

**DATE:** February 22, 2023

**TO:** Bicycle/Pedestrian Advisory Committee

**FROM:** Angela Obeso, Principal Transportation Engineer—City of Sunnyvale  
Ria Hutabarat Lo, Transportation Manager—City of Mountain View  
Damian Skinner, Assistant Public Works Director—City of Mountain View

**SUBJECT:** Bernardo Avenue Undercrossing Project

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**RECOMMENDATION**

Provide recommendation to the City Council on the preferred alignment of the Bernardo Avenue Undercrossing Project

**BACKGROUND**

The Bernardo Avenue Undercrossing Project proposes to construct a pedestrian and bicycle crossing to connect the north and south segments of Bernardo Avenue beneath the Caltrain railroad tracks and Central Expressway, at the location shown in Attachment 1. There is currently no existing connection between the north and south segments of Bernardo Avenue.

On [July 11, 2017](#), the Sunnyvale City Council awarded a contract to WMH Corporation to provide preliminary design and environmental clearance. The City of Sunnyvale subsequently entered a cost-sharing agreement with the City of Mountain View for the preliminary design and environmental clearance, which was authorized by Sunnyvale City Council on [February 6, 2018](#) and Mountain View City Council on [December 12, 2017](#).

In 2017, the City of Sunnyvale received a One Bay Area Grant, Cycle 2 (OBAG 2) grant award of \$500,000 for the final design phase of the project. In early 2020, Sunnyvale, Mountain View, and Valley Transportation Authority (VTA) jointly submitted a grant application for the Measure B Bicycle and Pedestrian Program. The project was awarded \$2,253,785 for final design with an additional \$746,215 available to be requested in a future funding cycle for a total of \$3 million. An additional \$15 million was requested and awarded but not yet allocated for the construction phase of the project. The Measure B program requires a 10% non-2016 Measure B contribution. The City of Mountain View also submitted an application earmarked for Federal funds, and on July 1, 2022, the City of Mountain View received correspondence from Congresswoman Eshoo that the Appropriations Committee approved the inclusion of \$2.5 million for the Bernardo Avenue crossing (see Attachment 2). The Measure B contribution, OBAG 2 grant, and Federally

earmarked funds will be used in the engineering design phase of the project, but not in the current preliminary design and environmental phase.

On [February 6, 2020](#), the Caltrain/Peninsula Corridor Joint Powers Board (Caltrain/JPB) approved the Rail Corridor Use Policy (RCUP). This new policy is intended to guide the use of Caltrain/JPB property and support delivery of Caltrain's long-term service vision. As a nonrailroad use, the Bernardo Avenue Undercrossing project was required to be reviewed by Caltrain staff and board. The project was the first project to be presented to Caltrain after adoption of the RCUP. On [June 3, 2021](#), Caltrain/JPB approved a Use Variance for the project allowing it to move forward through Caltrain's review processes with the following conditions:

- The project will be designed and constructed to account for, and minimally disrupt, all current and future rail infrastructure, assets, and facilities in the area.
- The project will be designed and constructed so as to minimally interrupt Caltrain operations and freight operations during and after construction.
- The proposed project will be designed to be compatible with the potential future grade separation project at Mary Avenue.
- The project design will comply with all current and future railroad standards, including engineering, operations, and maintenance.
- The project will be designed to not impede the railroad's ability to maintain its infrastructure and right-of-way in the area during and after construction.
- The JPB will be responsible for delivering the project from the 35% design stage through the final design and the construction of the proposed project.
- Future agreements will provide clear roles and responsibilities for all parties for all stages of the proposed project.

On [December 2, 2020](#), a joint Sunnyvale/Mountain View BPAC meeting was held. The project team presented one eastern alignment and six variations of western alignment options. These alignment options had various features, including:

- Stairs in addition to ramps;
- Intermediate bicycle-only ramp connecting to/from eastbound Central Expressway;
- Tunnel openings in landscaped areas such as the median along Central Expressway;

- Direct access to the private property at 280 North Bernardo Avenue; and
- Ramp connection on North Bernardo Avenue just north of Central Expressway.

BPAC members provided feedback and highlighted the importance of various features, including:

- Improving directness of nonmotorized travel such as through pedestrian stairs, bike channels along stairways, pedestrian crossings at all approaches, and minimizing undercrossing distance;
- Improving light and visibility through median openings, open areas, and lighting;
- Designing for wide-access ramps or tunnels, smooth transitions at crossings and ramp-access points, and no sharp corners or turns within the undercrossing;
- Considering bike access to the eastbound Central Expressway bike shoulder;
- Integrating with a future pedestrian/bike trail on the north side of Evelyn Avenue; and
- Providing protected crossing movements, regular landings to reduce speeds, and no bollards.

BPAC members also requested pedestrian-level visualizations and diagrams to explain the flow of pedestrians and cyclists from all directions.

## **ANALYSIS**

The Sunnyvale project team has been coordinating with City of Mountain View, VTA, County of Santa Clara, and Caltrain/JPB staff to review and receive feedback on the preliminary designs, and to gain clarity on Caltrain/JPB construction and design standards (postelectrification). All the feedback heard to date, including BPAC input, has been reviewed, evaluated, and incorporated into the designs in order to refine the alternatives. The alternatives currently under consideration include the following:

- Western Alignment Alternative (Attachment 3); and
- Eastern Alignment Alternative (Attachment 4).

The intermediate bicycle-only ramp variations for both eastern and western alignments were a desirable feature to provide a direct connection to eastbound Central Expressway for confident

bicyclists. However, the evaluation of this feature revealed the following safety concerns, cost implications, and design challenges:

- Potential for unintended pedestrian usage where no pedestrian facilities exist;
- Central Expressway is suitable for advanced and confident bicyclists only, but a ramp could encourage usage by less experienced bicyclists;
- Caltrain did not support the retaining wall structures on both sides of the right-of-way immediately adjacent to electrification poles and overhead wires, for constructability and maintenance purposes;
- The County of Santa Clara did not support having bicyclists and potential pedestrians enter Central Expressway at a traffic signal without bicycle and pedestrian elements;
- The intermediate ramp would result in a substantial construction cost increase; and
- For the western alignment, additional trees and landscaping would need to be removed in the County-owned property to facilitate the intermediate ramp.

For these reasons, the project team refined the alternatives to remove the intermediate ramp from both eastern and western alignment options.

The public rights-of-way available on both sides of the proposed undercrossing are constrained. A ramp would meet connectivity goals while also adhering to the Americans with Disabilities Act requirements for a pedestrian facility. Including a ramp and stairs would require additional vehicle lane shifting and possibly the acquisition of private property on one or both sides of the undercrossing. Private property acquisition would increase project cost and complexity, so the project team refined the alternatives to remove stairs from the undercrossing alignments.

The western alternatives were also refined, so the ramps would connect directly to the two signalized intersections. The tunnel was shifted westward, which allows both ramps to connect at the intersection, as opposed to having the ramp opening occur north of Central Expressway at North Bernardo Avenue and in the center of the northern shoulder of the South Bernardo Avenue/Evelyn Avenue intersection.

More revisions were made to both alignments to coordinate with the now-existing Caltrain electrification poles and equipment at this location.

The features and challenges related to the western alignment include:

- More utility coordination and potential relocations which increase construction costs;
- Opportunities for only small, natural-light skylights or openings;
- Longer, continuous tunnel with a shorter total length;
- Straight tunnel which improves visibility and perceptions of safety; and
- Space for the City of Mountain View to request stairways or a wider landing plaza if 280 North Bernardo Avenue is substantially redeveloped sometime in the future.

The features and challenges related to the eastern alignment include:

- Fewer utility coordination needs and potential relocations;
- Opportunity for a larger natural-light opening within the County-owned property;
- Two shorter tunnel segments with a longer total length;
- Visibility challenges relating to the difficulty to see the opposite end of the tunnel, which may reduce the perception of safety; and
- Less potential roadway lane closures during construction due to the ability to use the County-owned property for some phases of work.

On February 2, 2023, a joint virtual community meeting was held with members of the public from both Sunnyvale and Mountain View. Outreach for this meeting included website updates, email correspondence to project subscribers (662 Mountain View recipients), social media postings on Twitter and Facebook, and postcard mailers to all Mountain View tenants, owners, and business operators within 750' of the project area (363 recipients).

More than 20 members of the public attended the virtual community meeting. At this meeting, the two refined alternatives (Attachments 5 and 6) were presented to community members along with some potential design features for consideration. The feedback received at the meeting and via email after the meeting included the following:

- General support for moving the project forward;
- General preference for the eastern alignment due to benefits associated with use of the triangular, County property;

- Preference for more natural light and openings;
- Some desired the eastbound Central Expressway bicycling connection due to useful connection to eastbound without having to travel through signalized intersections;
- Some opposed the eastbound Central Expressway bicycling connection due to concerns of fast-moving bicycles next to pedestrians;
- Concern about safety and comfort of the undercrossing, desire to be able to see from one end to the other of tunnel, desire for security cameras within tunnel;
- Discussion about using bollards or other feature to prevent vehicles from driving onto ramps;
- Some interest in having separate bicycle and pedestrian space within the tunnel, similar to the Homer Avenue Undercrossing in Palo Alto; and
- Desire to see more bicycling network and routes to the north of the project.

Sunnyvale has plans to implement a two-way bicycle facility on the north side of Evelyn Avenue, between Mathilda Place and Bernardo Avenue. Mountain View plans to conduct a feasibility study on implementing a similar facility between Bernardo Avenue and the Mountain View Caltrain Station. The project does not prevent implementation of the Evelyn Avenue bicycle facilities. Coordination between the project teams will continue as they all move forward.

### **FISCAL IMPACT**

Funding for this phase of the project is available under Sunnyvale Project 832910—Bernardo Avenue Undercrossing, which includes Mountain View CIP 18-69. The current action does not impact the existing budget. As part of the preliminary design and environmental review, a construction cost estimate will be prepared. Additional funding for the final design and construction phases will need to be secured prior to starting final design and advertising for construction.

### **DISCUSSION**

Staff is requesting a BPAC motion on a preferred alternative.

**ALTERNATIVES**

1. Recommend to the City Council the selection of the Eastern Alignment as the Preferred Alignment of the Bernardo Avenue Undercrossing Project.
2. Recommend to City Council the selection of the Western Alignment as the Preferred Alignment of the Bernardo Avenue Undercrossing Project.
3. Do not recommend to City Council the selection of a preferred alignment of the Bernardo Avenue Undercrossing Project.
4. Provide other direction.

**NEXT STEPS**

For the purposes of environmental review, a preferred project alignment must be selected by the City Council. Both the Sunnyvale City Council and Mountain View City Council are tentatively scheduled to consider this item in late April 2023.

After obtaining support from the Sunnyvale City Council and Mountain View City Council, the next stage of the current project will include the required environmental review pursuant to the California Environmental Quality Act (CEQA). The appropriate CEQA document will be prepared and presented to the City Council at the appropriate time for approval prior to starting final design. Final design and construction will be undertaken by Caltrain/JPB in accordance with the RCUP.

AO-RHL-DS/BW/1/PWK  
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- Attachments:
1. Bernardo Avenue Project Location Map
  2. Project Funding Awards
  3. Bernardo Avenue Undercrossing Western Alignment Alternative
  4. Bernardo Avenue Undercrossing Eastern Alignment Alternative

cc: PWD, PCE—Gonzales