3.14 Parks, Recreation, and Open Space

3.14.1 Introduction

This section evaluates how construction and operation of the San Francisco to San Jose Project Section (Project Section, or project) would affect parks, recreation, open-space resources, and school district play areas.

Important issues in the analysis include temporary and permanent changes from noise, vibration, air emissions on the use and user experience at parks, recreation, open-space, and school district play areas; temporary and permanent changes to access or use of parks, recreation, open space, and school district play areas; and temporary and permanent changes in visual quality, access, or circulation; and the possibility of acquisition of parks, recreation, open space, and school district play areas.

Primary Parks, Recreation, and Open Space Impacts

- The use and user experience at 109 parks, recreation, open space, and school district play areas would be affected by construction noise, vibration, and air emissions.
- Access to Trinta Park would be affected by the closure of Leslie Street under Alternative B, which would not occur under Alternative A.
- Permanent acquisition of land at Tamien Park (Phase II Planned) under Alternative B would result in a diminished capacity to use the planned soccer field.
- Project operations would result in five moderate operational noise impacts on parks, recreation, and open space resources, but would not prevent their use. While horn noise events would be more frequent, resource users would be focused on participating in sports or other active uses in an urban environment already exposed to railway noise.

The following appendices in Volume 2, Technical Appendices, of this Draft Environmental Impact Report (EIR)/Environmental Impact Statement (EIS) provide additional details on parks, recreation, and open space:

- Appendix 2-D, Applicable Design Standards, describes the relevant design standards for the project.
- Appendix 2-E, Project Impact Avoidance and Minimization Features, provides the list of all impact avoidance and minimization features (IAMF) incorporated into the project.
- Appendix 2-I, Regional and Local Plans and Policies, provides a list by resource of all applicable regional or local plans and policies.
- Appendix 3.1-B, San Francisco Bay Conservation and Development Commission Bay Plan Consistency Analysis, provides a summary of the project's consistency with San Francisco Bay Plan (Bay Plan) policies.

Parks, recreation, open space, and school district play areas are important components of communities in the region because of their influence on communities' quality of life. The following resource sections and chapter provide additional information related to parks, recreation, open space, and school district play areas:

- Section 3.2, Transportation, evaluates impacts on community facilities associated with road modifications and closures
- Section 3.3, Air Quality and Greenhouse Gases, evaluates impacts on schools and other community facilities from dust and other air emissions
- Section 3.4, Noise and Vibration, evaluates impacts of noise and vibration on community facilities
- Section 3.11, Safety and Security, evaluates impacts on the safety and security of schools and other community facilities
- Section 3.12, Socioeconomics and Communities, evaluates impacts related to acquisition and displacement of community facilities
- Section 3.13, Station Planning, Land Use, and Development, evaluates impacts of the project on existing and planned land use, including consistency with local and regional land use and transportation plans

- Section 3.15, Aesthetics and Visual Quality, evaluates visual quality impacts on parks, recreation, open space, and school district play areas
- Section 3.17, Regional Growth, evaluates impacts of the project on zoning and future urban development
- Chapter 4, Section 4(f) and Section 6(f) Evaluations, evaluates impacts on parklands and recreational properties subject to Title 49 United States Code (U.S.C.) Section 303, commonly referred to as Section 4(f), and Section 6(f) of Land and Water Conservation Fund Act of 1965, commonly referred to as Section 6(f)

3.14.1.1 Definition of Resources

Parks, recreation, open space, and school district play areas are defined as follows:

- **Parks**—Publicly owned properties set aside for recreational use by the public and maintained in a natural or landscaped condition for recreational and ornamental purposes. A park is sometimes a large area of land with grass and trees, sports fields or courts, and play equipment, with accessory amenities such as parking, water fountains, and restrooms that are maintained for public use and enjoyment.
- **Recreation**—A pastime, diversion, exercise, or other activity affording relaxation and enjoyment. Areas used for recreation generally include public parks and open spaces such as greenbelts, pedestrian and bicycle trails, and playfields.
- **Open space**—Any open piece of land that is undeveloped and accessible to the public. Open space is generally green space or an area that is partially covered with grass, trees, shrubs, or other vegetation, and that does not contain buildings or other built structures.
- **School district play areas**—Play areas within public schools, such as playgrounds, jungle gyms, basketball courts, baseball fields, football fields, pools, and tennis courts.

3.14.2 Laws, Regulations, and Orders

This section presents federal and state laws, regulations, and orders applicable to parks, recreation, open space, and school district play areas affected by the project. The California High-Speed Rail Authority (Authority) would implement the California High-Speed Rail (HSR) System, including the Project Section, in compliance with all federal and state regulations. Regional and local plans and policies considered in the preparation of this analysis are provided in Volume 2, Appendix 2-I.

3.14.2.1 Federal

Section 4(f) of the U.S. Department of Transportation Act (23 U.S.C. § 138 and 49 U.S.C. § 303)

Section 4(f) of the U.S. Department of Transportation Act declares that "it is the policy of the United States government that special effort should be made to preserve the natural beauty of the countryside and public park and recreation lands, wildlife and waterfowl refuges, and historic sites." It specifies that the a transportation program or project (other than any project for a park road or parkway under Section 204 of Title 23) requiring the use of publicly owned land of a public park, recreation area, or wildlife and waterfowl refuge of national, state, or local significance (as determined by the federal, state, or local officials having jurisdiction over the park, area, refuge, or site) can only be approved if: (1) there is no prudent and feasible alternative to using that land and (2) the program or project includes all possible planning to minimize harm to the Section 4(f) property resulting from the use. Pursuant to 23 U.S.C. Section 237, under the NEPA Assignment Memorandum of Understanding, the Federal Railroad Administration (FRA) delegated the Authority responsibilities for compliance with Section 4(f), although the Authority is required to consult with and obtain concurrence from the FRA on constructive use determinations.

In addition, Title 49 U.S.C. Section 303(d) sets standards for concluding potential *de minimis* impacts for Section 4(f) resources. In general, a *de minimis* impact is a minimal impact on a

Section 4(f) resource that is not considered to be adverse to the statute's preservationist purpose. For parks, recreation areas, and wildlife and waterfowl refuges, a *de minimis* impact determination can be made after public notice and opportunity to comment where the Authority finds an impact that would not adversely affect the qualities or activities that give the property protection under Section 4(f) and where the Authority receives written concurrence in that finding from the official with jurisdiction over the resource.

Section 6(f) of the Land and Water Conservation Fund Act (16 U.S.C. § 460l-8(f) and 36 C.F.R. § 59.1)

State and local governments often obtain grants through the Land and Water Conservation Fund Act to acquire or make improvements to parks and recreation areas. Section 6(f) of the act prohibits the conversion of property acquired or developed with these grants to a nonrecreational purpose without the approval of the U.S. Department of the Interior's National Park Service. Section 6(f) directs the Department of the Interior to make certain that replacement lands of comparable value and function, location, and usefulness are provided as conditions to such conversions.

Coastal Zone Management Act (16 U.S.C. §§ 1451 et seq.)

The objective of the Coastal Zone Management Act (CZMA) of 1972 is to "preserve, protect, develop, and where possible, to restore or enhance the resources of the nation's coastal zone." Coastal zone means "the coastal waters (including the lands therein and thereunder) and the adjacent shorelands (including the lands therein and thereunder including the waters therein and thereunder), strongly influenced by each other and in proximity to the shorelines of the several coastal states, and includes islands, transitional and intertidal areas, salt marshes, wetlands and beaches." This act also requires projects to be planned, located, designed, and engineered for the changing water levels and associated impacts that might occur over the duration of the development. The CZMA is administered by the California Coastal Commission in most areas in California; in the San Francisco Bay Area (Bay Area), the CZMA is administered by the San Francisco Bay Conservation and Development Commission (BCDC). The CZMA requires federal actions, including permits and funding, that are reasonably likely to affect the use of land or water or natural resources within the coastal zone be consistent with policies within a state's federally approved coastal management program.

3.14.2.2 State

California Public Park Preservation Act (California Public Resources Code, §§ 5400–5409)

The California Public Park Preservation Act provides that a public agency that acquires public parkland for non-park use must either pay compensation that is sufficient to acquire substantially equivalent substitute parkland or provide substitute parkland of comparable characteristics.

McAteer-Petris Act (California Government Code §§ 66600 et seq.)

The McAteer-Petris Act vests the BCDC with the authority to plan and regulate activities and development in and around the San Francisco Bay, consistent with policies adopted in the Bay Plan. BCDC regulates the filling and dredging of the San Francisco Bay and any substantial change in use of any water or land within the area of BCDC's jurisdiction through the permitting process described in the Act. The Act affords BCDC jurisdiction over five areas in and around the San Francisco Bay: (1) "Bay" jurisdiction, (2) "shoreline" jurisdiction, (3) "saltponds" jurisdiction, (4) "managed wetlands" jurisdiction, and (5) "certain waterways" jurisdiction. Only two of these BCDC jurisdictional areas are relevant for the project: the Bay and shoreline jurisdictions.

The project includes areas within BCDC jurisdiction at Mission Creek and Islais Creek in San Francisco; Visitacion Creek, Guadalupe Valley Creek, and Brisbane Lagoon in Brisbane; Oyster Bay and Colma Creek in South San Francisco; and El Zanjon Creek in San Bruno.

The agency's decision to grant or deny a permit for the project is guided by the Act's provisions and the standards set out in the Bay Plan. BCDC is authorized to regulate fill or dredge the San Francisco Bay and development of the "shoreline band," which consists of the area within 100

feet of the shoreline. The McAteer-Petris Act creates broad circumstances under which a permit is required by providing that any person wishing to place fill, extract materials, or make any substantial change in the use of water, land, or structures within areas subject to BCDC's jurisdiction obtain a permit. The term *fill* is defined broadly to include not only earth and other materials, but pilings, structures placed on pilings, and floating structures BCDC is authorized to issue a permit for fill if the applicant demonstrates that the issuance of the permit would be consistent with the provisions of Section 66605 of the Act and with the policies established for the Bay Plan or if BCDC determines that the activity to be permitted is necessary for the health, safety, or welfare of the public in the entire Bay Area. Pursuant to Section 66605 of the McAteer-Petris Act, BCDC is authorized to issue a permit if the proposed fill: (1) is for a water-oriented use; (2) provides public benefits that outweigh the adverse impacts from the loss of open water areas; (3) there is no alternative upland location available for the proposed action; (4) the fill would be the minimum amount necessary to achieve the purpose of the proposed action; (5) the nature, location, and extent of fill minimizes harmful effects on the Bay; (6) the fill is constructed in accordance with sound safety standards. Volume 2, Appendix 3.1-B sets out the Bay Plan policies pertinent to the project and an assessment regarding the consistency of the project with those policies.

The McAteer-Petris Act also provides that a permit must be obtained from BCDC prior to undertaking construction activities within the shoreline band jurisdiction. In addition, for permitting purposes, the Act allows for areas within the shoreline band to be designated by BCDC for priority uses. Within such areas, the proposed use must be consistent with the uses specified for the designated area. To obtain a permit for development within the shoreline band, the proposed project must provide for maximum feasible public access to the Bay and the shoreline.

The Bay Plan includes policies related to public access to the Bay and recreational resources. Volume 2, Appendix 3.1-B identifies a list of Bay Plan policies pertinent to the project, including policies related to public access and recreational resources, and whether the project would be consistent with these policies.

3.14.2.3 Regional and Local

The project would pass through San Francisco, San Mateo, and Santa Clara Counties and the cities and communities of San Francisco, Daly City, Brisbane, South San Francisco, San Bruno, Millbrae, Burlingame, San Mateo, Belmont, San Carlos, Redwood City, North Fair Oaks, Atherton, Menlo Park, Palo Alto, Mountain View, Sunnyvale, Santa Clara, and San Jose. Relevant regional and local plans and policies considered in the preparation of this analysis are included in Volume 2, Appendix 2-I. General plans for the counties and cities in the resource study area (RSA) and the municipal codes for these counties and cities were consulted for applicability to the project, as well as the Midpeninsula Regional Open Space District Strategic Plan, Plan Bay Area 2040, San Francisco Bay Plan, San Mateo County General and Parks Strategic Plans, Santa Clara County Countywide Trails Master Plan, and the Santa Clara County Valley Greenprint.

3.14.3 Consistency with Plans and Laws

As indicated in Section 3.1.5.3, Consistency with Plans and Laws, the California Environmental Quality Act (CEQA) and Council on Environmental Quality (CEQ) regulations require a discussion of inconsistencies or conflicts between a proposed undertaking and federal, state, regional, or local plans and laws. As such, this Draft EIR/EIS describes the inconsistency of the project with federal, state, regional, and local plans and laws to provide planning context.

There are a number of federal and state laws and implementing regulations, listed in Section 3.14.2.1, Federal, and Section 3.14.2.2, State, that are relevant to parks, recreation, open space, and other recreation facilities. These federal and state requirements include:

- Federal and state laws that provide protections for public parks and open-space resources to avoid loss or diminishment of these public resources

- Federal and state laws that regulate development along the Bay Area, including the CZMA, the California Coastal Act, and the McAteer-Petris Act, which protects access to the Bay for public use and enjoyment of the Bay Area
- State laws that establish areas as parks or ecological reserves and establish protections for resources in these areas

The Authority, as the lead agency proposing to construct and operate the HSR system, is required to comply with all federal and state laws and regulations and to secure all applicable federal and state permits prior to initiating construction on the selected alternative. Therefore, there would be no inconsistencies between the project and these federal and state laws and regulations.

The Authority is a state agency and therefore is not required to comply with local land use and zoning regulations. However, it has endeavored to design and construct the HSR project so that it is as consistent as possible with land use and zoning regulations. For example, the project would be designed to maintain access to existing park, recreation, and open-space facilities during and after construction (PK-IAMF#1: Parks, Recreation, and Open Space). The Authority reviewed a total of 68 regional and local plans, and 340 goals, policies, objectives, and ordinances, and determined the project alternatives would be consistent with all regional and local plans and ordinances. Appendix 2-I in Volume 2 lists the reviewed regional and local plans, goals, policies, objectives, and ordinances.

3.14.4 Methods for Evaluating Impacts

The evaluation of impacts on parks, recreation, open space, and school district play areas is a requirement of Section 4(f) of the U.S. Department of Transportation Act, California Public Park Preservation Act, the National Environmental Policy Act (NEPA), CEQA, and FRA's Procedures for Considering Environmental Impacts (64 *Federal Register* 28545). The following sections define the RSA and summarize the methods used to analyze impacts on parks, recreational facilities, open-space resources, and school district play areas. As summarized in Section 3.14.1, Introduction, several other resource sections in this Draft EIR/EIS provide additional information related to parks, recreation, open space, and school district play areas.

3.14.4.1 Definition of Resource Study Area

As defined in Section 3.1, Introduction, RSAs are the geographic boundaries within which the environmental investigations specific to each resource topic were conducted. The RSA for impacts on publicly owned parks, recreation, open space, and public school district play areas encompasses the areas directly and indirectly affected by construction and operation of the project. The RSA for analyzing impacts from the track alignment on parks, recreation, open space, and school district play areas encompasses the project footprint for each of the project alternatives plus 1,000 feet, while the RSA for stations and maintenance facilities includes the project footprint for these facilities plus 0.5 mile. Table 3.14-1 shows the RSA definitions for parks, recreation, open space, and school district play areas.

Table 3.14-1 Definition of Parks, Recreation, Open Space, and School District Play Areas Resource Study Areas

Type	General Definition
Track alignment	Areas within 1,000 feet of the project footprint[1]
Stations and light maintenance facility	Areas within 0.5 mile of the stations and light maintenance facility footprint

[1] The project footprint includes all areas required to construct, operate, and maintain all permanent HSR facilities, including permanent right-of-way, permanent utility and access easements, and temporary construction easements.

The 1,000-foot distance for the RSA was selected because parks, recreation, and open-space resources within this distance from the tracks and construction areas could experience direct and indirect impacts such as temporary or permanent acquisition of parklands; changes in use, circulation, access, or visual quality; noise and vibration nuisance; and air emissions from construction and operation of the project alternatives. The 0.5-mile distance from the stations and light maintenance facility (LMF) was selected because indirect impacts on parks, recreation, and open-space resources within this distance could also include changes in the use of a resource resulting from access improvements or increased development density associated with project operations.

3.14.4.2 Impact Avoidance and Minimization

IAMFs are project features that are considered to be part of the project and are included as applicable in each of the alternatives for purposes of the environmental impact analysis. The full text of the IAMFs that are applicable to the project is provided in Volume 2, Appendix 2-E. The following IAMFs are applicable to the parks and recreation analysis:

- PK-IAMF#1: Parks, Recreation, and Open Space
- TR-IAMF#2: Construction Transportation Plan
- TR-IAMF#4: Maintenance of Pedestrian Access
- TR-IAMF#5: Maintenance of Bicycle Access
- TR-IAMF#7: Construction Truck Routes
- AQ-IAMF#1: Fugitive Dust Emissions
- AQ-IAMF#2: Selection of Coatings
- NV-IAMF#1: Noise and Vibration
- LU-IAMF#3: Restoration of Land Used Temporarily during Construction
- SOCIO-IAMF#1: Construction Management Plan
- AVQ-IAMF#1: Aesthetic Options
- AVQ-IAMF#2: Aesthetic Review Process

This environmental impact analysis considers this IAMFs as part of the project design. In Section 3.14.6, Environmental Consequences, each impact narrative describes how these project features are applicable and, where appropriate, effective at avoiding or minimizing potential impacts to less than significant under CEQA.

3.14.4.3 Methods for Impact Analysis

This section describes the sources and methods the Authority used to analyze potential impacts on parks, recreation, open space, and school district play areas. These methods apply to both NEPA and CEQA analyses unless otherwise indicated. Refer to Section 3.1.5.4, Methods for Evaluating Impacts, for a description of the general framework for evaluating impacts under NEPA and CEQA. Laws, regulations, and agency jurisdictional and management guidance (Section 3.14.2, Laws, Regulations, and Orders) that regulate parks, recreation, open space, and school district play areas also were considered in the analysis.

For the purposes of this analysis, the Authority collected information on parks, recreation, open space, and school district play areas through a review of the regional and local plans and policies listed in Volume 2, Appendix 2-I, local jurisdiction websites, the California Protected Areas Database, and by using geographic information system (GIS) data layers and Google Earth aerial imagery. Cities, counties, state, and federal agencies provided data and information on the parks, recreation, open space, and school district play areas in the RSA. Regional and local plans provided information on planned development, including parks, recreation, open space, and school district play areas.

Only parks and recreational facilities open to the public were considered in the analysis. Schools that contain play areas and other recreational facilities, such as sports fields and game courts, were also considered if they are available for public use outside school hours, regardless of whether a joint-use agreement between the city and school exists. Even without joint-use

agreements, school district play areas generally represent publicly accessible open space/recreational amenities for the communities in which they are located.

Resources not available for public use, such as privately owned churches with playfields or privately owned recreational facilities, are not included in this analysis. On-street bicycle routes, unless identified as recreational facilities by the entity with jurisdiction, are not included in the analysis of parks, recreation, open space, and school district play areas because they are considered transportation facilities and are discussed in Section 3.2.

The following methods were used to evaluate potential direct and indirect impacts of construction on parks, recreation, open spaces, and school district play areas:

- Evaluation of GIS spatial analysis to determine the distance of parks, recreational facilities, open space, and school district play areas from the project footprint; the areal extent of parks, recreational facilities, open space, and school district play areas that would be affected by project construction.
- Review and analysis of proposed construction, right-of-way, and station plans to determine if the resource property would be temporarily or permanently acquired.
- Review and analysis of the proposed construction right-of-way to determine if construction activities would result in temporary changes in access to or a reduction in parking capacity for parks, recreational facilities, open space, or school district play areas.
- Examine the potential disruption of established community and visitor use of parks, recreational facilities, open space, or school district play areas because of temporary construction easements (TCE) and general construction activity.
- Review the analysis in other Draft EIR/EIS sections—specifically Sections 3.2, 3.3, 3.4, 3.11, 3.12, and 3.15 and Chapter 4—to determine if there would be any indirect impacts on parks, recreation, open space, or school district play areas from project construction.
- Review and analysis of the design and location of project elements to determine if any barriers to park access and use would be created or if changes in access to and parking for parks, recreational facilities, open space, and school district play areas would result from HSR operations.

Methods used to evaluate potential direct and indirect impacts on parks, recreational facilities, open space, and school district play areas from project operations included the following:

- Review and analysis of the other Draft EIR/EIS sections—specifically Sections 3.3, 3.4, and 3.15—to determine if any indirect impacts on parks, recreational facilities or activities, open space, or school district play areas would result from HSR operations.
- Review of Section 3.13 and Section 3.17 to determine if project-related increase in the use of parks, recreation facilities, open space, and school district play areas could lead to substantial physical deterioration of the resources or the acceleration of such deterioration.

3.14.4.4 Method for Evaluating Impacts under NEPA

CEQ NEPA regulations (40 Code of Federal Regulations Parts 1500–1508) provide the basis for evaluating project effects (as described in Section 3.1.5.4). As described in Section 1508.27 of these regulations, the criteria of context and intensity are considered together when determining the severity of changes introduced by the project.

- **Context**—For this analysis, the *context* comprises the condition and type of use (passive, active, reflective) of parks, recreational facilities, open space, and school district play areas; the existing environmental conditions (urban, rural, wilderness) at the parks, recreational facilities, open space, and school district play areas; and federal, state, and local laws, regulations, orders, or plans applicable to parks, recreation, open space, and school district play areas—in particular the open space, parks and recreation, aesthetics, land use, conservation, or other relevant elements of local general plans.

- **Intensity**—For this analysis, *intensity* is determined by the degree to which the project would affect parks, recreation, open space, and school district play areas (e.g., distance of such resources from the project footprint, the areal extent that would be acquired, facilities and functions that would be affected); the degree to which the project would affect the user experience at the parks, recreational facilities, open space, and school district play areas; and the duration of the effect (temporary, permanent, intermittent).

3.14.4.5 Method for Determining Significance under CEQA

The Authority used the following thresholds to determine if a significant impact on parks, recreation, open space, and school district play areas would occur as a result of the project alternatives. For the CEQA analysis, the project would result in a significant impact on parks, recreation, open space, and school district play areas if it would:

- Prevent the use of an established or planned park, recreation facility, or open space
- Acquire an open-space resource that would result in a diminished capacity for use of that resource or in a substantially reduced value of that resource
- Create a physical barrier (or a perceived barrier) to the access to or established use of any park, recreational facility, or open-space area
- Result in acquisition of a recreation resource that would result in a diminished capacity to use the resource for specific and defined recreational activities
- Increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated
- Result in the physical alteration of existing facilities or a need to provide new parks or other recreational facilities—the construction of which could cause significant environmental impacts—to maintain acceptable service ratios or other performance objectives

Thresholds of significance for indirect impacts on parks, recreation, open space, and school district play areas are defined in Sections 3.2, 3.3, 3.4, and 3.15.

3.14.5 Affected Environment

This section describes the parks, recreational facilities, open space, and school district play areas in the RSA, including planned resources not yet constructed, but that could be built by the time the project is under construction. The project would travel on an existing and historic rail corridor, through highly urbanized residential, commercial, and industrial settings. Transportation rights-of-way, including the existing Caltrain corridor, interstates, highways, state routes, and local roads, are the largest land use in the RSA, followed by multifamily and single-family residential uses. From north to south along the project route, the RSA includes urban and suburban development in San Francisco, and to a lesser extent in San Mateo, Redwood City, Mountain View, Sunnyvale, and San Jose. Lower density single-family neighborhoods are in San Bruno, Atherton, and Palo Alto. The type and character of the parks, recreational facilities, open space, and school district play areas within the RSA include small urban parks consisting of landscaped or paved areas with benches, neighborhood parks with grassy areas and playgrounds, community parks with aquatic centers, sports fields and courts, gardens, and larger regional parks with active sports and open-space areas with a wide variety of recreation opportunities. However, there are pockets of open space throughout the corridor, with the largest area west of Brisbane at San Bruno Mountain State and County Park. Planned resources in the RSA include portions of the San Francisco Bay Trail (Bay Trail), a community park in San Jose, and the planned Three Creeks Trail in San Jose. The parks, recreational facilities, open space, and school district play areas in the RSA are illustrated on Figure 3.14-1 through Figure 3.14-11 and listed in Table 3.14-2 and Table 3.14-3.

3.14.5.1 Parks, Recreational Facilities, and Open-Space Resources

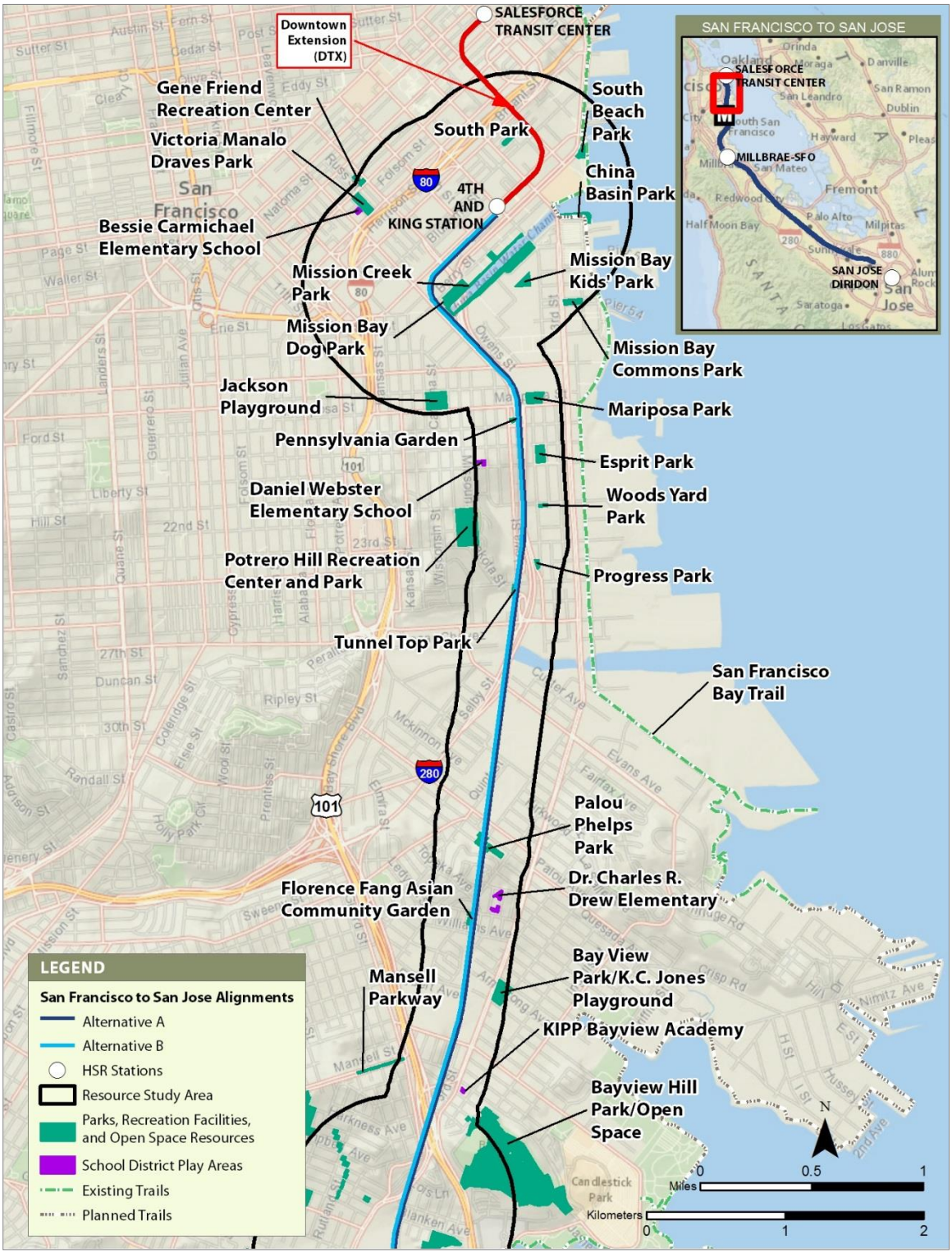
Table 3.14-2 shows 135 parks, recreational facilities, and open-space resources in the RSA by subsection. There are 44 resources in the San Francisco to South San Francisco Subsection, 21 resources in the San Bruno to San Mateo Subsection, 37 resources in the San Mateo to Palo Alto Subsection, 14 resources in the Mountain View to Santa Clara Subsection, and 19 resources in the San Jose Diridon Station Approach Subsection. Each resource has readily available vehicular and pedestrian access. Most of these resources are active parks—ranging from small neighborhood parks to larger community parks—with facilities such as play equipment, sports fields, picnic areas, benches, walking/biking trails, and open space areas. Table 3.14-2 includes the distance of each resource from the proposed TCEs and the project right-of-way. These distances vary in the San Francisco to South San Francisco, San Mateo to Palo Alto, and San Jose Diridon Station Approach Subsections because of the differences between the alternatives in these subsections.

Publicly owned planned resources in the RSA are limited to portions of the Bay Trail, a planned community park in San Jose, Phase II planned for Tamien Park in San Jose, and the Three Creeks Trail, which is a planned Class I bicycle trail identified by the City of San Jose as a future trail alignment.[1] Existing and planned portions of the Bay Trail are in the San Francisco to South San Francisco Subsection and a planned portion of the trail is in the San Bruno to San Mateo Subsection, although it is not counted as an individual resource in that subsection. Because the trail is in two subsections, it is discussed in the tables and text as San Francisco Bay Trail-1 and San Francisco Bay Trail-2.

Larger more passive open-space areas that fall fully or partially within the RSA include Bayview Hill Park, John McLaren Park, San Bruno Mountain State and County Park, and Brisbane Lagoon; these resources provide open-space areas with trails, fishing opportunities, campsites, and nature viewing. They tend to be user destinations supporting a different suite of recreational activities than the neighborhood and community parks in an urban setting. Hiking is the primary recreation activity in Bayview Hill Park and San Bruno Mountain State and County Park, where the natural settings contain a diverse array of plants and wildlife. Biking, horseback riding, and camping opportunities are also available in San Bruno Mountain State and County Park. Hiking is also a popular activity at John McLaren Park, which has large natural areas as well as a golf course, sports courts, playfields, swimming pool, and lake. Fishing is the primary recreation activity at Brisbane Lagoon.

As described in Section 3.7, Biological and Aquatic Resources, portions of the project would traverse areas under the jurisdiction of the BCDC, including the San Francisco Bay and shoreline band (defined in Section 3.7.1.1, Definition of Terminology). Tidally influenced waterways are also under the BCDC jurisdiction and are crossed by the project footprint, including Mission Creek, Islais Creek, Visitacion Creek, Colma Creek, and El Zanjon Creek. Several parks and recreational facilities in the RSA are within these areas, primarily along the San Francisco Bay east of the project footprint (Figures 3.14-1 through 3.14-7); examples include the San Francisco Bay Trail, South Beach Park, China Basin Park, Mission Creek Park, Candlestick Point State Recreation Area, Brisbane Lagoon, and Bayfront Park.

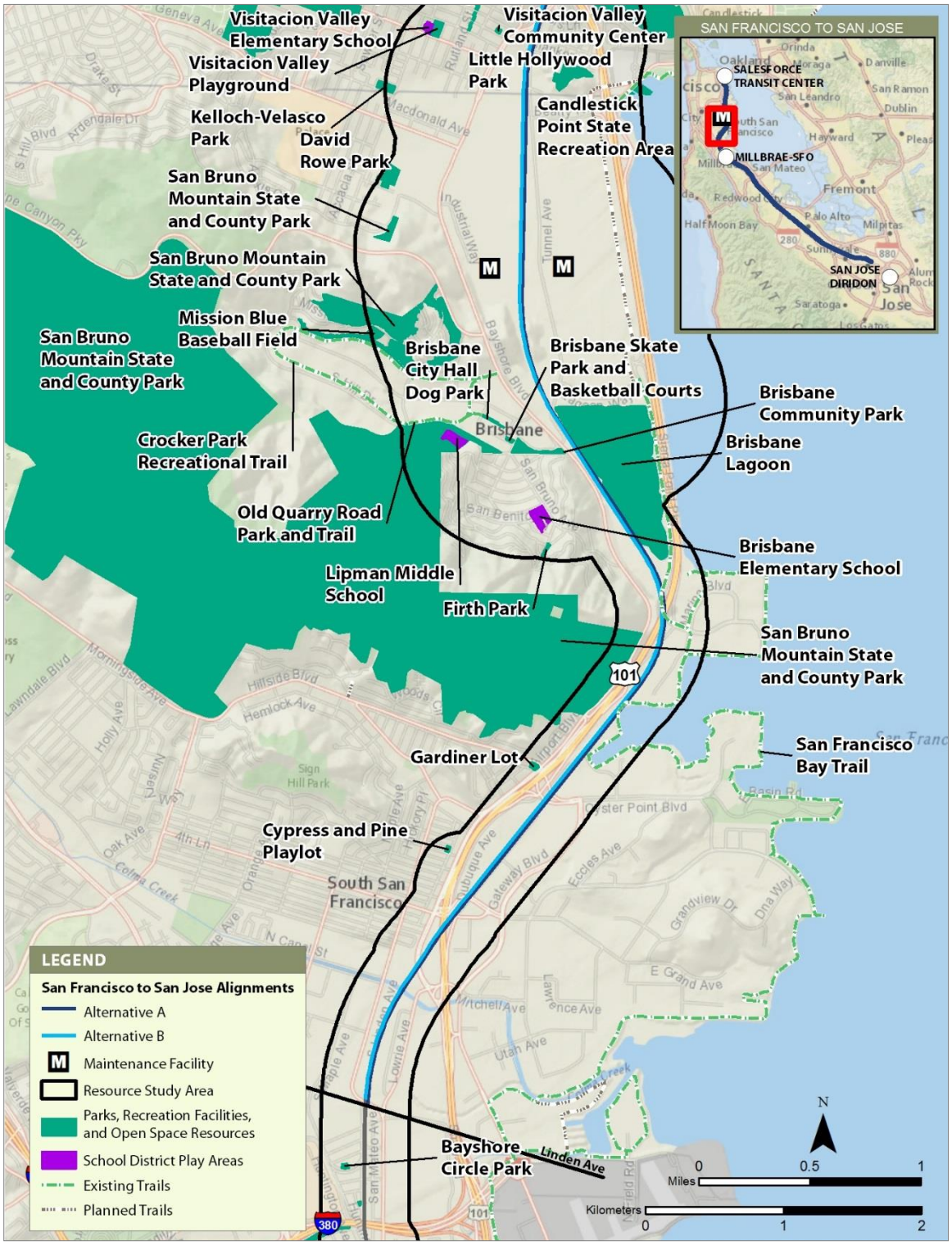
[1] This “planned” trail appears on the City of San Jose website and is included herein to address all reasonably known park resources (City of San Jose n.d.(b)).



Sources: Authority 2019a; CPAD 2017

MARCH 2020

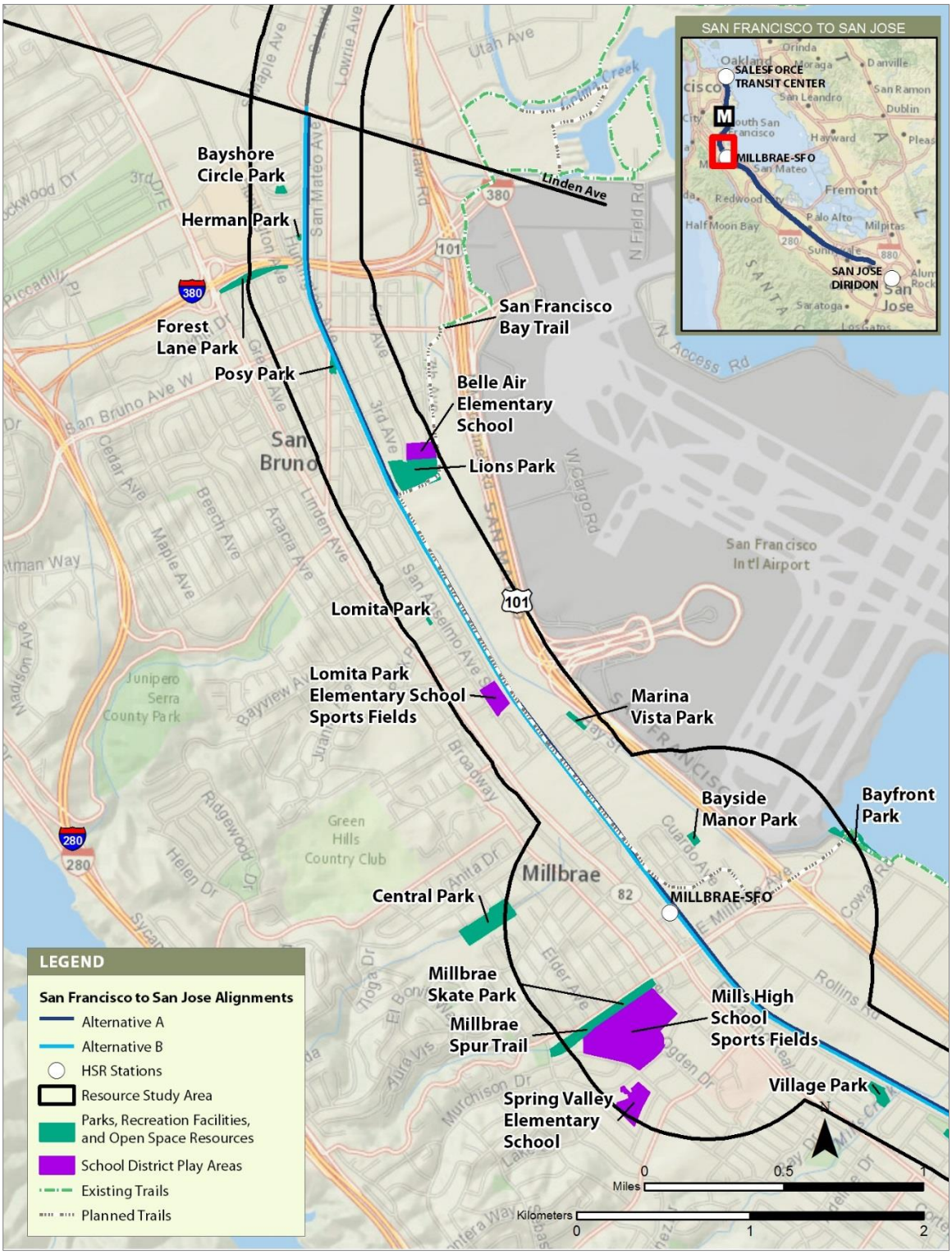
Figure 3.14-1 Parks, Recreational Facilities, Open Space, and School District Play Areas in the Resource Study Area—San Francisco to South San Francisco Subsection (Northern Portion)



Sources: Authority 2019a; CPAD 2017

MARCH 2020

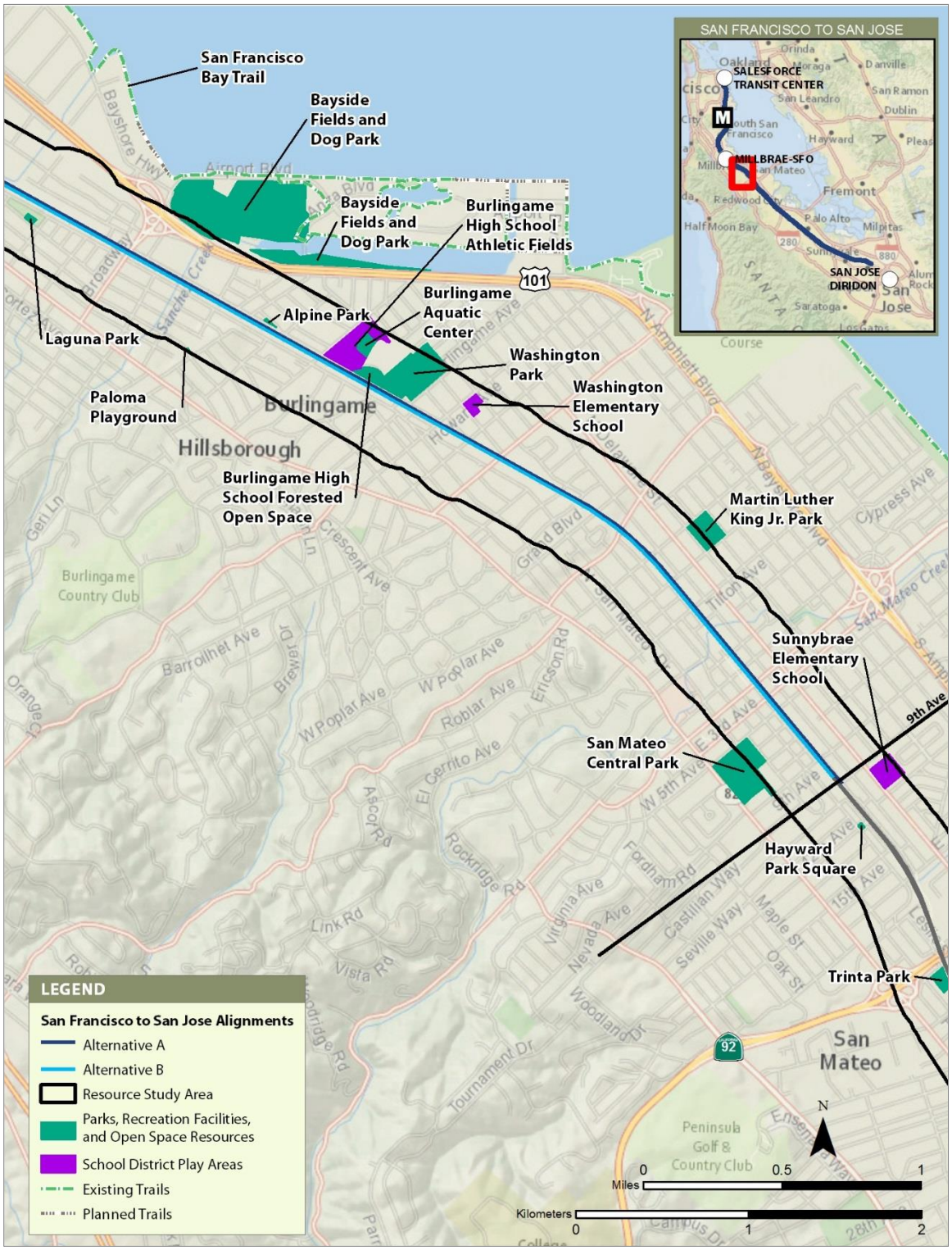
Figure 3.14-2 Parks, Recreational Facilities, Open Space, and School District Play Areas in the Resource Study Area—San Francisco to South San Francisco Subsection (Southern Portion)



Sources: Authority 2019a; CPAD 2017

MARCH 2020

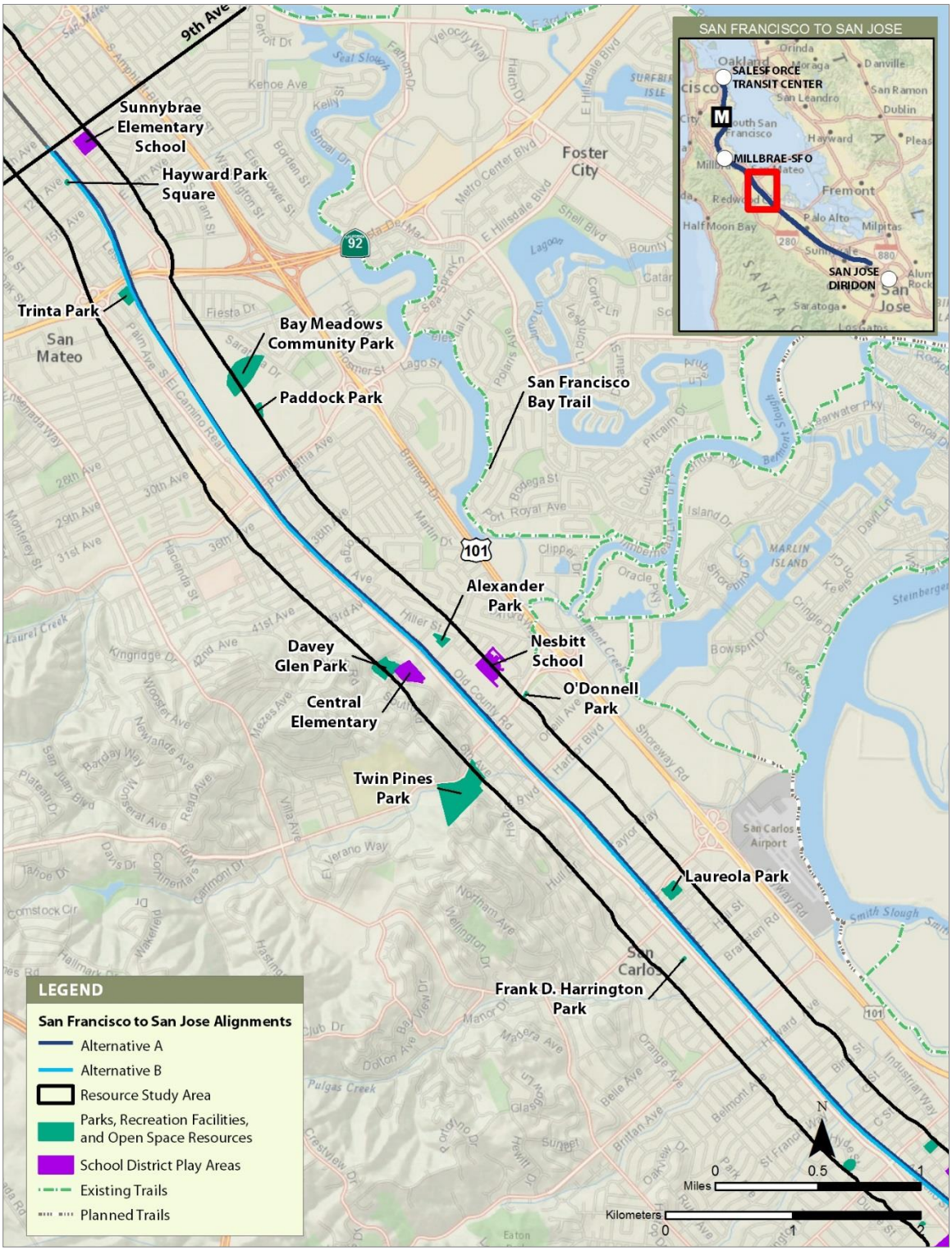
Figure 3.14-3 Parks, Recreational Facilities, Open Space, and School District Play Areas in the Resource Study Area—San Bruno to San Mateo Subsection (Northern Portion)



Sources: Authority 2019a; CPAD 2017

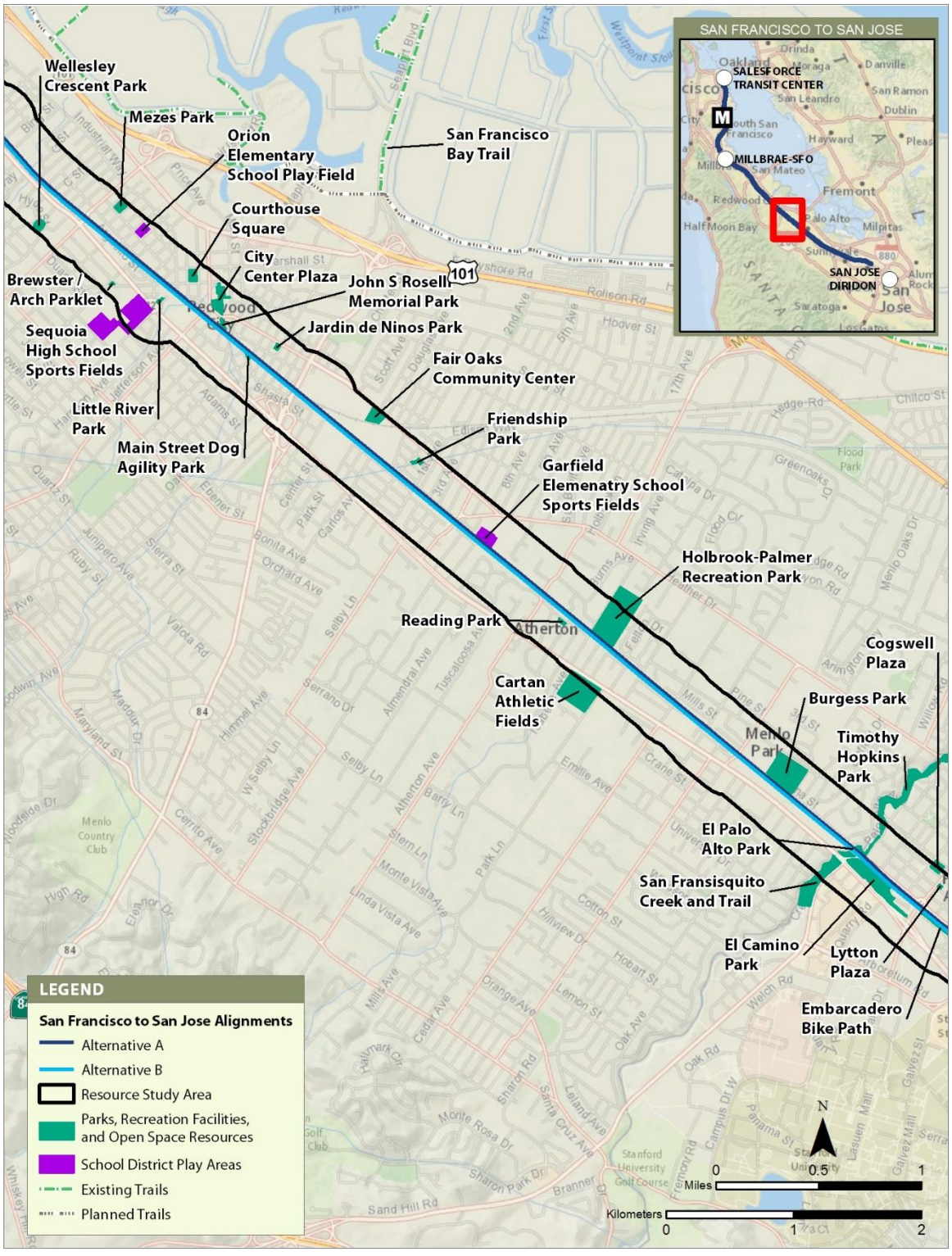
MARCH 2020

Figure 3.14-4 Parks, Recreational Facilities, Open Space, and School District Play Areas in the Resource Study Area—San Bruno to San Mateo Subsection (Southern Portion)



Sources: Authority 2019a; CPAD 2017 MARCH 2020

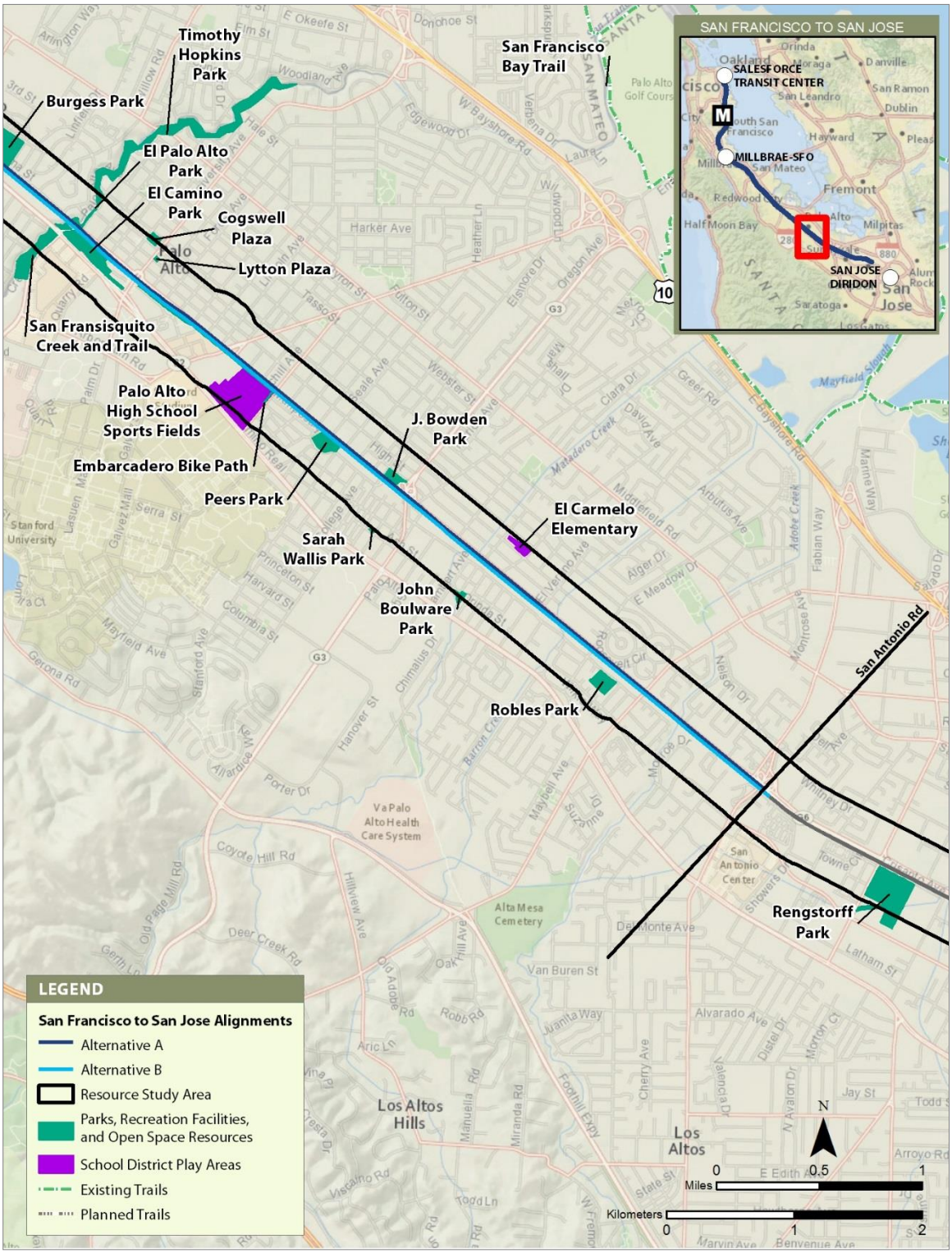
Figure 3.14-5 Parks, Recreational Facilities, Open Space, and School District Play Areas in the Resource Study Area—San Mateo to Palo Alto Subsection (Northern Portion)



Sources: Authority 2019a; CPAD 2017

MARCH 2020

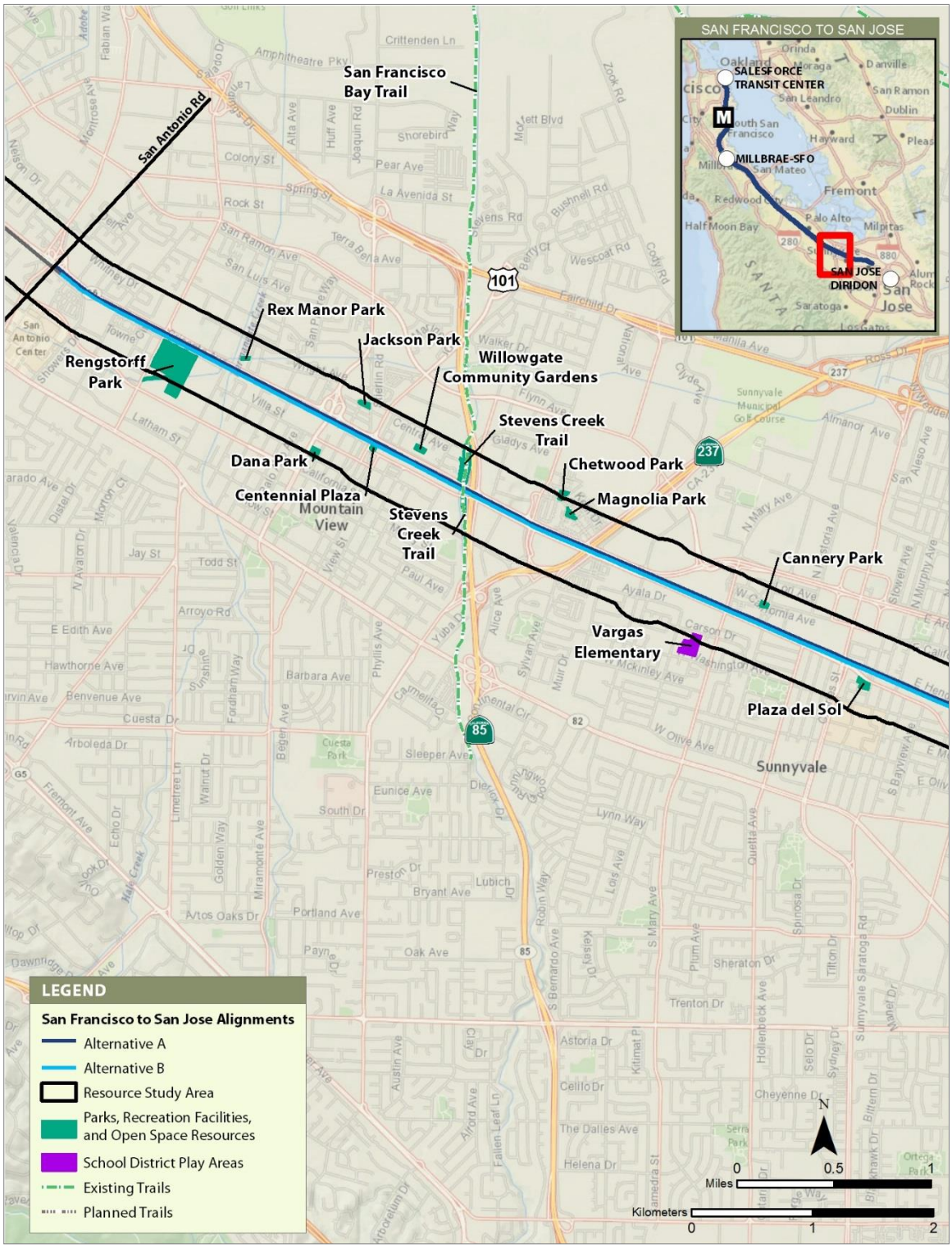
Figure 3.14-6 Parks, Recreational Facilities, Open Space, and School District Play Areas in the Resource Study Area—San Mateo to Palo Alto Subsection (Central Portion)



Sources: Authority 2019a; CPAD 2017

MARCH 2020

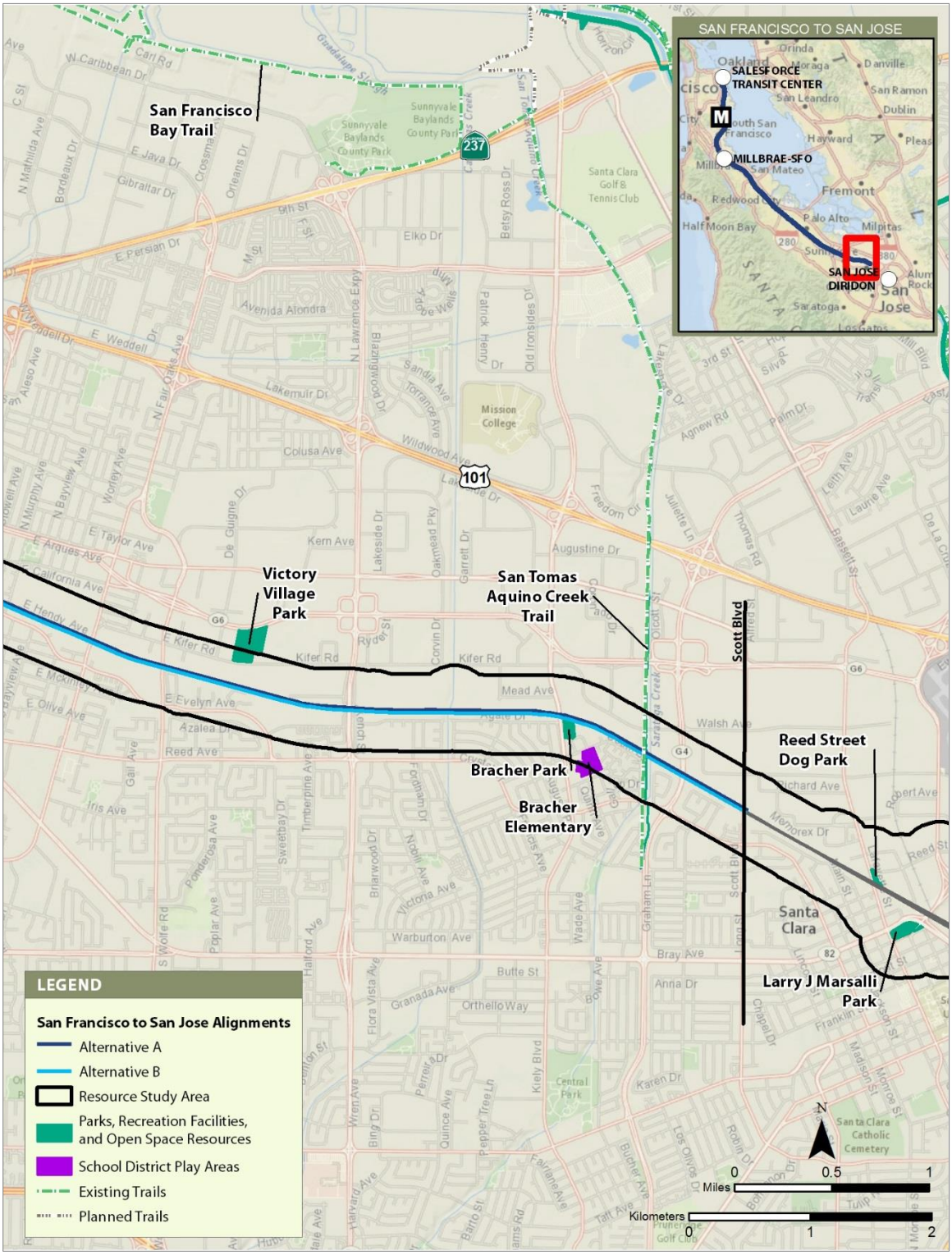
Figure 3.14-7 Parks, Recreational Facilities, Open Space, and School District Play Areas in the Resource Study Area—San Mateo to Palo Alto Subsection (Southern Portion)



Sources: Authority 2019a; CPAD 2017

MARCH 2020

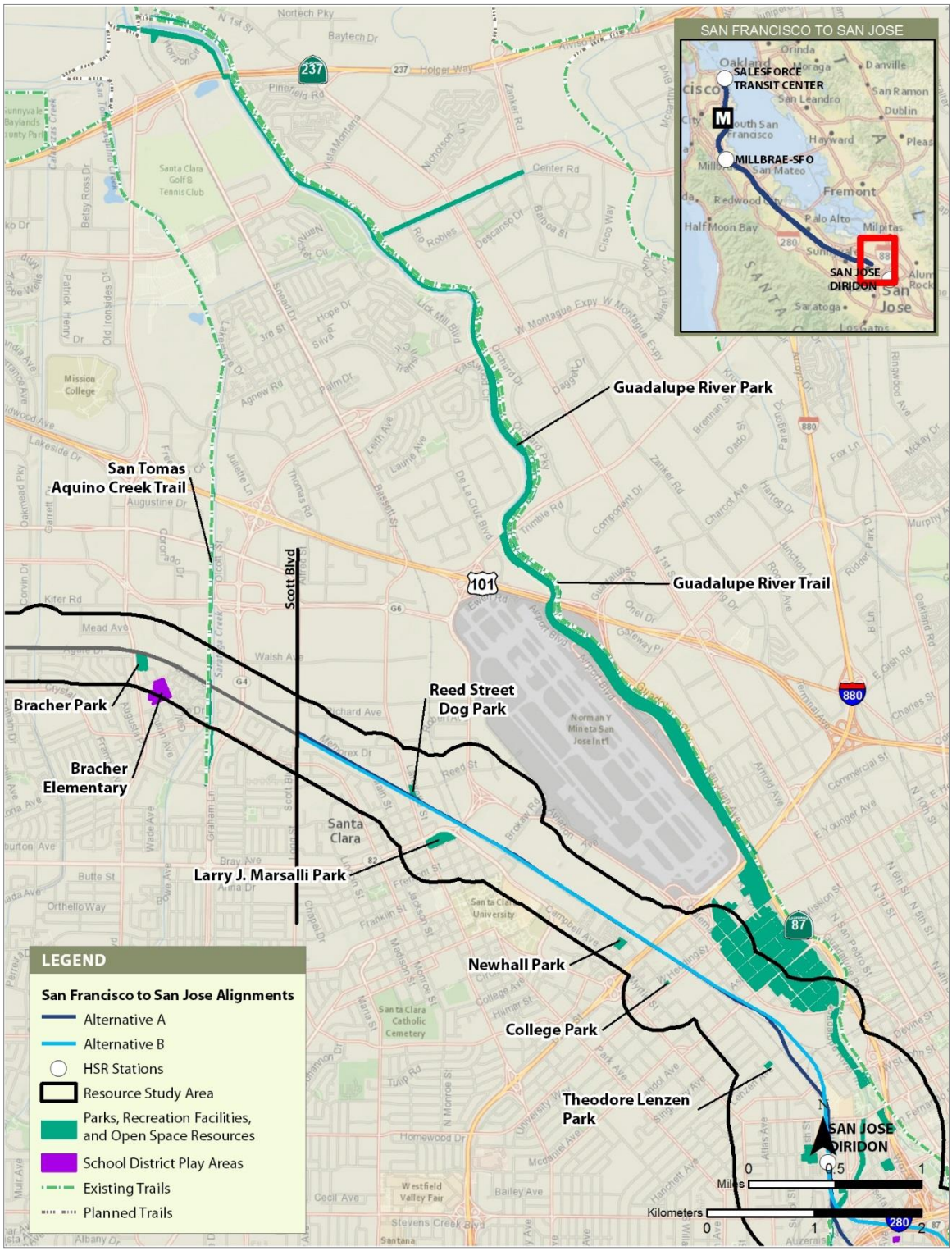
Figure 3.14-8 Parks, Recreational Facilities, Open Space, and School District Play Areas in the Resource Study Area—Mountain View to Santa Clara Subsection (Northern Portion)



Sources: Authority 2019a, 2019b; CPAD 2017

MARCH 2020

Figure 3.14-9 Parks, Recreational Facilities, Open Space, and School District Play Areas in the Resource Study Area—Mountain View to Santa Clara Subsection (Southern Portion)



Sources: Authority 2019a, 2019b; CPAD 2017

MARCH 2020

Figure 3.14-10 Parks, Recreational Facilities, Open Space, and School District Play Areas in the Resource Study Area—San Jose Diridon Station Approach Subsection (Northern Portion)

Sources: Authority 2019b; CPAD 2017 MARCH 2020

Figure 3.14-11 Parks, Recreational Facilities, Open Space, and School District Play Areas in the Resource Study Area—San Jose Diridon Station Approach Subsection (Southern Portion)

Table 3.14-2 Parks, Recreational Facilities, and Open Space Resources by Subsection

Name	Location	Type	Size	Setting/Features	Agency with Jurisdiction	Distance from TCE by Alternative (feet)		Distance from Project Footprint by Alternative (feet)	
						A	B[1]	A	B[1]
San Francisco to South San Francisco Subsection									
San Francisco Bay Trail-1	Extends from north of South Beach Park in San Francisco to Oyster Point	Recreation	5.4 miles (3.4 miles existing, 2.0 miles planned)	Urban to shoreline setting, bicycle and pedestrian, shoreline access, wildlife and nature viewing along the shoreline	Association of Bay Area Governments, Metropolitan Transportation Commission	323.3–2,461.4	323.3–2,461.4	0 (adjacent) –2,708.3	0 (adjacent) –2,708.3
Gene Friend Recreation Center	270 6th Street, San Francisco	Recreation	1.0 acre	Urban setting, full indoor gymnasium, activity room, weight room, auditorium, outdoor basketball court, playground, badminton and volleyball courts, ping pong and foosball tables	San Francisco Recreation and Park Department	2,444.7	2,444.7	2,459.1	2,459.1
Victoria Manalo Draves Park	Folsom Street between Columbia Square Street and Sherman Street, San Francisco	Park	2.5 acres	Urban setting, ball field, basketball court, bathrooms, a children's play area featuring a teepee-style jungle gym and slide, community garden, landscaped area, picnic area, play field	San Francisco Recreation and Park Department	1,899.9	1,899.9	1,909.2	1,909.2
South Park	South Park Street & Jack London Alley, San Francisco	Park	0.8 acre	Urban setting, small playground, sand pit, unique climbing structures, and picnic tables	San Francisco Recreation and Park Department	961.2	961.2	999.9	999.9

Name	Location	Type	Size	Setting/Features	Agency with Jurisdiction	Distance from TCE by Alternative (feet)		Distance from Project Footprint by Alternative (feet)	
						A	B[1]	A	B[1]
South Beach Park	King & 2nd Street, San Francisco	Park	1.6 acres	Urban setting, shoreline access, grassy areas and playground along the Bay waterfront	San Francisco Office of Community Investment and Infrastructure	1,528.4	1,528.4	1,607.9	1,607.9
China Basin Park	Terry A Francois Boulevard & 3rd Street, San Francisco	Park	8.0 acres	Urban setting, boardwalk, shoreline access, promenade, and central square	Port of San Francisco	949.6	949.6	1,194.9	1,194.9
Mission Creek Park	451 Berry Street, San Francisco	Park	10.0 acres	Urban setting, grass lawns, pavilion, tree-lined esplanade, small outdoor amphitheater, sports courts, shoreline access, boat launch	San Francisco Office of Community Investment and Infrastructure	143.9–375.0	143.9–375.0	30.0	30.0
Mission Bay Dog Park	451 Berry Street, San Francisco	Park	0.3 acre	Urban setting, large gravel play area for dogs, picnic tables, and water fountains	San Francisco Office of Community Investment and Infrastructure	141–950	141–950	14.74	14.74
Mission Bay Kid's Park	Long Bridge Street and China Basin, San Francisco	Park	1.0 acre	Urban setting, colorful interactive play zones, natural play zone with logs, earth mounds, boulders, sand and water, grass, a willow hut and arches, carved sculptures and redwood trunk benches, fenced playground, picnic areas, bike racks, and water fountains	San Francisco Office of Community Investment and Infrastructure	1,189.7	1,189.7	1,354.6	1,354.6

Name	Location	Type	Size	Setting/Features	Agency with Jurisdiction	Distance from TCE by Alternative (feet)		Distance from Project Footprint by Alternative (feet)	
						A	B[1]	A	B[1]
Mission Bay Commons Park	Bookended by Terry Francois Boulevard and 3rd Street between Mission Bay Boulevards north and south, San Francisco	Park	2.2 acres	Urban setting, green open space, walk/run sidewalk loop, and benches	San Francisco Office of Community Investment and Infrastructure	2,155.2	2,155.2	2,079.0	2,079.0
Mariposa Park	West of Hospital Street and north of Mariposa Street, San Francisco	Park	2.4 acres	Urban setting, grass lawn and walking paths, kids play area, and benches and tables	San Francisco Office of Community Investment and Infrastructure	890.0	890.0	188.0	188.0
Jackson Playground and Park	17th Street and Arkansas Street, San Francisco	Park and Recreation	4.5 acres	Urban setting, grass lawn and walking paths, kids play area, picnic area, two ball fields, basketball courts, and tennis courts	San Francisco Recreation and Parks Department	1,146.1	1,146.1	697.8	697.8
Pennsylvania Garden	251 Pennsylvania Avenue, San Francisco	Park	0.2 acre	Urban setting, street garden with paths, trees, garden beds, and dog area	Caltrans	1,171.8	1,171.8	0 (existing Caltrain right-of-way)	0 (existing Caltrain right-of-way)
Esprit Park	Minnesota and 20th Street, San Francisco	Park	1.8 acres	Urban setting, grass field, redwood trees, picnic tables	San Francisco Recreation and Parks Department	1,993.8	1,993.8	359.6	359.6
Woods Yard Park	Indiana & 22nd Street, San Francisco	Park	0.4 acre	Urban setting, grassy areas, large sand pit	San Francisco Municipal Transit Authority	3,315.8	3,315.8	361.9	361.9

Name	Location	Type	Size	Setting/Features	Agency with Jurisdiction	Distance from TCE by Alternative (feet)		Distance from Project Footprint by Alternative (feet)	
						A	B[1]	A	B[1]
Potrero Hill Recreation Center and Playground	801 Arkansas Street, San Francisco	Recreation	10 acres	Urban/residential setting, gymnasium, stage, auditorium, playground, baseball field, basketball court, dog play area, ball fields, two lighted tennis courts, picnic tables and BBQ grills	San Francisco Recreation and Parks Department	3,277.6	3,277.6	927.4	927.4
Progress Park	Indiana Street, San Francisco	Park	0.3 acre	Urban setting, meandering paths, benches, pull-up bar, bocce court, fenced off-leash dog area	Caltrans	3,640.5	3,640.5	314.7	314.7
Tunnel Top Park	1100 Pennsylvania Avenue, San Francisco	Park	0.5 acre	Urban setting, seating areas/reflection spaces, wetland garden, dog run, community garden	Caltrans	2,927.3	2,927.3	0 (on surface of existing Caltrain tunnel)	0 (on surface of existing Caltrain tunnel)
Palou and Phelps Park, San Francisco	Palou Avenue & Phelps Street, San Francisco	Park/Open Space	2.6 acres	Urban/residential setting, small playground, primarily a steep grassland hill with trails	San Francisco Recreation and Park Department	589.9	589.9	0 (on surface of existing Caltrain tunnel)	0 (on surface of existing Caltrain tunnel)
Florence Fang Asian Community Garden	Diana Street, San Francisco	Park	1.1 acres	Urban setting, community garden	Caltrans	1,490.1	1,490.1	0 (on surface of existing Caltrain tunnel)	0 (on surface of existing Caltrain tunnel)

Name	Location	Type	Size	Setting/Features	Agency with Jurisdiction	Distance from TCE by Alternative (feet)		Distance from Project Footprint by Alternative (feet)	
						A	B[1]	A	B[1]
Bay View Park K.C. Jones Playground	3rd & Armstrong, San Francisco	Park	3.4 acres	Urban setting, playground, softball field, spacious lawn, pool	San Francisco Recreation and Park Department	729.5	729.5	679.0	679.0
Mansell Parkway	Mansell Street, San Francisco	Park	1.1 acres	Urban setting, pedestrian/bike path, sidewalk, bicycle facilities, trees and landscaping, and site furnishings	San Francisco Public Works Department	1,136.6	1,136.6	870.3	870.3
Le Conte Mini Park	920 Le Conte Avenue, San Francisco	Park	0.2 acre	Urban/residential setting, open space with landscaping, currently under development	San Francisco Recreation and Park Department	1,559.1	1,559.1	717.2	717.2
Bayview Hill Park/Open Space	200 Bayview Park Road, San Francisco	Park/Open Space	42.4 acres	Urban/residential setting, natural resource area system with coastal scrub, oak groves, rare Islais cherry trees, paved trail	San Francisco Recreation and Park Department	1,410.2	1,410.2	918.2	918.2
John McLaren Park	Mansell Street and John F Shelley Drive, San Francisco	Park	312.5 acres	Urban/residential setting, playgrounds, picnic areas, hiking trails, game courts, golf course, McNab Lake, swimming pool, amphitheater, natural areas, gardens	San Francisco Recreation and Park Department	2,464.7	2,464.7	2,308.3	2,308.3

Name	Location	Type	Size	Setting/Features	Agency with Jurisdiction	Distance from TCE by Alternative (feet)		Distance from Project Footprint by Alternative (feet)	
						A	B[1]	A	B[1]
Visitacion Valley Greenway	Between Leland and Tioga Streets, San Francisco	Park	2.1 acres	Urban/residential setting, a series of six contiguous parks including from north to south: ▪ Native Plant Garden (pathway, natural garden) ▪ Ornamedibles Garden ▪ Children's Garden (butterfly garden and playground) ▪ Herb Garden (picnic area) ▪ Community Garden ▪ Hans Schiller Plaza	San Francisco Recreation and Parks Department	1,449.1–1,915.3	1,494.6–1,915.3	1,393.0–1,757.6	1,393.0–1,757.6
Visitacion Valley Community Center	50 Raymond Avenue, San Francisco	Recreation	0.3 acre	Urban setting, eight outdoor basketball courts, running track, and three multipurpose courts	San Francisco Recreation and Parks Department	786.1	786.1	684.8	684.8
Visitacion Valley Playground	263 Leland Avenue and Coral, San Francisco	Park	1.9 acres	Urban setting, multipurpose field and baseball diamond, climbing structure, sand pit, full basketball court, large multipurpose court. The recreation center offers a basketball program.	San Francisco Recreation and Parks Department	1,903.4	1,910.0	1,829.2	1,829.2

Name	Location	Type	Size	Setting/Features	Agency with Jurisdiction	Distance from TCE by Alternative (feet)		Distance from Project Footprint by Alternative (feet)	
						A	B[1]	A	B[1]
Candlestick Point State Recreation Area	Harney Way, San Francisco	Recreation	1.9 acres	Commercial/shoreline setting, southernmost extent of recreation area with bike/hiking trail, swimming, shoreline access	California Department of Parks and Recreation	2,334.4	2,309.7	2,340.2	2,340.2
Little Hollywood Park	Lathrop and Tocoloma, San Francisco	Park	6.0 acres	Urban/residential setting, play structure, full basketball court, grassy area	San Francisco Recreation and Park Department	607.6	592.0	590.0	590.0
Kelloch-Velasco Park	Kelloch Street and Velasco Street, San Francisco	Park	1.7 acres	Urban setting, sand playground, two basketball courts, grassy areas, benches and tables	San Francisco Department of Parks and Recreation	2,448.8	2,451.8	2,403.8	2,403.8
David R. Rowe Park	45 Midway Drive, Daly City	Park	3.7 acres	Urban setting, playground, tennis courts, ball park, and basketball court	Daly City Library and Recreation Services	2,841.5	2,240.5	2,852.6	2,265.7
Mission Blue Baseball Field	475 Mission Blue Drive, Brisbane	Recreation	1.9 acres	Residential setting, baseball field with bleachers	City of Brisbane Parks and Recreation Department	3,009.9	2,358.9	3,194.8	2,348.5
Crocker Park Recreational Trail	Between West Hill Place, Bayshore Blvd, and Park Lane, Brisbane	Recreation	2.5 miles	Commercial setting, improved gravel/dirt surface trail for walking, jogging, or biking, benches	City of Brisbane Parks and Recreation Department	179.5–981.2	147.6–981.2	705.9–1,556.7	500.0–705.9
Brisbane City Hall Dog Park	Behind City Hall (50 Park Place), Brisbane	Park	0.5 acre	Commercial setting, large grassy area, decomposed granite area, seating	City of Brisbane Parks and Recreation Department	240.6–762.4	240.6–700.9	247.7–996.8	247.7–996.8

Name	Location	Type	Size	Setting/Features	Agency with Jurisdiction	Distance from TCE by Alternative (feet)		Distance from Project Footprint by Alternative (feet)	
						A	B[1]	A	B[1]
San Bruno Mountain State and County Park	555 Guadalupe Canyon Parkway, Brisbane	Recreation /Open Space	2,416.0 acres	Urban/rural setting, campsites, bike trails, hiking trails, horseback riding, picnic areas, restrooms	Managed by San Mateo County, the park is jointly owned by the county and state	500–1,034.6	500–1,034.6	367.0	367.0
Brisbane Lagoon and Fisherman's Park	Sierra Point Parkway, Brisbane	Recreation	150.0 acres	Urban setting, lagoon, benches, and surface parking	City of Brisbane Parks and Recreation Department	0 (adjacent)	0 (adjacent)	0 (adjacent) –2,744.4	0 (adjacent) –3,461.2
Brisbane Community Park	Old County Road and San Francisco Avenue, Brisbane	Park	3.0 acres	Urban/commercial setting, grassy lawn areas, picnic areas, play structure, restrooms, gazebo	City of Brisbane Parks and Recreation Department	Within TCE	Within TCE	50.0–2,009.1	50.0–2,036.3
Brisbane Skate Park and Basketball Courts	Old County Road and Park Lane, Brisbane	Recreation	0.3 acre	Urban/commercial setting, skate park, two basketball courts	City of Brisbane Parks and Recreation Department	0 (adjacent)	0 (adjacent)	100.0–2,031.3	100.0–2,058.0
Old Quarry Road Park and Trail	Solano Street and San Francisco Avenue, Brisbane	Park	9.7 acres	Urban/commercial/ residential setting, picnic tables, community garden, natural surface hiking and biking trail	City of Brisbane Parks and Recreation Department	367.2	367.2	373.6–2,500.0	373.6–2,056.3
Firth Park	Glen Park Way and Sierra Point Road, Brisbane	Park	0.5 acre	Urban/residential setting, picnic tables, large grassy area	City of Brisbane Parks and Recreation Department	1,564.0	1,564.0	1,584.8	1,584.8
Gardiner Lot	Gardiner Avenue & Randolph Avenue, South San Francisco	Recreation	0.5 acre	Urban/residential setting, parking lot and landscaping	City of South San Francisco Parks and Recreation Department	2,460.9	2,460.9	542.9	542.9

Name	Location	Type	Size	Setting/Features	Agency with Jurisdiction	Distance from TCE by Alternative (feet)		Distance from Project Footprint by Alternative (feet)	
						A	B[1]	A	B[1]
Cypress and Pine Playlot	Cypress Avenue at Pine Avenue, South San Francisco	Park	0.3 acre	Urban/residential setting, playground, basketball courts	City of South San Francisco Parks and Recreation Department	839.0	839.0	606.2	606.2
San Bruno to San Mateo Subsection									
Bayshore Circle Park	North Bayshore Circle, San Bruno	Park	1.0 acre	Urban/residential setting, basketball court and play area	City of San Bruno Community Services Department	436.8–861.2	436.8–861.2	317.6	317.6
Herman Park	Diamond Street and Herman Street, San Bruno	Park	0.2 acre	Urban/residential setting, playground and grassy area	City of San Bruno Community Services Department	50.7	50.7	47.0	47.0
Forest Lane Park	Forest Lane at Green Avenue, San Bruno	Park	4.0 acres	Urban/residential setting, grassy area, basketball court, play area, picnic and BBQ area	City of San Bruno Community Services Department	297.2	297.2	297.2	297.2
Posy Park	San Mateo at Huntington Avenue, San Bruno	Park	0.3 acre	Urban setting, open space with benches, landscaping	City of San Bruno Community Services Department	0 (adjacent) –351.5	0 (adjacent) –351.5	0 (adjacent)	0 (adjacent)
San Francisco Bay Trail-2	Extends from north of Lions Park in San Bruno to Millbrae Avenue in Millbrae	Recreation	2.8 miles (planned)	Urban, planned bicycle and pedestrian trail west of SFO	Association of Bay Area Governments, Metropolitan Transportation Commission	0 (adjacent) – 2,366.5	0 (adjacent) – 2,366.5	0 (adjacent) –2,524.7	0 (adjacent) –2,524.7
Lions Park	South end of 1st & 3rd Avenues, San Bruno	Park	3.0 acres	Urban/residential setting, play structure, grass area, ball field	City of San Bruno Community Services Department	891.7	891.7	58.7	58.7

Name	Location	Type	Size	Setting/Features	Agency with Jurisdiction	Distance from TCE by Alternative (feet)		Distance from Project Footprint by Alternative (feet)	
						A	B[1]	A	B[1]
Lomita Park	Santa Lucia Avenue and San Anselmo Avenue, San Bruno	Park	0.1 acre	Urban/residential setting, picnic table, play structure, grassy area	City of San Bruno Community Services Department	493.4–870.7	493.4–870.7	510.4	510.4
Marina Vista Park	Spruce Avenue on Bay Street, Millbrae	Park	0.7 acre	Urban/residential setting, basketball court, playground, open field, BBQs, picnic areas	City of Millbrae Parks Division	558.5	558.5	536.8	536.8
Central Park, Millbrae	477 Lincoln Circle, Millbrae	Park/ Recreation	13 acres	Urban/residential setting, playground, playing field, picnic areas, BBQs, tennis court, and grassy areas	City of Millbrae Parks Division	2,338.7	2,338.7	2,436.0	2,436.0
Bayside Manor Park	Lerida Avenue, Millbrae	Park/Open Space	35.4 acres	Urban/residential setting, basketball court, playground, open-space area	City of Millbrae Parks Division	380.0–822.6	380.0–822.6	924.7	924.7
Bayfront Park	Old Bayshore Highway, Millbrae	Park	3.7 acres	Urban/commercial setting, small bayside park with shoreline access, next to the airport, with a walking trail and benches for watching the planes land	City of Millbrae Parks Division	2,366.5	2,366.5	2,524.7	2,524.7
Millbrae Spur Trail Phase I	Magnolia Avenue and Millbrae Avenue, Millbrae	Recreation	7.7 acres	Urban/residential setting, paved walking trail	City of Millbrae Parks Division	575.9	575.9	787.0	787.0
Millbrae Skate Park	451 Millbrae Avenue, Millbrae	Recreation	0.3 acre	Urban/residential setting, ramps and rails	City of Millbrae Parks Division	1,195.3	1,195.3	1406.1	1406.1

Name	Location	Type	Size	Setting/Features	Agency with Jurisdiction	Distance from TCE by Alternative (feet)		Distance from Project Footprint by Alternative (feet)	
						A	B[1]	A	B[1]
Village Park	1535 California Drive, Burlingame	Park	1.9 acres	Urban/residential setting, playground, restrooms, picnic area, basketball court, soccer field	Burlingame Parks and Recreation Department	164.1	164.1	98.6	98.6
Laguna Park	1414 Laguna Street, Burlingame	Park	0.5 acre	Urban/residential setting, two tennis courts, children's play area	Burlingame Parks and Recreation Department	199.5	199.5	199.5	199.5
Bayside Fields and Dog Park (formerly Burlingame Lagoon Park)	1125 Airport Boulevard, Burlingame	Recreation /Open Space	59.6 acres	Urban/commercial/ bayside setting, lighted soccer, youth baseball, and softball fields, walking, cycling, running trails, a dog exercise park, community garden, golf center, protected wetlands area	Burlingame Parks and Recreation Department	903.2	903.2	891.1	891.1
Paloma Playground	Paloma and Edgehill, Burlingame	Park	0.1 acre	Urban/residential setting, playground and picnic tables	Burlingame Parks and Recreation Department	1,021.1	1,021.1	949.5	949.5
Alpine Park	Corner of Alpine and Carolan Avenues, Burlingame	Park	0.1 acre	Urban/residential setting, playground, picnic tables	Burlingame Parks and Recreation Department	910.8	910.8	79.4	79.4
Burlingame Aquatic Center	1 Mangini Way, Burlingame	Recreation	1.8 acres	Urban/residential setting, two outdoor heated pools, locker rooms, showers, changing areas	Burlingame Parks and Recreation Department and Burlingame Union High School District	780.1	780.1	421.1	421.1

Name	Location	Type	Size	Setting/Features	Agency with Jurisdiction	Distance from TCE by Alternative (feet)		Distance from Project Footprint by Alternative (feet)	
						A	B[1]	A	B[1]
Washington Park	850 Burlingame Avenue, Burlingame	Recreation	18.9 acres	Urban/residential setting, tennis courts, playground, restrooms, basketball court, picnic areas, baseball facilities	Burlingame Parks and Recreation Department	158.5–640.8	158.5–640.8	58.1	58.1
Martin Luther King, Jr. Park	725 Monte Diablo Avenue, San Mateo	Park	3.5 acres	Urban/residential setting, playground, basketball court, baseball field, soccer/multipurpose field, swimming, picnic areas, restrooms	City of San Mateo Parks and Recreation	863.5	863.5	863.5	863.5
San Mateo Central Recreation Center and Park	50 East 5th Avenue, San Mateo	Recreation	16.3 acres	Urban setting, playground, restrooms, tennis courts, baseball field, picnic areas, Japanese Tea Garden	City of San Mateo Parks and Recreation	702.6	702.6	737.1	737.1
San Mateo to Palo Alto Subsection									
Hayward Park Square	1189 South B Street, San Mateo	Park	0.3 acre	Urban setting, picnic areas	City of San Mateo Parks and Recreation	79.3	79.3	79.3	79.3
Trinta Park	150 19th Avenue, San Mateo	Park	2.2 acres	Urban/residential setting, playground, baseball field, basketball court, restrooms	City of San Mateo Parks and Recreation	87.0	0 (adjacent)	0 (adjacent)	0 (adjacent)
Bay Meadows Community Park	301 East 28th Avenue, San Mateo	Park/ Recreation	11.3 acres	Urban/residential/ commercial setting, baseball field, large pond, large grassy areas, picnic areas, soccer fields, and walking path	City of San Mateo Parks and Recreation	905.0	747.1	747.2	747.2

Name	Location	Type	Size	Setting/Features	Agency with Jurisdiction	Distance from TCE by Alternative (feet)		Distance from Project Footprint by Alternative (feet)	
						A	B[1]	A	B[1]
Paddock Park	2900 Baze Road, San Mateo	Park/ Recreation	1.1 acres	Residential setting, half basketball court, grassy areas, picnic areas, and playground	City of San Mateo Parks and Recreation	1,138.8	978.3	981.5	981.5
Davey Glen Park	Davey Glen Road, Belmont	Park	1.0 acre	Urban/residential setting, playground, picnic area, synthetic turf play area, rain garden	City of Belmont Parks and Recreation	645.2	631.1	645.2	625.7
Alexander Park	400 Yorkshire Way, Belmont	Park	1.3 acres	Urban/residential setting, basketball court, BBQ facilities, horseshoe pits, lawn area, playground, restrooms, tennis courts	City of Belmont Parks and Recreation	393.8–774.1	374.2	393.8	383.8
O'Donnell Park	400 Ralston, Belmont	Park	0.2 acre	Residential/commercial setting, basketball, BBQ, picnic area, community garden, lawn area, playground	City of Belmont Parks and Recreation	1,021.5	920.6	1,026.3	890.8
Twin Pines Park	One Twin Pines Lane, Belmont	Park	10 acres	Urban/residential setting, BBQ, lawn area, multi-use field, open space trails, picnic areas, playground, recreational facility, restrooms, Belmont Historical Society Museum, Belmont Parks and Recreation, and the Senior and Community Center	City of Belmont Parks and Recreation	873.5	873.5	859.0	859.0

Name	Location	Type	Size	Setting/Features	Agency with Jurisdiction	Distance from TCE by Alternative (feet)		Distance from Project Footprint by Alternative (feet)	
						A	B[1]	A	B[1]
Laureola Park	503 Old County Road, San Carlos	Park	2.6 acres	Urban/residential setting, ball diamond, basketball courts, benches, picnic tables, BBQ, play equipment, recreation center, restrooms, soccer field	City of San Carlos Parks and Recreation Department	359.4	213.5	284.9	268.3
Frank D. Harrington Park (formerly Laurel Street Park)	759 Laurel Street, San Carlos	Park	0.3 acre	Urban setting, public art sculpture, benches, picnic tables, raised stage	City of San Carlos Parks and Recreation Department	311.7	309.8	311.7	309.8
Wellesley Crescent Park	Edgewood Road and Arlington Road, Redwood City	Park	0.7 acre	Urban/residential setting, grass area, picnic tables	Redwood City Parks, Recreation & Community Services	909.9	748.9–909.9	675. 8	675. 8
Mezes Park	Warren Street and Standish Street, Redwood City	Park	1.7 acres	Urban/residential setting, basketball court, grass area, picnic tables, playground, restroom, tennis court	Redwood City Parks, Recreation & Community Services	741.9	741.9	677.8	677.8
Brewster/Arch Parklet	Arch Street, Redwood City	Park	0.1 acre	Urban setting, grass area, landscaping	Redwood City Parks, Recreation & Community Services	718.9	718.9	690.1	690.1
Little River Park	James Avenue and California Street, Redwood City	Park	0.9 acre	Urban setting, grass area, benches	Redwood City Parks, Recreation & Community Services	311.8	311.8	0 (within existing station footprint)	0 (within existing station footprint)

Name	Location	Type	Size	Setting/Features	Agency with Jurisdiction	Distance from TCE by Alternative (feet)		Distance from Project Footprint by Alternative (feet)	
						A	B[1]	A	B[1]
Courthouse Square	2200 Broadway, Redwood City	Park	1.4 acres	Urban setting, chairs, open area, used for various city events such as outdoor movies, celebrations, live music, etc.	Redwood City Parks, Recreation & Community Services	666.8	666.8	450.7	450.7
City Center Plaza	Between Middlefield Road and Broadway, Redwood City	Park	2.9 acres	Urban/commercial setting, landscaping, paved surface at City Hall	Redwood City Parks, Recreation & Community Services	517.6	517.6	293.3	293.3
John S. Roselli Memorial Park	Pennsylvania Avenue and Maple Street, Redwood City	Park	0.4 acre	Urban/commercial setting, trees, grass area	Redwood City Parks, Recreation & Community Services	169.3	169.3	0 (adjacent)	0 (adjacent)
Main Street Dog Agility Park	1295 Main Street, Redwood City	Recreation	0.1 acre	Urban/commercial setting, lighted agility course for dogs	Redwood City Parks, Recreation & Community Services	8.9	8.9	7.3	7.3
Jardin de Ninos Park	Middlefield Road and Chestnut Street, Redwood City	Park	0.3 acre	Urban/residential setting, picnic tables, playground, restrooms	Redwood City Parks, Recreation & Community Services	596.1	596.1	490.7	490.7
Fair Oaks Community Center	2600 Middlefield Road, Redwood City	Recreation	0.3 acre	Urban/industrial setting, grass areas and jungle gym	Redwood City Parks, Recreation & Community Services	2,821.9	2,821.9	570.8	570.8
Friendship Park	290 Huntington Avenue, Redwood City	Park	0.3 acre	Urban/residential setting, playground, picnic tables, community garden	County of San Mateo Parks Department	2,512.7	2,512.7	466.0	466.0
Reading Park	2 Dinkelspiel Station Lane, Atherton	Park	0.4 acre	Urban/commercial setting landscaping, grass area	Town of Atherton	119.9	119.9	119.9	119.9

Name	Location	Type	Size	Setting/Features	Agency with Jurisdiction	Distance from TCE by Alternative (feet)		Distance from Project Footprint by Alternative (feet)	
						A	B[1]	A	B[1]
Holbrook-Palmer Park	150 Watkins Avenue, Atherton	Park	22.0 acres	Urban/residential setting, ball field, tennis courts, playground, gardens and walking paths	Town of Atherton Holbrook-Palmer Park Department	0–774.6	0–774.6	0 (adjacent)	0 (adjacent)
Cartan Athletic Fields	1000 El Camino Real, Atherton	Recreation	14.9 acres	Urban/residential setting, aquatic center, tennis courts, football/soccer/ lacrosse field, running track, and baseball field	Menlo College and Menlo School	877.0	877.0	877.0	877.0
Burgess Park	701 Laurel Street, Menlo Park	Recreation	9.3 acres	Urban/residential setting, baseball field, basketball court, open play field, playground, soccer field, tennis court, and skate park	City of Menlo Park Community Services Department	795.8	795.8	54.7	54.7
Timothy Hopkins Creekside Park	Palo Alto Avenue from Emerson to Marlowe Streets	Open Space	12.4 acres	Urban/residential setting, a narrow strip of mostly undeveloped land along the banks of San Francisquito Creek, approximately 1.5 miles long and at its widest 200 feet. A few wider spots with a bench or picnic table.	City of Palo Alto Community Services	716.6	716.6	716.6	716.6
El Palo Alto Park	117 Palo Alto Avenue, Palo Alto	Park	0.5 acre	Urban/residential setting, interpretative plaques, Coast Redwoods, lighted pedestrian/bike path	City of Palo Alto Community Services	0 (adjacent)	0 (adjacent)	0 (adjacent)	0 (adjacent)

Name	Location	Type	Size	Setting/Features	Agency with Jurisdiction	Distance from TCE by Alternative (feet)		Distance from Project Footprint by Alternative (feet)	
						A	B[1]	A	B[1]
San Francisquito Creek & Trail	Between Creek Drive and Sand Hill Road, Palo Alto	Recreation	9.0 acres	Urban/commercial setting, trails and landscaping	City of Palo Alto Community Services	352.5	352.5	352.5	352.5
El Camino Park	155 El Camino Real, Palo Alto	Park	12.2 acres	Urban setting, synthetic soccer field, lighted softball diamond with bleachers, restrooms, and parking lot	City of Palo Alto Community Services	0 (adjacent)	0 (adjacent)	0 (adjacent)	0 (adjacent)
Lytton Plaza	202 University Avenue, Palo Alto	Park	0.2 acre	Urban setting, fountain, moveable and stationary tables and chairs, benches, bike racks, public art	City of Palo Alto Community Services	608.2	608.2	608.2	608.2
Cogswell Plaza	264 Lytton Avenue, Palo Alto	Park	0.5 acre	Urban setting, grass area, tables and chairs, benches	City of Palo Alto Community Services	889.2	889.2	889.2	889.2
Embarcadero Bike Path	From Encina Avenue, Embarcadero Road or Churchill Avenue, Palo Alto	Recreation	1.0 mile	Lighted bike path	City of Palo Alto Community Services	0 (adjacent)	0 (adjacent)	0 (adjacent)	0 (adjacent)
Peers Park	1899 Park Boulevard, Palo Alto	Park	4.7 acres	Urban/residential setting, tennis courts, picnic tables, children's play areas, basketball court, field house, restrooms	City of Palo Alto Community Services	1,480.8	1,480.8	0.2 (adjacent)	0.2 (adjacent)

Name	Location	Type	Size	Setting/Features	Agency with Jurisdiction	Distance from TCE by Alternative (feet)		Distance from Project Footprint by Alternative (feet)	
						A	B[1]	A	B[1]
Jerry Bowden Park	Between High and Alma Streets, at North California Avenue, Palo Alto	Park	2.0 acres	Urban/residential setting, open grassy area, playground, picnic area, benches, public art	City of Palo Alto Community Services	526.9	526.9	69.1	69.1
Sarah Wallis Park	202 Ash Street, Palo Alto	Park	0.3 acre	Urban/residential setting, benches and public art	City of Palo Alto Community Services	1,132.4	1,132.4	979.8	979.8
Boulware Park	410 Fernando Avenue, Palo Alto	Park	1.5 acres	Urban/residential setting, playgrounds, basketball court, picnic areas with barbecues, benches	City of Palo Alto Community Services	1,483.3	1,483.3	856.3	856.3
Robles Park	4116 Park Boulevard, Palo Alto	Park	4.7 acres	Urban/residential setting, playgrounds, picnic areas, barbecues, benches, multipurpose bowl with colorful tile art, basketball court, softball backstop, footpath	City of Palo Alto Community Services	43.3–728.5	43.3–728.5	51.3	51.3
Mountain View to Santa Clara Subsection									
Rengstorff Park	201 South Rengstorff Avenue, Mountain View	Park	27.0 acres	Urban setting, BBQ facilities, baseball field, basketball court, skate park, children's playground, passive areas, picnic area, softball field, swimming pool, tennis courts, outdoor volleyball court, restrooms	City of Mountain View Community Services	32.6	32.6	55.7	55.7

Name	Location	Type	Size	Setting/Features	Agency with Jurisdiction	Distance from TCE by Alternative (feet)		Distance from Project Footprint by Alternative (feet)	
						A	B[1]	A	B[1]
Rex Manor Park	Farley Street & Central Expressway, Mountain View	Park	0.4 acre	Urban/residential setting, children's playground, passive areas, picnic area	City of Mountain View Community Services	2,142.3	2,142.3	301.0	301.0
Jackson Park	Jackson Street & Stierlin Road, Mountain View	Park	1.0 acre	Urban/residential setting, children's playground, passive areas, picnic area	City of Mountain View Community Services	692.7	692.7	697.8	697.8
Dana Park	251 South Shoreline Boulevard, Mountain View	Park	1.3 acre	Urban/residential setting, grassy landscaped area with benches	City of Mountain View Community Services	891.7	891.7	781.3	781.3
Centennial Plaza	Castro Street and Evelyn Avenue, Mountain View	Park	0.4 acre	Urban setting, children's play equipment, picnic area, landscaping, benches	Caltrain and Santa Clara Valley Transportation Authority Light Rail	4.9	4.9	0 (adjacent)	0 (adjacent)
Willowgate Community Garden	End of Andsbury Avenue, Mountain View	Park	0.81 acre	Residential setting, community garden	City of Mountain View Community Services	1,159.2	1,159.2	334.6	334. 6
Stevens Creek Trail	Shoreline at Mountain View to Dale/ Heatherstone, Mountain View, Sunnyvale, Los Altos, and Cupertino, Mountain View	Recreation	5.0 miles	Urban/residential setting, paved pathway along the creek through woodlands, tidal marshes and city neighborhood parks, 0.25-mile pedestrian overcrossing spanning Central Expressway, Evelyn Ave, light rail, and Caltrain tracks	Cities of Mountain View, Sunnyvale, Los Altos, and Cupertino	0 (over-crossing)	0 (over-crossing)	0 (over-crossing)	0 (over-crossing)

Name	Location	Type	Size	Setting/Features	Agency with Jurisdiction	Distance from TCE by Alternative (feet)		Distance from Project Footprint by Alternative (feet)	
						A	B[1]	A	B[1]
Chetwood Park	Chetwood Drive & Whisman Station Drive, Mountain View	Park	1.1 acres	Urban/residential setting, children's playground, passive areas, picnic area	City of Mountain View Community Services	1,009.9	1,009.9	903.3	903.3
Magnolia Park	1 Magnolia Lane, Mountain View	Park	1.0 acre	Urban/residential setting, children's playground, passive areas, picnic area	City of Mountain View Community Services	890.2–913.3	890.2–913.3	588.0	588.0
Cannery Park	California and Pajaro Streets, Sunnyvale	Park	0.7 acre	Urban/residential setting, picnic area with BBQ, playground	City of Sunnyvale Community Services	465.0–885.5	465.0–885.5	408.9	408.9
Plaza del Sol (formerly Downtown Plaza)	200 West Evelyn Avenue, Sunnyvale	Park	1.6 acres	Urban setting, picnic benches, landscaping, paved areas, reservable concrete area for large events	City of Sunnyvale Community Services	200.0–720.8	200.0–720.8	95.0	95.0
Victory Village Park	945 Kifer Road, Sunnyvale	Park	1.0 acre	Urban/commercial setting, fenced-in playground, picnic areas, BBQs	City of Sunnyvale Community Services	1,108.5	1,108.5	639.1	639.1
Bracher Park	2560 Alhambra Drive, Santa Clara	Park	3.5 acres	Urban/residential setting, picnic area, BBQs, restrooms, pathway, play area	City of Santa Clara Parks and Recreation	10.1	10.1	10.1	10.1
San Tomas Aquino Creek Trail (Reach 3)	Scott Boulevard to Monroe Street, Santa Clara	Recreation	1.2 miles	Urban/residential setting, walking, running, and bicycling trail	City of Santa Clara Parks and Recreation	1,123.2	1,123.2	0 (under-crossing)	0 (under-crossing)

Name	Location	Type	Size	Setting/Features	Agency with Jurisdiction	Distance from TCE by Alternative (feet)		Distance from Project Footprint by Alternative (feet)	
						A	B[1]	A	B[1]
San Jose Diridon Station Approach Subsection									
Guadalupe River Park	438 Coleman Avenue, San Jose	Park	120 acres	Urban setting, a 3-mile ribbon of parkland that encompasses numerous park, garden, and open space areas including Guadalupe Community Garden, Visitor and Education Center, a playground, Columbus Park, Heritage Rose Garden, Taylor Street Rock Garden, Guadalupe Gardens, Arena Green East, and open space areas associated with the Discovery Museum.	City of San Jose Parks, Recreation, & Neighborhood Services	298.3	0 (adjacent)/ 0 (adjacent)	371.3	0 (adjacent)/ 19.7
Reed Street Dog Park	888 Reed Street, Santa Clara	Park	1.5 acres	Urban/industrial setting, picnic area, BBQ facilities, and play area	City of Santa Clara Parks and Recreation	0 (adjacent)	1,171.4/ Within TCE	13.9	13.9/Within footprint
Larry J. Marsalli Park	1425 Lafayette Street, Santa Clara	Park	4.5 acres	Urban/residential setting, open space, restrooms, lighted softball field, children's playground	City of Santa Clara Parks and Recreation	719.6	1,499.4/ Within TCE	292.1	292.1/1.9
Newhall Park	972 Newhall Street, San Jose	Park	1.4 acres	Urban/residential setting, lawn areas, gazebo, picnic area	City of San Jose Parks, Recreation & Neighborhood Services	196.7	233.7/196.7	191.3	191.3/245.9

Name	Location	Type	Size	Setting/Features	Agency with Jurisdiction	Distance from TCE by Alternative (feet)		Distance from Project Footprint by Alternative (feet)	
						A	B[1]	A	B[1]
College Park	Elm Street and Hedding Street, San Jose	Park	0.1 acre	Urban/residential setting, landscaping and bench	City of San Jose Parks, Recreation, & Neighborhood Services	549.7	Within TCE	527.8	0 (adjacent)/ 276.0
Theodore Lenzen Park	Stockton Avenue and Lenzen Street, San Jose	Park	0.5 acre	Urban/industrial setting, playground	City of San Jose Parks, Recreation, & Neighborhood Services	577.9	550.6/345.9	292.3	36.4
Cahill Park	San Fernando Street, San Jose	Park	3.7 acres	Urban/residential setting, half size basketball court and playground	City of San Jose Parks, Recreation & Neighborhood Services	116.4	114.7	162.0	119.7
Los Gatos Creek Trail	E Main Street at College Avenue, San Jose	Recreation	9.7 miles	Urban setting, pedestrian and bicycle trail	Santa Clara County Parks and Los Gatos Parks and Public Works Department	26.4	Within TCE	Within footprint	Within footprint
Community Park (Planned)	255 South Montgomery Street, San Jose	Park	8 acres	Urban setting	City of San Jose Parks, Recreation & Neighborhood Services	13.8	4.8	255.0	114.0
Discovery Dog Park[2]	Park Avenue and Delmas Avenue, San Jose	Park	0.4 acre	Urban setting, decomposed granite walking path, bark-mulch dog area, tables and benches	City of San Jose Parks, Recreation, & Neighborhood Services	970.0	764.5	1,154.4	1,242.9
Guadalupe River Trail (Reach 6)	Woz Way to Virginia St, San Jose	Recreation	9 miles (full trail)	Urban setting, hiking and bicycle trail	City of San Jose Parks, Recreation, & Neighborhood Services	170.5	Within TCE	0 (adjacent)	Within footprint

Name	Location	Type	Size	Setting/Features	Agency with Jurisdiction	Distance from TCE by Alternative (feet)		Distance from Project Footprint by Alternative (feet)	
						A	B[1]	A	B[1]
Biebrach Park	Delmas Street and Virginia Street, San Jose	Park	5.0 acres	Urban/residential setting, basketball courts, handball court, restrooms, swimming pool, children's play areas, barbeque facilities	City of San Jose Parks, Recreation, & Neighborhood Services	10.1	395.3	262.1	845.6
Fuller Park	Fuller Avenue and Park Avenue, San Jose	Park	1.14 acres	Urban/residential setting, game tables, bocce ball court, and horseshoe pit	City of San Jose Parks, Recreation, & Neighborhood Services	Within TCE	443.4	Within footprint	468.3
Palm Haven Plaza	Palm Haven Ave and Clintonia Street, San Jose	Park	0.7 acre	Urban/residential setting, grassy open space, bench	City of San Jose Parks, Recreation, & Neighborhood Services	854.5	1,979.1	1,313,7	2,587.5
Hummingbird Park	Bird Avenue and Fisk Avenue, San Jose	Park	0.38 acre	Urban/residential setting, children's play area, picnic tables and benches	City of San Jose Parks, Recreation, & Neighborhood Services	893.4	2,355.1	1,247.3	2,632.4
Highway 87 Bikeway North[3]	Willow Street to Curtner Avenue, San Jose	Recreation	2.7 miles (0.45 mile in the RSA)	Urban setting, Class I paved bikeway	City of San Jose Department of Transportation	Within TCE	Within TCE	Within footprint	Within footprint
Jesse Frey Community Garden	West Alma Avenue and Belmont Way, San Jose	Open Space	0.5 acre	Urban setting, organic community garden	City of San Jose Parks, Recreation, & Neighborhood Services	406.3	284.0	712.1	324.6

Name	Location	Type	Size	Setting/Features	Agency with Jurisdiction	Distance from TCE by Alternative (feet)		Distance from Project Footprint by Alternative (feet)	
						A	B[1]	A	B[1]
Tamien Park (Phase II Planned)	1197 Lick Avenue, San Jose	Park	3.5 acres	Urban/residential setting; facilities include picnic tables, shade structures, ping pong tables, restroom, children's playground with play equipment, multi-use turf area, and a lighted basketball court. Planned Phase II would add a multi-use soccer field, stage, and outdoor gym.	City of San Jose Parks, Recreation, & Neighborhood Services	Within TCE	Within TCE	0 (adjacent)	Within footprint
Three Creeks Trail (planned)	SR 87 to Senter Road, San Jose	Recreation	0.9 mile	Urban setting, planned landscaped and paved Class I trail system would connect to the Los Gatos Creek Trail, Guadalupe River Trail, and Highway 87 Bikeway	City of San Jose Parks, Recreation, & Neighborhood Services	5.1	Within TCE	Within footprint	Within footprint

Sources: Authority 2019a, 2019b; Burlingame Aquatic Club 2018; California Department of Parks and Recreation 2018a, 2018b; CPAD 2017; City of Belmont 2018a–2018d; City of Brisbane 2001, 2010a, 2010b; City of Burlingame 2019; City of Daly City n.d.; City of Menlo Park n.d.; City of Millbrae 2018a–2018e; City of Mountain View 2018a–2018c; City of Palo Alto 2007a–2007g, 2010, 2015, 2016, 2017; City of Redwood City 2018a–2018f; City of San Bruno n.d.(a)–n.d.(f); City of San Carlos n.d.; City of San Mateo 2017a–2017f; City of Santa Clara 2018a, 2018b; City of South San Francisco n.d.; City of San Jose 2009, 2015, n.d.(a), n.d.(b); City of Sunnyvale 2018; Florence Fang Asian Garden n.d.; Google, Inc. 2018; Mission Bay Parks 2018a–2018e; San Francisco Bay Trail 2019a, 2019b; San Francisco Parks Alliance n.d.(a)–n.d.(u); San Francisco Public Works n.d.; San Francisco Recreation and Parks n.d.(a)–n.d.(j); County of San Mateo n.d.(a), n.d.(b); Town of Atherton n.d.(a), n.d.(b)

Caltrans = California Department of Transportation

I- = Interstate

LMF = light maintenance facility

TCE = temporary construction easement

Parks, recreation, and open-space resources not owned by a public agency are not included in this analysis.

If more than one construction activity would potentially affect a park, recreation, or open-space resource, a range of distances is provided.

[1] Where applicable, values are presented for Alternative B (Viaduct to I-880) first, followed by Alternative B (Viaduct to Scott Boulevard). If only one value is presented, the value would be identical under both Alternative B viaduct options.

[2] This is referred to as Delmas Dog Park on the City of San Jose website.

[3] This Class I bikeway is included in this analysis because it serves some recreational function based on ridership surveys conducted by the San Jose Department of Transportation.

According to documentation of the results of outreach efforts undertaken by the Authority for the project, stakeholder issues and concerns include the potential for limited access to, permanent closure of, or relocation of parks, recreational facilities, open space, or school district play area resources. These outreach efforts are documented in detail in Chapter 9, Public and Agency Involvement, and Chapter 5, Environmental Justice, of this Draft EIR/EIS.

3.14.5.2 School District Play Areas

Schools that contain play areas and other recreational facilities, such as sports fields and courts or blacktop areas with game courts, that are available for public use outside school hours, were considered regardless of the absence of a joint-use agreement between the City and school. Even without joint-use agreements, school play areas generally represent publicly accessible open space/recreational amenities for the communities in which they are situated. Table 3.14-3 shows 24 school district play areas in the RSA for both project alternatives. There are seven in the San Francisco to South San Francisco Subsection, six in the San Bruno to San Mateo Subsection, eight in the San Mateo to Palo Alto Subsection, two in the Mountain View to Santa Clara Subsection, and one in the San Jose Diridon Station Approach Subsection (Figures 3.14-1 through 3.14-11).

The school district play areas in the RSA belong to 14 school districts: San Francisco Unified, Brisbane School District, San Bruno Park, Millbrae Elementary, San Mateo Union High, Burlingame, San Mateo–Foster City, Belmont–Redwood Shores Elementary, Redwood City, Sequoia Union High, Palo Alto Unified, Sunnyvale Elementary, Santa Clara Unified, and San Jose Unified School District. Stanford University and Bellarmine College Preparatory are both in the RSA, but these institutions are private and do not offer public play areas or recreational facilities. Accordingly, these two resources are not included in this analysis.

Table 3.14-3 provides the distances from each resource to TCEs and the project footprint. As discussed in Section 3.14.5.1, Parks, Recreational Facilities, and Open-Space Resources, the distance from the TCEs or footprint varies in areas where the alternatives differ, which occurs in the San Francisco to South San Francisco, San Mateo to Palo Alto, and San Jose Diridon Station Approach Subsections.

Table 3.14-3 School District Play Areas by Subsection

Name	Location	Type	Size	Setting/Features	Agency with Jurisdiction	Distance from TCE by Alternative (feet)		Distance from Project Footprint by Alternative (feet)	
						A	B	A	B
San Francisco to South San Francisco Subsection									
Bessie Carmichael Elementary School	375 7th Street, San Francisco	Recreation	0.3 acre	Urban setting, basketball court, playground	San Francisco Unified School District	2,064.5	2,064.5	2,073.8	2,073.8
Daniel Webster Elementary School	465 Missouri Street, San Francisco	Recreation	0.4 acre	Urban setting, playground, soccer field, and blacktop	San Francisco Unified School District	2,125.1	2,125.1	749.7	749.7
Dr. Charles R. Drew Elementary School	50 Pomona Street, San Francisco	Recreation	1.0 acre	Urban/residential setting, basketball courts, playgrounds, and blacktop	San Francisco Unified School District	679.0	679.0	360.0	360.0
KIPP Bayview Academy	1060 Key Avenue, San Francisco	Recreation	0.2 acre	Urban setting, basketball courts and blacktop	San Francisco Unified School District	1,061.9	1,061.9	469.4	469.4
Visitacion Valley Elementary School	55 Schwerin Street, San Francisco	Recreation	1.0 acre	Urban setting, basketball court, playground, game courts, and blacktop	San Francisco Unified School District	2,115.0	2,115.0	2,042.7	2,042.7
Lipman Middle School, Brisbane	1 Solano Street, Brisbane	Recreation	2.6 acres	Urban, residential setting, basketball courts, blacktop, soccer/baseball field, tennis courts	Brisbane School District/Brisbane Parks and Recreation	1,076.4	1,076.4	1,088.1	1,088.1

Name	Location	Type	Size	Setting/Features	Agency with Jurisdiction	Distance from TCE by Alternative (feet)		Distance from Project Footprint by Alternative (feet)	
						A	B	A	B
Brisbane Elementary School	500 San Bruno Avenue, Brisbane	Recreation	3.4 acres	Urban/residential setting, playgrounds, basketball courts, baseball field, soccer field	Brisbane School District/Brisbane Parks and Recreation	1,177.4	1,177.4	1,192.4	1,192.4
San Bruno to San Mateo Subsection									
Belle Air Elementary School	450 3rd Avenue, San Bruno	Recreation	1.6 acres	Urban/residential/ commercial basketball courts, jungle gyms, grass areas	San Bruno Park School District	1,273.5	1,273.5	424.3	424.3
Lomita Park Elementary School	200 Santa Helena, Millbrae	Recreation	3.7 acres	Residential setting, playgrounds, play areas, blacktop, and basketball court, baseball field	Millbrae School District	68.5	68.5	48.2	48.2
Mills High School	400 Murchison Drive, Millbrae	Recreation	34.6 acres	Residential setting, football field, track, baseball field, soccer field, baseball diamonds, basketball courts, pool	San Mateo Union High School District	586.1	586.1	912.6	912.6
Spring Valley Elementary School	817 Murchison Drive, Millbrae	Recreation	5.5 acres	Residential setting, baseball field, jungle gym, grassy area, and blacktop play areas	Millbrae Elementary School District	2,012.6	2,012.6	2,377.0	2,377.0

Name	Location	Type	Size	Setting/Features	Agency with Jurisdiction	Distance from TCE by Alternative (feet)		Distance from Project Footprint by Alternative (feet)	
						A	B	A	B
Burlingame High School	1 Mangini Way, Burlingame	Recreation	10.6 acres	Residential setting, football field, track, baseball diamonds, soccer field, tennis courts, basketball courts	San Mateo Union High School District	163.4	163.4	57.3	57.3
Washington Elementary School	801 Howard Avenue, Burlingame	Recreation	1.7 acres	Residential setting, basketball courts, play structure, play areas, and black top	Burlingame School District	436.7–583.0	436.7–583.0	432.6	432.6
San Mateo to Palo Alto Subsection									
Sunnybrae Elementary School	1031 South Delaware Street, San Mateo	Recreation	4.9 acres	Residential setting, basketball courts, blacktop play areas, track, jungle gym, and grass field	San Mateo–Foster City School District	833.0	836.0	838.0	843.6
Central Elementary School	525 Middle Road, Belmont	Recreation	5.4 acres	Residential/ commercial setting, basketball courts, play areas, play structures, soccer field, and blacktop	Belmont-Redwood Shores Elementary School District	396.8	363.4	396.8	377.2
Nesbit Elementary School	500 Biddulph Way, Belmont	Recreation	6.5 acres	Residential setting, baseball fields, basketball courts, play areas, playground, and blacktop	Belmont-Redwood Shores Elementary School District	672.6	668.8	711.3	672.6

Name	Location	Type	Size	Setting/Features	Agency with Jurisdiction	Distance from TCE by Alternative (feet)		Distance from Project Footprint by Alternative (feet)	
						A	B	A	B
Orion Alternative Elementary School	815 Allerton Street, Redwood City	Recreation	1.4 acres	Residential/ commercial setting, play structures, grassy areas, play areas, basketball court, and blacktop	Redwood City School District	551.5	551.5	540.9	540.9
Sequoia High School	1201 Brewster Avenue, Redwood City	Recreation	15.2 acres	Residential/ commercial setting, football field, track, outdoor swimming pool, baseball fields, tennis courts, undeveloped forested open space	Sequoia Union High School District	574.7–618.0	574.7–618.0	210.3	210.3
Garfield Elementary School	3600 Middlefield Road, Menlo Park	Recreation	3.8 acres	Residential setting, playground, basketball courts, baseball field, blacktop	Redwood City School District	0 (adjac-ent)	0 (adjac-ent)	0 (adjac-ent)	0 (adjac-ent)
Palo Alto High School	50 Embarcadero Road, Palo Alto	Recreation	30.0 acres	Residential/ commercial setting, football field, track, tennis courts, pool, soccer field, grass areas, baseball field, basketball courts	Palo Alto Unified School District	1.4	1.4	0 (adjac-ent)	0 (adjac-ent)
El Carmelo Elementary School	3024 Bryant Street, Palo Alto	Recreation	2.2 acres	Residential setting, grass areas, play areas, playground, basketball courts, and blacktop	Palo Alto Unified School District	1,104.1	1,104.1	751.8	751.8

Name	Location	Type	Size	Setting/Features	Agency with Jurisdiction	Distance from TCE by Alternative (feet)		Distance from Project Footprint by Alternative (feet)	
						A	B	A	B
Mountain View to Santa Clara Subsection									
Vargas Elementary School	1054 Carson Drive, Sunnyvale	Recreation	5.0 acres	Residential setting, grass area, basketball courts, play areas, playground, and blacktop	Sunnyvale Elementary School District	828.6	828.6	877.9	877.9
Bracher Elementary School	2700 Chromite Drive, Santa Clara	Recreation	7.3 acres	Residential setting, large grass area, basketball courts, playgrounds, play areas, and blacktop	Santa Clara Unified School District	453.9	453.9	453.9	453.9
San Jose Station Diridon Approach Subsection									
Gardner Elementary School	502 Illinois Avenue, San Jose	Recreation	2.02	Urban. Jungle gyms, basketball courts, blacktop play areas, soccer field	San Jose Unified School District	319.3	128.5	267.9	569.5

Sources: Authority 2019a, 2019b; Belmont–Redwood Shores Elementary School District n.d.; Brisbane School District n.d.; Burlingame School District 2018; City of San Jose 2009; Google, Inc. 2018; Mills High School 2018; Millbrae School District n.d.; Palo Alto Unified School District n.d.(a), n.d.(b); Redwood City School District 2018a, 2018b; San Bruno Park School District 2018; San Francisco Unified School District 2018; San Mateo-Foster School District 2018; Santa Clara Unified School District 2018; Sequoia Union High School District 2017; Sunnyvale Elementary School District 2018

TCE = temporary construction easement

If more than one construction activity would potentially affect a school district play area, a range of distances is provided.

3.14.6 Environmental Consequences

3.14.6.1 Overview

This section discusses the potential impacts on parks, recreation, open space, and school district play areas from construction and operation of the project alternatives. Each resource category addresses potential impacts from the No Project Alternative and the project alternatives. Direct impacts on parks, recreation, open space, and school district play areas would include temporary or permanent disruption in access to or use including the permanent acquisition of land from parks, recreational facilities, open space, and school district play areas. Indirect impacts would include changes in noise and vibration, air quality, and visual quality that could affect the user experience at the resources. Indirect impacts on parks could also include changes in the use of a resource resulting from access improvements and increased development density at HSR stations associated with project operations.

The project design includes several features (IAMFs) to allow continued use of the facilities with minimal disruption from HSR construction and operation (see Volume 2, Appendix 2-E). For instance, the project would locate and design project components and station features to maintain safe and convenient access to and use of parks, recreational facilities, open space, and school district play areas (PK-IAMF#1), and would require measures such as detours and signage so that motorists and pedestrians would have continued access to local parks and recreation areas during construction (TR-IAMF#2). The project also would reduce fugitive dust (AQ-IAMF#1) by creating and implementing a fugitive dust control plan and would reduce noise and vibration (NV-IAMF#1) during construction by complying with the Federal Transit Administration (FTA) and FRA guidelines for minimizing construction noise and vibration impacts when work is conducted within 1,000 feet of sensitive receptors. Land temporarily used during construction would be restored to a condition equal to the pre-construction staging condition (LU-IAMF#3).

The IAMFs differ from mitigation measures in that they are part of the project and would be included by the Authority as binding commitments in the project approval. In contrast, mitigation measures may be available to further reduce, compensate for, or offset project impacts that the analysis identifies under NEPA or concludes are significant under CEQA.

3.14.6.2 Parks, Recreation, and Open-Space Resources

Construction of the project alternatives would introduce temporary changes related to noise, vibration, air emissions, and access to parks, recreation facilities, and open-space resources associated with clearing, grading, track shifts, and installation of track and systems. Additionally, the project would permanently change access to or circulation in and around some parks, recreation, and open space resources, and permanently acquire small amounts of parkland. Operations would permanently change the noise environment along the project alignment primarily by adding more trains to the existing corridor, which would increase the frequency of train horn sound. In addition to more trains operating in the corridor, the visual environment would include permanent project elements such as the Brisbane LMF, expanded Millbrae and San Jose Diridon Stations, passing tracks and viaduct option and aerial station (Alternative B), radio towers, and other HSR infrastructure that could permanently alter views from existing parks, trails, and open-space resources.

The BCDC permit process requires providing public access to the shoreline and San Francisco Bay, as described in Section 3.14.2.2. The San Francisco Bay and shoreline band overlap portions of four parks and the San Francisco Bay Trail, including the following: the north and south banks of Mission Creek Park; a small corner of Mission Bay Dog Park; Brisbane Lagoon and Fisherman's Park; the existing and planned portions of San Francisco Bay Trail-1 on Sierra Point Parkway (existing), north of Lagoon Road (planned), and along Oyster Point Cove (existing); a small corner of Lions Park, and a portion of the San Francisco Bay Trail-2 planned adjacent to Lions Park. Potential impacts of the project alternatives on public access to the San Francisco Bay and shoreline are discussed by individual resource under Impact PK#2: Temporary Changes to Access or Use of Parks.

No Project Impacts

The population of the Bay Area is expected to grow through 2040 (see Section 2.6.1.1, Projections Used in Planning). Development in the Bay Area to accommodate the population and employment increase would continue under the No Project Alternative, resulting in associated direct and indirect impacts on parks, recreation, open space, and school district play areas. The No Project Condition reflects conditions forecasted by current land use and transportation plans in the vicinity of the project, including planned improvements to the highway, aviation, conventional passenger rail, freight rail, and port systems through the 2040 planning horizon. Without the HSR project, the forecasted population growth would increase pressure to expand highway and airport capacities. The Authority estimates that additional highway and airport projects (up to 4,300 highway lane miles, 115 airport gates, and 4 airport runways) would be needed to achieve equivalent capacity and relieve the increased pressure (Authority 2012). Planned and other reasonably foreseeable projects anticipated to be constructed by 2040 include shopping centers, industrial parks, transportation projects, and residential developments. A full list of anticipated future development projects is provided in Volume 2, Appendix 3.18-A, Cumulative Nontransportation Plans and Projects List, and Appendix 3.18-B, Cumulative Transportation Plans and Projects List.

Regional and local land use plans contain provisions for funding, acquiring, and maintaining public parks, recreation facilities, and open-space resources to adequately meet the needs of future planned population growth and maintain established service ratios (see Volume 2, Appendix 2-I). As shown in Table 3.14-2, there are 135 parks, recreation, and open-space resources available for public use in the RSA, including three that are planned but not yet built. Use of these resources would be expected to increase under the No Project Alternative from projected population growth, but not to the extent that the resources would be substantially affected. Increased use of existing neighborhood and regional parks or other recreation facilities from population growth would be accommodated through implementing planned acquisitions and maintaining existing resources, as provided in the local and regional land use plans.

Under the No Project Alternative, recent development trends are anticipated to continue, leading to impacts on parks, recreation, and open-space resources. Appendix 3.18-A provides a list of current and foreseeable development projects in the City/County of San Francisco, Brisbane, South San Francisco, San Bruno, Millbrae, Burlingame, San Mateo, Belmont, San Carlos, Redwood City, North Fair Oaks, Atherton, Menlo Park, Palo Alto, Mountain View, Sunnyvale, Santa Clara, and San Jose, as well as in San Mateo and Santa Clara Counties. As shown in Volume 2, Appendix 3.18-A, numerous residential and mixed-use projects are planned throughout the region. The demand for parks, recreation, and open-space resources would increase from the increased population associated with planned development projects such as those identified in Appendix 3.18-A. Future park and recreational improvements and expansion would help to relieve the strain on existing facilities and minimize impacts on parks, recreational facilities, and open-space resources. Additional parks and recreation facilities could be included as part of larger development projects as required by provisions in regional and local land use plans to adequately meet the needs of future planned population growth and maintain established service ratios, which would reduce demand on the existing resources.

Project Impacts

Construction Impacts

Constructing the project alternatives would include modifying, and relocating existing tracks, stations, and platforms; modifying existing roadways and structures; constructing the Brisbane LMF; constructing the passing tracks (under Alternative B); installing four-quadrant gates at at-grade crossings and perimeter fencing at the edge of the right-of-way; utility relocation; site preparation including demolition, excavation, and grading; and installing systems components. The duration and intensity of construction activities would vary by location and project component. Lateral track shifts would range from 1 foot to 65 feet, depending on location. Minor lateral track shifts of less than 1 foot within the existing Caltrain corridor would be performed by “on-track” equipment that would operate along the existing Caltrain tracks as it adjusts track

alignment and ballast and would be expected to last no more than several days at any given location. Lateral track shifts of more than 1 foot would occur over several weeks and require relocation of OCS poles. Installing four-quadrant gates at existing at-grade crossings would occur over a period of 2 to 4 weeks, radio towers would take 3 to 6 months, and modifying the existing Broadway Caltrain Station, the platforms at the Atherton Station, and the College Park Station to remove the existing hold-out rule would take 9 to 12 months. The construction of several major project components would, however, occur over several years—expanding the existing 4th and King Street, Millbrae, and at-grade San Jose Diridon Stations would take up to 2 years; building the Brisbane LMF would take 2 to 3 years; and building the passing track, and viaduct option with aerial station under Alternative B would take 4.5 years. Construction activities are described in Chapter 2, Alternatives.

Impact PK#1: Temporary Changes from Noise, Vibration, and Construction Emissions on Use and User Experience of Parks, Recreational Facilities, and Open-Space Resources

Project construction activities would generate temporary and localized noise, vibration, and construction emissions affecting parks, recreational facilities, and open-space resources within 1,000 feet of the TCE or project footprint, as shown in Table 3.14-2. Only 36 to 44 percent of the project corridor (depending on the alternative) would require modifications to tracks or other facilities, so some resources within 1,000 feet of the project footprint would not be affected by construction noise, vibration, or emissions. Additionally, some resources would not be affected because while they are within 0.5 mile of the 4th and King Street, Millbrae, and San Jose Diridon Stations or the Brisbane LMF, they are over 1,000 feet from any construction activities that would affect the use or user experience at these resources. As shown in Table 3.14-4, 95 of the 135 parks, recreational facilities, and open-space resources in the RSA would be affected by proposed construction activities for both project alternatives. Construction activity could expose users to noise levels considered harmful by the FRA or to air contaminants, such as fugitive dust, that could be harmful to park users. Such construction-related impacts could also affect the user experience at nearby parks, recreational facilities, or open-space areas. While these indirect impacts would take place for short durations over a limited time period, users could be affected by temporary changes in noise, vibration, or air emissions under one or both of the project alternatives.

Construction Noise and Vibration

As indicated in Section 3.4 of this Draft EIR/EIS, the HSR system would use noise impact criteria and vibration criteria adopted by the FRA to assess the contribution of noise from HSR to the existing environment and criteria from the FTA to assess the contribution of the noise and vibration from construction.

Construction noise levels at 50 feet from the source would be approximately 87 to 94 A-weighted decibels (dBA) for the types of construction activities listed in Section 3.4 in Table 3.4-14 related to railway construction, including excavation, earthwork, retaining walls, and track construction. Construction activities associated with stations and structures include excavation and foundations which would require pile drivers, which operate at about 93 dBA at a distance of 50 feet from the construction activity. FRA noise impact criteria for human annoyance are based on comparison of the existing outdoor noise levels and the future outdoor noise levels from the HSR project construction. The FRA Land Use Categories for Noise Exposure, as shown in Table 3.4-6 in Section 3.4, consider parks, recreational facilities, and open-space resources under Land Use Category 3, which includes institutional land uses with primarily daytime use, including parks, campgrounds, and other recreational facilities. The FRA's criteria assigns outdoor amphitheaters to Category 1, which includes land uses where quiet is an essential element of their intended purpose. Parks are only considered to be noise sensitive if they are used for passive uses such as reading, meditation, and conversation; active outdoor land uses, such as sports, or pedestrian and bike paths, are not considered noise sensitive.

Table 3.14-4 Noise, Vibration, and Construction Emissions Impacts on Use and User Experience of Parks, Recreational Facilities, and Open-Space Resources

Name	Setting/Features	Construction Activities	Proximity to Construction	Impact on Park Use and User Experience
San Francisco to South San Francisco Subsection				
San Francisco Bay Trail-1, San Francisco to South San Francisco	Urban to shoreline setting, existing and planned bicycle and pedestrian, wildlife and nature viewing along the shoreline	Alternative A: bike lane on Townsend Avenue, relocation of the Bayshore Station and, East Brisbane LMF, reconstruction of Tunnel Avenue overpass, and track modifications (<1 foot) Alternative B: bike lane on Townsend Ave, reconstruction of Tunnel Avenue overpass, track modifications (<1 foot)	Alternative A: 786.8 feet east of TCE (Townsend Avenue), 868.6 feet east of TCE (Tunnel Avenue), 583.59 feet east of TCE (Lagoon Road), 323.34 feet southeast of TCE (tracks) Alternative B: 786.8 feet east of TCE (Townsend Avenue), 583.59 east of TCE (Lagoon Road), 323.34 feet southeast TCE (tracks)	Alternative A: noise and construction emissions could make use of portions of the trail less desirable during construction. Portions of the trail (existing and planned) are in an urban environment, where ambient noise already exists and overall use is not considered noise sensitive. Trail users would not be affected by vibration because of the trail's distance from construction activities. The project would comply with FRA guidelines for minimizing construction noise and vibration levels, minimize fugitive dust emissions, and the trail would remain usable during construction. Temporary indirect impacts would also be minimized along most portions by development and vegetation between the trail and construction activities. Alternative B: construction-related impacts would be similar to those described for Alternative A, with the exception that the TCE for the West Brisbane LMF is over 1,000 feet west of the trail.
South Park, San Francisco	Urban setting, small playground, sand pit, unique climbing structures, and picnic tables	Alternatives A and B: Platform and track modifications at the 4th and King Street Station, including construction of a bike lane on Townsend Street	Alternatives A and B: 961.2 feet north of TCE	Noise and construction emissions could make use of the park less desirable during construction. The park is in an urban environment, where ambient noise already exists. However, the overall use is not considered noise sensitive and park users would not be affected by vibration because of the distance from construction activities. The project would comply with FRA guidelines for minimizing construction noise and vibration levels, minimize fugitive dust emissions, and the park would remain usable during construction. Temporary indirect impacts would also be minimized by the presence of mature trees encompassing the park as well as the multistory residential and commercial buildings between the park and station.

Name	Setting/Features	Construction Activities	Proximity to Construction	Impact on Park Use and User Experience
China Basin Park, San Francisco	Urban setting, boardwalk, promenade, and central square	Alternatives A and B: Platform and track modifications at the 4th and King Street Station	Alternatives A and B: 949.6 feet east of TCE	Noise and construction emissions could make use of the park less desirable during construction. The park is in an urban environment, where ambient noise already exists. Park users would not be affected by vibration because of the distance from construction activities. The project would comply with FRA guidelines for minimizing construction noise and vibration as well as minimize fugitive dust emissions, and the park would remain usable during construction.
Mission Creek Park*, San Francisco	Urban setting, grass lawns, pavilion, tree-lined esplanade, small outdoor amphitheater, sports courts, and boat launch	Alternatives A and B: Platform and track modifications at the 4th and King Street Station, as well as safety improvements at Mission Bay Drive	Alternatives A and B: 375.0 feet south and across I-280 from TCE (station), 143.9 feet northeast of TCE at Mission Bay Drive	Noise and vibration, as well as construction emissions could make use of the park less desirable during construction. The park is in an urban environment, where ambient noise already exists and the overall use is not considered noise sensitive. While the outdoor amphitheater is a noise-sensitive use, it would remain useable because it is on the south bank of Mission Creek, over 800 feet south of the TCE at the station and 1,800 feet east of Mission Bay Drive. Temporary indirect impacts would be minimized by the presence of multistory residential and commercial buildings between the TCE and the portion of the park on the north bank of the creek. The project would comply with FRA guidelines for minimizing construction noise and vibration levels, minimize fugitive dust emissions, and the park would remain usable during construction.
Mission Bay Dog Park, San Francisco	Urban setting, large gravel play area for dogs, picnic tables, and water fountains	Alternatives A and B: Platform and track modifications at the 4th and King Street Station, as well as safety improvements at Mission Bay Drive	Alternatives A and B: 950 feet southwest of TCE (station), 141 feet east of TCE (7th Street), and 240 feet north of TCE at Mission Bay Drive	No modifications are proposed to the existing Caltrain tracks east of the dog park. However, noise and construction emissions could make use of the park less desirable during construction. The dog park is on the westernmost extent of the park where the tracks turn south and is in an urban environment, where ambient noise already exists. However, the overall use is not considered noise sensitive and park users would not be affected by vibration because of the distance from construction activities. The project would comply with FRA guidelines for minimizing construction noise and vibration levels, minimize fugitive dust emissions, and the park would remain usable during construction. Temporary indirect impacts would also be minimized by the presence of the multistory residential and commercial buildings on the north between the park and station.

Name	Setting/Features	Construction Activities	Proximity to Construction	Impact on Park Use and User Experience
Mariposa Park, San Francisco	Urban setting, grass lawn and walking paths, kids play area, benches, and picnic tables	Alternatives A and B: safety improvements at 16th Street	Alternatives A and B: 890.0 feet southeast of TCE	Noise and construction emissions could make use of the park less desirable during construction. However, this resource is within an urban setting, where ambient noise already exists, and park users would not be affected by vibration because of the distance from construction activities. The project would comply with FRA guidelines for minimizing construction noise and vibration levels, as well as minimize fugitive dust emissions, and the park would remain usable during construction. Temporary indirect impacts would also be minimized by the presence of a multistory commercial building between the park and construction area on the west.
Palou and Phelps Park, San Francisco	Urban/residential setting, small playground, primarily a steep grassland hill with trails	Alternatives A and B: minor track modifications (<1 foot) to at-grade tracks north of existing Caltrain tunnel, new radio tower, and protection of utilities in place	Alternatives A and B: 589.9 south of TCE	Noise and construction emissions, could make use of the park less desirable during construction. The park is in an urban setting, where ambient noise already exists and the park supports active uses that are not considered noise sensitive. The park is 177 feet south of where the existing tracks enter the tunnel near Palou Avenue and occupies the surface directly above the existing Caltrain tunnel at the base of the hill. There would be no impacts from vibration because of the distance from construction activities. The project would comply with FRA guidelines for minimizing construction noise and vibration levels, as well as minimize fugitive dust emissions, and the park would remain usable during construction.
Bay View Park K.C. Jones Playground, San Francisco	Urban setting, playground, softball field, spacious lawn, indoor pools	Alternatives A and B: minor track modifications (<1 foot) to the existing Caltrain at-grade track	Alternatives A and B: 729.5 feet east and across MUNI Metro line on Third Street from TCE	Noise and construction emissions could make use of the playground, softball field, and lawn area less desirable during construction. However, the overall use is not considered noise sensitive and the park is within an urban setting where ambient noise already exists. There would be no impacts from vibration given the distance from the TCE. The project would comply with FRA guidelines for minimizing construction noise and vibration levels, as well as minimize fugitive dust emissions, and the park would remain usable during construction. Temporary indirect impacts would also be minimized by the presence of mature trees along the park's western edge on Third Street.

Name	Setting/Features	Construction Activities	Proximity to Construction	Impact on Park Use and User Experience
Visitacion Valley Community Center, San Francisco	Urban setting, eight outdoor basketball courts, running track, and three multipurpose courts	Alternatives A and B: track modifications (>3 feet) to the existing Caltrain at-grade tracks	Alternatives A and B: 786.1 feet west of TCE	Noise and construction emissions could make use of the outdoor courts and running track less desirable during construction. The overall use is not considered noise sensitive, and the community center is within an urban setting, where ambient noise already exists. There would be no impacts from vibration because of the distance from the TCE. The project would comply with FRA guidelines for minimizing construction noise and vibration levels, as well as minimize fugitive dust emissions, and the courts and track would remain usable during construction.
Little Hollywood Park, San Francisco	Urban/residential setting, play structure, full basketball court, grassy area	Alternative A: at-grade track modifications (>3 feet), aerial flyover, relocation of the Bayshore Station, East Brisbane LMF Alternative B: at-grade track modifications (>3 feet), aerial flyover, relocation of the Bayshore Station, West Brisbane LMF	Alternative A: 607.6 feet east of TCE Alternative B: 592.0 feet east of TCE	Noise and construction emissions could make use of the park less desirable during construction. The overall use is not considered noise sensitive, and the park is within an urban/residential setting, where ambient noise already exists. There would be no impacts from vibration because of the distance from the TCE. The project would comply with FRA guidelines for minimizing construction noise and vibration levels, as well as minimize fugitive dust emissions, and the park would remain usable during construction. The park is encompassed by mature trees that would minimize indirect impacts. Construction of the Brisbane LMF and associated aerial flyover and relocation of the Bayshore Station, would take longer and be more extensive than in locations where construction activities include track modifications, radio towers, or four-quadrant gates.

Name	Setting/Features	Construction Activities	Proximity to Construction	Impact on Park Use and User Experience
Crocker Park Recreational Trail, Brisbane	Commercial setting, improved gravel/dirt surface trail for walking, jogging, biking, benches	Alternatives A and B: relocation and reconstruction of Tunnel Avenue overpass to connect to Bayshore Boulevard at its intersection with Valley Drive, new roadway connecting Valley Drive to Old Country Road	Alternative A: 179.5 feet south of TCE (on Bayshore Blvd), 754.8 feet southwest of TCE (on Valley Drive), 981.2 feet west of TCE (new roadway) Alternative B: 147.6 feet south of TCE (on Bayshore Blvd), 754.8 feet southwest of TCE (on Valley Drive), 981.17 feet west of TCE (new roadway)	Noise and construction emissions would make use of the trail less desirable during construction, particularly the portions of the trail near Bayshore Boulevard. While the overall use of the trail is not considered noise sensitive, the trail loops around a commercial business park, where ambient noise already exists. Most of the trail is more than 700 feet west of the TCE of on Bayshore Boulevard. The project would comply with FRA guidelines for minimizing construction noise and vibration levels, as well as minimize fugitive dust emissions, and the trail would remain usable during construction.
Brisbane City Hall Dog Park, Brisbane	Commercial setting, large grassy area, decomposed granite and seating areas	Alternatives A and B: relocation and reconstruction of Tunnel Avenue overpass to connect to Bayshore Boulevard at its intersection with Valley Drive, new roadway connecting Valley Drive to Old Country Road	Alternative A: 240.6 feet southwest of TCE (on Valley Drive), 762.4 feet south of TCE (on Bayshore Blvd), 342.14 feet west of TCE (new roadway) Alternative B: 240.6 feet southwest of TCE (on Valley Drive), 700.9 feet south of TCE (on Bayshore Blvd), 342.14 feet west of TCE (new roadway)	Noise and construction emissions could make use of the park less desirable during construction. The dog park is behind Brisbane City Hall, in a commercial setting, where ambient noise already exists. The overall use of the dog park is not considered noise sensitive and park users would not be affected by vibration because of the distance from construction activities. The project would comply with FRA guidelines for minimizing construction noise and vibration levels, minimize fugitive dust emissions, and the park would remain usable during construction. The dog park is behind the City Hall parking lot and between two multistory commercial buildings that would minimize indirect impacts.

Name	Setting/Features	Construction Activities	Proximity to Construction	Impact on Park Use and User Experience
San Bruno Mountain State and County Park*, Brisbane	Urban setting/residential setting and rural settings (within park), campsites, bike trails, hiking trails, horseback riding, picnic areas, restrooms	Alternative A: minor track modifications (<1 foot) to the existing Caltrain at-grade track, East Brisbane LMF, and reconstruction of Tunnel Avenue overpass Alternative B: minor track modifications (<1 foot) to the existing Caltrain at-grade track, West Brisbane LMF, and reconstruction of Tunnel Avenue overpass	Alternative A: 500.0 feet west of TCE (tracks), 1,190 feet west of TCE (East Brisbane LMF) and 1,034.6 feet west of TCE (at Old County Road) Alternative B: 500.0 feet west of TCE (tracks), 607.3 feet west of TCE (West Brisbane LMF) and 1,034.6 feet west of TCE (at Old County Road)	Alternative A: This park has a noise-sensitive use, in particular the campsites. However, the designated campsites are near the headquarters and park entrance west of Brisbane, off Guadalupe Mountain Parkway, over 1.5 miles west of the project and there would be no construction-related impacts. Noise and construction emissions could make use of portions of the park in areas close to the project less desirable during construction. The closest portion of the park to the right-of-way is near the Brisbane city limits where Bayshore Boulevard abuts the park boundary, where minor track modifications are proposed and there are no recreational trails or other facilities within 1,000 feet of the project. Portions of the park are also located around the Guadalupe Hills residential development north of North Hills Drive, over 1,000 feet west of the East Brisbane LMF. Impacts from construction noise and emissions would be limited because of the distance from the TCE. The project would comply with FRA guidelines for minimizing construction noise levels and minimize fugitive dust emissions. Alternative B: Construction-related impacts would be the same as described for Alternative A, with the exception that the TCE for the West Brisbane LMF is 607.3 feet west of the park, encompassing the Guadalupe Hills residential development. While there are no developed recreational trails or facilities in this area, dispersed users in the area would find it less desirable during construction as a result of construction noise and emissions. There would be no impacts from vibration because of the distance from the TCE. The project would comply with FRA guidelines for minimizing construction noise and vibration levels, as well as minimize fugitive dust emissions, and the area would remain usable during construction.

Name	Setting/Features	Construction Activities	Proximity to Construction	Impact on Park Use and User Experience
Brisbane Lagoon Fisherman's Park, Brisbane	Urban setting, lagoon, benches, fishing, and parking	Alternatives A and B: track modifications (>3 foot) to the existing Caltrain at-grade track and reconstruction of Tunnel Avenue overpass	Alternatives A and B: adjacent to and east of TCE (tracks) and south of TCE at Lagoon Road	Noise, vibration, and construction emissions could make use of the lagoon less desirable during construction for fishermen on the shore south of the TCE on Lagoon Road or within 1,000 feet of construction activities. The lagoon is only accessible from points along Lagoon Road or Sierra Point Parkway and the existing Caltrain at-grade tracks are fenced, forming the boundary of the west side of the lagoon. The fishing area with benches and parking is on the east bank of the lagoon on Sierra Point Parkway, a distance of 1,800 feet east of the tracks adjacent to US 101, and indirect construction-related impacts would not affect users in this area. The project would comply with FRA guidelines for minimizing construction noise and vibration levels, as well as minimize fugitive dust emissions, and the lagoon would remain usable for fishing during construction.
Brisbane Community Park, Brisbane	Urban/commercial setting, grassy lawn areas, picnic areas, play structure, restrooms, gazebo	Alternatives A and B: reconstruction and relocation of the Tunnel Avenue overpass with new roadway extension connecting Valley Drive to Old County Road	Alternatives A and B: within TCE on Old County Road	Indirect construction-related impacts would include noise and vibration, as well as construction air emissions, which would make use of the park less desirable during construction of the new roadway extension. However, the park is in an urban/commercial setting and bounded on three sides by existing roadways, where ambient noise already exists. Construction activities adjacent to the park could include potential curb work, if needed to conform to the new roadway extension and sidewalk intersection with Old County Road. The gazebo is approximately 85 feet from the proposed intersection of the new roadway at Old County Road. However, construction would primarily occur on weekdays during standard times, not on weeknights or weekends when the gazebo is more likely to be in use. The project would comply with FRA guidelines for minimizing construction noise and vibration levels, as well as minimize fugitive dust emissions, and the park would remain usable during construction.

Name	Setting/Features	Construction Activities	Proximity to Construction	Impact on Park Use and User Experience
Brisbane Skate Park and Basketball Courts, Brisbane	Urban/commercial setting, skate park, two basketball courts	Alternatives A and B: reconstruction and relocation of the Tunnel Avenue overpass with new roadway extension connecting Valley Drive to Old County Road	Alternatives A and B: adjacent to TCE on Old County Road	While this active use is not considered noise sensitive, noise and construction emissions would make use of the skate park and basketball courts less desirable during construction. However, the park is within an urban/commercial setting, where ambient noise is already present. The skate park is on the north corner of Park Lane at the intersection with Old County Road. Construction activities adjacent to the skate park could include potential curb work, if needed to conform to the new roadway extension and sidewalk. The basketball courts are west of the skate park. The project would comply with FRA guidelines for minimizing construction noise and vibration levels, as well as minimize fugitive dust emissions, and the skate park and basketball courts would remain usable during construction.
Old Quarry Road Park and Trail, Brisbane	Urban/commercial/ residential setting, picnic tables, community garden, natural surface hiking and biking trail	Alternatives A and B: new roadway extension connecting Valley Drive to Old County Road	Alternatives A and B: 367.2 feet west of TCE	While the overall use is not considered noise sensitive, the indirect impacts could include noise and construction emissions, potentially making use of the park less desirable during construction. However, the park is within an urban/commercial/residential setting, where ambient noise is already present. There would be no impacts from vibration because of the distance from the TCE. The project would comply with FRA guidelines for minimizing construction noise and vibration levels and minimize fugitive dust emissions. Additionally, the park is separated from the project by a cluster of mature trees located at the eastern corner of the park on San Francisco Avenue as well as a commercial development, minimizing indirect noise and air quality impacts on users.
Cypress and Pine Playlot, South San Francisco	Urban/residential setting, playground, basketball courts	Alternatives A and B: track modifications (> 3 feet) in South San Francisco associated with the integration of the planned South San Francisco Caltrain Station Improvement Project	Alternatives A and B: 839.0 feet northwest and across US 101 from TCE	Noise and construction emissions could make use of the park less desirable during construction. The overall use is not considered noise sensitive and the park is within an urban/residential setting, where ambient noise already exists. There would be no impacts from vibration because of the distance from the TCE. The project would comply with FRA guidelines for minimizing construction noise, as well as minimize fugitive dust emissions, and the playground and courts would remain usable during construction. There are mature trees on the east side that would minimize indirect impacts.

Name	Setting/Features	Construction Activities	Proximity to Construction	Impact on Park Use and User Experience
San Bruno to San Mateo Subsection				
Bayshore Circle Park, San Bruno	Urban/residential setting, basketball court and play area	Alternatives A and B: safety improvements at Scott Street and track modifications (>3 feet) to the existing Caltrain at-grade tracks	Alternatives A and B: 436.8 feet northwest (Scott Street) and 861.2 feet northwest of TCE (tracks)	Noise and construction emissions could make use of the park less desirable during construction. The overall use is not considered noise sensitive and the park is within an urban/residential setting, where ambient noise already exists. There would be no impacts from vibration because of the distance from the TCE. The project would comply with FRA guidelines to minimize construction noise and minimize fugitive dust emissions, and the playground and courts would remain usable during construction. Temporary indirect impacts would also be minimized by the presence of mature trees encompassing the park on three sides.
Herman Park, San Bruno	Urban/residential setting, playground and grassy area	Alternatives A and B: track modifications (>3 feet) to the existing Caltrain at-grade tracks	Alternatives A and B: 50.7 feet west of TCE	Noise, vibration, and construction emissions would make use of the play area and lawn area less desirable during construction. However, this resource is within an urban/residential setting, where ambient noise already exists and there are no structures that could be affected by construction vibration. The project would comply with FRA guidelines for minimizing construction noise, as well as minimize fugitive dust emissions, and the park would remain usable during construction.
Forest Lane Park, San Bruno	Urban/residential setting, grassy area, basketball court, play area, picnic and BBQ area	Alternatives A and B: track modifications (>3 feet) to the existing at-grade Caltrain tracks	Alternatives A and B: 297.2 feet west of TCE	This linear park is along the embankment of the east bound on-ramp to I-380, where the developed portions of the park are 1,000 feet west of the TCE and the closest point is 297.2 feet west of the TCE. Noise and construction air emissions could make use of the park less desirable during construction, although the overall use is not considered noise sensitive. The park is within an urban/residential setting south of I-380, where ambient noise already exists. There would be no impacts from vibration because of the distance of the park from construction activities. The project would comply with FRA guidelines for minimizing construction noise and vibration levels, as well as minimize fugitive dust emissions, and the park would remain usable during construction. Temporary indirect impacts would be minimized by the presence of a cluster of mature trees on the east end of the park separating the park from Huntington Avenue and the TCE.

Name	Setting/Features	Construction Activities	Proximity to Construction	Impact on Park Use and User Experience
Posy Park, San Bruno	Urban setting, open space with benches, landscaping	Alternatives A and B: extension of the existing platform at San Bruno Caltrain Station and track modifications (>3 feet) to existing Caltrain tracks on embankment	Alternatives A and B: adjacent (platform extension) and 351.5 feet southwest of TCE (track modifications)	Noise, vibration, and construction air emissions would make use of the open space and benches less desirable during construction. The park is at the base of the concrete retaining wall near the stairs and ramp on the west side of the San Bruno Caltrain Station at San Mateo/Kains/Huntington Avenues. The existing platforms above the park would be extended 145 feet to the south. The use is not considered noise sensitive and the location of the park is in an urban setting where ambient noise already exists. The project would comply with FRA guidelines for minimizing construction noise and vibration levels, as well as minimize fugitive dust emissions, and the park would remain usable during construction.
San Francisco Bay Trail-2, San Bruno to Millbrae	Urban, planned bicycle and pedestrian trail west of SFO	Alternatives A and B: track modifications (<3 and >3 feet) to the existing Caltrain at-grade tracks, safety improvements at Center Street, widening of Hillcrest Boulevard underpass, and modifications at Millbrae Station	Alternatives A and B: adjacent to TCE (tracks, Center Street, and underpass), and 135.7 feet north of TCE (station)	If the trail is completed before project construction, future users would be indirectly affected by exposure to noise, vibration, and construction emissions, which could make use of the planned trail less desirable during construction. This active use would not be considered noise sensitive and would be in an urban environment, where ambient already exists including noise from SFO. The project would maintain noise and vibration levels within the FRA requirements and minimize fugitive dust emissions.
Lions Park, San Bruno	Urban/residential/ commercial setting, play structure, grass area, softball field	Alternatives A and B: track modifications (<3 feet) to the existing Caltrain at-grade tracks	Alternatives A and B: 891.7 feet north of TCE	While this active use is not considered noise sensitive, construction noise and emissions could make use of the play structure, grass area, and softball field less desirable during construction. However, this resource is within an urban/residential/commercial setting where ambient noise already exists, including noise from SFO. There would be no impacts from vibration because of the distance of the park from construction activities. The project would comply with FRA guidelines for minimizing construction noise, as well as minimize fugitive dust emissions, and the park would remain usable during construction.

Name	Setting/Features	Construction Activities	Proximity to Construction	Impact on Park Use and User Experience
Lomita Park, San Bruno	Urban/residential setting, picnic table, play structure, grassy area	Alternatives A and B: new radio tower and track modifications (<3 feet) to the existing Caltrain at-grade tracks	Alternatives A and B: 493.4 feet southwest of TCE (tower) and 870.7 feet west of TCE (tracks)	Noise and construction emissions could make use of the park less desirable during construction. The overall use is not considered noise sensitive and the park is in an urban/residential setting, where ambient noise already exists, including noise from SFO. Park users would not be affected by construction vibration because of the distance from the TCE. The project would comply with FRA guidelines for minimizing construction noise and vibration levels, as well as minimize fugitive dust emissions, and the park would remain usable during construction.
Marina Vista Park, Millbrae	Urban/residential/ commercial setting, basketball court, playground, open field, BBQs, picnic areas	Alternatives A and B: track modifications (>3 feet) to the existing Caltrain at-grade tracks and safety improvements at Center Street/Spruce Street	Alternatives A and B: 558.5 feet east of TCE	Noise and construction emissions could make use of the park less desirable during construction. However, the overall use is not considered noise sensitive and the park is in an urban/residential/commercial setting, where ambient noise is already present, including noise from SFO. Park users would not be affected by construction vibration because of the distance from the TCE. The project would comply with FRA guidelines for minimizing construction noise and vibration levels, as well as minimize fugitive dust emissions, and the park would remain usable during construction.
Bayside Manor Park, Millbrae	Urban/residential/ commercial setting, basketball court, playground, open-space area	Alternatives A and B: widening of Hillcrest Boulevard underpass; track modifications (>3 feet) to the existing Caltrain at-grade tracks; and modifications at Millbrae Station	Alternatives A and B: 822.6 feet east of TCE (open-space area east of PG&E substation), 380.0 feet east of tracks, and 870.0 feet northeast of TCE (station)	Noise and construction emissions could make use of the park less desirable during construction. The overall use is not considered noise sensitive and the park is in an urban/residential/ commercial setting, where ambient noise is already present, including noise from SFO. The basketball court and playground are 822.6 feet east of the TCE on Hillcrest Boulevard, east of the residential neighborhood. The open-space area distance from the TCE varies, with the closest area 380.0 feet from the track modifications. Park users would not be affected by construction vibration because of the distance from the TCE. The project would comply with FRA guidelines for minimizing construction noise and vibration levels, as well as minimize fugitive dust emissions, and the park would remain usable during construction. Construction of new station facilities and modification of existing platforms and tracks would take longer and be more extensive than in other locations where construction includes activities such as track modifications, radio towers, or four-quadrant gates.

Name	Setting/Features	Construction Activities	Proximity to Construction	Impact on Park Use and User Experience
Millbrae Spur Trail, Millbrae	Urban/residential setting, paved walking trail	Alternatives A and B: track and station improvements at existing Millbrae Station to accommodate HSR	Alternatives A and B: 575.9 feet west of TCE at intersection of El Camino Real and Millbrae Avenue	Noise and construction emissions could make use of the trail less desirable during construction. The overall use is not considered noise sensitive and the trail is in an urban/residential setting, where ambient noise already exists. Trail users would not be affected by vibration because of the distance from the TCE. The project would comply with FRA guidelines for minimizing construction noise and vibration levels, as well as minimize fugitive dust emissions, and the trail would remain usable during construction. Mature trees present along the trail and intervening urban and residential development would minimize indirect impacts from construction emissions and noise. Construction of new station facilities and modification of existing platforms and tracks would take longer and be more extensive than in other locations where construction includes activities such as track modifications, radio towers, or four-quadrant gates.
Village Park, Burlingame	Urban/residential setting, playground, restrooms, picnic area, basketball court, soccer field	Alternatives A and B: track modifications (>3 feet) to the existing Caltrain at-grade tracks	Alternatives A and B: 164.1 feet southwest of TCE	Noise, vibration, and construction emissions would make use of the park less desirable during construction. However, the overall use is not considered noise sensitive and the park is within an urban/residential setting, where ambient noise already exists. The northeastern corner of the park is closest to the track shift, while the developed portions of the park are more than 200 feet further south. The project would comply with FRA guidelines for minimizing construction noise and vibration levels, as well as minimize fugitive dust emissions, and the park would remain usable during construction. Also, impacts on park users associated with temporary construction noise and air emissions would be minimized by the mature trees in the park, as well as the dense vegetation and trees present between California Drive and the tracks.

Name	Setting/Features	Construction Activities	Proximity to Construction	Impact on Park Use and User Experience
Laguna Park, Burlingame	Urban/residential setting, two tennis courts, children's play area	Alternatives A and B: minor track modifications (<1 foot) to the existing Caltrain at-grade tracks	Alternatives A and B: 199.5 feet southwest of TCE	Noise, vibration, and construction air emissions would make use of the park less desirable during construction. The overall use is not considered noise sensitive and the park is in an urban/residential setting, where ambient noise already exists. The project would comply with FRA guidelines for minimizing construction noise and vibration levels, as well as minimize fugitive dust emissions, and the courts and playground would remain usable during construction. Impacts on park users associated with temporary construction noise and emissions would be minimized by trees around the park and the row of single-family homes and vegetation and trees between California Drive and the tracks.
Bayside Fields and Dog Park (formerly Burlingame Lagoon Park), Burlingame	Urban/commercial/ bayside setting, lighted soccer, youth baseball, and softball fields, walking, cycling, running trails, a dog exercise park, community garden, golf center, protected wetlands area	Alternatives A and B: minor track modifications (<1 foot), new platform installation and modification of the existing platform to remove the hold-out rule and improve safety at the existing Broadway Caltrain Station, utility relocations, and safety improvements at Broadway	Alternatives A and B: 903.24 feet northeast of TCE (utility relocation) and across US 101	The fields, trails, garden, and dog park are outside the RSA, while a portion of the wetlands area is in the RSA. No impacts would occur given the distance of the recreation facilities from construction activities.
Alpine Park, Burlingame	Urban/residential setting, fenced playground, picnic area	Alternatives A and B: safety improvements at Oak Grove Avenue	Alternatives A and B: 910.8 feet northeast of TCE	Noise and construction emissions could make use of the park less desirable during construction of the four-quadrant gate at Oak Grove Avenue. The overall use is not considered noise sensitive and the park is in an urban/residential setting, where ambient noise already exists. Park users would not be affected by vibration because of the distance from the TCE. The project would comply with FRA guidelines for minimizing construction noise and vibration levels, as well as minimize fugitive dust emissions, and the park would remain usable during construction.

Name	Setting/Features	Construction Activities	Proximity to Construction	Impact on Park Use and User Experience
Burlingame Aquatic Center, Burlingame	Urban/residential setting, two outdoor heated pools, locker rooms, showers, changing areas	Alternatives A and B: safety improvements at Oak Grove Avenue	Alternatives A and B: 780.1 feet east of TCE	Noise and construction emissions could make use of the aquatic center less desirable during construction of the four-quadrant gate at Oak Grove Avenue. The overall use is not considered noise sensitive and the center is in an urban/residential setting, where ambient noise already exists. Aquatic center users would not be affected by construction vibration because of the distance from the TCE. The project would comply with FRA guidelines for minimizing construction noise and vibration levels, as well as minimize fugitive dust emissions, and the aquatic center would remain usable during construction.
Washington Park, Burlingame	Urban/residential setting, tennis courts, playground, restrooms, basketball court, picnic areas, baseball facilities	Alternatives A and B: safety improvements at North Lane and Howard Avenue	Alternatives A and B: 158.5 and 640.8 feet east of TCE	Noise, vibration, and construction emissions would make use of the park less desirable during construction of the two four-quadrant gates. The overall use is not considered noise sensitive, and the park is in an urban/residential setting, where ambient noise already exists. The project would comply with FRA guidelines for minimizing construction noise and vibration levels, as well as minimize fugitive dust emissions, and the park would remain usable during construction. Impacts on park users associated with temporary construction noise and emissions would be minimized by mature trees around the park.
Martin Luther King Jr Park*, San Mateo	Urban/residential setting, playground, basketball court, baseball field, soccer/multipurpose field, outdoor swimming pools, picnic areas, restrooms	Alternatives A and B: minor track modifications (<1 foot) to the existing Caltrain tracks	Alternatives A and B: 863.5 feet east of TCE	Noise and construction emissions could make use of the park less desirable during construction. However, the overall use is not considered noise sensitive. The park is in an urban/residential setting, where ambient noise already exists and park users would not be affected by construction vibration because of the distance from the TCE. The project would comply with FRA guidelines for minimizing construction noise and vibration levels, as well as minimize fugitive dust emissions, and the park would remain usable during construction. Impacts on park users associated with temporary construction noise and emissions would be minimized by clusters of mature trees on the western edge and within the park.

Name	Setting/Features	Construction Activities	Proximity to Construction	Impact on Park Use and User Experience
San Mateo Central Recreation Center and Park*, San Mateo	Urban setting, indoor recreation center, playground, restrooms, tennis courts, baseball field, picnic areas, mini train, Japanese Tea Garden	Alternatives A and B: safety improvements at 4th and 5th Avenues and track modifications (>3 feet) to the existing Caltrain at-grade tracks	Alternatives A and B: 702.6 feet east of TCE	Noise and construction emissions could make use of the park less desirable during construction. The overall use is not considered noise sensitive and the park is in an urban setting, where ambient noise already exists. Park users would not be affected by construction vibration because of the distance from the TCE. The project would comply with FRA guidelines for minimizing construction noise and vibration levels, as well as minimize fugitive dust emissions, and the park would remain usable during construction. Impacts on park users associated with temporary construction noise and emissions would be minimized by clusters of mature trees throughout the park.
San Mateo to Palo Alto Subsection				
Hayward Park Square*, San Mateo	Urban/residential/ commercial setting, picnic area	Alternative A: track modifications (>3 feet) to the existing Caltrain at-grade tracks Alternative B: two-track alignment diverges to four tracks, with at-grade passing tracks	Alternatives A and B: 79.3 feet west of TCE	Alternative A: noise, vibration, and construction emissions would make use of the park less desirable during construction. The overall use is not considered noise sensitive and the park is in an urban/residential/commercial setting, where ambient noise already exists. The project would comply with FRA guidelines for minimizing construction noise and vibration levels, as well as minimize fugitive dust emissions, and the park would remain usable during construction. Alternative B: noise, vibration, and air emissions from construction of the four-track passing tracks, would make use of the park less desirable, as described for Alternative A. However, construction activities would be longer in duration and more extensive under Alternative B than under Alternative A because of construction of the passing tracks.

Name	Setting/Features	Construction Activities	Proximity to Construction	Impact on Park Use and User Experience
Trinta Park, San Mateo	Urban/residential/ commercial setting, playground, baseball field, half basketball court, restrooms	Alternative A: track modifications (>3 feet) to the existing Caltrain at-grade tracks Alternative B: four-track passing tracks at grade and on embankment, and reconstruction of existing Hayward Park Caltrain Station to accommodate passing tracks	Alternative A: 87.0 feet southwest of TCE and 375.4 feet south (station) Alternative B: adjacent (passing tracks) and 375.4 feet south (station)	Alternative A: construction noise, vibration, and emissions from track modifications, would make use of the park less desirable during construction. The project would maintain noise and vibration levels within FRA requirements and minimize fugitive dust emissions, and the park would remain usable during construction. Impacts on park users associated with temporary construction noise and emissions would be minimized by mature trees around the park. Alternative B: noise, vibration, and air emissions from construction of the four-track passing tracks, would make use of the park less desirable, as described for Alternative A. However, construction activities would be longer in duration and more extensive than under Alternative A because of construction of the passing tracks and station modifications necessary to accommodate the passing tracks.
Bay Meadows Community Park, San Mateo	Urban/residential/ commercial setting, baseball field, large pond, large grassy areas, picnic areas, soccer fields, and walking path	Alternative A: no construction activities Alternative B: four-track passing tracks on embankment	Alternative A: 905.0 feet east of tracks Alternative B: 747.2 feet east of TCE	Alternative A: no construction activities are proposed and there would be no impacts related to construction noise, vibration, or emissions. Alternative B: noise and construction air emissions could make use of the park less desirable during construction. However, the overall use is not considered noise sensitive and the park is in an urban/residential/commercial area, where ambient noise already exists. Park users would not be affected by construction vibration because of the distance from the TCE. The project would comply with FRA guidelines for minimizing construction noise and vibration levels, as well as minimize fugitive dust emissions, and the park would remain usable during construction.

Name	Setting/Features	Construction Activities	Proximity to Construction	Impact on Park Use and User Experience
Paddock Park, San Mateo	Urban/residential setting, half basketball court, grassy areas, picnic areas, and playground	Alternative A: no construction activities Alternative B: four-track passing tracks on embankment	Alternative A: 1,138.8 feet west of TCE Alternative B: 978.3 feet west of TCE	Alternative A: no construction activities are proposed and there would be no impacts related to construction noise, vibration, or emissions. Alternative B: noise and construction air emissions could make use of the park less desirable during construction. However, the overall use is not considered noise sensitive and the park is in an urban/residential setting, where ambient noise already exists. There would no impacts from vibration given the distance of the park from construction activities. The project would comply with FRA guidelines for minimizing construction noise levels, as well as minimize fugitive dust emissions, and the park would remain usable during construction.
Davey Glen Park, Belmont	Urban/residential setting, playground, picnic area, synthetic turf play area, rain garden	Alternative A: minor track modifications (<1 foot) to the existing Caltrain at-grade tracks Alternative B: four-track passing tracks on aerial viaduct	Alternative A: 645.2 feet west of TCE Alternative B: 631.1 feet west of TCE	Alternative A: noise and construction emissions could make use of the park less desirable during construction. However, the overall use is not considered noise sensitive and the park is in an urban/residential setting, where ambient noise already exists. Park users would not be affected by construction vibration because of the distance from the TCE. The project would comply with FRA guidelines for minimizing construction noise and vibration levels, as well as minimize fugitive dust emissions, and the park would remain usable during construction. The park is separated from the project by a grove of dense mature trees that would minimize indirect impacts. Alternative B: impacts from noise and construction emissions would be the same as described under Alternative A. However, construction activities would take longer and be more extensive under Alternative B than under Alternative A because of construction of the passing tracks.

Name	Setting/Features	Construction Activities	Proximity to Construction	Impact on Park Use and User Experience
Alexander Park, Belmont	Urban/residential/ commercial setting, basketball court, picnic area with BBQ facilities, horseshoe pits, lawn area, playground, restrooms, tennis courts	Alternative A: track modifications to the existing Caltrain at-grade tracks Alternative B: four-track passing tracks on aerial viaduct	Alternative A: 393.8 feet east of TCE (<1 foot) and 774.1 feet northeast of TCE (>3 feet) Alternative B: 374.2 feet east of TCE	Alternative A: noise and construction emissions could make use of the park less desirable during construction. However, the overall use is not considered noise sensitive and the park is in an urban/residential/commercial setting, where ambient noise already exists. Park users would not be affected by construction vibration because of the distance from the TCE. The project would comply with FRA guidelines for minimizing construction noise and vibration levels, as well as minimize fugitive dust emissions, and the park would remain usable during construction. Mature trees and three rows of commercial development of more than one story would minimize indirect impacts. Alternative B: impacts from noise and construction emissions would be the same as described under Alternative A. Construction activities would take longer and be more extensive under Alternative B than under Alternative A because of construction of the passing tracks.
O'Donnell Park, Belmont	Urban/residential/ commercial setting, basketball, BBQ, picnic area, community garden, lawn area, playground	Alternative A: track modifications (>3 feet) south of Belmont Caltrain Station Alternative B: four-track passing tracks on aerial viaduct and reconstruction of existing Belmont Caltrain Station to accommodate passing tracks	Alternative A: 1,021.5 feet east of TCE Alternative B: 920.6 feet east of TCE	Alternative A: no impact would occur given the distance of the playground from construction activities and intervening urban development. Alternative B: noise and construction emissions could make use of the park less desirable during construction. However, the overall use is not considered noise sensitive. The park is in an urban/residential/commercial setting, where ambient noise already exist, and park users would not be affected by vibration because of the distance from the TCE. The project would comply with FRA guidelines for minimizing construction noise and vibration levels, as well as minimize fugitive dust emissions, and the park would remain usable during construction. Construction-related indirect impacts would be minimized by clusters of mature trees in the park and between the park and project alignment. Construction activities would take longer and be more extensive under Alternative B than under Alternative A because of construction of the passing tracks and station reconstruction.

Name	Setting/Features	Construction Activities	Proximity to Construction	Impact on Park Use and User Experience
Twin Pines Park, Belmont	Urban/residential setting, BBQ, lawn area, multi-use field, open-space trails, picnic areas, playground, recreational facility, restrooms, Belmont Historical Society Museum, Belmont Parks and Recreation, and the Senior and Community Center	Alternative A: new radio tower and track modifications (>3 feet) south of Belmont Caltrain Station Alternative B: four-track passing tracks on aerial viaduct and reconstruction of existing Belmont Caltrain Station to accommodate passing tracks	Alternatives A and B: 873.5 feet west of TCE	Alternative A: While the overall use at this park is not considered noise sensitive, noise and construction emissions could make use of the park less desirable during construction. However, the park is in an urban/residential setting, where ambient noise already exists, and park users would not be affected by vibration because of the distance from the TCE. The project would comply with FRA guidelines for minimizing construction noise and vibration levels, as well as minimize fugitive dust emissions, and the park would remain usable during construction. Mature trees throughout the park would minimize construction-related impacts. Alternative B: impacts from noise and construction emissions would be the same as described under Alternative A. However, construction activities would take longer and be more extensive under Alternative B than under Alternative A because of construction of the passing tracks and station reconstruction.
Laureola Park, San Carlos	Urban/residential setting, ball diamond, basketball courts, benches, picnic table, BBQ, play equipment, recreation center, restrooms, soccer field, water feature	Alternative A: minor track modifications to the existing Caltrain tracks on embankment Alternative B: four-track passing tracks on aerial viaduct, replacement of Holly Street underpass, and relocation of San Carlos Caltrain Station to accommodate four-track configuration passing tracks	Alternative A: 359.4 feet east of TCE (<3 feet) and 714.8 feet northeast of TCE (<1 foot) Alternative B: 213.5 feet east of TCE at Holly Street and the San Carlos station, 315.0 feet northeast of tracks	Alternative A: noise and construction emissions could make use of the park less desirable during construction. The overall use is not considered noise sensitive and the park is in an urban/residential setting, where ambient noise already exists. Park users would not be affected by vibration because of the distance from the TCE. The project would comply with FRA guidelines for minimizing construction noise and vibration levels, as well as minimize fugitive dust emissions, and the park would remain usable during construction. Clusters of mature trees in the surrounding neighborhood and around the park would minimize indirect construction-related impacts. Alternative B: impacts from noise and construction emissions would be the same as described under Alternative A. However, construction activities would take longer and be more extensive under Alternative B because of construction of the viaduct, underpass replacement, station reconstruction/relocation, and passing tracks.

Name	Setting/Features	Construction Activities	Proximity to Construction	Impact on Park Use and User Experience
Frank D. Harrington Park*, San Carlos	Urban/commercial setting, public art sculpture, benches, picnic tables, raised stage	Alternative A: minor track modifications (<1 foot) to the existing Caltrain at-grade tracks Alternative B: four-track passing tracks on aerial viaduct and relocation of San Carlos Caltrain Station to accommodate four-track configuration passing tracks	Alternative A: 311.7 feet west of TCE Alternative B: 309.8 feet west of TCE	Alternative A: the overall use at this park would be considered noise sensitive and noise and construction emissions would make use of the park less desirable during construction. However, the park is in an urban/commercial setting where ambient noise already exists and park users would not be affected by vibration because of the distance from the TCE. The project would comply with FRA guidelines for minimizing construction noise and vibration levels, as well as minimize fugitive dust emissions, and the park would remain usable during construction. The picnic tables are at the west end of the park adjacent to Laurel Street, in a cluster of mature trees between buildings. The stage is approximately 340 feet from the TCE, at the east end of the park with mature trees behind the stage. Additionally, a row of commercial buildings, El Camino Real, and the station parking area are between the park and the TCE. Alternative B: impacts from noise and construction emissions would be similar to those described under Alternative A. However, there could be more noise and air emissions from construction of the passing tracks on viaduct and station reconstruction and relocation. In addition, construction activities would take longer under Alternative B than under Alternative A.
Wellesley Crescent Park, Redwood City	Urban/residential setting, grass area, picnic tables	Alternative A: safety improvements at Whipple Avenue Alternative B: utility relocations, at-grade passing tracks, safety improvements at Whipple Avenue	Alternative A: 909.9 feet northwest of TCE Alternative B: 748.9 feet west of TCE and 909.9 feet northwest of TCE	Alternative A: noise and construction emissions could make use of the park less desirable during construction. However, the park is within an urban/residential setting, where ambient noise already exists. Park users would not be affected by vibration because of the distance from the TCE. The project would comply with FRA guidelines for minimizing construction noise and vibration levels, as well as minimize fugitive dust emissions, and the park would remain usable during construction. Alternative B: impacts from noise and construction emissions would be the same as under Alternative A. However, construction activities would be take longer and be more extensive under Alternative B because of relocation of the utilities and construction of the passing tracks.

Name	Setting/Features	Construction Activities	Proximity to Construction	Impact on Park Use and User Experience
Mezes Park, Redwood City	Urban/residential setting, basketball court, grass area, picnic tables, playground, restroom, tennis court	Alternatives A and B: safety improvements at Whipple Avenue	Alternatives A and B: 741.9 feet east of TCE	Noise and construction emissions could make use of the park less desirable during construction. The overall use is not considered noise sensitive and the park is within an urban/residential setting, where ambient noise already exists. Park users would not be affected by vibration because of the distance from the TCE. The project would comply with FRA guidelines for minimizing construction noise and vibration levels, as well as minimize fugitive dust emissions. The park would remain usable during construction and clusters of mature trees in the park would minimize indirect impacts.
Brewster/Arch Parklet, Redwood City	Urban/commercial setting, grass area, landscaping	Alternatives A and B: safety improvements at Brewster Avenue	Alternatives A and B: 718.9 feet east of TCE	Noise and construction emissions could make use of the park less desirable during construction. The overall use is not considered noise sensitive, and the park is in an urban/commercial setting, where ambient noise already exists. Park users would not be affected by vibration because of the distance from the TCE. The project would comply with FRA guidelines for minimizing construction noise and vibration levels, as well as minimize fugitive dust emissions, and the park would remain usable during construction.
Little River Park, Redwood City	Urban/commercial setting, grass area, benches	Alternatives A and B: safety improvements at Marshall Street	Alternatives A and B: 311.8 feet southwest of TCE at Marshall Street	Noise and construction emissions could make use of the park less desirable during construction. The overall use is not considered noise sensitive and the park is in an urban/commercial setting, where ambient noise already exists. The park is along the southern boundary of the existing Redwood City Station commuter parking lot west of the BART pick-up and drop-off area. Park users would not be affected by vibration because of the distance from the TCE. The project would comply with FRA guidelines for minimizing construction noise and vibration levels, as well as minimize fugitive dust emissions, and the park would remain usable during construction.

Name	Setting/Features	Construction Activities	Proximity to Construction	Impact on Park Use and User Experience
Courthouse Square, Redwood City	Urban/commercial setting, chairs, open area, used for various city events such as outdoor movies, celebrations, live music	Alternatives A and B: safety improvements at Marshall Street	Alternatives A and B: 666.8 feet east of TCE	Noise and construction emissions could make use of the square's chairs and open area less desirable during construction, in particular if an outdoor event is being held. However, the square is in an urban/commercial setting, where ambient noise already exists. Users would not be affected by vibration because of the distance from the TCE. The project would comply with FRA guidelines for minimizing construction noise and vibration levels, as well as minimize fugitive dust emissions and the chairs and open area would remain usable during construction. In addition, outdoor events would not be prevented as a result of indirect constructions impacts.
City Center Plaza, Redwood City	Urban/commercial setting, landscaping, paved surface at City Hall	Alternatives A and B: safety improvements at Maple Street	Alternatives A and B: 517.6 feet east of TCE	Noise and construction emissions could make use of the plaza less desirable during construction. However, the plaza is in an urban/commercial setting, where ambient noise already exists. Users would not be affected by vibration because of the distance from the TCE. The project would comply with FRA guidelines for minimizing construction noise and vibration levels, as well as minimize fugitive dust emissions and the plaza would remain usable during construction.
John S. Roselli Memorial Park, Redwood City	Urban/commercial setting, trees, grass area	Alternatives A and B: safety improvements at Maple Street	Alternatives A and B: 169.3 feet east of TCE	Construction noise, vibration, and air emissions could make use of the park less desirable during construction. However, the park is in an urban/commercial setting, where ambient noise already exists. The project would comply with FRA guidelines for minimizing construction noise and vibration levels, as well as minimize fugitive dust emissions, and the park would remain usable during construction. Mature pine trees throughout the park could minimize indirect construction impacts.
Main Street Dog Agility Park, Redwood City	Urban/commercial setting, lighted dog agility course	Alternatives A and B: safety improvements at Main Street	Alternatives A and B: 8.9 feet southeast of TCE	Construction noise, vibration, and air emissions would make use of the park less desirable during construction. However, the park is within an urban/commercial setting, where ambient noise already exists. The project would comply with FRA guidelines for minimizing construction noise and vibration levels, as well as minimize fugitive dust emissions, and the dog park would remain usable during construction.

Name	Setting/Features	Construction Activities	Proximity to Construction	Impact on Park Use and User Experience
Jardin de Ninos Park, Redwood City	Urban/residential setting, picnic tables, playground, restrooms	Alternatives A and B: safety improvements at Chestnut Street	Alternatives A and B: 596.1 feet east of TCE	Noise and construction emissions could make use of the park less desirable during construction. However, the overall use is not considered noise sensitive and the park is in an urban/residential setting, where ambient noise already exists. Park users would not be affected by vibration because of the distance from the TCE. The project would comply with FRA guidelines for minimizing construction noise and vibration levels, as well as minimize fugitive dust emissions, and the park would remain usable during construction. Mature trees in the park and intervening multifamily residential buildings would minimize indirect construction impacts.
Reading Park, Atherton	Urban/commercial setting landscaping, grass area	Alternatives A and B: minor track modifications (<3 feet) to existing Caltrain at-grade tracks and new platform installation and modification of the existing platform to remove the hold-out rule and improve safety at the existing Atherton Caltrain Station.	Alternatives A and B: 119.9 feet southwest of TCE	Noise, vibration, and construction emissions would make use of the park less desirable during construction. The overall use could be considered noise sensitive, as it is part of the library grounds. However, the park is in an urban/commercial setting, where ambient noise already exists. The project would comply with FRA guidelines for minimizing construction noise and vibration levels, as well as minimize fugitive dust emissions, and the park would remain usable during construction. Impacts on park users associated with temporary construction noise and emissions would be minimized by the mature vegetation and trees on the park grounds, and along the eastern side of Dinkelspiel Station Lane between the station and the park.

Name	Setting/Features	Construction Activities	Proximity to Construction	Impact on Park Use and User Experience
Holbrook-Palmer Park, Atherton	Urban/residential setting, ball field, tennis courts, grass area, playground, gardens, and walking paths	Alternatives A and B: minor track modifications (<3 feet) to existing Caltrain at-grade tracks, new platform installation and modification of the existing platform to remove the hold-out rule and improve safety at the station at the existing Atherton Caltrain Station, and safety improvements at Watkins Avenue	Alternatives A and B: 0 (adjacent), 8.0 feet east of TCE (Watkins Avenue) and 774.6 feet south of TCE (station)	Noise, vibration, and construction emissions would make use of the park less desirable during construction. The overall use would not be considered noise sensitive. However, the park is in an urban/residential setting, where ambient noise already exists. The ball field, tennis courts, grass area and walking path are along the park's western boundary adjacent to the right-of-way. The project would comply with FRA guidelines for minimizing construction noise and vibration levels, as well as minimize fugitive dust emissions, and the ball field, tennis courts, grass area and walking path would remain usable during construction. Impacts on park users associated with temporary construction noise and emissions would be minimized by the mature trees along the park boundary and Watkins Avenue.
Cartan Athletic Fields, Atherton	Urban/commercial setting, aquatic center, tennis courts, football/soccer/lacrosse field, running track, and baseball field	Alternatives A and B: minor track modifications (<3 feet) to the existing Caltrain at-grade tracks	Alternatives A and B: 877.0 feet west of TCE	Noise and construction emissions could make use of the outdoor courts, athletic fields, and track less desirable during construction. The overall use is not considered noise sensitive and the fields are in an urban/commercial setting, where ambient noise already exists. Park users would not be affected by vibration because of the distance from the TCE. The project would comply with FRA guidelines for minimizing construction noise and vibration levels, as well as minimize fugitive dust emissions, and the athletic fields would remain usable during construction.

Name	Setting/Features	Construction Activities	Proximity to Construction	Impact on Park Use and User Experience
Burgess Park, Menlo Park	Urban/residential setting, baseball field, basketball court, open play field, playground, soccer field, tennis court, and skate park	Alternatives A and B: safety improvements at Ravenswood Avenue	Alternatives A and B: 834.8 feet east of TCE	Noise, vibration, and construction emissions could make use of the park less desirable during construction. The overall use would not be considered noise sensitive and the park is in an urban/residential setting where ambient noise already exists. Park users would not be affected by vibration because of the distance from the TCE. The skate park, basketball court, and parking area are along the park's western boundary on Alma Avenue closer to the TCE than the other park facilities. The project would comply with FRA guidelines for minimizing construction noise and vibration levels, as well as minimize fugitive dust emissions, and the park's fields, courts, and skate park would remain usable during construction. Impacts on park users associated with temporary construction noise and emissions would be minimized by buildings north of the park boundary and mature trees along the northern park boundary as well as on the western edge of the right-of-way.
Timothy Hopkins Creekside Park, Palo Alto	Urban/residential setting, narrow strip of mostly undeveloped land along the banks of San Francisquito Creek, approximately 1.5 miles long and at its widest 200 feet. A couple of wider spots with a bench or picnic table.	Alternatives A and B: minor track modifications (<3 feet) to the existing Caltrain at-grade tracks and safety improvements at Alma Street	Alternatives A and B: 716.6 feet east of TCE	Noise and construction emissions could make use of the park less desirable during construction. The overall use is not considered noise sensitive and the park is in an urban/residential setting where ambient noise already exists. Park users would not be affected by vibration because of the distance from the TCE. The project would comply with FRA guidelines for minimizing construction noise and vibration levels, as well as minimize fugitive dust emissions, and the park would remain usable during construction. The riparian vegetation along the creek would minimize impacts related to construction noise and emissions.
El Palo Alto Park, Palo Alto	Urban/residential setting, interpretive plaques, Coast Redwoods, lighted pedestrian/bike pathway	Alternatives A and B: minor track modifications (<3 feet) to the existing Caltrain at-grade tracks and safety improvements at Alma Street	Alternatives A and B: 0, adjacent to and east of TCE	Noise, vibration, and construction emissions would make use of the park less desirable during construction. However, the park is in an urban/residential setting, where ambient noise already exists. The project would comply with FRA guidelines for minimizing construction noise and vibration levels, as well as minimize fugitive dust emissions, and the park pathway would remain usable during construction. Impacts on park users associated with temporary construction noise and emissions would be minimized by the mature trees along the eastern edge of the right-of-way.

Name	Setting/Features	Construction Activities	Proximity to Construction	Impact on Park Use and User Experience
San Francisquito Creek and Trail, Palo Alto	Urban/commercial setting, trails and landscaping	Alternatives A and B: minor track modifications (<3 feet) to the existing Caltrain at-grade tracks and safety improvements at Alma Avenue	Alternatives A and B: 352.5 feet west of TCE	Noise, vibration, and construction emissions could make use of the trail less desirable during construction. The overall use is not considered noise sensitive and the trail is in an urban/commercial setting where ambient noise already exists. Trail users would not be affected by vibration because of the trail's distance from the TCE. The project would comply with FRA guidelines for minimizing construction noise and vibration levels, as well as minimize fugitive dust emissions, and the trail would remain useable during construction. The riparian vegetation along the creek would minimize impacts related to construction noise and emissions.
El Camino Park, Palo Alto	Urban setting, synthetic soccer field, lighted softball diamond with bleachers, restrooms, and parking lot	Alternatives A and B: track modifications (<3 feet) to the existing Caltrain at-grade tracks and safety improvements at Alma Avenue	Alternatives A and B: 0, adjacent to the TCE	Noise, vibration, and construction emissions would make use of the park less desirable during construction. The overall use would not be considered noise sensitive and the park is in an urban setting, where ambient noise already exists. The project would comply with FRA guidelines for minimizing construction noise and vibration levels, as well as minimize fugitive dust emissions, and the soccer field and softball diamond would remain usable during construction.
Cogswell Plaza, Palo Alto	Urban/commercial setting, grass area, tables and chairs, benches	Alternatives A and B: minor track modifications (<1 foot) to the existing Caltrain at-grade tracks	Alternatives A and B: 889.2 feet east of TCE	Noise and construction emissions could make use of the plaza less desirable during construction. The overall use is not considered noise sensitive and the plaza is in an urban/commercial setting, where ambient noise already exists. Park users would not be affected by vibration because of the distance from the TCE. The project would comply with FRA guidelines for minimizing construction noise and vibration levels, as well as minimize fugitive dust emissions, and the plaza would remain usable during construction. The plaza is separated from the project by three blocks of multistory commercial buildings that would minimize impacts associated with temporary construction noise and emissions.

Name	Setting/Features	Construction Activities	Proximity to Construction	Impact on Park Use and User Experience
Lytton Plaza, Palo Alto	Urban/commercial setting, fountain, moveable and stationary tables and chairs, benches, bike racks, public art	Alternatives A and B: minor track modifications (<1 foot) to the existing Caltrain at-grade tracks	Alternatives A and B: 608.2 feet east of TCE	Noise and construction emissions could make use of the plaza less desirable during construction. The overall use is not considered noise sensitive and the plaza is in an urban/commercial setting, where ambient noise already exists. Users would not be affected by vibration because of the plaza's distance from the TCE. The project would comply with FRA guidelines for minimizing construction noise and vibration levels, as well as minimize fugitive dust emissions, and the plaza would remain usable during construction. The plaza is separated from the project by three blocks of multistory commercial buildings that would minimize impacts associated with temporary construction noise and emissions.
Embarcadero Bike Path, Palo Alto	Urban setting, lighted bike path	Alternatives A and B: minor track modifications (<1 foot) to the existing Caltrain at-grade tracks, new radio tower, and safety improvements at Churchill Avenue	Alternatives A and B: 0, adjacent to TCE	While this active use is not considered noise sensitive, construction noise and vibration, as well as air emissions, could be perceptible to path users during construction. The overall use is not considered noise sensitive, and the bike path is in an urban setting, where ambient noise already exists. The project would comply with FRA guidelines for minimizing construction noise and vibration levels, as well as minimize fugitive dust emissions, and the bike path would remain usable during construction.
Jerry Bowden Park, Palo Alto	Urban/residential setting, open grassy area, playground, picnic area, benches, public art	Alternatives A and B: minor track modifications (<1 foot) to the existing Caltrain at-grade tracks	Alternatives A and B: 526.9 feet northeast of TCE	Noise and construction emissions could make use of the park less desirable during construction. The overall use is not considered noise sensitive and the park is in an urban/residential setting, where ambient noise already exists. There would be no vibration impacts because of the distance from the TCE. The project would comply with FRA guidelines for minimizing construction noise and vibration levels, as well as minimize fugitive dust emissions, and the park would remain usable during construction. Mature trees clustered throughout the park would minimize indirect impacts.

Name	Setting/Features	Construction Activities	Proximity to Construction	Impact on Park Use and User Experience
Robles Park, Palo Alto	Urban/residential setting, playgrounds, picnic areas, BBQs, benches, multipurpose bowl with colorful tile art, basketball court, softball backstop, footpath	Alternatives A and B: new radio tower, safety improvements at Meadow Drive and Charleston Road	Alternatives A and B: 43.3 feet west of TCE (tower), 544.9 feet southwest of TCE (Meadow Drive), and 728.5 feet northwest of TCE (Charleston Road)	Noise and construction emissions would make use of the park less desirable during construction of the radio tower for up to 6 months. However, the overall use is not considered noise sensitive and the park is in an urban/residential setting where ambient noise already exists. Park users would not be affected by vibration because of the distance from the TCEs for the four-quadrant gates. The project would comply with FRA guidelines for minimizing construction noise and vibration levels, as well as minimize fugitive dust emissions, and the park would remain usable during construction. Clusters of mature trees in the park and a row of single-family homes between the TCE and park would minimize construction-related indirect impacts on park users.
Mountain View to Santa Clara Subsection				
Rengstorff Park, Mountain View	Urban/residential setting, BBQ facilities, baseball field, basketball court, skate park, children's playground, passive areas, picnic area, softball field, swimming pool, tennis courts, outdoor volleyball court, restrooms	Alternatives A and B: safety improvements at Rengstorff Avenue	Alternatives A and B: 32.6 feet southwest of TCE	Noise, vibration, and construction emissions would make use of the park less desirable during construction of the four-quadrant gate over a period of two weeks. The overall use is not considered noise sensitive and the park is in an urban/residential setting, where ambient noise already exists. The project would comply with FRA guidelines for minimizing construction noise and vibration levels, as well as minimize fugitive dust emissions, and the park would remain usable during construction. Clusters of mature trees within and along the park boundaries would minimize construction-related indirect impacts on park users.
Jackson Park, Mountain View	Urban/residential setting, children's playground, passive areas, picnic area	Alternatives A and B: new radio tower	Alternatives A and B: 692.7 feet east of TCE (location #2) and across Central Expressway	Noise and construction emissions could make use of the park less desirable during construction. However, the park is in an urban/residential setting, where ambient noise already exists. Park users would not be affected by vibration because of the distance from the TCE. The project would comply with FRA guidelines for minimizing construction noise and vibration levels, as well as minimize fugitive dust emissions, and the park would remain usable during construction.

Name	Setting/Features	Construction Activities	Proximity to Construction	Impact on Park Use and User Experience
Dana Park, Mountain View	Urban/residential setting, grassy landscaped area with benches	Alternatives A and B: new radio tower	Alternatives A and B: 891.7 feet west of TCEs (both proposed locations)	Noise and construction emissions could make use of the park less desirable during construction. The overall use is not considered noise sensitive and the park is in an urban/residential setting where ambient noise already exists. Park users would not be affected by vibration because of the distance from the TCE. The project would comply with FRA guidelines for minimizing construction noise and vibration levels, as well as minimize fugitive dust emissions, and the park would remain usable during construction.
Centennial Plaza, Mountain View	Urban setting, children's play equipment, picnic area, landscaping, benches	Alternatives A and B: safety improvements at Castro Street	Alternatives A and B: 4.9 feet west of TCE	Noise, vibration, and construction emissions would make use of the plaza less desirable during construction of the four-quadrant gate at Castro Street. However, the plaza is in an urban setting adjacent to the existing Mountain View Station where ambient noise already exists. The project would comply with FRA guidelines for minimizing construction noise and vibration levels, as well as minimize fugitive dust emissions, and the plaza would remain usable during construction.
Stevens Creek Trail, Mountain View	Urban/residential setting, paved pathway along the creek through woodlands, tidal marshes and city neighborhood parks, 0.25-mile pedestrian overcrossing spanning Central Expressway, Evelyn Ave, light rail, and Caltrain tracks	Alternatives A and B: minor track modifications (<1 foot) to the existing Caltrain at-grade tracks	Alternatives A and B: trail spans TCE	While this active use is not considered noise sensitive, construction noise and vibration, as well as air emissions, would be perceptible to trail users as they cross over the TCE, as well as in areas adjacent to the trail, making use of the trail less desirable during construction. However, the trail is in an urban/residential setting, where ambient noise already exists. The project would comply with FRA guidelines for minimizing construction noise and vibration levels, as well as minimize fugitive dust emissions, and the trail would remain usable during construction. Dense vegetation around the trail would minimize indirect impacts from construction noise and emissions.
Magnolia Park, Mountain View	Urban/residential setting, children's playground, passive areas, picnic area	Alternatives A and B: utility easement and minor track modifications (<1 foot) to the existing Caltrain at-grade tracks	Alternatives A and B: 890.2 feet northeast of utility easement and 913.3 feet north of TCE (tracks)	Noise and construction emissions could make use of the park less desirable during construction. However, this resource is in an urban/residential setting, where ambient noise already exists. Park users would be unlikely to be affected by vibration because of the distance from the TCE. The project would comply with FRA guidelines for minimizing construction noise and vibration levels, as well as minimize fugitive dust emissions, and the park would remain usable during construction.

Name	Setting/Features	Construction Activities	Proximity to Construction	Impact on Park Use and User Experience
Cannery Park, Sunnyvale	Urban/residential setting, picnic area with BBQ, playground	Alternatives A and B: minor track modifications (<1 foot) to the existing Caltrain at-grade tracks and safety improvements at Mary Avenue	Alternatives A and B: 465 feet north of tracks and 885.5 feet north of TCE at Mary Avenue	Noise and construction emissions could make use of the park less desirable during construction. However, this park is in an urban/residential setting, where ambient noise already exists. Park users would not be affected by vibration because of the distance from the construction activities. The project would comply with FRA guidelines for minimizing construction noise and vibration levels, as well as minimize fugitive dust emissions, and the park would remain usable during construction. The picnic areas are set along the park boundaries among mature trees and the park is separated from the tracks and TCE by several multifamily buildings that would minimize indirect impacts from noise and construction emissions.
Plaza del Sol, Sunnyvale	Urban setting, picnic benches, landscaping, paved areas, reservable concrete area for large events	Alternatives A and B: co-location of radio tower and safety improvements at Sunnyvale Avenue	Alternatives A and B: 200 feet south of TCE (radio tower) and 720.8 feet south of TCE at Sunnyvale Avenue	Noise and construction emissions could make use of the plaza less desirable during construction. However, the plaza is in an urban setting, where ambient noise already exists. Co-locating the radio tower could result in minor noise and minor construction emissions. Users would not be affected by vibration because of the distance from the new four-quadrant gate and track modifications. The project would comply with FRA guidelines for minimizing construction noise and vibration levels, as well as minimize fugitive dust emissions, and the plaza would remain usable during construction.
Bracher Park, Santa Clara	Urban/residential setting, picnic area, BBQs, basketball court, restrooms, pathway, play area	Alternatives A and B: minor track modifications (<3 feet) to the existing Caltrain at-grade tracks	Alternatives A and B: 10.1 feet south of TCE	Noise, vibration, and construction emissions would be perceptible to park users closest to the construction activities at the northern park boundary, including the pathway and basketball court. However, the overall use is not considered noise sensitive and the park is in an urban/residential setting, where ambient noise already exists. The project would comply with FRA guidelines for minimizing construction noise and vibration levels, as well as minimize fugitive dust emissions, and the park would remain usable during construction.

Name	Setting/Features	Construction Activities	Proximity to Construction	Impact on Park Use and User Experience
San Jose Diridon Station Approach Subsection				
Guadalupe River Park, San Jose	Urban setting, 3-mile ribbon of parkland that encompasses numerous park, garden, and open space areas including (but not limited to) Columbus Park, Heritage Rose Garden, Taylor Street Rock Garden, Guadalupe Gardens, Arena Green, and open space areas associated with the Discovery Museum	Alternative A: minor at-grade track modifications Alternative B (both viaduct options): new aerial viaduct	Alternative A: 298.3 feet northeast of TCE Alternative B (both viaduct options): 0 (adjacent)	While this resource is not considered noise sensitive, noise and vibration, as well as air emissions, would make use of parks and open space areas less desirable during construction. However, this resource is in an urban setting, where ambient noise already exists. The project would comply with FRA guidelines for minimizing construction noise and vibration levels, as well as minimize fugitive dust emissions, and the park would remain usable during construction.
Reed Street Dog Park, Santa Clara	Urban/industrial setting, picnic area, BBQ facilities, and play area	Alternative A: staging area and minor at-grade track modifications Alternative B: Viaduct to I-880: minor at-grade track modifications Viaduct to Scott Boulevard: aerial viaduct	Alternative A: 0 feet adjacent to and east of TCE Alternative B: Viaduct to I-880: 1,171.4 feet east of TCE Viaduct to Scott Boulevard: within TCE	Noise, vibration, and construction emissions under Alternatives A and B (Viaduct to Scott Boulevard), would make use of the park less desirable during construction. However, this resource is in an urban/industrial setting, where ambient noise already exists. The project would comply with FRA guidelines for minimizing construction noise and vibration levels, as well as minimize fugitive dust emissions, and the park would remain usable during construction.

Name	Setting/Features	Construction Activities	Proximity to Construction	Impact on Park Use and User Experience
Larry J. Marsalli Park, Santa Clara	Urban/residential setting, open space, restrooms, lighted softball field, children's playground	Alternative A: minor at-grade track modifications Alternative B Viaduct to I-880: minor at-grade track modifications Viaduct to Scott Boulevard: aerial viaduct and replace De La Cruz overpass with underpass	Alternative A: 719.6 feet west and across SR 82 from TCE Alternative B Viaduct to I-880: 1,499.4 feet west and across SR 82 from TCE Viaduct to Scott Boulevard: within TCE	While this resource is not considered noise sensitive, noise and vibration, as well as construction emissions, would make use of the park less desirable during construction under Alternative B (Viaduct to Scott Boulevard). The project would comply with FRA guidelines for minimizing construction noise and vibration levels, as well as minimize fugitive dust emissions, and the softball field and children's playground would remain usable during construction.
Newhall Park, San Jose	Urban/residential setting, lawn areas, gazebo, picnic area	Alternative A: minor at-grade track modifications Alternative B Viaduct to I-880: minor at-grade track modifications Viaduct to Scott Boulevard: aerial viaduct	Alternative A: 196.7 feet west of TCE Alternative B Viaduct to I-880: 233.7 feet west of TCE Viaduct to Scott Boulevard: 188.7 feet west of TCE	Noise and construction emissions would make use the park less desirable during construction. However, this resource is within an urban/residential setting, where ambient noise already exists. The project would comply with FRA guidelines for minimizing construction noise and vibration levels, as well as minimize fugitive dust emissions, and the softball field and children's playground would remain usable during construction.

Name	Setting/Features	Construction Activities	Proximity to Construction	Impact on Park Use and User Experience
College Park, San Jose	Urban/residential setting, landscaping and bench	Alternative A: minor at-grade track modifications Alternative B Viaduct to I-880: minor track modifications would be made to the existing Caltrain at-grade tracks and the Hedding Street overcrossing would be removed and replaced with a new overcrossing Viaduct to Scott Boulevard: new aerial viaduct and the Hedding Street overcrossing would be removed and replaced with an underpass	Alternative A: 549.7 southwest of TCE Alternative B (both viaduct options): within TCE	While this resource is not considered noise sensitive, noise, vibration, and construction emissions under Alternative B (both viaduct options) would make use of the bench less desirable during construction. However, the park is in an urban/residential setting, where ambient noise already exists. The project would comply with FRA guidelines for minimizing construction noise and vibration levels, as well as minimize fugitive dust emissions, and the bench would remain usable during construction.
Theodore Lenzen Park, San Jose	Urban/industrial setting. two playgrounds	Alternative A: minor at-grade track modifications Alternative B (both viaduct options): new aerial viaduct	Alternative A: 577.9 feet west of TCE Alternative B Viaduct to I-880: 550.6 feet west of TCE Viaduct to Scott Boulevard: 345.9 feet west of TCE	Noise, vibration, and air emissions under Alternative B (Viaduct to Scott Boulevard) would make use of the playgrounds less desirable during construction. The park is in an urban/industrial setting, where ambient noise already exists, and supports active uses that are not considered noise sensitive. The project would comply with FRA guidelines for minimizing construction noise and vibration levels, as well as minimize fugitive dust emissions, and the playgrounds would remain usable during construction.

Name	Setting/Features	Construction Activities	Proximity to Construction	Impact on Park Use and User Experience
Cahill Park, San Jose	Urban/residential setting, half size basketball court and playground	Alternative A: minor at-grade track modifications Alternative B (both viaduct options): new aerial viaduct	Alternative A: 116.4 feet west of TCE Alternative B (both viaduct options): 114.7 feet west of TCE	While this active use is not considered noise sensitive, noise, vibration, and construction emissions under both alternatives, would make use of the park less desirable during construction. However, the park is within an urban/residential setting, where ambient noise already exists. The project would comply with FRA guidelines for minimizing construction noise and vibration levels, as well as minimize fugitive dust emissions, and the court and playground would remain usable during construction. Further, impacts on park users associated with temporary construction noise and emissions would be minimized by the two rows of multifamily housing between project construction and the park.
Los Gatos Creek Trail, San Jose	Urban setting, pedestrian and bicycle trail	Alternative A: minor at-grade track modifications Alternative B (both viaduct options): new aerial viaduct	Alternative A: 26.4 feet from TCE Alternative B (both viaduct options): within TCE	While this active use is not considered noise sensitive, exposure to noise and vibration, as well as construction emissions under all project alternatives, could affect trail users, potentially making use of the trail for walking and cycling less desirable during construction. Construction noise, vibration, and air emissions would make use of playgrounds less desirable during construction. However, this resource is within an urban setting, where ambient noise is already present. Further, the project would maintain noise and vibration levels within the FRA requirements and minimize fugitive dust emissions, and the park would remain usable during construction.
Community Park (Planned), San Jose	Urban setting	Alternative A: minor at-grade track modifications Alternative B (both viaduct options): new aerial viaduct	Alternative A: 13.8 feet east of TCE Alternative B (both viaduct options): 4.8 feet east of TCE	If completed prior to project construction, noise, vibration, and air emissions would make use of playgrounds less desirable during construction; the project would comply with FRA guidelines for minimizing construction noise and vibration levels, as well as minimize fugitive dust emissions.
Discovery Dog Park, San Jose	Urban setting, decomposed granite walking path, bark-mulch dog area, tables and benches	Alternative A: minor at-grade track modifications Alternative B (both viaduct options): new aerial viaduct	Alternative A: 970.0 feet east of TCE Alternative B (both viaduct options): 764.5 feet east of TCE	Construction noise and air emissions could make use of the park less desirable during construction. There would be no impacts from vibration given the park's distance from the project. The park is in an urban setting, where ambient noise already exists. The project would comply with FRA guidelines for minimizing construction noise levels and minimize fugitive dust emissions, and the park would remain usable during construction.

Name	Setting/Features	Construction Activities	Proximity to Construction	Impact on Park Use and User Experience
Guadalupe River Trail, San Jose	Urban setting, hiking and bicycle trail	Alternative A: minor at-grade track modifications Alternative B (both viaduct options): new aerial viaduct	Alternative A: 170.5 east of feet Alternative B (both viaduct options): within TCE.	While this active use is not considered noise sensitive, construction noise and vibration, as well as air emissions could be perceptible to trail users, making use of some portions of the trail less desirable during construction. The trail is in an urban setting, where ambient noise is already present. The project would comply with FRA guidelines for minimizing construction noise and vibration levels, as well as minimize fugitive dust emissions, and the trail would remain usable during construction.
Biebrach Park, San Jose	Urban/residential setting, basketball courts, handball court, restrooms, swimming pool	Alternative A: minor track modifications to the existing Caltrain at-grade track Alternative B (both viaduct options): new aerial viaduct	Alternative A: 10.1 feet northeast of TCE Alternative B (both viaduct options): 395.3 feet southwest of TCE	While the uses at this park are not considered noise sensitive, noise, vibration, and air emissions would be perceptible during construction, and could make use of the courts and swimming pool less desirable. However, the park is in an urban/residential setting, where ambient noise is already present. The project would comply with FRA guidelines for minimizing construction noise and vibration levels, as well as minimize fugitive dust emissions, and the park would remain usable during construction.
Fuller Park, San Jose	Urban/residential setting, game tables, bocce ball court, horseshoe pit	Alternative A: minor track modifications to the existing Caltrain at-grade track Alternative B (both viaduct options): new aerial viaduct	Alternative A: within TCE Alternative B (both viaduct options): 443.4 feet southeast of TCE	While uses at this park are not considered noise sensitive, noise, vibration, and air emissions alternatives would be perceptible during construction. The park is in an urban/residential setting, where ambient noise already exists. The project would comply with FRA guidelines for minimizing construction noise and vibration levels, as well as minimize fugitive dust emissions, and the park would remain usable during construction.
Palm Haven Plaza, San Jose	Urban/residential setting, grassy open space, bench	Alternative A: minor at-grade track modifications Alternative B (both viaduct options): outside RSA	Alternative A: 854.5 feet southwest of TCE Alternative B (both viaduct options): 1,979.1 feet southwest of TCE	Noise and air emissions associated with project construction could affect users of the plaza. However, the plaza is within an urban/residential setting, where ambient noise already exists. Park users would not be affected by vibration because of the distance from the TCE. The project would comply with FRA guidelines for minimizing construction noise and vibration levels, as well as minimize fugitive dust emissions, and the plaza would remain useable during construction.

Name	Setting/Features	Construction Activities	Proximity to Construction	Impact on Park Use and User Experience
Hummingbird Park, San Jose	Urban/residential setting, children's play area, picnic tables, benches.	Alternative A: minor at-grade track modifications Alternative B (both viaduct options): outside RSA	Alternative A: 893.4 feet Alternative B (both viaduct options): 2,355.1 feet from TCE	Construction noise, vibration, and air emissions under Alternative A could make use of the park less desirable during construction. The park is in an urban/residential setting, where ambient noise already exists. The project would comply with FRA guidelines for minimizing construction noise and vibration levels, as well as minimize fugitive dust emissions, and the park would remain useable during construction.
Highway 87 Bikeway North, San Jose	Urban setting, Class I paved bikeway	Alternative A: minor track modifications to the existing Caltrain at-grade track Alternative B (both viaduct options): new aerial viaduct	Alternatives A and B: within TCE	While the bikeway is not considered noise sensitive, where the resource would remain open for use, users would be indirectly affected by exposure to noise, vibration, and construction emissions, which could make use of bikeway less desirable during construction. However, the bikeway is in an urban setting, where ambient noise is already present. The project would comply with FRA guidelines for minimizing construction noise and vibration levels, as well as minimize fugitive dust emissions, and the bikeway would remain usable during construction.
Jesse Frey Community Garden, San Jose	Urban setting, organic community garden	Alternative A: minor track modifications to the existing Caltrain at-grade track Alternative B (both viaduct options): new aerial viaduct	Alternative A: 406.3 feet west of TCE Alternative B (both viaduct options): 284 feet west of TCE	While not considered a noise-sensitive use, garden users under both project alternatives could be exposed to construction noise, vibration, and emissions. However, the garden is in an urban setting, where ambient noise already exists. The project would comply with FRA guidelines for minimizing construction noise and vibration levels, as well as minimize fugitive dust emissions, and the garden would remain useable during construction. Further, the garden is separated from the project alignment by a cluster of mature trees, Lelong Street, and SR 87.

Name	Setting/Features	Construction Activities	Proximity to Construction	Impact on Park Use and User Experience
Tamien Park (Phase II Planned), San Jose	Urban/residential setting, picnic tables, shade structures, ping pong tables, restroom, children's playground with play equipment, multi-use turf area, and a lighted basketball court. Planned Phase II would add a multi-use soccer field, stage, and outdoor gym.	Alternative A: utility relocation Alternative B (both viaduct options): new aerial viaduct	Alternative A: within TCE Alternative B (both viaduct options): within TCE	While not considered a noise-sensitive use, park users under both project alternatives would be indirectly affected by exposure to construction noise, vibration, and emissions, which could make use of the park and planned park less desirable. However, the park is in an urban/residential setting and adjacent to the existing tracks, where ambient noise is already present. The project would comply with FRA guidelines for minimizing construction noise and vibration levels, as well as minimize fugitive dust emissions. Construction activities would be longer in duration and more extensive under Alternative B than under Alternative A.
Three Creeks Trail (Planned), San Jose	Urban setting, planned landscaped and paved Class I trail system that would connect to the Los Gatos Creek Trail, Guadalupe River Trail, and Highway 87 Bikeway	Alternative A: minor track modifications Alternative B (both viaduct options): new aerial viaduct	Alternative A: 5.1 feet from TCE Alternative B (both viaduct options): outside RSA	If the trail is completed prior to project construction, future users would be indirectly affected by exposure to noise, vibration, and construction emissions, which could make use of the planned trail less desirable during construction. This active use would not be considered noise sensitive and would be in an urban environment, where ambient noise already exists. The project would comply with FRA guidelines for minimizing construction noise and vibration levels, as well as minimize fugitive dust emissions.

Sources: Authority 2019a, 2019b; Burlingame Aquatic Club 2018; California Department of Parks and Recreation 2018a, 2018b; CPAD 2017; City of Belmont 2018a–2018d; City of Brisbane 2001, 2010a, 2010b; City of Burlingame 2019; City of Daly City n.d.; City of Menlo Park n.d.; City of Millbrae 2018a–2018e; City of Mountain View 2018a–2018c; City of Palo Alto 2007a–2007g, 2010, 2015, 2016, 2017; City of Redwood City 2018a–2018f; City of San Bruno n.d.(a)–n.d.(f); City of San Carlos n.d.; City of San Mateo 2017a–2017f; City of Santa Clara 2018a, 2018b; City of South San Francisco n.d.; City of San Jose 2009, 2015, n.d.(a), n.d.(b); City of Sunnyvale 2018; Florence Fang Asian Garden n.d.; Google, Inc. 2018; Mission Bay Parks 2018a, 2018b; San Francisco Bay Trail 2019a, 2019b; San Francisco Parks Alliance n.d.(a)–n.d.(u); San Francisco Public Works n.d.; San Francisco Recreation and Parks n.d.(a)–n.d.(l); County of San Mateo n.d.(a), n.d.(b); Town of Atherton n.d.(a), n.d.(b)

BART = Bay Area Rapid Transit
BBQ = barbeque
FRA = Federal Railroad Administration
I- = Interstate
LMF = light maintenance facility
MUNI = San Francisco Municipal Railway
PG&E = Pacific Gas and Electric Company
RSA = resource study area
SFO = San Francisco International Airport
SR = State Route
TCE = temporary construction easement
US = U.S. Highway
* Noise-sensitive resource

For the purposes of this analysis, outdoor amphitheaters or stages are considered to be noise sensitive. Noise-sensitive uses in the parks, recreational facilities, or open-space areas in the RSA include the Mission Creek Park, which has an outdoor amphitheater; and Frank D. Harrington Park, which has an outdoor stage. San Bruno Mountain State and County Park has designated campsites that would also be considered a noise-sensitive use; however, this area is outside the RSA more than 1.5 miles to the west, and there is mountainous terrain between the campsites and the project. Noise thresholds for sensitive receptors 1,000 feet or less from sources of construction noise are identified by the FRA as follows: 80 dBA equivalent sound level (L_{eq}) during daytime hours and 70 dBA L_{eq} during nighttime hours in residential areas; 85 dBA L_{eq} during both daytime and nighttime hours in commercial areas; and 90 dBA L_{eq} during both daytime and nighttime hours in industrial areas. Construction noise varies with the construction method, layout of the sites, and the type and condition of the equipment used. The noisiest pieces of equipment determine the maximum sound levels from construction activities.

Construction of proposed new or modified tracks, modification of existing stations and platforms, modifications to roadways and structures, and construction of the Brisbane LMF also could result in vibration from blasting, pile driving, vibratory compaction, demolition, or excavation near vibration-sensitive structures that could affect users of parks, recreational facilities, and open-space resources. FRA vibration impact criteria are based on the impacts of vibration on nearby structures. Of the proposed construction activities, only pile driving typically generates sufficiently high vibration levels for damage to occur and only if the building is within 50 feet of the source. None of the parks, recreational facilities, and open-space resources have buildings within 50 feet of where pile driving would occur that could result in vibration impacts.

The project would comply with FTA and FRA guidelines for minimizing construction noise and vibration impacts when work is conducted within 1,000 feet of sensitive receptors, which includes the parks, recreation facilities, and open-space resources where uses are noise and vibration sensitive. Construction practices stipulated by NV-IAMF#1 would include building noise barriers (e.g., temporary walls, piles on excavated materials) between noisy activities and noise-sensitive resources; routing traffic away from residential streets where possible; building walled enclosures around especially noisy activities or around clusters of noisy equipment; combining noisy operations so that they occur in the same period; phasing demolition, earthmoving, and ground-impacting operations such that they do not take place concurrently; and avoiding impact pile driving where possible in vibration-sensitive areas. Application of the FTA and FRA guidelines would minimize temporary construction impacts on noise and vibration sensitive resources; however, there is still the potential for construction noise to affect the users of noise sensitive outdoor facilities near HSR construction activity.

Construction Emissions

Construction activities would generate fugitive dust (particulate matter 10 and 2.5 microns or less in diameter [PM_{10} and $PM_{2.5}$]) from earthmoving and disturbed earth surfaces and combustion pollutants (nitrogen oxides [NO_X] and volatile organic compounds [VOC]) from heavy equipment and trucks along the project alignment. Sensitive receptors, including park and recreational resource users, within 1,000 feet of TCEs or project footprint under either alternative could be affected by construction emissions. Impacts on resource users could include health risks associated with construction-related emissions (analyzed in greater detail in Section 3.3) as well as nuisance impacts, such as sources of odors including diesel exhaust from construction equipment and asphalt paving. Increased health risks associated with construction emissions would be similar under both project alternatives, although risks would be greater where more earthwork would be required to build the passing track under Alternative B or the at-grade blended system track within the San Jose Diridon Station Approach Subsection under Alternative A. However, the project would reduce localized construction-related air quality impacts under both alternatives by minimizing construction-related air emissions.

The project would create and implement a fugitive dust control plan to control dust emissions from equipment, materials, and construction activities (AQ-IAMF#1). Dust control measures would be required and implemented during construction, including covering all haul vehicles traveling on public roads to limit visible dust emissions, cleaning all trucks and equipment before

exiting the construction site, and suspending any dust-generating activities when average wind speed exceeds 25 miles per hour (mph). The project would also minimize off-gassing emissions of VOCs that would occur from paints and other coatings by requiring the use of low-VOC paint and super-compliant or Clean Air paint that has a lower VOC content than that required by Bay Area Air Quality Management District (BAAQMD) rules (AQ-IAMF#2). These measures would not eliminate the generation of fugitive dust, which could still present a nuisance to some users, representing a minor disruption to the normal use of parks and other recreational and open-space resources. The use and functions of these resources would, however, not be prevented or diminished by fugitive dust emissions.

Table 3.14-4 describes the potential construction-related noise, vibration, and air quality impacts on the use and user experience for each resource. An asterisk (*) indicates a resource containing a potential noise-sensitive use where noise could affect the use or user experience of an outdoor amphitheater or stage, and campsites.

CEQA Conclusion

The impact under CEQA would be less than significant for Alternatives A and B because noise, vibration, and fugitive dust generated during project construction would not prevent the use of an existing park, recreational facility, or open-space resource. The parks, recreational facilities, and open-space areas in the RSA are in an urbanized environment with existing residential and commercial areas, where ambient noise already exists, including at the parks with noise-sensitive uses, such as an outdoor amphitheater or stage. The campsites at San Bruno Mountain State and County Park are 1.5 miles west outside the RSA and separated from the project by mountainous terrain.

Thirty-nine resources would not be affected by construction noise, vibration, or emissions because they are in locations where no modifications would be required or they are more than 1,000 feet from the construction activity. In addition, park users would typically be exposed to noise, vibration, and construction emissions only for relatively short periods, except at the Brisbane LMF (2 to 3 years), 4th and King Street and Millbrae Stations (2 years), San Jose Diridon Station (2 years [Alternative A]), and under Alternative B, passing tracks (4.5 years) and viaduct option with aerial station (3 to 4 years). Further, FRA screening criteria for vibration are focused on impacts on buildings, and the parks, open space, and recreational areas in the RSA do not contain buildings aside from restrooms and other ancillary structures that would be affected by vibration.

The project would comply with FTA and FRA noise requirements within 1,000 feet of sensitive receptors, including parks and recreation resources, such as building noise barriers or enclosures around noisy activities or equipment; combining noisy operations so they occur at the same time; phasing demolition, earthmoving, and ground-impacting operations so they do not occur in the same time period; and avoiding impact pile driving where possible in vibration-sensitive areas (NV-IAMF#1). In addition, the project would implement emission-controlling practices for sensitive land uses including parks and recreational facilities, such as a fugitive dust control plan to control dust emissions from equipment, materials, and construction activities (AQ-IAMF#1) and minimize off-gassing emissions by limiting the type of paint to those containing VOC of less than 10 percent (low) to be used during construction (AQ-IAMF#2). Consequently, those resources within the range of noise, vibration and fugitive dust emissions would experience a diminished user experience, but the indirect impacts would not prevent continued use of the resource. Therefore, CEQA does not require any mitigation.

Impact PK#2: Temporary Changes to Access or Use of Parks

Construction of the project alternatives would require TCEs to facilitate construction activities that could temporarily disrupt access along roadways, affecting access to and use of parks. Project construction would likely take up to 4.5 years, but the duration of construction activities would vary depending on the specific activity at a given location. For example, construction of the four-quadrant gates at at-grade crossings would take 2 to 4 weeks and require closing only one lane of traffic during that time. The longest construction durations would be at the Brisbane LMF (2 to 3 years), San Jose Diridon Station (2 years [Alternative A]), 4th and King Street and Millbrae

Stations (2 years), and under Alternative B, passing tracks (4.5 years), viaduct (2 years,) and aerial station (3 to 4 years). Temporary changes to access or use of parks, recreational facilities, and open-space areas would occur at 21 resources under Alternative A and up to 26 resources under Alternative B. Table 3.14-5 lists the parks affected by construction activities under each alternative and describes the construction-related activities that would affect access to or use of the parks.

Table 3.14-5 Construction-Related Impacts on Access to and Use of Parks

Name/City	Size/Features	Alternative A	Alternative B
San Francisco Bay Trail-1	3.4 miles (existing) and 2.0 miles (planned) bicycle and pedestrian, wildlife and nature viewing along the shoreline	This resource would not be within the TCE. The existing portion and planned portion (if completed before construction) would be 583.59 feet east of Lagoon Road, which would temporarily block access from the west to the trail on Sierra Point Parkway. However, access from the Parkway and US 101 would not be affected and temporary changes in access would not prevent use of the trail. The trail would not be directly affected by construction activities, so public access to the shoreline or San Francisco Bay/tidal waterway (Brisbane Lagoon) from the trail would not change during construction. In addition, construction activities would not change public access from the trail to the shoreline or the San Francisco Bay around Sierra Point, Brisbane Marina, Sierra Point Marina, or Oyster Cove.	Same as Alternative A
Mission Creek Park, San Francisco	10.0 acres, grass lawns, pavilion, tree-lined esplanade, small outdoor amphitheater, sports courts, and boat launch	This resource would not be within the TCE. However, construction of the four-quadrant gate at 7th Street would only close one lane of traffic at a time and temporary changes in access would not prevent use of the park. Although public access to the shoreline (north and south banks of the park) or the San Francisco Bay would be temporarily affected, access would be maintained during installation of the four-quadrant gate.	Same as Alternative A.

Name/City	Size/Features	Alternative A	Alternative B
Mission Bay Dog Park, San Francisco	0.3 acre, large gravel play area for dogs, picnic tables, and water fountains	This resource would not be within the TCE, but construction of the four-quadrant gate would require closing one lane of traffic at a time; these temporary changes in access would not prevent use of the dog park. Impacts on public access to the shoreline or San Francisco Bay, would be the same as described for Mission Creek Park.	Same as Alternative A.
Crocker Park Recreational Trail, Brisbane	2.5 miles, improved gravel/dirt surface trail for walking, jogging, biking, benches	The trail would not be within the TCE, but temporary lane closures at TCEs on Bayshore Boulevard and Valley Drive would result in delayed access. However, access from the south by Park Lane or San Francisco Avenue would be maintained. Temporary changes in access would not prevent use of the trail.	Same as Alternative A.
Brisbane City Hall Dog Park, Brisbane	0.5 acre, large grassy area, decomposed granite and seating areas	This resource would not be within the TCE, but lane closures at TCEs on Bayshore Boulevard and Valley Drive would result in delays. However, access from the south by San Francisco Avenue would be maintained and temporary changes in access would not prevent use of the park.	Same as Alternative A.
Brisbane Lagoon Fisherman's Park, Sierra Point Parkway, Brisbane	150.0 acres, lagoon, benches, fishing, and surface parking	This resource would be adjacent to the TCE on Lagoon Road that would temporarily block access from the west to the northern shore and Fisherman's Park on the eastern shore. However, access from Sierra Point Parkway and US 101 would not be affected so temporary changes in access would not prevent use of the park. Public access from the west to the shoreline along Brisbane Lagoon and tidal waterway (the lagoon) would be temporarily blocked on Lagoon Road, but public access to the eastern shoreline would not be affected during construction.	Same as Alternative A.

Name/City	Size/Features	Alternative A	Alternative B
Brisbane Community Park, Old County Road and San Francisco Avenue, Brisbane	3.0 acres, grassy lawn areas, picnic areas, play structure, restrooms, gazebo	0.04 acre of this resource (curb work only) would be within the TCE on Old County Road, where a new roadway would connect Valley Drive to Old County Road, opposite the park. Access from the north would be temporarily delayed by lane closures at the TCEs on Old County Road and Bayshore Boulevard, but access from the south by San Francisco Avenue would be maintained. Temporary changes in access would not prevent use of the park.	Same as Alternative A.
Brisbane Skate Park and Basketball Courts, Old County Road and Park Lane, Brisbane	0.3 acre, skate park, two basketball courts	This resource would be adjacent to the TCE on Old County Road, where the new roadway would connect Valley Drive to Old County Road. Temporary lane closures would delay access from the north at the TCEs on Old County Road and on Bayshore Boulevard, but access from the south by Park Lane or San Francisco Avenue would be maintained. Temporary changes in access would not prevent use of the skate park and basketball courts.	Same as Alternative A.
Old Quarry Road Park and Trail, Brisbane	9.7 acres, picnic tables, community garden, natural surface hiking/biking trail	This resource would not be within the TCE, but access from the north would be delayed by temporary lane closures at the TCEs on Old County Road and Bayshore Boulevard. Access from the south by San Francisco Avenue would be maintained and temporary changes in access would not prevent use of the park.	Same as Alternative A.
Posy Park, San Mateo at Huntington Avenue, San Bruno	0.3 acre, open space with benches, landscaping	This resource would be adjacent to the TCE for the extension of the existing platform at San Bruno Caltrain Station. Access to the park at the base of the embankment from San Mateo Avenue would not be affected and there would be no construction-related impacts on access.	Same as Alternative A

Name/City	Size/Features	Alternative A	Alternative B
San Francisco Bay Trail-2, San Bruno to Millbrae	2.8 miles (planned), varies based on location, urban, planned bicycle and pedestrian trail west of SFO	This resource would not be within the TCE. If the trail is completed before HSR construction begins, access from the west could be affected by the TCEs at Center Street and Hillcrest Boulevard. Construction of the four-quadrant gate and underpass widening would require closing one lane of traffic at either location, but these temporary changes in access would not prevent use of the trail. El Zanjon Creek is currently fenced near the proposed trail adjacent to Lion's Park on the south and project construction would not affect this creek.	Same as Alternative A
Marina Vista Park, Spruce Avenue on Bay Street, Millbrae	0.7 acre, basketball court, playground, open field, BBQs, picnic areas	This resource would not be within the TCE, but a four-quadrant gate would be constructed at Center Street. Center Street is the only vehicular access point to the neighborhood between the park and the alignment. Construction of the four-quadrant gate would require closing one lane of traffic at a time, but temporary changes in access would not prevent use of the park.	Same as Alternative A.
Bayside Manor Park, Lerida Avenue, Millbrae	35.4 acres, basketball court, playground, open space area	This resource would not be within the TCE on Hillcrest Boulevard where the existing underpass would be widened. However, Hillcrest Boulevard is the only vehicular access to the neighborhood between the park and the alignment. Widening the underpass would close one lane of traffic at a time, but temporary changes in access would not prevent use of the park.	Same as Alternative A.
Washington Park, 850 Burlingame Avenue, Burlingame	18.9 acres, tennis courts, playground, restrooms, basketball court, picnic areas, baseball facilities	This resource would not be within the TCE, but construction of the four-quadrant gate would require closing one lane of traffic at a time and temporary changes in access would not prevent use of the park.	Same as Alternative A.

Name/City	Size/Features	Alternative A	Alternative B
Trinta Park, 150 19th Avenue, San Mateo	2.2 acres, playground, baseball field, basketball court, restrooms	This resource would not be within the TCE and there would be no construction-related impacts on access.	This resource would not be within the TCE, but construction of the passing tracks would require permanently closing Leslie Street that would block vehicular and pedestrian access to the park. However, access from 19th Avenue would be maintained and temporary changes in access would not prevent use of the park.
Main Street Dog Agility Park, 1295 Main Street, Redwood City	0.1 acre, lighted agility course for dogs	This resource would be adjacent to the TCE, but construction of the four-quadrant gate would require closing one lane of traffic at a time. Temporary changes in access would not prevent use of the park.	Same as Alternative A.
Holbrook-Palmer Park, 150 Watkins Avenue, Atherton	22.0 acres, ball field, tennis courts, playground, gardens, and walking paths	This resource would be adjacent to the TCE and construction of the four-quadrant gate at Watkins Avenue would require closing one lane of traffic at a time. Temporary changes in access would not prevent use of the park.	Same as Alternative A.
El Palo Alto Park, 117 Palo Alto Avenue, Palo Alto	0.5 acre, interpretive plaques, Coast Redwoods, lighted pedestrian/bike path	This resource would be adjacent to the TCE at Alma Street. Construction of the four-quadrant gate would require closing one lane of traffic at a time but temporary changes in access would not prevent use of the park.	Same as Alternative A.
El Camino Park, 155 El Camino Real, Palo Alto	12.2 acres, synthetic soccer field, lighted softball diamond with bleachers, restrooms, and parking lot	This resource would be adjacent to the TCE at Alma Street. Construction of the four-quadrant gate would require closing one lane of traffic at a time but temporary changes in access would not prevent use of the park.	Same as Alternative A.
Embarcadero Bike Path, from Encina Avenue, Embarcadero Road or Churchill Avenue, Palo Alto	1.0 mile in length, lighted bike path	This resource would be adjacent to the TCE. Construction of the four-quadrant gate at Churchill Avenue would require closing one lane at a time but temporary changes in access would not prevent use of the bike path.	Same as Alternative A.

Name/City	Size/Features	Alternative A	Alternative B
Rengstorff Park, 201 S Rengstorff Avenue, Mountain View	27.0 acres, BBQ facilities, baseball field, basketball court, skate park, children's playground, passive areas, picnic area, softball field, swimming pool, tennis courts, outdoor volleyball court, restrooms	This resource would not be within the TCE. Construction of the four-quadrant gate at Rengstorff Avenue would result in closing one lane of traffic at a time but temporary changes in access would not prevent use of the park.	Same as Alternative A.
Centennial Plaza, Castro Street and Evelyn Avenue, Mountain View	0.4 acre, children's play equipment, picnic area, landscaping, benches	This resource would not be within the TCE. Construction of the four-quadrant gate at Castro Street would result in closing one lane of traffic at a time but temporary changes in access would not prevent use of the park.	Same as Alternative A.
Reed Street Dog Park, Santa Clara	1.5 acres, picnic area, BBQ facilities, and play area	This resource would not be within the TCE and there would be no construction-related impacts on access.	Viaduct to I-880: Same as Alternative A. Viaduct to Scott Boulevard: 0.12 acre of this resource would be within the TCE along Lafayette Street where the existing crossing would be reconstructed north of Warburton Avenue, decreasing access from the west. Access from Reed Street via Grant Street would not be affected.
Larry J. Marsalli Park, Santa Clara	4.5 acres, open space, restrooms, lighted softball field, children's playground	This resource would not be within the TCE and there would be no construction-related impacts on access.	Viaduct to I-880: Same as Alternative A. Viaduct to Scott Boulevard: 0.51 acre of this resource would be within the TCE. Access from Lafayette Street off El Camino Real would be maintained. TCEs would be at Lewis Street, Alviso Street, and The Alameda to allow removal of the existing bridge and construction of the proposed undercrossing along De La Cruz Blvd and would limit access from the northeast.

Name/City	Size/Features	Alternative A	Alternative B
College Park, San Jose	1.4 acres, lawn areas, gazebo, picnic area	This resource would not be within the TCE and there would be no construction-related impacts on access.	Viaduct to I-880: 0.04 acre of this resource would be within the TCE at and along Elm Street and West Hedding Street, blocking access. West Hedding Street would be replaced with a new overcrossing. Viaduct to Scott Boulevard: 0.02 acre of this resource would be within the TCE. West Hedding Street would be replaced with a new underpass. Same access changes as for the Viaduct to I-880 option.
Los Gatos Creek Trail, San Jose	9.7 miles, pedestrian and bicycle trail	Construction of the four-quadrant gate at Auzerais Avenue would result in closing one lane of traffic at a time but temporary changes in access would not prevent use of the trail.	Both viaduct options: 1.31 acres of this resource would be within the TCE (utility work) on West San Carlos Street, blocking access to the trail.
Guadalupe River Trail, San Jose	9 miles (full trail), hiking and bicycle trail	This resource would not be within the TCE and there would be no construction-related impacts on access.	Both viaduct options: 0.70 acre of this resource would be within the TCE at East UPRR track north of Howard Street for construction of the viaduct, decreasing access to the western portion of the trail.
Fuller Park, San Jose	1.14 acres, game tables, bocce ball court, and horseshoe pit	0.11 acre of this resource would be within the TCE needed for HSR access. No change to park access would result.	This resource would not be intersected by the TCE and would not experience construction-related impacts on access.

Name/City	Size/Features	Alternative A	Alternative B
Highway 87 Bikeway North, San Jose	0.45 mile, Class I paved bikeway	0.24 acre of this resource would be within the TCE on Willow Street, decreasing access.	0.07 acre of this resource would be within the TCE. Because of the proximity of the resource to the HSR corridor, portions of the trail would need to be temporarily closed for approximately 6 months during construction.
Tamien Park (Phase II Planned)	3.5 acres, picnic tables, shade structures, ping pong tables, restroom, children's playground with play equipment, multi-use turf area, and a lighted basketball court. Planned Phase II would add a multi-use soccer field, stage, and outdoor gym.	0.02 acre of this resource would be within the TCE. relocation would require the 0.02 acre within the TCE along the edge of the multi-use soccer field to be temporarily closed for approximately 4 months during construction.	0.05 acre of this resource would be within the TCE. A TCE along the west edge of the multi-use soccer field would be required to allow for construction of the viaduct. Because the viaduct would be built adjacent to the planned multi-use soccer field, the 0.05 acre in the TCE would be temporarily closed for approximately 6 months during construction.

Sources: Authority 2019a, 2019b; City of Brisbane 2001, 2010a; City of San Bruno n.d.(e); City of Millbrae 2018c, 2018e; City of Burlingame 2018; City of San Jose 2009, 2015, n.d.(a), n.d.(b); City of San Mateo 2017f; City of Redwood City 2018e; City of Palo Alto 2010, 2015, 2017; City of Mountain View 2018a; Google, Inc. 2018; *Mission Bay Parks 2018a, 2018b; Town of Atherton n.d.(a); San Francisco Bay Trail 2019a, 2019b*
HSR = high-speed rail
I- = Interstate
TCE = temporary construction easement
UPRR = Union Pacific Railroad
US = U.S. Highway

As shown in Table 3.14-5, under both project alternatives, access to 12 parks, recreational facilities, and open-space areas would be limited to one lane of traffic for 2 to 4 weeks while four-quadrant gates are installed at at-grade crossings. The TCEs required for installing the four-quadrant gates are located outside the resource boundaries on adjacent streets and would not prevent use of the following parks or recreational resources:

- Mission Creek Park, San Francisco
- Mission Bay Dog Park, San Francisco
- San Francisco Bay Trail-2
- Marina Vista Park, Millbrae
- Washington Park, Burlingame
- Main Street Dog Agility Park, Redwood City
- Holbrook-Palmer Park, Atherton
- El Palo Alto Park, Palo Alto
- El Camino Park, Palo Alto
- Embarcadero Bike Path, Palo Alto
- Rengstorff Park, Mountain View

- Centennial Plaza, Mountain View
- Los Gatos Creek Trail, San Jose

In Brisbane, the project alternatives would extend Lagoon Road to the relocated and reconstructed Tunnel Avenue overpass, affecting access to the Bay Trail-1 and Brisbane Lagoon Fisherman's Park. Lagoon Road would be closed for up to 3 months, temporarily blocking access to the trail and Fisherman's Park on the eastern shore from Lagoon Road. However, public access to the San Francisco Bay Trail-1 and lagoon from Sierra Point Parkway and U.S. Highway (US) 101 would not be affected and use of the trail, shoreline, and the lagoon for fishing would not be affected.

Additionally, access would be affected during construction at Brisbane's Community Park, Skate Park and Basketball Courts, City Hall Dog Park, Crocker Park Recreational Trail, and Old Quarry Road Park and Trail while the Tunnel Avenue overpass is relocated to connect with Bayshore Boulevard north of its existing connection, at its intersection with Valley Drive, and providing a new roadway extension from Valley Drive to Old Country Road. Temporary lane closures would delay access to the resources at these TCEs. Construction would take up to 6 months but the TCEs would not affect use of the parks because they would be outside the parks, with the exception of Brisbane Community Park. At Brisbane Community Park, connecting Valley Drive to Old County Road with a new roadway would potentially require a TCE of 0.04 acre of the curb at the park frontage on Old County Road that would potentially be needed to tie in the new roadway with the existing road. In the event the curb work is necessary, the land temporarily used during construction would be restored to a condition equal to the pre-construction staging condition (LU-IAMF#3).

In Millbrae, access to the San Francisco Bay Trail-2 could be affected if it were built before widening of the Hillcrest Boulevard underpass. While this would reduce traffic to one lane for 6 to 9 months, one lane of traffic would be maintained so use of the trail would not be prevented. Additionally, access to Bayside Manor Park would be reduced to one lane of traffic for 6 to 9 months, during widening of the existing underpass at Hillcrest Boulevard, the only vehicular access to the neighborhood between the park and the alignment. The underpass is more than 800 feet east of the park and one lane of traffic would be maintained, so use of the park would not be prevented.

Posy Park in San Bruno is adjacent to the TCE for the extension of the existing platform at the San Bruno Caltrain Station. The station is located on embankment above the park and accessed by stairs and a ramp from the park. A landscaped strip exists between the ramp and tracks, where the platform work would occur. The benches and landscaped areas are at the base of the concrete retaining wall that form the stairs and ramp to the station. Access to the park is from San Mateo Avenue and extending the existing platform would not affect access to or prevent use of Posy Park.

At Trinta Park, under Alternative B, Leslie Street extends along the east side of the park and is in the existing Caltrain right-of-way. Leslie Street would be permanently closed to accommodate construction of the passing tracks, blocking vehicular and pedestrian access from the street to the eastern side of the park. However, while this would impede access to the park, it would remain accessible to pedestrians and vehicles from 19th Street, so this change in access would not prevent the use of the park. In addition, no construction activities would occur within the park boundary that would prevent its use.

At Reed Street Dog Park in San Jose, under Alternative B (Viaduct to Scott Boulevard), 0.12 acre of the park would be within a TCE at the southern and western edges that would be used to build the viaduct with construction lasting up to 2 years at a given location. Construction staging areas would also be needed to reconstruct the Lafayette Street crossing, which would replace the existing pedestrian overpass with an underpass over a period of 6 to 9 months. The affected portion of the park is currently vegetated open space and does not contain any recreational facilities or include any of the open space used by dogs for the dog park facility, leaving most of the park intact and contiguous for use during construction. Alternative B (Viaduct to Scott

Boulevard) would require relocating the existing fencing around the perimeter of the park during construction but the fence would be relocated outside of the TCE boundary. In addition, any trees or vegetation within the TCE boundary would be removed during construction. Prior to any ground-disturbing activities at the park, the contractor would prepare a restoration plan addressing specific actions, sequence of implementation, parties responsible for implementation, and successful achievement of restoration for temporary impacts, such as replanting trees and vegetation that was removed (LU-IAMF#3). Before beginning construction, the contractor would submit the restoration plan to the Authority for review and obtain Authority approval. The TCE would block vehicular access to the park from Lafayette Street. While this would impede access to the park, it would remain accessible from Reed Street via Grant Street. Use of the park could be prevented by temporary changes in access under Alternative B (Viaduct to Scott Boulevard).

In Santa Clara, at Larry J. Marsalli Park, under Alternative B (Viaduct to Scott Boulevard), 0.51 acre of the park would be located in a TCE. This area would be in the southern portion of the park along De La Cruz Boulevard and the TCE would allow the reconstruction of the existing De La Cruz Boulevard overcrossing, which would be replaced with an undercrossing to enable the HSR aerial structure to cross 30 feet high over De La Cruz Boulevard, the relocated Union Pacific Railroad (UPRR) Main Track 1, and two industry tracks, as well as the Santa Clara Caltrain Station. Replacement of the overcrossing with an undercrossing would take 1 year. This portion of the park is currently vegetated open space and most of the park would remain intact and contiguous for continued use during construction, including all of the park's facilities (softball field, playground, restrooms). However, any trees or vegetation within the TCE boundary would be removed during construction. Prior to any ground-disturbing activities at the park, the contractor would prepare a restoration plan addressing specific actions, sequence of implementation, parties responsible for implementation, and successful achievement of restoration for temporary impacts, such as replanting trees and vegetation that was removed (LU-IAMF#3). Before beginning construction use of land, the contractor would submit the restoration plan to the Authority for review and obtain Authority approval. The TCEs for Alternative B (Viaduct to Scott Boulevard) would be at Lewis Street, Alviso Street, and The Alameda. Additionally, removal of the existing bridge and construction of the proposed undercrossing along De La Cruz Boulevard would limit access from the northeast. While this would impede access to the park, access from Lafayette Street off of El Camino Real would be maintained. Overall, use of the park could be precluded by temporary changes in access under Alternative B (Viaduct to Scott Boulevard).

College Park in San Jose is accessible from Elm Street and West Hedding Street. Alternative B would require a TCE, 0.04 acre under Alternative B (Viaduct to Interstate [I-] 880) and 0.02 acre under Alternative B (Viaduct to Scott Boulevard). The TCE would be in the southern portion of the park along Elm Street and West Hedding Street for the reconstruction of the existing West Hedding Street overcrossing, which would be replaced with a new overcrossing (Alternative B: Viaduct to I-880) or by an undercrossing guideway (Alternative B: Viaduct to Scott Boulevard) with construction lasting up to 1 year. The TCE would be required for up to 4 weeks to tie-in the curb. Both options under Alternative B would leave most of the park intact and contiguous for continued use during construction, including all of the park's facilities (e.g., walking path, bench). However, any trees or vegetation within the TCE boundary would be removed during construction. Prior to any ground-disturbing activities at the park, the contractor would prepare a restoration plan addressing specific actions, sequence of implementation, parties responsible for implementation, and successful achievement of restoration for temporary impacts, such as replanting trees and vegetation that was removed (LU-IAMF#3). Before beginning construction use of land, the contractor would submit the restoration plan to the Authority for review and obtain Authority approval. The TCEs at and along Elm Street and West Hedding Street would temporarily decrease access to the park. The park would be surrounded on three sides by a TCE, but access from West Hedding Street would be retained during construction. Overall, use of the park could be precluded by the temporary changes in access.

Los Gatos Creek Trail is an approximately 9.7-mile trail in San Jose. Under Alternative B (both viaduct options), a portion (1.31 acres) of the trail would be within a TCE. The TCE would be between South Montgomery Street and just south of San Carlos Street. Temporary utility work

would be necessary to protect a stormwater canal in place during construction, and TCEs near San Carlos Street would be necessary to perform utility work (1 to 2 weeks) and build the HSR viaduct (2 years at a given location). The TCE on West San Carlos Street would block access to the trail from this street, but access would remain available from at least eight other access points along the trail. Under Alternative B, the viaduct would span the trail so it would not divide the trail in two, make the trail unusable during construction, or require temporary realignment of the trail. Overall, the trail would not need to be temporarily realigned, and use of the trail would not be prevented as a result of the temporary changes in access under either viaduct option (Alternative B).

At the Guadalupe River Trail in San Jose, a portion (0.70 acre) of this 3-mile segment of the trail would be within a TCE under Alternative B (both viaduct options). The TCE would be along the western edge of the trail (east side of State Route [SR] 87). This area would be used to build the HSR aerial structure, which would cross over West Virginia Street and trail, then over the Caltrain rail bridge, the Guadalupe River, and Willow Street. Construction of the viaduct structure would last up to 2 years at this location. This portion of the trail is currently vegetated and open space at the trail's edge so the trail would not need to be temporarily realigned. Although 0.70 acre would be in the TCE, it would not divide the trail in two, or make the trail unusable during construction, because the entire width of the trail would not be used, allowing continued use during construction. Temporary realignment of the trail would not be required. The TCE at East UPRR track north of Howard Street would decrease access to the Guadalupe River Trail, resulting in reduced access under Alternative B. However, access would remain available for trail users at other points, such as Alviso Educational Center on Gold Street in Alviso (just south of the bridge over the river) and Guadalupe River Park on Coleman Avenue. Use of the trail could be prevented by temporary changes in access.

At Fuller Park in San Jose, 0.11 acre of this 1.14-acre park would be within a TCE for HSR access under Alternative A. In the portion of the park to the east of Delmas Avenue, 0.01 acre of the park adjacent to the current UPRR right-of-way would also be used as an access TCE for up to 1.5 years. This area is on the northeastern edge of the park, directly adjacent to the existing right-of-way, and does not contain any recreational facilities. Alternative A would leave most of the park intact and contiguous for continued use during construction. Prior to any ground-disturbing activities at the park, the contractor would prepare a restoration plan addressing specific actions, sequence of implementation, parties responsible for implementation, and successful achievement of restoration for temporary impacts, such as replanting trees and vegetation that would be removed (LU-IAMF#3). Before beginning construction, the contractor would submit the restoration plan to the Authority for review and obtain Authority approval. Access to the park would not be affected by this TCE because Fuller Street, which provides primary access to the park would not be affected.

In San Jose, the northern portion of Highway 87 Bikeway North, from Willow Avenue to West Alma Avenue, would be within a TCE under both alternatives (0.2 acre for Alternative A and 0.07 acre for Alternative B). The affected portions would be at the northern terminus of the bikeway between Willow Street and West Alma Avenue. The bikeway extends through the existing Tamien Station. The TCE on Willow Street would decrease access to the Highway 87 Bikeway North and because of the proximity of the trail to the HSR corridor, portions of the trail between Willow Street and West Alma Avenue would be temporarily closed during project construction for approximately 6 months under Alternative B (both viaduct options). Under Alternative A, the trail would not be closed. Temporary realignment of the trail under Alternative B is not possible because of the limited space available and access would be temporarily reduced, but not permanently eliminated.

At Tamien Park (Phase II Planned) in San Jose, the existing recreation facilities are located on the northern portion of the 3.5-acre park. In 2020, the southern portion of the park is proposed to be constructed with a multi-use soccer field, stage, and outdoor gym. A small portion (0.02 acre) of the planned portion of the park would be within the TCE under Alternative A to allow for utility relocation. Under Alternative B, 0.05 acre of the planned portion of the park would be in the TCE that would be used to build a straddle bent column for the viaduct along the western edge. The

affected portion of the park is currently undeveloped and planned for future landscaping along the west edge and a multi-use soccer field. During construction, both alternatives would require the existing fencing around the perimeter of the park to be relocated to outside the TCE boundary. In addition, any planned trees or vegetation in the TCE boundary would be removed during construction. Prior to any ground-disturbing activities at the park, the contractor would prepare a restoration plan addressing specific actions, sequence of implementation, parties responsible for implementation, and successful achievement of restoration for temporary impacts, such as replanting trees and vegetation that would be removed (LU-IAMF#3). Before beginning construction, the contractor would submit the restoration plan to the Authority for review and obtain Authority approval. Under Alternative A, the park would be temporarily used for utility relocation but construction would not affect access from Goodyear Street and Lick Avenue. Construction of Alternative B would temporarily occupy a portion of the planned multi-use soccer field but the access to the park from adjacent streets would not be affected.

The project would locate and design project components and station features to provide safe and attractive access to and use of parks, recreation facilities, and open-space resources (PK-IAMF#1) and would require detours and signage so that motorists and pedestrians would continue to have access to local parks and recreation areas (TR-IAMF#2, TR-IAMF#4, TR-IAMF#5).

CEQA Conclusion

The impact would be less than significant under CEQA for Alternative A because although construction activities would temporarily affect access to up to 24 parks and recreation facilities because of the placement of TCEs on nearby roadways, access would be maintained during construction. Access would be maintained by only closing one lane of traffic at a given time during installation of four-quadrant gates and underpass widening, and implementing project design features (PK-IAMF#1, TR-IAMF#2, TR-IAMF#4, TR-IAMF#5) that would avoid or minimize temporary impacts on access to and use of the parks and recreation facilities. Detours and signage would help to avoid impacts on access and prevent park or recreational users from being inconvenienced by temporary disruptions to traffic patterns. Additionally, land temporarily used during construction would be restored to a condition equal to the pre-construction staging condition (LU-IAMF#3). Accordingly, project construction under Alternative A would not prevent the use of any parks or recreation facilities. Therefore, CEQA does not require any mitigation.

The impact would be significant under CEQA for Alternative B, because while construction activities would temporarily affect access to up to 25 parks and recreation facilities during construction, the project could prevent the use of 4 additional resources by decreasing access to the resources during construction. In the San Jose Diridon Station Approach Subsection, Alternative B (Viaduct to I-880) could affect use of two resources including College Park, and the Highway 87 Bikeway North. Alternative B (Viaduct to Scott Boulevard) would affect two more parks (Reed Street Dog Park and Larry J. Marsalli Park) in addition to the two parks and recreational facilities affected by the Alternative B (Viaduct to I-880). The same measures described for Alternative A (PK-IAMF#1, TR-IAMF#2, TR-IAMF#4, TR-IAMF#5, LU-IAMF#3) would minimize temporary impacts on access to and use of the parks and recreation facilities as well as restore land temporarily used during construction to a condition equal to the pre-construction staging condition (LU-IAMF#3). Mitigation measures to address this impact are identified in Section 3.14.9, CEQA Significance Conclusions. Section 3.14.7, Mitigation Measures, describes the measures in detail.

Impact PK#3: Temporary Visual Changes that Could Create a Perceived Barrier to Access or Continued Use of Parks, Recreation Facilities, and Open-Space Resources

Construction activities and equipment could temporarily change the visual experience of people using parks, recreational facilities, and open-space resources, resulting in a perceived barrier to use. The parks, recreational facilities, and open-space areas in the RSA are in urban, commercial, and residential settings, and support activities where participants are focused on a specific activity, such as play areas, basketball, baseball, skating, soccer, tennis, walking, biking, and using playground facilities. Visual changes resulting from introducing construction activities

and equipment into the viewsheds of all user groups would be temporary, with most construction activities taking place within days, weeks, or up to 6 months in locations where tracks would be shifted, roadways modified, or four-quadrant gates or radio towers installed. In the San Jose Diridon Station Approach Subsection, under Alternative B building the aerial viaduct could last up to 2 years while the aerial station would take 3-4 years to build. The parks and recreational facilities closest to the project footprint that could be visually affected by project construction are listed in Table 3.14-6, including the construction duration and activity.

Table 3.14-6 Construction-Related Visual Impacts on Access to or Use of Parks

Name/City	Duration	Construction Activities
San Francisco Bay Trail -1, San Francisco to South San Francisco (existing and planned if built before construction)	1 year	Alternatives A and B: Tunnel Avenue overpass reconstruction and extension of Lagoon Road
Mission Creek Park, San Francisco	2 years	Alternatives A and B: expansion of 4th and King Street Station
Mission Bay Dog Park, San Francisco	2–4 weeks	Alternatives A and B: installation of four-quadrant gate at 7th Street intersection with Mission Bay Drive
Crocker Park Recreational Trail, Brisbane	1–3 months	Alternative A: construction of Tunnel Avenue overpass connection to Bayshore Boulevard
	1 year	Alternative B: construction of Tunnel Avenue overpass connection to Bayshore Boulevard and the West Brisbane LMF
Brisbane City Hall Dog Park, Brisbane	1–3 months	Alternatives A and B: construction of Tunnel Avenue overpass intersection with Valley Drive
San Bruno Mountain State and County Park, Brisbane	2–3 years	Alternative A: construction of East Brisbane LMF Alternative B: construction of West Brisbane LMF
Brisbane Lagoon Fisherman's Park, Brisbane	2–3 years	Alternatives A and B: construction of Brisbane LMF, Tunnel Avenue overpass reconstruction and extension of Lagoon Road
Brisbane Community Park, Brisbane	3–6 months	Alternatives A and B: new roadway connecting to Valley Drive to Old County Road
Brisbane Skate Park and Basketball Courts, Brisbane	3–6 months	Alternatives A and B: new roadway connecting to Valley Drive to Old County Road
Herman Park, San Bruno	5–10 days	Alternatives A and B: track modifications (>3 feet) to the existing Caltrain at-grade tracks
Posy Park, San Bruno	9–12 months	Alternatives A and B: extension of the existing platform at San Bruno Caltrain Station
San Francisco Bay Trail-2, San Bruno to Millbrae (if built before HSR construction)	Up to 2 years	Alternatives A and B: track modifications (<3 and >3 feet) to the existing Caltrain at-grade tracks, installation of four-quadrant gate at Center Street, widening the Hillcrest Boulevard underpass, and expansion of the existing Millbrae Station
Millbrae Spur Trail, Millbrae	2 years	Alternatives A and B: expansion of the existing Millbrae Station
Washington Park, Burlingame	2–4 weeks	Alternatives A and B: installation of four-quadrant gate at North Lane and Howard Avenue

Name/City	Duration	Construction Activities
Hayward Park Square, San Mateo	5–10 days	Alternative A: track modifications (>3 feet) to the existing Caltrain at-grade tracks
	9–12 months	Alternative B: two-track alignment diverges to four at-grade passing tracks
Trinta Park, San Mateo	5–10 days	Alternative A: track modifications (>3 feet) to the existing Caltrain at-grade tracks
	9–12 months	Alternative B: construction of four-track passing tracks at grade and on embankment
Bay Meadows Community Park, San Mateo	N/A	Alternative A: no construction activities
	9–12 months	Alternative B: construction of four-track passing tracks on embankment
Laureola Park, San Carlos	2 days	Alternative A: minor track modifications (<1 foot) to the existing Caltrain at-grade tracks
	9–12 months	Alternative B: construction of four-track passing tracks on aerial viaduct and relocation of San Carlos Caltrain Station to accommodate four-track configuration passing tracks
Main Street Dog Agility Park, Redwood City	2–4 weeks	Alternatives A and B: installation of four-quadrant gate at Main Street
Holbrook-Palmer Park, 150 Watkins Avenue, Atherton	2–4 weeks	Alternatives A and B: track modifications (<3 feet) to the existing Caltrain at-grade tracks and installation of the four-quadrant gate at Watkins Avenue
El Palo Alto Park, Palo Alto	2–4 weeks	Alternatives A and B: track modifications (<3 feet) to the existing Caltrain at-grade tracks and installation of the four-quadrant gate at Alma Street
El Camino Park, Palo Alto	2–4 weeks	Alternatives A and B: track modifications (<3 feet) to the existing Caltrain at-grade tracks and installation of the four-quadrant gate at Alma Street
Embarcadero Bike Path, Palo Alto	2–4 weeks	Alternatives A and B: track modifications (<1 foot) to the existing Caltrain at-grade tracks and installation of four-quadrant gate at Churchill Avenue
Robles Park, Palo Alto	3–6 months	Alternatives A and B: installation of new radio tower
Rengstorff Park, Mountain View	2–4 weeks	Alternatives A and B: installation of four-quadrant gate at Rengstorff Avenue
Centennial Plaza, Mountain View	2–4 weeks	Alternatives A and B: installation of four-quadrant gate at Castro Street
Stevens Creek Trail, Mountain View	2 days	Alternatives A and B: minor track modifications (<1 foot) to the existing Caltrain at-grade tracks
Plaza del Sol, Sunnyvale	3–6 months	Alternatives A and B: co-location of radio tower
Bracher Park, Santa Clara	2 days	Alternatives A and B: track modifications (<3 feet) to the existing Caltrain at-grade tracks
Guadalupe River Park, San Jose	2 years	Alternative B (both viaduct options): construction of aerial viaduct

Name/City	Duration	Construction Activities
Reed Street Dog Park, Santa Clara	5–10 days	Alternative A: track modifications (>3 feet) to the existing Caltrain at-grade tracks
	2 years	Alternative B (Viaduct to Scott Boulevard): construction of aerial viaduct
Larry J. Marsalli Park, Santa Clara	2 years	Alternative B (Viaduct to Scott Boulevard): construction of aerial viaduct and replacement of De La Cruz overpass with underpass
College Park, San Jose	1 year	Alternative B (Viaduct to I-880): track modifications (>3 feet) to the existing Caltrain at-grade tracks and replacement of the Hedding Street overcrossing and replacement with a new overcrossing
	2 years	Alternative B (Viaduct to Scott Boulevard): construction of aerial viaduct and removal of the Hedding Street overcrossing and replacement with an underpass
Los Gatos Creek Trail, San Jose	5–10 days	Alternative A: track modifications (>3 feet) to the existing Caltrain at-grade tracks
	2 years	Alternative B (both viaduct options): construction of aerial viaduct
Community Park (Planned, if built before HSR construction), San Jose	5–10 days	Alternative A: at-grade track (>3 feet) modifications
	2 years	Alternative B (both viaduct options): construction of aerial viaduct
Guadalupe River Trail	2 years	Alternative B (both viaduct options): construction of aerial viaduct
Biebrach Park, San Jose	5–10 days	Alternative A: minor track modifications (>3 feet) to the existing Caltrain at-grade track
Fuller Park	5–10 days	Alternative A: minor track modifications (>3 feet) to the existing Caltrain at-grade tracks
Highway 87 Bikeway North	5–10 days	Alternative A: minor track modifications (>3 feet) to the existing Caltrain at-grade tracks
	2 years	Alternative B (both viaduct options): construction of aerial viaduct
Tamien Park (Phase II Planned)	5–10 days	Alternative A: utility relocation and minor track modifications (>3 feet) to the existing Caltrain at-grade tracks
	2 years	Alternative B (both viaduct options): construction of aerial viaduct
Three Creeks Trail (Planned, if built before HSR construction)	5–10 days	Alternative A: minor track modifications (>3 feet) to the existing Caltrain at-grade tracks
	2 years	Alternative B (both viaduct options): construction of aerial viaduct

Sources: Authority 2019a, 2019b
HSR = high-speed rail
I- = Interstate
LMF = light maintenance facility

Construction activities under the project alternatives would temporarily change the visual environment, resulting in changes that could directly affect the user experience at parks or recreational facilities where views outward are an important feature of the user experience. During the 4.5-year construction period, heavy equipment and associated vehicles such as cranes, dozers, graders, scrapers, and trucks would be visible. Dust, material stockpiles, and other visual signs of construction would also be present and visible to nearby viewers. Depending on location, viewers could see staging areas, worker parking, and equipment and materials storage areas, all of which would add industrial-looking elements to the landscape. These visual elements could also be within the TCEs that are within parks, recreation, and open space resources in the San Jose Diridon Station Approach Subsection. However, because this project

would be built within an urban transportation corridor, viewers are likely to be accustomed to seeing machinery, trucks, and vehicles within the area because roadway improvement projects, development projects, and rail maintenance activities require the use of such equipment. The parks closest to the Brisbane LMF, passing tracks, Millbrae and San Jose Diridon Stations, and the viaduct in San Jose (Alternative B), would be exposed to the most construction equipment and vehicles for the longest time, while other activities would not require the same quantity of equipment or time.

Visual changes would last longer at the 4th and King Street and Millbrae Stations (2 years), Brisbane LMF site (2 to 3 years), and along the proposed passing tracks under Alternative B (4.5 years). In the San Jose Diridon Station Approach Subsection, visual changes would last 2 years at the San Jose Diridon Station under Alternative A and 3-4 years under Alternative B, with up to 2 years at any given location near the viaduct under Alternative B (both viaduct options). As described in Section 3.15, alterations to the existing 4th and King Street Station would result in minimal temporary impacts on visual quality. Modifications at the Millbrae Station would involve expanding the station concourse, building a new HSR station west of the alignment, and expanding parking requiring building demolition, grading, and construction above existing passenger facilities, as well as railway facility expansion that would reduce the existing visual character of the site for up to 2 years. Track shifts and construction of four-quadrant gates would be similar to other common rail maintenance and roadway projects in or near the rail corridor and familiar to viewers.

Under Alternative B, construction activities to expand the railway from two to four tracks in the passing track area would reduce visual quality by introducing construction activities that would contrast with the existing character of the area and by opening views to the railway corridor that were previously shielded. In addition, visual quality would be reduced by construction activities for expansion of the San Jose Diridon Station as an aerial station and the viaducts because of the temporary scaffolding and shoring needed to build the elevated facilities. Parks and recreational facilities closest to these project components are listed in Table 3.14-6. The project would develop and implement a construction management plan that includes visual protection measures designed to minimize impacts on residents and businesses (SOCIO-IAMF#1).

Project construction would also temporarily change the visual environment that could directly affect the user experience at parks or recreational facilities where outward views are an important feature of the user experience. These resources can provide more expansive views and include portions of the Bay Trail-1, Mission Creek Park, Bayview Hill Park/Open Space, San Bruno Mountain State and County Park, and Brisbane Lagoon Fisherman's Park. Depending on their location on the Bay Trail-1 and in Mission Creek Park, trail and park users could see construction activities and vehicles related to expansion of the 4th and King Street Station, but views to the San Francisco Bay would not be blocked. Depending on the location at San Bruno Mountain State and County Park and Bayview Hill Park/Open Space, hikers or dispersed recreationists near the LMF site could have direct views of construction activities and vehicles, although these views would be at a distance that would reduce visual sensitivity. For trail users, views of construction activities would be temporary because they would move through the construction area rather than spend extended periods with construction activities in view. Trail users on the Bay Trail-2 and fishermen at Brisbane Lagoon have views west toward San Bruno Mountain and would also likely see construction activities and vehicles related to construction of the LMF, relocation of the Tunnel Avenue overpass, and extension of Lagoon Road. Other parks in the RSA where important outward views exist include parks or trails along the San Francisco Bay, such as portions of the Bay Trail, South Beach Park, China Basin, other parks in the Mission Bay area, Candlestick Point State Recreation Area, and Bayside Fields are located at a distance from the corridor and views from these resources of prominent landscape features would not be blocked by project construction. Portions of Guadalupe River Park provide more open views; however, this resource consists of 120 acres of linked park and recreational facilities, and only a small portion of this resource would be near construction activities. Project features would minimize impacts on the user experience at parks, recreational facilities, and open spaces

because recreational use of these resources would generally be of short duration and would not be prevented by the temporary visual changes.

CEQA Conclusion

The impact under CEQA would be less than significant because temporary visual changes from construction of the project alternatives, such as the visibility of construction activities and equipment, would not prevent users from participating in activities regularly undertaken at these resources. The parks, recreational facilities, and open-space resources in the RSA are in urban, commercial, industrial, or residential settings and support active uses where participants are focused on the specific activity such as basketball, baseball, tennis, skating, and using playground facilities.

Visual changes from most project construction would last for days or weeks, but major project components would take longer to build, including 1 year for the LMF, 2 years for station expansion (Alternative A), and 4.5 years for the passing tracks, 2 years for the aerial viaduct, and 3-4 years for the aerial San Jose Diridon Station under Alternative B. The parks where outward views are important such as Bayview Hill Park/Open Space and San Bruno Mountain State and County Park, and trail or dispersed users would have views of activities at the LMF site, but they would not likely spend extended periods with construction activities in view. Expansion of the 4th and King Street Station could be visible to park users at the Bay Trail and Mission Creek Park, depending on their location. Trail users on the Bay Trail and fishermen at Brisbane Lagoon would have views across the lagoon of construction at the Brisbane LMF and related roadway improvements.

While implementing the screening techniques (SOCIO-IAMF#1) would not block some large-scale activities from viewers, views of the construction activities and equipment would not prevent the use of parks, recreational facilities, or open space resources, nor would they permanently affect the perceived ability to access and use these resources. The impact of temporary visual changes would be less than significant. Therefore, CEQA does not require any mitigation.

Impact PK#4: Permanent Changes Affecting Access to or Circulation in Parks, Recreational Facilities, and Open-Space Resources

Although construction of the Project Section would result in temporary impacts on access as discussed in Impact PK#2, access and circulation would be restored on completion of construction activities. With the exception of Trinta Park under Alternative B, construction would not result in permanent changes in access or circulation at any parks, recreational facilities, or open-space resources. Additionally, project construction would not permanently change or prevent public access to shorelines or the San Francisco Bay/tidal waterways under the jurisdiction of the BCDC at Mission Creek, Brisbane Lagoon, or other points accessed from the San Francisco Bay Trail, including Sierra Point, Oyster Point, or El Zanjon Creek (San Bruno).

At Trinta Park, under Alternative B, construction of the four-track passing tracks at grade and on embankment would require closure of Leslie Street, which extends along the east side of Trinta Park. Leslie Street is in the existing Caltrain right-of-way, but no construction activities would occur in the park boundaries. The park is fully fenced, including the ball fields within the park to contain foul balls. There are four existing pedestrian access points along the fence line, including one from 19th Avenue on the north and three from Leslie Street on the east. In addition, there are two larger access points that are locked for use by grounds maintenance and equipment. One locked access point is within the eastern fence on Leslie Street, the second is also from Leslie Street but outside the portion of the roadway that would be closed. As a result, closure of Leslie Street would affect access by vehicles as well as block pedestrian access at three of the four existing pedestrian access points and one maintenance point. However, these changes in access would not prevent the use of the park.

CEQA Conclusion

The impact under CEQA would be less than significant under Alternative A, because there would be no permanent changes in access to or circulation at any of the parks, recreational facilities, and open-space resources shown in Table 3.14-5 that would prevent the use of the resources.

Project features would require safe and attractive access to parks, and the project would not create permanent changes in access to or circulation in recreational resources. Therefore, CEQA does not require any mitigation.

The impact under CEQA would be significant under Alternative B at Trinta Park because access to and circulation within the park would change as a result of closing Leslie Street, which would permanently block three of the four pedestrian access points and one maintenance access point. Mitigation measures to address this impact are identified in Section 3.14.9. Section 3.14.7 describes the measures in detail.

Impact PK#5: Permanent Visual Changes That Could Create a Perceived Barrier to Access or Continued Use of Parks, Recreational Facilities, and Open-Space Resources

Users of parks, recreational facilities, and open-space areas participate in active and passive recreational uses such as organized sporting events, outdoor leisure activities, hiking, cycling, and cultural events. While use of the resources described in this section would not be changed by project-related visual changes, the user experience could be affected by the presence of project infrastructure that would be visible from some resources. As described in Section 3.15, construction of the project would primarily consist of minor changes to the existing Caltrain railway that would not change the visual character of the railway. Project components that could affect sensitive viewers' experience would be the newly introduced visual elements, such as the trackway expansion between San Mateo and Redwood City to accommodate the passing tracks under Alternative B. Expansion of the railway from two to four tracks would increase its scale and visual presence, contrasting with the existing visual environment. In addition to the passing tracks under Alternative B, the West Brisbane LMF would also be visible from some resources west of the alignment. In the San Jose Diridon Station Approach Subsection, under Alternative B (both viaduct options), the HSR tracks would be on aerial viaduct, varying in height from approximately 40 to 70 feet above grade to pass over roads and highways. While new visible infrastructure would be shielded from view at most parks and other recreational resources, they would be highly visible to some nearby park users and recreationists. Other project elements that would be constructed outside the existing rail right-of-way include the Brisbane LMF, expansion of the Millbrae Station and San Jose Diridon Station, radio towers, and other HSR infrastructure that could permanently alter views from existing parks, trails, and open-space resources. Alternative A would be less visually intrusive because it would be primarily at grade or on embankment tracks; similar to the existing Caltrain railway; however, the East Brisbane LMF would be visible from some resources in the RSA.

As shown in Table 3.14-2, activities in most parks, recreational facilities, and open-space resources are inwardly rather than outwardly focused. For example, sports activities, dog-related activities, barbecuing and picnicking, and use of playground equipment are not activities dependent on a visually serene, unobstructed natural environment. On the other hand, recreationists would likely pursue some activities such as hiking, biking, and nature viewing with some expectation of doing so in a more natural environment. For the outward facing activities, while the visual experience of the users would be altered, the project elements would not create a barrier or perceived barrier to the use of these resources because the project would be in an existing urban transportation corridor where views of such elements already exist.

In the San Francisco to South San Francisco Subsection, there are four existing tunnels and in these areas, the user experience at parks, recreational facilities, and open-space areas would not be affected by visual changes. In addition, track shifts and other modifications, such as four-quadrant gates, radio towers, or expansion of the Millbrae Station, within or adjacent to existing railway facilities would conform to the existing character of the area, and would not constitute a substantial qualitative change in the character of the user experience at parks, recreational facilities, and open-space areas with views of these improvements. Project features would include visually integrating structures into communities and reducing the intrusiveness of expanded railway infrastructure that cannot be shielded from sensitive viewers (AVQ-IAMF#1), and would require the Authority to consult with local jurisdictions to develop contextually appropriate aesthetic solutions for non-station structures (AVQ-IAMF#2).

The parks, recreational facilities, and open-space areas in the RSA are in urban, residential, commercial, or industrial areas, and most would be protected from obtrusive views of the project by existing mature trees, intervening structures, or both. Accordingly, the project would not result in a substantial qualitative change in the user experience that would create a barrier to use. Permanent project-related visual changes that could affect users of the resources within the RSA are shown in Table 3.14-7.

Table 3.14-7 Permanent Visual Impacts on Access or Use of Parks, Recreational Facilities, and Open-Space Resources

Resource	Setting	Proposed HSR Structure and Distance from Resource	
		Alternative A[1]	Alternative B[1]
San Francisco to South San Francisco Subsection			
San Francisco Bay Trail-1, San Francisco to South San Francisco (existing and planned–if built before construction)	Urban to shoreline	East Brisbane LMF, 2,261.2 feet east	West Brisbane LMF, 2,261.2 feet east
Mission Blue Baseball Field, Brisbane	Urban/residential	East Brisbane LMF, 3,782 feet west	West Brisbane LMF, 2,449 feet west
Crocker Park Recreational Trail, Brisbane	Commercial	East Brisbane LMF, 1,556 feet west	West Brisbane LMF, 500 feet west
Brisbane City Hall Dog Park, Brisbane	Commercial	East Brisbane LMF, 1,338 feet west	West Brisbane LMF, 1,133 feet west
San Bruno Mountain State and County Park, Brisbane	Urban/residential, rural within park	East Brisbane LMF, 2,005 feet west and 3,530 feet northwest	West Brisbane LMF, 748 feet west and 2,238 feet northwest
Brisbane Lagoon Fisherman's Park, Brisbane	Urban setting	East Brisbane LMF, 1,040 feet southeast (northern shore) and 2,744 feet southeast (Fisherman's Park)	West Brisbane LMF, 1,485 feet southeast (northern shore) and 3,461 feet southeast (Fisherman's Park)
Brisbane Community Park Brisbane	Urban/commercial setting	New roadway extension connecting Valley Drive to Old County Road, 50 feet south	New roadway extension connecting Valley Drive to Old County Road, 50 feet south
Brisbane Skate Park and Basketball Courts, Brisbane	Urban/commercial setting	New roadway extension connecting Valley Drive to Old County Road, 100 feet southwest	New roadway extension connecting Valley Drive to Old County Road, 100 feet southwest
Old Quarry Road Park and Trail, Brisbane	Urban/commercial / residential	East Brisbane LMF, 2,500 feet southwest	West Brisbane LMF, 2,056 feet southwest
San Mateo to Palo Alto Subsection			
Hayward Park Square, San Mateo	Urban/residential/ commercial	Existing at-grade tracks, 79 feet east	Two-track alignment diverges to four tracks at grade with passing tracks, 79 feet east
Trinta Park, San Mateo	Urban/residential/ commercial	Existing at-grade tracks, 58 feet west	Passing tracks at grade and on embankment, 46 feet west

Resource	Setting	Proposed HSR Structure and Distance from Resource	
		Alternative A[1]	Alternative B[1]
Bay Meadows Community Park, San Mateo	Urban/residential/ commercial	No construction activities	Passing tracks on embankment, 747 feet east
Paddock Park, San Mateo	Urban/residential	No construction activities	Passing tracks on embankment, 981 feet east
Davey Glen Park, Belmont	Urban/residential	Existing at-grade tracks, 645 feet west	Passing tracks on aerial viaduct, 626 feet west
Alexander Park, Belmont	Urban/residential/ commercial	Existing at-grade tracks, 394 feet east	Passing tracks on aerial viaduct, 374 feet east
O'Donnell Park, Belmont	Urban/residential/ commercial	Existing at-grade tracks, 1,067 feet east	Passing tracks on aerial viaduct, 1,027 feet east
Twin Pines Park, Belmont	Urban/residential	Existing at-grade tracks, 878 feet west	Passing tracks on aerial viaduct, 859 feet west
Laureola Park, San Carlos	Urban/residential	Existing tracks on embankment, 359 feet east	Passing tracks on aerial viaduct, 315 feet east
Frank D. Harrington Park, San Carlos	Urban/commercial	Existing at-grade tracks, 312 feet west	Passing tracks on aerial viaduct, 310 feet west
Robles Park, Palo Alto	Urban/residential	New radio tower, 51 feet west	New radio tower, 51 feet west
San Jose Diridon Station Approach Subsection			
Reed Street Dog Park, Santa Clara	Urban/industrial	Existing at-grade tracks, 60 feet south	Viaduct to I-880: Existing at-grade tracks, 60 feet south Viaduct to Scott Boulevard: 40-foot aerial structure, 25 feet south
Larry J. Marsalli Park, Santa Clara	Urban/residential	Existing at-grade tracks, 335 feet north	Viaduct to I-880: Existing at-grade tracks, 335 feet north Viaduct to Scott Boulevard: 40-foot aerial structure, 400 feet north
Newhall Park, San Jose	Urban/residential	Existing at-grade tracks, 255 feet north	Viaduct to I-880: Existing at-grade tracks, 255 feet north Viaduct to Scott Boulevard: 60-foot aerial structure, 325 feet north
College Park, San Jose	Urban/residential	Existing at-grade tracks, 575 feet north	Viaduct to I-880: Existing at-grade tracks, 595 feet north Viaduct to Scott Boulevard: 60-foot aerial structure, 660 feet north

Resource	Setting	Proposed HSR Structure and Distance from Resource	
		Alternative A[1]	Alternative B[1]
Guadalupe River Park, San Jose	Urban	64-feet aerial structure, 420 feet west and existing at-grade tracks, 590 feet west	Viaduct to I-880: 70-foot aerial structure, 480 feet west Viaduct to Scott Boulevard: 60-foot aerial structure, 480 feet west
Guadalupe River Trail, San Jose	Urban	Existing at-grade tracks, 1,572 feet west	Viaduct to I-880: 70-foot aerial structure, 555 feet west Viaduct to Scott Boulevard: 60-foot aerial structure, 550 feet west
Theodore Lenzen Park, San Jose	Urban/industrial	Existing at-grade tracks, 520 feet northeast	Viaduct to I-880: 70-foot aerial structure, 995 feet northeast Viaduct to Scott Boulevard: 60-foot aerial structure, 995 feet northeast
Cahill Park, San Jose	Urban/residential	Existing at-grade tracks, 325 feet east	Viaduct to I-880: 70-foot aerial structure, 300 feet east Viaduct to Scott Boulevard: 60-foot aerial structure, 300 feet east
Los Gatos Creek Trail, San Jose	Urban	35-foot aerial structure, overhead	Viaduct to I-880: 70-foot aerial structure, overhead Viaduct to Scott Boulevard: 60-foot aerial structure, overhead
Community Park (planned), San Jose	Urban	Existing at-grade tracks, 305 feet east	Viaduct to I-880: 70-foot aerial structure, 215 feet east Viaduct to Scott Boulevard: 60-foot aerial structure, 215 feet east
Discovery Dog Park, San Jose	Urban	Existing at-grade tracks, 1,630 feet west	Viaduct to I-880: 70-foot aerial structure, 1,570 feet west Viaduct to Scott Boulevard: 60-foot aerial structure, 1,570 feet west
Biebrach Park, San Jose	Urban/residential	Existing at-grade tracks, 350 feet south and southwest	Viaduct to I-880: 70-foot aerial structure, 980 feet north, northeast, east Viaduct to Scott Boulevard: 60-foot aerial structure, 980 feet north, northeast, and east

Resource	Setting	Proposed HSR Structure and Distance from Resource	
		Alternative A[1]	Alternative B[1]
Fuller Park, San Jose	Urban/residential	Existing at-grade tracks and embankment, 50 feet north	Viaduct to I-880: 70-foot aerial structure, 510 feet east Viaduct to Scott Boulevard: 60-foot aerial structure, 510 feet east
Palm Haven Plaza, San Jose	Urban/residential	Existing at-grade tracks, 1,360 feet northeast	Viaduct to I-880: 70-foot aerial structure, 2,715 feet northeast Viaduct to Scott Boulevard: 60-foot aerial structure, 2,715 feet northeast
Hummingbird Park, San Jose	Urban/residential	Existing at-grade tracks, 1,365 feet northeast	Viaduct to I-880: 70-foot aerial structure, 2,700 feet northeast Viaduct to Scott Boulevard: 60-foot aerial structure, 2,700 feet northeast
Highway 87 Bikeway North, San Jose	Urban	Existing at-grade tracks, adjacent to the west	Viaduct to I-880: 70-foot aerial structure, adjacent east and west Viaduct to Scott Boulevard: 70-foot aerial structure, adjacent on the east and west
Jesse Frey Community Garden, San Jose	Urban	Existing at-grade tracks, 730 feet east-northeast	Viaduct to I-880: 70-foot aerial structure, 700 feet east-northeast Viaduct to Scott Boulevard: 60-foot aerial structure, 700 feet east-northeast
Tamien Park (Phase II Planned), San Jose	Urban/residential	Existing at-grade tracks, 730 feet east-northeast	Viaduct to I-880: 58-foot aerial structure adjacent on the west Viaduct to Scott Boulevard: 58-foot aerial structure adjacent on the west
Three Creeks Trail (Planned), San Jose	Urban	Existing at-grade tracks, 60 feet south	Viaduct to I-880: 70-foot aerial structure, directly overhead Viaduct to Scott Boulevard: 60-foot aerial structure, directly overhead

Sources: Authority 2019a, 2019b; Google, Inc. 2018
HSR = high-speed rail
I- = Interstate
[1] Distances are approximate estimates derived from measurements from resource to closest point of permanent footprint of HSR structure.

CEQA Conclusion

The impact would be less than significant under CEQA because permanent visual changes from project construction near these parks, recreational facilities, and open-space areas would not create an actual or perceived barrier to use even though the user experience at certain resources could be altered. The project design would visually integrate structures into communities and reduce the intrusiveness of expanded railway infrastructure that cannot be shielded from sensitive

viewers (AVQ-IAMF#1). The Authority would consult with local jurisdictions to develop contextually appropriate aesthetic solutions for non-station structures (AVQ-IAMF#2). Additionally, many of these resources are in urban, residential, commercial or industrial areas; others would be protected from obtrusive views of the project by existing mature trees, intervening structures, or both. Although the Brisbane LMF, new roadway extension between Valley Drive and Old County Road, radio tower across from Robles Park, elevated passing track, and viaduct or embankment structures would be visually intrusive in some locations, the user experience would not be altered to the extent that an actual or perceived barrier to the use of parks, recreational facilities, or open-space resources would result from project operations. Therefore, CEQA does not require any mitigation.

Impact PK#6: Permanent Acquisition of Parks, Recreation, and Open-Space Resources

Construction of the project alternatives would not result in the permanent acquisition of parks, recreation, and open-space resources except in the San Jose Diridon Station Approach Subsection. A significant impact would result if the project would prevent use of the resource or would result in diminished capacity. The amount of parkland to be acquired at each resource is shown in Table 3.14-8.

Table 3.14-8 Permanent Parks, Recreation, and Open-Space Acquisitions, San Jose Diridon Station Approach Subsection

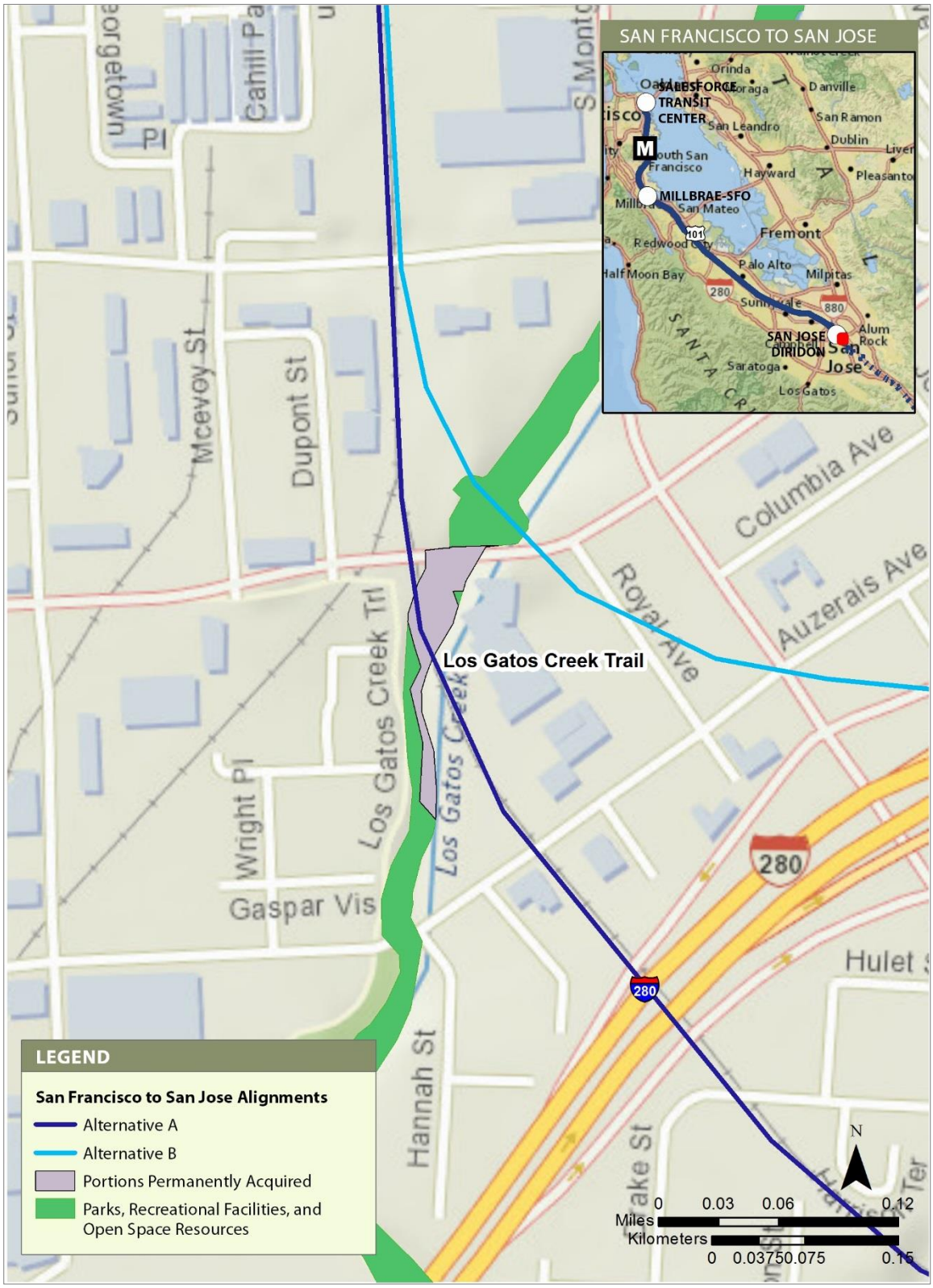
Facility/Size	Permanent Acquisition (Acres or Miles[1]/Percent)	
	Alternative A	Alternative B
Reed Street Dog Park, Santa Clara 1.5 acres	N/A	Viaduct to I-880: N/A Viaduct to Scott Boulevard: 0.18 acre (12%)
Los Gatos Creek Trail, San Jose 9.7 miles	1.03 acres/0.13 mile (1.34%)	Both viaduct options: 0.55 acre/0.02 mile (0.21%)
Guadalupe River Trail, San Jose 9 miles	N/A	Both viaduct options: 0.80 acre/0.17 mile (1.89%)
Fuller Park, San Jose 1.14 acres	0.03 acre (2.63%)	N/A
Highway 87 Bikeway North, San Jose 2.72 miles (0.45 mile in RSA)[2]	0.52 acre/0.20 mile (7.35%)	Both viaduct options: 1.50 acres/0.45 mile (16.54%)
Tamien Park (Phase II Planned), San Jose 3.5 acres	N/A	Both viaduct options: 0.22 acre (6.3%)

Sources: Authority 2019b; CPAD 2017
I- = Interstate
N/A = not applicable
RSA = resource study area
[1] Percentages for trail impacts are calculated from miles affected.
[2] Only 0.45 mile of the 2.72-mile-long bikeway is within the RSA for the San Francisco to San Jose Project Section, while the entire length (2.72 miles) of the bikeway is within the RSA for the San Jose to Merced Project Section. As a result, the acres or miles permanently acquired are different than those presented in the Draft EIR/EIS for the San Jose to Merced Project Section.

As shown in Table 3.14-8 and illustrated on Figure 3.14-12 through Figure 3.14-18, construction of the project would require acquisition of portions of two trails, two parks, a planned park expansion, and a bikeway. The permanent acquisitions of land from the parks and recreational facilities under both project alternatives generally would be relatively small and on the exterior edges of the resources. For the Guadalupe River Trail, Los Gatos Creek Trail, Fuller Park, and Tamien Park (Phase II Planned), less than 10 percent of each resource would be permanently acquired, and the capacity for use of these resources would not be diminished.

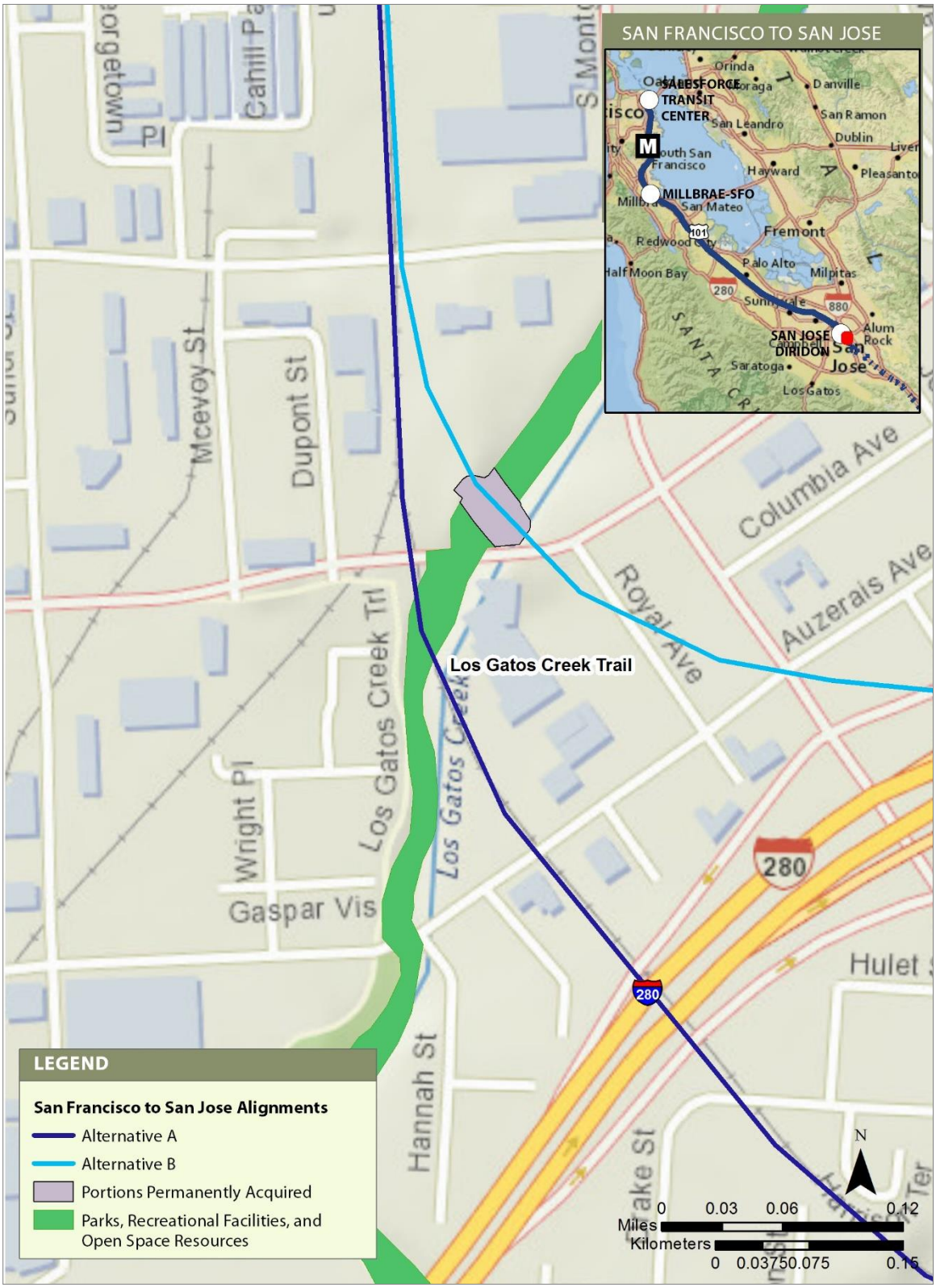
Sources: Authority 2019a, 2019b JUNE 2019

Figure 3.14-12 Permanent Acquisition at Reed Street Dog Park—Alternative B (Viaduct to Scott Boulevard)



Sources: Authority 2019a, 2019b JUNE 2019
The existing alignment spans the trail and Alternative A would not make it discontinuous.

Figure 3.14-13 Permanent Acquisition at Los Gatos Creek Trail—Alternative A

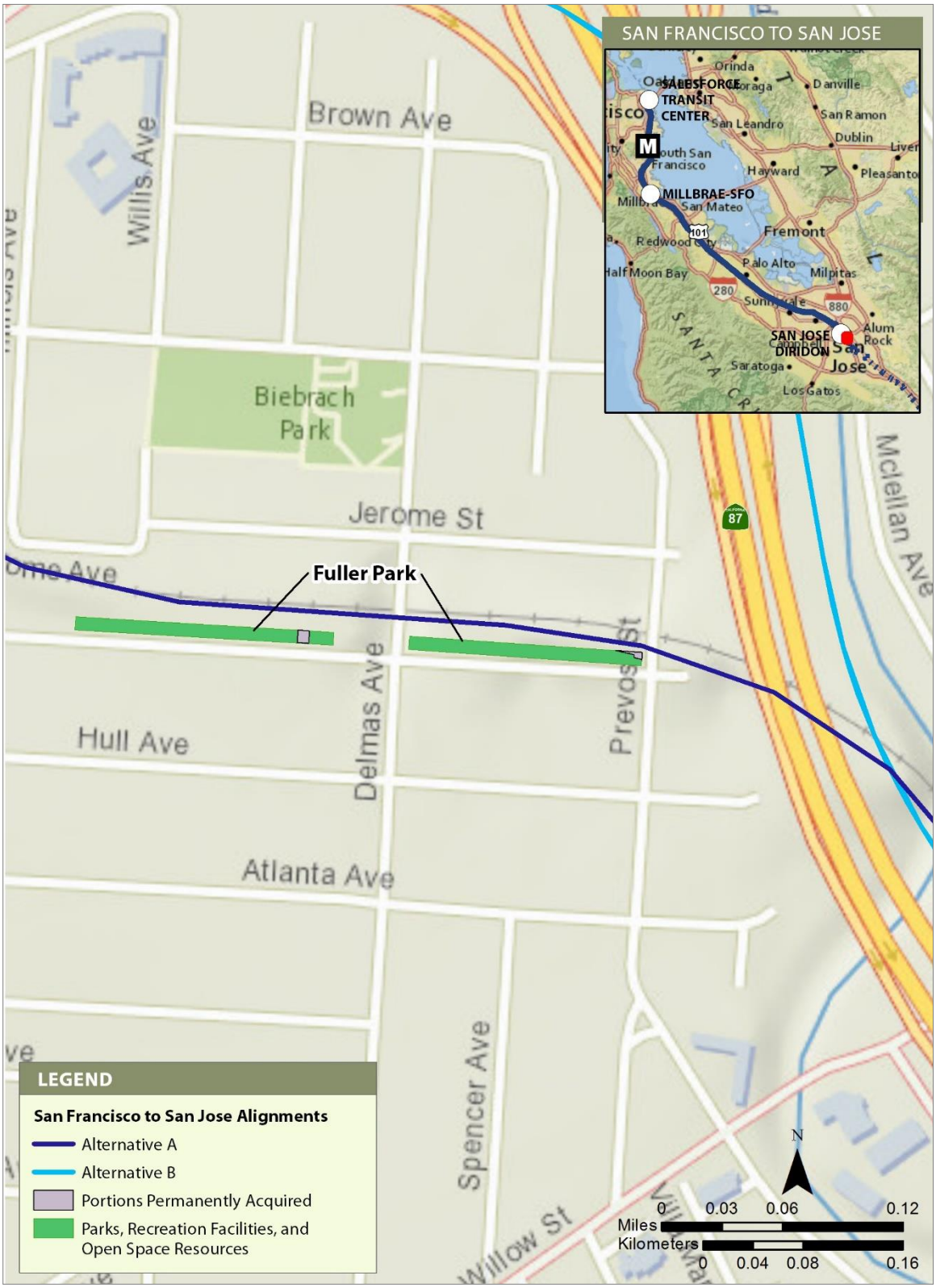


Sources: Authority 2019a, 2019b JUNE 2019
The existing alignment spans the trail and Alternative B would not make it discontinuous.

Figure 3.14-14 Permanent Acquisition at Los Gatos Creek Trail—Alternative B

Sources: Authority 2019a, 2019b JUNE 2019
Alternative B would be on aerial viaduct over the trail and would not make it discontinuous.

Figure 3.14-15 Permanent Acquisition at Guadalupe River Trail (Reach 6)—Alternative B

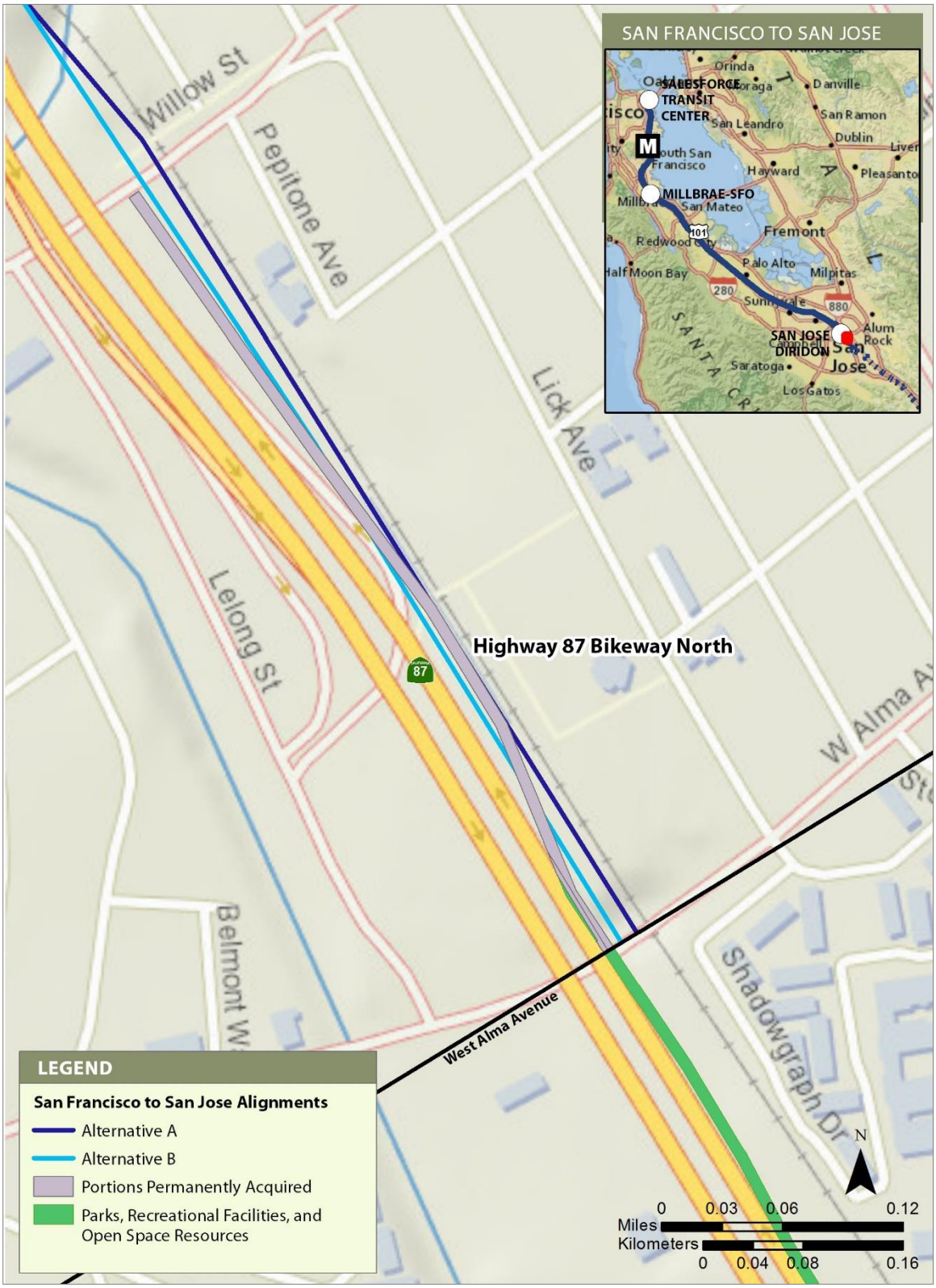


Sources: Authority 2019a, 2019b JUNE 2019

Figure 3.14-16 Permanent Acquisition at Fuller Park—Alternative A

Sources: Authority 2019a, 2019b JUNE 2019

Figure 3.14-17 Permanent Acquisition of Highway 87 Bikeway North—Alternative A



Sources: Authority 2019a, 2019b JUNE 2019

Figure 3.14-18 Permanent Acquisition of Highway 87 Bikeway North—Alternative B

Sources: Authority 2019a, 2019b MARCH 2020

Figure 3.14-19 Permanent Acquisition at Tamien Park (Phase II Planned)—Alternative B

Permanent acquisitions of portions of the Reed Street Dog Park under Alternative B (Viaduct to Scott Boulevard) (12.0 percent) and Highway 87 Bikeway North under either project alternative (up to 18 percent), would require more than 10 percent of the total acreage of each resource. Impacts on the specific resources are discussed in the following paragraphs.

The acquisition of 0.18 acres (12 percent) of land at Reed Street Dog Park under Alternative B (Viaduct to Scott Boulevard) would consist of land from the southern and western edges, as illustrated on Figure 3.14-12. This land would be used to build and operate the viaduct. The affected portion of the park is currently vegetated and open space that does not contain any recreational facilities or include any of the open space used by dogs, so most of the park would remain intact and contiguous for continued use. In addition, the eastern triangle of park would still be accessible and usable during operations because it is connected and adjacent to the parking lot. As a result, this permanent acquisition would not change the use of this park or diminish its capacity.

At Los Gatos Creek Trail, Alternative A would permanently acquire 1.03 acres/0.13 mile (1.3 percent of the total trail area) from the trail where the tracks would be shifted. Alternative B (both viaduct options) would permanently acquire 0.55 acre/0.02 mile (0.21 percent of the total trail area) for construction of the viaduct. This area would be between South Montgomery Street and just south of San Carlos Street, as illustrated on Figures 3.14-13 and 3.14-14. The HSR viaduct would cross over Los Gatos Creek and San Carlos Street at this location, and one of the two footings near the trail would partially stand within Los Gatos Creek Trail. The permanent acquisition would be needed for construction of the new aerial HSR right-of-way over the trail. The physical trail would remain intact and usable and no permanent trail realignment would be necessary. Access would be maintained by implementing project design features to minimize impacts on trails and recreation facilities, which include providing safe and attractive access for existing travel modes (e.g., motorists, bicyclists, pedestrians) to existing trails (PK-IAMF#1). As a result, the permanent acquisition would not change the use of trail or diminish its capacity.

At Guadalupe River Trail, Alternative B would require permanent acquisition of 0.8 acre/0.17 mile (1.89 percent of the total trail area) from the western portion of the trail (east side of SR 87) to construct the HSR aerial structure, which would cross over West Virginia Street and the trail, then over the Caltrain rail bridge, the Guadalupe River, and Willow Street (Figure 3.14-15). This area is currently vegetated open space on the western edge of the trail, so most of the trail would remain intact and operational. Access would be maintained by implementing project design features that would minimize impacts on trails and recreation facilities, which include providing safe and attractive access for existing travel modes (e.g., motorists, bicyclists, pedestrians) to existing trails (PK-IAMF#1). As a result, the permanent acquisition would not change the use of the trail or diminish its capacity.

At Fuller Park, 0.03 acre (2.6 percent of the total park area) would be permanently acquired under Alternative A. In the portion of the park to the west of Delmas Avenue, 0.02 acre would be used for a train control site, as illustrated on Figure 3.14-16. The affected portion of the park is currently used as a train control site for UPRR operations and contains the train control site and an unpaved access road from Fuller Avenue. This existing site would be shifted approximately 20 feet west and a new access road from Fuller Avenue would be provided. This portion of this park does not contain any recreational facilities and is already used for train operations, avoiding a change in the use of the park. In the portion of the park to the east of Delmas Avenue, 0.01 acre would be acquired on the northeastern edge of the park, directly adjacent to the existing right-of-way. This area in the park does not contain any recreational facilities and most of the park would remain intact and contiguous for continued use, so there would be no change in use of the park nor would its capacity be diminished.

At the Highway 87 Bikeway North, both alternatives would permanently acquire a portion of the bikeway, 0.52 acres/0.20 mile (7.35 percent of the total trail area) under Alternative A and 1.52 acres/0.45 mile (16.54 percent of the total trail area) under Alternative B at its intersection with SR 87, as illustrated on Figures 3.14-17 and 3.14-18. The affected portions would be at the northern terminus of the bikeway between Willow Street and West Alma Avenue. Under

Alternative A, the permanent acquisition would be required for track shifts and would not require trail realignment. The permanent acquisition under Alternative B would require that the trail be realigned in order to maintain access and use. At the Tamien Caltrain Station, the bikeway would be shifted to the west to avoid the new columns that would support the viaduct, the new tracks, retaining wall, and bridge reconstruction. Access would be maintained by implementing project design features that would minimize impacts on trails and recreation facilities, which include providing safe and attractive access for existing travel modes (e.g., motorists, bicyclists, pedestrians) to existing trails including the bikeway (PK-IAMF#1). As a result, the permanent acquisition would not change the use of the bikeway or diminish its capacity.

At Tamien Park (Phase II Planned), Alternative B would require permanent acquisition of 0.22 acre (6.3 percent of the total park area) along the west edge of the planned expansion at the park. The permanent acquisition of the 0.22 acre would be used for a straddle bent, as illustrated on Figure 3.14-19. The affected portion is currently undeveloped but a multi-use soccer field is planned with construction to begin in 2020. An outdoor gym is also planned east of the soccer field. The permanent acquisition would include a portion of the planned soccer field adjacent to the existing right-of-way. The planned regulation-size soccer field cannot be moved without compromising its utility. Permanent acquisition of this 0.22 acre would impede use of the planned soccer field, potentially rendering the field unusable for its intended purpose as a regulation-size field.

CEQA Conclusion

The impact under CEQA would be less than significant for the Los Gatos Creek Trail, Fuller Park, and the Highway 87 Bikeway North under Alternative A and for the Reed Street Dog Park, Los Gatos Creek Trail, Guadalupe River Trail, and Highway 87 Bikeway North under Alternative B (both viaduct options) because the portions of these resources that would be permanently acquired would be relatively small, their use would not change, and the project would not result in diminished capacity for use.

The impact under CEQA would be significant for Tamien Park (Phase II Planned) under Alternative B, because a portion of the planned multi-use soccer field would be permanently acquired for project purposes and there would be a diminished capacity for use of the resource. A mitigation measure to address this impact is identified in Section 3.14.9. Section 3.14.7 describes the measure in detail.

Operations Impacts

Project operations would involve scheduled blended HSR and Caltrain train travel along the existing rail corridor through the Bay Area, as well as inspection and maintenance along the track and railroad right-of-way, and at stations and communication radio towers. Additionally, operations would include inspection and maintenance of trainsets at the Brisbane LMF. Operations and maintenance activities are fully described in Chapter 2.

Impact PK#7: Permanent Changes from Noise and Vibration on Parks, Recreation, and Open-Space Resource Character and Use

Noise and vibration from trains and maintenance activities would add to existing sources of noise and vibration along the project alignment. Permanent noise and vibration impacts could result from train operations, activities near the two existing stations that would be adding HSR service, and operations at the Brisbane LMF.

The Project Section would travel in an existing and historical rail corridor, largely within the Caltrain alignment from San Francisco to San Jose. Existing noise and vibration in the RSA is dominated by Caltrain daily passenger and freight rail operations. As described in Section 3.13, transportation right-of-way is the single largest land use in the RSA. In the San Francisco to South San Francisco Subsection, the project would travel in the existing Caltrain right-of-way through existing tunnels and dense urban areas with mixed land use. Other existing noise sources include traffic on I-280, US 101, and local roads. In the San Bruno to San Mateo Subsection, existing noise sources include aircraft activities associated with San Francisco International Airport (SFO), and vehicles on US 101, and local roads. In the San Mateo to Palo

Alto Subsection, existing sources of noise along the alignment include traffic on El Camino Real, SR 92, SR 84, local roads, and more distant traffic on US 101. In the Mountain View to Santa Clara Subsection, the existing noise sources include traffic on major arterial roadways such as Mathilda Avenue, Mary Avenue, Shoreline Boulevard, San Antonio Road, San Tomas Expressway, and Lawrence Expressway, and local roads. In the San Jose Diridon Approach Subsection, the project alignment follows the Caltrain right-of-way through moderately dense urban areas with mixed land use. This heavily used existing rail corridor contributes to ambient noise in this area. Other existing noise sources include traffic on I-880, SR 87, I-280, local roads, and aircraft activities associated with Norman Y. Mineta San Jose International Airport.

While project operations would add to the existing noise and vibration levels along the alignment, the parks, recreational facilities, and open-space resources are in urban areas along the existing rail corridor and are already exposed to (or disturbed by) existing railway and other related transportation noise. As indicated in Section 3.4 of this Draft EIR/EIS, the rail system uses noise impact criteria and methods adopted by the FRA to assess the contribution of noise from HSR to the existing environment and FTA methods to assess the contribution of noise from conventional rail operations including Caltrain and freight, construction, and stationary facilities. The FRA noise impact criteria are based on the comparison of existing outdoor noise levels and future outdoor noise levels from the project. Noise-level increases are categorized as no impact, moderate impact, or severe impact—terminology which is defined in Section 3.4.

As shown in Table 3.4-6, parks, recreational facilities, and open-space resources are generally assigned to Land Use Category 3, while noise-sensitive parks where quiet is an essential element in the purpose of some features at the park (e.g., outdoor amphitheater) would be assigned to Land Use Category 1. Land Use Category 1 would be most sensitive to noise impacts from the project, with train horn noise being the major contributor to noise impacts. Project noise exposure combined with the existing condition, or the combined noise exposure associated with the project alternatives and other projects for Land Use Category 3, was determined using the data shown on Figure 3.4-5.

Currently, trains sound the warning horns when entering stations and approaching at-grade crossings where crossing bells are also activated. While this practice would not change under the project alternatives, the number of trains operating in the corridor would increase, as would the frequency of trains sounding the warning horns. Operating Caltrain and freight rail currently consist of 42 to 101 trains per day (both directions) along the alignment, and in 2040 would consist of 54 to 137 trains per day (both directions). In the San Jose Diridon Station Approach Subsection, additional rail operations (Altamont Corridor Express/Amtrak Capitol Corridor and the Coast Starlight) currently consist of 10 to 22 trains per day (both directions) and in 2040 would include 22 to 50 trains per day (both directions). In addition, in 2040, the Coast Daylight, Transportation Agency for Monterey County Salinas Rail Extension, and Bay Area Rapid Transit Silicon Valley Santa Clara Extension would add 331 trains per day (both directions) for a total of up to 381 trains per day (both directions). HSR operations would add an additional 134 to 176 trains per day (both directions). There are 6 peak hours of operation per day from 6:30 a.m. to 9:30 a.m. and from 4:30 p.m. to 7:30 p.m. There are 12 hours of non-peak operation from 6:00 a.m. to 6:30 a.m., 9:30 a.m. to 4:30 p.m., and from 7:30 p.m. to 12:00 a.m. As shown in Table 3.4-9, train passbys and associated horn noise would be most frequent during the morning and evening peak commute times, when approximately 20 trains per hour (combined Caltrain and HSR trains) would travel in either direction through the corridor. The noise analysis in Section 3.4 assumed trains would sound the warning horns 0.25 mile before each at-grade crossing and station. The length of time the horn sounds depends on the speed the train is traveling—in 2040, both Caltrain and HSR trains are assumed to travel at speeds of 110 mph and horn sounds would last 8 seconds. While train horns would intermittently sound upon approach to at-grade crossings or stations, the horns would be heard for a longer period when more than one at-grade crossing or station is within 0.25 mile of a park or recreational facility and may seem more continuous to park users. For example, if two at-grade crossings and one station are within 0.25 mile of a park, park users could hear the train horn for up to 24 seconds during peak commute times, as the trains travel to or away from the park.

The noise-sensitive uses at the parks, recreational facilities, or open-space areas include an outdoor amphitheater, stage, and campsites. The amphitheater at Mission Creek Park in San Francisco is over 900 feet from the 4th and King Street Station and the at-grade crossing at Mission Bay Drive. The campsites at San Bruno Mountain State and County Park in Brisbane are over 1.5 miles west of the rail corridor and separated from the project by mountainous terrain. The outdoor stage at Frank D. Harrington Park is just over 300 feet west of the San Carlos Station and is separated from the station by commercial buildings and El Camino Real. Noise impacts were not predicted to occur at any of these resources. Table 3.14-9 lists the five parks and recreational facilities where moderate operational noise impacts were predicted.

In addition, Table 3.14-9 provides the distance to at-grade crossings and stations, as well as existing noise levels and 2040 future hourly equivalent sound level (L_{eq}[h]) levels at the five resources. Train horn noise would be most noticeable at the closest point to the crossing or station and would last longer than 8 seconds if more than one crossing or station is within 0.25 mile of the parks and recreational facilities.

The five parks and recreational facilities that would experience increased noise are in the existing Caltrain corridor and users already experience intermittent noise and vibration related to railway operations. As shown in Table 3.14-9, operations would increase noise levels over the existing levels by 2 to 3 dBA at four parks and recreational facilities and by 5 dBA at one park. However, park users would be primarily participating in active uses and focused on playing sports, dog-related activities, walking, biking, and using playground equipment; activities that do not require quiet or tranquil surroundings. While noise levels would be more noticeable to park users, the increase in noise levels would not prevent use of the parks or recreational facilities.

No operational vibration impacts were identified at the parks and recreational facilities in the RSA. In general, outdoor land uses including parks and recreational facilities are not considered vibration sensitive. FRA vibration impact criteria are based on the impacts of vibration on nearby structures and while vibration could be perceptible to park or outdoor users, the motion would not provoke the same adverse human reaction as that associated with the shaking of a building (FRA 2012).

CEQA Conclusion

The impact would be less than significant under CEQA, because while the project alternatives would increase the number of trains operating in the corridor and related frequency of horn noise events that would be more noticeable to park users, the 2- to 5-dBA increase in noise level over the existing conditions resulting from project operations would not prevent use of the five parks or recreational facilities. These resources are already in an existing corridor dominated by noise from rail operations and primarily support active uses that do not require quiet or tranquil surroundings. Therefore, CEQA does not require any mitigation.

Table 3.14-9 Operational Noise Impacts on Parks and Recreational Facilities

Name/City	Setting/Features	Existing L_{eq}[1] (dBA)	2040 Project $L_{eq}(h)$[1] (dBA)	Noise Impacts and Proximity to At-Grade Crossings and/or Stations
Washington Park, Burlingame	Urban/residential setting, tennis courts, playground, restrooms, basketball court, picnic areas, baseball facilities	77	79	**Moderate** noise impact. The park is 90 feet from the at-grade crossing at North Lane and Burlingame Caltrain Station and 626 feet northeast of the at-grade crossing at Howard Avenue.
John S. Roselli Memorial Park, Redwood City	Urban/commercial setting, trees, grass area	77	79	**Moderate** noise impact. The park is 1,166 feet south of the Redwood City Caltrain Station, 211 feet north of the at-grade crossing at Maple Street, and 600 feet north of the at-grade crossing at Main Street.
Holbrook-Palmer Park, Atherton	Urban/residential setting, ball field, tennis courts, grass area, playground, gardens, and walking paths	76	81	**Moderate** noise impact**.** The park is adjacent to the at-grade crossing at Watkins Avenue, 770 feet south of the Atherton Caltrain Station, and 1,000 feet north of the at-grade crossing at Encinal Avenue.
El Palo Alto Park, Palo Alto	Urban/residential setting, interpretive plaques, Coast Redwoods, lighted pedestrian/bike pathway	78	80	**Moderate** noise impact. The park is adjacent to the at-grade crossing at Alma Street and 1,045.6 feet north of the Palo Alto Caltrain Station.
Jerry Bowden Park, Palo Alto	Urban/residential setting, open grassy area, playground, picnic area, benches, public art	75	77	**Moderate** noise impact. The park is 66 feet northeast of the California Avenue Caltrain Station. There are no at-grade crossings within 0.25 mile of the park.

Sources: Authority 2019a, 2019b
dBA = A-weighted decibel
$L_{eq}(h)$ = hourly equivalent sound level
[1] The 2040 future $L_{eq}(h)$ includes Caltrain with Peninsula Corridor Electrification Project, freight, and HSR.

Impact PK#8: Physical Alteration of Existing Facilities or a Need to Provide New Parks or Other Recreational Facilities, the Construction of Which Could Cause Significant Environmental Impact

As discussed under Impact PK#2 and Impact PK#6, the project would temporarily affect access to some parks, recreational facilities, and open space resources and permanently acquire land from up to five resources depending on the alternative. However, the project would not permanently close or relocate parks, recreational facilities, or open space areas under either alternative. The permanent acquisitions of land from the parks and recreational facilities under both project alternatives would generally be relatively small (less than 20 percent of the total area at each resource) and on the exterior edges of the parks or recreational facilities where there are no recreational facilities. Access would be maintained by implementing project design features that would minimize impacts on trails and recreation facilities, which includes providing safe and attractive access for existing travel modes (e.g., motorists, bicyclists, pedestrians) to existing parks and trails (PK-IAMF#1). While two trails and a bikeway may need to be realigned or rerouted temporarily or permanently, they would all still function within or very close to their existing footprint. Additionally, the physical alteration of the parks and recreational facilities would not change the use of or diminish the capacity of the resources such that their use would require construction of new parks or recreational facilities. Accordingly, the project would not result in a reduction in the overall availability of parks, recreational facilities, and open-space resources in the counties or cities along the corridor. In particular, the project would not affect the ability of the urbanized jurisdictions subject to rapid growth, such as San Francisco or San Jose, to maintain sufficient park facilities to support a growing population.

Project operations could indirectly encourage new development around HSR stations that could result in additional demand or new parks, recreational facilities, or open-space areas, but does not include new development that could generate additional demand resulting in the need for such resources. Although it is possible that existing resources may experience an increase in visitor use as a result of their proximity to the 4th and King Street Station in San Francisco, Millbrae Station, or the San Jose Diridon Station, it is not anticipated that the increase would be sufficient to accelerate physical deterioration of the facilities, because HSR passengers would not be expected to visit parks, recreational facilities, or open-space areas near either station with any frequency. Any effects on the facilities would be addressed through regular maintenance activities by agencies with jurisdiction over these resources.

CEQA Conclusion

The impact would be less than significant under CEQA for both alternatives because although the HSR project could indirectly encourage new development around stations that could generate additional demand for parks, recreational facilities, and open space areas, the project would not directly result in substantial new demand for new facilities or deterioration of existing facilities such that new parks, recreational facilities, or open-space areas would be required as a result of the project, nor would existing facilities be altered to a degree that acceptable service ratios would be jeopardized. Therefore, CEQA does not require any mitigation.

3.14.6.3 School District Play Areas

Construction of the project alternatives would introduce temporary changes related to noise, vibration, air emissions, and access to school district play areas associated with clearing, grading, track shifts, and installation of track and systems. Additionally, the project would permanently change access to or circulation in and around some school district play areas, but would not permanently acquire any land from these resources. Operations would permanently change the visual and noise environment by adding more trains along the project alignment and at the three existing stations where HSR service would be provided, as well as at the Brisbane LMF, which could affect the user experience at school district play areas.

No Project Impacts

As described in Section 3.14.6.2, Parks, Recreation, and Open-Space Resources, under the No Project Alternative, increased development to accommodate the population and employment would increase demand on recreational facilities, including school district play areas. School district plans contain provisions for funding, acquiring, and maintaining school district play areas that would adequately meet the needs of future planned population growth.

As described in Section 3.14.5, Affected Environment, there are 24 school district play areas available for use in the RSA. Use of these school district play areas is expected to increase under the No Project Alternative as a result of population growth, but not to the extent that the resources would be substantially adversely affected.

Under the No Project Alternative, recent development trends are anticipated to continue, leading to impacts on school district play areas. The demand for school district play areas would increase from the increased population generated by newly planned development. Appendices 3.18-A and 3.18-B in Volume 2 provide a full list of anticipated future development projects. Additional parks and recreation facilities could be included as part of larger development projects as required by provisions in regional and local land use plans to adequately meet the needs of future planned population growth and maintain established service ratios, which would reduce demand on the existing resources (see Volume 2, Appendix 2-I). Planned park and recreational developments would help to relieve the strain on existing facilities and minimize impacts on school district play areas.

Project Impacts

Construction Impacts

Construction impacts, activities, and HSR facilities, as well as the duration and intensity of construction activities would be the same as described in Section 3.14.6.2. Construction activities are fully described in Chapter 2.

Impact PK#9: Temporary Changes from Exposure to Noise, Vibration, and Construction Emissions on Use and User Experience of School District Play Areas

Project construction activities would generate temporary and localized noise, vibration, and construction emissions affecting school play areas within 1,000 feet of the TCE or project footprint, as shown in Table 3.14-3. As shown in Table 3.14-10, 14 of the 24 school play areas in the RSA, would be affected by proposed construction activities under both alternatives. Because only 36 to 44 percent of the project corridor (depending on alternative) would require modifications, some schools within 1,000 feet of the project footprint would not be affected by construction noise, vibration, or emissions. The schools within 0.5 mile of the 4th and King Street, Millbrae and San Jose Diridon Stations or the Brisbane LMF are over 1,000 feet from where impacts would affect play area use or user experience.

Construction activity could expose the resource users to noise and vibration levels considered harmful by the FRA or to air contaminants, such as fugitive dust, that could be harmful to users. Such construction-related impacts could also affect the user experience because construction activities could create nuisance impacts at nearby school play areas. While these indirect impacts would take place for short durations over a limited time period, users of these resources could be affected by temporary changes in noise, vibration, or air emissions under one or both of the project alternatives.

Table 3.14-10 Noise, Vibration, and Construction Emissions Impacts on Use and User Experience of School District Play Areas

Name	Setting/Play Area Features	Construction Activities	Proximity to Construction	Impact on Park Use and User Experience
San Bruno to San Mateo Subsection				
Lomita Park Elementary School, Millbrae	Urban/residential/ commercial setting, playgrounds, play areas, basketball court, baseball field	Alternatives A and B: track modifications (>3 feet) to the existing Caltrain at-grade tracks	Alternatives A and B: 68.5 feet west of tracks	Construction activities resulting in noise and construction emissions could make use of the school play areas less desirable during construction. The overall use is not considered noise sensitive, and the school is in an urban/residential/commercial setting, as well as in proximity to SFO and US 101, where ambient noise is already present. The project would comply FRA guidelines for minimizing construction noise and vibration levels as well as minimize fugitive dust emissions, and the play areas would remain usable during construction. Temporary indirect impacts would be minimized by mature trees east of the school, and immediately adjacent to the Caltrain tracks.
Mills High School, Millbrae	Urban/residential setting, football field, track, baseball field, soccer field, baseball diamonds, basketball courts, pool	Alternatives A and B: track (>3 feet) and station improvements at existing Millbrae Station to accommodate HSR	Alternatives A and B: 586.1 feet west of TCE at intersection of El Camino Real and Millbrae Avenue	Noise and construction emissions could make use of the sports fields, courts, and pool less desirable during construction. The overall use is not considered noise sensitive and the school is in an urban/residential setting, where ambient noise already exists. Users would not be affected by construction vibration because of the distance from the TCE. The project would comply with FRA guidelines for minimizing construction noise and vibration levels as well as minimize fugitive dust emissions, and the school district play area would remain usable during construction. Intervening commercial and residential development would minimize indirect impacts from construction emissions and noise. Construction of new station facilities and modification of existing platforms and tracks would take longer and be more extensive than in other locations where construction includes activities such as track modifications, radio towers, or four-quadrant gates.

Name	Setting/Play Area Features	Construction Activities	Proximity to Construction	Impact on Park Use and User Experience
Burlingame High School, Burlingame	Urban/residential setting, football field, track, baseball diamonds, soccer field, tennis courts, basketball courts	Alternatives A and B: safety improvements at Oak Grove Avenue	Alternatives A and B: 163.4 feet east of TCE	Noise, vibration, and construction emissions would make use of the play areas less desirable during construction of the four-quadrant gate. The overall use is not considered noise sensitive. However, the school is in an urban/residential setting, where ambient noise already exists, and vibration could be perceptible to users nearest the TCE during construction of the four-quadrant gate. The project would comply with FRA guidelines for minimizing construction noise and vibration levels as well as minimize fugitive dust emissions, and the play areas would remain usable during construction. Impacts on the school associated with temporary construction noise and emissions would be minimized by mature trees between the alignment and school play areas.
Washington Elementary School, Burlingame	Urban/residential setting, basketball courts, play structure, play areas	Alternatives A and B: safety improvements to Howard Avenue and Bayswater Avenue	Alternatives A and B: 436.7 feet east of TCE at Bayswater Avenue and 583.0 feet east of TCE at Howard Avenue	Noise and construction emissions could make use of the play areas less desirable during construction of the four-quadrant gates. The overall use of the play areas is not considered noise sensitive. However, the school is in an urban/residential setting, where ambient noise already exists, and play area users would not be affected by vibration because of the distance from the TCEs. The project would comply with FRA guidelines for minimizing construction noise and vibration levels as well as minimize fugitive dust emissions, and the play areas would remain usable during construction.
San Mateo to Palo Alto Subsection				
Sunnybrae Elementary School, San Mateo	Urban/commercial/ residential setting, basketball courts, blacktop play areas, track, jungle gym, grass field	Alternative A: track modifications (>3 feet) to the existing Caltrain at-grade tracks Alternative B: at-grade passing tracks	Alternative A: 833.0 feet east of TCE Alternative B: 836.0 feet east of TCE	Alternative A: construction activities resulting in noise and construction emissions could make use of the play areas less desirable during construction. The overall use is not considered noise sensitive. However, the school is in an urban/commercial/residential setting, where ambient noise already exists. The project would comply with FRA guidelines for minimizing construction noise and vibration levels as well as minimize fugitive dust emissions, and the play areas would remain usable during construction. The play areas are behind the school buildings and parking lot that would minimize indirect impacts. Alternative B: noise and air emissions from construction of the passing tracks would make use of the play areas less desirable, similar to the impacts described for Alternative A. However, construction activities would be longer in duration and more extensive than under Alternative A because of construction of the passing tracks.

Name	Setting/Play Area Features	Construction Activities	Proximity to Construction	Impact on Park Use and User Experience
Central Elementary School, Belmont	Urban/commercial/ residential setting, basketball courts, play areas, play structures, soccer field	Alternative A: minor track modifications to the existing Caltrain at-grade tracks Alternative B: utility relocation and passing tracks on embankment	Alternative A: 396.8 feet west of TCE Alternative B: 363.4 feet west of TCE and across El Camino Real	Alternative A: construction activities resulting in noise and construction emissions could make use of the play areas less desirable during construction. The overall use is not considered noise sensitive. However, the school is in an urban/commercial/residential setting, where ambient noise already exists. There would be no impacts on play area users from construction vibration given the distance from the TCE. The project would comply with FRA guidelines for minimizing construction noise and vibration levels as well as minimize fugitive dust emissions, and the play areas would remain usable during construction. Impacts on the play areas associated with temporary construction noise and emissions would be minimized by mature trees surrounding the school grounds, and one block of development between the school and tracks. Alternative B: noise, vibration, and air emissions from construction of the passing tracks would make use of the play areas less desirable, similar to the impacts described for Alternative A. However, construction activities would be longer in duration and more extensive under Alternative B than under Alternative A because of construction of the passing tracks.
Nesbit Elementary School, Belmont	Urban/commercial/ residential setting, baseball fields, basketball courts, play areas	Alternative A: track modifications (>3 feet) to the existing Caltrain at-grade tracks north of Belmont Caltrain Station Alternative B: passing tracks on embankment and reconstruction of existing Belmont Caltrain Station to accommodate four-track configuration	Alternative A: 672.6 feet east of TCE Alternative B: 668.8 feet east of TCE	Alternative A: construction activities resulting in noise and construction emissions could make use of the play area during construction less desirable. The overall use is not considered noise sensitive and the school is in an urban/commercial/residential setting, where ambient noise already exists. There would be no impacts on play area users from construction vibration given the distance from the TCE. The project would comply with FRA guidelines for minimizing construction noise and vibration levels as well as minimize fugitive dust emissions, and the school play areas would remain usable during construction. However, impacts on the play area associated with temporary construction noise and emissions would be minimized by trees on the side of the school that faces the tracks, as well as an apartment development with mature trees between the school and tracks. Alternative B: noise vibration, and air emissions from construction of the passing tracks would make use of the play areas less desirable, similar to the impacts described for Alternative A. However, construction activities would be longer in duration and more extensive under Alternative B because of construction of the passing track and reconstruction of the station.

Name	Setting/Play Area Features	Construction Activities	Proximity to Construction	Impact on Park Use and User Experience
Orion Alternative Elementary School, Redwood City	Urban/residential setting, play structures, grassy areas, play areas, basketball court	Alternatives A and B: safety improvements at Brewster Avenue	Alternatives A and B: 551.5 feet east of TCE	Construction activities resulting in noise and construction emissions could make use of the play areas during construction less desirable. The overall use is not considered noise sensitive and the school is in an urban/residential setting, where ambient noise is already present. Play area users would not be affected by construction vibration because of the distance from the TCE. The project would comply with FRA guidelines for minimizing construction noise and vibration levels as well as minimize fugitive dust emissions, and the play areas would remain usable during construction. Temporary indirect impacts would also be minimized by mature trees dispersed around the campus.
Sequoia High School, Redwood City	Urban/residential setting, football field, track, outdoor swimming pool, baseball fields, tennis courts, and undeveloped forested open space	Alternatives A and B: safety improvements at Brewster Avenue and Marshall Street	Alternatives A and B: 574.7 feet west of TCE at Marshall Street and 618.0 feet southwest of TCE at Brewster Avenue	Construction activities resulting in noise and construction emissions could make use of the play and open-space areas less desirable during construction. The overall use is not considered noise sensitive and the school is in an urban/residential setting, where ambient noise is already present. There would be no impacts from construction vibration because of the distance from the TCE. The project would comply with FRA guidelines for minimizing construction noise and vibration levels as well as minimize fugitive dust emissions, and the play and open-space areas would remain usable during construction. Temporary indirect impacts would also be minimized by the presence of mature trees around the campus.
Garfield Elementary, Menlo Park	Urban/residential setting, playground, basketball courts, baseball field, blacktop	Alternatives A and B: minor track modifications (<3 feet) to the existing Caltrain at-grade tracks	Alternatives A and B: Adjacent to and east of TCE	Construction activities resulting in noise and construction emissions would make use of the play areas less desirable during construction. The overall use is not considered noise sensitive and the school is in an urban/residential setting, where ambient noise is already present. Construction vibration could be perceptible to players on the baseball field adjacent to the TCE, while the playground, courts and blacktop are over 300 feet to the east. The project would comply with FRA guidelines for minimizing construction noise and vibration levels as well as minimize fugitive dust emissions, and the play areas would remain usable during construction. Temporary indirect impacts would be minimized by mature trees surrounding the campus, including along the western perimeter of the campus that is adjacent to the tracks.

Name	Setting/Play Area Features	Construction Activities	Proximity to Construction	Impact on Park Use and User Experience
Palo Alto High School, Palo Alto	Urban/residential setting, football field, track, tennis courts, pool, soccer field, grass areas, baseball field, basketball courts	Alternatives A and B: safety improvements to Churchill Avenue	Alternatives A and B: 1.4 feet north of TCE at Churchill Avenue	Construction activities resulting in noise and construction emissions would make use of the track and football field less desirable during construction of the four-quadrant gate. Construction vibration could be perceptible to users of the track and football field; however, the tennis courts, soccer field, pool and basketball court are over 300 feet farther west. The overall use is not considered noise sensitive and the school is in an urban/residential setting, where ambient noise already exists. The project would comply with FRA guidelines for minimizing construction noise and vibration levels as well as minimize fugitive dust emissions, and the play areas would remain usable during construction.
Mountain View to Santa Clara Subsection				
Vargas Elementary School, Sunnyvale	Urban/residential setting, grass area, basketball courts, play areas, playground	Alternatives A and B: minor track modifications (<1 foot) to the existing Caltrain at-grade tracks and safety improvements at Mary Avenue	Alternatives A and B: 828.6 feet west of TCE	Construction activities resulting in noise and construction emissions could make use of the play areas less desirable during construction. The overall use is not considered noise sensitive and the school is in an urban/residential setting where ambient noise is already present. There would be no impacts from construction vibration given the distance of play areas from the TCE. The project would comply with FRA guidelines for minimizing construction noise and vibration levels as well as minimize fugitive dust emissions, and the play areas would remain open during construction.
Bracher Elementary School, Santa Clara	Urban/residential setting, grass area, basketball courts, playgrounds, play areas	Alternatives A and B: minor track modifications (<3 feet) to the existing Caltrain at-grade tracks	Alternatives A and B: 453.9 feet west of TCE	Noise and construction emissions could make use of the play areas less desirable during construction. The overall use is not considered noise sensitive and the school is in an urban residential setting where ambient noise already exists. The play area users would not be affected by construction vibration because of the distance from the TCE. The project would comply with FRA guidelines for minimizing construction noise and vibration levels as well as minimize fugitive dust emissions, and the play areas would remain usable during construction. Temporary indirect impacts would also be minimized by residences surrounding the campus.

Name	Setting/Play Area Features	Construction Activities	Proximity to Construction	Impact on Park Use and User Experience
San Jose Diridon Station Approach Subsection				
Gardner Elementary School, San Jose	Urban, jungle gyms, basketball courts, blacktop play areas, soccer field	Alternative A: minor at-grade track modifications Alternative B Viaduct to I-880: new aerial viaduct Viaduct to Scott Boulevard: minor track modifications to existing Caltrain at-grade track and new aerial viaduct	Alternative A: 319.3 feet from TCE Alternative B (both viaduct options): 128.5 feet from TCE	While this resource is not considered noise sensitive, noise and vibration, as well as construction emissions, would make use of the school play area less desirable during construction. However, this resource is within an urban setting, where ambient noise already exists. The project would comply with FRA guidelines for minimizing construction noise and vibration levels as well as minimize fugitive dust emissions, and the play area would remain usable during construction.

Sources: Authority 2019a, 2019b; Belmont–Redwood Shores Elementary School District n.d.: Burlingame School District 2018; Google, Inc. 2018; Millbrae School District n.d.; Mills High School 2018; Palo Alto Unified School District n.d.(b); Redwood City School District 2018a, 2018b; San Mateo-Foster School District 2018; Santa Clara Unified School District 2018; Sequoia Union High School District 2017; Sunnyvale Elementary School District 2018

FRA = Federal Railroad Administration
HSR = high-speed rail
I- = Interstate
SFO = San Francisco International Airport
TCE = temporary construction easement
US = U.S. Highway

Construction Noise and Vibration

Construction noise levels at 50 feet from the source are approximately 80 to 85 dBA for most construction equipment; outliers are pile drivers, which operate at about 100 dBA, and pickup trucks, which operate at approximately 55 dBA at 50 feet from the source. The FRA noise impact criteria for human annoyance are based on comparison of the existing outdoor noise levels and the future outdoor noise levels from the HSR project. The FRA Land Use Categories for Noise Exposure, as shown in Table 3.4-6 in Section 3.4 of this Draft EIR/EIS, include outdoor uses at schools, such as school play areas, under Land Use Category 3, which includes institutional land uses with primarily daytime use, including parks, campgrounds, and other recreational facilities. Per FRA criteria, school play areas are not considered to be noise-sensitive uses.

While school play areas are not considered to be noise sensitive, project related construction noise could be perceptible to users of school play areas. Construction noise varies with the specific activity, layout of the site, and type and condition of the equipment used. The noisiest pieces of equipment determine the maximum sound levels from construction activities.

Construction of proposed new tracks, modification of existing stations and platforms, modifications to roadways and structures, and construction of the Brisbane LMF also could result in vibration from blasting, pile driving, vibratory compaction, demolition, or excavation near vibration-sensitive structures that could affect users of school play areas. FRA vibration impact criteria are based on the impacts of vibration on nearby structures. Of the proposed construction activities, only pile driving typically generates sufficiently high vibration levels for damage to occur and only if the building is within 50 feet of the source. However, the school district play areas would not be considered noise sensitive and none have buildings within 50 feet of construction activities that could result in vibration impacts.

While school district play areas are not considered to be noise-sensitive resources, the project would comply with the FTA and FRA guidelines for minimizing construction noise and vibration impacts. Construction practices as documented in NV-IAMF#1 would include building noise barriers (i.e., temporary walls or piles on excavated materials) between noisy activities and noise-sensitive resources; routing traffic away from residential streets where possible; building walled enclosures around especially noisy activities or around clusters of noisy equipment; combining noisy operations so that they occur in the same period; phasing demolition, earthmoving, and ground-impacting operations so as not to occur in the same time period; and avoiding impact pile driving where possible in vibration-sensitive areas. Application of the FTA and FRA guidelines would minimize temporary construction impacts on noise- and vibration-sensitive resources. There is still the potential for construction noise to affect the users of school district play areas; but it would not prevent use of these play areas.

Construction Emissions

Construction activities would generate fugitive dust (PM_{10} and $PM_{2.5}$) from earthmoving and disturbed earth surfaces and combustion pollutants (NO_X and VOC) from heavy equipment and trucks along the project alignment under the project alternatives. Sensitive receptors, including school district play areas, within 1,000 feet of TCEs or project footprint under either alternative could be affected by construction emissions. Impacts on resource users could include health risks associated with construction-related emissions (analyzed in greater detail in Section 3.3) as well as nuisance impacts. Increased health risks associated with construction emissions would be similar under both project alternatives, although risks would be greater where more earthwork would be required to build the passing track under Alternative B or the at-grade blended system track within the San Jose Diridon Station Approach Subsection under Alternative A. However, the project would reduce localized construction-related air quality impacts under either alternative by minimizing construction-related air emissions.

The project would create and implement a fugitive dust control plan to control dust emissions from equipment, materials, and construction activities (AQ-IAMF#1). Dust control measures would be required and implemented during construction, including covering all haul vehicles traveling on public roads to limit visible dust emissions, cleaning all trucks and equipment before exiting the construction site, and suspending any dust-generating activities when average wind

speed exceeds 25 mph. The project would also minimize off-gassing emissions of VOCs that would occur from paints and other coatings by requiring the use of low-VOC paint and super-compliant or Clean Air paint that has a lower VOC content than that required by BAAQMD rules (AQ-IAMF#2). These measures would not eliminate the generation of fugitive dust, which could still present a nuisance to some users, representing a minor disruption to the normal use of school district play areas. The use and functions of these play areas would, however, not be prevented or diminished by fugitive dust emissions.

As shown in Table 3.14-10, 14 school district play areas within 1,000 feet of project construction could be affected by noise, vibration, and fugitive dust generated by construction activities under one or both project alternatives. The duration of construction activities varies by location and project component with most lasting several days or weeks at a given location. Major components would take longer, such as building the Brisbane LMF (2 to 3 years), expansion of existing stations (2 years), and under Alternative B, building the passing tracks (4.5 years), viaduct (2 years), and aerial station (3 to 4 years).

CEQA Conclusion

The impact under CEQA would be less than significant for the project alternatives because noise, vibration, or fugitive dust generated during project construction would not degrade or prevent use of the play areas. The school district play areas are in an urbanized environment with existing residential and commercial areas, where ambient noise already exists. Play area users would typically be exposed to noise, vibration, and construction emissions only for relatively short periods (days or weeks), except at the Brisbane LMF (2 year), 4th and King Street and Millbrae Stations (2 years), and under Alternative B, passing tracks (4.5 years), viaduct (2 years), and aerial station (3 to 4 years). While school district play areas are not considered noise-sensitive resources, the project would comply with the FTA and FRA guidelines for minimizing construction noise and vibration impacts (NV-IAMF#1). The project would minimize air quality impacts on users of school district play areas by requiring incorporation of the cleanest reasonably available equipment and control measures to limit criteria pollutant emissions from construction equipment and vehicles (AQ-IAMF#1) and minimize off-gassing emissions by limiting the type of paint to those containing VOC of less than 10 percent (low) to be used during construction (AQ-IAMF#2). Therefore, CEQA does not require any mitigation.

Impact PK#10: Temporary Changes to Access or Use of School District Play Areas

Construction of the project alternatives would require TCEs for safety improvements; the TCEs could temporarily affect access to and use of school district play areas at at-grade intersections. Construction of the four-quadrant gates would occur over a period of 2 to 4 weeks at any one location and require closing only one lane during installation. The location of TCEs would temporarily affect access to two school district play areas. Table 3.14-11 shows the school district play areas affected by construction of the four-quadrant gates and identifies the at-grade crossing affected. While construction could delay users traveling to the schools on the affected roadways, access to these resources would not be completely blocked or prevent use of the play areas.

The Project Section design includes measures to maintain access to and use of school district play areas and to avoid and minimize temporary construction impacts on access to and use of school district play areas. These measures include providing safe and attractive access to school district play areas and maintaining sufficient separation of HSR guideway systems from existing school district play areas and detours and signage so that motorists and pedestrians would continue to have access to school district play areas (PK-IAMF#1, TR-IAMF#2, TR-IAMF#4, TR-IAMF#5).

Table 3.14-11 Construction-Related Reduction in Access to or Use of School District Play Areas

Name/Address	Acres/Features	Alternatives A and B
Burlingame High School, 1 Mangini Way, Burlingame	10.6 acres, football field, track, baseball diamonds, soccer field, tennis courts, basketball courts	This resource would not be in the TCE. Construction of the four-quadrant gate at Oak Grove Avenue would close one lane of traffic at a time, but temporary changes in access would not prevent use of the play areas.
Palo Alto High School, 50 Embarcadero Road, Palo Alto	30.0 acres, football field, track, tennis courts, pool, soccer field, grass areas, baseball field, basketball courts	This resource would not be in the TCE. Construction of the four-quadrant gate at Churchill Avenue would close one lane of traffic at a time, but temporary changes in access would not prevent use of the play areas.

Sources: Authority 2019a; Palo Alto Unified School District n.d.(b); Google, Inc. 2018
TCE = temporary construction easement

CEQA Conclusion

The impact would be less than significant under CEQA for both project alternatives because although construction activities would temporarily affect access to two school district play areas because of the placement of TCEs, access to the play areas would be maintained because only one lane of traffic would be closed during installation of the four-quadrant gates. Temporary construction impacts on access and traffic, such as road closures and other disruptions, would be minimized by providing detours and signage so that motorists, pedestrians, and school district play area users would continue to have access to school district play areas (TR-IAMF#2, TR-IAMF#4, TR-IAMF#5, TR-IAMF#7). Accordingly, project construction would not prevent the use of any school district play areas. Therefore, CEQA does not require any mitigation.

Impact PK#11: Temporary Visual Changes That Could Create a Perceived Barrier to Access or Continued Use of School Play Areas

The school district play areas in the RSA are in urban, commercial, and residential settings, and support activities where participants are focused on a specific activity, such as basketball, baseball, football, soccer, swimming, tennis, and playground facilities. Visual changes resulting from introducing construction activities and equipment into the viewsheds of play area users would be temporary, with construction activities lasting up to 2 weeks, potentially resulting in a perceived barrier to use. While no schools are located in TCEs, there are four school district play areas adjacent to track modifications or safety improvements that could be visually affected by project construction:

- Lomita Park Elementary, Millbrae—Track modifications (>3 feet) would take 5 to 10 days
- Burlingame High School, Burlingame—Installation of four-quadrant gate at Oak Grove Avenue would take 2 to 4 weeks
- Garfield Elementary, Menlo Park—Track modifications (<3 feet) would take several days
- Palo Alto High School, Palo Alto—Installation of four-quadrant gate at Churchill Avenue would take 2 to 4 weeks

As described in Section 3.15, project construction activities would temporarily change the visual environment, which could affect the user experience at school district play areas, although play area users would be focused on a specific activity, such as using the playground equipment or playing basketball, baseball, or soccer. During the 4.5-year construction period, heavy equipment and associated vehicles such as cranes, dozers, graders, scrapers, and trucks would be visible. Dust, material stockpiles, and other visual signs of construction would also be present and visible to nearby viewers. Depending on location, viewers could see staging areas, worker parking, and equipment and materials storage areas, all of which would add industrial-looking elements to the

landscape. However, because the project would be constructed within an urban transportation corridor viewers are likely to be accustomed to seeing machinery, trucks, and vehicles in the area because roadway improvement projects, development projects, and rail maintenance activities require the use of such equipment. The schools closest to the Brisbane LMF, passing tracks or viaduct option, and Millbrae or San Jose Diridon Station would be exposed to the most construction equipment and vehicles for the longest time, while other activities would not require the construction durations or activity levels.

Modifications at the Millbrae Station would expand the station concourse and railway, build a new HSR station facility west of the alignment, and expand parking requiring building demolition, grading, and construction, which would reduce the existing visual character of the site for up to 2 years. Track shifts and construction of four-quadrant gates would be similar to other common rail maintenance and roadway projects in and near the rail corridor that are familiar to viewers.

Visual changes resulting from introducing construction activities and equipment into the viewsheds of all user groups would be temporary and would be minimized with the development and implementation of a construction management plan that would include visual protection measures designed to minimize impacts on residents and businesses (SOCIO-IAMF#1). However, while the disruption of users' views from school district play areas closest to project construction areas could alter the use at these areas occurs only intermittently and for short periods of time. Consequently, the project would sufficiently minimize impacts on the user experience at school district play areas, and no actual or perceived barriers to use would result from project construction.

CEQA Conclusion

The impact would be less than significant under CEQA because visual changes from project construction would be temporary, users of school district play areas are inwardly focused on the current activity and tend to occupy these spaces for active use for relatively short periods. Visual changes from most project construction would take days or weeks, but major project components would take longer to build. Although the screening techniques (SOCIO-IAMF#1) would not block some large-scale activities from viewers, views of the construction activities and equipment would not impede the use of school district play areas, prohibit users from participating in activities regularly undertaken in these play areas, or permanently affect the perceived character of such resources. Therefore, CEQA does not require any mitigation.

Impact PK#12: Permanent Changes Affecting Access to School District Play Areas

Project construction would temporarily affect access to school district play areas, as described under Impact PK#10. However, the project alternatives would not result in permanent changes in access to school district play areas.

CEQA Conclusion

There would be no impact under CEQA for both project alternatives because there would be no permanent changes in access to or circulation at either of the two school district play areas shown in Table 3.14-11 that would prevent the use of the resources. Therefore, CEQA does not require any mitigation.

Impact PK#13: Permanent Visual Changes That Could Create a Perceived Barrier to Access or Continued Use of School Play Areas

Users of school district play areas participate in active recreational uses such as organized sporting events and individual athletic activities. Unlike daily school users, public users generally engage in activities in school play areas on a short-term basis. While use of school district play areas would not be changed by project-related visual changes, the user experience could be affected by the presence of highly visible components that could be perceived as a barrier to use. As described in Section 3.15, project components that could affect sensitive viewers' experience would be in areas where new visual elements are introduced, including the trackway expansion between San Mateo and Redwood City to accommodate the passing tracks under Alternative B. Expansion of the railway to four tracks would increase its scale and visual presence, contrasting with the existing visual environment. In the San Jose Diridon Station Approach Subsection, under

Alternative B (both viaduct options), the HSR tracks would be on aerial viaduct, varying in height from approximately 40 to 70 feet above grade to pass over roads and highways, that would contrast with the scale, materials, and style of the surrounding visual environment. Alternative A would consist mostly of existing at-grade or embankment structures and would not introduce new infrastructure within the existing rail right-of-way. New visible infrastructure such as the Brisbane LMF or passing tracks and viaduct (Alternative B) would be shielded from view at most school district play areas; however, it would be highly visible to nearby recreationists and could permanently alter views from existing school district play areas. The lateral track shifts and other modifications, such as four-quadrant gates, radio towers, and expansion of the Millbrae Station and at-grade San Jose Diridon Station, within or adjacent to existing railway facilities would conform to the existing character of the area.

Project features would include visually integrating structures into communities and reducing the intrusiveness of expanded railway track and systems that cannot be shielded from sensitive viewers (AVQ-IAMF#1), and would require the Authority to consult with local jurisdictions to develop contextually appropriate aesthetic solutions for non-station structures (AVQ-IAMF#2). Permanent project-related visual changes that could be perceived as a barrier to user of school play areas in the RSA are shown in Table 3.14-12.

Table 3.14-12 Permanent Visual Impacts on Users of School District Play Areas

Resource	Setting	Proposed HSR Structure and Distance from Resource	
		Alternative A[1]	Alternative B[1]
San Francisco to South San Francisco Subsection			
Lipman Middle School, Brisbane	Urban/residential	East Brisbane LMF, 2,919 feet southwest	West Brisbane LMF, 2,368 feet southwest
San Mateo to Palo Alto Subsection			
Sunnybrae Elementary School, San Mateo	Urban/residential	Existing at-grade tracks, 619 feet east	At-grade passing tracks, 619 feet east
Central Elementary School, Belmont	Urban/residential/ commercial	Existing at-grade tracks, 443 feet west	Four-track passing tracks on aerial viaduct, 452 feet west
Nesbit Elementary School, Belmont	Urban/residential	Existing at-grade tracks, 750 feet east	Four-track passing tracks on aerial viaduct, 728 feet east
San Jose Diridon Station Approach Subsection			
Gardner Elementary School, San Jose	Urban/residential	Existing at-grade tracks, 620 feet southwest	Viaduct to I-880: 70-foot aerial structure, 340 feet north Viaduct to Scott Boulevard: 60-foot aerial structure, 340 feet north

Sources: Authority 2019a, 2019b; Google, Inc. 2018
HSR = high-speed rail
I- = Interstate
LMF = light maintenance facility
[1] Distances are approximate estimates derived from measurements from resource to the closest point of permanent project footprint.

CEQA Conclusion

The impact would be less than significant under CEQA because play area users would be participating in active recreational uses and views of permanent HSR infrastructure near these school district play areas would not interfere with the use of the play areas even though the visual environment at certain play areas could be altered. The project design would visually integrate structures into communities and reduce the intrusiveness of expanded railway track and systems that cannot be shielded from sensitive viewers (AVQ-IAMF#1). The Authority would consult with local jurisdictions to develop contextually appropriate aesthetic solutions for non-station structures (AVQ-IAMF#2). Additionally, many of these schools are in urban, residential, or commercial areas; others would be protected from obtrusive views of the project by existing mature trees, intervening structures, or both. Although the Brisbane LMF and elevated passing tracks or aerial viaduct (Alternative B) would be visually intrusive in some locations, play area users would be inwardly focused so the user experience would not be altered to the extent that an actual or perceived barrier to the use of the school district play areas would result from project operations. Therefore, CEQA does not require any mitigation.

Operations Impacts

Project operations would involve scheduled blended Caltrain and HSR train travel along the existing rail corridor through the Bay Area, as well as inspection and maintenance along the track and railroad right-of-way and at stations and communication radio towers. In addition, operations, would include inspection and maintenance of trainsets at the Brisbane LMF. Operations and maintenance activities are fully described in Chapter 2.

Impact PK#14: Permanent Changes from Noise and Vibration on School District Play Area Character and Use

Noise and vibration from trains, stations, and LMF activities would add to existing sources of noise and vibration along the project alignment. Permanent noise and vibration impacts could result from train operations that include train horn noise at at-grade crossings and stations, activities near the HSR stations, and operations at the Brisbane LMF.

Although train traffic is the dominant source of vibration in the RSA, no vibration impacts would occur at the school district play areas or affect their use. In general, outdoor land uses are not considered vibration sensitive and the FRA vibration impact criteria are based on the impacts of vibration on nearby structures. If perceptible to play area users, the vibration would not provoke the same adverse human reaction as that associated with the shaking of a building (FRA 2012).

As described under Impact PK#7, the project operations would take place largely within the existing Caltrain alignment, from San Francisco to San Jose. The existing noise in the RSA is dominated by the daily Caltrain rail operations on the alignment. Additional noise sources that contribute to existing noise levels include traffic on I-280, US 101, and local roads. In the San Bruno to San Mateo Subsection, existing noise sources include aircraft activities at SFO, and vehicles on US 101, and local roads. In the San Mateo to Palo Alto Subsection, existing noise sources along the alignment include traffic on El Camino Real, SR 92, SR 84, local roads, and more distant traffic on US 101. In the Mountain View to Santa Clara Subsection, existing noise sources include traffic on major arterial roadways such as Mathilda Avenue, Mary Avenue, Shoreline Boulevard, San Antonio Road, San Tomas Expressway, and Lawrence Expressway, and local roads. In the San Jose Diridon Station Approach Subsection, the project alignment follows the Caltrain right-of-way through moderately dense urban areas with mixed land use. This heavily used existing rail corridor contributes to ambient noise in this area. Other existing noise sources include traffic on I-880, SR 87, I-280, local roads, and aircraft activities associated with Norman Y. Mineta San Jose International Airport.

While project operations would add to the existing noise and vibration levels along the alignment from the addition of up to 176 daily weekday passenger trains, the school district play areas are in urban areas along the existing rail corridor and already exposed to existing railway noise. As indicated in Section 3.4, the rail system uses noise impact criteria and methods adopted by the FRA to assess the contribution of noise from HSR to the existing environment and FTA methods

to assess the contribution of noise from conventional rail operations including Caltrain and freight, construction, and stationary facilities. The FRA noise impact criteria are based on the comparison of existing outdoor noise levels and future outdoor noise levels from the project. As shown in as shown in Table 3.4-6, outdoor areas at schools are assigned to Land Use Category 3. No operational noise impacts were identified in Section 3.4 at the school district play areas in the RSA for either project alternative. The school district play areas considered in this analysis would be used intermittently, unlike other sensitive receptors such as school buildings, which are used all day for 9 months of the year, or residences, where residents would be exposed continuously to increased noise and vibration.

CEQA Conclusion

The impact would be less than significant under CEQA under Alternatives A and B, because no operational noise or vibration impacts were identified in Section 3.4 at any of the school district play areas in the RSA. Therefore, CEQA does not require any mitigation.

3.14.7 Mitigation Measures

Alternative A would not have significant impacts under CEQA. However, there would be three significant impacts under CEQA associated with access to parks and recreational facilities under Alternative B, which would require mitigation.

PK-MM#1: Provide Access to Trails and Parks during Construction

Prior to construction-related ground-disturbing activities affecting access to parks or trails, the contractor would prepare a technical memorandum documenting how connections to the unaffected portions of parks or trails or nearby roadways would be maintained during construction. The contractor would provide alternative access to specific affected trails via a temporary detour or permanent realignment of the trail using existing roadways or other public rights-of-way during construction. Alternative access would include a detour for the portions of the Highway 87 Bikeway North temporarily closed during construction. The contractor would provide detour signage and lighting and alternative routes that meet public safety requirements. The technical memorandum would be submitted to the Authority for review and approval. Upon approval by the Authority, the contractor would implement the activities identified in the technical memorandum. The activities would be incorporated into the design specifications and would be a pre-construction requirement.

This mitigation measure would be effective in avoiding or minimizing impacts related to access to parks, recreational facilities, open-space areas, and school district play areas during project construction. Posting signs could decrease visual quality at parks and recreational facilities and there is some potential for additional wear and tear on access roads or changes in traffic patterns. However, overall, the implementation of this measure would not trigger significant secondary environmental impacts because it would take place during construction and would not disturb additional area during operations.

PK-MM#2: Provide Permanent Park Access

During the design phase, the contractor would prepare a technical memorandum documenting how pedestrian and maintenance access to Trinta Park would be maintained or established following completion of construction activities. The technical memorandum would be submitted to the Authority for review and approval. Upon approval by the Authority, the contractor would implement the activities identified in the technical memorandum. The activities would be incorporated into the design specifications and would be a pre-construction requirement.

This mitigation measure would be effective in providing and maintaining access to the park to reduce permanent changes to access, circulation or use of the park. Overall implementing this measure would not result in secondary impacts because this measure involves maintaining access to the park through the fence line along the eastern side adjacent to the existing Caltrain right-of-way and will not change the scope, scale, or location of construction activities already described as part of the project. This mitigation measure would be effective in avoiding or minimizing impacts related to access to Trinta Park during project construction and operations.

PK-MM#3: Implement Project Design Features

Upon approval by the Authority, the contractor would implement the project design features identified in the technical memorandum prepared as part of PK-IAMF#1. The project design features would be incorporated into the design specifications and would be a pre-construction requirement.

This mitigation measure would be effective in providing and maintaining alternative access to the park, recreation, open-space, and school district play area resources to reduce temporary changes to access or use of parks because it would require the contractor to implement PK-IAMF#1. Implementing PK-MM#3 would not result in secondary impacts because the project design features would be implemented in the project footprint during construction and would not disturb new areas during operations. This mitigation measure would be effective in reducing impacts related to changes in access to parks, recreational facilities, open-space areas, and school district play areas during project construction.

Related impacts for other resources have mitigation measures that would further reduce the likelihood for impacts on parks, recreation, open space, and school district play areas. For example, mitigation measures for air quality and noise and vibration and the potential impacts of implementing them are presented in Sections 3.3 and 3.4, respectively:

- AQ-MM#1: Offset Project Construction Emissions in the San Francisco Bay Area Air Basin
- NV-MM#1: Construction Noise Mitigation Measures
- NV-MM#2: Construction Vibration Mitigation Measures
- NV-MM#3: Implement Proposed California High-Speed Rail Project Noise Mitigation Guidelines
- NV-MM#6: Additional Noise Analysis during Final Design
- NV-MM#7: Project Vibration Mitigation Measures

PK-MM#4: Design Refinements to Avoid Aboveground Park Encroachment at Tamien Park

For Alternative B, the current designs would be modified to reposition the aboveground portions of the straddle bent column out of the park and reconfigure the column footing so that there would be no permanent impact on park use or operations.

During the design phase, the contractor would prepare a technical memorandum documenting how access and use of the existing and planned park would be maintained during and following completion of construction activities. The technical memorandum would be submitted to the Authority for review and approval. Upon approval by the Authority, the contractor would implement the design refinements and construction activities identified in the technical memorandum. The activities would be incorporated into the design specifications and would be a pre-construction requirement.

This measure would permanently maintain use of the soccer field at Tamien Park, both during and following construction. Implementing PK-MM#4 would not result in secondary impacts. This mitigation measure would be effective in avoiding or minimizing impacts related to use of Tamien Park during project construction and operations.

3.14.8 Impact Summary for NEPA Comparison of Alternatives

As described in Section 3.14.4.4, Method for Evaluating Impacts under NEPA, the impacts of project actions under NEPA are compared to the No Project Alternative when evaluating the impact of the project on the resource. The determination of effect was based on the context and intensity of the change that would be generated by project construction and operations. Table 3.14-13 shows a comparison of the potential impacts of the project alternatives, followed by a summary of impacts.

Table 3.14-13 Comparison of Project Alternative Impacts on Parks, Recreation, and Open Space Resources

Impacts	Alternative A	Alternative B
Parks, Recreation, and Open-Space Resources		
Impact PK#1: Temporary Changes from Noise, Vibration, and Construction Emissions on Use and User Experience of Parks, Recreational Facilities, and Open-Space Resources	The use and user experience at 95 resources would be affected by noise, vibration, and air emissions.	Same as Alternative A
Impact PK#2: Temporary Changes to Access or Use of Parks	Access to 21 resources would be limited during construction because of TCEs and placement of equipment.	Viaduct to I-880: Access to up to 24 resources would be limited during construction because of TCEs and placement of equipment. Viaduct to Scott Boulevard: Access to up to 26 resources would be limited during construction because of TCEs and placement of equipment.
Impact PK#3: Temporary Visual Changes that Could Create a Perceived Barrier to Access or Continued Use of Parks, Recreational Facilities, and Open-Space Resources	Depending on construction activity and duration as well as location, viewers at 36 resources could see staging areas, worker parking, and equipment and materials storage areas. Visual changes would last longer near major project components (stations, LMF). Construction of the project would not prevent use of the 36 resources.	Depending on construction activity and duration as well as location, viewers at 39 resources could see staging areas, worker parking, and equipment and materials storage areas. Visual changes would last longer near major project components (stations, LMF, passing tracks, aerial viaduct). Construction of the project would not prevent use of the 39 resources.
Impact PK#4: Permanent Changes Affecting Access to or Circulation in Parks, Recreational Facilities, and Open-Space Resources	There would be no permanent changes affecting access or circulation.	Access and circulation would be affected at Trinta Park.
Impact PK#5: Permanent Visual Changes That Could Create a Perceived Barrier to Access or Continued Use of Parks, Recreational Facilities, and Open-Space Resources	There would be no permanent visual changes that would create an actual or perceived barrier to access or use.	Same as Alternative A

Impacts	Alternative A	Alternative B
Impact PK#6: Permanent Acquisition of Parks, Recreation, and Open Space Resources	Construction would result in permanent acquisition of portions of three resources. All parks and trails would remain useable with implementation of project features.	Construction would result in permanent acquisition of portions of four resources (Viaduct to I-880) or five resources (Viaduct to Scott Boulevard). All parks and trails would remain useable with incorporation of project features and mitigation measures.
Impact PK#7: Permanent Changes from Noise and Vibration on Parks, Recreation, and Open-Space Resource Character and Use	Operations would result in moderate operational noise impacts at five resources because of the increase in trains operating in the corridor and the associated increase in the frequency of warning horn sounding that would be more noticeable to park users, but would not prevent use of the resources. No vibration impacts would occur.	Same as Alternative A
Impact PK#8: Physical Alteration of Existing Facilities or a Need to Provide New Parks or Other Recreational Facilities, the Construction of Which Could Cause Significant Environmental Impact	No new parks or other recreational facilities would need to be built to accommodate demand.	Same as Alternative A
School District Play Areas		
Impact PK#9: Temporary Changes from Exposure to Noise, Vibration, and Construction Emissions on Use and User Experience of School District Play Areas	The use and user experience at 14 resources would be affected by noise, vibration, and air emissions.	Same as Alternative A
Impact PK#10: Temporary Changes to Access to or Use of School District Play Areas	Access to two resources would be limited to one lane during construction because of TCEs needed for installation of four quadrant gates for up to 4 weeks.	Same as Alternative A
Impact PK#11: Temporary Visual Changes That Could Create a Perceived Barrier to Access or Continued Use of School Play Areas	Depending on construction activity and duration as well as location, viewers at four resources could see staging areas, worker parking, and equipment and materials storage areas. Visual changes would last longer near major project components (e.g., stations, LMF, passing tracks). Construction of the project would not create a perceived barrier to use.	Same as Alternative A
Impact PK#12: Permanent Changes Affecting Access to School District Play Areas	Construction would not result in permanent changes in access to or circulation at any school district play areas.	Same as Alternative A

Impacts	Alternative A	Alternative B
Impact PK#13: Permanent Visual Changes That Could Create a Perceived Barrier to Access or Continued Use of School Play Areas	There would be no permanent visual changes that would create a perceived barrier to access or use.	Same as Alternative A
Impact PK#14: Permanent Changes from Noise and Vibration on School District Play Area Character and Use	Operations would not result in a noise or vibration impacts at any school district play areas.	Same as Alternative A

LMF = light maintenance facility
TCE = temporary construction easement

3.14.8.1 Parks, Recreational Facilities, and Open-Space Resources

Project construction would result in temporary changes from noise, vibration, and air emissions on the use and user experience of parks, recreational facilities, and open-space resources. The project would generally reduce and minimize air quality impacts through using the cleanest reasonably available equipment and control measures to limit criteria pollutant emissions from construction equipment and vehicles. The project would also require the contractor to document how federal guidelines for minimizing noise and vibration would be employed near sensitive receptors (NV-IAMF#1); and control fugitive dust emissions by requiring implementation of best management practices such as covering all materials (truck beds) transported on public roads, watering exposed graded surfaces, limiting vehicle speed on the construction site, suspending operations during high wind events, stabilizing all disturbed graded areas, wetting of exterior surfaces of structures during demolition, and removing any accumulation of mud or dirt from adjacent public streets (AQ-IAMF#1). Emissions would be further reduced by limiting the type of paint to those containing VOCs of less than 10 percent (low) to be used during construction (AQ-IAMF#2).

Project construction would result in temporary changes in the access to or use of parks. Access to some parks and other recreational resources would be reduced during project construction because of the installation of TCEs and equipment. The project would locate and design system components, guideways, and station features to maintain safe and convenient access to and use of parks, recreational facilities, and open-space resources (PK-IAMF#1) as well as provide detours and signage to minimize temporary disruptions in access (TR-IAMF#2, TR-IAMF#4, TR-IAMF#5, TR-IAMF#7).

Project construction would result in temporary changes in the visual quality of parks, recreational facilities, and open-space resources. However, the visibility of construction activities and equipment would not prohibit users from participating in activities regularly undertaken at these resources, nor would these changes impede the use of the resources. The project would develop and implement a construction management plan that includes visual protection measures (e.g., screening techniques) designed to minimize impacts on residents and businesses (SOCIO-IAMF#1). Construction of the project under Alternative A would not result in permanent changes in access to or circulation in or around parks, recreational facilities, and open-space resources, as there would be no permanent change in access or circulation that would prevent the use of the resources. Under Alternative B, there would be changes in access to and circulation within Trinta Park, but not to the extent that it would prevent the use of the park.

Construction of the project would not result in permanent changes to the visual character of parks, recreational facilities, and open-space resources. The lateral track shifts and other modifications, such as four-quadrant gates, radio towers, and expansion of the Millbrae Station, would conform to the existing character of the area. The viaduct (Alternative B) would vary in height from approximately 40 to 70 feet above grade in contrast with the scale, materials, and style of the surrounding visual environment. The user experience could be affected by the presence of project infrastructure that would be visible from some resources, but would neither

prevent the use of the resources nor result in their physical deterioration. The project would apply design approaches and consult with local jurisdictions.

Construction of the project would require permanent acquisition of portions of parks, recreation, and open space resources. For five resources (i.e., Reed Street Dog Park, Guadalupe River Trail, Los Gatos Creek Trail, Fuller Park, and Highway 87 Bikeway North) portions of the properties permanently acquired would be relatively small and would not result in diminished capacity for use. For Tamien Park (Phase II Planned), acquisition of 0.22 acre for a straddle bent would impede use of the planned soccer field, potentially rendering the field unusable for one of its intended purpose or resulting in a smaller soccer field than planned and a diminished capacity to use the park.

HSR operations would result in permanent, intermittent noise impacts at five parks, recreational facilities, and open-space resources, primarily from increased frequency of horn noise events associated with the increased number of trains operating in the corridor. The project would increase noise levels over the existing levels by 2 to 5 dBA at five resources, resulting in moderate noise impacts. However, the HSR operations would not prevent use of the resources because they are already in the existing rail corridor dominated by noise and vibration from railway operations and park users would be focused on participating in active sports or activities.

3.14.8.2 School District Play Areas

Project construction would cause temporary impacts on the use of and user experience at school district play areas through exposure to noise, vibration, and construction emissions. However, these impacts would not prevent the use of school district play areas because the project would comply with FTA and FRA guidelines and would implement a fugitive dust control plan.

While temporary construction-related impacts, such as TCEs, could reduce traffic access through at-grade intersections at two school district play areas, access would be maintained by locating and designing system components, guideways, and station features to maintain safe and convenient access to and use of school district play areas (PK-IAMF#1) during project construction. Providing detours and signage would further minimize temporary disruptions in access (TR-IAMF#2, TR-IAMF#4, TR-IAMF#5, TR-IAMF#7).

Project construction could result in temporary changes in the visual quality of school district play areas. However, temporary construction impacts on aesthetic and visual quality would not impede the use of these areas, prohibit users from participating in activities regularly undertaken in these areas, or permanently affect the perceived character of such resources. Despite construction activities, the play areas would still be fully accessible with only minor delays caused by temporary road closures lasting several weeks near two resources. Visual changes resulting from introducing construction activities and equipment into the viewsheds of all user groups would be temporary, and would be minimized with the development and implementation of a construction management plan. While the disruption of users' views from school play areas closest to project construction areas would alter the user experience, it would not prevent use of these resources. Further, users of school play areas are generally focused on their own activities, not the visual setting of the school and surrounding area. Consequently, the project would sufficiently minimize impacts on the user experience at school district play areas, and no actual or perceived barriers to use would result from project construction.

While construction of the project would temporarily affect access, it would not result in permanent changes in access to or circulation at any school district play areas. While access to two resources would be affected during project construction, access to the play areas would be maintained because only one lane of traffic at a time would be closed during installation of the four-quadrant gates.

The presence of HSR track and systems would not result in permanent visual changes on the character of school district play areas, the user experience could be affected as a result of visible components that could be perceived as a barrier to use. The lateral track shifts and other modifications, such as four-quadrant gates, radio towers, and expansion of the Millbrae Station, would conform to the existing character of the area. The aerial viaduct (Alternative B) would vary

in height from approximately 40 to 70 feet above grade in contrast with the scale, materials, and style of the surrounding visual environment. While major project components would be visually intrusive in some locations, the user experience would not be altered to the extent that project construction near schools would neither prevent the use of school district play areas nor result in their physical deterioration. The project would adopt design standards and a design review process to integrate HSR infrastructure into the visual setting.

No operational noise impacts were identified at any school district play areas in the RSA for either project alternative.

3.14.9 CEQA Significance Conclusions

As described in Section 3.14.4.5, Method for Determining Significance under CEQA, the impacts of project actions under CEQA are evaluated against thresholds to determine whether a project action would result in no impact, a less-than-significant impact, or a significant impact. Table 3.14-14 shows the CEQA significance conclusions for each impact described in Section 3.14.6. A summary of the significant impacts, mitigation measures, and factors supporting the significance conclusions after mitigation follows the table.

Table 3.14-14 CEQA Significance Conclusions and Mitigation Measures for Parks, Recreation, and Open Space Resources

Impacts	Impact Description and CEQA Level of Significance before Mitigation	Mitigation Measures	CEQA Level of Significance after Mitigation
Parks, Recreation, and Open Space Resources			
Impact PK#1: Temporary Changes from Noise, Vibration, and Construction Emissions on Use and User Experience of Parks, Recreational Facilities, and Open-Space Resources	Less than significant for Alternative A and Alternative B. The project would comply with FTA and FRA guidelines for minimizing construction noise and vibration impacts when work is conducted within 1,000 feet of sensitive receptors. Use of the resources would not be prevented.	No mitigation measures are required	N/A
Impact PK#2: Temporary Changes to Access to or Use of Parks	Less than significant for Alternative A. Although construction activities would temporarily affect access to up to 21 parks and recreation facilities because of the placement of TCEs along nearby roadways or adjacent to the HSR corridor, access would be maintained to all parks.	No mitigation measures are required	N/A
	Significant for Alternative B (both viaduct options), construction activities would temporarily affect access to 26 parks and recreation facilities because of the placement of TCEs and equipment along nearby roadways and access would be maintained at these 26 parks. Access would not be guaranteed at two to four parks during construction.	PK-MM#1: Provide Access to Trails and Parks during Construction PK-MM#3: Implement Project Design Features	Less than significant

Impacts	Impact Description and CEQA Level of Significance before Mitigation	Mitigation Measures	CEQA Level of Significance after Mitigation
Impact PK#3: Temporary Visual Changes that Could Create a Perceived Barrier to Access or Continued Use of Parks, Recreational Facilities, and Open-Space Resources	Less than significant for Alternative A and Alternative B. Depending on location, viewers could see construction activities, staging areas, worker parking, and equipment and materials storage areas. Visual changes would last longest near major project components (e.g., stations, LMF, passing tracks, aerial viaduct). However, project construction would not create a perceived barrier to use of the parks.	No mitigation measures are required	N/A
Impact PK#4: Permanent Changes Affecting Access to or Circulation in Parks, Recreational Facilities, and Open-Space Resources	Less than significant for Alternative A, there would be no permanent changes in access to parks, recreation facilities or open-space resources.	No mitigation measures are required	N/A
	Significant under Alternative B, access to and circulation within Trinta Park would be affected.	PK-MM#2: Provide Permanent Park Access PK-MM#3: Implement Project Design Features	Less than significant
Impact PK#5: Permanent Visual Changes That Could Create a Perceived Barrier to Access or Continued Use of Parks, Recreational Facilities, and Open-Space Resources	Less than significant for both alternatives. There would be no permanent visual changes that would create a perceived barrier to access or use.	No mitigation measures are required	N/A
Impact PK#6: Permanent Acquisition of Parks, Recreation, and Open Space Resources	Less than significant for Alternative A. Portions of resources that would be permanently acquired would be relatively small, their use would not change, and the project would not result in diminished capacity for use.	No mitigation measures are required	N/A
	Significant under Alternative B. at Tamien Park (Phase II Planned) (6.3%) because land acquisitions would result in a diminished capacity to use the resource.	PK-MM#4: Design Refinements to Avoid Aboveground Park Encroachment at Tamien Park	Less than significant

Impacts	Impact Description and CEQA Level of Significance before Mitigation	Mitigation Measures	CEQA Level of Significance after Mitigation
Impact PK#7: Permanent Changes from Noise and Vibration on Parks, Recreational Facilities, and Open-Space Resource Character and Use	Less than significant for both alternatives. While the project would increase occurrences of intermittent noise and vibration at five parks (moderate), park users would be participating in and focused on active uses that do not require quiet or tranquil surroundings, nor would the alternatives prevent use of the parks recreational facilities. Further, implementation of NV-MM#3 and noise barriers would reduce the moderate noise impact to no impact at two parks, Holbrook Palmer Park and El Palo Alto Park.	No mitigation measures are required	N/A
Impact PK#8: Physical Alteration of Existing Facilities or a Need to Provide New Parks or Other Recreational Facilities, the Construction of Which Could Cause Significant Environmental Impact	Less than significant for Alternative A and Alternative B. Increased demand for parks or recreational facilities would not result in the need to provide new parks or other recreational facilities.	No mitigation measures are required	N/A
School District Play Areas			
Impact PK#9: Temporary Changes from Exposure to Noise, Vibration, and Construction Emissions on Use and User Experience of School District Play Areas	Less than significant for Alternative A and Alternative B. The project would comply with FTA and FRA guidelines for minimizing construction noise and vibration impacts when work is conducted within 1,000 feet of sensitive receptors. However, impacts would not prevent use of the play areas.	No mitigation measures are required	N/A
Impact PK#10: Temporary Changes to Access to or Use of School District Play Areas	Less than significant for Alternative A and Alternative B. Access to two resources would be temporarily affected during construction because of TCEs needed for the installation of four-quadrant gates for up to 4 weeks.	No mitigation measures are required	N/A

Impacts	Impact Description and CEQA Level of Significance before Mitigation	Mitigation Measures	CEQA Level of Significance after Mitigation
Impact PK#11: Temporary Visual Changes That Could Create a Perceived Barrier to Access or Continued Use of School Play Areas	Less than significant for Alternative A and Alternative B. Depending on construction activity and duration as well as location, viewers could see construction activities, staging areas, worker parking, and equipment and materials storage areas. Visual changes would last longest near major project components (e.g., stations, LMF, passing tracks, viaduct). Construction of the project would not create a perceived barrier to use.	No mitigation measures are required	N/A
Impact PK#12: Permanent Changes Affecting Access to School District Play Areas	No impact for Alternative A or Alternative B. There would be no permanent changes in access to or circulation at any of the school district play areas.	No mitigation measures are required	N/A
Impact PK#13: Permanent Visual Changes That Could Create a Perceived Barrier to Access or Continued Use of School Play Areas	Less than significant for Alternative A and Alternative B. There would be no permanent visual changes that would create a perceived barrier to access or use.	No mitigation measures are required	N/A
Impact PK#14: Permanent Changes from Noise and Vibration on School District Play Area Character and Use	Less than significant for both alternatives. No noise or vibration impacts would occur at any school district play areas.	No mitigation measures are required	N/A

FRA = Federal Railroad Administration
FTA = Federal Transit Administration
LMF = light maintenance facility
N/A = not applicable
TCE = temporary construction easement

Impact PK#2: Temporary Changes to Access to or Use of Parks

Alternative B

The impact would be significant under CEQA for Alternative B (Viaduct to I-880) at College Park, Los Gatos Creek Trail, and the Highway 87 Bikeway North because of the installation of TCEs and equipment. Alternative B (Viaduct to Scott Boulevard) would affect Reed Street Dog Park and Larry J. Marsalli Park in addition to the three parks and recreational facilities affected by Alternative B (Viaduct to I-880). Connectivity of trail segments within the Guadalupe River Trail and the Highway 87 Bikeway would not be guaranteed.

The Authority would implement mitigation measures to minimize impacts on access or use of parks. PK-MM#1 involves alternative access via a temporary detour of the trail using existing roadways or other public rights-of-way, which would include a detour for Highway 87 Bikeway North. Detour signage and lighting would be provided and alternative routes would meet public safety requirements. Additionally, PR-MM#2 involves maintaining connections to unaffected park portions or nearby roadways during construction. PK-MM#3 would make certain the project design features from the technical memorandums are implemented. These actions would be documented in technical memorandums prepared by the contractor that would be submitted to the Authority for review and approval. Upon approval by the Authority, the contractor would

implement the activities identified in the technical memorandums. The activities would be incorporated into the design specifications and would be a pre-construction requirement.

The mitigation measures would be effective because the contractor would be required to maintain access during construction, allowing the resources to remain usable during project construction. Therefore, the impact would be less than significant under CEQA.

Impact PK#4: Permanent Changes Affecting Access to or Circulation in Parks, Recreational Facilities, and Open Space Resources

Alternative B

The impact under CEQA would be significant for Alternative B at Trinta Park. The Authority would implement mitigation measures to minimize impacts on access to and circulation within the park. PK-MM#2 involves providing permanent pedestrian and maintenance access along the eastern park boundary or other public rights-of-way. PK-MM#3 would make certain the project design features from the technical memorandum are implemented. These actions would be documented in technical memoranda prepared by the contractor that would be submitted to the Authority for review and approval. Upon approval by the Authority, the contractor would implement the activities identified in the technical memoranda. The activities would be incorporated into the design specifications and would be a pre-condition requirement.

The mitigation measures would be effective because the contractor would be required to maintain permanent access to and circulation in the park during operations. Therefore, the impact would be less than significant under CEQA.

Impact PK#6: Permanent Acquisition of Parks, Recreation, and Open Space Resources

Alternative B

The impact would be significant under CEQA under Alternative B at Tamien Park (Phase II Planned) because the land that would be acquired would result in a diminished capacity to use the soccer field planned for development starting in 2020. The permanent acquisition of 0.22 acre (6.3 percent) would include a portion of the planned soccer field adjacent to the existing right-of-way. The planned regulation-size soccer field cannot be moved without compromising its utility. Permanent acquisition of area along the west edge would impede use of the planned soccer field, potentially rendering the field unusable for its intended purpose as a regulation-size field. PK-MM#4 would require design refinements during the design phase to avoid aboveground straddle bent column encroachments that would diminish use of the soccer field.

The mitigation measure would be effective because design refinements would reposition the aboveground portions of the straddle bent column out of the park and reconfigure the column footing so that there would be no permanent impact on park use or operations. Therefore, the impact would be less than significant under CEQA.