

Architectural Review Board Staff Report (ID # 11587)

Report Type:	Action Items	Meeting Date: 12/17/2020
Summary Title:	Pope-Chaucer Bridge (1st Formal)	
Title:	PUBLIC HEARING / QUASI-JUDICIA Project; Pope-Chaucer Bridge Architectural Review for replace Bridge. The project also inclu- modifications in four locations a location for improved flood Assessment: Lead Agency SFC September 26, 2019. Zoning Distri- of-way. For More Information C Claire Raybould at Claire.Raybould	L. Upstream Of Highway 101 e [20PLN-00202]: Major ment of the Pope-Chaucer ides downstream channel nd a retaining wall in one protection. Environmental JPA certified an EIR on ict: PF, R-1, and Public right- contact the Project Planner @cityofpaloalto.org

From: Jonathan Lait

Recommendation

Staff recommends that the Architectural Review Board (ARB) take the following action(s):

- 1. Consider the Environmental Impact Report (EIR) for the San Francisquito Creek Flood Protection, Ecosystem Restoration, and Recreation Project Upstream of Highway 101, which was certified by the San Francisquito Creek Joint Powers Authority (SFCJPA), acting as the lead agency, on September 26, 2019; and
- 2. Consider and provide comments on the proposed project.

Report Summary

The San Francisquito Creek Joint Powers Authority (SFCJPA) is a regional governmental agency comprised of and funded by the Cities of Palo Alto, East Palo Alto, and Menlo Park; the Santa Clara Valley Water District (Valley Water); and the San Mateo County Flood and Sea Level Rise Resiliency District. The SFCJPA, in coordination with Valley Water, request approval of this Architectural Review application. The project includes the removal and replacement of Pope Chaucer Bridge with a bridge that allows for a greater flow capacity (7,500 cubic feet per second [cfs]) to pass beneath the bridge, reducing flood risk. The project also includes channel modifications downstream of Pope Chaucer Bridge in four locations within Palo Alto. These

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modifications together with the bridge replacement will improve conveyance, stream function, and habitat.

The proposed modifications are associated with the SFCJPA's San Francisquito Creek Flood Protection, Ecosystem Restoration, and Recreation Project Upstream of Highway 101 (Upstream of Highway 101 Project) which includes work within the Cities of Palo Alto, Menlo Park, and East Palo Alto within both Santa Clara and San Mateo Counties. The SFCJPA Board, serving as the lead agency for the Upstream of Highway 101 Project, certified the project EIR on September 26, 2019, adopting overriding considerations. The City of Palo Alto is serving as a responsible agency; therefore, the scope of this Architectural Review application is limited to the project work occurring within the City of Palo Alto's jurisdiction.

The Upstream of Highway 101 Project is designed in collaboration with other ongoing and recently completed projects within San Francisquito Creek. These include, but are not limited to, the San Francisquito Creek Flood Protection, Ecosystem Restoration, and Recreation Project, the San Francisco Bay to Highway 101 Project completed in 2019, and the Newell Road Bridge Project, (which Council approved on June 1, 2020).

Background

Project Information		
Owner:	Project is located within the public Right-of-Way, primarily within areas under Santa Clara Valley Water District (Valley Water) easements	
Engineer:	NV5	
Representative:	Margaret Bruce, Executive Director, San Francisquito Creek Joint Powers Authority (SFCJPA); Valley Water will manage construction of the project on behalf of the SFCJPA	
Legal Counsel:	Not Applicable	
Property Information		
Address:	Chaucer Street/ Palo Alto Avenue (Public Right-of-Way)	
Neighborhood:	Crescent Park	
Lot Dimensions & Area:	Not Applicable	
Housing Inventory Site:	Not Applicable	
Located w/in a Plume:	Not Applicable	
Protected/Heritage Trees:	Yes, see discussion below	
Historic Resource(s):	Not Applicable	
Existing Improvement(s):	Concrete culvert (constructed 1940s)	
Existing Land Use(s):	Public Street Right-of-Way and San Francisquito Creek	
Adjacent Land Uses &	North: R-1 Zoning (single-family residential land uses within Menlo	
Zoning:	Park)	

West: R-1 and PF Zoning (single-family residential land uses outside the creek; Timothy Hopkins Park)
East: R-1 and PF Zoning (single-family residential land uses outside the creek; Timothy Hopkins Park)
South: R-1 Zoning (single-family residential land uses)

Aerial View of Property: See Attachment A

Land Use Designation & Applicable Plans

Zoning Designation:	Not Applicable. Public Right-of-Way
Comp. Plan Designation:	Public Park and Streamside Open Space for the bridge; Streamside
	Open Space for work within the creek; some channel work will affect
	properties located within the single-family residential land use
	designation
Context-Based	
Design Criteria:	Not Applicable
Downtown Urban	
Design Guide:	Not Applicable
South of Forest Avenue	
Coordinated Area Plan:	Not Applicable
Baylands Master Plan:	Not Applicable
El Camino Real Design	
Guidelines (1976 / 2002):	Not Applicable
Proximity to Residential	
Uses or Districts (150'):	Applicable
Located w/in the Airport	
Influence Area:	Not Applicable

Prior City Reviews & Action

City Council:	None
PTC:	None
HRB:	None
ARB:	None

Project Description

Attachment A includes a location map showing the locations where work will occur; this includes six locations within the City of Palo Alto. The applicant's project description and proposed plans are included in Attachments C and D, respectively.

The proposed Upstream of Highway 101 Project includes modifications along San Francisquito Creek between Highway 101 to just upstream of the Pope Chaucer Bridge. Components within the City of Palo Alto include the replacement of Pope Chaucer Bridge, which is jointly owned and maintained by the Cities of Menlo Park and Palo Alto; modifications to the channel in four

Page 3

locations; and modifications to the sacked concrete/retaining wall in one location at the top of the creek bank.

Pope Chaucer Bridge

The existing Pope Chaucer Bridge is a large concrete culvert built in the 1940s. The bridge is a 40-foot wide, two-lane, bi-directional bridge that connects Palo Alto Avenue in Palo Alto to Woodland Avenue in Menlo Park. The maximum flow capacity beneath the bridge is restricted to 5,800 cubic feet per second (cfs). The Upstream of Highway 101 Project would replace the existing concrete culvert with a new bridge that allows for flows of up to 7,500 cfs to pass beneath. This is consistent with the capacity of the creek downstream of the Pope Chaucer Bridge (when accompanied by the proposed channel widening) and accommodates a 70-year flood event. A 70-year flood event (7,500 cfs) is equivalent to the 1998 flood, which is the largest flood on record within San Francisquito Creek. The project, as well as previously improved downstream improvements, would not preclude future improvements that could accommodate a 100-year flood event.

The proposed concrete bridge would be 32' 4" from curb to curb with a 6' 3" sidewalk on each side. The total width of the bridge would be 44' 6". The bridge would remain a two-lane bidirectional bridge. Along the bridge sidewalk, four viewing decks (two on each side) are proposed. Four proposed lampposts would provide lighting for pedestrians and vehicles across the proposed deck. Because the existing bridge is a culvert (i.e. the area beneath the bridge is a cemented tunnel), the bottom of the creek bank is currently concrete hardscape. The project would replace the bridge/culvert with a bridge that spans the creek bed. The concrete on the bed of the bank would be removed and the area would be restored, improving fish habitat.

Creek Channel Widening

As shown in Attachment A, the proposed Upstream of Highway 101 Project includes six locations within Palo Alto. At four of these locations (sites 1, 3, 4 and 5) the project includes channel widening to improve conveyance. In these locations the bank is either concretized or covered by sacked concrete installed in the 1960s. Widening the creek in these locations would require the removal of some vegetation, including trees, within the creek bank. After widening, the new creek banks will be stabilized using sheet pile or soil nail walls and armored at the base with rock slope protection and vegetation to prevent erosion at the base of the channel.

Retaining Wall

In the back of two Palo Alto private properties located at 87 Crescent Drive and 79 Crescent Drive, the project would add between 1 and 4 feet of creek bank elevation to 225 linear feet of creek bank (see site 2 in Attachment A). Along 125 feet of the bank, this would be accomplished by increasing the height of the existing sacked concrete wall. Along 100 feet of the bank this would be accomplished with a concrete retaining wall, which would replace an existing wooden retaining wall. This work will require temporary and permanent easements.

Requested Entitlements, Findings and Purview:

The following discretionary applications are being requested:

Architectural Review – Major (AR): The process for evaluating this type of application is set forth in PAMC 18.77.070. AR applications are reviewed by the ARB and recommendations are typically forwarded to the Planning & Community Environment Director for action within five business days of the Board's recommendation. Action by the Director is appealable to the City Council if filed within 14 days of the decision. Because the proposed actions within the City of Palo Alto rely on an EIR for which overriding considerations were adopted, the proposed application will be forwarded to Council for a decision. If the Council approves the application, it must also adopt overriding considerations for the project. AR projects are evaluated against specific findings. All findings must be made in the affirmative to approve the project. Failure to make any one finding requires project redesign or denial. The findings to approve an AR application are provided in Attachment B.

Analysis¹

The proposed project is located in an area characterized by low density residential both within the City of Palo Alto, south of San Francisquito Creek, and Menlo Park, north of San Francisquito Creek. Within Palo Alto's jurisdiction, the bridge approach is located within Timothy Hopkins Creekside Park.

Consistency with the Comprehensive Plan, Area Plans and Guidelines²

The Comprehensive Plan includes Goals, Policies, and Programs that guide the physical form of the City. There are six identified work locations within the City of Palo Alto. These include the Pope-Chaucer bridge replacement, four channel widening sites, and one location where modifications are proposed at the top of the creek bank.

The Comprehensive Plan land use designation for the Pope Chaucer Bridge approach is Parks (P), within Timothy Hopkins Creekside Park. The Parks land use designation applies to open lands whose primary purpose is public access for active recreation and whose character is essentially urban. The replacement bridge at Pope-Chaucer would not affect the continued use of Timothy Hopkins Creekside Park, which runs along the creek from Emerson to Marlowe streets. The existing park improvement ordinance provides exceptions and reservations for bridge abutments and associated modifications, as discussed further below.

Within the five proposed locations for creek widening and retaining wall/sacked concrete wall work, the land use designation within the creek is Streamside Open Space and the areas above the top of bank are designated as single family residential. The Streamside Open Space land use

¹ The information provided in this section is based on analysis prepared by the report author prior to the public hearing. The Architectural Review Board in its review of the administrative record and based on public testimony may reach a different conclusion from that presented in this report and may choose to make alternative findings. A change to the findings may result in a final action that is different from the staff recommended action in this report.

² The Palo Alto Comprehensive Plan is available online: <u>http://www.cityofpaloalto.org/gov/topics/projects/landuse/compplan.asp</u>

designation is "intended to preserve and enhance corridors of riparian vegetation along streams. Hiking, biking, and riding trails may be developed in the streamside open space. The corridor will generally vary in width up to 200 feet on either side of the center line of the creek." The single-family residential land use designation applies to residential neighborhoods primarily characterized by detached single-family homes, typically with one dwelling unit on each lot.

The project also includes minor modifications within the public street right-of-way adjacent the bridge within the Cities of Palo Alto (south side) and Menlo Park (north side). These include sidewalk resurfacing and replanting within the street planter strips and the addition of a stop sign at the intersection of Chaucer and Palo Alto Avenue in Palo Alto. The modifications would not permanently impact street parking. To the extent that these are within the public street right-of-way they are not subject to zoning and land use restrictions for any specific zone district or land use designation. However, the proposed modifications meet the intent and objectives of the code and are consistent with the Comprehensive Plan, the Bicycle and Pedestrian Transportation Plan, and other City policies.

A detailed review of the project's consistency with goals and policies outlined in the Comprehensive will be provided as part of the formal review. The project is generally consistent with, and implements, goals and policies outlined in the land use element, natural element and the hazards element.

Zoning Compliance³

The Pope Chaucer Bridge and its approach are located within land zoned Public Facilities (PF). The PF zone district is designed to accommodate governmental, public utility, educational, and community service or recreational facilities. Permitted uses within the zone district include public facilities owned or leased by the City or other governmental agencies. The replacement of a publicly owned and maintained bridge is consistent with this zoning. Though the development standards outlined in this zone district are geared toward building development rather than construction of a bridge within public right-of-way, the Pope Chaucer Bridge would be consistent with the intent of the zoning standards.

The proposed creek channel widening does not include the construction of new above grade structures that would have the potential to conflict with zoning regulations. The project would require removal of some vegetation within the creek bank to widen the channel; however all creek widening work within the City of Palo Alto would occur within locations where the creek bank is already hardscaped. The creek bank would be reinforced with soil nail walls or sheet piles. At the base, boulders would be placed to provide rock slope protection and vegetation would be installed to anchor the rock slope protection. This would prevent scouring at the base of the creek channel.

³ The Palo Alto Zoning Code is available online: <u>http://www.amlegal.com/codes/client/palo-alto_ca</u>

As noted above, infrastructure work located within the public right-of-way would not be subject to the restrictions of a specific zoning designation. Adjacent residences within the City of Palo Alto are zoned single family residential (R-1[10,000]) and adjacent residences within the City of Menlo Park are also single family residential. All work associated with the bridge would be within public ROW and is consistent with the intent and regulations of work within the public facilities zone district and single-family residential zone district. Where vegetation is planned for removal along the public ROW, the vegetation would be replaced as shown in the proposed landscaping plan in the project plans Attachment D.

Trees

Some trees are located within public right-of-way and are therefore considered protected street trees. No heritage trees would be removed, and no protected oaks or redwoods would be removed within the City of Palo Alto. The SFCJPA and Valley Water are responding to comments from Planning and Urban Forestry staff. The task is to calculate the total canopy loss for all trees (including street trees and trees within the creek bank) to be removed for channel widening or bridge construction. The final plans will identify the locations for replacement planting to ensure that sufficient canopy is proposed to prevent a net loss of canopy. This may require the inclusion of additional planting locations, beyond what is identified in the current plan sets.

Lighting

The proposed lighting is designed to accommodate sufficient lighting for all modes of transportation across the bridge. The lighting will be shielded on the Creekside to ensure that light does not spill over to the creek below, which could impact fish within the creek. The lights on the north side (Menlo Park) would be serviced by PG&E. The lights on the south side (Palo Alto) would be serviced by the City of Palo Alto.

Public Park

Council established Timothy Hopkins Creekside Park on June 7, 1971, adopting Ordinance 2603⁴. As noted in the ordinance, the ordinance excepts and reserves "the right to use and occupy as much of the land demised as may be necessary for abutments, roadways and approaches for bridges across said creek from any and all portions of said street or avenue known as Palo Alto Avenue." Therefore, the project does not conflict with the existing Park Improvement Ordinance (PIO) and does not require approval of an amendment to the existing PIO.

Multi-Modal Access & Parking

The project would continue to provide safe access over the creek for vehicles, pedestrians, and cyclists. The new bridge would include a sidewalk on each side and four viewing decks for people walking along the bridge. Because there are no bicycle lanes on the streets on either

⁴ Ordinance 2603 establishing Timothy Hopkins Creekside Park can be found at the following webpage: <u>https://www.cityofpaloalto.org/civicax/filebank/blobdload.aspx?t=65475.32&BlobID=70260</u>

side of the bridge, separate bicycle lanes are not currently proposed. However, the curb to curb paved width could accommodate Class II bicycle lanes on either side of the bridge in the future. These would be striped and signed if bicycle lanes or sharrows are added, either within Palo Alto or Menlo Park, on adjacent roadways in the future.

The City's Bicycle + Pedestrian Transportation Plan (BPTP) includes policies such as Policy T-5, which indicates that when modifying roadways, the City should plan for usage of the roadway space by all users, including motor vehicles, bicyclists, and pedestrians. It is also consistent with general goals to encourage alternate modes of transportation and Objective 4 of the BPTP to "plan, construct, and maintain complete streets that are safe and accessible to all modes and people of all ages and disabilities." The project is not located on a Safe Routes to School path.

The project also proposes installation of a new stop sign at the southeast corner of the intersection at Palo Alto Avenue and Chaucer Street. The proposed bridge is raised in comparison to the surrounding streets to provide sufficient creek flow beneath the bridge. The proposed stop sign is a safety feature intended to slow traffic approaching the bridge to accommodate the proposed grade difference.

The plans do not clearly show whether the project will impact street parking. Staff has requested clarification from the SFCJPA as to whether any street parking would be temporarily or permanently impacted.

Environmental Review

The subject project has been assessed in accordance with the authority and criteria contained in the California Environmental Quality Act (CEQA), the State CEQA Guidelines, and the environmental regulations of the City. Specifically, the SFCJPA Board, acting as the lead agency, circulated a Draft EIR in accordance with CEQA for the Upstream of Highway 101 Project from April 22, 2019 through June 19, 2019 (SCH #2013062019). In September 2019, the SFCJPA Board published a Final EIR for the proposed project, which it certified on September 26, 2019. A responsible agency is a public agency, other than the lead agency, which has a responsibility for carrying out or approving a project. The City of Palo Alto is a responsible agency for the proposed project because it must issue permits and approvals for the project work proposed within its jurisdiction.

As a recommending body, the City of Palo Alto's Architectural Review Board must consider the environmental analysis that the SFCJPA Board previously certified for the Upstream of Highway 101 Project, and determine whether the analysis is adequate to support its recommendation on the proposed work within the City of Palo Alto.

The conclusions for each resource area are provided in each resource section within Chapter 3 of the EIR. The EIR concluded that most impacts would either be less than significant or less than significant with the implementation of mitigation measures. In particular, the Final EIR analyzed traffic impacts associated with project construction and operation. The analysis

concludes that project construction would result in traffic impacts during construction. However, with incorporation of mitigation, traffic impacts would be less than significant. The project would not result in permanent impacts on traffic. The mitigation measures include:

- (1) a temporary traffic signal at Middlefield Road/Woodland Avenue-Palo Alto Avenue for the duration of the Pope-Chaucer Bridge closure, and
- (2) preparation of a site-specific traffic control plan, which would require the City of Palo Alto's review and approval.

Impacts and identified mitigation measures for other resource areas are summarized in Table 1 of the EIR within the Findings of Fact and Statement of Overriding Considerations on page v of the Final EIR—September 2019 Volume 1.

However, the EIR concluded that impacts associated with temporary increase in noise levels during construction as well as elevated air pollution concentrations were found to be significant and unavoidable. Therefore, in order to approve the proposed project work within the City of Palo Alto, City Council will be requested to make findings of overriding considerations for these significant impacts.

Staff notes that a resident in Menlo Park has initiated a suit against the SFCJPA Board challenging the environmental analysis for the project. The SFCJPA is pursuing settlement discussions with the petitioner. This legal challenge does not preclude the ARB or Council from making a determination with respect to a recommendation or a decision on the project.

Public Notification, Outreach & Comments

The Palo Alto Municipal Code requires notice of this public hearing be published in a local paper and mailed to owners and occupants of property within 600 feet of the creek bank from Highway 101 to Pope-Chaucer Bridge at least ten days in advance of this hearing. Notice of a public hearing for this project was published in the *Daily Post* on December 4, 2020, which is 13 days in advance of the meeting. Postcard mailing occurred on December 3, 2020, which is 14 days in advance of the meeting.

Public Comments

As of the writing of this report, staff had been contacted by one Palo Alto resident and one Menlo Park resident with questions regarding the proposed project. One resident wanted to understand the location of the project work in relation to her property, but otherwise did not have comments regarding the proposed project. One resident lives within the City of Menlo Park at the corner of the bridge and Woodland Avenue. The resident called staff to discuss the possibility of eliminating the left turn from Palo Alto Avenue onto Pope Chaucer Bridge. The change would presumably reduce traffic on Woodland Avenue in Menlo Park, which some drivers use as an alternate access route to the University Avenue/101 interchange. This proposal and its possible effects on other crossings have not been evaluated in the traffic analysis because they have not been proposed by the applicant. The proposed project, as currently designed, is not anticipated to impact traffic patterns on the bridge or adjacent

Page 9

roadways during operation. This proposal would change an existing condition at the site. If staff is directed to pursue this request, further analysis of the traffic impacts on other intersections and roadways within the City of Palo Alto would likely be necessary to determine the impacts of the change on intersections and road segments within Palo Alto.

SFCJPA in coordination with partnering agencies have held numerous public meetings and hearings on the Upstream of Highway 101 Project. These include four public scooping meetings in early 2017, three public workshops later in 2017 to obtain further public input, and three public meetings during the DEIR circulation period. In addition, as required in accordance with CEQA, Appendix F of the final EIR (included in the link in Attachment D) includes all comment letters received on the draft EIR and provides the SFCJPA's detailed responses to each of those comments.

Attachments:

- Attachment A: Location Map (PDF)
- Attachment B: Architectural Review Findings (DOTX)
- Attachment C: Applicant's Project Description (PDF)
- Attachment D: Project Plans and Environmental Analysis (DOCX)

San Francisquito Creek Joint Powers Authority









Figure 1. Location of Upstream Project Elements

Program Description

ATTACHMENT B ARB FINDINGS FOR APPROVAL 1700 & 1730 Embarcadero Road 18PLN-00186

In order for the ARB to make a future recommendation of approval, the project must comply with the following Findings for Architectural Review as required in Chapter 18.76.020 of the PAMC.

<u>Finding #1:</u> The design is consistent with applicable provisions of the Palo Alto Comprehensive Plan, Zoning Code, coordinated area plans (including compatibility requirements), and any relevant design guides.

Finding #2: The project has a unified and coherent design, that:

- a. creates an internal sense of order and desirable environment for occupants, visitors, and the general community,
- preserves, respects and integrates existing natural features that contribute positively to the site and the historic character including historic resources of the area when relevant,
- c. is consistent with the context-based design criteria of the applicable zone district,
- d. provides harmonious transitions in scale, mass and character to adjacent land uses and land use designations,
- e. enhances living conditions on the site (if it includes residential uses) and in adjacent residential areas.

<u>Finding #3</u>: The design is of high aesthetic quality, using high quality, integrated materials and appropriate construction techniques, and incorporating textures, colors, and other details that are compatible with and enhance the surrounding area.

<u>Finding #4</u>: The design is functional, allowing for ease and safety of pedestrian and bicycle traffic and providing for elements that support the building's necessary operations (e.g. convenient vehicle access to property and utilities, appropriate arrangement and amount of open space and integrated signage, if applicable, etc.).

<u>Finding #5</u>: The landscape design complements and enhances the building design and its surroundings, is appropriate to the site's functions, and utilizes to the extent practical, regional indigenous drought resistant plant material capable of providing desirable habitat that can be appropriately maintained.

<u>Finding #6</u>: The project incorporates design principles that achieve sustainability in areas related to energy efficiency, water conservation, building materials, landscaping, and site planning.

CONTEXT-BASED DESIGN CRITERIA 1700 & 1730 Embarcadero Road 18PLN-00186

Pursuant to PAMC 18.16.090(b), the following context-based design considerations and findings are applicable to this project. These context-based design criteria are intended to provide additional standards to be used in the design and evaluation of development in a commercial district. The purpose is to encourage development in a commercial district to be responsible to its context and compatibility with adjacent development as well as to promote the establishment of pedestrian oriented design.

1. Pedestrian and Bicycle Environment

The design of new projects shall promote pedestrian walkability, a bicycle friendly environment, and connectivity through design elements

2. Street Building Facades

Street facades shall be designed to provide a strong relationship with the sidewalk and the street (s), to create an environment that supports and encourages pedestrian activity through design elements

3. Massing and Setbacks

Buildings shall be designed to minimize massing and conform to proper setbacks

4. Low Density Residential Transitions

Where new projects are built abutting existing lower scale residential development, care shall be taken to respect the scale and privacy of neighboring properties

5. Project Open Space

Private and public open space shall be provided so that it is usable for the residents and visitors of the site

6. Parking Design

Parking shall be accommodated but shall not be allowed to overwhelm the character of the project or detract from the pedestrian environment

7. Large Multi-Acre Sites

Large sites (over one acre) shall be designed so that street, block, and building patterns are consistent with those of the surrounding neighborhood

8. Sustainability and Green Building Design

Project design and materials to achieve sustainability and green building design should be incorporated into the project

DEE FINDINGS 1700 & 1730 Embarcadero Road 18PLN-00186

In order for the ARB to make a future recommendation of approval for a design enhancement exception, the project must comply with the following Findings for a Design Enhancement Exception as required in Chapter 18.76.050 of the PAMC.

<u>Finding #1:</u> There are exceptional or extraordinary circumstances or conditions applicable to the property or site improvements involved that do not apply generally to property in the same zone district;

<u>Finding #2:</u> The granting of the application will enhance the appearance of the site or structure, or improve the neighborhood character of the project and preserve an existing or proposed architectural style, in a manner which would not otherwise be accomplished through strict application of the minimum requirements of this title (Zoning) and the architectural review findings set forth in Section <u>18.76.020(d)</u>; and

<u>Finding #3:</u> The exception is related to a minor architectural feature or site improvement that will not be detrimental or injurious to property or improvements in the vicinity and will not be detrimental to the public health, safety, general welfare or convenience.



PROJECT DESCRIPTION

San Francisquito Creek Flood Reduction, Ecosystem Restoration and Recreation Project Upstream of Highway 101

> Prepared for: City of Palo Alto City of Menlo Park City of East Palo Alto

This project description summarizes the San Francisquito Creek Joint Powers Authority's Reach 2 Upstream Project proposal, and follows the format required for Palo Alto Architectural Review Board (ARB) outlined below: ______Scope of work ______Scope of work ______Existing and proposed uses ______Explanation of the design concept ______Relationship to existing conditions on site ______Materials, colors, and construction methods to be used Discussions with Menlo Park and East Palo Alto staff confirmed that this format is acceptable for their review.

BACKGROUND

The San Francisquito Creek Joint Powers Authority (SFCJPA) is a regional governmental agency created in 1999 after the 1998 flood-of-record that resulted in the inundation of approximately 1,700 properties and more than \$28 million in estimated damages. The SFCJPA is comprised of and funded by the Cities of Palo Alto, East Palo Alto and Menlo Park, Santa Clara Valley Water District and the San Mateo County Flood and Sea Level Rise Resiliency District.

San Francisquito Creek has been divided into three reaches: Reach 1 - from San Francisco Bay to Highway 101, Reach 2 - from Highway 101 to the Pope Chaucer Bridge, and Reach 3 - the upper San Francisquito Creek watershed.

The SFCJPA completed construction of a multi-benefit project in the creek in Reach 1 in 2019 and is now focused on this project in Reach 2.

The objectives of the San Francisquito Creek Flood Reduction, Ecosystem Restoration and Recreation Project, Upstream of Highway 101 Project (Upstream Project) within Reach 2 are:

- Protect life, property, and infrastructure from floodwaters exiting the creek during flows up to 7,500 cubic feet per second (cfs), while minimizing impacts of the project on adjacent communities and the environment,
- Enhance habitat within the project area, particularly interconnected habitat for threatened and endangered species,
- Create new recreational opportunities and connect to existing bike and pedestrian corridors,
- Minimize operational and maintenance requirements; and
- Not preclude future actions to bring cumulative flood protection up to a 100-year flow event.



SCOPE OF WORK

The Reach 2 Upstream Project is located along the creek from Highway 101 to just upstream of the Pope Chaucer Bridge. Components will be constructed in Palo Alto, Menlo Park and East Palo Alto, since the San Francisquito Creek is the boundary between these cities, as well as the boundary of Santa Clara and San Mateo Counties.

The Reach 2 Upstream Project scope and locations are summarized below, and shown in Figure 1:

- 1. Replace the Pope-Chaucer bridge, which is jointly owned and maintained by the Cities of Menlo Park and Palo Alto.
- 2. Widen the creek channel at four locations on the Palo Alto side of San Francisquito Creek where the bank is covered by sacked concrete that was installed in the 1960's. After widening, the new creek banks will be stabilized using sheet pile or soil nail walls and armored at the base with rock to prevent scour.
- In the back of two Palo Alto properties, add between 1 and 4 feet of creek bank elevation to 225 linear feet of creek bank through sacked concrete atop the existing sacked concrete wall (125 feet) and through a concrete retaining wall that largely replaces an existing wooden retaining wall (100 feet);
- 4. Remove a concrete structure on the East Palo Alto side of the creek and replace it with a more natural creek bank with native habitat area and a small creek-side park.
- 5. Replace a temporary wooden parapet extension of the University Avenue bridge that runs along Woodland Avenue in East Palo Alto with a permanent structure composed of reinforced concrete.

Items 1-3 above are located fully or partially in the Palo Alto city limits. Item 1 is partially located in Menlo Park. Items 4 and 5 are in East Palo Alto.

The Upstream Project will provide protection from a flood event similar to the 1998 event, which is considered a 70-year flood. This is the largest recorded flood since the US Geological Survey began measurements in the 1930's.

The Upstream Project will not protect the area around the San Francisquito Creek from a 100-year flood event (which has a 1% chance of happening in any given year). A project protecting people and infrastructure to this level was proposed in 2013 and rejected by residents. The SFCJPA included alternatives that could supplement this project to increase protection to the 100-year level, including upstream detention, on a programmatic level it its <u>Final Environmental Impact Report</u> (EIR). Future 100-year flood protection is envisioned as an additive project in the future. Just as this project cannot provide 100-year protection by itself, the topography of the upper watershed does not allow for upstream detention at the scale needed to provide 100-year protection on its own. Only a combination of the current project's channel conveyance improvements, coupled with upstream detention or other similar flow reduction features can achieve 100-year protection for San Francisquito Creek.

The Upstream Project benefited from an independently facilitated stakeholder and community engagement process in 2018- 2019 that included six public meetings, two workshops, and a site tour.

We also partnered with the Army Corps of Engineers (ACOE) for the Upstream Project and held joint public meetings for their parallel feasibility study and environmental impact statement. The ACOE's

San Francisquito Creek Joint Powers Authority









Figure 1. Location of Upstream Project Elements

Program Description



Tentatively Selected Plan in October 2018 was the same alternative selected by the CEQA process in the Upstream Project's EIR. This independent evaluation by the ACOE corroborated the selection of the Upstream Project alternative, which is supported by most of the community. The SFCJPA Board unanimously certified the EIR on September 26, 2019.

A resident adjacent to the Pope Chaucer Bridge has initiated a suit against the project under the California Environmental Quality Act (CEQA); the SFCJPA is pursuing settlement discussions with the petitioner. The suit did not affect the June 2020 award of \$2,964,479 for project construction from the California Department of Water Resources.

Preliminary design has been completed for each of the project elements.

EXISTING AND PROPOSED USES

The project will not change existing zoning or land use. Existing zoning in Palo Alto consists of residential in the areas of creek widening, and public facility for the Pope-Chaucer Bridge. Existing zoning in Menlo Park is residential. Existing zoning in East Palo Alto is residential and adjoining commercial.

DESIGN CONCEPT EXPLANATION

The design concept for each of the five project elements is described below:

1. Pope-Chaucer Bridge Replacement

The existing Pope-Chaucer bridge is a large concrete culvert built in the 1940's, with a maximum flow capacity of approximately 5,800 cubic feet per second (cfs). Sediment is accumulating on the concrete culvert bottom, and the culvert is a target for graffiti, as well as homeless living inside.

The new bridge will have a flow capacity of approximately 7,500 cfs. The design concept for the new Pope-Chaucer bridge is an environmentally friendly design with a natural creek bed that will be as open as possible given the existing homes in the area that formed significant constraints on the bridge design. The SFCJPA listened to residents for a bridge design that passes the required flow, while minimizing the impacts to local roads / intersections / and resident's front yards. Therefore, while there will be short term effects during construction, creek flooding has been addressed without requiring changes at local residences or the adjoining intersections at Pope and Chaucer Streets.

The regulatory community would have preferred a single span bridge; however, this would have resulted in a much larger construction footprint and would be more invasive for the nearby residences. A single span bridge would have required a thicker structure depth, meaning it would have also needed to be raised higher to not impede any creek flows; additionally, this higher profile bridge would have required raising nearby roadways and intersections to match the single span bridge elevation. Therefore, the designer selected a three-span bridge, supported by two piers alongside features that support fish migration (fishpools, rootwad structures, etc.). The three span bridge results in a much thinner structure, allowing a lower roadway profile, that reduces changes to the adjacent intersections.

The new Pope Chaucer Bridge does not require raising existing streets or adding retaining walls. The intersections on both the Palo Alto and Menlo Park sides will be matched to the existing elevation. In addition, roadway width on the bridge will match the Pope and Chaucer Street widths, to not create a choke point and increase risks to motorists, bicyclists, and pedestrians. Both sides of the bridge will have



sidewalks with two outlooks and two streetlamps. Traffic calming measures are integrated into the bridge design, including 4-way stop and no dedicated right turn lane.

In 1991, the right turn lane on the Pope-Chaucer bridge onto Woodland Avenue was removed by covering the concrete culvert in this area with soil and planting trees. This triangle park-like feature with the planted trees will be lost when the new bridge is constructed. The City of Menlo Park is evaluating how to move and replant some of these trees, since their roots may be confined above the concrete culvert.

A goal of this project is to minimize tree removals, and we have worked with arborists to assess trees within the project footprint to help the SFCJPA determine how the actual footprint may be modified to be made smaller to preserve the maximum number of healthiest and largest trees. For example, there is a large Eucalyptus tree near the construction access ramp for bridge replacement, and we are committed to adjusting the access ramp within the project footprint to better protect that tree.

The bridge design incorporated the residents' desire not to have a right turn lane, because having one encourages speeding and cut-through traffic to bypass University Avenue. Additionally, to reduce speeds in the neighborhood and deter cut-through traffic, a stop sign will be added to Chaucer Street at Palo Alto Avenue, to make both intersections on either end of the new bridge a four-way stop.

The replacement of the existing Pope-Chaucer bridge will require roadway closure for approximately nine months; traffic on Woodland Avenue and Palo Alto Avenue will be temporarily restricted as one-way at times during the day, and traffic will not be able to cross over the creek in this area during construction.

Construction within the creek will need to follow a limited work window to protect fish, typically June 15-October 15. Approximately 1,000 cubic yards (CY) of material will be removed below the ordinary highwater mark, and approximately 5,000 CY will be removed between the ordinary high-water mark and the top of the bank. Streambed vegetation from about 200 feet downstream of the bridge to 700 feet upstream will be removed as needed to accommodate construction equipment. The creek streambed, banks, and slopes will be restored and revegetated upon completion of the bridge construction.

2. Creek Channel Widening

San Francisquito Creek must be widened at specific locations where additional hydraulic capacity is needed. As shown on Figure 1, the widening sites in Palo Alto are Sites 1, 3, 4 and 5. Site 2 will be widened in East Palo Alto.

We chose to widen mainly on the Palo Alto side of the creek because at the locations that need widening, the Palo Alto side of San Francisquito Creek is already armored with concrete. Therefore, excavation and engineering work on these banks will not change the already armored character of that portion of the creek. The East Palo Alto side of the creek is largely natural. The exception is Site 2, in East Palo Alto, where there is a large concrete terrace structure that we will remove and restore to a more natural creek bank and create a small creek-side park. We have been in discussions with the Palo Alto homeowners, and to date, no one has objected to the planned changes. We had an arborist evaluate the trees in the Palo Alto back yards and how best to protect them (This report is provided in Appendix B of the EIR). However, if the SFCJPA is not able obtain the needed easements to widen on the Palo Alto side of the creek, we will widen the creek on the East Palo Alto side, since the necessary easements are available from the City. If this alternative becomes necessary it will require additional mitigation, as it will result in the removal of riparian habitat.



Of the four widening sites on the Palo Alto side of the creek, we plan to widen at Site 5 first, but the contractor will establish the actual schedule. The rationale for widening this site first is twofold: it links the Downstream and Caltrans widening to the Reach 2 Upstream project, and it has the most difficult access considerations compared to the other sites. This area is just upstream of the West Bayshore Road (frontage road) bridge and forms a "C" shaped creek constriction that was man-made in the early 1900's.

Caltrans constructed the new larger capacity multi-span bridge at this location in 2017, but one of the four spans is currently blocked off until the creek can be widened. A new floodwall will be constructed at this location to widen the creek to the full width of the new bridge, approximately 30 feet wider than existing conditions. The existing floodwall, footing, and sacked concrete slope protection will be removed, and the underlying bank soils excavated to the designed channel width and geometry. The new floodwall will be constructed along the top of bank from the frontage road extending approximately 350 feet upstream to meet the existing floodwall and sacked concrete bank. The current capacity in this area is greater than 8,000 cfs, and the post-project capacity in this location will be 9,400 cfs.

Upstream of this site, on the Palo Alto bank at Sites 1, 3 and 4 (see Figure 1), the concrete banks will be cut back and braced with a reinforced concrete soil nail wall or sheet pile wall to widen the constriction points in the creek. The replacement of sacked concrete with concrete soil nail walls or sheet pile walls will occur in three locations: two between the Newell Road bridge and the University Avenue bridge (Site 3 and 4), and one upstream of the University Avenue bridge (Site 1). The creek reach with the lowest capacity and in need of widening is Site 1. This section of creek overtopped in 1955, 1983, 1998, 2004 and 2012, causing road closures and property damage in East Palo Alto.

The widened channel bottom at all sites will consist of native soils and will be seeded with a mix of appropriate native low marsh riparian plants species, resulting in improved habitat for special status species. The widened creek channel and new habitat features will be regularly inspected and maintained.

3. Top of Bank Improvements

Behind two Palo Alto properties, just upstream of University Avenue, the existing concrete top of bank will be elevated between 1 to 4 feet utilizing additional concrete, for a combined length of 225 feet along the top of bank.

4. Concrete Terrace Removal and Riparian Restoration

At Site 2 (Figure 1) in East Palo Alto, a 273-foot-long concrete terrace forms an in-channel structure and wall that will be removed. In its place, the bank will be regraded to a stable slope and planted to restore riparian habitat, with a small creek-side park established between the top of bank and Woodland Avenue. With the removal of the large concrete terrace structure, regrading of the slope at its location, and installation of native vegetation to prevent erosion of slope, the stream function, habitat and channel capacity would be improved. The City of East Palo Alto and the landowner support the project and have contributed funding or other resources towards project planning.

5. Replacement of Temporary Wooden Parapet

In 2015, the City of East Palo Alto constructed a temporary a one- to three-foot tall wooden wall directly upstream of University Avenue along Woodland Avenue due to overtopping of the East Palo Alto banks at this location. This was constructed as temporary solution in anticipation of an El Nino flooding, and in 2017 successfully kept floodwaters inside the creek. However, the temporary wooden structure cannot be certified by FEMA, and requires replacement.



The Upstream project will replace this temporary wooden wall with a reinforced concrete wall, and it will tie into the existing University Avenue bridge parapet. This new parapet extension will be of similar length and height as the top of the existing wood wall. A visual of the current conditions is provided in Figure 2.



Figure 2. Temporary Wooden Wall, University and Woodland Avenues, East Palo Alto

RELATIONSHIP TO EXISTING CONDITIONS ON SITE

The new Pope-Chaucer bridge was designed to have minimal impacts to the surrounding area. The existing adjacent road grades will not be significantly altered, with the new bridge in the same approximate footprint, but arched higher than the current bridge. This arched design removes the need for floodwalls to pass target flows. The creek widening areas already have concrete armoring, which will be replaced with either a concrete soil nail wall or a sheet pile wall as such the changes will not significantly alter the character of the creek. The creek widening areas will include habitat features along the toe of bank, to improve stream function and fish passage. It should be noted that the creek widening areas are not readily visible to the general public- one would need to be in the creek bed in order to see them.

The project has been carefully designed to retain the natural features of San Francisquito Creek and enhance the riparian corridor. Creek habitat in the area will be improved though the removal of creation of low-velocity refuge habitat for migrating steelhead, pools and habitat structures to be added to the channel at some of the creek widening sites as well as the Pope-Chaucer bridge site. Riparian habitat will be improved via appropriate bank planting and invasive species removal.

Property rights have been acquired for the construction of the floodwall at Site 5 at Bayshore road, as well as a five-foot wide maintenance trail. The new maintenance trail will follow the wall and align with the existing five-foot trail approximately 100-feet upstream from West Bayshore Road. For the other sites, underground easements and Temporary Construction Easements are being discussed with property owners.

This project is not yet fully funded, and we are actively looking for additional funding so construction can commence as planned in 2021 or 2022.



MATERIALS, COLORS, AND CONSTRUCTION METHODS TO BE USED

The Pope-Chaucer bridge, including the foundations, piers, abutments, and wingwalls will be formed with reinforced concrete. The bridge piles will consist of steel pipe piles that would be spun into the ground instead of hammer-driven to minimize noise and vibrations that will disturb nearby residents during construction. Concrete for the various bridge components will be poured directly into watertight forms to minimize the potential for concrete entering the channel. Once the concrete is cured, the falsework and forms will be removed. The intersections on both ends of the bridge will be resurfaced to conform with the new bridge elevation. All construction materials and equipment will be removed from the creek at the end of the project, and the creek will be restored to its final condition as noted in the contract documents and in compliance with permit requirements.

The current bridge design has four curved outlooks for pedestrians to view the creek, two on the upstream side and two on the downstream side. Adjacent to each outlook, there will be a total of four lamp lights installed, with low lumens bulbs to provide nighttime visibility and ambiance without impacting nearby residents. Lamps will be installed to illuminate the bridge deck and minimize light pollution to nearby residences or the stream surface.



Bridge renderings 1 to 2 years after construction are provided in Figures 3 and 4.

Figure 3 Pope Chaucer Bridge Rendering Aerial View one to two years after construction.





Figure 4 Pope Chaucer Bridge Rendering one to two years after construction

At creek widening locations with sheet pile walls, the sheet piles will be installed in the same manner as our project from San Francisco Bay to Highway 101 that was completed in June 2019. Installation of the sheet piles will be achieved with as little impact to neighboring residents as possible. Where feasible, silent piling techniques will be used to press in the sheets in lieu of vibratory or hammer driven sheets, which create significantly more noise and vibrations. The steel sheet piles will be sized appropriately to account for a sacrificial corrosion layer beyond the required thickness to ensure structural stability; they are not currently planned to be painted.



Figure 5 Example of sheet pile installed downstream

2.c



Sheet piles must be used for the replacement floodwall upstream of the West Bayshore Road bridge (Site 5 on Figure 1) due to the limited access at West Bayshore Road and to minimize soil disturbance.

For the widening areas # 1, 3 and 4 shown on Figure 1, sheet piles or reinforced concrete soil nail walls could be used depending on design, constructability, and various site-specific issues such as impacts to existing trees. If reinforced concrete soil nail walls are installed, architectural treatment could be considered to enhance the appearance of the concrete face. The design team is in the process of finalizing the wall type. A minimal amount of scour protection consisting of appropriately sized rock that mimics natural streambed material will be placed at the toe of the walls.

The University Avenue bridge parapet extension along Woodland Avenue as well as the retaining wall across the creek on the Palo Alto bank will be made of reinforced concrete.

Landscaping after the project is complete will consist of appropriate native plantings as well as invasive species removal. Bioretention basins will be planted in the area by Pope Chaucer Bridge. These will retain and treat stormwater flows per the two-year design criteria. An example bioretention basin installed by the City of Palo Alto is provided below in Figure 6.



Figure 6. Bioretention Basin Example, Southgate Neighborhood, Palo Alto



REFERENCES

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Attachment D

Project Plans and CEQA Document

During Shelter-in-Place, project plans and CEQA documents are only available online.

Directions to review Project plans and Environmental Impact Report online:

- 1. Go to: bit.ly/PApendingprojects
- 2. Scroll down to find "San Francisquito Creek Project" and click the address link
- 3. On this project specific webpage you will find a link to the project plans, Environmental Impact Report and other important information

Direct Link to Project Webpage:

https://www.cityofpaloalto.org/news/displaynews.asp?NewsID=4997&TargetID=319