



# North Fair Oaks Bicycle and Pedestrian Railroad Crossing and Community Connections Study

*Goals and Evaluation Criteria Technical  
Memorandum*

October 2022



## 1 INTRODUCTION

The North Fair Oaks Bicycle and Pedestrian Railroad Crossing and Community Connections Study (Study) is evaluating the potential for a grade-separated bicycle and pedestrian rail crossing and additional bicycle and pedestrian infrastructure improvements in North Fair Oaks. Despite being a densely residential area, residents within North Fair Oaks and the Study area face widespread mobility gaps, including inadequate sidewalks, a lack of sufficient bicycle infrastructure, and a Caltrain rail corridor that runs through the community that, with limited crossing opportunities, acts as a community mobility barrier. The Study seeks to evaluate and recommend a rail crossing and series of bicycle and pedestrian improvements that expand mobility within the North Fair Oaks community.

This technical memorandum establishes the project goals and priorities that will be used to guide the development of rail crossing and bicycle and pedestrian infrastructure options (alternatives). It also outlines the evaluation process that will be utilized to inform the community of the trade-offs of design alternatives and the subsequent selection of a preferred alternative. The high-level goals and priorities identified anchor the evaluation process in key community priorities. Each of these goals are linked to specific criteria, with measurable outcomes, that will be used to evaluate the alternatives. In the alternative evaluation process, each criterion will be evaluated based on a three-category scale of high, medium, and low. The evaluation process will inform San Mateo County's ultimate identification of the preferred alternative of the rail crossing and associated bicycle and pedestrian infrastructure improvements.

## 2 PROJECT NEED

The community of North Fair Oaks has been a key focus of multiple local and regional planning documents over the course of the past decade. Unincorporated North Fair Oaks is a low-income community of color, and the Study area is designated by the Metropolitan Transportation Commission (MTC) as an [Equity Priority Community](#). The community is bifurcated by the Caltrain rail corridor and there is no crossing of the tracks for a one-mile segment. With only one existing crossing of the corridor within the community (Fifth Avenue), the population's mobility is impacted, especially for the many residents who do not have access to a personal automobile.

Consequently, planning documents like the *North Fair Oaks Community Plan*, adopted in 2011, have identified crossing(s) of the railroad tracks as a major mobility priority. Successive documents, the most recent being the 2021 *Unincorporated San Mateo County Active Transportation Plan (ATP)*, have continued to identify North Fair Oaks as a region with large potential multimodal transportation demand but with limited infrastructure. In response to the



identification of the crossing need in the planning documents and feedback from the community itself, San Mateo County's Office of Sustainability is moving forward with evaluating a new rail crossing in the community along with accompanying improvements to existing pedestrian and bicycle infrastructure. The purpose of the Study is to comprehensively engage the North Fair Oaks community and other relevant stakeholders to develop an effective grade-separated rail crossing facility, as well as accompanying implementable bicycle and pedestrian infrastructure improvements to enhance community mobility.

## 2.1 Feedback from Community and Stakeholder Engagement

To properly align the Study's goals with the needs and desires of the community, the project team completed its first round of community engagement in June and July of 2022 (Engagement #1). Feedback was collected through pop-up events, presentations, distributed flyers, and a survey distributed online and in paper. In sum, nearly 350 individuals with connections to the North Fair Oaks community filled out the project survey, and over 350 individuals engaged with the project team at pop-up events or virtual presentations (many of these individuals also filled out the project survey). The project team also engaged members of the project Technical Advisory Committee (TAC) and Community Advisory Committee (CAC) to receive feedback from agency stakeholders and community representatives, respectively.

Part of the initial outreach effort was designed to gather data about the mobility problem caused by the tracks from residents and other people who work or travel through the area. A survey administered during Engagement #1 found that 46% of respondents prefer to travel by foot or other mobility device. Similarly, 41% of these participants reported walking or using other mobility devices to cross the Caltrain corridor. This is notable given the lack of convenient existing connections and reflect the significant burden that many residents bear to meet basic mobility needs. In addition, 37% of survey participants who drive to get across the Caltrain tracks would prefer to use alternative methods if it were possible, while another 22% of participants indicated that they don't cross the tracks or rarely do so specifically due to the crossing barrier. These findings are consistent with an understanding of high non-vehicular demand in the community and strongly suggest that many could benefit from a new bicycle and pedestrian crossing.

In addition to feedback from community members, the team also worked to engage the TAC and CAC to provide insight from key community and agency stakeholders on the mobility needs of this community. TAC and CAC members shared concerns consistent with the findings of previous planning studies. A representative from the Fair Oaks Community Center, a valued community institution located within the Study area, noted that most of the people accessing the center do so by foot or bicycle, a challenging trek for those living south of the tracks. Similarly, an official



from the Redwood City School District told the team that the train tracks create an inaccessible, almost wall-like, barrier to access one side of the tracks from the other. TAC and CAC respondents also noted key details that make the Study area a unique challenge, including a large socially-vulnerable population, low car ownership, and the inadequacy of existing facilities.

Another aspect of the initial community engagement efforts centered around gathering feedback on an initial set of guiding principles and prioritizing improvement attributes that will inform the development of project alternatives and, ultimately, identifying a recommended solution. The role of the outreach process in the definition of these goals and priorities are described in the following section.

### 3 GOALS AND PRIORITIES

Based on the project need discussed in the previous section, the team developed a preliminary set of four (4) project guiding principles to solicit reaction and feedback from stakeholders. These initial guiding principles included:

- Provide a comfortable and convenient connection across the rail corridor for bicycles and pedestrians in North Fair Oaks
- Promote equitable transportation and design solutions
- Enhance safety for all modes
- Support economic activity by improving access to the commercial corridors (Middlefield Road and El Camino Real)

The guiding principles were shared with the TAC and CAC, and they were asked to share what other principles the project should keep in mind. Many members emphasized the convenience of the connections formed by the rail crossing and other roadway improvements. Other members cited the facilities' safety as a key concern, and a few wanted to see the implementation of greenspace and sustainable infrastructure within the facilities. Finally, members emphasized equity and the desire to ensure benefits of the project were well-distributed throughout the whole community.

Based on that input, the initial guiding principles were expanded in the Engagement #1 survey to both a list of eight (8) project goals and a range of eight (8) priorities. The project goals posited for feedback as part of the survey were:

- Expand choices for traveling without a car
- Reduce serious injuries and fatalities
- Promote opportunities for physical activity



- Improve access to existing bus service
- Improve access to businesses on either side of the Caltrain railroad tracks
- Support opportunities to make streets better for bicycling and walking
- Improve air quality and have a positive impact on the environment
- Improve connections to and from the North Fair Oaks community and other neighborhoods

The draft project priorities presented in the survey were:

- Personal security: I feel safe and visible
- Connectivity: Nearby streets that connect the crossing are improved to become safer and more convenient to walk and bicycle on
- Convenience: Crossing is provided in a location that results in the shortest walking and biking distance to my destination
- Accessibility: Everyone, especially people with disabilities and/or strollers, can easily access the crossing
- Visual appeal: Art and architecture are integrated into the crossing to make it look nice and fit in with the community
- Fast Construction: A design that allows for the shortest construction phase with minimal impact on the community
- Greenery: The crossing design provides green and other public space for community use
- Low impact: The crossing does not take up much space - parking spaces, roads, and buildings are minimally affected

Survey respondents were requested to identify any other project goals beyond the ones listed and to select their top three of the eight priorities listed. Among the additional goals provided by survey respondents, the most common ones were expansion of recreation space with trees and shade (20 participants), more pedestrian-friendly sidewalks (18 participants), and improved public transportation (10 participants). Other goals listed by multiple individuals included more lighting and visibility, improved pedestrian/bicycle/wheelchair/stroller access, and employment of additional traffic-calming measures. For the question regarding the eight priorities, respondents most frequently selected personal security (64% of participants), convenience (48% of participants), and accessibility (45% of participants) in their top three. Additionally, about 50% of community members who engaged at pop-up events wanted the implementation of greenspace to be a priority.

Based on the feedback received from TAC, CAC, and community members, the project team refined the project goals that will guide subsequent project efforts, including the alternatives



evaluation. The goals and their definition include (in alphabetical order):

- **Access:** Provide widely accessible pedestrian and bicycle connections across the rail corridor and to adjacent communities to create a more useful, inclusive, and safer transportation network.
- **Community Integration:** Ensure that newly constructed facilities enhance the sense of community and community aesthetic of North Fair Oaks through improved connections and by incorporating public art, public spaces, and attractive structures.
- **Constructability:** Limit adverse impacts to the surrounding community and infrastructure during construction, while ensuring that construction and maintenance costs are feasible to implement given reasonably expected project funding.
- **Equity:** Prioritize equitable transportation implementation, especially for those without access to a car, while limiting community impacts to housing, adhering to larger community and regional sustainability goals beyond the immediate Study goals, and considering all stakeholder input.
- **Safety:** Design facilities guided by the prioritization for the most vulnerable populations, and create safe, well-lit spaces that are comfortable to access and utilize with personal security in mind.

While some of the community's desired aspects of the project, such as expanded transit service and improvement of crossings outside of the study, did not fall within the specific scope of the Study, the key areas of consistent feedback from the community, TAC, and CAC were incorporated into the Study goals.




## 4 EVALUATION CRITERIA

Specific, targeted evaluation criteria were selected to assess each alternative, inclusive of a rail crossing alignment and the corresponding local street bicycle and pedestrian improvements, for its performance against the overarching set of established project goals. Each evaluation criteria includes a measure to determine how well the alternative meets the evaluation criteria and Study goal. Each of the alternatives selected for final evaluation by San Mateo County will be assessed for each measure based on a three-category scale of High, Medium, or Low (low being the least desirable, high being the most desirable). The evaluation will primarily be qualitative in nature based on the relative performance of the alternatives using engineering judgement. Note that some of the individual measures are quantitative, while others are qualitative; however, all the alternatives will be evaluated on the same three-category scale. **Table 1** shows an example of how this scale would appear in the evaluation report. As no weighting of measures will be



performed, the total rating for each alternative will not be summed. The ratings will then be used to compare the different alternatives to one another and ultimately inform selection of the preferred alternative for advancement.

**Table 1: Evaluation Scale**

Low (least desirable)	
Medium	
High (most desirable)	

**Table 2** includes the individual evaluation criteria, the designated measure for each criterion, and the Study goals. Some of the evaluation criteria are specific to the rail crossing alternatives; these are noted with an asterisk.



**Table 2: Rail Crossing and Bicycle/Pedestrian Improvement Alternatives Evaluation Criteria and Measures**

Evaluation Criteria	Measure	Access	Community Integration	Constructability	Equity	Safety
Service Population*	Existing population within ¼ mile walking distance from rail crossing access points.	X			X	
Motor Vehicle Circulation	Extent to which changes to the roadway network would be anticipated to cause diversion and congestion.	X				
Bicycle and Pedestrian Comfort	Ability of the improved bicycle and pedestrian network to meet the mobility needs of all ages and abilities.	X	X		X	X
Connectivity with Community-wide & Regional Transportation Network	Connectivity between proposed Study improvements and the greater transportation network on surrounding streets, including El Camino Real, Middlefield Road, and Fifth Avenue.	X	X		X	X
Parking Impacts	Number of net parking spaces lost.			X		
Public Space	Potential to create new public spaces.		X		X	
Green Infrastructure	Potential to implement green infrastructure, like solar panels or bio-retention facilities.		X		X	
Connections to Local Destinations	Directness of travel path to local destinations (e.g., schools, community center, medical facilities, etc.).	X	X		X	
Rail Crossing Length*	Total length of crossing facility.	X	X	X		
Visual Impact*	Level of disruption to views and privacy.		X		X	
Public Infrastructure Impact	Level of disruption to existing and planned utilities (e.g., SFPUC) and transportation service (e.g., Caltrain).			X		
Construction Cost	Rough order of magnitude (ROM) of project construction cost.			X		
Construction Impact	Magnitude of short-term adverse effects to residents and businesses during construction, including traffic diversion and access restrictions	X		X	X	
Operations and Maintenance Cost	Magnitude of projected annual cost of operations and maintenance.			X		
Direct Parcel Impacts*	Number of parcels needed, all or in part, to construct railroad crossing.			X	X	
Emergency Access	Effects on emergency vehicle access (e.g., fire/police).					X
Personal Security	Alignment of facility configuration with Crime Prevention Through Environmental Design (CPTED) <sup>1</sup> best practices.	X	X			x

\*These criteria are specific to the rail crossing alternatives

<sup>1</sup> CPTED is a multi-disciplinary approach of crime prevention that uses urban and architectural design and the management of built and natural environments. It aims to reduce victimization, deter offender decisions that precede criminal acts, and build a sense of community among inhabitants so they can gain territorial control of areas, reduce crime, and minimize fear of crime.





## 5 NEXT STEPS

During the alternative development phase, San Mateo County staff will select rail crossing alternatives and corresponding bicycle and pedestrian connection improvements for concept design development. These will be shared with the TAC and CAC for input. Subsequently, the methodology outlined in this technical memorandum will be used to evaluate the selected alternatives. Notably, the measures identified in **Table 2** may be modified slightly from their current form after the final alternatives are selected to allow for the most effective differentiation of alternatives. The alternatives and the completed technical evaluation will be shared with the community, TAC, and CAC to gather feedback before the selection of preferred alternative for rail crossing and bicycle and pedestrian infrastructure. Community, TAC, and CAC feedback will also be incorporated into the final alternative concept designs for the preferred alternative.