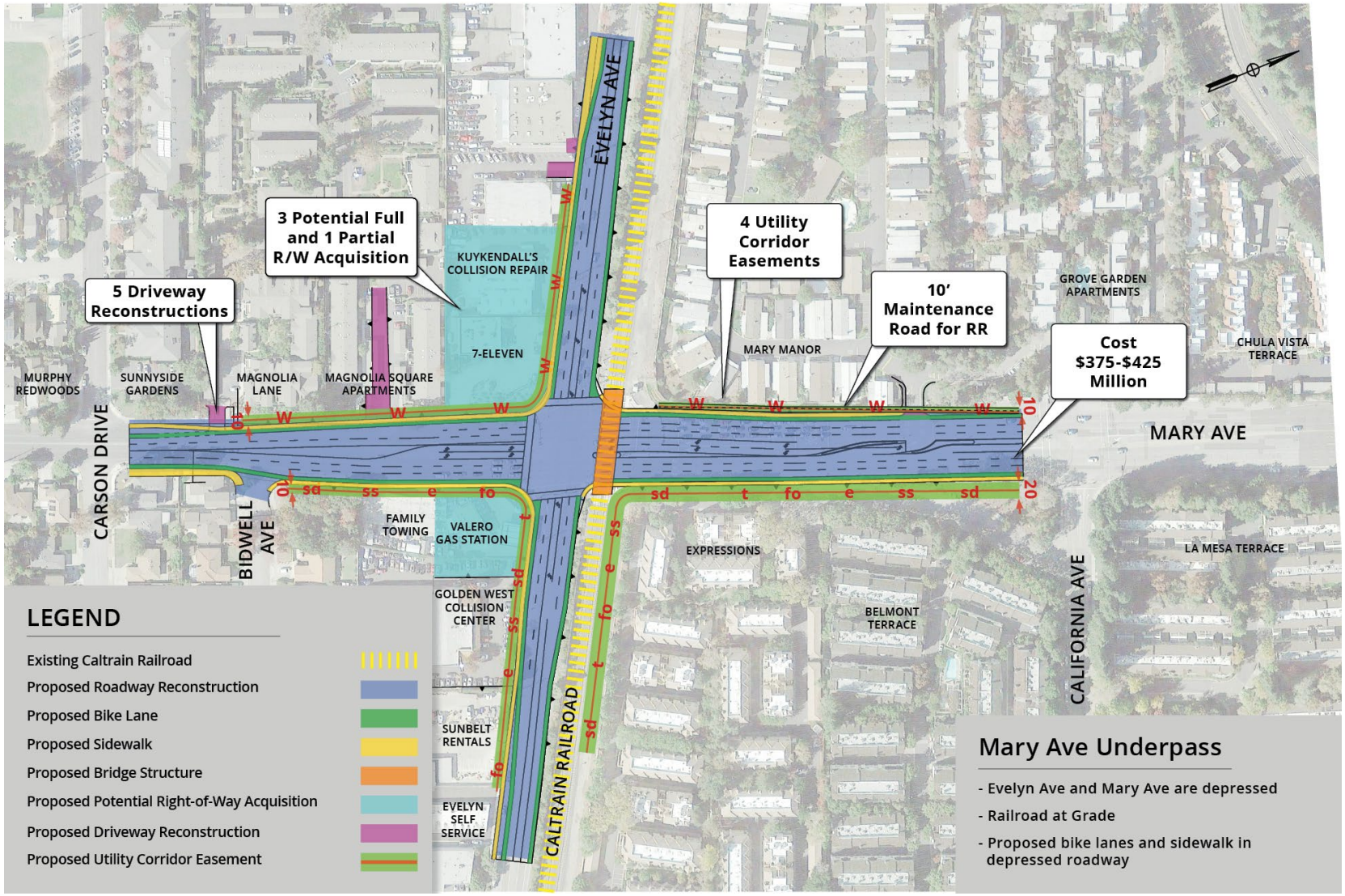
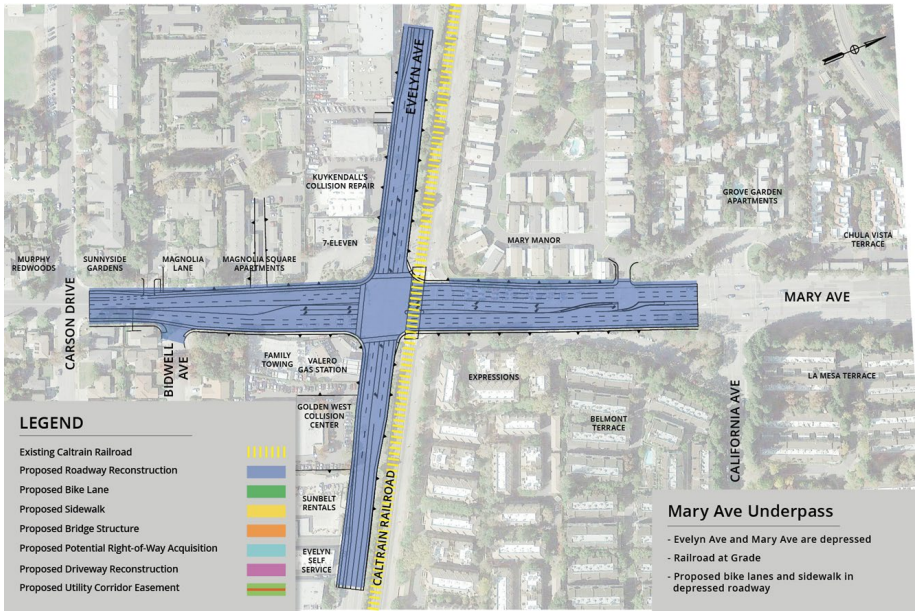
Mary Avenue Options

Mary Avenue Underpass

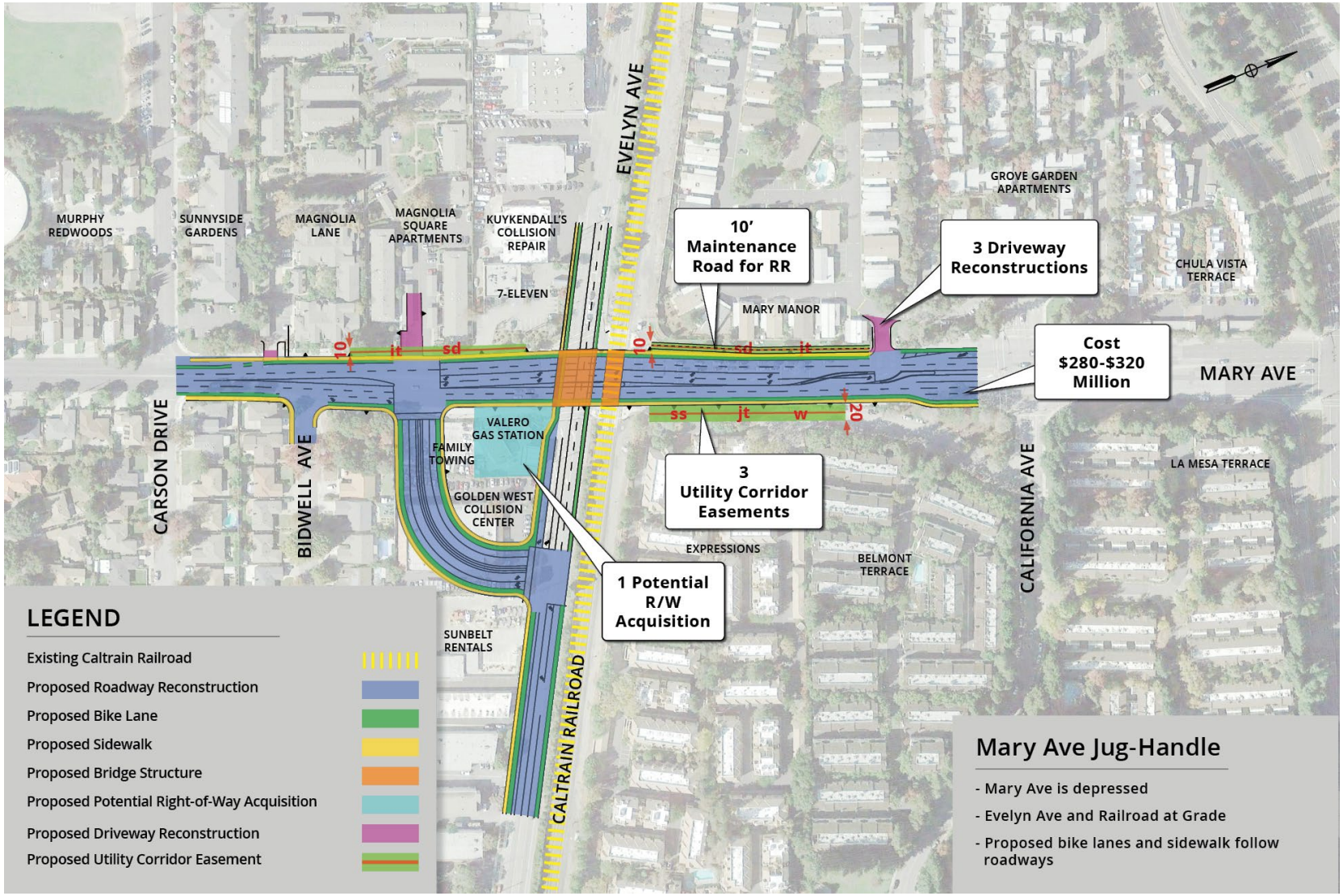


Mary Avenue Underpass
Traffic Study Summary

- Circulation same as “no build”
- Average vehicular delays
  - Less than “no build”
  - Greater than Jughandle
- Average vehicular travel times
  - Less than “no build”
  - Similar to or greater than Jughandle
- Bicycle-Vehicle conflict points
  - Same as “no build”
  - Less than Jughandle
- Pedestrian-Vehicle conflict points
  - Same as “no build”
  - Same as Jughandle

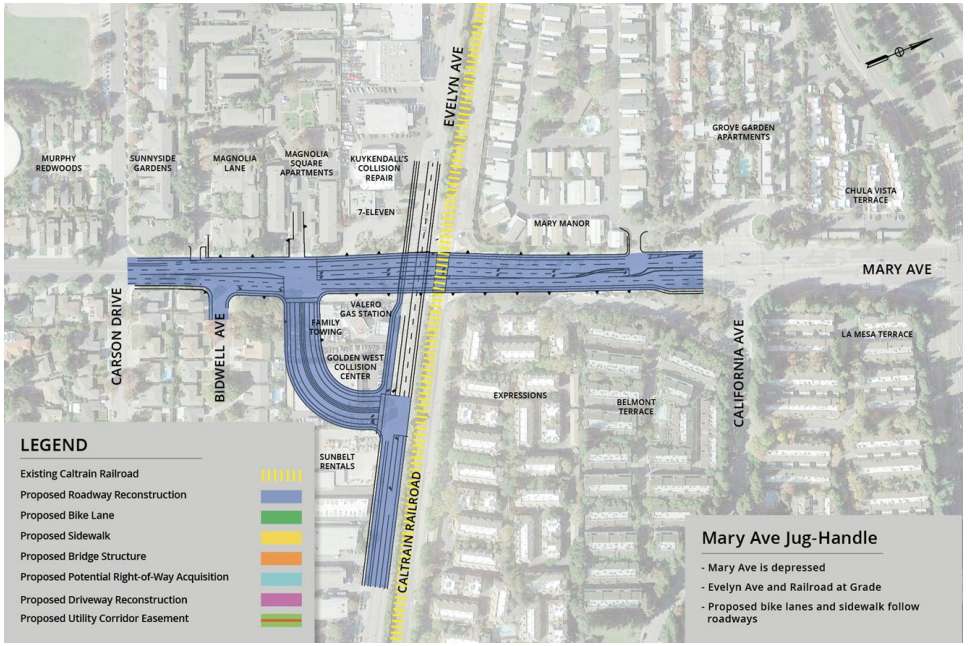


Mary Avenue Underpass with Jughandle



Mary Avenue Underpass with Jughandle Traffic Study Summary

- Circulation changed from “no build”
  - Changed turning movements
  - Two smaller signalized intersections
- Average vehicular delays
  - Less than “no build”
  - Less than Underpass
- Average vehicular travel times
  - Less than “no build”
  - Similar to or less than Underpass
- Bicycle-Vehicle conflict points
  - Less than “no build”
  - Less than Underpass
- Pedestrian-Vehicle conflict points
  - Same as “no build”
  - Same as Underpass



Mary Avenue Option Comparison

	Underpass	Underpass with Jughandle
Safety	• Improved over “no build”	• Improved over “no build”
Noise	• Decreased from “no build”	• Decreased from “no build”
Circulation - Vehicular	• Same pattern as “no build” • Greater delay than Jughandle • Longer or similar travel times	• Altered pattern • **Reduced delay** • **Shorter or similar travel times**
Circulation – Bicycle and Pedestrian	• Same pattern as “no build” • Same conflict points as “no build”	• Altered pattern • **Decreased conflict points**
Potential Private Property Impacts	• More complex property impacts	• **Less complex property impacts**
Construction Impacts	• Impacts on both Mary and Evelyn • More driveway impacts • More utility impacts • Similar railroad maintenance road • More roadway reconstruction • More construction time	• **Construction impacts only on Mary** • **Less driveway impacts** • **Less utility impacts** • Similar railroad maintenance road • **Less roadway reconstruction** • **Less construction time**
Construction Cost Estimate	• Higher cost: $375M - $425M	• **Lower cost: $280M - $320M**

Mary Avenue – Survey Summary

- 462 responses
- Most use local businesses (30%) or commute (21%)
- Most travel by car (67%) or bicycle (22%)
- Option Preferences:
  - Jughandle (49%)
  - Underpass (27%)
  - Dislike both (17%)
  - Like both equally (7%)
- Reasons for preferences:
  - Lower cost
  - Better circulation - all modes
  - Safest
  - Less property impacts
  - Less construction impacts
- Comments
  - Bike/pedestrian friendly
  - Construction impacts
  - Circulation pattern
  - Senior housing
  - Funding

Mary Avenue – Community Feedback

- Bicyclists and Pedestrians mixed
  - Some prefer Underpass with less intersections
  - Some prefer Jughandle with less elevation changes
  - Create better active mode connections
- Businesses
  - Prefer Jughandle – less property impacts
  - Concerns:
    - Construction disruption
    - Property impacts

Mary Avenue – Staff Recommendation

- Select the Mary Avenue Underpass with Jughandle option to be defined as the Proposed Project for the grade separation of the Mary Avenue crossing of the Caltrain railroad tracks for the Environmental Review

Mary Avenue – Bicycle and Pedestrian Advisory Commission Recommendation

- Agreed with Staff Recommendation
- Recommend to City Council the selection of the Mary Avenue Underpass with Jughandle option to be defined as the Proposed Project for the grade separation of the Mary Avenue crossing of the Caltrain railroad tracks for the Environmental Review
- Amendments:
  - Final design be brought to BPAC before City Council approval
  - Final design should meet more than minimum Active Transportation Plan standards for bicycle and pedestrian infrastructure
  - Investigate closing Bidwell Ave. at Mary Ave. to vehicles

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Thank You

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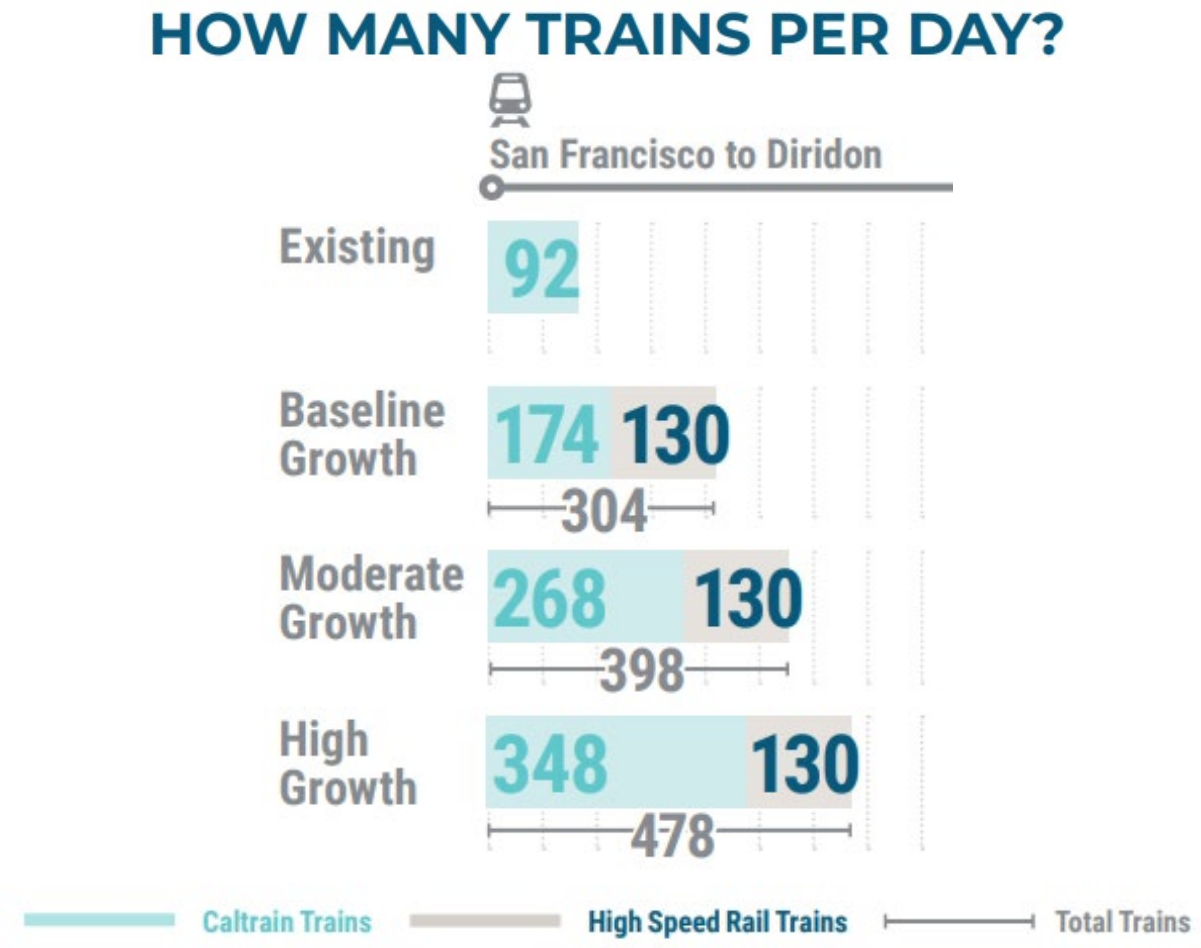
Q&A SLIDES

Why is Grade Separation Needed?



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

Why is Grade Separation Needed?

CROSSING THE TRACKS

Gate down times shown are indicative projections extrapolated from existing crossing performance. They are examples of "worst case" gate downtimes that could occur if no grade separations or grade crossing improvements were made. The financial component of the Caltrain Business Plan is planning for substantial investments in grade separation and crossing improvements across all scenarios.

Existing Crossings	Peak Hour Auto Crossings	Collisions (2008-2018)	Crossing Gate Downtime (Assuming No Improvements) (min/peak hr)			
	Existing	Existing	Existing	Baseline Growth	Moderate Growth	High Growth
N Mary Ave	2,290	4	0:07	0:12 +74%	0:15 +114%	0:20 +179%
Sunnyvale Ave	950	1	0:11	0:14 +30%	0:21 +92%	0:24 +120%

The City of Sunnyvale is studying the separation / elimination of existing at-grade crossings at Mary Ave and Sunnyvale Ave. When implemented these projects would improve safety and eliminate gate downtime delay. The Business Plan is analyzing and incorporating costs associated with these projects.

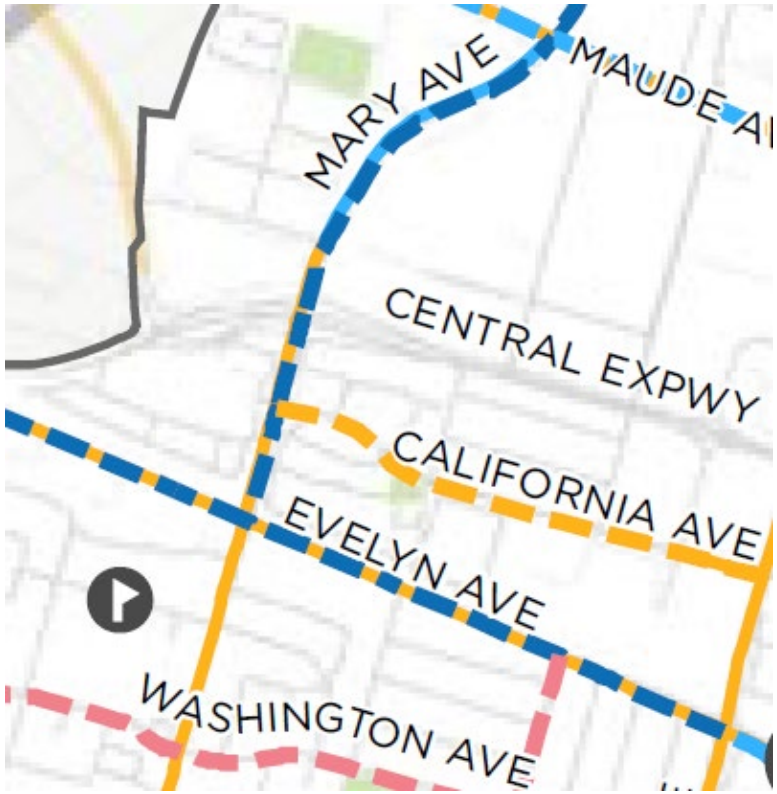
Source: Caltrain Business Plan, City of Sunnyvale Booklet, May 2019

Mary Avenue – Bicycle and Pedestrian Advisory Commission Recommendation

- Final design should meet more than minimum ATP standards for bicycle and pedestrian infrastructure

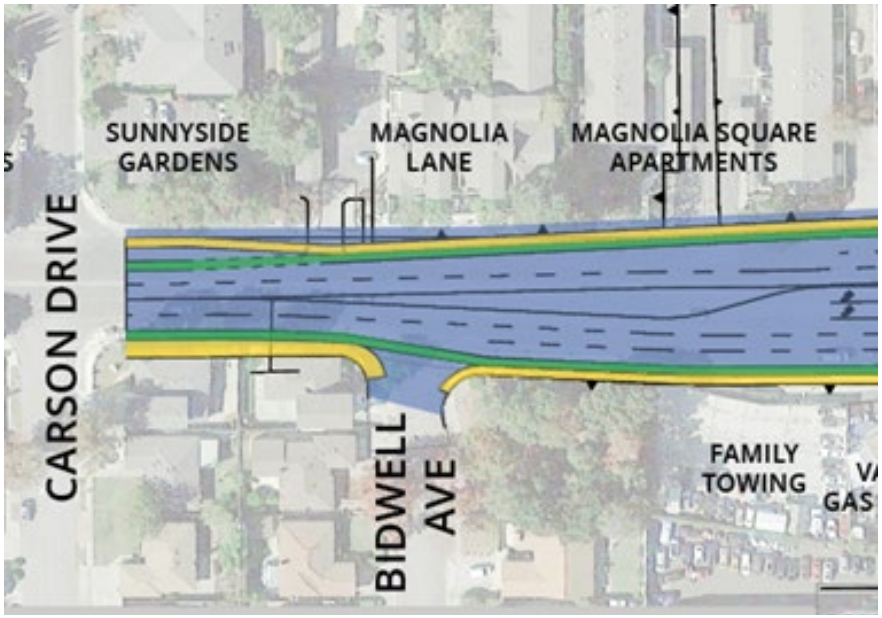
EXISTING PROPOSED

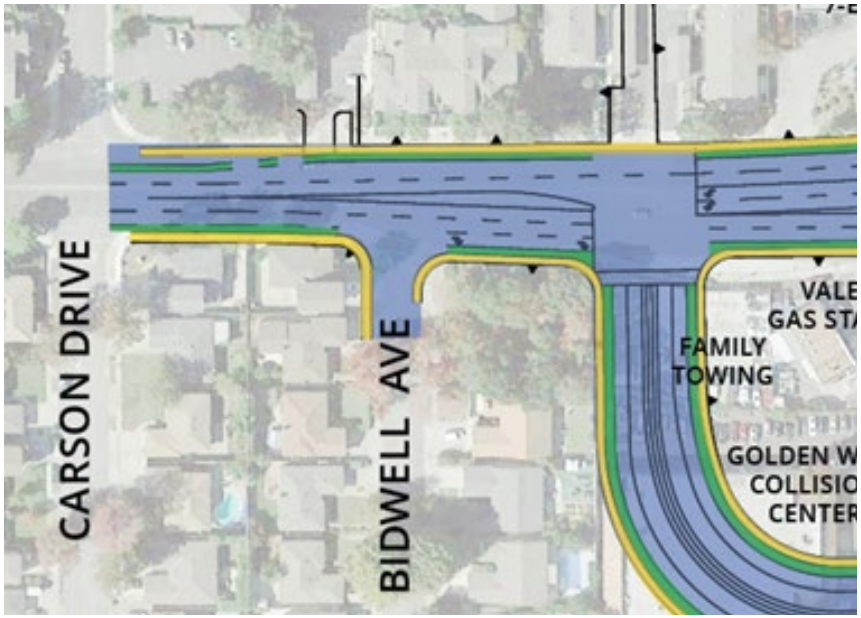
- Class I Shared-Use Path
- Class II Bicycle Lane
- Class IIB Buffered Bicycle Lane
- Class III Bicycle Route
- Class IIIB Bicycle Boulevard
- Class IV Separated Bikeway
- Existing Pedestrian Bridge (Walk Bike)
- Neighborhood Cut Through



Mary Avenue – Bicycle and Pedestrian Advisory Commission Recommendation

- Investigate closing Bidwell Ave. at Mary Ave. to vehicles





Mary Avenue Underpass Tunnel with Jughandle

Sunnyvale Avenue Underpass Tunnel

Roadway Underpass Local Examples

Marina Bay Parkway, Richmond (BKF)

Jefferson Avenue, Redwood City (Google Maps)

Bicycle and Pedestrian Undercrossing Local Examples

Palo Alto Homer Avenue Undercrossing

Santa Clara Caltrain Station Undercrossing