



STAFF REPORT

City Council

Meeting Date:

4/22/2019

Staff Report Number:

19-001-CC-RS

Informational Item:

Update on the Middle Avenue pedestrian and bicycle rail crossing project

Recommendation

This is an informational item to the City Council Rail Subcommittee on the current status of the Middle Avenue pedestrian and bicycle rail crossing project. This item does not require action.

Policy Issues

The City Council has identified the Middle Avenue pedestrian and bicycle rail crossing project (project) as a high priority project in their 2019 work plan, approved on March 12. The project is also consistent with policies stated in the 2016 general plan circulation element, the El Camino Real and Downtown specific plan and is included in the City's capital improvement program (CIP.)

Background

City Council received an Informational Item at the April 9, regular meeting. In order to obtain feedback from the Rail Subcommittee (Subcommittee) on the project and current status, staff is bringing that staff report to the Subcommittee for discussion and to address any questions the subcommittee may have about the project.

Analysis

The City Council informational item staff report dated April 9, is included herein as Attachment A.

Public Notice

Public notification was achieved by posting the agenda, with the agenda items being listed, at least 72 hours prior to the meeting. Additionally, an email notification was sent to the Public Works Projects interest list to notify the public about this Informational Item.

Attachments

A. City Council informational item staff report, April 9

Report prepared by:

Angela R. Obeso, Senior Transportation Engineer

Morad Fakhrai, Senior Project Manager

Report reviewed by:

Staff Report #: 19-001-CC-RS

Nicole H. Nagaya, Assistant Public Works Director



STAFF REPORT

City Council

Meeting Date:

4/9/2019

Staff Report Number:

19-061-CC

Informational Item:

Update on the Middle Avenue pedestrian and bicycle rail crossing project

Recommendation

This is an informational item and does not require City Council action.

Policy Issues

The City Council has identified the Middle Avenue pedestrian and bicycle rail crossing project (project) as a high priority project in their 2019 work plan, approved March 12, 2019. The project is also consistent with policies stated in the 2016 general plan circulation element, the El Camino Real and downtown specific plan and is included in the City's capital improvement program (CIP.) These policies seek to maintain a safe, efficient, attractive, user-friendly circulation system that promotes a healthy, safe and active community and quality of life throughout Menlo Park.

Background

The City was awarded a grant from the San Mateo County Transportation Authority (SMCTA) Measure A pedestrian and bicycle program, in the amount of \$490,000 with a local match of \$210,000 for the project in 2016. Before this current phase of the project, the City conducted a railroad crossing location study. After considering numerous factors, including feedback from community meetings, proximity to desirable destinations, relative costs, projected usage by the community, convenience and accessibility, the Middle Avenue location was selected as the crossing location and was included as part of the El Camino Real and downtown specific plan. The project location is illustrated in Attachment A. The project is critical to provide a greater east-west connectivity, as the Caltrain railroad tracks are both a real and perceived barrier. This new crossing would improve connectivity for neighborhoods on both sides of the Caltrain tracks with public facilities and would improve walking, biking and access to public transit and downtown Menlo Park.

As identified in the El Camino Real and downtown specific plan, the project would be constructed adjacent to the Stanford University property along El Camino Real. Stanford University has an entitled project, identified as Middle Plaza, and has completed site demolition and started pre-construction work. Stanford has also agreed to make a contribution of half of the cost, up to \$5 million, toward the crossing.

On March 14, 2017, the City Council authorized the city manager to enter into an agreement with AECOM for services related to the project. The consultant's scope of work for this project phase consists of preparation of an existing conditions report; community engagement; evaluation of grade separation conceptual designs and selection of preferred alternative; environmental clearance and documentation; 30 percent design documents; and final project report. The community engagement process includes up to three public outreach meetings, one Complete Streets Commission meeting, one City Council meeting for selection of crossing alternative, three-dimensional graphic renderings and extensive communications with various affected stakeholders.

The project's first community meeting was held May 4, 2017. The presentation given at this meeting and a summary of this meeting is available on the project webpage, linked as Attachment B. The City Council received an informational update summarizing the community meeting May 23, 2017, with the key outcomes of the meeting including:

- Majority of the community members expressed support and preference for the undercrossing, with two attendees in support for an overcrossing.
- Many community members expressed concerns about access to and from the crossing, citing the lack of bicycle facilities along Middle Avenue between University Avenue and El Camino Real and existing conditions at the Middle Avenue and El Camino Real intersection which make it difficult for pedestrians and bicyclists to cross El Camino Real.
- Some community members expressed interest in changing the location from Middle Avenue to Cambridge Avenue, a location previously evaluated as part of the location study.

Analysis

Following the first community meeting, the project team began conceptual designs of crossing alternatives based on design constraints (right-of-way, utility and geotechnical conflicts, access requirements, etc.) and community feedback. Based on the community's overwhelming support for an undercrossing, the project team has moved forward with development and evaluation of undercrossing options only. Various undercrossing options have been evaluated and benefits and challenges are currently being assessed, as described further below. Several options considered are included in Attachments C, D and E, with the City staff's current recommended option shown in Attachment C. Concept 1 (Attachment C) has many benefits over other alternatives including a shorter tunnel length, shallower tunnel depth, more efficient and user friendly ramp alignments on both sides of the tunnel and lower construction cost estimate. Note that there are multiple elements still being reviewed by and coordinated with Caltrain. The project team has developed alternate concepts that incorporate these elements for future consideration, if needed.

Delivery of this project timed with the anticipated opening of Middle Plaza is critical, as completion of the undercrossing would improve east-west connectivity and completion concurrently with construction at Middle Plaza would aid in the staging, logistics and minimizing impacts of construction on existing residents and the planned residential buildings at Middle Plaza. The construction schedule for Middle Plaza currently anticipates project completion in approximately 2022, and City staff is working to deliver the undercrossing on a similar schedule.

However, a number of challenges to meet this timeframe exist, most notably ongoing coordination needs with Caltrain, which controls the railroad right-of-way and would need to issue permits and/or agreements for the City to advance construction on the undercrossing. City and Caltrain staff have been working together to identify, plan for and overcome a number of risks and challenges to advance delivery of the undercrossing as expeditiously as possible. Construction related to Caltrain's peninsula corridor electrification project is ongoing in this area. Construction and operation testing is expected to continue until revenue-service of the electrified system is expected to begin in 2022, with installation of the overhead poles and wires expected by the end of 2019.

City staff's current recommended option for the crossing requires an open cut-and-trench construction method that would require temporary removal of all existing railroad infrastructure and relocation of utilities at the crossing location. In this method, a trench is dug, undercrossing supports are placed, material to cover the trench is restored and train tracks are replaced. As an example, a time-lapse video of the construction of a pedestrian undercrossing in Santa Clara is linked as Attachment F. The project team is currently evaluating schedules and construction staging methods that could enable the tunnel to be built in

advance of the installation of the overhead electrification wiring. After the overhead wires are installed, construction is expected to be more difficult and possibly more impactful to Caltrain operations, as overhead wires likely need to be temporarily removed to install the undercrossing. An alternative construction method is to bore a tunnel below the tracks (Attachment D), while leaving the tracks and overhead wires in place, however this results in a much deeper undercrossing (approximately 17 feet deep versus 10 feet for open trench) which is not preferred due to longer ramps, a diminished pedestrian experience and lesser visibility into and through the crossing.

Other construction issues to be coordinated with Caltrain include minimizing the construction duration and impacts on service; maintaining operations of service during the trenching, using methods such as keeping one track operational during construction and building the trench in two phases or bussing Caltrain passengers (a “bus bridge”) between the Menlo Park and Palo Alto stations during the construction. Staff will continue to work with Caltrain to minimize impacts to the system while advancing and expediting construction as much as feasible.

Right-of-way needs

In addition to coordination with Caltrain on uses within their right-of-way, on the west side of the crossing, the project will require acquisition of a portion of the 700 El Camino Real property to the north (currently shopping center including Big 5 and BevMo.) There is a rectangular portion of the parcel that extends south between the Stanford owned property and the Caltrain property that must be utilized for the stairs and ramps into the crossing tunnel. Currently this portion of the property is an underutilized parking lot. The yellow shaded areas in Attachments C, D and E illustrate the portion of this property necessary for each concept.

In order to reduce impacts to the existing property and cost of the project, staff is developing options that will minimize the additional property needed for the project.

Staff has had preliminary discussions with the affected property owner about the project. As part of the process of acquiring the needed portion of this property, staff will return to City Council to seek approval to negotiate by summer 2019.

Tree impacts

In order to construct the project, existing heritage trees and vegetation on both sides of the crossing location will need to be removed. Staff is currently preparing an inventory and detailed evaluation of the tree removals and replacement requirements, and a plan for engagement specific to tree impacts. There are opportunities for restoring landscaping and trees within the proposed ramp and stair areas on both sides of the tunnel, on which staff anticipates seeking community input as part of future engagement efforts.

Coordination with adjacent railroad project

Staff has been coordinating the Middle Avenue crossing project with the Ravenswood Avenue railroad crossing study, also being performed by the same consultant team. Considerations to coordinate the two projects include determining appropriate pedestrian and bicycle crossing depth to accommodate projected rail elevations for the Ravenswood Avenue railroad crossing study options and construction staging impacts including temporary railroad track location to keep the Middle Avenue crossing open during grade separation construction.

Next steps

It should be noted that in order to expedite the project with a two-phased method, the typical project delivery framework and engagement process would need to be modified. As shown below, a number of critical milestones exist to meet this extremely expedited timeline, and staff is tracking a number of areas of

potential risks that may result in reverting to a single-phase construction process. If milestones between April and July are not met, the ability to deliver the project in two phases is diminished; therefore, there may be a need for additional special City Council meetings to deliver this aggressive schedule.

The location of the crossing would need to be identified and confirmed as soon as possible, while specific options for ramp designs, alignment and landscaping would follow in a second phase. Further, the typical engineering design, contract award and construction process would be replaced with a design-build contract award, which could expedite project delivery. The community engagement approach would need to be tailored in phases accordingly, with a particular emphasis expected in the first phase on tree impacts and expected construction milestones. Staff anticipates continuing to meet with Caltrain to coordinate and determine the best delivery options and will return to the Rail Subcommittee and City Council with a more detailed update and delivery plan as more information becomes available in the coming weeks.

The SMCTA grant was initially identified to expire in July 2018, and has received an initial one-year time extension to July 2019. The City staff has been working with the SMCTA staff to negotiate additional time extension to complete the current scope of work (e.g., environmental clearance and 30 percent completed design) by February 2020. It is critical to keep this schedule on track to ensure the project progresses, and in accordance with the funding agreement that the City is reimbursed the awarded funds from SMCTA.

The key milestones for the next steps of the project are summarized below:

Coordination with Caltrain	On-going
Rail Subcommittee meeting update	April 22, 2019
Staff to recommend project delivery method and schedule	May 7, 2019
Second community meeting	May 14, 2019
Complete Streets Commission meeting	June 12, 2019
City Council authorize negotiations to acquire right-of-way	June 4, 2019
Crossing tunnel alignment and construction phasing method approval by City Council	July 16, 2019
Construction Option A:	
Phase 1 - Undercrossing segment only	Fall 2019
Phase 2 - Ramps, stairs, landscaping	By 2022
Construction Option B:	
Entire project	By 2022
Undercrossing open	Concurrent with Middle Plaza, 2022

Public Notice

Public Notification was achieved by posting the agenda, with the agenda items being listed, at least 72 hours prior to the meeting. Additionally, an email notification was sent to the Public Works Projects interest list to notify the public about this Informational Item.

Attachments

- A. Project location map
- B. Hyperlink – Middle Avenue crossing project webpage: menlopark.org/middle
- C. Concept 1

Staff Report #: 19-061-CC

D. Concept 2

E. Concept 3

F. Hyperink – Time lapse video of Santa Clara Caltrain station tunnel extension construction:
<https://youtu.be/YFjYmUFpxr8>

Report prepared by:

Angela R. Obeso, Senior Transportation Engineer

Morad Fakhrai, Senior Project Manager

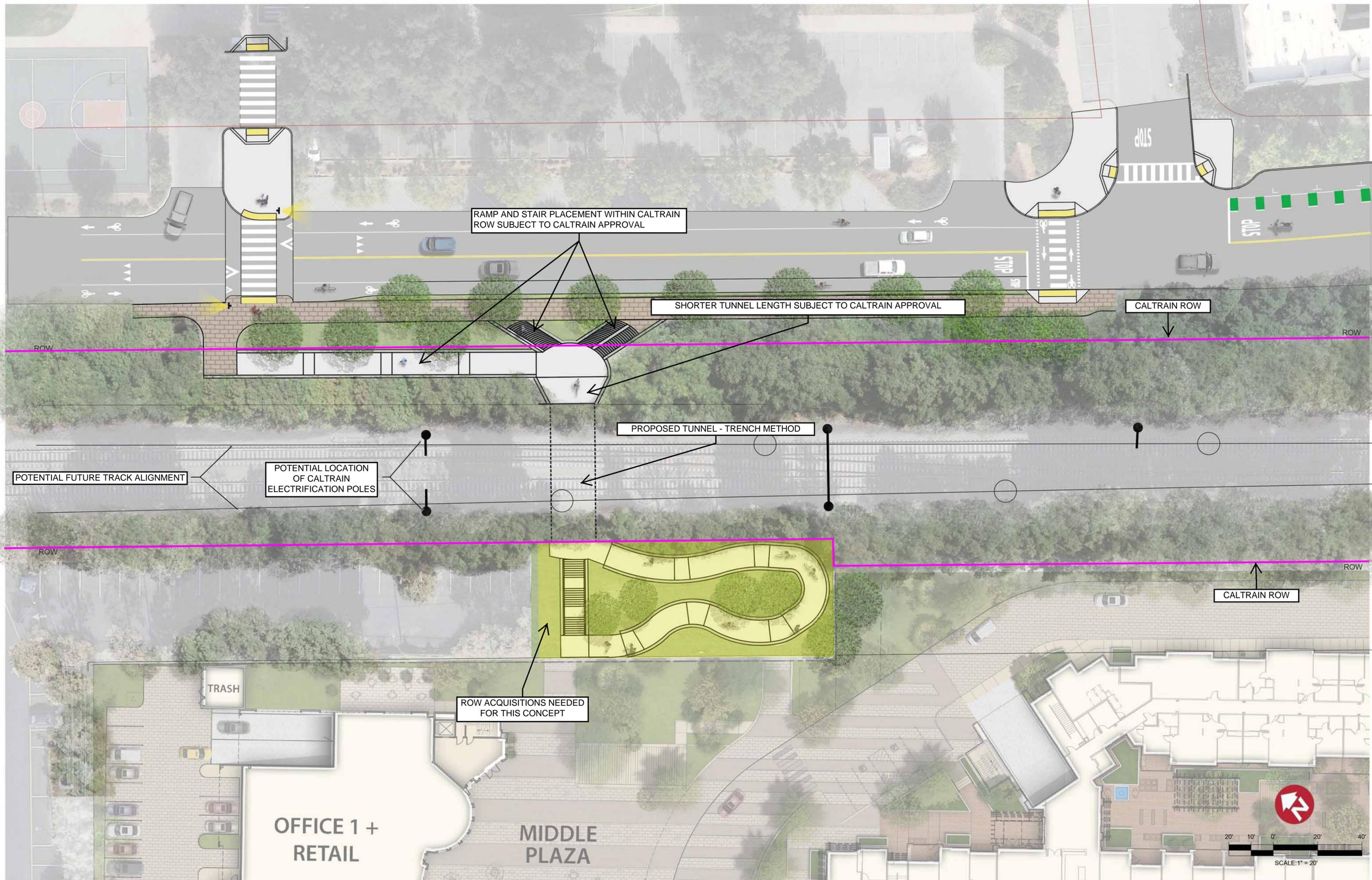
Report reviewed by:

Nicole H. Nagaya, Assistant Public Works Director



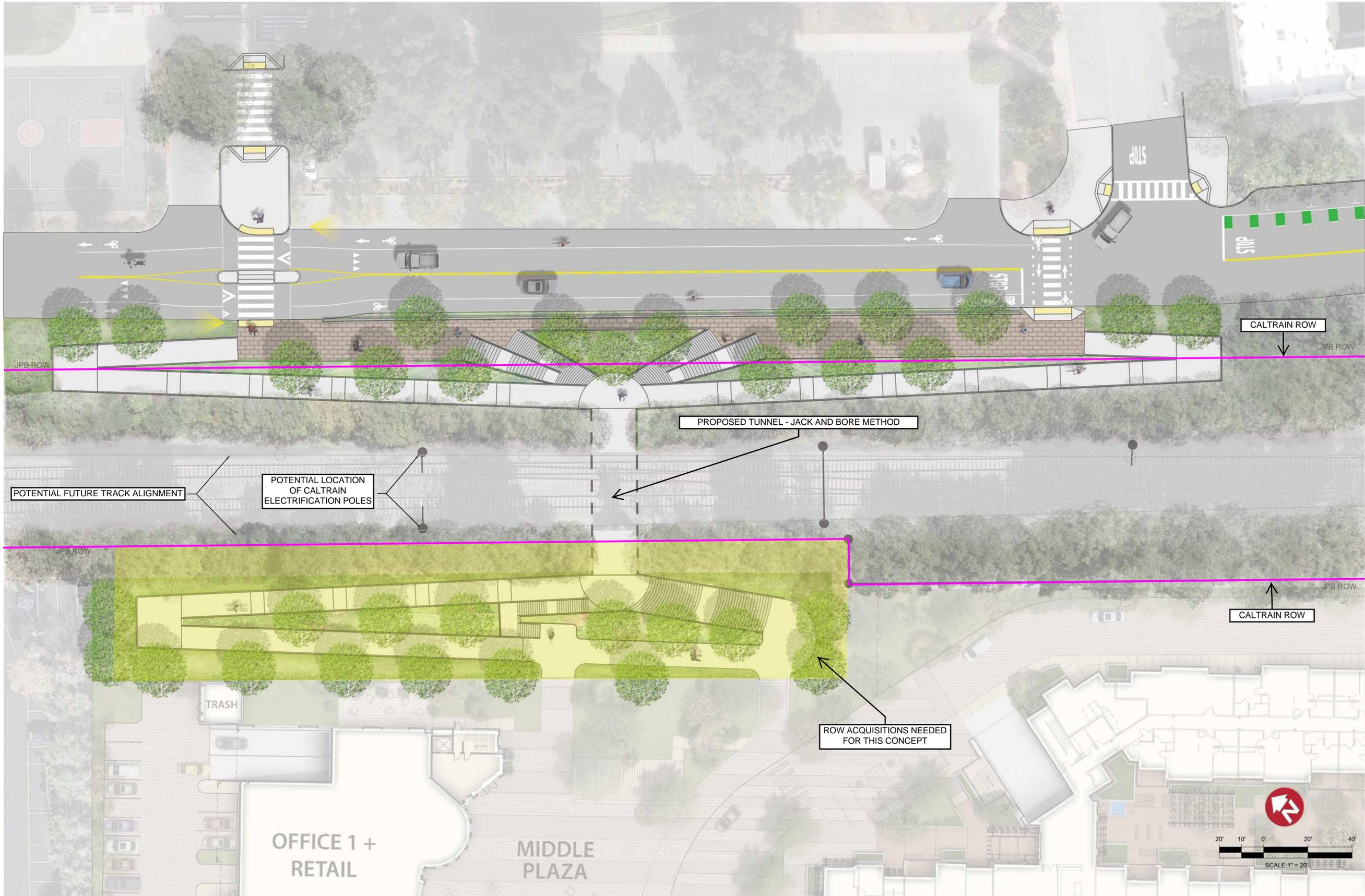
Caltrain Corridor

Project Location



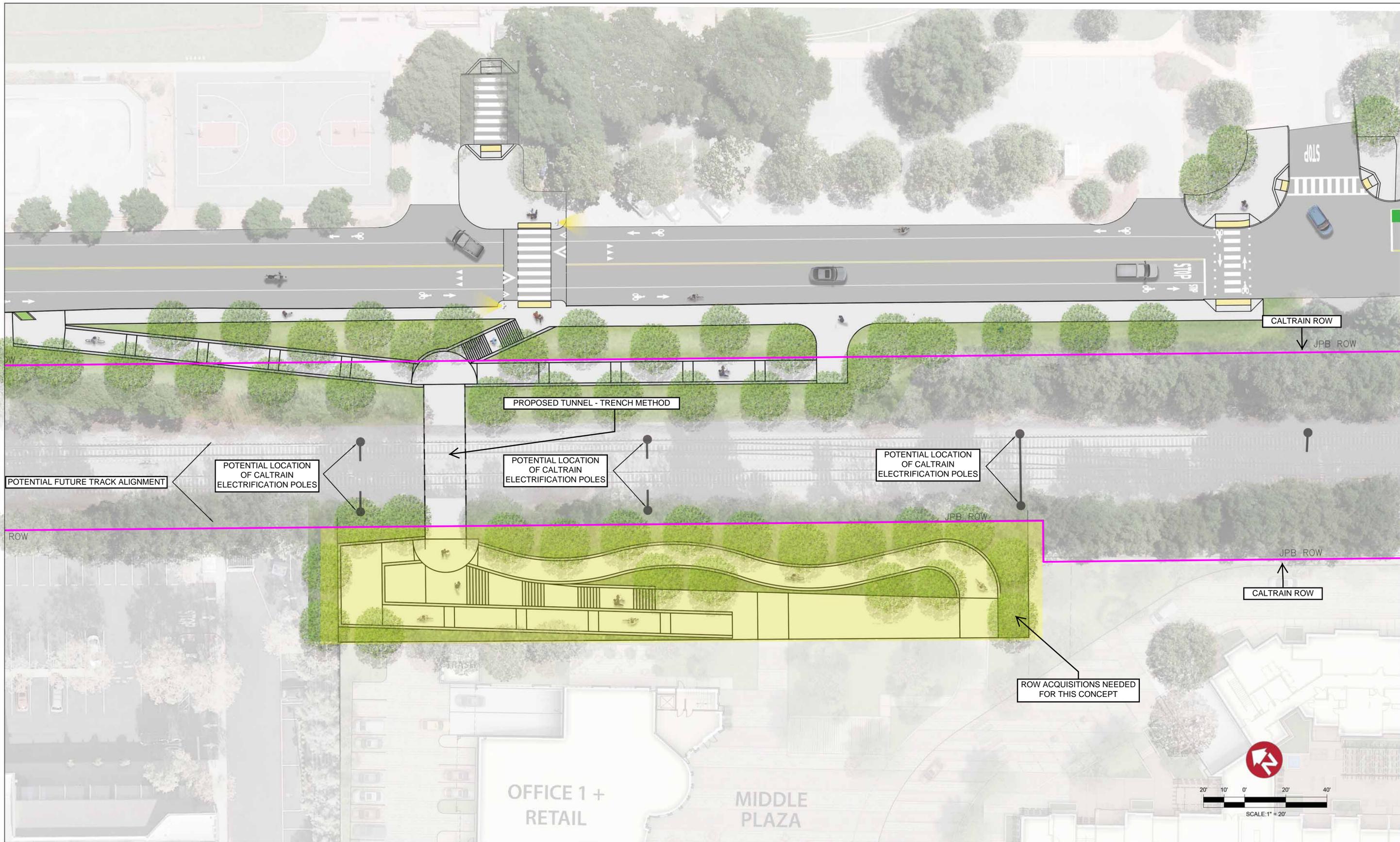
DRAFT
MARCH 29, 2019

**Middle Avenue Bicycle & Pedestrian Rail Crossing
CONCEPT 1**



DRAFT
NOVEMBER 2017

**Middle Avenue Bicycle & Pedestrian Rail Crossing
CONCEPT 2**



DRAFT
NOVEMBER 2017

**Middle Avenue Bicycle & Pedestrian Rail Crossing
CONCEPT 3**