

DATE: June 14, 2023

TO: Urban Forestry Board

FROM: Kathryn Robertson, Associate Civil Engineer
Robert Gonzales, Principal Civil Engineer
Edward Arango, Assistant Public Works Director/City Engineer

VIA: Dawn S. Cameron, Public Works Director

SUBJECT: Shoreline Boulevard Pathway Improvements, Project 21-37

RECOMMENDATION

Review the proposed Heritage tree mitigation for Shoreline Boulevard Pathway Improvements, Project 21-37, and forward a recommendation to the City Council to approve the mitigation of twenty-seven (27) Heritage trees at a 2:1 tree replacement ratio, with the planting of fifty-four (54) 24" box trees within the project area.

BACKGROUND

The pathway on the east side of Shoreline Boulevard, from Wright Avenue to Villa Street, is in very poor condition due to aging asphalt and tree roots uplifting the pathway in various locations (see Figure 1). The existing pathway also has steep longitudinal slopes that exceed the maximum standards established by the Americans with Disabilities Act (ADA) (see Figure 2).



Figure 1: Existing Poor Asphalt



Figure 2: Existing Steep Slope Condition

In Fiscal Year 2014-15, Shoreline Boulevard Pathway Improvements, Project 15-32, was established to reconstruct the pathway from Wright Avenue to Villa Street and provide various improvements, including new curb, pathways, lighting, landscaping, irrigation, and retaining walls.

In summer 2014, four firms responded to the City's Request for Proposals (RFP) to provide engineering design services for Shoreline Boulevard Pathway Improvements, Project 15-32, and on [October 14, 2014](#), Council authorized a professional services agreement with BKF Engineers (BKF), and Council subsequently authorized an amendment on [June 26, 2018](#).

On February 25, 2015, the Bicycle/Pedestrian Advisory Committee (BPAC) received an update and provided pedestrian- and bicycle-related comments regarding the preliminary design. The project design was completed in 2016; however, the project did not proceed into construction due to the lack of funding and staffing resources. In 2019, Shoreline Boulevard Pathway Improvements, Project 15-32, was closed out, and the remaining funds were unencumbered as part of the Fiscal Year 2019-20 Capital Improvement Program (CIP) approval to make funds available for other priority projects.

On [July 8, 2014](#), in support of this project, Council authorized the filing of an application for funding assigned to the Metropolitan Transportation Commission and committing any necessary matching funds. The City was not successful in obtaining this grant funding.

On [June 21, 2016](#), Council authorized staff to apply for the One Bay Area Grant (OBAG) Program Cycle 2 funding in the amount of \$1,996,000 from the Santa Clara Valley Transportation Authority (VTA). At that time, the project was ranked below the available OBAG funding line, and the City was not awarded an OBAG grant. Due to another city relinquishing their OBAG grant funding, the VTA Board approved the City of Mountain View to receive \$1,996,000 in OBAG funding for construction of the project on November 4, 2021. A key requirement to receiving these Federal grant funds is the timely use of the funds to avoid forfeiture. The City must be ready to advertise the project for construction in 2023.

On [June 14, 2022](#), Council authorized a professional services agreement with BKF to finalize the design and provide construction support. Prior to proceeding to construction of the Shoreline Boulevard Pathway project, the plans and specifications need to be updated to comply with revised Caltrans standards, incorporate the improvements related to the Shoreline Boulevard/Villa Street intersection and traffic signal project, recently constructed, and compile a new bid package.

On [September 28, 2022](#), BPAC received an update on the project, supported the project, and requested new trees be planted in a manner to have the path shaded.

Project Description and Status

Shoreline Pathway Boulevard Improvements, Project 21-37, will realign the existing pathway to accommodate all ages and abilities for both cyclists and pedestrians (see Figure 3).

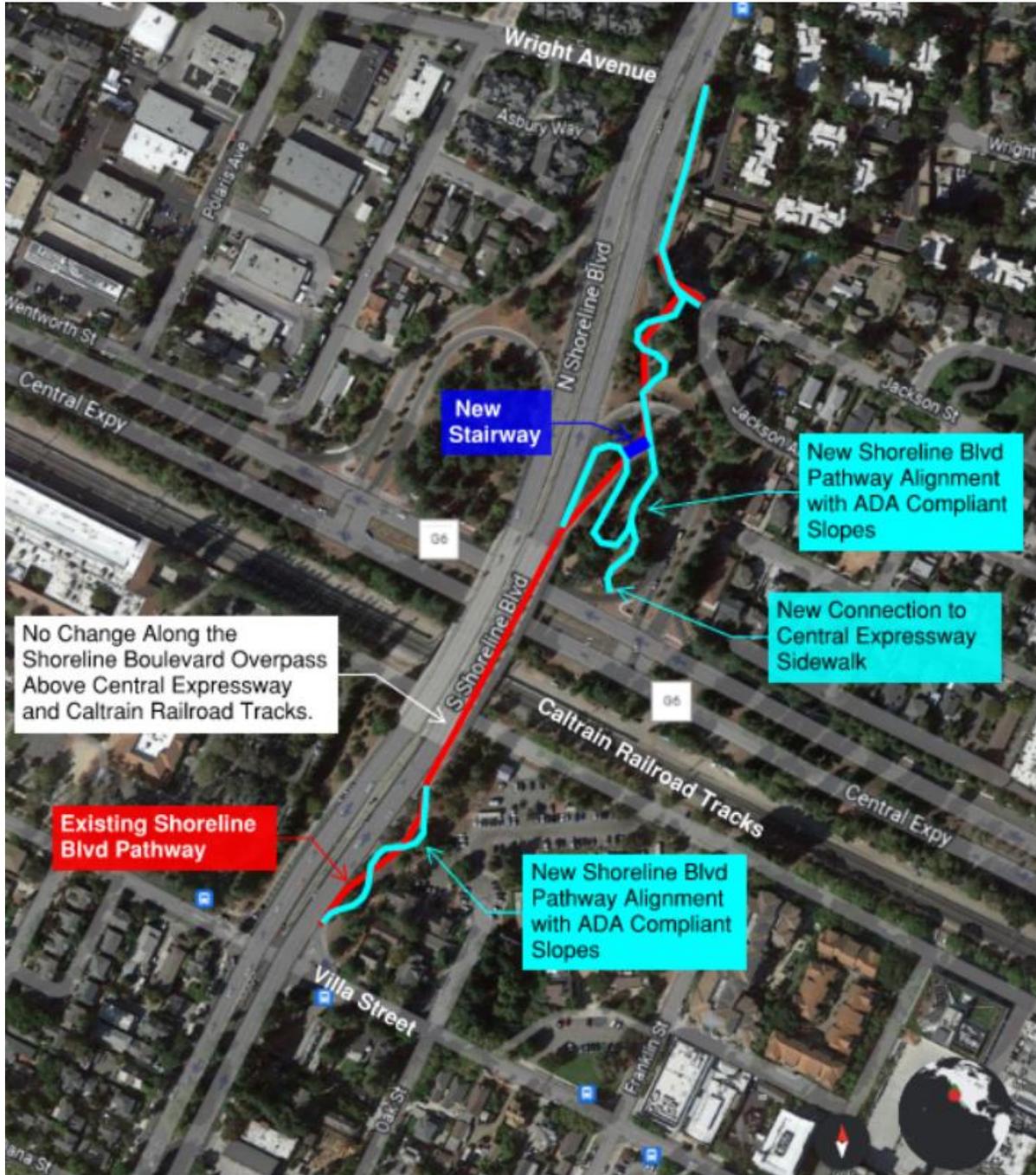


Figure 3: Project Layout Map

The project limits are from Villa Street (south limits) to Wright Avenue (north limits), and the pathway improvements include:

- Replacing the existing pathway with a 10' wide bicycle/pedestrian path that meets ADA accessibility requirements;
- Installing retaining walls;
- Adding lighting for safety (consideration will be given to dark sky compliance); and
- Enhancing planting and irrigation.

In addition to the above elements, the following sections provide specific design information of the four segments of the project.

Segment 1—Villa Street to Shoreline Boulevard Overpass Structure

The new pathway will be parallel to and generally follow the existing alignment, with some added minor meandering to meet ADA requirements for longitudinal slopes.

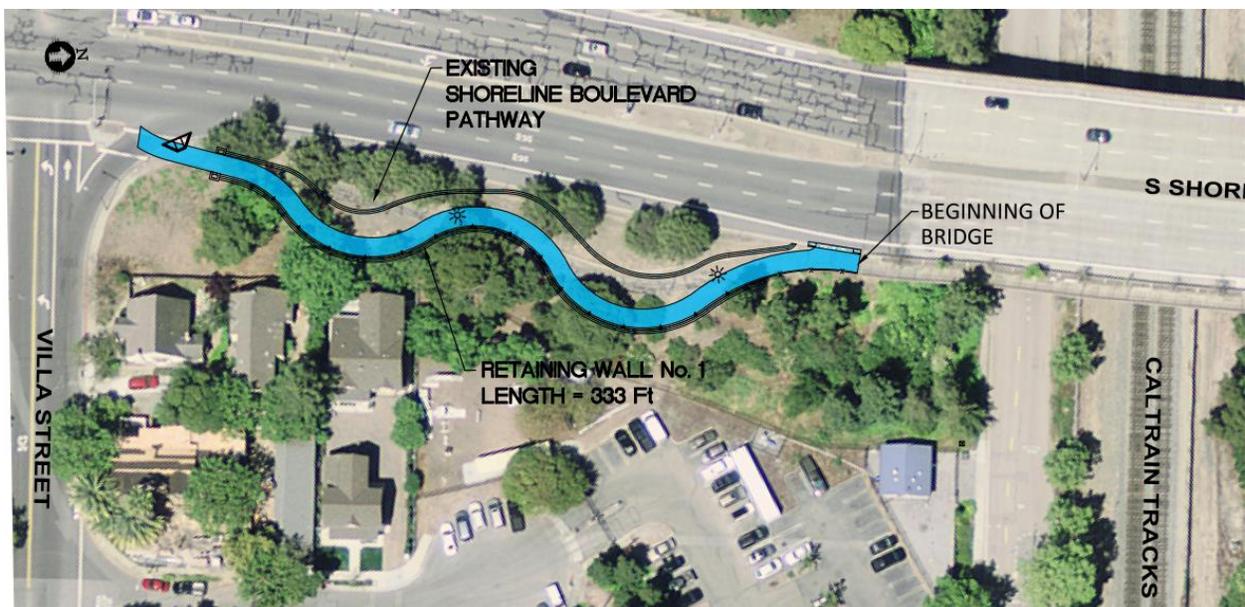


Figure 4: Villa Street to Shoreline Boulevard Overpass Structure

Segment 2—Shoreline Boulevard Overpass Structure

No improvements are proposed to the Shoreline Boulevard overpass structure as it was not part of the project scope as approved by the City Council or the grant. Staff has received recent community input requesting to widen this structure to better accommodate pedestrian and bike users. Improvements to this structure would require substantially more funding, would not be an eligible use for the grant funds, and would require three to four years to design and construct once funding is secured. This infrastructure improvement could be considered as part of the City's Capital Improvement Program in the future. The project addresses the current need to upgrade the existing pathway, and to avoid jeopardizing the grant funding, the project will need to start construction in 2023.



Figure 5: Shoreline Boulevard Overpass Structure

Segment 3—Shoreline Boulevard Overpass Structure to Northbound Shoreline Boulevard/Central Expressway On-Ramp

This segment will have significant alignment changes. There are two elevation constraints: (1) the path must rise to meet the Shoreline Boulevard overpass; and (2) it must be lowered with enough clearance to go under the on-ramp. Due to the significant elevation difference between the overpass and underpass, two switchbacks are required to achieve ADA slope standards. A stairway with a bike channel and handrails will allow people to bypass the switchbacks if they choose. A new connection to the Central Expressway sidewalk will also be added.

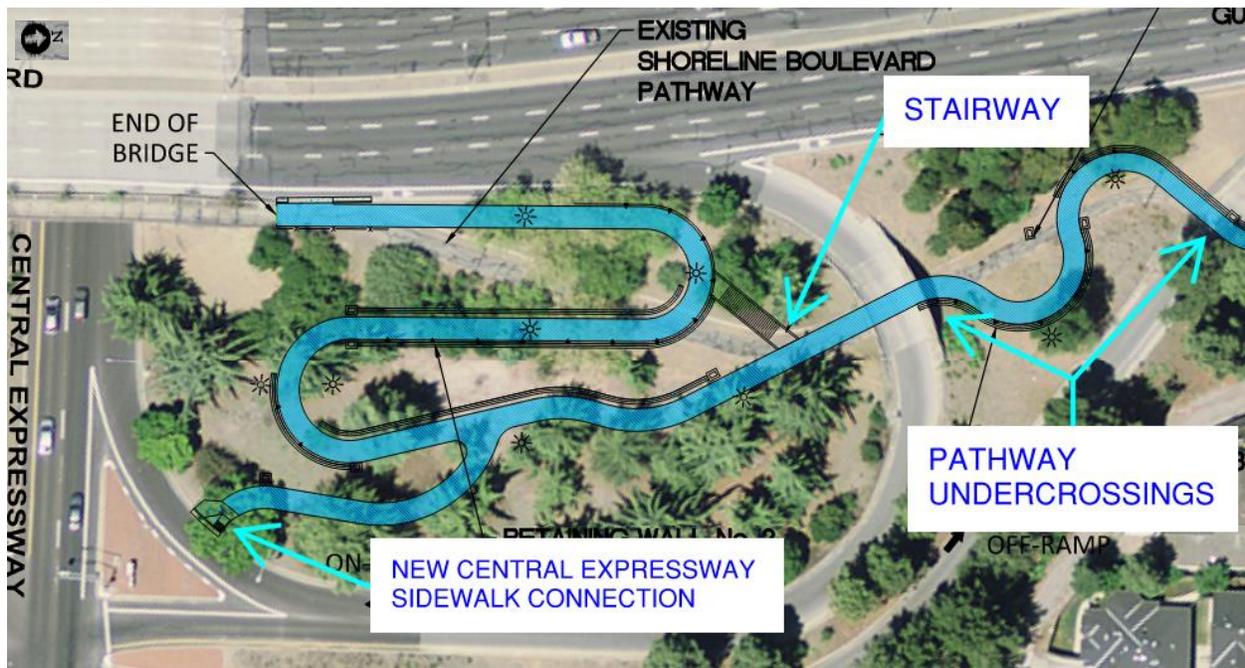


Figure 6: Shoreline Boulevard Overpass Structure to Northbound Shoreline Boulevard/Central Expressway On-Ramp

Segment 4—Northbound Shoreline Boulevard/Central Expressway On-Ramp to Wright Avenue

This segment of path will have minor alignment meandering to achieve ADA slope standards. The project maintains the two undercrossings of the Central Expressway on- and off-ramps from/to northbound Shoreline Boulevard. By keeping the pathway and vehicular road grade-separated, it avoids two points of conflict, as shown in Figure 7, between pedestrians/bicycles and vehicles.

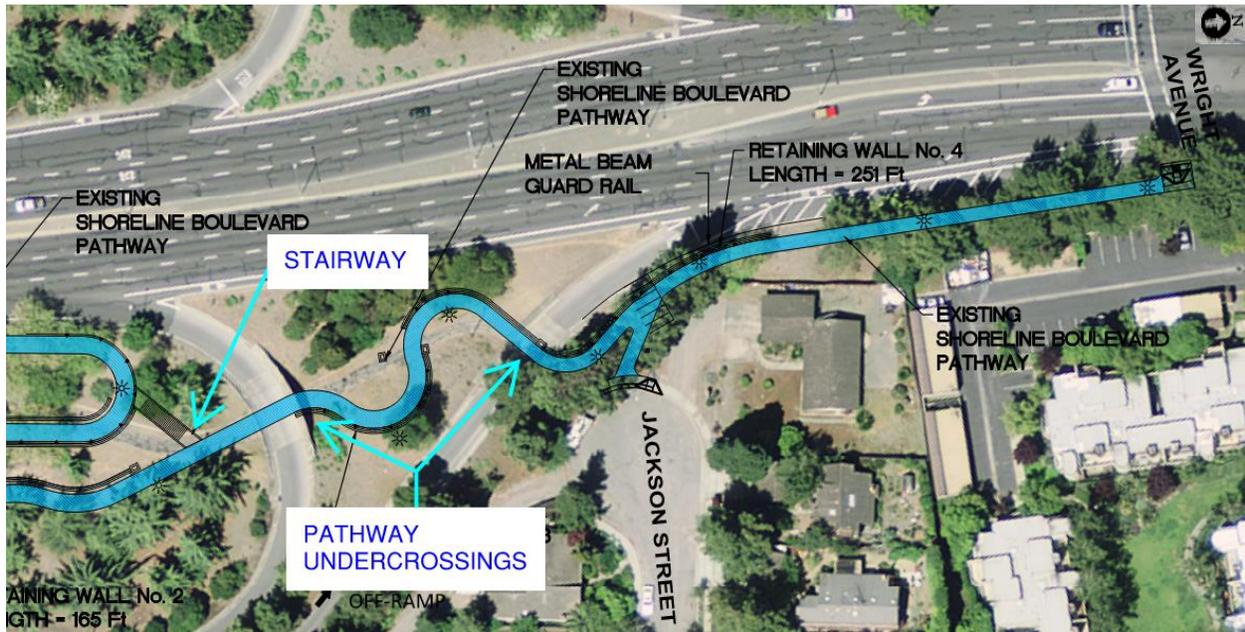


Figure 7: Northbound Shoreline Boulevard/Central Expressway On-Ramp to Wright Avenue

Tree Removal

As part of the project, existing trees are required to be removed to incorporate the new alignment of the Shoreline Boulevard pathway. Staff requests that the Urban Forestry Board (UFB) provide a recommendation to the City Council for the number, size, and location of replacement trees, which is the focus of the UFB's purview, as defined in the following Municipal Code Section 32.33, City Capital Improvement Projects:

“City capital improvement projects which propose the removal of any heritage tree shall be submitted by the city project staff to the city’s arborist for review and recommendation of appropriate mitigation measures. The arborist’s recommendations shall be forwarded by city project staff to the urban forestry board for their recommendation on the number, size and location of replacement trees. The recommendation of the urban forestry board shall be forwarded by city project staff to the city council for their consideration with the approval of the project.”

ANALYSIS

In May 2023, an arborist from Woodreeve Consulting, LLC (Woodreeve), evaluated and identified seventy-nine (79) trees within the project site. As a result of the new pathway alignment, thirty-eight (38) trees, consisting of twenty-seven (27) Heritage trees and eleven (11) non-Heritage trees, are recommended for removal. The 27 Heritage trees include 10 Canary Island pine,

11 deodar cedar, two American elm, two Aleppo pine, and two Australian willow (see Attachment 1).

The arborist evaluated the trees to be removed for potential transplant. Factors considered for transplant included the following:

- Species Suitability: Some trees are intolerant of root loss;
- Size and Health: Smaller and healthy trees transplant more successfully;
- Site Conditions: Steep-sloped conditions may limit the ability to capture adequate root balls; and
- Characteristics of New Site: Transplant location must be conducive to the tree's needs.

The City's Urban Forest Supervisor reviewed Woodreeve's findings and conducted a follow-up site visit. No trees within the project area were found to be optimal candidates for transplanting. Staff recommends replacement over transplant for all trees for the following reasons:

- All of the candidate trees are of a large size (greater than 10" in diameter) and are growing on steep slopes, making it difficult to capture an adequate root ball due to the size and site conditions; and
- Locating the tree to another sloped location for replanting may expose the tree to instability and potential for falling, or replanting at a flat site may not result in a successful transplant due to the existing root ball configuration.

Staff recommends mitigation for the 27 Heritage trees at a 2:1 tree replacement ratio with 24" box trees, and the 11 non-Heritage trees will be replaced at a 1:1 ratio with 24" box trees. This results in 65 new trees, as shown in Attachment 2. There is suitable and available space to plant all proposed replacement trees within the project limits (see Attachment 2). The tree canopy coverage within the project limits is projected to exceed the current coverage within 15 years (see Table 1). All of the trees proposed to be removed are non-California native tree species, and the mitigation trees are California native tree species. Native trees often require a longer establishment period versus nonnative trees. The canopy projections indicate the slower canopy growth of native trees during this first 15 years, but the canopy will exceed existing canopy after the initial establishment timeline.

Table 1: Tree Canopy Coverage On Site

Canopy	Site Coverage
Existing	12,874 square feet
Existing to Remain + New After 15 Years	12,958 square feet

Staff recommends the following species for replacement trees within the project site:

Table 2: Recommended Replacement Plantings

Species	Common Name
<i>Aesculus californica</i>	California buckeye
<i>Quercus lobata</i>	Valley oak
<i>Arbutus Menziessii</i>	Madrone
<i>Cercis occidentalis</i>	Western redbud

Tree plantings and new irrigation lines will be included as part of construction.

FISCAL IMPACT

Shoreline Boulevard Pathway Improvements, Project 21-37, is currently funded with \$300,000 from Capital Improvement Reserve and with \$1,996,000 of One Bay Area Grant Program Cycle 2 (OBAG2) grant funding for construction. Tree mitigation for the on-site trees will be funded from the current project budget.

PUBLIC NOTICING

In addition to the standard agenda posting, staff posted notices on the trees identifying them for removal and provided information for attending this meeting. Notices were mailed to residents and property owners within 750' of the project site.

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Attachments: 1. Tree Assessment List
2. Shoreline Pathway Tree Plans

cc: PWD, APWD—Arango, FC, PCE—Gonzales, ACE—Robertson, F/c