

Newell Road Bridge Replacement Project

Presentation to MTC Conformity Task Force
May 25, 2017



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Newell Road Bridge

BRLS 5100(017)



View from PA looking NE.



View from PA looking E towards EPA.

Project Map



Newell Road Bridge Replacement Project

■ Project Purpose & Need

- Maintain connections for vehicular, bicycle, and pedestrian transportation across San Francisquito Creek at Newell Road
- Provide a pedestrian sidewalk and improve bicycle access across San Francisquito Creek at Newell Road
- Improve traffic safety for all modes across San Francisquito Creek at Newell Road (motorists, bicyclists, and pedestrians)
- Accommodate increased flows related to San Francisquito Creek improvements to address flooding risk

Newell Road Bridge Replacement Project

■ Project Partners

- City of Palo Alto (Project Sponsor and CEQA Lead Agency)
- California Department of Transportation - Local Assistance (NEPA Lead Agency)
- City of East Palo Alto (Responsible Agency)
- San Francisquito Creek Joint Powers Authority (SFCJPA)
 - **Cities of Palo Alto, Menlo Park, East Palo Alto**
 - San Mateo County
 - Santa Clara Valley Water District

Newell Road Bridge Replacement Project

- **Existing Condition**
 - Two-lane bridge with bi-directional traffic, substandard lane width, no sidewalks, hydraulically capacity is less than natural capacity of the creek
- **Five Project Alternatives**
 - “No-Build (No Action)” Project Alternative
 - Alternative 1: One-lane bridge with bi-directional traffic signal control
 - Alternative 2: Two-lane bridge on existing alignment
 - Alternative 3: Two-lane bridge on partial realignment
 - Alternative 4: Two-lane bridge on full realignment

Project-Level Conformity

- Project falls under regional conformity exemption 40 CFR 93.127 – a “127” project
 - Existing bridge has two substandard lanes now
 - Vertical alignment of a new bridge is raised for creek flow reasons – reduce potential flooding
 - Alt 1: One-lane bridge uses signals to control traffic direction
 - Alt 2 – 4: Two-lane bridges are stop controlled
 - All Build Alternatives (Alt 1 – Alt 4) change vertical alignment, two of the two-lane alternatives (Alt 3 and Alt 4) change horizontal alignment

Traffic

- **Not a truck route or transit route**
 - Bus routes on Woodland Avenue
- **Newell Rd is a residential street**
 - “Major collector” in Palo Alto west of the bridge
 - No functional classification in East Palo Alto
 - Woodland Avenue is a “Major Collector”
- **Negligible truck volumes**
- **Low traffic volume – 3,423 AADT* from 2016 counts**

*From counts documented in traffic study. No truck counts available.

Functional Class of Area Roads



Project Location

- Major Collector
- Minor Arterial
- Principal Arterial
- Freeway

Project is located on a local road, connecting major collectors.

Source: Caltrans Functional Classification [Map 05m14](#)

Traffic Volumes

- Existing AADT and Opening Year (2018):

	On Bridge	Newell S/Edgewood	Newell N/Woodland	Woodland W/Newell	Woodland E/Newell	Edgewood W/Newell	Edgewood E/Newell
Existing AADT	3300*	3423*	1805*	4144*	1314*	582*	434*
Opening Year AADT (2018)	3366	3492	1841	4227	1340	594	443

*From counts documented in traffic study. No truck counts available.

- Horizon Year (2040):

	On Bridge	Newell S/Edgewood	Newell N/Woodland	Woodland W/Newell	Woodland E/Newell	Edgewood W/Newell	Edgewood E/Newell
Horizon AADT	4190	4346	2292	5262	1668	739	551
Truck %	*	*	*	*	*	*	*

* AADTs differ slightly between Build Alternatives. As seen in the LOS analysis, small delay changes occur at major intersections (on University Avenue) on the fringe of the project area.

Intersection LOS

■ Opening Year (2016-2018):

Alternative	Newell/ Woodland	Newell/ Edgewood	Bayshore /Newell	University/ Woodland
1: 1-lane bridge on existing alignment	C/B	B/C	B/B	D/D
2: 2-lane bridge on existing alignment	A/A	A/A	B/B	D/D
3: 2-lane bridge, partial realignment	A/A	A/A	B/B	D/D
4: 2-lane bridge, full realignment	A/B	A/A	B/B	D/D

■ Horizon Year (2040):

Alternative	Newell/ Woodland	Newell/ Edgewood	Bayshore/ Newell	University/ Woodland	University/E Crescent
No Project/No-Action Alternative	A/B	A/A	B/B	E/E	F/F
1: 1-lane bridge on existing alignment	C/B	B/C	B/B	E/E	F/F
2: 2-lane bridge on existing alignment	A/B	A/A	B/B	E/E	F/F
3: 2-lane bridge, partial realignment	A/B	A/A	B/B	E/E	F/F
4: 2-lane bridge, full realignment	A/B	A/A	B/B	E/E*	F/F**

University Avenue/Woodland Avenue is the closest major arterial intersection. Changes are not due to this project. Newell Rd/Woodland Avenue is the north end of the bridge. Newell Rd/Edgewood Avenue is the south end of the project, where a signal would be placed under Build Alternative 1 (one-lane bidirectional).

*PM peak delay 2.4 sec. **more** than No Project; no change in LOS grade.

Other alternatives have smaller changes.

** PM peak delay 3.4 sec. **less** than No Project; no change in LOS grade.

Other alternatives have smaller changes.

POAQC Criteria

- 40 CFR 93.123(b)(1) criteria specify when a project is a “Project of Air Quality Concern” requiring detailed PM10 and PM2.5 hot spot analysis:
- **New or expanded highway projects that have a significant number of or significant increase in diesel vehicles.**
 - Project does not construct a new or expanded highway. Existing bridge is 2 lanes (substandard) and the new bridge (except for the 1-lane bridge alternative) has the same number of lanes.

POAQC Criteria

(continued)

- **Projects affecting intersections that are at (LOS) D, E, or F with a significant number of diesel vehicles or those that will change to LOS D, E, or F because of increased traffic volumes from a significant number of diesel vehicles related to the project.**
 - All intersections affected by the project are and would be at or above LOS D.
 - No significant number of diesel vehicles is or would be present. Truck volumes are far below 10,000 and traffic volumes are far below 125,000.

POAQC Criteria

(continued)

- **New (or expanded) bus and rail terminals and transfer points that have a significant number (or increase) of diesel vehicles congregating at a single location.**
 - Not a bus/rail terminal project.

POAQC Criteria

(continued)

- **Projects in or affecting locations, areas, or categories of sites that are identified in the PM2.5- or PM10-applicable implementation plan or implementation plan submission, as appropriate, as sites of violation or possible violation.**
 - Project is not in, nor does it affect, sites of violation or possible violation identified in the PM2.5 SIPs. The Bay Area is attainment for PM10.

Summary

- **The Newell Road Bridge Replacement Project:**
 - Involves vertical alignment change for all alternatives, so it falls under the regional conformity exemption (“127”).
 - Alternatives also include signals (Alternative 1) or horizontal alignment change (Alternatives 3 & 4).
 - Is NOT a POAQC because of very low traffic and diesel truck volumes.
 - Meets none of the criteria for being a POAQC in 40 CFR 93.123(b)(1)

Questions? Thank You!

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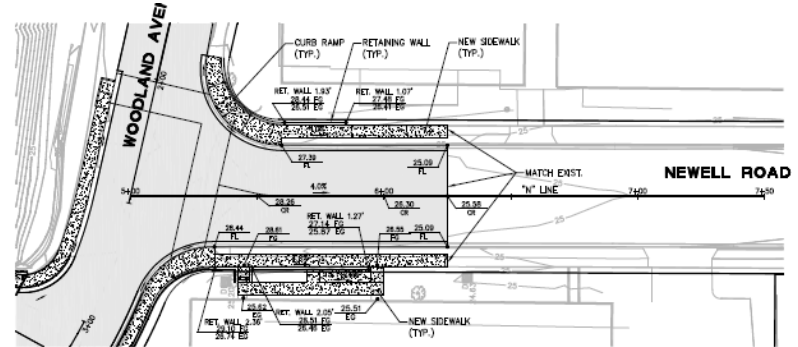
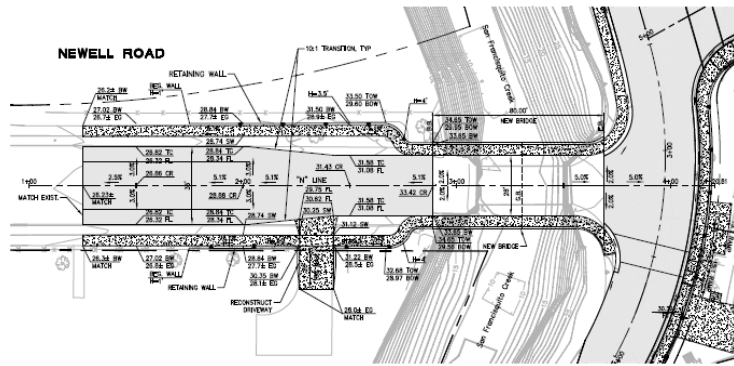
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Project Website:

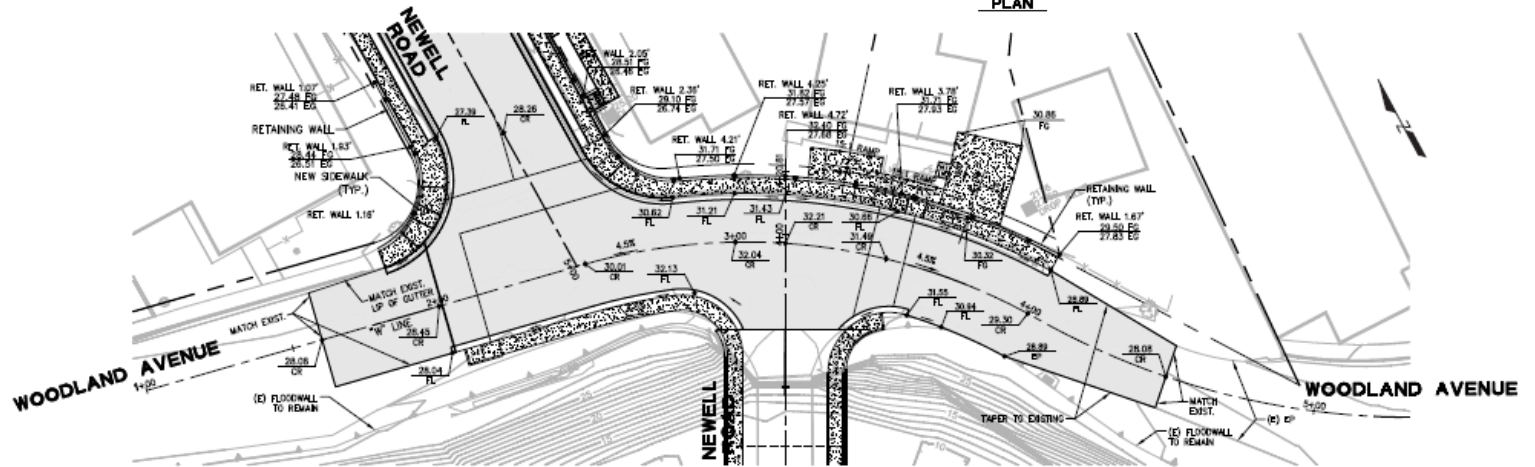
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Alternative 2: Two-lane bridge on existing alignment

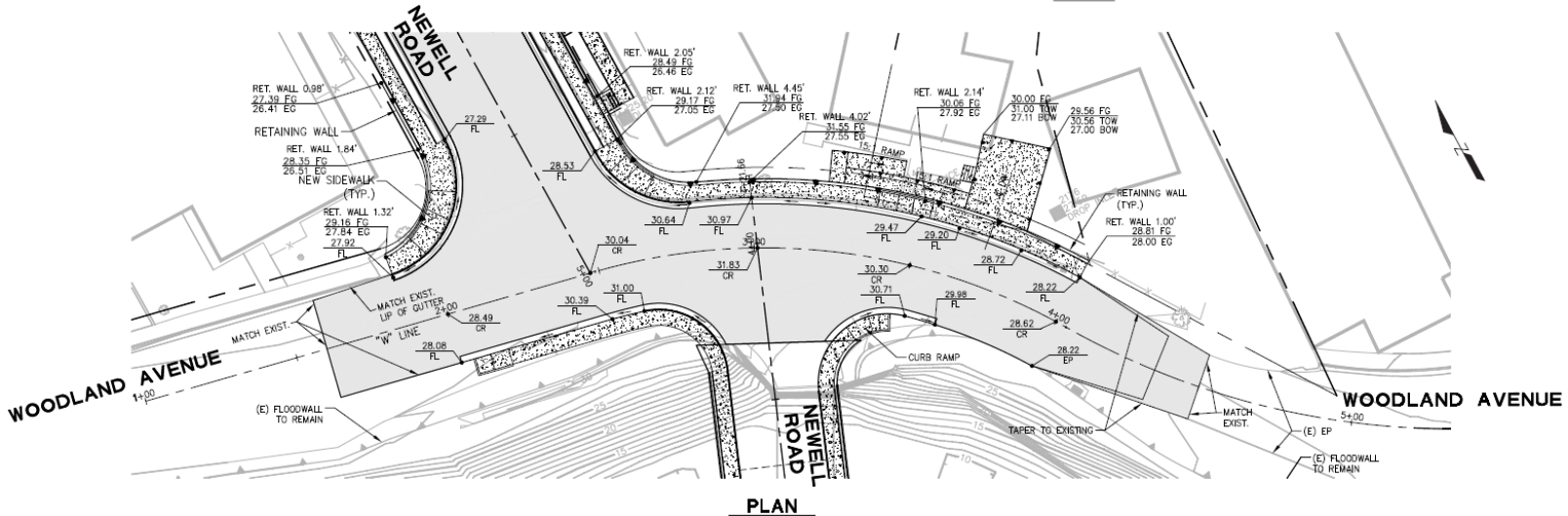
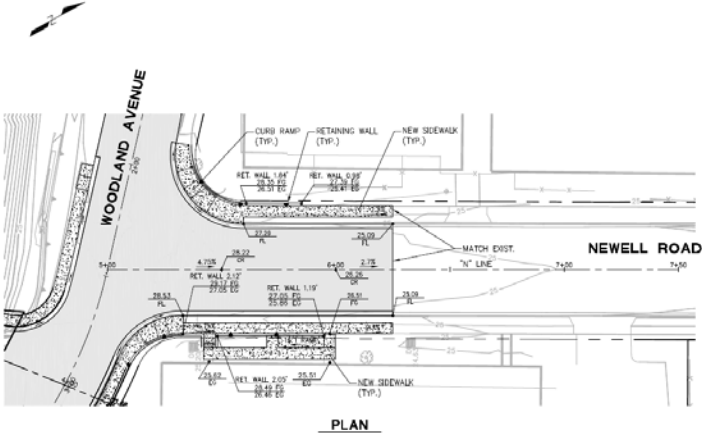
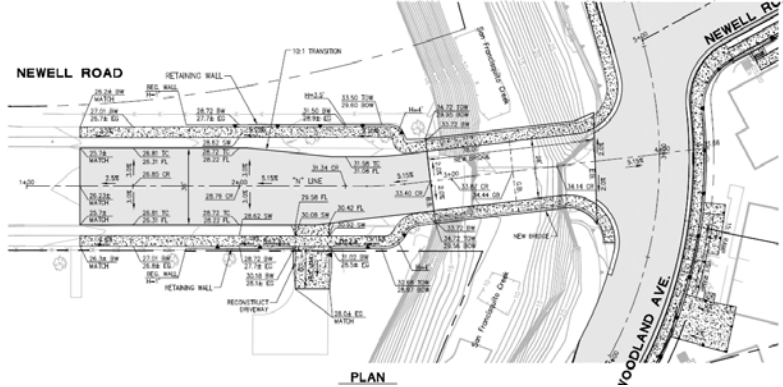


PLAN



PLAN

Alternative 3: Two-lane bridge on partial realignment



Alternative 4: Two-lane bridge with full realignment

