4 FINAL SECTION 4(f)/6(f) EVALUATIONS

Since publication of the Draft Environmental Impact Report (EIR)/Environmental Impact Statement (EIS), the following substantive changes have been made to this chapter:

- Section 4.1.2.2, Historic Properties, was updated to reflect the July 2021 adoption of the First Amendment to the Programmatic Agreement for the California High-Speed Rail (HSR) Project and to clarify the area of potential effects (APE) for archaeological resources and historic built resources.
- Section 4.1.3, Section 4(f) Applicability, was updated to clarify that private schools and privately owned golf courses are not subject to protection under Section 4(f) and to provide additional information about Section 4(f) exceptions related to the use of historic transportation facilities.
- Section 4.2, Section 4(f) Coordination, was revised to reflect recent Section 4(f) and 6(f) consultation efforts, including receipt of a concurrence letter from the City of San Jose Department of Parks, Recreation & Neighborhood Services. A copy of this letter is provided in Appendix 4-A, Concurrence Letter.
- The California High-Speed Rail Authority's (Authority) Section 4(f) determinations concerning the use of Section 4(f) protected properties were finalized. Throughout the chapter, the word preliminary was deleted with respect to findings. Table 4-1 was updated to include Section 4(f) and 6(f) evaluation consultations through September 28, 2021.
- A description of the Millbrae Station Reduced Site Plan (RSP Design Variant) was added to Section 4.4.2, Alternative A.
- Analysis of the Diridon Design Variant (DDV), which was previously included in Section 3.19, Design Variant to Optimize Speed, in the Draft EIR/EIS, was incorporated throughout this chapter where applicable.
- The analysis includes new information about additional existing sections of the Three Creeks Trail and four additional existing parks: Monterey Park, Reed and Grant Streets Sports Park, Del Monte Park, and Roberto Antonio Balermino Park. Figures 4-2 through 4-12 were revised to include the additional trail section and parks, as well as to update the resource map ID#s due to adding the new resources.
- Information in Tables 4-4, 4-6, and 4-7 and Figures 4-24b, 4-31, and 4-32 were revised to reflect footprint changes for the Brisbane light maintenance facility (LMF) for the San Francisco Bay Trail-1; Brisbane Lagoon Fisherman's Park; Brisbane Community Park, Skate Park and Basketball Courts; City Hall Dog Park; Old Quarry Road Park and Trail; and Lipman Middle School. The figure for Crocker Park Recreational Trail was removed as a result of the footprint change for the Brisbane LMF. Figure 4-73 was revised to reflect a change in utility relocation at Tamien Park under Alternative A. In addition, two new figures were added (Figure 4-37 and Figure 4-63) for Monterey Park and Reed and Grant Streets Sports Park.
- Section 4.5.2.1, Archaeological Resources, was revised to reflect one additional previously recorded archaeological resource in the APE and to reflect that development of the built environment treatment plan (BETP) and archaeological treatment plan (ATP) is underway.
- Section 4.6, Section 4(f) Use Assessment, was revised to clarify that installation of the four-quadrant gates at at-grade crossings would primarily occur over a period of 2 to 4 weeks of active construction, while less intensive and intermittent activities would take 4 to 6 months to complete the installation. In addition, the impact discussions for San Francisco Bay Trail-1; Brisbane Lagoon Fisherman's Park; Brisbane Community Park, Skate Park and Basketball Courts; City Hall Dog Park; and Old Quarry Road Park and Trail were revised as a result of changes to the footprint for the Brisbane LMF. Impact discussions for Reading and Holbrook-Palmer Parks, and the Southern Pacific Railroad (SPRR) Depot/Atherton Station, were updated to reflect Caltrain's closure of the Atherton Caltrain Station and removal of the

platforms in 2020, so construction activities at this station are no longer needed to remove the hold-out rule. Impact discussions were also updated for Los Gatos Creek Trail and Tamien Park to reflect the current status. Two impact discussions were added for Monterey Park and Reed and Grant Streets Sports Park. Construction of additional facilities at Tamien Park (Planned Phase II) was completed in June 2021, so applicable descriptions throughout the chapter were revised. The Section 4(f) use determinations were revised or clarified for Larry J. Marsalli Park (Alternative B [Viaduct to Scott Boulevard]), College Park (Alternative B), Los Gatos Creek Trail (Alternative A and B), and Tamien Park (Alternatives A and B). These changes were also implemented throughout the impact discussions where applicable.

- Section 4.7.1, Individual Resource Avoidance Assessments, was revised to clarify the individual avoidance assessment for the Southern Pacific Railroad Depot/Diridon Station/Hiram Cahill Depot and Sunlite Baking Company.
- Table 4-12 Measures to Minimize Harm, for PK-MM#1: Provide Access to Trails and Parks during Construction and PK-MM#2: Provide Permanent Park Access, were revised to clarify that once approved by the Authority, technical memoranda documenting how access will be maintained will be provided to the official with jurisdiction over the trail or parks.
- The alternative with the least overall harm was identified concerning the use of Section 4(f)-protected properties.

4.1 Introduction

This chapter provides the analysis to support the Authority's determinations to comply with the provisions of 49 United States Code (U.S.C.) Section 303 (hereinafter referred to as "Section 4(f)") and the Land and Water Conservation Fund (LWCF) Act of 1965 (hereinafter referred to as "Section 6(f)").

Under Section 4(f), an operating administration of the U.S. Department of Transportation (USDOT) may not approve a project that uses protected properties, unless there are no prudent or feasible alternatives to such use, and the project includes all possible planning to minimize harm to such properties. Section 4(f) properties are publicly owned lands of a park, recreation area, or wildlife and waterfowl refuge; or a historical site, publicly or privately owned, that is listed or determined eligible for listing in the National Register of Historic Places (NRHP). To demonstrate compliance with Section 4(f), this chapter:

- Describes the statutory requirements associated with Section 4(f)
- Identifies the properties protected by Section 4(f) in the resource study area (RSA)
- Determines whether the San Francisco to San Jose Project Section (Project Section, or project) would result in the use of those properties
- Identifies feasible and prudent alternatives, to the extent any exist, that would avoid or minimize use of the properties
- Identifies measures to minimize harm
- Provides a least-harm analysis for project alternatives that would result in the use of Section 4(f) properties

Section 6(f) properties are recreation resources created or improved with funds from the LWCF Act. Land purchased with these funds cannot be converted to a nonrecreational use without coordination with the U.S. Department of the Interior National Park Service (NPS) and mitigation that includes replacement of the quality and quantity of land used. This chapter describes the statutory requirements associated with Section 6(f) and the methodology for identifying Section 6(f) properties and makes an assessment of impacts on resources protected under Section 6(f).

Additional information on publicly owned parks, recreation lands, wildlife and waterfowl refuges, and historic sites and Section 6(f) properties is provided in Section 3.14, Parks, Recreation, and Open Space; and Section 3.16, Cultural Resources, of this Final EIR/EIS, the *San Francisco to*

San Jose Project Section Historic Architectural Survey Report (Authority 2019a), and the *San Jose to Merced Project Section Historic Architectural Survey Report* (Authority 2019b).[1]

4.1.1 Laws, Regulations, and Orders

4.1.1.1 U.S. Department of Transportation Act (23 U.S.C. § 138 and 49 U.S.C. § 303(c))

Projects undertaken by an operating administration of the USDOT or that may receive federal funding or discretionary approvals from such an operating administration of USDOT must demonstrate compliance with Section 4(f). Section 4(f) protects publicly owned parks, recreational areas, and wildlife and waterfowl refuges. Section 4(f) also protects historic sites of national, state, or local significance on public or private land that are listed on or eligible for listing on the NRHP. As of November 28, 2018, the Federal Railroad Administration (FRA) adopted the regulations in 23 Code of Federal Regulations (C.F.R.) Part 774 as FRA's Section 4(f) implementing regulations. In addition, the FRA considers the interpretations provided in the Federal Highway Administration's Section 4(f) Policy Paper (FHWA 2012) when implementing these regulations. Pursuant to 23 U.S.C. Section 237, under the National Environmental Policy Act (NEPA) Assignment memorandum of understanding (MOU) between the FRA and the State of California, effective July 23, 2019, the Authority is the federal lead agency and is responsible for compliance with NEPA and other federal environmental laws, including Section 4(f) (49 U.S.C. 303) and related USDOT orders and guidance. The Authority is releasing this final Section 4(f) evaluation pursuant to 23 U.S.C. Section 237, 23 C.F.R. Part 774, and the NEPA Assignment MOU.[2]

The Authority may not approve the use of a Section 4(f) property, as described in 49 U.S.C. Section 303(c), unless it determines that there is no feasible and prudent alternative to avoid the use of the property and the action includes all possible planning to minimize harm resulting from such use, or the project has a *de minimis* impact consistent with the requirements of 49 U.S.C. Section 303(d).

An alternative is not feasible if it cannot be built as a matter of sound engineering judgment. In determining whether an alternative is prudent, the Authority may consider if the alternative would result in any of the following:

- Compromise the project to a degree that is unreasonable for proceeding with the project in light of its stated Purpose and Need
- Unacceptable safety or operational problems
- After reasonable mitigation, the alternative would result in severe social, economic, or environmental impacts; severe disruption to established communities; severe disproportionate impacts on minority populations or low-income populations; or severe impacts on environmental resources protected under other federal statutes
- Additional construction, maintenance, or operational costs of an extraordinary magnitude
- Pose other unique problems or unusual factors
- Multiple factors that, while individually minor, would cumulatively cause unique problems or impacts of extraordinary magnitude

---

[1] Technical reports for the San Francisco to San Jose Project Section evaluate the portions of the HSR alignment between 4th and King Street Station in San Francisco and Scott Boulevard in Santa Clara, while technical reports for the adjacent San Jose to Merced Project Section evaluate the portions of the HSR alignment south of Scott Boulevard to the Project Section terminus at West Alma Avenue south of the San Jose Diridon Station.

[2] The Authority cannot make any determination that an action constitutes a constructive use of a publicly owned park, public recreation area, wildlife refuge, waterfowl refuge, or historic site under Section 4(f) without first consulting with the FRA and obtaining the FRA's views on such determination. The Authority will provide the FRA written notice of any proposed constructive use determination, and the FRA will have 30 calendar days to review and provide comment. If the FRA objects to the constructive use determination, the Authority will not proceed with the determination.

If the Authority determines both that there is the use of a Section 4(f) property and that there is no prudent and feasible alternative to the use of the resource, the Authority must require that the project employ all possible planning (including coordination and concurrence of the officials with jurisdiction [OWJ] over the property) to minimize harm to the property, including all reasonable measures to minimize harm or mitigate impacts (49 U.S.C. § 303(c)(2)). OWJ are defined in 23 C.F.R. § 774.17.

After making a Section 4(f) determination and identifying the reasonable measures to minimize harm, if there is more than one alternative that results in the use of a Section 4(f) property, the Authority must also compare the project alternatives to determine which project alternative has the potential to cause the least overall harm in light of the preservationist purpose of the statute. The least overall harm may be determined by balancing the following factors:

- The ability to mitigate adverse impacts on each Section 4(f) property (including any measures that result in benefits to the property)
- The relative severity of the remaining harm—after mitigation—to the protected activities, attributes, or features that qualify each Section 4(f) property for protection
- The relative significance of each Section 4(f) property
- The views of the OWJ over each Section 4(f) property
- The degree to which each alternative meets the project Purpose and Need
- After reasonable mitigation, the magnitude of any adverse impacts on resources not protected by Section 4(f)
- Substantial differences in costs among the project alternatives

4.1.1.2 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 LWCF 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 NPS. Section 6(f) directs the NPS to make certain that replacement lands of comparable value and function, location, and usefulness are provided as conditions to such conversions.

Section 6(f) Applicability

The purpose of the LWCF is to assist in preserving, developing, and providing accessibility to outdoor recreation resources and to strengthen the health and vitality of the citizens of the U.S. by providing funds, planning, acquisition, and development of facilities. Recreational facilities awarded such funds are subject to the provisions of the LWCF Act. The LWCF's most important tool for supporting long-term stewardship is its conversion protection requirement. Section 6(f)(3) strongly discourages conversions of state and local park and recreation facilities to other uses.

Section 6(f)(3) of the LWCF Act requires that no property acquired or developed with LWCF assistance will be converted to other than public outdoor recreation uses without the approval of the Secretary of the Interior (SOI) (NPS is a service of the U.S. Department of the Interior), and only if the SOI finds it to be in accord with the Statewide Comprehensive Outdoor Recreation Plan, and only upon such conditions as the SOI deems necessary to ensure the substitution of other recreation properties of at least equal fair market value and of reasonably equivalent usefulness and location (36 C.F.R. Part 59).

Prerequisites for conversion approval as provided in 36 C.F.R. § 59.3 are as follows:

- All practical alternatives to the proposed conversion have been evaluated.

- The fair market value of the property to be converted has been established, and the property proposed for substitution is of at least equal fair market value as established by an approved appraisal.
- The property proposed for replacement is of reasonably equivalent usefulness and location to the property being converted.
- The property proposed for substitution meets the eligibility requirements for LWCF-assisted acquisition.
- In the case of assisted sites that are partially rather than wholly converted, the impact of the converted portion on the remainder will be considered. If such a conversion is approved, the unconverted area must remain recreationally viable or must also be replaced.

Section 6(f) conversion requires additional coordination with the agency of jurisdiction and California State Parks, which oversees the LWCF program in California for the NPS, and the NPS regarding the project impacts and conversion area and replacement property.

4.1.2 Resource Study Area

The RSA as defined in this section identifies the Section 4(f) and Section 6(f) properties considered for evaluation. The RSA is defined differently for recreational lands and wildlife and waterfowl refuges, and for historic properties.

4.1.2.1 Public Park and Recreation Lands and Wildlife and Waterfowl Refuges

The RSA for impacts on publicly owned parks, recreation areas, and wildlife and waterfowl refuges, 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 on parks, recreation, open space, and school district play areas encompasses the project footprint for each of the project alternatives plus 1,000 feet from the edge of the track alignment as well as 0.5 mile from the edge of the project footprint for stations, the LMF, and any road construction. 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 (TCE) including temporary laydown areas, utility relocations, or any other land used temporarily to implement the HSR system.

4.1.2.2 Historic Properties

Because the HSR project is a federal undertaking, it must comply with the National Historic Preservation Act (NHPA). The *First Amendment to the Programmatic Agreement among the Federal Railroad Administration, the Advisory Council on Historic Preservation, the California State Historic Preservation Officer, and the California High-Speed Rail Authority Regarding Compliance with Section 106 of the National Historic Preservation Act, as it Pertains to the California High-Speed Train Project* (PA) amended July 21, 2021, outlines an approach for compliance with Section 106 of the NHPA for the HSR program (Appendix 3.16-D, Programmatic Agreement). The Section 106 implementing regulations at 36 C.F.R. § 800.4(a)(1) require the establishment of an APE. For Section 106 compliance, the APE is used for the technical reports that document the identification of historic properties and the assessment of effects. The APE is the geographic area or areas within which an undertaking may alter the character or use of historic properties, if any such properties exist (36 C.F.R. § 800.13(d)).

The APE for historic properties considers project effects on both archaeological and historic built resources, as described in the following subsections. The APE is the RSA for identifying historic properties that are listed or eligible for listing in the NRHP in this Section 4(f) evaluation.

Area of Potential Effects Consideration of Archaeological Resources

The method for considering archaeological resources was established in accordance with Attachment B and Stipulation VI.A of the Section 106 PA (Volume 2, Appendix 3.16-D). The APE includes the area of ground to be disturbed before, during, and after project construction as well as during operations. This area includes, but is not limited to, excavation for the vertical and

horizontal profiles of the alignment, station location footprints, LMF footprint, grading, cut-and-fill, easements, staging/laydown areas, utility relocation, temporary or permanent roadway modifications, infrastructure demolition, biological mitigation areas, and all permanent rights-of-way (i.e., the project footprint). In areas where project activities would take place below the surface, the vertical extent of the APE extends to the anticipated depth of these activities. The vertical extent of the APE was delineated in coordination with project engineers and includes maximum depth of ground disturbance for various project components.

Area of Potential Effects Consideration of Historic Built Resources

The methodology for considering historic built resources when establishing the historic built resources APE follows standard practices for the discipline, Attachment B of the Section 106 PA (Volume 2, Appendix 3.16-D), and the Authority's *Cultural Resources Technical Guidance Memorandum #1* (Authority 2013), and is detailed in the San Francisco to San Jose Project Section Historical Architectural Survey Report (Authority 2019a) and San Jose to Merced Project Section Historical Architectural Survey Report (Authority 2019b). The APE includes all legal parcels intersected by the proposed HSR right-of-way for all project alternatives, including proposed ancillary features such as stations, LMF, utilities, and construction staging areas. The types of resources encountered in the project vicinity and the proposed project construction activities guided the delineation of the APE.

The APE is larger than the project footprint as a result of consideration of historic built resources. It was defined to take into consideration visual, audible, or atmospheric intrusions onto properties; the potential for vibration-induced damage; and isolation of properties from their settings. Visual and audible changes have the potential to affect character-defining features of some historic built resources.

The APE is further defined in Attachment B of the Section 106 PA, and includes:

- Properties within the proposed right-of-way
- Properties where historic materials or associated landscape features would be demolished, moved, or altered by construction
- Properties near the undertaking where railroad materials, features, and activities have not been part of their historic setting and where the introduction of visual or audible elements may affect the use or characteristics of those properties that would be the basis for their eligibility for listing in the NRHP
- Properties near the undertaking that were either used by a railroad or served by a railroad, or where railroad materials, features, and activities have long been part of their historic setting, but only in such cases where the undertaking would result in a substantial change from the historic use, access, or noise and vibration levels that were present 50 years ago or during the period of significance of a property, if different

4.1.3 Section 4(f) Applicability

A park or recreational area qualifies for protection under Section 4(f) if it is:

- Publicly owned at the time at which the use occurs
- Open to the general public
- Being used for recreation
- Considered significant by the OWJ
- A publicly owned recreation property designated in a formal plan
- A public school with a joint use agreement for public recreation use of the school grounds/recreation facilities

- Planned publicly owned properties formally designated for park, recreation, or wildlife and waterfowl refuges

A wildlife or waterfowl refuge qualifies for protection under Section 4(f) if it is:

- Publicly owned at the time at which the use occurs
- Officially designated as a wildlife or waterfowl refuge by a federal, state, or local agency
- Primary designated purpose is consistent with its primary function and how it is intended to be managed
- Considered significant by the OWJ

Coordination with the OWJ and examination of the land management plan for the wildlife or waterfowl area is necessary to determine if Section 4(f) should apply to an area that would be used by a transportation project.

Section 4(f) does not apply in the following circumstances:

1. Publicly owned facilities whose major purpose is commercial, such as professional sport or music venues, rather than for park or recreation purposes
2. Land that is privately owned, even if it is designated in a formal plan
3. Where no joint use agreement for use of public or private school recreational facilities exists
4. Publicly owned facilities, where park, recreational or refuge activities would be incidental, secondary, occasional, or dispersed
5. Publicly owned facilities whose major purpose, as described by the agency with jurisdiction, is transportation, even when recreational activities may occur in the facility
6. Planned facilities that are not publicly owned by the entity

For publicly owned multiuse land holdings, Section 4(f) applies only to those portions of a property that are designated by statute or identified in an official management plan of the administering agency as being primarily for public park, recreation, or wildlife and waterfowl refuge purposes, and are determined to be significant for such purposes.

Historic sites listed or eligible for listing in the NRHP may be protected under Section 4(f). Although the statutory requirements of Section 106 and Section 4(f) are similar, if a proposed action results in an *adverse effect* under Section 106, there is not automatically a Section 4(f) use. Section 3.16.5, Method for Evaluating Impacts, describes the NRHP criteria for adverse effect, no adverse effect, or no effect on historic properties (36 C.F.R. § 800.5) used to evaluate effects on historic properties in the APE. To determine whether a use of an NRHP-protected property would occur, the Authority completes a separate Section 4(f) analysis and determination, in addition to those completed in compliance with the Section 106 process.

For a property to be eligible for listing in the NRHP, it must meet at least one of the four NRHP criteria in the following list. The quality of significance in American history, architecture, archaeology, engineering, and culture is present in districts, sites, buildings, structures, and objects that possess integrity of location, design, setting, materials, workmanship, feeling, and association and meet one or more of the following criteria:

- **Criterion A**—Properties that are associated with events that have made a significant contribution to the broad patterns of our history
- **Criterion B**—Properties that are associated with the lives of persons significant in our past
- **Criterion C**—Properties that embody distinctive characteristics of a type, period, or method of construction; or that represent the work of a master; or that possess high artistic values; or that represent a significant and distinguishable entity whose components may lack individual distinction

- **Criterion D**—Properties that have yielded, or may be likely to yield, information important in prehistory or history

An archaeological resource that is eligible only under NRHP Criterion D is considered valuable primarily in terms of the data that can be recovered from it. For such resources (e.g., pottery scatters, refuse deposits), it is generally assumed that there is minimal value attributed to preserving such resources in place. Conversely, resources eligible under Criteria A, B, or C are considered to have value intrinsic to the resource's location. In other words, Section 4(f) does not apply to a site if it is important chiefly because of what can be learned by data recovery and has minimal value for preservation in place.

Section 4(f) also does not apply to the use of historic transportation facilities in certain circumstances (23 C.F.R. § 774.13(a)):

- Common post-1945 concrete or steel bridges and culverts that are exempt from individual review under Section 106.
- Improvement of railroad or rail transit lines that are in use or were historically used for the transportation of goods or passengers including, but not limited to, maintenance, preservation, rehabilitation, operation, modernization, reconstruction, and replacement of railroad or rail transit line elements, except for stations; bridges or tunnels on railroad lines that have been abandoned, or transit lines not in use, over which regular service has never operated, and that have not been railbanked or otherwise reserved for the transportation of goods or passengers; and historic sites unrelated to the railroad or rail transit lines.
- Maintenance, preservation, rehabilitation, operation, modernization, reconstruction, or replacement of historic transportation facilities, if the Authority concludes, as a result of the consultation under 36 C.F.R. Section 800.5, that such work would not adversely affect the historic qualities of the facility that caused it to be on or eligible for the NRHP, or this work achieves compliance with Section 106 through a program alternative under 36 C.F.R. Section 800.14; and the OWJ for the resource has not objected to the Authority's conclusion.

4.1.4 Section 4(f) Use Definition

4.1.4.1 Permanent Use

A permanent use of a Section 4(f) resource occurs when land is permanently incorporated into a proposed transportation facility. This use might result from partial or full acquisition, permanent easements, or temporary easements that exceed limits for temporary occupancy as defined in Section 4.1.4.2, Temporary Occupancy/Temporary Use.

4.1.4.2 Temporary Occupancy/Temporary Use

A temporary construction use of a Section 4(f) property results in a temporary occupancy of a Section 4(f) resource when a Section 4(f) property is required for construction-related activities and meets specific conditions of use. If the activity does not meet the temporary occupancy conditions, even if the property is not permanently incorporated into a transportation facility, the temporary construction use would be considered a Section 4(f) use. Such use may be found to be *de minimis*. Temporary occupancy of property does not constitute a use of a Section 4(f) resource when the following conditions are satisfied:

- The occupancy must be temporary (i.e., shorter than the period of construction) and must not involve a change in ownership of the property.
- The scope of use must be minor, with only minimal changes to the protected resource.
- There must be no permanent adverse physical impacts on the protected resource or temporary or permanent interference with activities or purpose of the resource.
- The property being used must be fully restored to a condition that is at least as good as existed before project construction.

There must be documented agreement of the appropriate OWJ over the resource regarding the foregoing requirements.

4.1.4.3 Constructive Use

A constructive use of a Section 4(f) resource occurs when a transportation project does not permanently incorporate or temporarily use a protected resource, but the proximity of the project results in impacts after incorporation of mitigation (e.g., noise, vibration, visual, access, ecological) that are so severe that the protected activities, features, or attributes that qualify the resource for protection under Section 4(f) are substantially impaired. Substantial impairment occurs only if the protected activities, features, or attributes of the resource are substantially diminished. This determination is made after taking the following steps:

- Identifying the current activities, features, or attributes of the resource that may be sensitive to proximity impacts
- Analyzing the potential proximity impacts on the resource
- Consulting with the appropriate OWJ over the resource

Erecting a structure over a Section 4(f) property, and thus requiring an air lease, does not, by itself, constitute a use, unless the impact constitutes a constructive use. Further, an adverse effect under Section 106 of the NHPA on a historic property, where setting and feeling are the primary aspects of integrity that are affected, does not in and of itself result in a constructive use.

Pursuant to the NEPA Assignment MOU, effective July 23, 2019, the Authority can make the determination that there is no constructive use. The Authority cannot make any determination that an action constitutes a constructive use of a publicly owned park, public recreation area, wildlife refuge, waterfowl refuge, or historic site under Section 4(f) without first consulting with the FRA and obtaining the FRA's views on such determination. The Authority will provide the FRA written notice of any proposed constructive use determination, and the FRA will have 30 calendar days to review and provide comment. If the FRA objects to the constructive use determination, the Authority will not proceed with the determination.

4.1.4.4 De Minimis Impact

According to 49 U.S.C. Section 303(d), the following criteria must be met to determine that a use of a Section 4(f) property will have *de minimis* impact on the resource:

- For parks, recreation areas, and wildlife and waterfowl refuges, a *de minimis* impact determination may be made if the Authority concludes that the transportation project (including any mitigation) would not adversely affect the activities, features, and attributes qualifying the property for protection under Section 4(f). In addition, before making a *de minimis* impact determination:
  - The OWJ over the property must be informed regarding the intent to make a *de minimis* impact determination, after which, public notice and opportunity for public review and comment must be provided.
  - After consideration of comments, if the OWJ over the property concurs in writing that the project would not adversely affect the activities, features or attributes that make the property eligible for Section 4(f) protection, then the Authority may finalize the finding of a *de minimis* impact.
  - For a historic site, a *de minimis* impact determination may be made only if, in accordance with the Section 106 process, the Authority determines that the transportation program or project would have no effect or no adverse effect on historic properties, has received written concurrence from the OWJ over the property (e.g., the SHPO), and has taken into account the views of consulting parties to the Section 106 process as required by 36 C.F.R. Part 800.

While *de minimis* is generally applied where there is a permanent acquisition of land, if a temporary use of a Section 4(f)-protected property during construction does not meet the conditions required for the temporary occupancy exception under 23 C.F.R. § 774.13(d), it may be possible to make a *de minimis* impact determination.

Prior to making *de minimis* impact determinations, the following coordination must be undertaken:

1. For parks, recreation areas, and wildlife and waterfowl refuges:
    i. Public notice and an opportunity for public review and comment concerning the effects on the protected activities, features, or attributes of the property must be provided. This requirement can be satisfied in conjunction with other public involvement procedures, such as a comment period provided on a NEPA document.
    ii. The Administration shall inform the official(s) with jurisdiction of its intent to make a *de minimis* impact finding. Following an opportunity for public review and comment as described in 23 C.F.R. Section 774.5(b)(2)(i), the official(s) with jurisdiction over the Section 4(f) resource must concur in writing that the project would not adversely affect the activities, features, or attributes that make the property eligible for Section 4(f) protection. This concurrence may be combined with other comments on the project provided by the official(s).
2. For historic properties:
    i. The Administration must receive written concurrence from the pertinent SHPO or Tribal Historic Preservation Officer and from the Advisory Council on Historic Preservation if participating in the consultation process, in a finding of “no adverse effect” in accordance with 36 C.F.R. Part 800. The Administration shall inform these officials of its intent to make a *de minimis* impact determination based on their concurrence in the finding of “no adverse effect”.
    ii. Public notice and comment, beyond that required by 36 C.F.R. Part 800, is not required.

4.2 Section 4(f) Coordination

49 U.S.C. Section 303(b) requires cooperation and consultation with the SOI (and the Secretaries of Housing and Urban Development and Agriculture, if appropriate) and with the state in developing transportation plans and programs that include measures to maintain or enhance the natural beauty of lands crossed by transportation activities or facilities. Throughout the EIR/EIS process, the Authority consulted and continues to consult with the SHPO and local jurisdictions. Section 4(f) requires consultation with the SHPO, pursuant to 36 C.F.R. Part 800, and agencies of jurisdiction in identifying Section 4(f) properties and assessing impacts on the properties. Letters of initial consultation and requests for additional information were sent to the agencies and jurisdictions that have potential Section 4(f) resources in the RSA. For the San Francisco to South San Francisco Subsection through Mountain View to Santa Clara Subsection, potential Section 4(f) resources were identified using the criteria provided in Section 4.1.3, consistent with the property’s primary function and management. Table 4-1 shows the coordination to date with agencies for resources in the San Jose Diridon Station Approach Subsection. The concurrence letter from the City of San Jose Department of Parks, Recreation & Neighborhood Services is included in Volume 2, Appendix 4-A, Concurrence Letter.

Table 4-1 Section 4(f) and 6(f) Evaluation Consultation Summary

Date	Form	Participants	General Topic(s)
September 28, 2021	Letter	City of San Jose Department of Parks, Recreation & Neighborhood Services	Section 4(f) Concurrence Request for the San Jose to Merced Project Section and San Francisco to San Jose Project Section
May 18, 2020	Letter	Office of Historic Preservation (State Historic Preservation Officer)	Concurrence on the San Francisco to San Jose Project Section Finding of Effect
May 1, 2020	Letter	Office of Historic Preservation (State Historic Preservation Officer)	Notification of intent to use Section 106 findings for Section 4(f) *de minimis* determinations for the San Jose to Merced Project Section and San Francisco to San Jose Project Section
March 27, 2020	Letter	Office of Historic Preservation (State Historic Preservation Officer)	Concurrence on the San Jose to Merced Project Section Finding of Effect
October 9, 2019	Letter	Office of Historic Preservation (State Historic Preservation Officer)	Concurrence on the San Francisco to San Jose Project Section, eligibility determination for the Willie Mays Jr. House.
August 19, 2019	Letter	Office of Historic Preservation (State Historic Preservation Officer)	Concurrence on the San Francisco to San Jose Project Section, Historic Architectural Survey Report
January 31, 2017	Letter	City of San Jose Parks, Recreation, & Neighborhood Services	Initiating consultation, providing project background, and requesting information confirmation
		San Jose Unified School District	
		Santa Clara County Parks and Recreation Department	
		Santa Clara Unified School District	
November 16, 2010	Letter	City San Jose Department of Transportation	Establishing applicability of Section 4(f) to Class I Bikeway in San Jose
October 1, 2010	Email Response	City of San Jose Department of Parks, Recreation, & Neighborhood Services	Guadalupe River Trail, Reach 6 and planned Phase II extension
August 30, 2010	Letter	City of San Jose Department of Transportation	Initiating consultation, providing project background, and describing study area
		City of San Jose Department of Parks, Recreation, & Neighborhood Services	
		San Jose Unified School District	
		Santa Clara County Department of Parks and Recreation	
		Santa Clara County Open Space Authority	

Section 3.16 summarizes related activities, such as Section 106 consultation under the NHPA. The Authority and FRA have consulted, and the Authority continues to consult, with SHPO, STB, local agencies, interested parties, the Native American Heritage Commission, and interested tribes to identify and assess impacts on cultural resources in compliance with Section 106.

A preliminary Section 4(f) evaluation was included in the Draft EIR/EIS and was made available for a 60-day public review period. Comment letters received on the Draft EIR/EIS (including the preliminary Section 4(f) evaluation) are included in Volume 4, Responses to Comments, of this Final EIR/EIS.

The Authority has continued to consult with the agencies regarding the impacts of the project on the features and attributes of Section 4(f) properties, and provided opportunity for public comment. This is the final Section 4(f) evaluation and the Authority's final Section 4(f) determinations will be presented in the Record of Decision for this project.

4.3 Purpose and Need

The purpose of the California HSR System is to provide a reliable electric-powered HSR system that links the major metropolitan areas of the state and that delivers predictable and consistent travel times. A further objective is to provide an interface with commercial airports, mass transit, and the highway network, and to relieve capacity constraints of the existing transportation system as increases occur in California intercity travel demand, in a manner sensitive to and protective of California's unique natural resources (Authority and FRA 2005).

The project's purpose is to implement the California HSR System to provide the public with electric-powered HSR service that offers predictable and consistent travel times between San Francisco and San Jose, facilitates connectivity to San Francisco International Airport (SFO) and Norman Y. Mineta San Jose International Airport, mass transit, and the San Francisco Bay Area (Bay Area) highway network, and the statewide HSR system to:

- Achieve HSR service that meets Proposition 1A (Prop 1A) travel time requirements using blended train operations in the Caltrain corridor
- Provide blended system infrastructure that supports commercially feasible HSR, while also minimizing environmental impacts and maximizing compatibility with communities along the rail corridor
- Establish an HSR connection to the economic center of Northern California

A further purpose of the Project Section is to construct, maintain, and operate an electrified high-speed train system, which includes the construction, improvement, upgrade, operation, and maintenance of new and existing facilities and infrastructure necessary to support the system connecting the Salesforce Transit Center in San Francisco to Diridon Station in San Jose. Consistent with state law and to minimize environmental impacts by providing a reduced HSR project footprint,[3] the system would "blend" with the existing Caltrain system through the primary use of a two-track configuration, incorporating "common-level"[4] boarding platforms at stations shared with Caltrain,[5] and using existing transportation corridors and rights-of-way. The system would be designed and operated to provide consistent and predictable travel, capable of

[3] The *project footprint* includes the components and rights-of-way needed to build and operate the project. The project footprint components include the proposed project right-of-way, guideway, passing track, associated maintenance facilities and stations, safety modifications, communication facilities, utility relocations, and project roadway modifications.

[4] *Common-level boarding platforms* are level with the interior doors of trains such that a passenger transferring from one train to a second train is not required to climb up or down steps to gain access to the second train on the same platform.

[5] Where the Final EIR/EIS describes platforms at 4th and King Street, Millbrae, and San Jose Diridon Stations as "dedicated" for HSR, this refers to the current understanding of scheduling and timetabling at those stations. The schedules currently developed jointly with Caltrain enable HSR and Caltrain to use separate platforms at 4th and King Street, Millbrae, and San Jose Diridon Stations, which supports more reliable and resilient operations. However, in the event that Caltrain is unable to access its scheduled platforms, it would be able to share the high-level HSR platforms through the use of high-level doors fitted on new Caltrain trains.

achieving a nonstop service travel time of 30 minutes between San Francisco and San Jose. For more information on the project objectives and the need for the HSR system in California and in the Bay Area, refer to Chapter 1, Project Purpose, Need, and Objectives.

4.4 Alternatives

This section describes the No Project Alternative and the project alternatives, which are described in detail in Chapter 2, Alternatives. With HSR service provided at stations located at 4th and King Street in San Francisco, Millbrae, and San Jose, HSR service would share tracks along approximately 49 miles of mostly blended system infrastructure primarily within the existing Caltrain right-of-way. The Project Section would include an LMF in Brisbane. Figure 4-1 illustrates the location of the alternative alignments by geographic subsection, as follows:

- **San Francisco to South San Francisco Subsection**—Extends approximately 10 miles from the 4th and King Street Station in downtown San Francisco to Linden Avenue in South San Francisco, through San Francisco, Brisbane, and South San Francisco.
- **San Bruno to San Mateo Subsection**—Extends approximately 8 miles from Linden Avenue in South San Francisco to Ninth Avenue in San Mateo through South San Francisco, San Bruno, Millbrae, Burlingame, and San Mateo.
- **San Mateo to Palo Alto Subsection**—Extends approximately 16 miles from Ninth Avenue in San Mateo to San Antonio Road in Palo Alto through San Mateo, Belmont, San Carlos, Redwood City, Atherton, Menlo Park, and the northern portion of Palo Alto.
- **Mountain View to Santa Clara Subsection**—Extends approximately 9 miles from San Antonio Road in Palo Alto to Scott Boulevard in Santa Clara through the southern portion of Palo Alto, Mountain View, Sunnyvale, and Santa Clara.
- **San Jose Diridon Station Approach Subsection**—Extends approximately 6 miles from north of San Jose Diridon Station at Scott Boulevard in Santa Clara to West Alma Avenue in San Jose. This subsection includes the San Jose Diridon Station and overlaps with the northern portion of the San Jose to Merced Project Section.

The Authority has developed two alternatives for the project: Alternative A and Alternative B. Table 4-2 shows the distinguishing features of each alternative. Please refer to Chapter 2 of this Final EIR/EIS for detailed descriptions of all alternatives.

Sources: Authority 2019c, 2019d

NOVEMBER 2019

Figure 4-1 Proposed San Francisco to San Jose Project Section

Table 4-2 Summary of Design Features for Alternatives A and B

Design Features	Project Alternative	
	Alternative A	Alternative B[1]
Length of existing Caltrain track (miles)[2]	48.9	48.9
Length of modified track (miles)[2]	17.4	19.8/21.6
Length of track modification <1 foot (miles)[2]	5.7	4.5/5.3
Length of track modification >1 foot and <3 feet (miles)[1]	2.2	1.9/1.9
Length of track modification > 3 feet (miles)[2]	9.5	13.4/14.4
Length of OCS pole relocation (miles)[2, 3]	11.7	15.3/16.3
Includes additional passing tracks	No	Yes
Maintenance facility	East Brisbane LMF	West Brisbane LMF
Modified stations		
Modifications to HSR stations	4th and King Street, Millbrae, San Jose Diridon	4th and King Street, Millbrae, San Jose Diridon
Modifications to Caltrain stations due to the LMF	Bayshore	Bayshore
Modifications to Caltrain stations due to track shifts	San Bruno, Hayward Park	San Bruno; Santa Clara (Alt B [Scott]); College Park (Alt B [I-880])
Modifications to Caltrain stations to remove hold-out rule	Broadway, College Park	Broadway
Modifications to Caltrain stations due to the passing tracks		Hayward Park; Hillsdale; Belmont; San Carlos (relocated)
Number of modified or new structures[4]	21	37/37
New structures	2	3/2
Modified structures	7	20/19
Replaced structures	9	8/10
Affected retaining walls	3	6/6
Number of at-grade crossings with safety modifications (e.g., four-quadrant gates, median barriers)	40	38/38
Length of new perimeter fencing (miles)	8.8	13.5/14.4
Communication radio towers	21	23/23

Sources: Authority 2019c, 2019d
Alt = alternative
I- = Interstate
HSR = high-speed rail
LMF = light maintenance facility
OCS = overhead contact system
[1] Where values differ, information is presented for Alternative B (Viaduct to I-880) first, followed by Alternative B (Viaduct to Scott Boulevard).
[2] Lengths shown are guideway mileages, rather than the length of the northbound and southbound track.
[3] OCS pole relocations are assumed for areas with track shifts of more than 1 foot.
[4] Structures include bridges, grade separations such as pedestrian underpasses and overpasses, tunnels, retaining walls, and culverts.

4.4.1 No Project Alternative

Evaluation of the No Project Alternative considers the impacts of growth planned for the region as well as existing and planned improvements to the highway, aviation, conventional passenger rail, and freight rail systems in the RSA through 2040. It does not include construction of the HSR or any associated facilities, and would thus have no impact on any Section 4(f) or Section 6(f) resources. Also, the No Project Alternative would not address the Purpose and Need for the project. This alternative would be insufficient to meet existing and future travel demand; current and projected future congestion of the transportation system would continue to result in deteriorating air quality, reduced reliability, and increased travel times. Because the No Project Alternative does not meet the project Purpose and Need, it is not a prudent avoidance alternative for Section 4(f) resources.

4.4.2 Alternative A

Alternative A would modify approximately 17.4 miles of existing Caltrain track predominantly within the existing Caltrain right-of-way, construct the East Brisbane LMF, modify eight existing stations or platforms to accommodate HSR, and install safety improvements and communication radio towers. Caltrain has several locations of four-track segments where trains can pass; no additional passing tracks would be constructed under Alternative A.

The existing 4th and King Street Station would serve as the interim terminal station for the Project Section until the Downtown Rail Extension Project provides HSR access to the Salesforce Transit Center. Station improvements would include the installation of a booth in the existing station for HSR ticketing and support services, HSR fare gates, and modifications to existing tracks and platforms.

The East Brisbane LMF would be built south of the San Francisco Caltrain tunnels on approximately 100 acres east of the Caltrain corridor. The mainline track would be shifted up to 48 feet, and new yard leads connecting to the East Brisbane LMF would be built west of the existing tracks, then cross over the realigned four-track mainline on an aerial flyover at the north end to avoid blended train operations on the mainline track. Approximately 1,400-foot-long transition tracks would allow trains to reduce or increase speed when entering or exiting the East Brisbane LMF. The track modifications associated with the East Brisbane LMF would require modifying the Bayshore Caltrain Station, demolishing and relocating the Tunnel Avenue overpass, widening the bridge crossing Guadalupe Valley Creek in Brisbane, and relocating control point Geneva. The reconstructed Tunnel Avenue overpass would connect to Bayshore Boulevard north of its existing connection, at its intersection with Valley Drive.

At the Millbrae Station, new HSR station facilities including a station hall for ticketing and support services would be built on the west side of the existing Caltrain corridor. A new overhead crossing would extend from the station hall to the existing station concourse, providing access to the new HSR tracks and platforms on the west side of the existing Caltrain/Bay Area Rapid Transit (BART) platform. Multimodal station access improvements, including curbside pick-up and drop-off areas, would be provided along El Camino Real and the extension of California Drive. Replacement parking for displaced Caltrain and BART commuter parking would be located west of the station along El Camino Real. The RSP Design Variant was developed to address stakeholder concerns and minimize impacts, to the degree feasible, on existing and planned development in Millbrae. The RSP Design Variant could be incorporated into either project alternative and would involve building new HSR station facilities on the west side of the existing Millbrae BART/Caltrain Intermodal Station.

Alternative A would continue towards the San Jose Diridon Station on a blended at-grade alignment. The San Jose Diridon Station would entail a four-track at-grade alignment through the center of the existing Diridon Station, with platforms centered between Santa Clara Street and Park Avenue. The existing historic train station would remain in place. A pedestrian concourse would be built above the yard to provide access to the platforms below. The concourse would consist of a pedestrian walkway above the existing Caltrain tracks and below the HSR platforms, with two entrances on the east side and one on the west. Continuing south from the San Jose

Diridon Station, a new UPRR track would be built adjacent to the mainline tracks and the blended at-grade three-track alignment would remain in the Caltrain right-of-way through the Gardner neighborhood. The Authority has developed the DDV, which would allow higher speeds in the approaches of and through the San Jose Diridon Station than the preliminary design for Alternative A would provide. The rationale for the Alternative A preliminary design without the DDV was to bring HSR service to San Jose Diridon Station with minimum changes to the Caltrain infrastructure, where track geometry restricts speeds approaching and through the station to 15 miles per hour. The Authority has developed the DDV to provide design speeds of 40 miles per hour to, from, and through San Jose Diridon Station, comparable to the design speeds provided by Alternative B.

4.4.3 Alternative B

Alternative B would modify approximately 19.8 to 21.6 miles of existing Caltrain track, predominantly within the existing Caltrain right-of-way, construct the West Brisbane LMF and the passing track, construct aerial viaduct in San Jose, modify 11 existing stations or platforms to accommodate HSR, and install safety improvements and communication radio towers.

The 4th and King Street and Millbrae Station modifications, site layout, and reconfigured track and platforms would be the same as described under Alternative A. The West Brisbane LMF would be built south of the San Francisco Caltrain tunnels on approximately 110 acres west of the Caltrain corridor. Direct mainline track access would be along double-ended yard leads to enable north and south movements. The four existing mainline tracks would be shifted west by up to 16.5 feet, and new yard leads connecting to the West Brisbane LMF would be built east and west of the existing tracks. The yard leads east of the existing tracks would cross over the realigned four-track alignment on an aerial flyover to avoid train operations on the mainline track, converging with the yard leads on the west side of the track alignment. Approximately 1,400-foot-long transition tracks would allow trains to reduce or increase speed when entering or exiting the LMF. Track modifications associated with the West Brisbane LMF also would require demolishing and relocating the Tunnel Avenue overpass, widening the bridge crossing Guadalupe Valley Creek in Brisbane, and relocating control point Geneva at its intersection with Valley Drive.

Alternative B would include an approximately 6-mile-long four-track passing track that would extend through San Mateo, San Carlos, and into the northern portion of Redwood City. South of Ninth Avenue in San Mateo, the two-track alignment would diverge to four tracks that would continue on at-grade and retained-fill profiles. The existing tracks would be realigned within the existing right-of-way to accommodate the new four-track configuration. Although the realigned tracks would remain predominantly within the existing right-of-way, additional right-of-way acquisition would be required in some areas with particularly narrow existing rights-of-way or where curve straightening would be necessary to achieve higher speeds.

Within the San Jose to Diridon Station Approach Subsection, one of two options would be selected: a viaduct from I-880 to an aerial San Jose Diridon Station (Viaduct to I-880) or a viaduct from Scott Boulevard to the station (Viaduct to Scott Boulevard). Beginning at either I-880 or Scott Boulevard, dedicated HSR tracks would diverge from the mainline tracks and would rise on viaduct to an aerial San Jose Diridon Station, which would have the same design with both viaduct options. The San Jose Diridon Station would entail a four-track aerial alignment approximately 60 feet above the existing station. The existing historic train station would remain in place. The primary HSR station building would be built north of the existing station building, but it would continue to the south, wrapping around the existing Caltrain station building. The concourse would consist of a mezzanine level above the existing Caltrain tracks and below the HSR platforms, with three east-west connections across the tracks at the north, south, and middle. The alignment would continue on viaduct south of the San Jose Diridon Station.

4.5 Section 4(f) Applicability Analysis

Section 4.5.1, Parks and Recreational Facilities, identifies the park and recreational facilities that meet the criteria for protection as Section 4(f) resources. No wildlife or waterfowl refuge properties were identified in the RSA. Additionally, no planned park or recreation resources were

identified that are currently publicly owned, except for portions of the San Francisco Bay Trail (Bay Trail). Section 4.5.2, Cultural Resources, identifies cultural resources that meet the criteria for protection as Section 4(f) resources. The locations of all Section 4(f) resources are illustrated on figures in both sections.

4.5.1 Parks and Recreational Facilities

Data collection to identify potential Section 4(f) resources consisted of a review of the plans and policies shown in Volume 2, Appendix 2-I, Regional and Local Plans and Policies; consultation with OWJ over resources; field reviews; public input; and the use of geographic information system (GIS) data layers. The cities and counties provided the boundaries for parks and recreation resources in the RSA in GIS data format.

Section 3.14 provides a description of each park and recreation area in the RSA; however, not all of these facilities meet the requirements to qualify for protection under Section 4(f) (see Section 4.1.3).

The Authority evaluated the following resources for qualification under Section 4(f) and determined them not to be Section 4(f) resources based on the criteria listed in Section 4.1.3. Table 4-3 provides the criteria for not considering these resources to be Section 4(f) resources.

Table 4-3 Parks and Recreational Facilities not Considered Section 4(f) Resources

Name	Subsection
Criterion 1: Publicly owned facilities whose major purpose is commercial, such as professional sport or music venues, rather than for park or recreation purposes.	
Oracle Park (formerly AT&T Park)	San Francisco to South San Francisco
SAP Center (formerly HP Pavilion)	San Jose Diridon Station Approach
Criterion 2: Land that is privately owned, even if it is designated in a formal plan.	
Green Meadow Neighborhood Park	San Mateo to Palo Alto
Resident Park	Mountain View to Santa Clara
Criterion 3: Where no joint use agreement for use of public or private school recreational facilities exists.	
Belle Air Elementary School	San Bruno to San Mateo
Mills High School	
Burlingame High School	
Washington Elementary School	
Sunnybrae Elementary School	San Mateo to Palo Alto
Orion Alternative Elementary School	
Sequoia High School	
Garfield Elementary School	
Palo Alto High School	
El Carmelo Elementary School	
Palo Alto Community Child Care Park	
Bellarmine College Preparatory School and Sports Fields	San Jose Diridon Station Approach
Gardner Elementary School	

Name	Subsection
Criterion 4: Publicly owned facilities whose major purpose is community/cultural interaction, where recreation activities would be incidental, secondary, occasional, or dispersed.	
Gardner Community Center	San Jose Diridon Station Approach
Criterion 5: Publicly owned facilities whose major purpose, as described by the agency with jurisdiction, is transportation, even when recreational activities may occur in the facility.	
Embarcadero Bike Path	San Mateo to Palo Alto
Highway 87 Bikeway North	San Jose Diridon Station Approach
Criterion 6: Planned facilities that are not publicly owned by the entity.	
Community Park	San Jose Diridon Station Approach
Three Creeks Trail (Phase II Planned), San Jose	San Jose Diridon Station Approach

Table 4-4 lists the parks and recreation resources that meet the criteria for protection and were evaluated for potential Section 4(f) use. The locations of the Section 4(f) resources in the RSA are illustrated on Figure 4-2 through Figure 4-12 using the resource identification number shown in Table 4-4. The table also provides the distance of the park or recreational facility to the nearest project feature, which could be a TCE or part of the project footprint (e.g., permanent right-of-way, easement).

Table 4-4 Park and Recreation Resources Evaluated for Potential Section 4(f) Use

Map ID#	Name	Description	Distance to Nearest Project Feature
San Francisco to South San Francisco Subsection			
1	San Francisco Bay Trail (existing and planned)	**Location:** Extends from north of South Beach Park in San Francisco to Oyster Point (existing and planned), the second planned portion extends from north of Lions Park in San Bruno to Millbrae Avenue in Millbrae **Size**: 8.2 miles (3.4 miles existing, 4.8 miles planned) **Features:** Bicycle and pedestrian pathway, wildlife and nature viewing along the shoreline **Agency with Jurisdiction:** Association of Bay Area Governments, Metropolitan Transportation Commission **Section 4(f) Applicability:** Publicly owned trail	Alternatives A and B: 0 (adjacent)–2,366.5 feet
2	Gene Friend Recreation Center	**Location:** 270 6th Street, San Francisco **Size:** 1.0 acre **Features:** Full indoor gymnasium, activity room, weight room, auditorium, outdoor basketball court, playground, badminton and volleyball courts, ping pong and foosball tables **Agency with Jurisdiction:** San Francisco Recreation and Park Department **Section 4(f) Applicability:** Publicly owned recreation center	Alternatives A and B: 2,444.7 feet
3	Victoria Manalo Draves Park	**Location:** Folsom Street between Columbia Square Street and Sherman Street, San Francisco **Size:** 2.0 acres **Features:** 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 **Agency with Jurisdiction:** San Francisco Recreation and Park Department **Section 4(f) Applicability:** Publicly owned park	Alternatives A and B: 1,899.9 feet
4	Bessie Carmichael Elementary School	**Location:** 375 7th Street **Size:** 0.3 acre **Features:** Basketball court and playground **Agency with Jurisdiction:** San Francisco Unified School District **Section 4(f) Applicability:** Joint use agreement for public use of recreational facilities	Alternatives A and B: 2,064.5 feet

Map ID#	Name	Description	Distance to Nearest Project Feature
5	South Park	**Location:** South Park Street and Jack London Alley, San Francisco **Size:** 0.8 acre **Features:** Small playground, sand pit, unique climbing structures, and picnic tables **Agency with Jurisdiction:** San Francisco Recreation and Park Department **Section 4(f) Applicability:** Publicly owned park	Alternatives A and B: 961.2 feet
6	South Beach Park	**Location:** King and 2nd Street, San Francisco **Size:** 1.6 acres **Features:** Grassy areas and playground **Agency with Jurisdiction:** San Francisco Office of Community Investment and Infrastructure **Section 4(f) Applicability:** Publicly owned park	Alternatives A and B: 1,528.4 feet
7	China Basin Park	**Location:** Terry A Francois Boulevard and 3rd Street, San Francisco **Size:** 8 acres **Features:** Boardwalk, promenade, and central square **Agency with Jurisdiction:** Port of San Francisco **Section 4(f) Applicability:** Publicly owned park	Alternatives A and B: 949.6 feet
8	Mission Creek Park	**Location:** 451 Berry Street, San Francisco **Size:** 10.0 acres **Features:** Grass lawns, pavilion, tree-lined esplanade, small outdoor amphitheater, sports courts (sand volleyball, basketball, tennis), and boat launch **Agency with Jurisdiction:** San Francisco Office of Community Investment and Infrastructure **Section 4(f) Applicability:** Publicly owned park	Alternatives A and B: 30.0 feet
9	Mission Bay Dog Park	**Location:** 451 Berry Street, San Francisco **Size:** 0.3 acre **Features:** Large gravel play area for dogs, picnic tables, and water fountains **Agency with Jurisdiction:** San Francisco Office of Community Investment and Infrastructure **Section 4(f) Applicability:** Publicly owned park	Alternatives A and B: 14.7 feet

Map ID#	Name	Description	Distance to Nearest Project Feature
10	Mission Bay Kid's Park	**Location:** Long Bridge Street and China Basin Street, San Francisco **Size:** 1.13 acres **Features:** Playground **Agency with Jurisdiction:** San Francisco Office of Community Investment and Infrastructure **Section 4(f) Applicability:** Publicly owned park	Alternatives A and B: 1,189.7 feet
11	Mission Bay Commons Park	**Location:** Mission Bay Boulevard South and 3rd Street, San Francisco **Size:** 2.2 acres **Features:** Green open space, walk/run sidewalk loop, benches **Agency with Jurisdiction:** San Francisco Office of Community Investment and Infrastructure **Section 4(f) Applicability:** Publicly owned park	Alternatives A and B: 2,079.0 feet
12	Mariposa Park	**Location:** West of Hospital Street and north of Mariposa Street, San Francisco **Size:** 2.4 acres **Features:** Grass lawn and walking paths, kids play area, and benches and tables **Agency with Jurisdiction:** San Francisco Office of Community Investment and Infrastructure **Section 4(f) Applicability:** Publicly owned park	Alternatives A and B: 188.0 feet
13	Jackson Playground and Park	**Location:** 17th Street and Arkansas Street, San Francisco **Size:** 4.5 acres **Features:** Grass lawn and walking path, kids play area, picnic area, two ball fields, basketball courts, and tennis courts **Agency with Jurisdiction:** San Francisco Recreation and Park Department **Section 4(f) Applicability:** Publicly owned park, also a Section 6(f) resource	Alternatives A and B: 697.8 feet
14	Pennsylvania Garden	**Location:** 251 Pennsylvania Avenue, San Francisco **Size:** 0.2 acre **Features:** Street garden with paths, trees, garden beds, and dog area **Agency with Jurisdiction:** Caltrans **Section 4(f) Applicability:** Publicly owned park	Alternatives A and B: 0 (existing Caltrain right-of-way)

Map ID#	Name	Description	Distance to Nearest Project Feature
15	Esprit Park	**Location:** Minnesota and 20th Street, San Francisco **Size:** 1.8 acres **Features:** Grass field and picnic tables **Agency with Jurisdiction:** San Francisco Recreation and Park Department **Section 4(f) Applicability:** Publicly owned park	Alternatives A and B: 359.6 feet
16	Daniel Webster Elementary School	**Location:** 465 Missouri Street, San Francisco **Size:** 0.4 acre **Features:** Playground, soccer field, blacktop **Agency with Jurisdiction:** San Francisco Unified School District **Section 4(f) Applicability:** Joint use agreement for public use of recreational facilities	Alternatives A and B: 749.7 feet
17	Woods Yard Park	**Location:** Indiana and 22nd Street, San Francisco **Size:** 0.4 acre **Features:** Grassy areas and large sand pit **Agency with Jurisdiction:** San Francisco Municipal Transit Authority **Section 4(f) Applicability:** Publicly owned park	Alternatives A and B: 361.9 feet
18	Potrero Hill Recreation Center and Park	**Location:** 801 Arkansas Street, San Francisco **Size:** 10.0 acres **Features:** Gymnasium, stage, auditorium, playground, baseball field, basketball court, dog play area, ball fields, two lighted tennis courts, picnic tables, and BBQ grills **Agency with Jurisdiction:** San Francisco Recreation and Park Department **Section 4(f) Applicability:** Publicly owned park	Alternatives A and B: 927.4 feet
19	Progress Park	**Location:** Indiana Street, San Francisco **Size:** 0.3 acre **Features:** Meandering paths, benches, pull-up bar, bocce court, and fenced off-leash dog area **Agency with Jurisdiction:** Caltrans and San Francisco Parks Alliance **Section 4(f) Applicability:** Publicly owned park	Alternatives A and B: 314.7 feet

Map ID#	Name	Description	Distance to Nearest Project Feature
20	Tunnel Top Park	**Location:** 1100 Pennsylvania Avenue, San Francisco **Size**: 0.5 acre **Features**: Seating areas/reflection spaces, wetland garden, dog run, community garden **Agency with Jurisdiction:** Caltrans **Section 4(f) Applicability:** Publicly owned park	Alternatives A and B: 0 feet (on surface of existing Caltrain tunnel)
21	Palou and Phelps Park	**Location:** Palou Avenue and Phelps Street, San Francisco **Size:** 2.6 acres **Features:** Small playground, steep grassland hill with trails **Agency with Jurisdiction:** San Francisco Recreation and Park Department **Section 4(f) Applicability:** Publicly owned park, also a Section 6(f) resource	Alternatives A and B: 0 feet (on surface of existing Caltrain tunnel)
22	Dr. Charles R. Drew Elementary School	**Location:** 50 Pomona Street, San Francisco **Size**: 1.0 acre **Features:** Basketball courts, playgrounds, blacktop **Agency with Jurisdiction:** San Francisco Unified School District **Section 4(f) Applicability:** Joint use agreement for public use of recreational facilities	Alternatives A and B: 360.0 feet
23	Florence Fang Asian Community Garden	**Location**: Diana Street, San Francisco **Size:** 1.1 acres **Features:** Community garden **Agency with Jurisdiction:** Caltrans **Section 4(f) Applicability:** Publicly owned park	Alternatives A and B: 0 feet (on surface of existing Caltrain tunnel)
24	Bay View Park K.C. Jones Playground	**Location:** 3rd and Armstrong, San Francisco **Size:** 3.4 acres **Features:** Playground, softball field and spacious lawn, and pool **Agency with Jurisdiction:** San Francisco Recreation and Park Department **Section 4(f) Applicability:** Publicly owned park	Alternatives A and B: 679.0 feet

Map ID#	Name	Description	Distance to Nearest Project Feature
25	KIPP Bayview Academy	**Location**: 1060 Key Avenue, San Francisco **Size:** 0.2 acre **Features:** basketball courts, blacktop **Agency with Jurisdiction:** San Francisco Unified School District **Section 4(f) Applicability:** Publicly owned park	Alternatives A and B: 469.4 feet
26	Mansell Parkway	**Location**: Mansell Street, San Francisco **Size:** 1.1 acres **Features:** Pedestrian/bike path, sidewalk, bicycle facilities, trees and landscaping, and site furnishings **Agency with Jurisdiction:** San Francisco Public Works Department **Section 4(f) Applicability:** Publicly owned park	Alternatives A and B: 870.3 feet
27	Le Conte Mini Park	**Location:** 920 Le Conte Avenue, San Francisco **Size:** 0.2 acre **Features:** Open space with landscaping, currently under development **Agency with Jurisdiction:** San Francisco Recreation and Park Department **Section 4(f) Applicability:** Publicly owned park	Alternatives A and B: 717.2 feet
28	Bayview Hill Park/Open Space	**Location:** 200 Bayview Park Road, San Francisco **Size:** 42.4 acres **Features:** Coastal scrub, oak groves, rare Islais cherry trees, and paved trail **Agency with Jurisdiction:** San Francisco Recreation and Park Department **Section 4(f) Applicability:** Publicly owned park	Alternatives A and B: 918.2 feet
29	John McLaren Park	**Location**: Mansell Street and John F Shelley Drive, San Francisco **Size:** 312.5 acres **Features:** Playgrounds, picnic areas, hiking trails, game courts, golf course, McNab Lake, swimming pool, amphitheater, natural areas, gardens **Agency with Jurisdiction:** San Francisco Recreation and Park Department **Section 4(f) Applicability:** Publicly owned park, also a Section 6(f) resource	Alternatives A and B: 2,308.3 feet

Map ID#	Name	Description	Distance to Nearest Project Feature
30	Visitacion Valley Greenway	**Location**: Between Leland Street and Tioga Street, San Francisco **Size**: 2.1 acres **Features:** 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, and Hans Schiller Plaza **Agency with Jurisdiction:** San Francisco Recreation and Park Department **Section 4(f) Applicability:** Publicly owned park, also a Section 6(f) resource	Alternatives A and B: 1,393.0 feet
31	Visitacion Valley Community Center	**Location:** 50 Raymond Avenue, San Francisco **Size:** 0.3 acre **Features:** Eight outdoor basketball courts, running track, and three multipurpose courts **Agency with Jurisdiction:** San Francisco Recreation and Park Department **Section 4(f) Applicability:** Publicly owned park	Alternatives A and B: 684.8 feet
32	Visitacion Valley Playground	**Location:** 263 Leland Avenue and Coral, San Francisco **Size:** 1.9 acres **Features:** Multipurpose field, baseball diamond, climbing structure, sand pit, full basketball court, large multipurpose court, and the rec center offers a basketball program **Agency with Jurisdiction:** San Francisco Recreation and Park Department **Section 4(f) Applicability:** Publicly owned park	Alternatives A and B: 1,829.2 feet
33	Visitacion Valley Elementary School	**Location**: 55 Schwerin Street, San Francisco **Size:** 1.0 acre **Features:** Blacktop, playground **Agency with Jurisdiction:** San Francisco Unified School District **Section 4(f) Applicability:** Joint use agreement for public use of recreational facilities	Alternatives A and B: 2,042.7 feet
34	Candlestick Point State Recreation Area	**Location:** Harney Way, San Francisco **Size:** 1.9 acres **Features:** Bike/hiking trail, swimming, shoreline area **Agency with Jurisdiction:** California Department of Parks and Recreation **Section 4(f) Applicability:** Publicly owned park, also a Section 6(f) resource	Alternative A: 2,334.4 feet Alternative B: 2,309.7 feet

Map ID#	Name	Description	Distance to Nearest Project Feature
35	Little Hollywood Park	**Location:** Lathrop and Tocoloma, San Francisco **Size:** 6.0 acres **Features:** Play structure, full basketball court, and grassy area **Agency with Jurisdiction:** San Francisco Recreation and Park Department **Section 4(f) Applicability:** Publicly owned park	Alternatives A and B: 590 feet
36	Kelloch-Velasco Park	**Location**: Kelloch Street and Velasco Street, San Francisco **Size:** 1.7 acres **Features**: Sand playground, two basketball courts, grassy areas, benches and tables **Agency with Jurisdiction:** San Francisco Recreation and Park Department **Section 4(f) Applicability:** Publicly owned park, also a Section 6(f) resource	Alternatives A and B: 2,403.8 feet
37	David R. Rowe Park	**Location:** 45 Midway Drive, Daly City **Size:** 3.7 acres **Features:** Playground, tennis court, ball park, and basketball court **Agency with Jurisdiction:** City of Daly City Library and Recreation Services **Section 4(f) Applicability:** Publicly owned park	Alternative A: 2,841.5 feet Alternative B: 2,240.5 feet
38	Mission Blue Baseball Field	**Location:** 475 Mission Blue Drive, Brisbane **Size:** 1.9 acres **Features:** Baseball field with bleachers **Agency with Jurisdiction:** City of Brisbane Parks and Recreation Department **Section 4(f) Applicability:** Publicly owned park	Alternative A: 3,009.9 feet Alternative B: 2,348.5 feet
39	Crocker Park Recreational Trail	**Location:** Between West Hill Place, Bayshore Blvd, and Park Lane, Brisbane **Size:** 2.5 miles **Features:** Improved gravel/dirt surface trail for walking, jogging, or biking, benches **Agency with Jurisdiction:** City of Brisbane Parks and Recreation Department **Section 4(f) Applicability:** Publicly owned trail	Alternative A: 684.6 feet Alternative B: 480.6 feet

Map ID#	Name	Description	Distance to Nearest Project Feature
40	Brisbane City Hall Dog Park	**Location:** Behind City Hall (50 Park Place), Brisbane **Size:** 0.5 acre **Features:** Large grassy area with a decomposed granite area and seating **Agency with Jurisdiction:** City of Brisbane Parks and Recreation Department **Section 4(f) Applicability:** Publicly owned park	Alternatives A and B: 484.4 feet
41	San Bruno Mountain State and County Park	**Location:** 555 Guadalupe Canyon Parkway, Brisbane **Size:** 2,416.0 acres **Features:** Campsites, bike trails, hiking trails, horseback riding, picnic areas, nature viewing, and restrooms **Agency with Jurisdiction:** Managed by San Mateo County Parks Department, the park is jointly owned by the county and California State Parks **Section 4(f) Applicability:** Publicly owned park	Alternatives A and B: 367.0 feet
42	Brisbane Lagoon Fisherman's Park	**Location:** Sierra Point Parkway, Brisbane **Size:** 150.0 acres **Features:** Lagoon, benches, and surface parking **Agency with Jurisdiction:** City of Brisbane Parks and Recreation Department **Section 4(f) Applicability:** Publicly owned park	Alternatives A and B: 0 feet (adjacent)
43	Brisbane Community Park	**Location:** Old County Road and San Francisco Street, Brisbane **Size:** 3.0 acres **Features:** Grassy lawn areas, picnic areas, play structure, restrooms, gazebo **Agency with Jurisdiction:** City of Brisbane Parks and Recreation Department **Section 4(f) Applicability:** Publicly owned park	Alternatives A and B: 21.6 feet
44	Brisbane Skate Park and Basketball Courts	**Location:** Old County Road and Park Lane, Brisbane **Size:** 0.3 acre **Features:** Skate park and two basketball courts **Agency with Jurisdiction:** City of Brisbane Parks and Recreation Department **Section 4(f) Applicability:** Publicly owned park	Alternatives A and B: 479.6 feet

Map ID#	Name	Description	Distance to Nearest Project Feature
45	Old Quarry Road Park and Trail	**Location:** Solano Street and San Francisco Avenue, Brisbane **Size:** 9.7 acres **Features:** Picnic tables, community garden, natural surface hiking and biking trail **Agency with Jurisdiction:** City of Brisbane Parks and Recreation Department **Section 4(f) Applicability:** Publicly owned park and trail	Alternatives A and B: 937.9 feet
46	Lipman Middle School	**Location:** 1 Solano Street, Brisbane **Size:** 2.6 acres **Features:** Basketball courts, blacktop, soccer/baseball field, tennis courts **Agency with Jurisdiction:** Brisbane School District/City of Brisbane Parks and Recreation **Section 4(f) Applicability:** Joint use agreement for public use of recreational facilities	Alternatives A and B: 1, 422.4 feet
47	Brisbane Elementary School	**Location:** 500 San Bruno Avenue, Brisbane **Size:** 3.4 acres **Features:** Playgrounds, basketball courts, baseball field, soccer field **Agency with Jurisdiction:** Brisbane School District/City of Brisbane Parks and Recreation Department **Section 4(f) Applicability:** Joint use agreement for public use of recreational facilities	Alternatives A and B: 1,177.4 feet
48	Firth Park	**Location:** Glen Park Way and Sierra Point Road, Brisbane **Size**: 0.5 acre **Features:** Picnic tables, large grassy areas **Agency with Jurisdiction:** City of Brisbane Parks and Recreation Department **Section 4(f) Applicability:** Publicly owned park	Alternatives A and B: 1,564.0 feet
49	Gardiner Lot	**Location:** Gardiner Avenue and Randolph Avenue, South San Francisco **Size:** 0.5 acre **Features:** Parking lot and landscaping **Agency with Jurisdiction:** City of South San Francisco Parks and Recreation Department **Section 4(f) Applicability:** Publicly owned park	Alternatives A and B: 542.9 feet

Map ID#	Name	Description	Distance to Nearest Project Feature
50	Cypress and Pine Playlot	**Location:** Cypress Avenue at Pine Avenue, South San Francisco **Size:** 0.3 acre **Features:** Playground and basketball courts **Agency with Jurisdiction:** City of South San Francisco Parks and Recreation Department **Section 4(f) Applicability:** Publicly owned park	Alternatives A and B: 606.2 feet
San Bruno to San Mateo Subsection			
51	Bayshore Circle Park	**Location:** North Bayshore Circle, San Bruno **Size:** 1.0 acre **Features:** Basketball court and play area **Agency with Jurisdiction:** City of San Bruno Community Services Department **Section 4(f) Applicability:** Publicly owned park	Alternatives A and B: 317.6 feet
52	Herman Park	**Location:** Diamond Street and Herman Street, San Bruno **Size:** 0.2 acre **Features:** Playground and grassy area **Agency with Jurisdiction:** City of San Bruno Community Services Department **Section 4(f) Applicability:** Publicly owned park	Alternatives A and B: 47.0 feet
53	Forest Lane Park	**Location:** Forest Lane at Green Avenue, San Bruno **Size:** 4.0 acres **Features:** Grassy area, basketball court, play area, and picnic and BBQ area **Agency with Jurisdiction:** City of San Bruno Community Services Department **Section 4(f) Applicability:** Publicly owned park	Alternatives A and B: 297.2 feet
54	Posy Park	**Location:** San Mateo at Huntington Avenue, San Bruno **Size:** 0.3 acre **Features:** Open space with benches, landscaping **Agency with Jurisdiction:** City of San Bruno Community Services Department **Section 4(f) Applicability:** Publicly owned park	Alternatives A and B: 0 feet (adjacent)

Map ID#	Name	Description	Distance to Nearest Project Feature
55	Lions Park	**Location:** South end of 1st and 3rd Avenues, San Bruno **Size:** 3.0 acres **Features:** Play structure, grass area, and ball field **Agency with Jurisdiction:** City of San Bruno Community Services Department **Section 4(f) Applicability:** Publicly owned park	Alternatives A and B: 58.7 feet
56	Lomita Park	**Location:** Santa Lucia Avenue and San Anselmo Avenue, San Bruno **Size:** 0.1 acre **Features:** picnic table, play structure, grassy area **Agency with Jurisdiction:** City of San Bruno Community Services Department **Section 4(f) Applicability:** Publicly owned park	Alternatives A and B: 493.4 feet
57	Lomita Park Elementary School	**Location:** 200 Santa Helena, Millbrae **Size:** 3.7 acres **Features:** Playgrounds, play areas, blacktop, basketball court, and baseball field **Agency with Jurisdiction:** Millbrae Elementary School District **Section 4(f) Applicability:** Joint use agreement for public use of recreational facilities	Alternatives A and B: 48.2 feet
58	Marina Vista Park	**Location:** Spruce Avenue on Bay Street, Millbrae **Size:** 0.7 acre **Features:** Basketball court, playground, open field, BBQs, and picnic areas **Agency with Jurisdiction:** City of Millbrae Parks Division **Section 4(f) Applicability:** Publicly owned park	Alternatives A and B: 536.8 feet
59	Monterey Park	**Location:** Monterey Street, Millbrae **Size:** 1.5 acres **Features:** 0.2 mile paved trail and landscaping **Agency with Jurisdiction:** BART **Section 4(f) Applicability:** Publicly owned park	Alternatives A and B: within existing Caltrain right-of-way

Map ID#	Name	Description	Distance to Nearest Project Feature
60	Central Park	**Location:** 477 Lincoln Circle, Millbrae **Size:** 13.0 acres **Features**: Playground, playing field, picnic areas, BBQs, tennis court, and grassy areas **Agency with Jurisdiction:** City of Millbrae Parks Division **Section 4(f) Applicability:** Publicly owned park	Alternatives A and B: 2,338.7 feet
61	Bayside Manor Park	**Location:** Lerida Avenue, Millbrae **Size:** 35.4 acres **Features:** Basketball court, a playground, and an open-space area **Agency with Jurisdiction:** City of Millbrae Parks Division **Section 4(f) Applicability:** Publicly owned park	Alternatives A and B: 380.0 feet
62	Bayfront Park	**Location:** Old Bayshore Highway, Millbrae **Size:** 3.7 acres **Features:** Small bayside park next to the airport, with a walking trail and benches for watching the planes land **Agency with Jurisdiction:** San Mateo County Parks Department **Section 4(f) Applicability:** Publicly owned park	Alternatives A and B: 2,366.5 feet
63	Millbrae Spur Trail Phase I	**Location:** Magnolia Avenue and Millbrae Avenue, Millbrae **Size:** 7.7 acres **Features:** Paved walking trail **Agency with Jurisdiction:** City of Millbrae Parks Division **Section 4(f) Applicability:** Publicly owned trail	Alternatives A and B: 575.9 feet
64	Millbrae Skate Park	**Location:** 451 Millbrae Avenue, Millbrae **Size:** 0.3 acre **Features:** Ramps and rails **Agency with Jurisdiction:** City of Millbrae Parks Division **Section 4(f) Applicability:** Publicly owned park and Section 6(f) resource	Alternatives A and B: 1,195.3 feet

Map ID#	Name	Description	Distance to Nearest Project Feature
65	Spring Valley Elementary School	**Location**: 817 Murchison Drive, Millbrae **Size**: 5.5 acres **Features:** Baseball field, jungle gym, grassy area, blacktop play areas **Agency with Jurisdiction**: Millbrae School District **Section 4(f) Applicability:** Joint use agreement for public use of recreational facilities	Alternatives A and B: 2,012.6 feet
66	Village Park	**Location:** 1535 California Drive, Burlingame **Size:** 1.9 acres **Features:** Playground, restrooms, picnic area, basketball court, and soccer field **Agency with Jurisdiction:** Burlingame Parks and Recreation Department **Section 4(f) Applicability:** Publicly owned park	Alternatives A and B: 98.6 feet
67	Laguna Park	**Location:** 1414 Laguna Street, Burlingame **Size:** 0.5 acre **Features:** Two tennis courts and children's play area **Agency with Jurisdiction:** Burlingame Parks and Recreation Department **Section 4(f) Applicability:** Publicly owned park	Alternatives A and B: 199.5 feet
68	Bayside Fields and Dog Park (formerly Burlingame Lagoon Park)	**Location:** 1125 Airport Boulevard, Burlingame **Size:** 59.6 acres **Features:** Lighted soccer, youth baseball, and softball fields, walking, cycling, running trails, a dog exercise park, community garden, golf center, protected wetlands area **Agency with Jurisdiction:** Burlingame Parks and Recreation Department **Section 4(f) Applicability:** Publicly owned park	Alternatives A and B: 891.1 feet
69	Paloma Playground	**Location:** Paloma and Edgehill, Burlingame **Size:** 0.1 acre **Features:** Playground and picnic tables **Agency with Jurisdiction:** Burlingame Parks and Recreation Department **Section 4(f) Applicability:** Publicly owned park	Alternatives A and B: 949.5 feet

Map ID#	Name	Description	Distance to Nearest Project Feature
70	Alpine Park	**Location:** Corner of Alpine and Carolan Avenues, Burlingame **Size:** 0.1 acre **Features:** Playground and picnic tables **Agency with Jurisdiction:** Burlingame Parks and Recreation Department **Section 4(f) Applicability:** Publicly owned park	Alternatives A and B: 79.4 feet
71	Burlingame Aquatic Center	**Location**: 1 Mangini Way, Burlingame **Size:** 1.8 acres **Features**: two outdoor heated pools, locker rooms, showers, changing areas **Agency with Jurisdiction:** Burlingame Parks and Recreation Department and Burlingame Union High School District **Section 4(f) Applicability:** Joint use agreement for public use of recreational facilities	Alternatives A and B: 421.1 feet
72	Washington Park	**Location:** 850 Burlingame Avenue, Burlingame **Size:** 18.9 acres **Features:** Tennis courts, playground, restrooms, basketball court, picnic areas, and baseball facilities **Agency with Jurisdiction:** Burlingame Parks and Recreation Department **Section 4(f) Applicability:** Publicly owned park	Alternatives A and B: 58.1 feet
73	Martin Luther King Jr Park	**Location:** 725 Monte Diablo Avenue, San Mateo **Size:** 3.5 acres **Features:** Playground, basketball court, baseball field, soccer/multipurpose field, swimming, picnic areas, and restrooms **Agency with Jurisdiction:** City of San Mateo Parks and Recreation **Section 4(f) Applicability:** Publicly owned park	Alternatives A and B: 863.5 feet
74	San Mateo Central Recreation Center and Park	**Location:** 50 East 5th Avenue, San Mateo **Size:** 16.3 acres **Features:** Playground, restrooms, tennis courts, baseball field, picnic areas, and Japanese Tea Garden **Agency with Jurisdiction:** City of San Mateo Parks and Recreation **Section 4(f) Applicability:** Publicly owned park	Alternatives A and B: 702.6 feet

Map ID#	Name	Description	Distance to Nearest Project Feature
San Mateo to Palo Alto Subsection			
75	Hayward Park Square	**Location:** 1189 South B Street, San Mateo **Size:** 0.3 acre **Features:** Picnic areas **Agency with Jurisdiction:** City of San Mateo Parks and Recreation **Section 4(f) Applicability:** Publicly owned park	Alternatives A and B: 79.3 feet
76	Trinta Park	**Location:** 150 19th Avenue, San Mateo **Size:** 2.2 acres **Features:** Playground, baseball field, basketball court, and restrooms **Agency with Jurisdiction:** City of San Mateo Parks and Recreation **Section 4(f) Applicability:** Publicly owned park	Alternatives A and B: 0 feet (adjacent)
77	Bay Meadows Community Park	**Location:** 301 East 28th Avenue, San Mateo **Size:** 11.3 acres **Features:** Baseball field, large pond, large grassy areas, picnic areas, soccer fields, and walking path **Agency with Jurisdiction:** City of San Mateo Parks and Recreation **Section 4(f) Applicability:** Publicly owned park	Alternatives A and B: 747.2 feet
78	Paddock Park	**Location:** 2900 Baze Road, San Mateo **Size:** 1.1 acres **Features:** Half basketball court, grassy areas, picnic areas, and playground **Agency with Jurisdiction:** City of San Mateo Parks and Recreation **Section 4(f) Applicability:** Publicly owned park	Alternative A: 981.5 feet Alternative B: 978.3 feet
79	Davey Glen Park	**Location:** Davey Glen Road, Belmont **Size:** 1.0 acre **Features:** Playground, picnic area, synthetic turf play area, rain garden **Agency with Jurisdiction:** City of Belmont Parks and Recreation **Section 4(f) Applicability:** Publicly owned park	Alternative A: 645.2 feet Alternative B: 625.7 feet

Map ID#	Name	Description	Distance to Nearest Project Feature
80	Alexander Park	**Location:** 400 Yorkshire Way, Belmont **Size:** 1.3 acres **Features:** Basketball court, BBQ facilities, horseshoe pits, lawn area, playground, restrooms, and tennis courts **Agency with Jurisdiction:** City of Belmont Parks and Recreation **Section 4(f) Applicability:** Publicly owned park	Alternative A: 393.8 feet Alternative B: 374.2 feet
81	Central Elementary School	**Location:** 525 Middle Road, Belmont **Size:** 2.6 acres **Features:** Basketball courts, play areas, play structures, and soccer field **Agency with Jurisdiction:** Belmont-Redwood Shores Elementary School District **Section 4(f) Applicability:** Joint use agreement for public use of recreational facilities	Alternative A: 396.8 feet Alternative B: 363.4 feet
82	Nesbit Elementary School	**Location:** 500 Biddulph Way, Belmont **Size:** 4.6 acres **Features:** Baseball fields, basketball courts, and play areas **Agency with Jurisdiction:** Belmont-Redwood Shores Elementary School District **Section 4(f) Applicability:** Joint use agreement for public use of recreational facilities	Alternative A: 672.6 feet Alternative B: 668.8 feet
83	O'Donnell Park	**Location:** 400 Ralston, Belmont **Size:** 0.2 acre **Features:** Basketball, BBQ, picnic area, community garden, lawn area, playground **Agency with Jurisdiction:** City of Belmont Parks and Recreation **Section 4(f) Applicability:** Publicly owned park	Alternative A: 1,021.5 feet Alternative B: 890.8 feet
84	Twin Pines Park	**Location:** One Twin Pines Lane, Belmont **Size:** 10.0 acres **Features:** 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 **Agency with Jurisdiction:** City of Belmont Parks and Recreation **Section 4(f) Applicability:** Publicly owned park	Alternatives A and B: 859.0 feet

Map ID#	Name	Description	Distance to Nearest Project Feature
85	Laureola Park	**Location:** 503 Old County Road, San Carlos **Size:** 2.6 acres **Features:** Ball diamond, basketball courts, benches, picnic tables, BBQ, play equipment, recreation center, restrooms, and soccer field **Agency with Jurisdiction:** City of San Carlos Parks and Recreation Department **Section 4(f) Applicability:** Publicly owned park	Alternative A: 284.9 feet Alternative B: 213.5 feet
86	Frank D. Harrington Park (formerly Laurel Street Park)	**Location:** 759 Laurel Street, San Carlos **Size:** 0.3 acre **Features:** Public art sculpture, benches, picnic tables, and raised stage **Agency with Jurisdiction:** City of San Carlos Parks and Recreation Department **Section 4(f) Applicability:** Publicly owned park	Alternative A: 311.7 feet Alternative B: 309.8 feet
87	Wellesley Crescent Park	**Location:** Edgewood Road and Arlington Road, Redwood City **Size:** 0.7 acre **Features:** Grass area and picnic tables **Agency with Jurisdiction:** Redwood City Parks, Recreation and Community Services **Section 4(f) Applicability:** Publicly owned park	Alternatives A and B: 675. 8 feet
88	Mezes Park	**Location:** Warren Street and Standish Street, Redwood City **Size:** 1.7 acres **Features:** Basketball court, grass area, picnic tables, playground, restroom, and tennis court **Agency with Jurisdiction:** Redwood City Parks, Recreation and Community Services **Section 4(f) Applicability:** Publicly owned park	Alternatives A and B: 677.8 feet
89	Brewster/Arch Parklet	**Location:** Arch Street, Redwood City **Size:** 0.1 acre **Features:** Grass area and landscaping **Agency with Jurisdiction:** Redwood City Parks, Recreation and Community Services **Section 4(f) Applicability:** Publicly owned park	Alternatives A and B: 690.1 feet

Map ID#	Name	Description	Distance to Nearest Project Feature
90	Little River Park	**Location:** James Avenue and California Street, Redwood City **Size:** 0.9 acre **Features:** Grass area and benches **Agency with Jurisdiction:** Redwood City Parks, Recreation and Community Services **Section 4(f) Applicability:** Publicly owned park	0 feet (within existing station footprint)
91	Courthouse Square	**Location:** 2200 Broadway, Redwood City **Size:** 1.4 acres **Features:** Chairs, open area, used for various city events such as outdoor movies, celebrations, live music, etc. **Agency with Jurisdiction:** Redwood City Parks, Recreation and Community Services **Section 4(f) Applicability:** Publicly owned park	Alternatives A and B: 450.7 feet
92	City Center Plaza	**Location:** Between Middlefield Road and Broadway, Redwood City **Size:** 2.9 acres **Features:** Landscaping and hardscape at City Hall **Agency with Jurisdiction:** Redwood City Parks, Recreation and Community Services **Section 4(f) Applicability:** Publicly owned park	Alternatives A and B: 293.3 feet
93	John S. Roselli Memorial Park	**Location:** Pennsylvania Avenue and Maple Street, Redwood City **Size:** 0.4 acre **Features:** Trees, grass area **Agency with Jurisdiction:** Redwood City Parks, Recreation and Community Services **Section 4(f) Applicability:** Publicly owned park	Alternatives A and B:0 feet (adjacent)
94	Main Street Dog Agility Park	**Location:** 1295 Main Street, Redwood City **Size:** 0.1 acre **Features:** Lighted agility course for dogs **Agency with Jurisdiction:** Redwood City Parks, Recreation and Community Services **Section 4(f) Applicability:** Publicly owned park	Alternatives A and B: 7.3 feet

Map ID#	Name	Description	Distance to Nearest Project Feature
95	Jardin De Ninos Park	**Location:** Middlefield Road and Chestnut Street, Redwood City **Size:** 0.3 acre **Features:** Picnic tables, playground, and restrooms **Agency with Jurisdiction:** Redwood City Parks, Recreation and Community Services **Section 4(f) Applicability:** Publicly owned park	Alternatives A and B: 490.7 feet
96	Fair Oaks Community Center	**Location:** 2600 Middlefield Road, Redwood City **Size:** 0.3 acre **Features:** Grass areas and jungle gym **Agency with Jurisdiction:** Redwood City Parks, Recreation and Community Services **Section 4(f) Applicability:** Publicly owned park	Alternatives A and B: 570.8 feet
97	Friendship Park	**Location:** 290 Huntington Avenue, Redwood City **Size:** 0.3 acre **Features:** Playground, picnic tables, and community garden **Agency with Jurisdiction:** San Mateo County Parks Department **Section 4(f) Applicability:** Publicly owned park	Alternatives A and B: 466.0 feet
98	Reading Park	**Location:** 2 Dinkelspiel Station Lane, Atherton **Size:** 0.38 acre **Features:** Landscaping and grass area **Agency with Jurisdiction:** Town of Atherton **Section 4(f) Applicability:** Publicly owned park	Alternatives A and B: 119.9 feet
99	Holbrook-Palmer Park	**Location:** 150 Watkins Avenue, Town of Atherton **Size:** 22.0 acres **Features:** Ball field, tennis courts, playground, gardens and walking paths **Agency with Jurisdiction:** Town of Atherton **Section 4(f) Applicability:** Publicly owned park	Alternatives A and B: 0 feet (adjacent)

Map ID#	Name	Description	Distance to Nearest Project Feature
100	Cartan Athletic Fields	**Location:** 1000 El Camino Real, Atherton **Size:** 14.9 acres **Features:** Aquatic center, tennis courts, football/soccer/lacrosse field, running track, and baseball field **Agency with Jurisdiction:** Menlo College and Menlo School **Section 4(f) Applicability:** Joint use agreement for public use of recreational facilities	Alternatives A and B: 877.0 feet
101	Burgess Park	**Location:** 701 Laurel Street, Menlo Park **Size:** 9.3 acres **Features:** Baseball field, open play field, playground, soccer field, and tennis court **Agency with Jurisdiction:** City of Menlo Park Community Services Department **Section 4(f) Applicability:** Publicly owned park	Alternatives A and B: 54.7 feet
102	Timothy Hopkins Creekside Park	**Location:** Palo Alto Avenue from Emerson Street to Marlowe Street, Palo Alto **Size:** 12.4 acres **Features:** A narrow strip of mostly undeveloped land along the banks of San Francisquito Creek. Park is about 1.5 miles long and at its widest 200 feet. A few wide spots with a bench or picnic table **Agency with Jurisdiction:** City of Palo Alto Community Services **Section 4(f) Applicability:** Publicly owned park	Alternatives A and B: 716.6 feet
103	El Palo Alto Park	**Location:** 117 Palo Alto Avenue, Palo Alto **Size:** 0.5 acre **Features**: Interpretive plaques, Coast Redwoods, and a lighted pedestrian/bike path **Agency with Jurisdiction:** City of Palo Alto Community Services **Section 4(f) Applicability:** Publicly owned park	Alternatives A and B: 0 feet (adjacent)
104	San Francisquito Creek and Trail	**Location:** Between Creek Drive and Sand Hill Road, Palo Alto **Size:** 9.0 acres **Features:** Trails and landscaping **Agency with Jurisdiction:** City of Palo Alto Community Services **Section 4(f) Applicability:** Publicly owned park	Alternatives A and B: 352.5 feet

Map ID#	Name	Description	Distance to Nearest Project Feature
105	El Camino Park	**Location:** 155 El Camino Real, Palo Alto **Size:** 12.2 acres **Features:** Synthetic soccer field, lighted softball diamond with bleachers, restrooms and parking lot **Agency with Jurisdiction:** City of Palo Alto Community Services **Section 4(f) Applicability:** Publicly owned park	Alternatives A and B: 0 feet (adjacent)
106	Lytton Plaza	**Location:** 202 University Avenue, Palo Alto **Size:** 0.2 acre **Features:** soccer field, lighted softball field, restrooms and parking lot **Agency with Jurisdiction:** City of Palo Alto Community Services **Section 4(f) Applicability:** Publicly owned park	Alternatives A and B: 608.2 feet
107	Cogswell Plaza	**Location:** 264 Lytton Avenue, Palo Alto **Size:** 0.5 acre **Features:** Benches **Agency with Jurisdiction:** City of Palo Alto Community Services **Section 4(f) Applicability:** Publicly owned park	Alternatives A and B: 889.2 feet
108	Peers Park	**Location:** 1899 Park Boulevard, Palo Alto **Size:** 4.7 acres **Features:** Tennis courts, picnic tables, children's play areas, basketball court, field house, and restrooms **Agency with Jurisdiction:** City of Palo Alto Community Services **Section 4(f) Applicability:** Publicly owned park	Alternatives A and B: 0.2 feet (adjacent)
109	Jerry Bowden Park	**Location:** Between High Street and Alma Street, at North California Avenue, Palo Alto **Size:** 2.0 acres **Features:** Open grassy area, playground, picnic area, benches, and public art **Agency with Jurisdiction:** City of Palo Alto Community Services **Section 4(f) Applicability:** Publicly owned park	Alternatives A and B: 69.1 feet

Map ID#	Name	Description	Distance to Nearest Project Feature
110	Sarah Wallis Park	**Location:** 202 Ash Street, Palo Alto **Size:** 0.3 acre **Features:** Benches and public art **Agency with Jurisdiction:** City of Palo Alto Community Services **Section 4(f) Applicability:** Publicly owned park	Alternatives A and B: 979.8 feet
111	Boulware Park	**Location:** 410 Fernando Avenue, Palo Alto **Size:** 1.5 acres **Features:** Playgrounds, basketball court, picnic areas with barbecues, and benches **Agency with Jurisdiction:** City of Palo Alto Community Services **Section 4(f) Applicability:** Publicly owned park	Alternatives A and B: 856.3 feet
112	Robles Park	**Location:** 4116 Park Boulevard, Palo Alto **Size:** 4.7 acres **Features:** Playgrounds, picnic areas, barbecues, benches, multipurpose bowl with colorful tile art, basketball court, softball backstop, and footpath **Agency with Jurisdiction:** City of Palo Alto Community Services **Section 4(f) Applicability:** Publicly owned park	Alternatives A and B: 43.3 feet
Mountain View to Santa Clara Subsection			
113	Rengstorff Park	**Location:** 201 South Rengstorff Avenue, Mountain View **Size:** 27.0 acres **Features:** BBQ facilities, baseball field, basketball court, skate park, children's playground, passive areas, picnic area, softball field, swimming pool, tennis courts, outdoor volleyball court, and restrooms **Agency with Jurisdiction:** City of Mountain View Community Services **Section 4(f) Applicability:** Publicly owned park	Alternatives A and B: 32.6 feet
114	Rex Manor Park	**Location:** Farley Street and Central Expressway, Mountain View **Size:** 0.4 acre **Features:** Children's playground, passive areas, and a picnic area **Agency with Jurisdiction:** City of Mountain View Community Services **Section 4(f) Applicability:** Publicly owned park	Alternatives A and B: 301.0 feet

Map ID#	Name	Description	Distance to Nearest Project Feature
115	Jackson Park	**Location:** Jackson Street and Stierlin Road, Mountain View **Size:** 1.0 acre **Features:** Children's playground, passive areas, and a picnic area **Agency with Jurisdiction:** City of Mountain View Community Services **Section 4(f) Applicability:** Publicly owned park	Alternatives A and B: 692.7 feet
116	Dana Park	**Location:** 251 South Shoreline Boulevard, Mountain View **Size:** 1.3 acres **Features:** Grassy landscaped area with benches **Agency with Jurisdiction:** City of Mountain View Community Services **Section 4(f) Applicability:** Publicly owned park	Alternatives A and B: 781.3 feet
117	Centennial Plaza	**Location:** Castro Street and Evelyn Avenue, Mountain View **Size:** 0.4 acre **Features:** Children's play equipment, picnic area, landscaping, benches **Agency with Jurisdiction:** City of Mountain View Community Services **Section 4(f) Applicability:** Publicly owned park	Alternatives A and B: 0 feet (adjacent)
118	Willowgate Community Garden	**Location:** End of Andsbury Avenue, Mountain View **Size:** 0.8 acre **Features:** Community garden **Agency with Jurisdiction:** City of Mountain View Community Services **Section 4(f) Applicability:** Publicly owned park	Alternatives A and B: 334.6 feet
119	Stevens Creek Trail	**Location:** Shoreline at Mountain View to Dale/Heatherstone Mountain View, Los Altos, and Cupertino **Size:** 5.0 miles **Features:** Paved pathway along the creek through woodlands, tidal marshes and city neighborhood parks, 0.25-mile pedestrian overcrossing spanning Central Expressway, Evelyn Avenue, light rail, and Caltrain tracks **Agencies with Jurisdiction:** The cities of Mountain View, Los Altos, and Cupertino **Section 4(f) Applicability:** Publicly owned trail	Alternatives A and B: 0 feet (overcrossing)

Map ID#	Name	Description	Distance to Nearest Project Feature
120	Chetwood Park	**Location:** Chetwood Drive and Whisman Station Drive, Mountain View **Size:** 1.1 acres **Features:** Children's playground, passive areas, and a picnic area **Agency with Jurisdiction:** City of Mountain View Community Services **Section 4(f) Applicability:** Publicly owned park	Alternatives A and B: 903.3 feet
121	Magnolia Park	**Location:** 1 Magnolia Lane, Mountain View **Size:** 0.9 acre **Features:** Children's playground, passive areas, and a picnic area **Agency with Jurisdiction:** City of Mountain View Community Services **Section 4(f) Applicability:** Publicly owned park	Alternatives A and B: 588.0 feet
122	Vargas Elementary School	**Location:** 1054 Carson Drive, Sunnyvale **Size:** 4.6 acres **Features:** Grass area, basketball courts, play areas, and playground **Agency with Jurisdiction:** Sunnyvale School District **Section 4(f) Applicability:** Joint use agreement for public use of recreational facilities	Alternatives A and B: 828.6 feet
123	Cannery Park	**Location:** California Street and Pajaro Street, Sunnyvale **Size:** 0.7 acre **Features:** Picnic area with BBQ and playground **Agency with Jurisdiction:** City of Sunnyvale Department of Library and Recreational Services **Section 4(f) Applicability:** Publicly owned park	Alternatives A and B: 408.9 feet
124	Plaza Del Sol (formerly Downtown Plaza)	**Location:** 200 West Evelyn Avenue, Sunnyvale **Size:** 1.6 acres **Features:** Benches, landscaping, and hardscapes **Agency with Jurisdiction:** City of Sunnyvale Department of Library and Recreational Services **Section 4(f) Applicability:** Publicly owned park	Alternatives A and B: 95.0 feet

Map ID#	Name	Description	Distance to Nearest Project Feature
125	Victory Village Park	**Location:** 945 Kifer Road, Sunnyvale **Size:** 1.0 acre **Features:** Playground, picnic area, and BBQs **Agency with Jurisdiction:** City of Sunnyvale Department of Library and Recreational Services Section 4(f) Applicability: Publicly owned park	Alternatives A and B: 639.1 feet
126	Bracher Park	**Location:** 2560 Alhambra Drive, Santa Clara **Size:** 3.5 acres **Features:** Picnic area, BBQs, restrooms, and play area **Agency with Jurisdiction:** City of Santa Clara Parks and Recreation Section 4(f) Applicability: Publicly owned park	Alternatives A and B: 10.1 feet
127	Bracher Elementary School	**Location:** 2700 Chromite Drive, Santa Clara **Size:** 7.32 acres **Features:** Grass area, basketball courts, playgrounds, and play areas **Agency with Jurisdiction:** Santa Clara Unified School District **Section 4(f) Applicability:** Joint use agreement for public use of recreational facilities	Alternatives A and B: 453.9 feet
128	San Tomas Aquino Creek Trail	**Location:** Scott Boulevard to Monroe Street, Santa Clara **Size:** 1.2 miles **Features:** Walking, running, and bicycling trail **Agency with Jurisdiction:** City of Santa Clara Parks and Recreation Section 4(f) Applicability: Publicly owned trail	Alternatives A and B: 0 feet (undercrossing)
San Jose Diridon Station Approach Subsection			
129	Guadalupe River Park	**Location:** 438 Coleman Avenue, San Jose **Size:** 120 acres **Features:** Guadalupe Community Garden, Columbus Park, Taylor Street Rock Garden, Heritage Rose Garden, Guadalupe Gardens, Arena Green East, John P. McEnery Park, Visitor and Education Center, a playground, and open space areas associated with the Discovery Meadows/Museum. **Agency with Jurisdiction:** City of San Jose Department of Parks, Recreation & Neighborhood Services **Section 4(f) Applicability:** Publicly owned park; also a Section 6(f) resource	Alternative A: 298.3 feet Alternative B: 0 feet (adjacent)

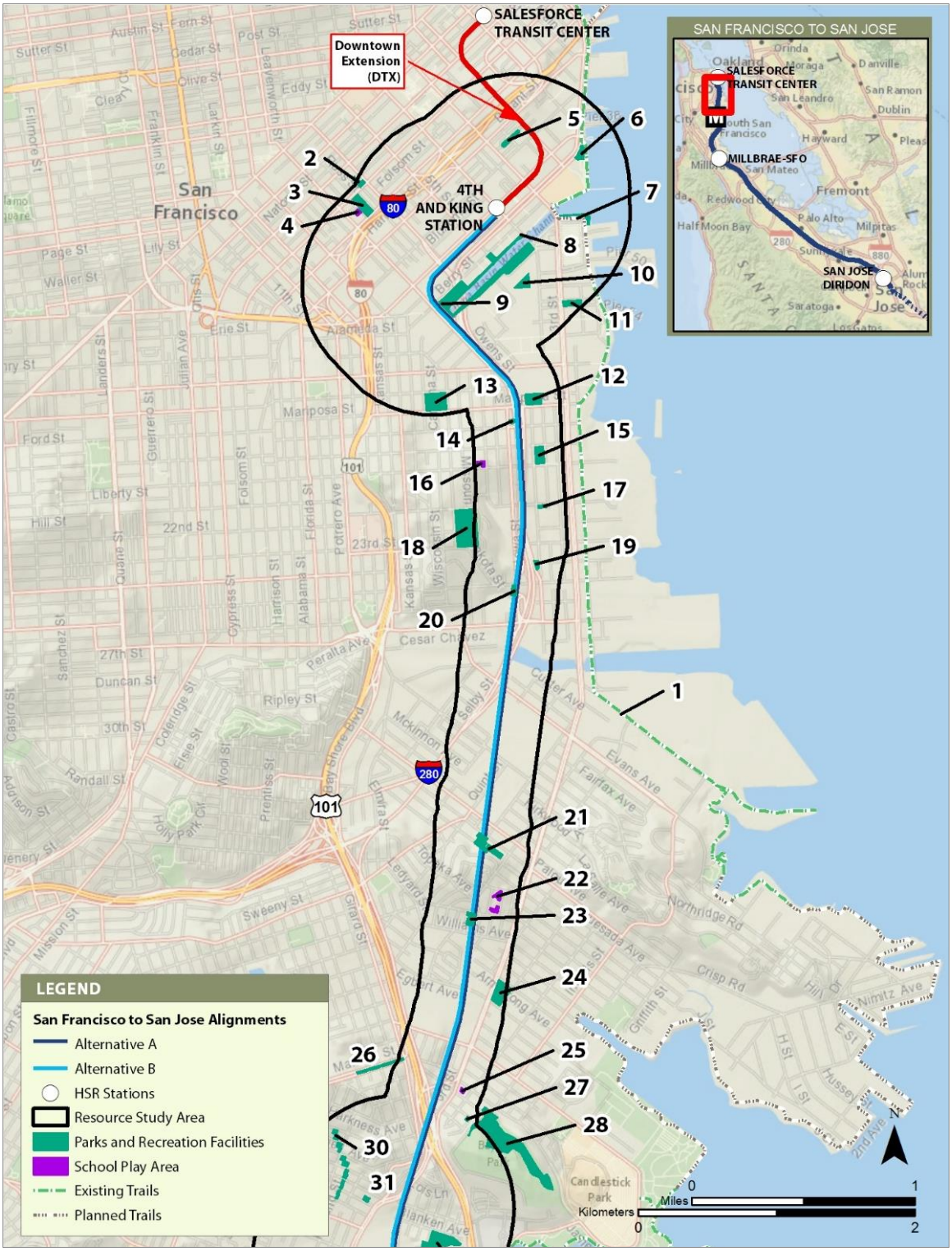
Map ID#	Name	Description	Distance to Nearest Project Feature
130	Reed Street Dog Park	**Location:** 888 Reed Street, Santa Clara **Size:** 1.5 acres **Features:** Picnic area, BBQs, play area **Agency with Jurisdiction:** City of Santa Clara Parks and Recreation **Section 4(f) Applicability:** Publicly owned park	Alternatives A and B (Viaduct to I-880): 13.9 feet Alternative B (Viaduct to Scott Boulevard): 0 feet (within footprint)
131	Reed and Grant Streets Sports Park	**Location:** 720 Reed Street, Santa Clara **Size:** 9 acres **Features:** Five lighted soccer fields of various sizes, a 3,500-square-foot multipurpose recreation building, a landscaped promenade and entry plaza, a children's playground with seating and picnic area, gathering and viewing areas, and a maintenance yard and building. **Agency with Jurisdiction:** City of Santa Clara Parks and Recreation **Section 4(f) Applicability:** Publicly owned park	Alternatives A and B (Viaduct to I-880): 0 feet (adjacent) Alternative B (Viaduct to Scott Boulevard): 0 feet (within footprint)
132	Larry J. Marsalli Park	**Location:** 1425 Lafayette Street, Santa Clara **Size:** 4.5 acres **Features:** Open space, restrooms, lighted softball field, children's playground **Agency with Jurisdiction:** City of Santa Clara Parks and Recreation **Section 4(f) Applicability:** Publicly owned park	Alternatives A and B (Viaduct to I-880): 292.1 feet Alternative B (Viaduct to Scott Boulevard): 0 feet (within TCE)
133	Newhall Park	**Location:** 972 Newhall Street, San Jose **Size:** 1.4 acres **Features:** Lawn areas, gazebo, picnic area **Agency with Jurisdiction:** City of San Jose Department of Parks, Recreation & Neighborhood Services **Section 4(f) Applicability:** Publicly owned park	Alternatives A and B (Viaduct to I-880): 191.3 feet Alternative B (Viaduct to Scott Boulevard): 188.7 feet
134	College Park	**Location:** Elm and Hedding Streets, San Jose **Size:** 0.1 acre **Features:** Open space, bench **Agency with Jurisdiction:** City of San Jose Department of Parks, Recreation & Neighborhood Services **Section 4(f) Applicability:** Publicly owned park	Alternative A: 527.8 feet Alternative B: 0 feet (within TCE)

Map ID#	Name	Description	Distance to Nearest Project Feature
135	Theodore Lenzen Park	**Location:** Stockton Avenue and Lenzen Street, San Jose **Size:** 0.5 acre **Features:** One playground **Agency with Jurisdiction:** City of San Jose Department of Parks, Recreation & Neighborhood Services **Section 4(f) Applicability:** Publicly owned park	Alternative A: 292.3 feet Alternative B: 36.4 feet
136	Cahill Park	**Location:** San Fernando Street, San Jose **Size:** 3.7 acres **Features:** 1/2 size basketball court, playground **Agency with Jurisdiction:** City of San Jose Department of Parks, Recreation & Neighborhood Services **Section 4(f) Applicability:** Publicly owned park	Alternative A: 116.4 feet Alternative B: 114.7 feet
137	Los Gatos Creek Trail	**Location:** East Main Street at College Avenue, San Jose **Size:** 9.7 miles **Features:** Class I bikeway trail meeting recreational and active transportation functions (for pedestrians, bicyclists, and equestrian and other users) **Agency with Jurisdiction:** City of San Jose Department of Parks, Recreation & Neighborhood Services **Section 4(f) Applicability:** Publicly owned trailed	Alternative A: 0 feet (existing Caltrain bridge above trail) Alternative B: 0 feet (new viaduct over trail)
138	Del Monte Park	**Location:** 806 West Home Street, San Jose **Size:** 2.2 acres **Features:** Dog park, restrooms, open space, picnic areas, play lot, and table tennis **Agency with Jurisdiction:** City of San Jose Department of Parks, Recreation, & Neighborhood Services **Section 4(f) Applicability:** Publicly owned park	Alternative A: 307.1 feet Alternative B: 956.0 feet
139	Discovery Dog Park	**Location:** Park Avenue and Delmas Avenue, San Jose **Size:** 0.4 acre **Features:** Decomposed granite walking pat, bark-mulch dog area, tables and benches **Agency with Jurisdiction:** City of San Jose Department of Parks, Recreation & Neighborhood Services **Section 4(f) Applicability:** Publicly owned park	Alternative A: 970.0 feet Alternative B: 764.5 feet

Map ID#	Name	Description	Distance to Nearest Project Feature
140	Guadalupe River Trail (Reach 6)	**Location:** Woz Way to Virginia Street, San Jose **Size:** 9 miles (full trail) **Features:** Class I bikeway trail meeting recreational and active transportation functions (for pedestrians, bicyclists, and equestrian and other users). **Agency with Jurisdiction:** City of San Jose Department of Parks, Recreation & Neighborhood Services **Section 4(f) Applicability:** Publicly owned trail	Alternative A: 0 feet (adjacent) Alternative B: 0 feet (within footprint)
141	Biebrach Park	**Location:** Delmas Street and Virginia Street, San Jose **Size:** 5 acres **Features:** Two basketball courts, children's play areas, barbeque facilities, handball court, swimming pool **Agency with Jurisdiction:** City of San Jose Department of Parks, Recreation & Neighborhood Services **Section 4(f) Applicability:** Publicly owned park	Alternative A: 10.1 feet Alternative B: 395.3 feet
142	Fuller Park	**Location:** Fuller Avenue and Park Avenue, San Jose **Size:** 1.14 acres **Features:** Bocce ball court, two checker/chess tables, horseshoe pit **Agency with Jurisdiction:** City of San Jose Department of Parks, Recreation & Neighborhood Services **Section 4(f) Applicability:** Publicly owned park	Alternative A: 0 feet (within footprint) Alternative B: 443.4 feet
143	Palm Haven Plaza	**Location:** Palm Haven Avenue and Clintonia Street, San Jose **Size:** 0.7 acre **Features:** Grassy open space, bench **Agency with Jurisdiction:** City of San Jose Department of Parks, Recreation & Neighborhood Services **Section 4(f) Applicability:** Publicly owned park	Alternative A: 854.5 feet Alternative B: 1,979.1 feet
144	Hummingbird Park	**Location:** Bird Avenue and Fisk Avenue, San Jose **Size:** 0.38 acre **Features:** Children's play area, picnic tables, and benches **Agency with Jurisdiction:** City of San Jose Department of Parks, Recreation & Neighborhood Services **Section 4(f) Applicability:** Publicly owned park	Alternative A: 893.4 feet Alternative B: 2,355.1 feet

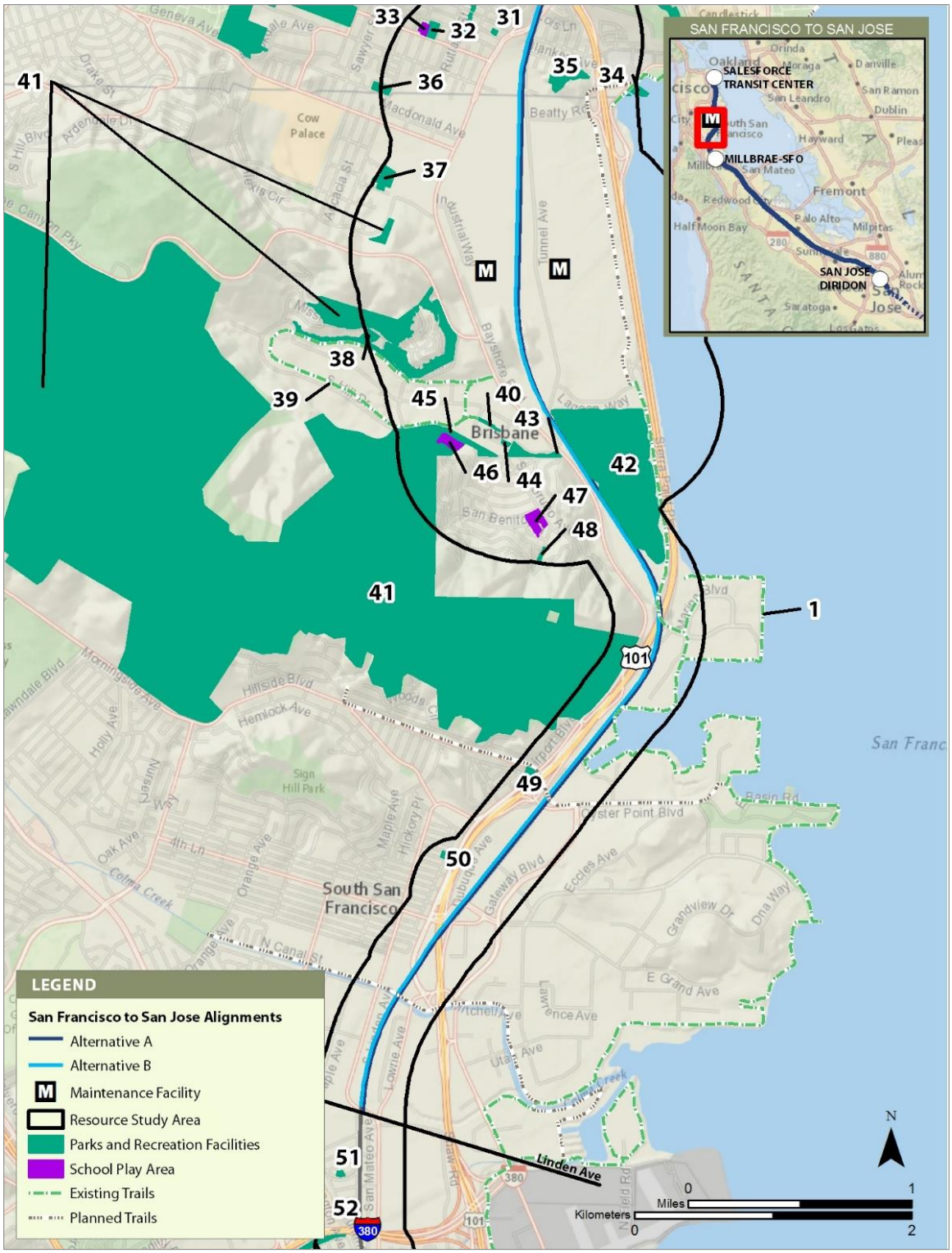
Map ID#	Name	Description	Distance to Nearest Project Feature
145	Jesse Frey Community Garden	**Location:** West Alma Avenue and Belmont Way, San Jose **Size:** 0.5 acre **Features:** Organic community garden **Agency with Jurisdiction:** City of San Jose Department of Parks, Recreation & Neighborhood Services **Section 4(f) Applicability:** Publicly owned park	Alternative A: 406.3 feet Alternative B: 284.0 feet
146	Tamien Park	**Location**: 1197 Lick Avenue, San Jose **Size**: 3.5 acres **Features**: Picnic tables, shade structures, ping pong tables, restrooms, children's playground with play equipment, multi-use turf area, lighted basketball court, multi-use soccer field, stage, and outdoor gym. **Agency with Jurisdiction**: City of San Jose Department of Parks, Recreation & Neighborhood Services **Section 4(f) Applicability:** Publicly owned park	Alternative A: 0 feet (adjacent to TCE) Alternative B: 0 feet (within footprint)
147	Roberto Antonio Balermino Park	**Location**: 1555 Almaden Road, San Jose **Size**: 2.1 acres **Features**: Basketball court, two large turf areas, playground equipment for tots and youth, picnic tables, shade structures, and a drinking fountain. **Agency with Jurisdiction**: City of San Jose Department of Parks, Recreation & Neighborhood Services **Section 4(f) Applicability:** Publicly owned park	Alternatives A and B: 713.5
148	Three Creeks Trail	**Location**: Between Lonus Street and Falcon Place cul-de-sac, San Jose **Size**: 0.9 mile **Features**: Class I bikeway trail meeting recreational and active transportation functions (for pedestrians, bicyclists, equestrian and other users). Phase I is open to the public between Lonus Street and the Falcon Place cul-de-sac, and connects to the Los Gatos Creek Trail. **Agency with Jurisdiction**: City of San Jose Department of Parks, Recreation & Neighborhood Services **Section 4(f) Applicability:** Publicly owned trail	Alternatives A and B: 760.3 feet

Sources: Authority 2019c, 2019d; Belmont–Redwood Shores Elementary School District n.d.; Brisbane School District n.d.; Burlingame Aquatic Club 2018; DPR 2018a, 2018b; CPAD 2017; City of Belmont 2012, 2017, 2018a–2018d; City of Brisbane 2001, 2010a, 2010b; City of Burlingame 2018; City of Daly City n.d.; City of Menlo Park 2018; City of Millbrae 2018a–2018e; City of Mountain View 2018a–2018c; City of Palo Alto 2007a–2007g, 2010, 2015, 2016; 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 San Jose 2015, n.d.; City of Santa Clara 2018a, 2018b; City of South San Francisco n.d.; City of Sunnyvale 2016, 2018; Florence Fang Asian Garden n.d.; Google, Inc. 2018; Millbrae School District n.d.; Mission Bay Parks 2018a–2018e; Palo Alto Unified School District n.d.; Redwood City School District 2018; San Bruno Park School District 2016; 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 2006, n.d.(a)–n.d.(j); San Francisco Shared Schoolyard Project n.d.; San Francisco Unified School District 2018; County of San Mateo n.d.(a), n.d.(b); County of Santa Clara 2016; Santa Clara Unified School District n.d.; Town of Atherton n.d.(a), n.d.(b)
BBQ = barbecue
Caltrans = California Department of Transportation
TCE = temporary construction easement



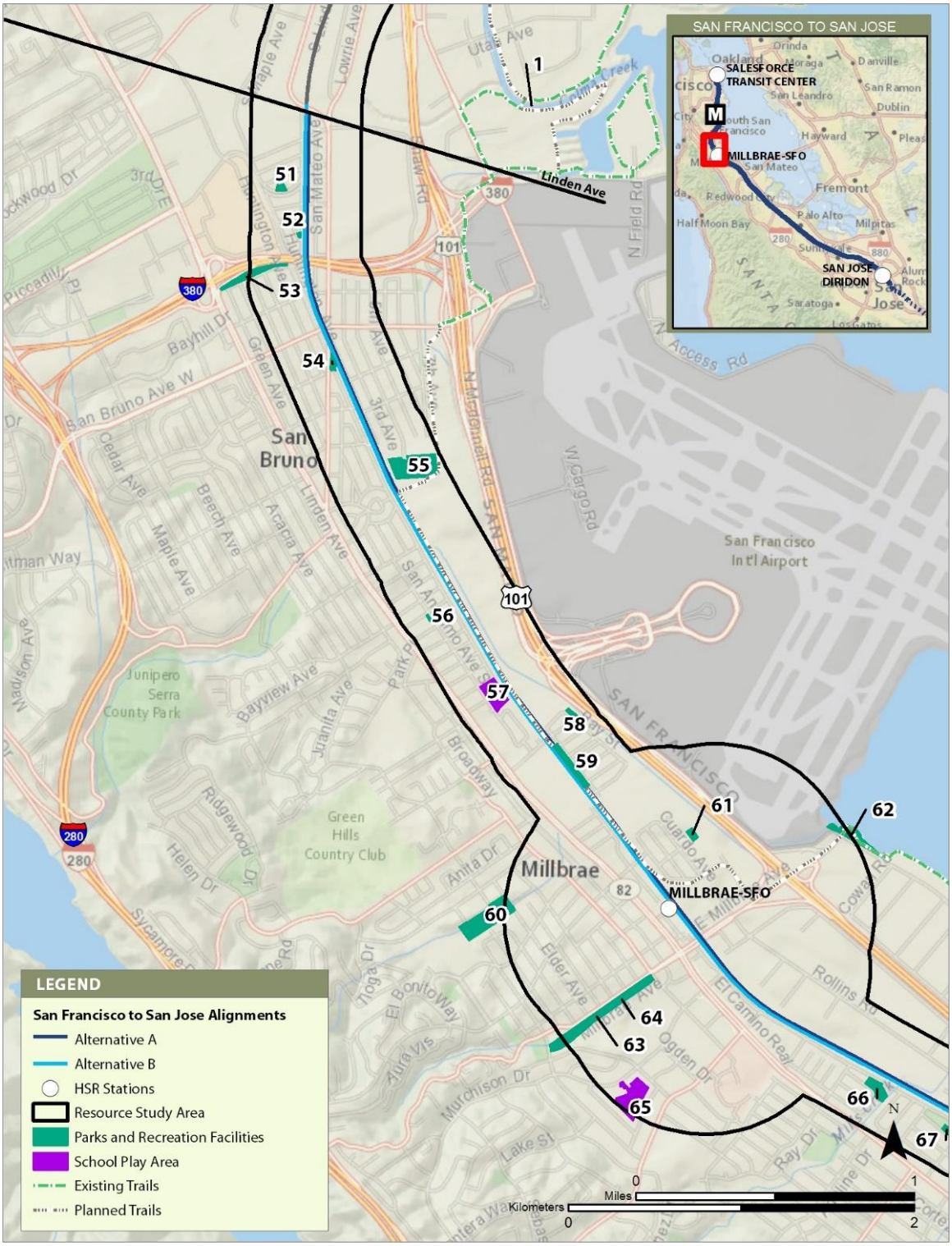
Sources: Authority 2019c; CPAD 2017 AUGUST 2021

Figure 4-2 Parks and Recreational Facilities—San Francisco to South San Francisco Subsection (Northern Portion)



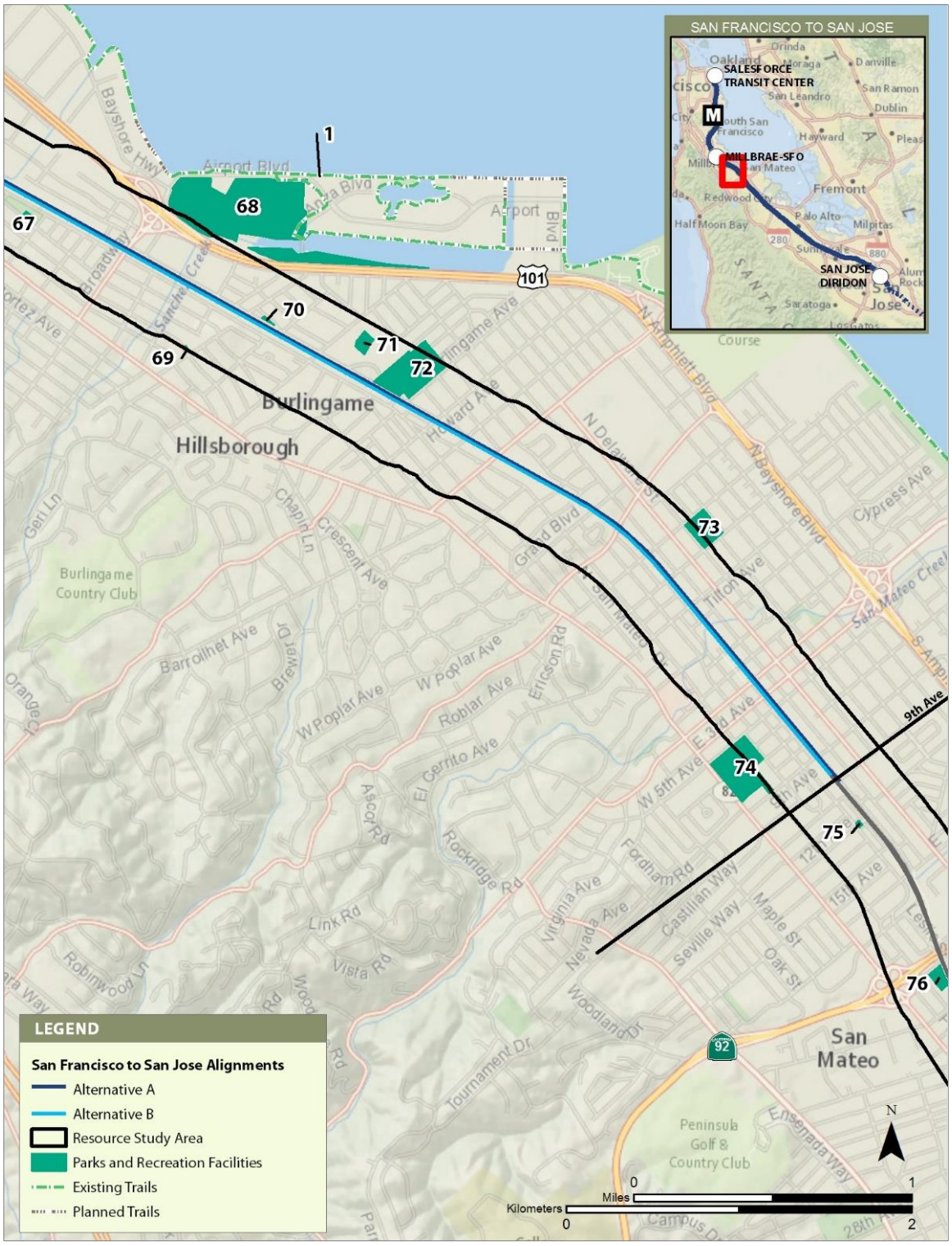
Sources: Authority 2019c; CPAD 2017 AUGUST 2021

Figure 4-3 Parks and Recreational Facilities—San Francisco to South San Francisco Subsection (Southern Portion)



Sources: Authority 2019c; CPAD 2017 AUGUST 2021

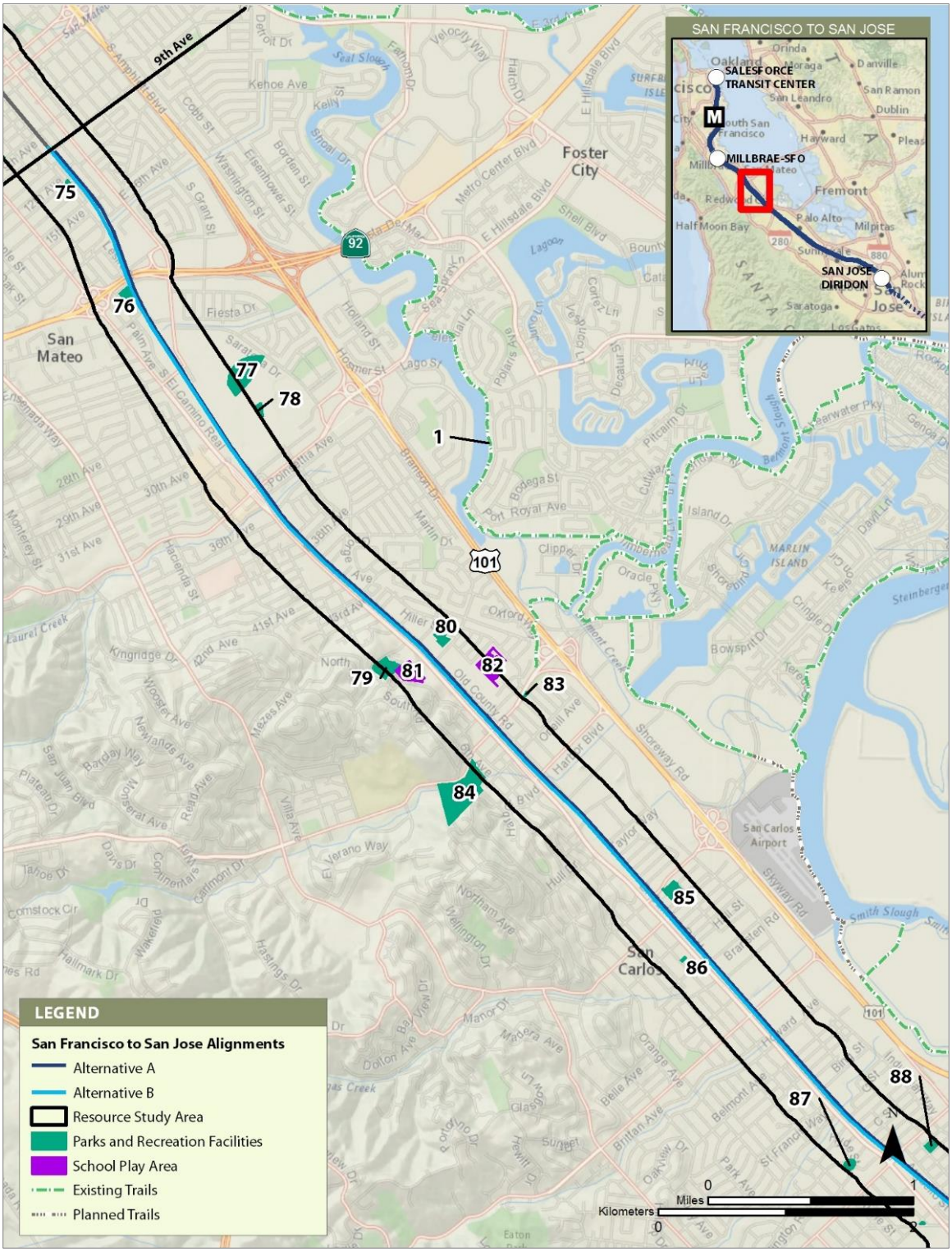
Figure 4-4 Parks and Recreational Facilities—San Bruno to San Mateo Subsection (Northern Portion)



Sources: Authority 2019c; CPAD 2017

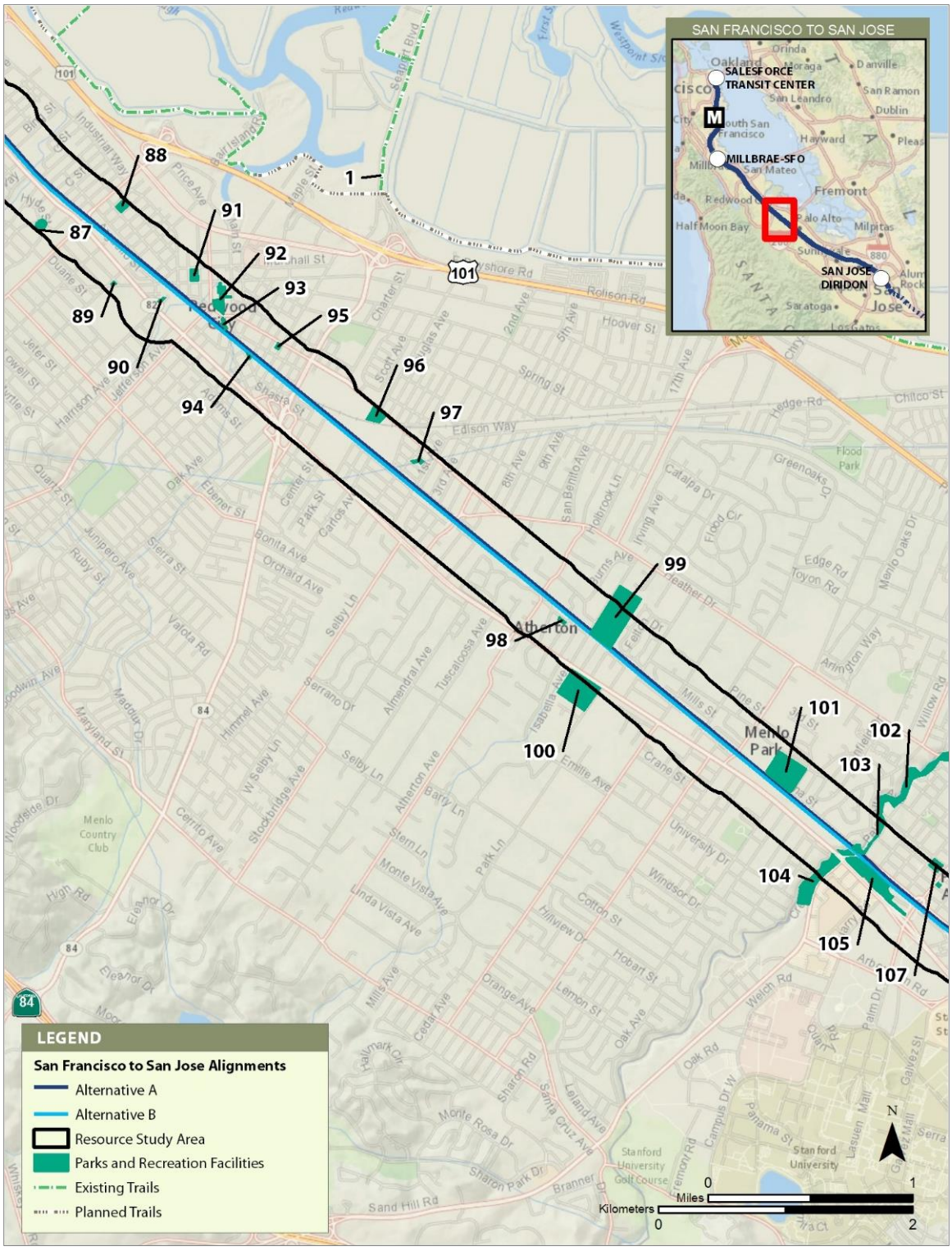
AUGUST 2021

Figure 4-5 Parks and Recreational Facilities—San Bruno to San Mateo Subsection (Southern Portion)



Sources: Authority 2019c; CPAD 2017 AUGUST 2021

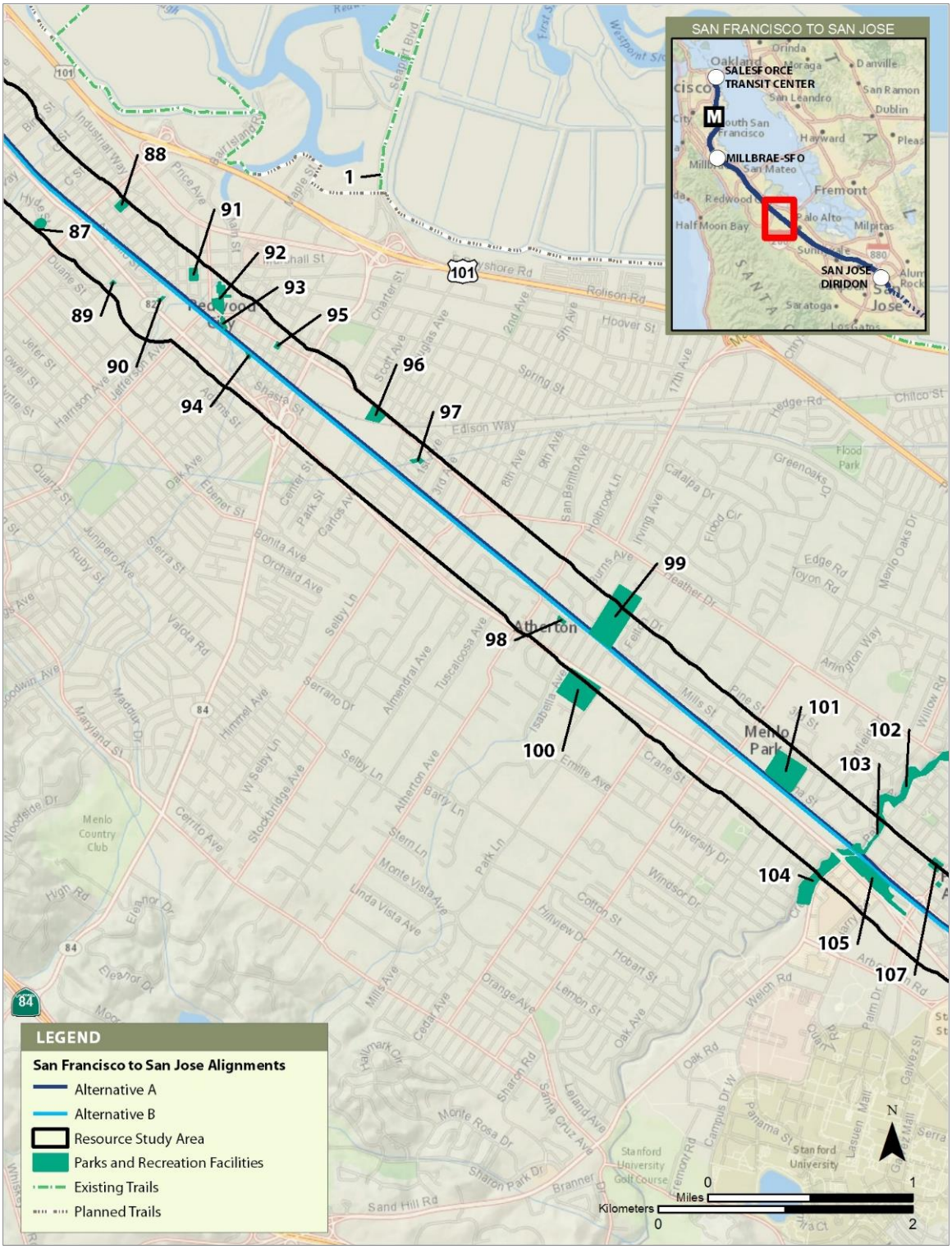
Figure 4-6 Parks and Recreational Facilities—San Mateo to Palo Alto Subsection (Northern Portion)



Sources: Authority 2019c; CPAD 2017

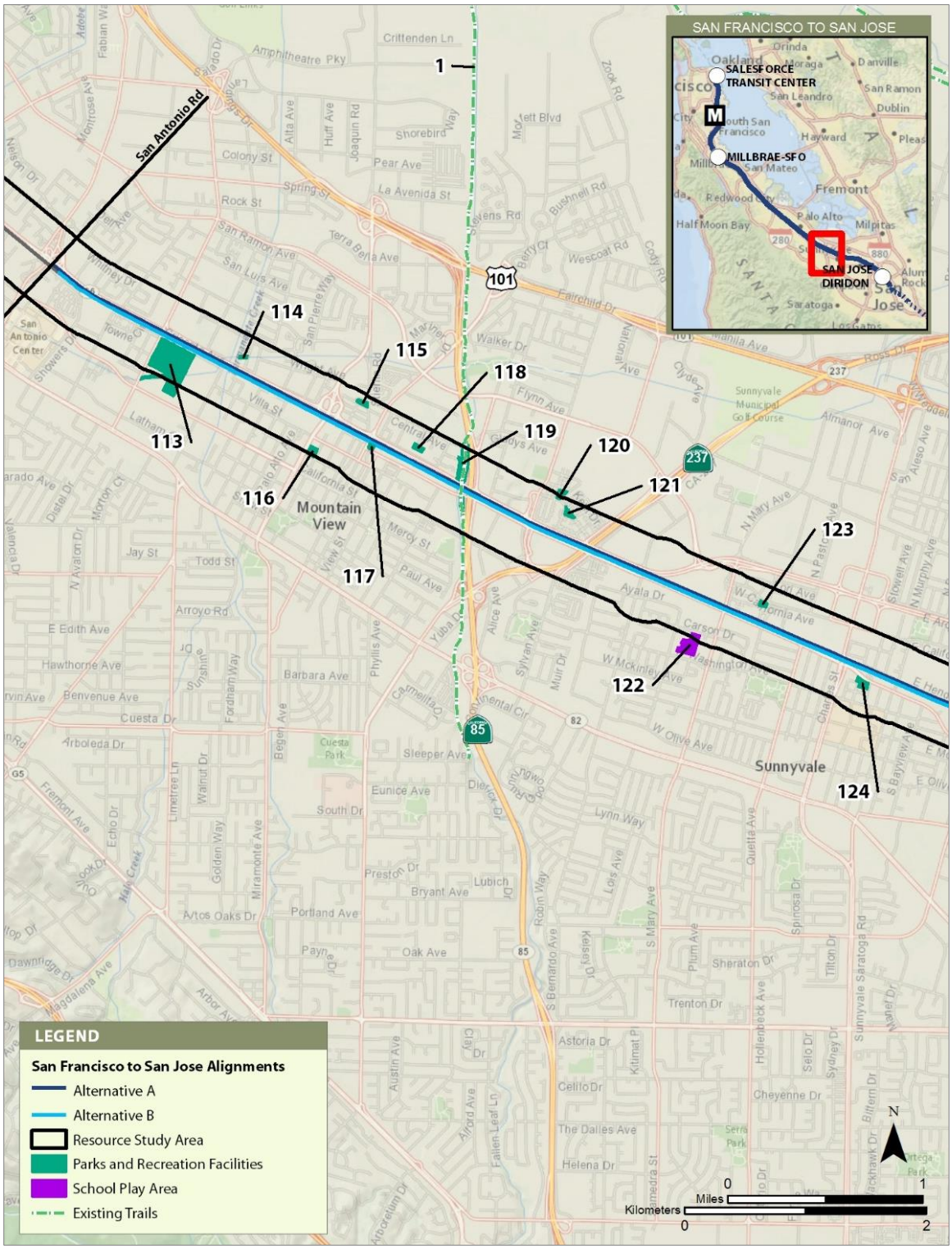
AUGUST 2021

Figure 4-7 Parks and Recreational Facilities—San Mateo to Palo Alto Subsection (Central Portion)



Sources: Authority 2019c; CPAD 2017 AUGUST 2021

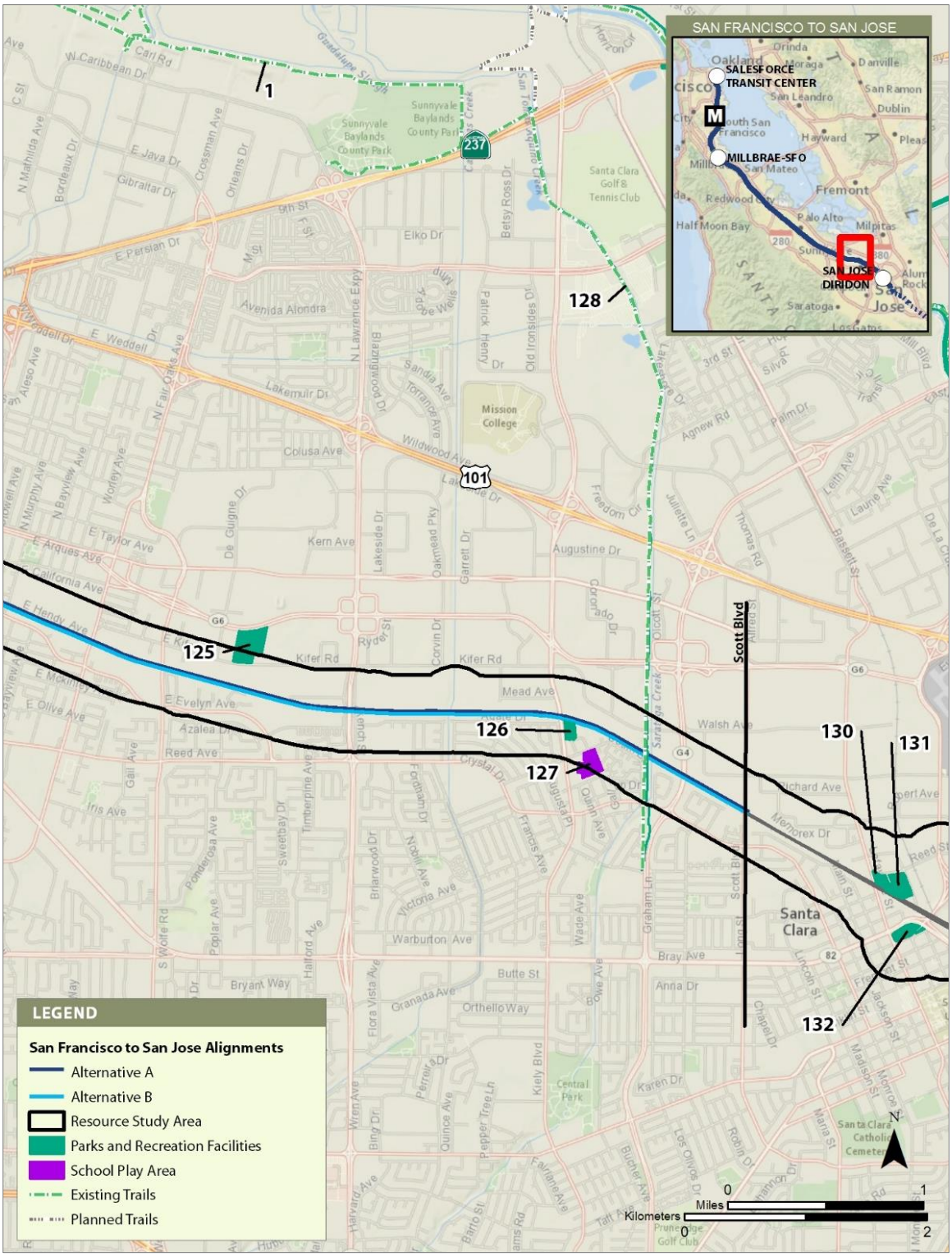
Figure 4-8 Parks and Recreational Facilities—San Mateo to Palo Alto Subsection (Southern Portion)



Sources: Authority 2019c; CPAD 2017

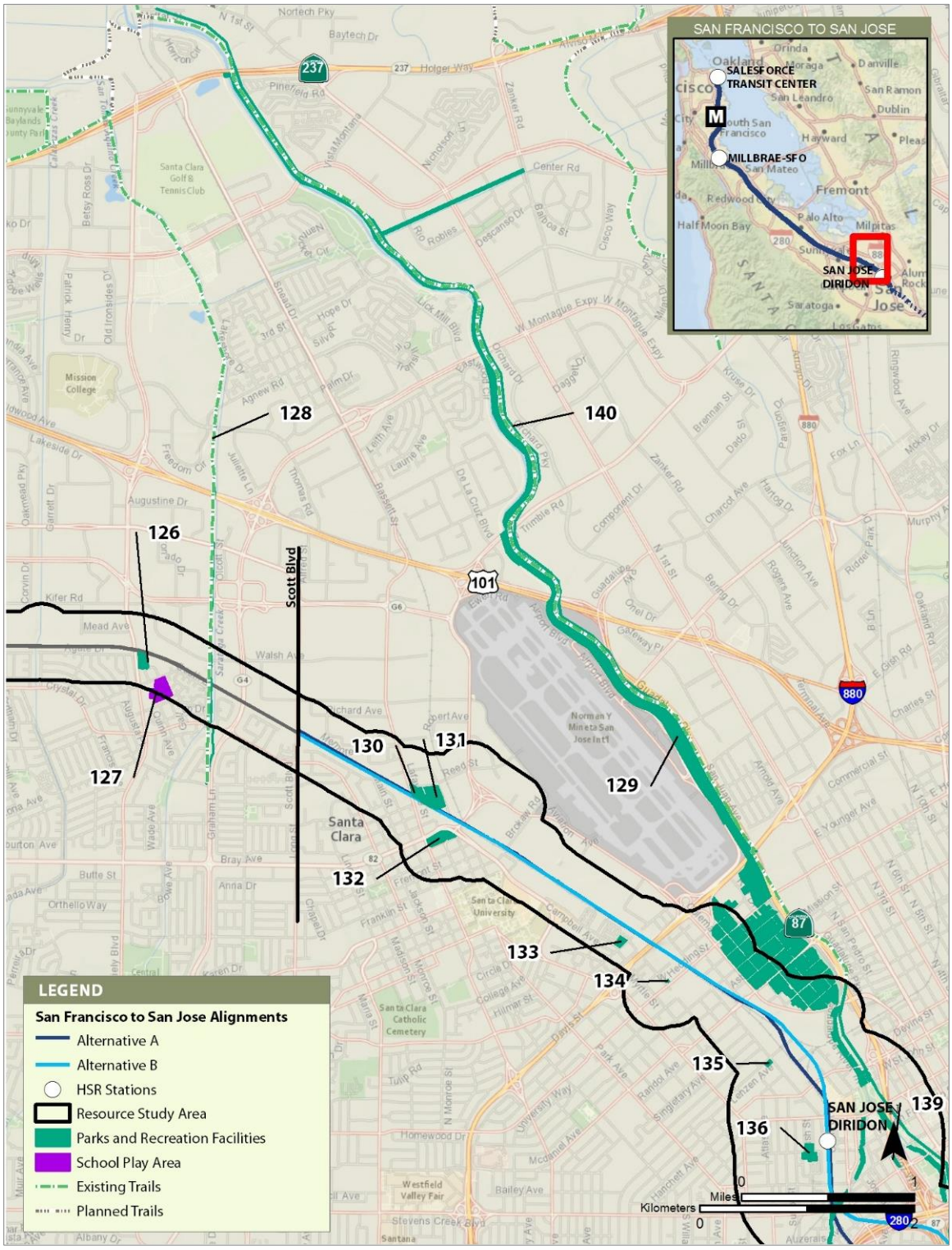
AUGUST 2021

Figure 4-9 Parks and Recreational Facilities—Mountain View to Santa Clara Subsection (Northern Portion)



Sources: Authority 2019c; CPAD 2017 AUGUST 2021

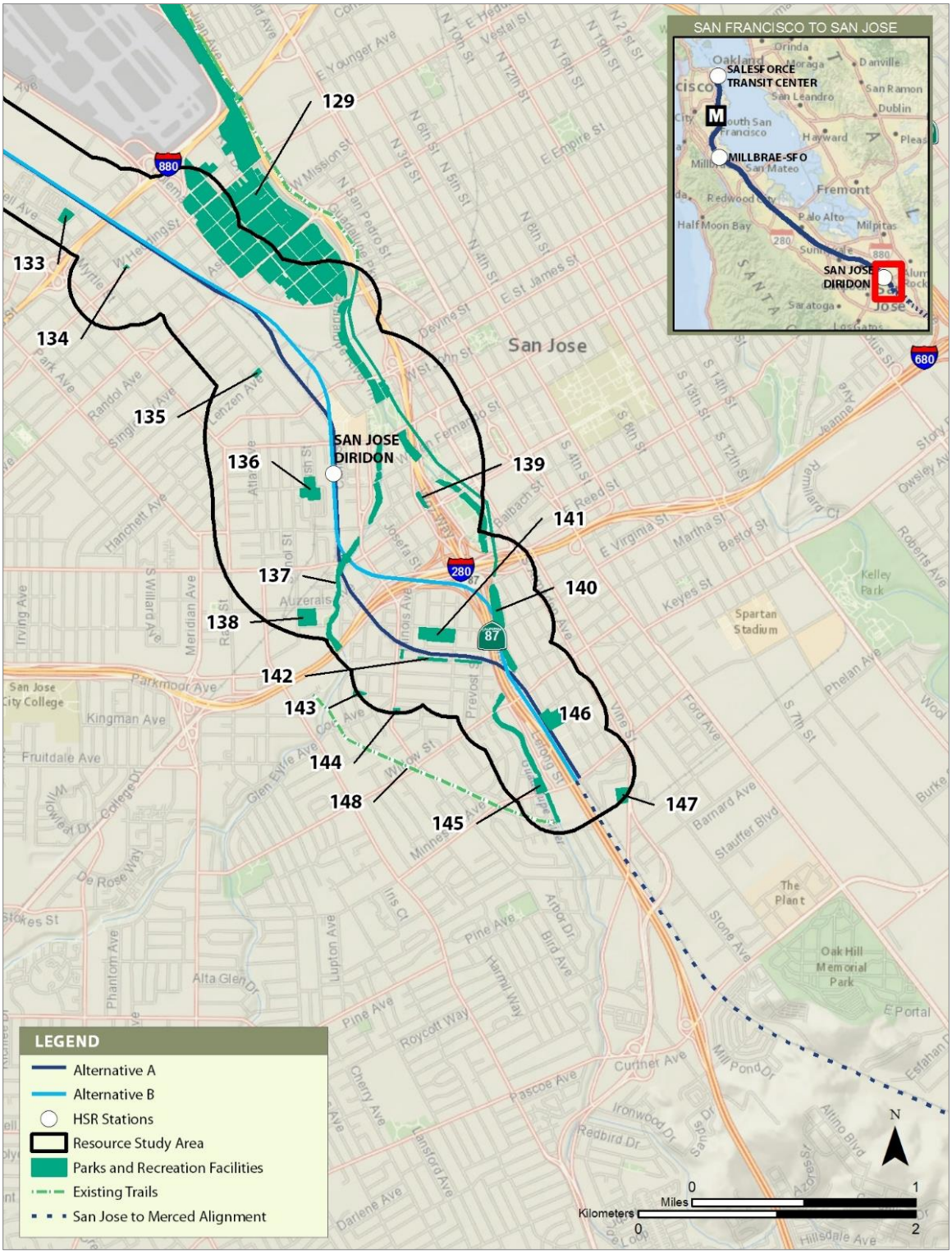
Figure 4-10 Parks and Recreational Facilities—Mountain View to Santa Clara Subsection (Southern Portion)



Sources: Authority 2019c, 2019d; CPAD 2017

AUGUST 2021

Figure 4-11 Parks and Recreational Facilities—San Jose Diridon Station Approach Subsection (Northern Portion)



Sources: Authority 2019d; CPAD 2017

AUGUST 2021

Figure 4-12 Parks and Recreational Facilities—San Jose Diridon Station Approach Subsection (Southern Portion)

4.5.2 Cultural Resources

For purposes of identifying cultural resources potentially protected under Section 4(f), the RSA is the same as the APE as defined in Section 4.1.2.2. For this analysis, the term cultural resources is synonymous with historic sites. There are no known archaeological resources in the APE that qualify as Section 4(f) resources. Background research and the field survey revealed 27 historic properties listed or eligible for listing in the NRHP that qualify as Section 4(f) resources.

4.5.2.1 Archaeological Resources

An archaeological resource that is eligible only under NRHP Criterion D is generally considered valuable primarily in terms of the data that can be recovered from it. It is generally assumed that there is minimal value in preserving such resources in place. In other words, Section 4(f) does not apply to a site if it is important chiefly because of what can be learned by data recovery and it is not important to preserve in its location. One site (P-43-000050)—the third Mission Santa Clara location—has been previously evaluated for NRHP and California Register of Historical Resources eligibility under Criteria D and was determined eligible for the data it can provide. No other archaeological resources listed as eligible are present in the APE. As a result, there are no known archaeological resources in the APE that qualify for protection under Section 4(f). For more information on archaeological resources present in the APE, refer to Section 3.16.

Stipulation VI.E of the PA states that, in accordance with 36 C.F.R. § 800.4(b)(2), phased identification may occur in situations where identification of historic properties cannot be completed. This phased identification approach has been applied to this project because much of the APE has not yet been surveyed because of access and visibility limitations. Records searches identified 27 previously recorded archaeological resources in or adjacent to the APE. Of these sites, one, the third Mission Santa Clara location (P-43-000050), has been evaluated and its significance has been determined to be primarily attributed to the data that can be recovered from it (NRHP Criterion D); therefore, it is not a property protected by Section 4(f) (23 C.F.R. § 774.13(b)(1)). None of the remaining resources have been evaluated, but would be subject to phased survey and, if warranted, evaluated. For the purposes of Section 106, these resources are assumed to be eligible under Criterion D, until surveys or additional investigations can be completed (see Section 3.16). Additionally, areas determined to be sensitive to archaeological sites through research and geoarchaeological studies have the potential to yield buried resources; these areas would also be subject to phased archaeological survey.

The PA requires that a memorandum of agreement (MOA) be negotiated between the FRA, the SHPO, Authority, other agencies, Native American tribes, and interested parties to document the agreed-upon treatment of historic properties that would be affected by the project. In addition to an MOA, a BETP and an ATP is being developed for review by the MOA signatories and consulting parties. Should an archaeological resource be discovered during the phased identification efforts or construction monitoring and be determined to have the potential to be eligible for the NRHP, it would be evaluated to determine if it is valuable for preservation in place (NRHP Criterion A, B, C). If its primary significance is for data that may be collected from the site, appropriate data recovery steps would be taken, in accordance with the ATP. If it is valuable for preservation in place, and SHPO concurs, an expedited Section 4(f) evaluation would be prepared in accordance with 23 C.F.R. § 774.9(e).

4.5.2.2 Built Historic Properties

Background research and the field survey revealed 9 historic properties listed in the NRHP and an additional 18 properties eligible for listing in the NRHP in the APE. Table 4-5 lists these properties and Figure 4-13 through Figure 4-23 illustrate their locations using the resource identification number.

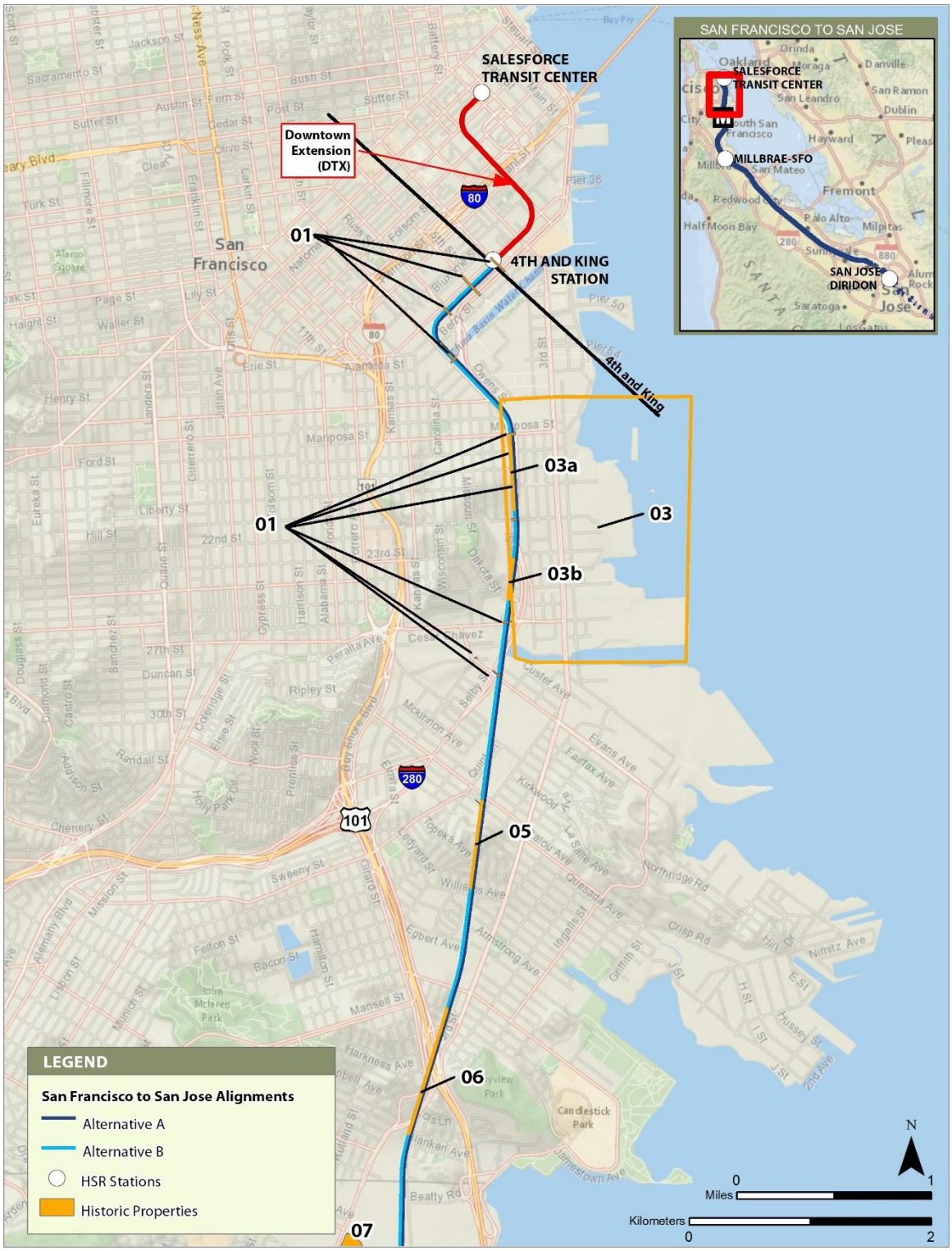
Table 4-5 Historic Properties in the Area of Potential Effect Listed or Eligible for Listing in the National Register of Historic Places

Map ID#	Name of Historic Property and Address/City/County	Year Built and Evaluation Criteria
NRHP-Listed Properties		
San Francisco to South San Francisco Subsection		
07	SPRR Bayshore Roundhouse Industrial Way; Brisbane; San Mateo	**Year Built:** 1910 **Evaluation Criteria:** C
San Bruno to San Mateo Subsection		
12	SPRR Depot/Millbrae Station 108 California Drive; Millbrae; San Mateo	**Year Built:** 1907 **Evaluation Criteria:** C
14	SPRR Depot/Burlingame Railroad Station 290 California Drive; Burlingame; San Mateo	**Year Built:** 1894 **Evaluation Criteria:** C
San Mateo to Palo Alto Subsection		
18	SPRR Depot/San Carlos Station 599 State Highway 82; San Carlos; San Mateo	**Year Built:** 1888 **Evaluation Criteria:** A and C
25	Carriage House and Water Tower, Holbrook-Palmer Estate (Elmwood) 150 Watkins Avenue; Atherton; San Mateo	**Year Built:** ca. 1883, 1897 **Evaluation Criteria:** C
28	SPRR Depot/Menlo Park Railroad Station 1100 Merrill Street; Menlo Park; San Mateo	**Year Built:** 1867, 1890s, 1917 **Evaluation Criteria:** A and C
31	Palo Alto SPRR Depot University Avenue; Palo Alto; Santa Clara	**Year Built:** 1940 **Evaluation Criteria:** C
San Jose Diridon Station Approach Subsection		
0141	Santa Clara Railroad Historical Complex Santa Clara Depot 1 Railroad Avenue/Benton Street, Santa Clara	**Year Built:** 1863 **Evaluation Criteria**: A and C
0497	SPRR Depot (Diridon Station/Hiram Cahill Depot) 65 Cahill Street, San Jose	**Year Built:** 1935 **Evaluation Criterion**: C
NRHP-Eligible Properties		
San Francisco to South San Francisco Subsection		
01	San Francisco Fire Department Auxiliary Water Supply System San Francisco; San Francisco	**Year Built:** 1908–1964 **Evaluation Criteria:** A and C
03 03a 03b	Central Waterfront Historic District San Francisco; San Francisco SPRR Tunnel No. 1/Bayshore Cutoff Tunnel No. 1 South of Mariposa Street; San Francisco SPRR Tunnel No. 2/Bayshore Cutoff Tunnel No. 2 South of 23rd Street; San Francisco	**Year Built:** 1872–1958 **Evaluation Criteria:** A

Map ID#	Name of Historic Property and Address/City/County	Year Built and Evaluation Criteria
05	SPRR Tunnel No. 3; Central Waterfront Historic District contributor South of Oakdale Avenue; San Francisco; San Francisco	**Year Built:** 1904–1907 **Evaluation Criteria:** A and C
06	SPRR Tunnel No. 4; Central Waterfront Historic District contributor South of Paul Avenue; San Francisco; San Francisco	**Year Built:** 1904–1907 **Evaluation Criteria:** A and C
08	Airport Boulevard Underpass/South San Francisco Subway Airport Boulevard; South San Francisco; San Mateo	**Year Built:** 1927, 1935 **Evaluation Criteria:** A and C
San Bruno to San Mateo Subsection		
13	Jules Francard Grove/Francard Tree Rows East of California Avenue, between Larkspur Drive and Burlingame Avenue; Burlingame; San Mateo	**Year Built:** ca. 1874–1880 **Evaluation Criteria:** A and C
San Mateo to Palo Alto Subsection		
21 21a	SPRR Dumbarton Cutoff Linear Historic District Rail line; Redwood City; San Mateo Dumbarton Cutoff Railroad Line; district contributor Rail line; Redwood City; San Mateo	**Year Built:** 1907–1910 **Evaluation Criteria:** A, B, and C
22	Willie Mays Jr. House 51 Mount Vernon Lane; Atherton; San Mateo	**Year Built:** 1964 **Evaluation Criteria:** B
24	SPRR Depot/Atherton Station 1 Dinkelspiel Station; Atherton; San Mateo	**Year Built:** 1913 **Evaluation Criteria:** C
29	SPRR San Francisquito Creek Bridge Bridge MP 29.69; Palo Alto; Santa Clara	**Year Built:** 1902 **Evaluation Criteria:** A and C
30	El Palo Alto Living tree; Palo Alto; Santa Clara	**Year Built:** ca. 1939 **Evaluation Criteria:** A
32	University Avenue Underpass Bridge No. 37C0005; Palo Alto; Santa Clara	**Year Built:** 1941 **Evaluation Criteria:** A
35	Embarcadero Underpass Bridge No. 37C0001; Palo Alto; Santa Clara	**Year Built:** 1936 **Evaluation Criteria:** A
37 37a 37b 37c	Tract 795, Charleston Meadows Palo Alto; Santa Clara 4133 Park Boulevard; district contributor Palo Alto; Santa Clara 4118 Park Boulevard; district contributor Palo Alto; Santa Clara 4126 Park Boulevard; district contributor Palo Alto; Santa Clara	**Year Built:** 1950–1951 **Evaluation Criteria:** C

Map ID#	Name of Historic Property and Address/City/County	Year Built and Evaluation Criteria
San Jose to Diridon Station Approach Subsection		
0210	Bellarmine College Preparatory and Polhemus House 960 West Hedding Street, San Jose	**Year Built**: 1916 **Evaluation Criteria:** C
0304	Private Residence 623 Stockton Avenue, San Jose	**Year Built:** 1890 **Evaluation Criteria:** C
0522	Sunlite Baking Company 145 South Montgomery Street, San Jose	**Year Built**: 1936 **Evaluation Criteria**: C
0585	415 Illinois Avenue 415 Illinois Avenue, San Jose	**Year Built:** 1900 **Evaluation Criteria:** C

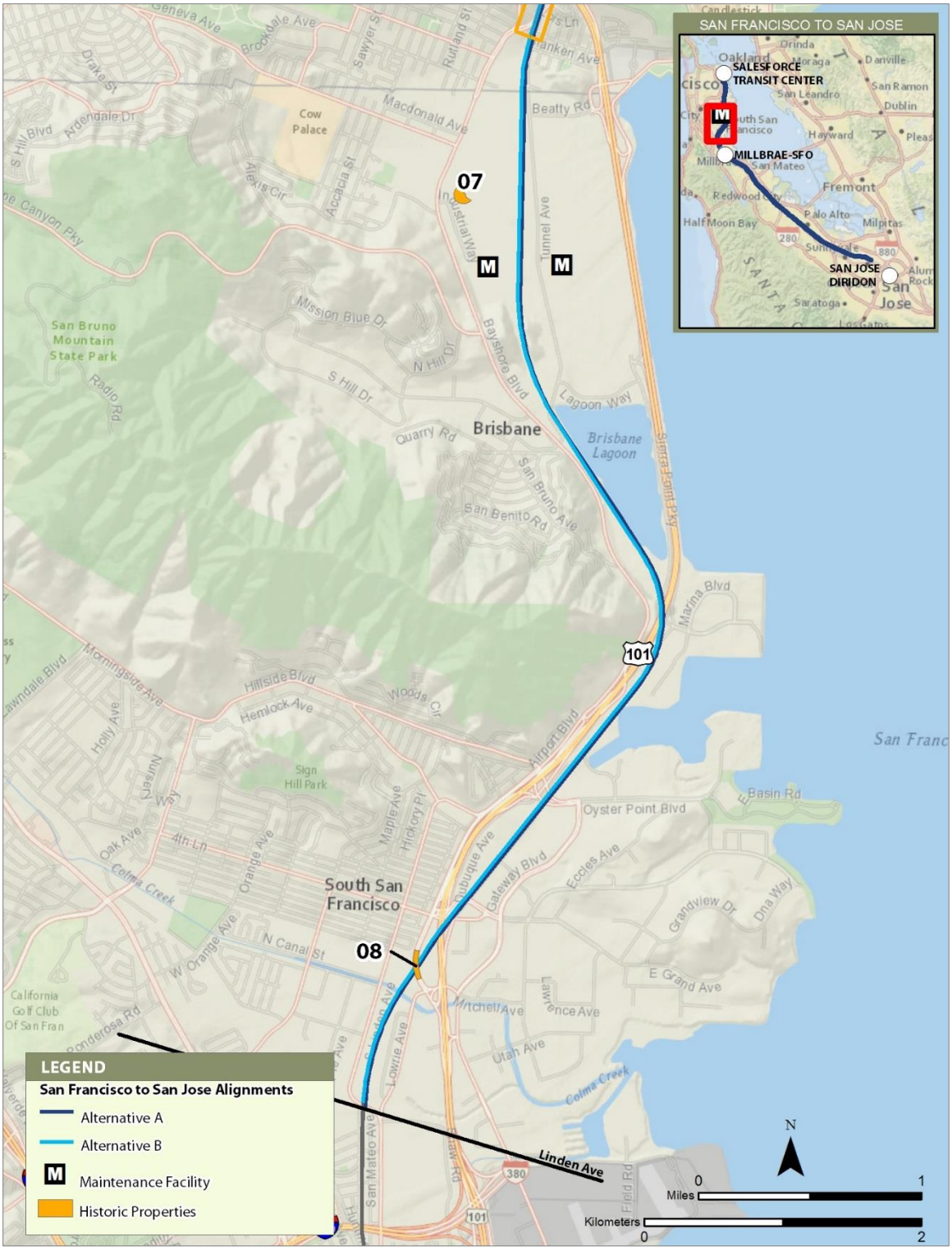
Sources: Authority 2019a, 2019b
ca. = circa
MP = mile post
No. = number
NRHP = National Register of Historic Places
SPRR = Southern Pacific Railroad
A = Association with events that have made a significant contribution to the broad patterns of our history.
B = Association with the lives of persons significant in our past.
C = Resources that embody the distinctive characteristics of a type, period, or method of construction, or that represent the work of a master, or that possess high artistic values, or that represent a significant and distinguishable entity whose components may lack individual distinction.



Sources: Authority 2019a, 2019c

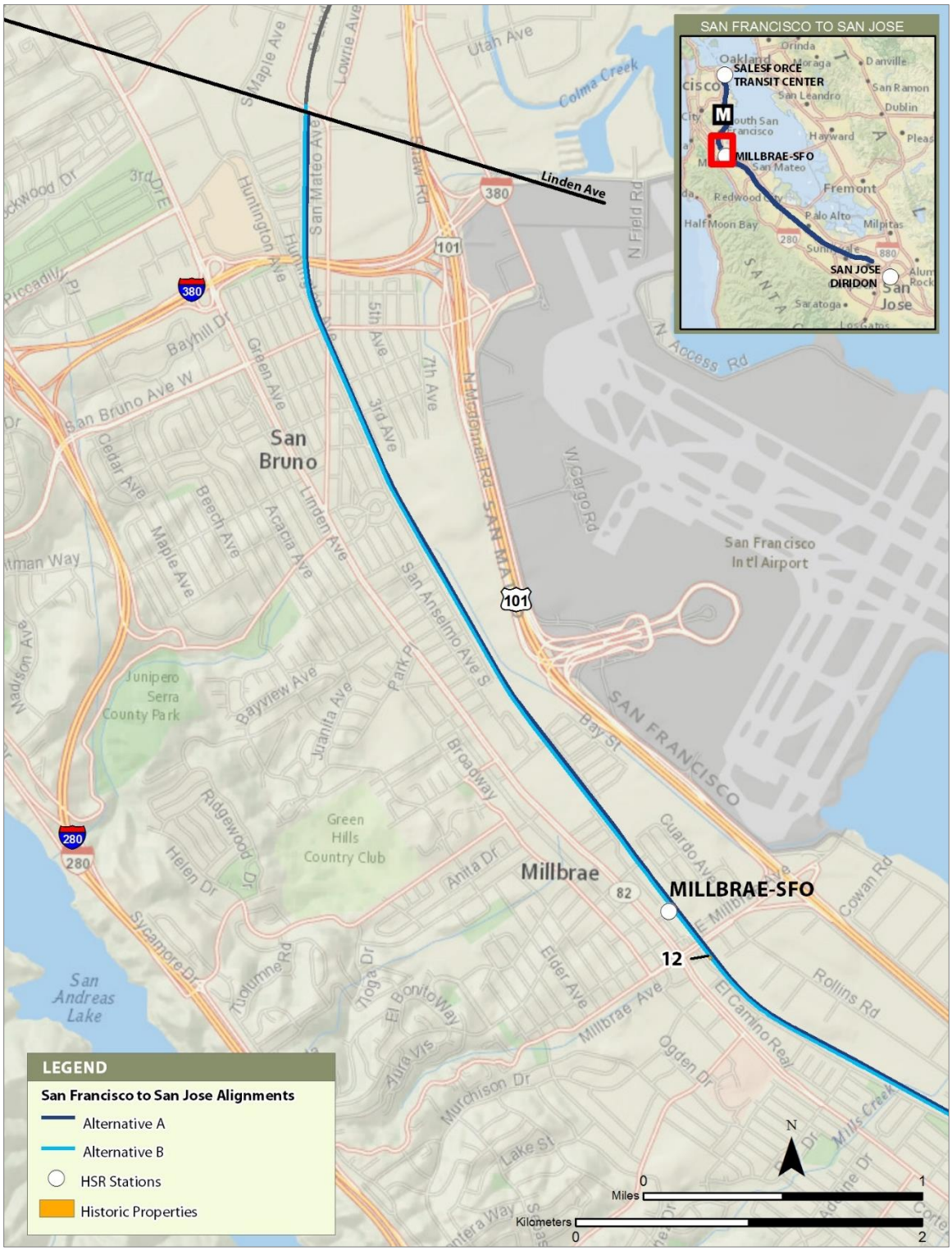
JUNE 2019

Figure 4-13 Built Historic Resources—San Francisco to South San Francisco Subsection (Northern Portion)



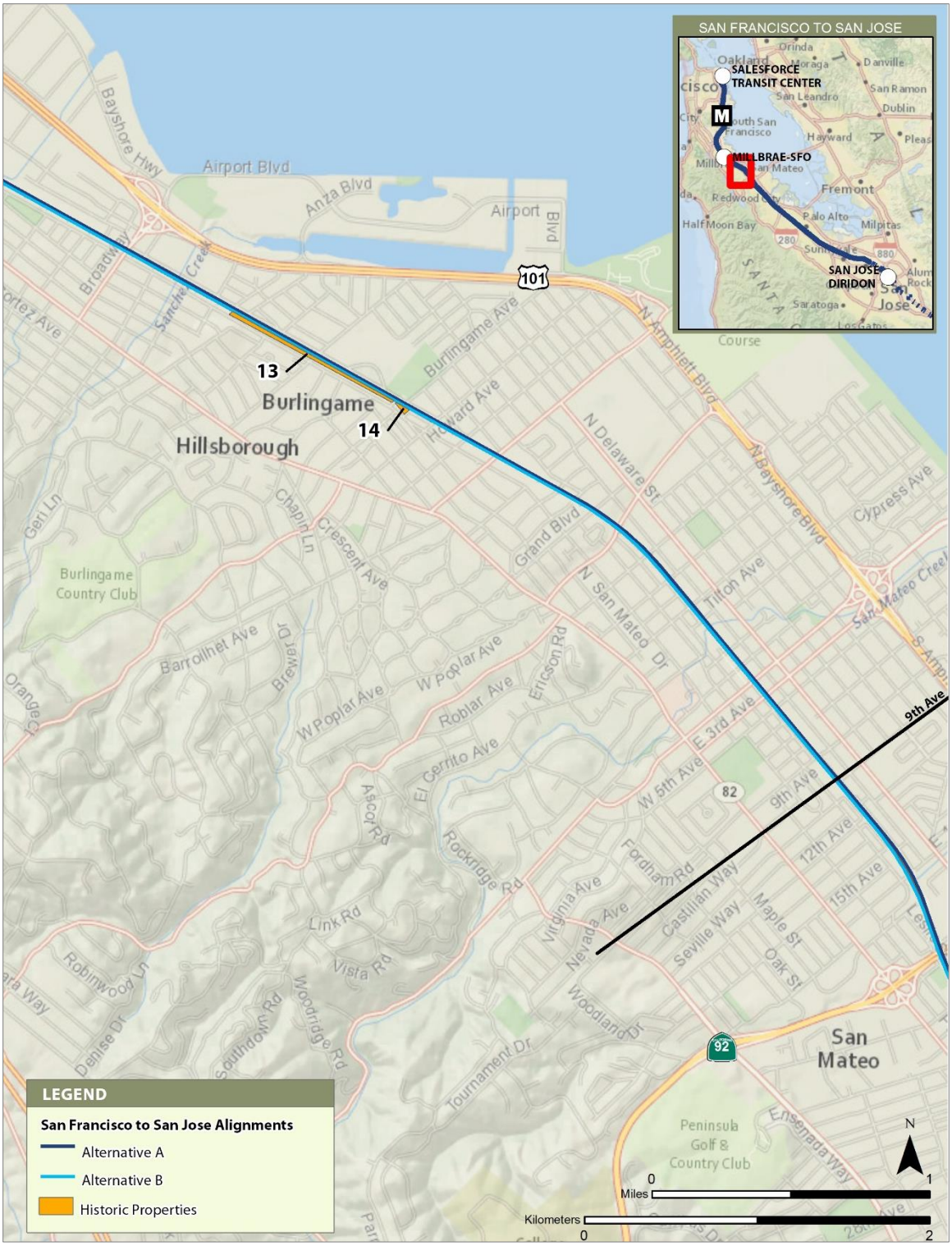
Sources: Authority 2019a, 2019c MARCH 2020

Figure 4-14 Built Historic Resources—San Francisco to South San Francisco Subsection (Southern Portion)



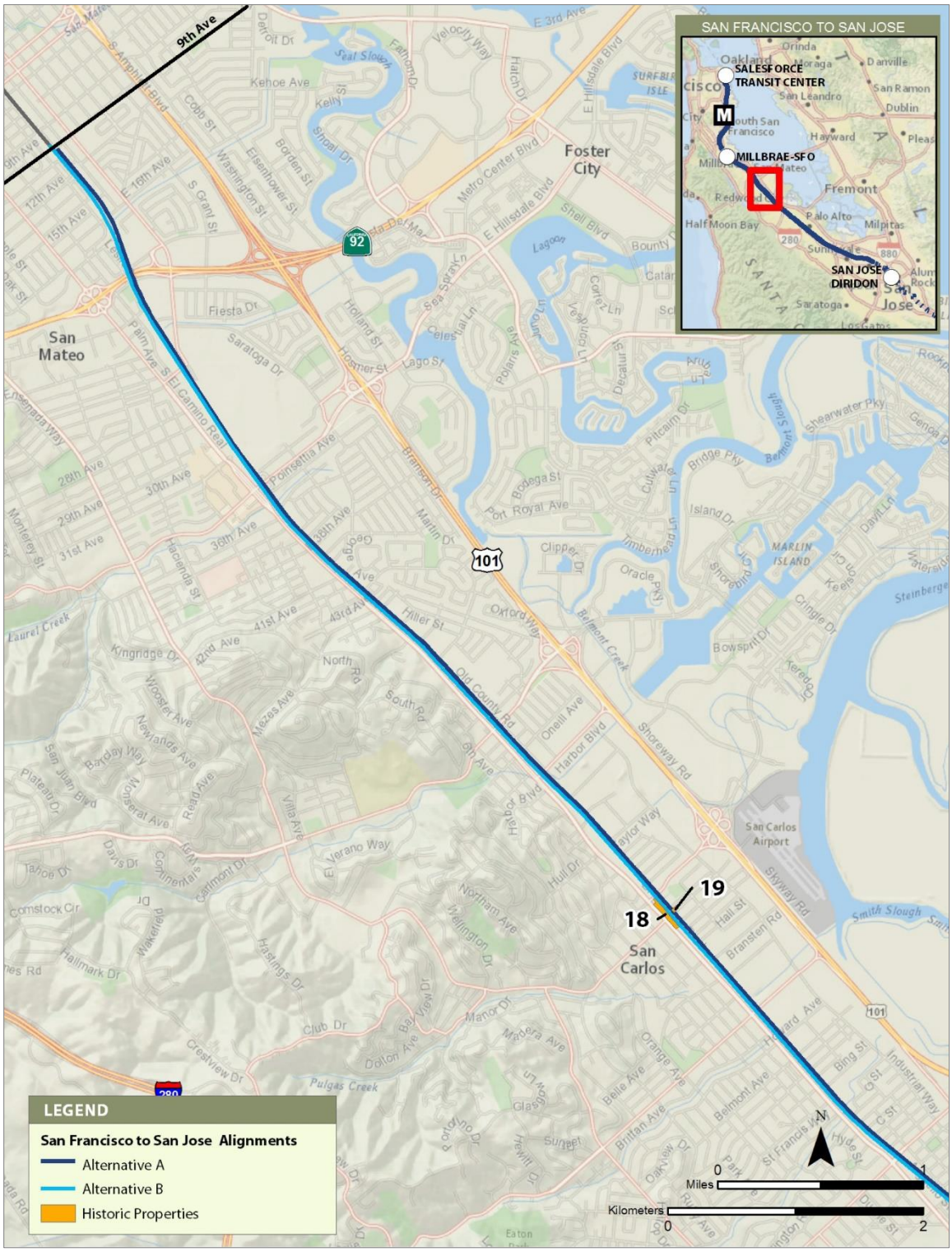
Sources: Authority 2019a, 2019c MARCH 2020

Figure 4-15 Built Historic Resources—San Bruno to San Mateo Subsection (Northern Portion)



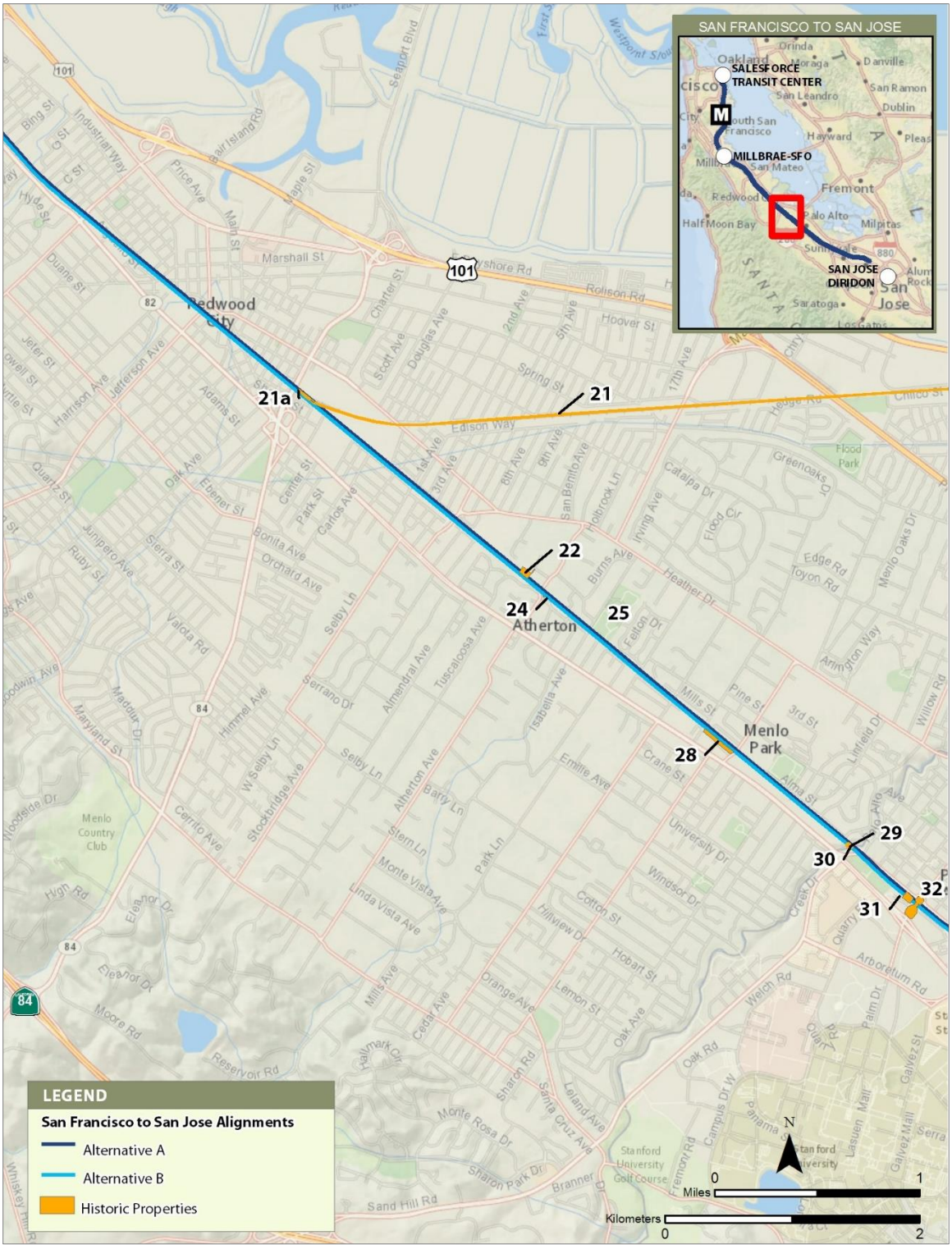
Sources: Authority 2019a, 2019c JUNE 2019

Figure 4-16 Built Historic Resources—San Bruno to San Mateo Subsection (Southern Portion)



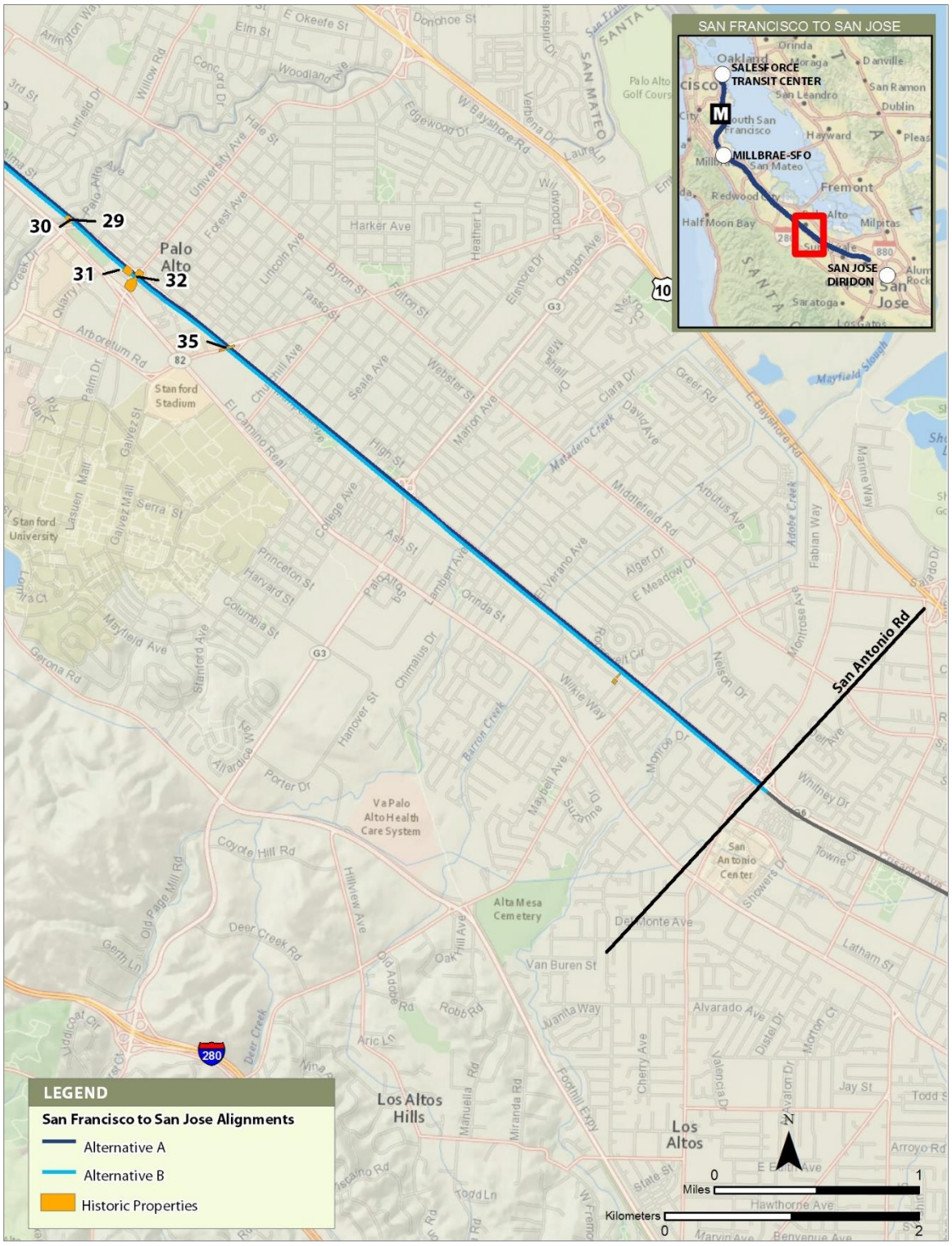
Sources: Authority 2019a, 2019c JUNE 2019

Figure 4-17 Built Historic Resources—San Mateo to Palo Alto Subsection (Northern Portion)



Sources: Authority 2019a, 2019c MARCH 2020

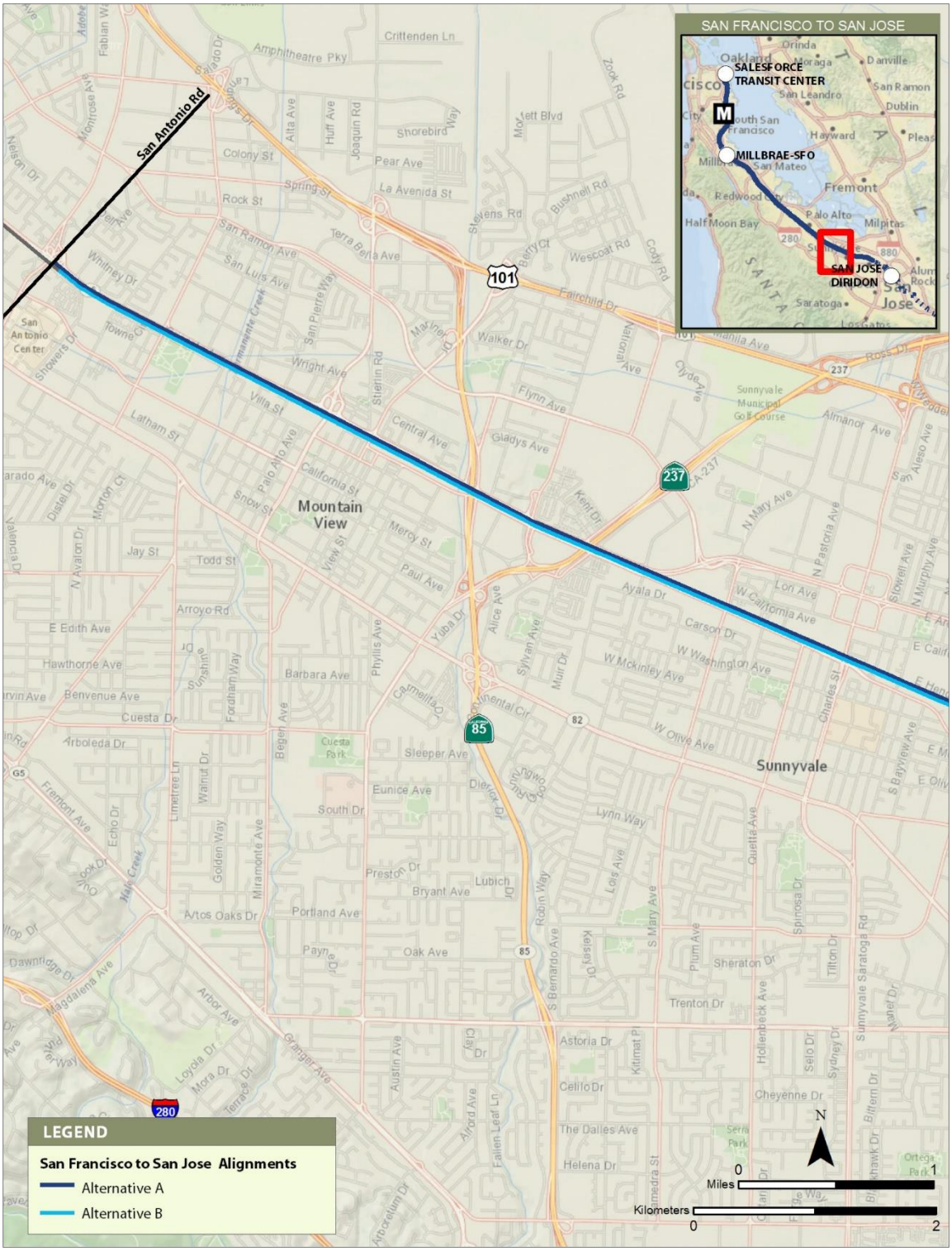
Figure 4-18 Built Historic Resources—San Mateo to Palo Alto Subsection (Central Portion)



Sources: Authority 2019a, 2019c

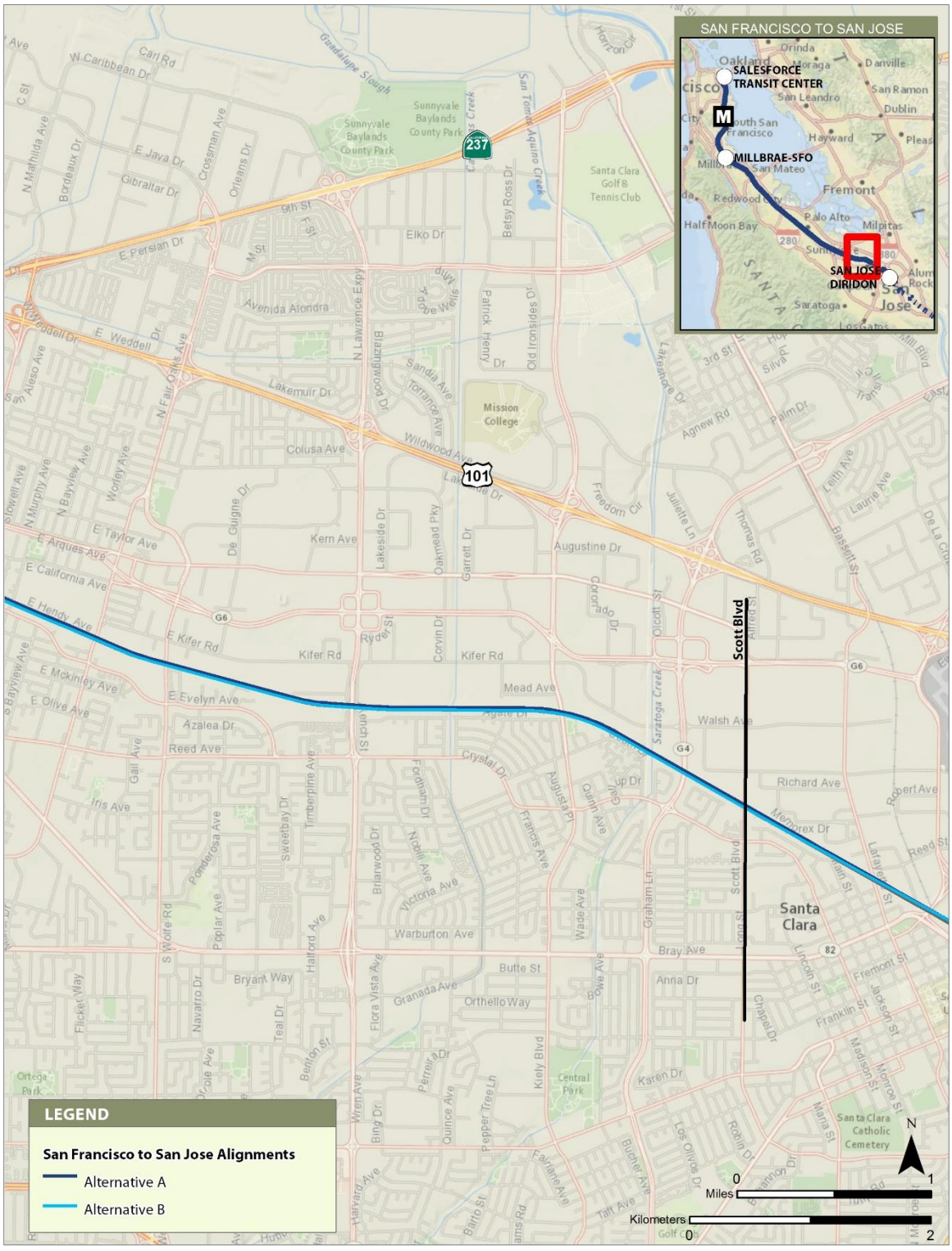
MARCH 2020

Figure 4-19 Built Historic Resources—San Mateo to Palo Alto Subsection (Southern Portion)



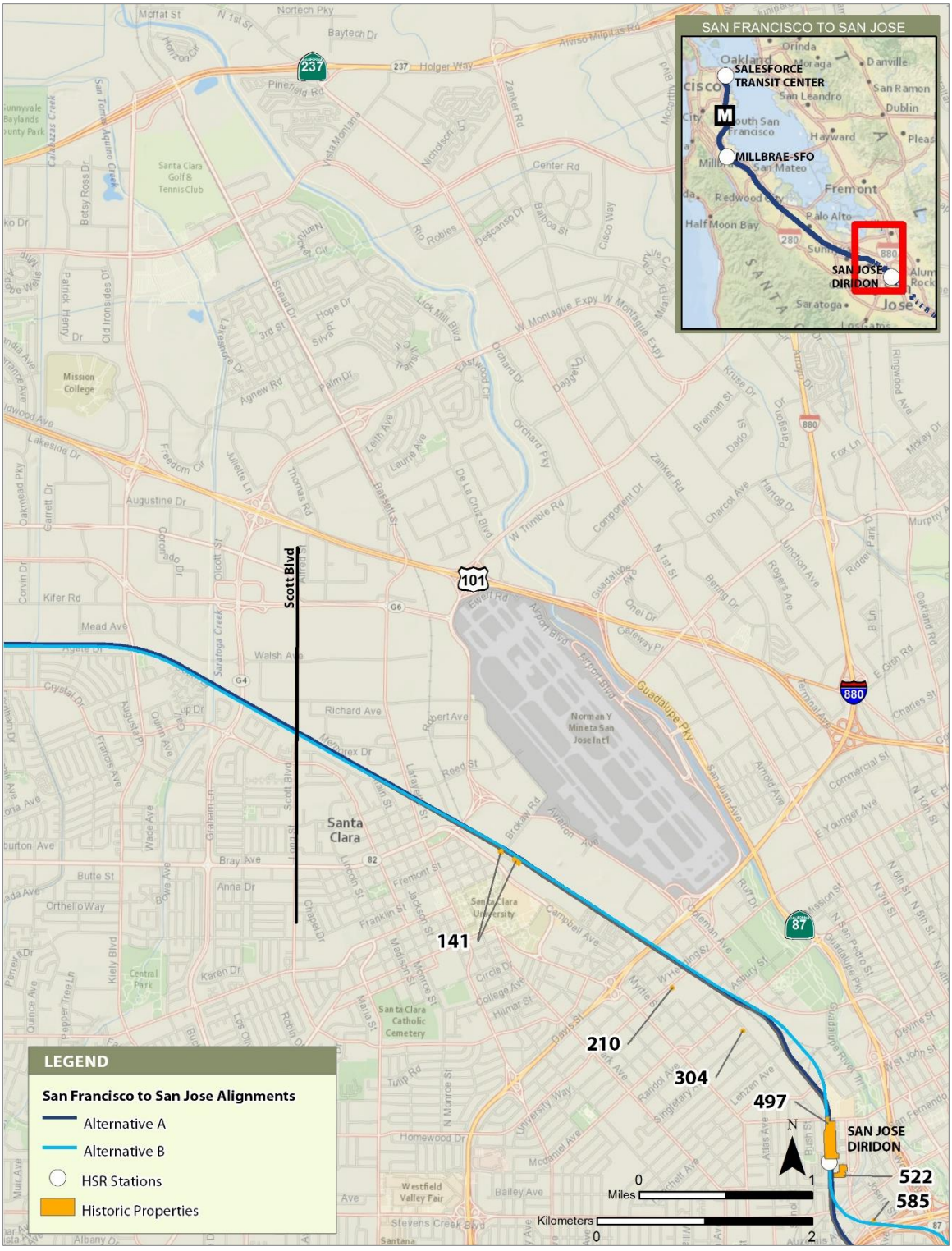
Sources: Authority 2019a, 2019c JUNE 2019

Figure 4-20 Built Historic Resources—Mountain View to Santa Clara Subsection (Northern Portion)



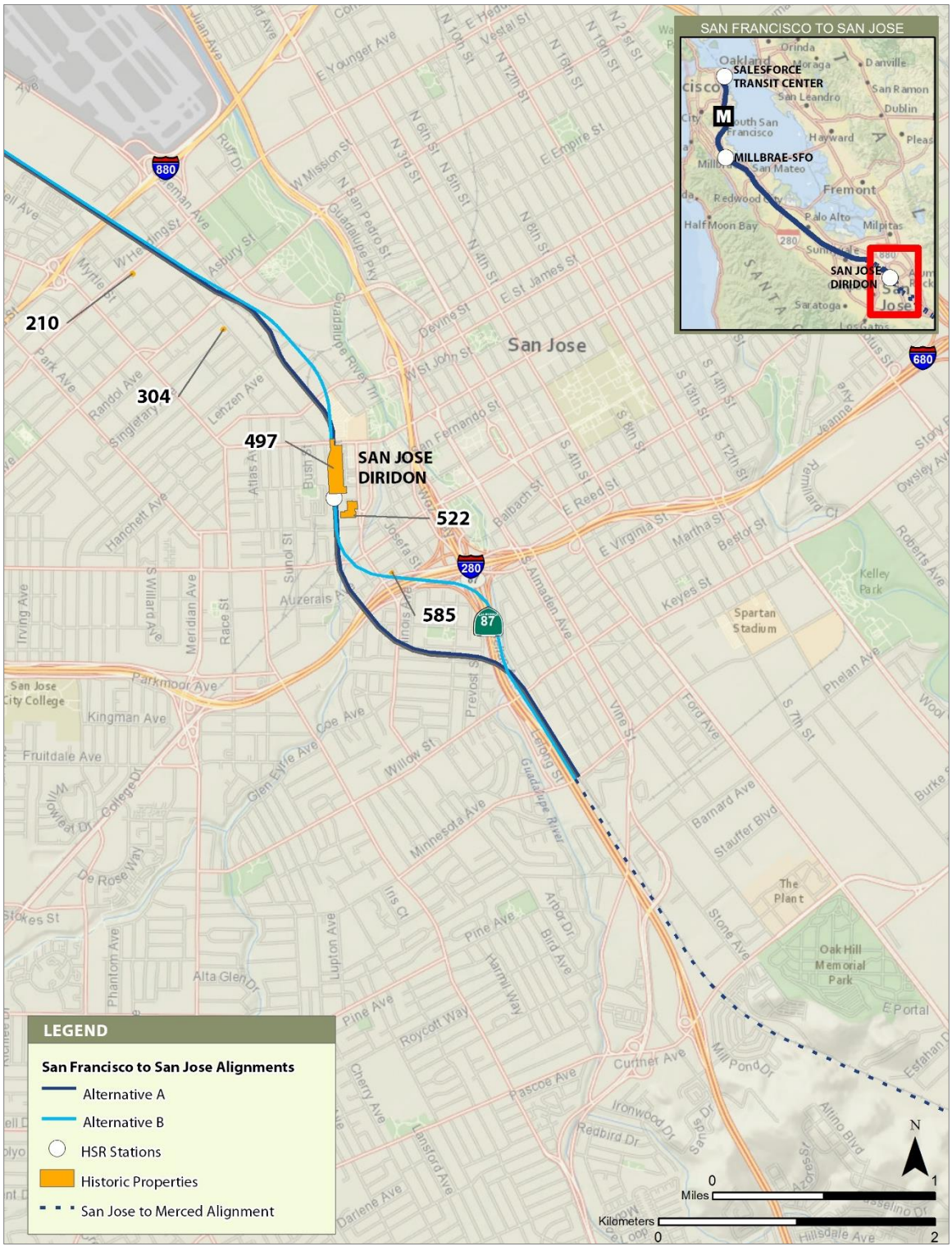
Sources: Authority 2019a, 2019b, 2019c, 2019d JUNE 2019

Figure 4-21 Built Historic Resources—Mountain View to Santa Clara Subsection (Southern Portion)



Sources: Authority 2019b, 2019d JUNE 2019

Figure 4-22 Built Historic Resources—San Jose Diridon Station Approach Subsection (Northern Portion)



Sources: Authority 2019b, 2019d JUNE 2019

Figure 4-23 Built Historic Resources—San Jose Diridon Station Approach Subsection (Southern Portion)

4.6 Section 4(f) Use Assessment

4.6.1 Parks and Recreational Facilities

This section presents the use assessments for the parks and recreational resources in the RSA as illustrated on Figure 4-2 through Figure 4-12. Impacts and use assessments for all Section 4(f) resources are shown in Table 4-6 and Table 4-7. For this resource topic, there are no differences pertinent to Section 4(f) use and impact determinations relevant to Alternative A with or without the DDV.

The project would be in an existing and historical rail corridor, largely within the Caltrain right-of-way from San Francisco to San Jose. The parks and recreational facilities in the RSA are in urban, commercial, industrial, and residential settings along the existing corridor and are already exposed to (or disturbed by) the existing railway as well as other related transportation noise. Similarly, railway operations and infrastructure are existing elements of the visual environment in the RSA. In addition, the parks and recreational facilities support active uses where participants are focused on a specific activity such as basketball, baseball, tennis, skating, hiking, walking, running, cycling, and using playground facilities. Table 4-4 includes descriptions of the various activities available at the Section 4(f) resources.

Because the project would be primarily in the existing rail corridor, there would be no permanent acquisition of land from parks and recreational facilities, except in the San Jose Diridon Station Approach Subsection, where the project would require permanent or temporary use at some parks and recreational facilities. In the other four subsections, the existing Caltrain right-of-way overlaps some park boundaries as illustrated on Figures 4-24 through 4-71.

Construction impacts on Section 4(f) resources could include permanent use, temporary use or occupancy, or temporary or permanent changes in access. Only 36 percent 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 air 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 more than 1,000 feet from any construction activities that could affect users at these Section 4(f) resources. Parks or recreational facilities where a temporary change in access would occur are shown in Table 4-7 and discussed in more detail following the table.

The duration and intensity of construction activities would vary by location and project component, with minor track shifts occurring over several days at a given location. Installation of four-quadrant gates would primarily occur over a period of 2 to 4 weeks when the intensity of construction activities would be greatest; however, 4 to 6 months of less intense and intermittent activities would be needed to complete gate installation. Radio towers would take 3 to 6 months, and modifying the existing Broadway Caltrain Station and College Park Station (Alternative A only) to remove the hold-out rule would take 9 to 12 months. Building the Brisbane LMF would take 2 to 3 years; modifying the 4th and King Street, Millbrae, and at-grade San Jose Diridon Stations would take up to 2 years; and under Alternative B, building the viaduct would take 2 years, aerial San Jose Diridon Station 3-4 years, and passing tracks 4.5 years. There would be no difference in construction effects on parks or recreation areas as a result of the DDV compared to Alternative A without the DDV.

The project includes impact avoidance and minimization features (IAMF) to allow continued use of the facilities with minimal disruption from HSR construction and operations (see Volume 2, Appendix 2-E, Project Impact Avoidance and Minimization Features). The project will locate and design project components and station features to maintain safe and convenient access to and use of parks and recreational facilities (PK-IAMF#1: Parks, Recreation, and Open Space), and will require detours and signage so that motorists, bicyclists, and pedestrians will continue to have access to local parks and recreational facilities (TR-IAMF#2: Construction Transportation Plan, TR-IAMF#4: Maintenance of Pedestrian Access, TR-IAMF#5: Maintenance of Bicycle Access). The project will comply with Federal Transit Administration (FTA) and FRA guidelines for

mitigation of noise and vibration 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: Noise and Vibration). In addition, the project will include 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: Fugitive Dust Emissions), and minimize off-gassing emissions by limiting the type of paint to those containing volatile organic compounds of less than 10 percent (low) to be used during construction (AQ-IAMF#2: Selection of Coatings). Land temporarily used during construction will be restored to a condition equal to the pre-construction staging condition (LU-IAMF#3: Restoration of Land Used Temporarily during Construction). The project will include a construction management plan that includes visual screening techniques designed to minimize impacts on residents and businesses (SOCIO-IAMF#1: Construction Management Plan). Additional visual protection measures will include visually integrating structures into communities and reducing the intrusiveness of expanded railway infrastructure that cannot be shielded from sensitive viewers (AVQ-IAMF#1: Aesthetic Options), and will require the Authority to consult with local jurisdictions to develop contextually appropriate aesthetic solutions for non-station structures (AVQ-IAMF#2: Aesthetic Review Process).

Section 4(f) resources adjacent to or within 200 feet of the project footprint would experience the most severe noise or visual impacts. At or beyond 200 feet, potential noise or visual impacts would be reduced by the presence of residential, commercial, and urban development and landscaping between the resource and the project footprint, so proximity impacts would be minor or avoided. As discussed in Section 4.1.2, Resource Study Area, the RSA extends 1,000 feet beyond the project footprint; this distance was selected to identify resources that would be sensitive to noise or visual impacts.

There would be no proximity impacts at 20 parks or recreational facilities located over 1,000 feet from construction activities, shown in Table 4-6. Noise, vibration, and construction emissions could make use of parks or recreational facilities less desirable at the 76 resources within 1,000 feet of construction activities, but the impacts would lessen with distance and intervening development between the resources and rail corridor. Park and recreational users would typically be exposed to noise, vibration, and construction emissions only for relatively short periods (days to months), except at the Brisbane LMF (2 to 3 years); 4th and King Street, Millbrae, and at-grade San Jose Diridon Stations (2 years); and under Alternative B, passing tracks (4.5 years), viaduct (2 years), and aerial San Jose Diridon Station (3 to 4 years). Visual changes resulting from introducing construction activities and equipment into the viewsheds of park and recreational users 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. Major project components would take longer to build, from 1 year to 4.5 years. While the project would primarily consist of minor changes to the existing Caltrain railway that would not change the visual character of the corridor, the project would introduce new project components such as the Brisbane LMF, expanded Millbrae Station, passing tracks and viaduct with aerial station (Alternative B), radio towers, and other HSR infrastructure.

Operations impacts could include proximity impacts, such as increases in noise or visual changes, which could result in a constructive use. 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 that train horns sound when entering stations and approaching at-grade crossings. There would be no difference in operations effects on parks and recreation areas as a result of the DDV compared to Alternative A without the DDV. Thus, there would be no difference in operational effects on Section 4(f) resources.

Table 4-6 lists the parks and recreational facilities located over 200 feet from the project footprint where it is anticipated that because of the distance from the project footprint, no use under Section 4(f) would occur. Table 4-7 lists the 53 parks and recreational facilities within 200 feet of the project footprint and Section 4(f) use determinations. Detailed use assessments are provided following Table 4-7 for the Section 4(f) resources within 200 feet of the project footprint. Temporary and permanent changes to Section 4(f) resources from the project alternatives are illustrated on Figures 4-24 through 4-71. Visual impacts would be reduced with distance and the presence of existing mature trees, intervening structures, or both that would block direct views of the project. Park and recreational users would be actively engaged in playing sports, walking and biking, and their proximity to project construction or operations would not prevent users from participating in these activities.

When a permanent use of a Section 4(f) resource would occur, it is not necessary to analyze whether there would be a constructive use because a use has already been determined; in these circumstances, possible constructive use is not discussed.

Table 4-6 Parks and Recreational Facilities Over 200 Feet from the Project Footprint with a Determination of No Use under Section 4(f)

Map ID#	Name and City	Distance to Nearest Project Feature	Construction Impacts	Operations Impact
San Francisco to South San Francisco Subsection				
2	Gene Friend Recreation Center, San Francisco	Alternatives A and B: 2,444.7 feet	**Alternatives A and B:** No permanent use or TCE required. No permanent or temporary changes in access would occur.	**Alternatives A and B:** There would be no proximity impacts at parks or recreation resources located over 1,000 feet from the project. Proximity impacts would lessen with distance and would be minor or avoided for resources within 1,000 to 200 feet of the project. As a result, noise, vibration, and visual impacts would not substantially impair the protected activities, features, or attributes that qualify the parks and recreation resources for protection under Section 4(f), so no constructive use would result.
3	Victoria Manalo Draves Park, San Francisco	Alternatives A and B: 1,899.9 feet		
4	Bessie Carmichael Elementary School, San Francisco	Alternatives A and B: 2,064.5 feet		
5	South Park, San Francisco	Alternatives A and B: 961.2 feet		
6	South Beach Park, San Francisco	Alternatives A and B: 1,528.4 feet		
7	China Basin Park, San Francisco	Alternatives A and B: 949.6 feet		
10	Mission Bay Kid's Park, San Francisco	Alternatives A and B: 1,189.7 feet		
11	Mission Bay Commons Park, San Francisco	Alternatives A and B: 2,079.0 feet		
13	Jackson Playground and Park, San Francisco	Alternatives A and B: 697.8 feet		
15	Esprit Park, San Francisco	Alternatives A and B: 359.6 feet		
16	Daniel Webster Elementary School, San Francisco	Alternatives A and B: 749.7 feet		
17	Woods Yard Park, San Francisco	Alternatives A and B: 361.9 feet		
18	Potrero Hill Recreation Center and Park, San Francisco	Alternatives A and B: 927.4 feet		
19	Progress Park, San Francisco	Alternatives A and B: 314.7 feet		
22	Dr. Charles R. Drew Elementary School, San Francisco	Alternatives A and B: 360.0 feet		
24	Bay View Park K.C. Jones Playground, San Francisco	Alternatives A and B: 679.0 feet		
25	KIPP Bayview Academy	Alternatives A and B: 469.4 feet		
26	Mansell Parkway, San Francisco	Alternatives A and B: 870.3 feet		
27	Le Conte Mini Park, San Francisco	Alternatives A and B: 717.2 feet		
28	Bayview Hill Park/Open Space, San Francisco	Alternatives A and B: 918.2 feet		
29	John McLaren Park, San Francisco	Alternatives A and B: 2,308.3 feet		
30	Visitacion Valley Greenway, San Francisco	Alternatives A and B: 1,393.0 feet		

Map ID#	Name and City	Distance to Nearest Project Feature	Construction Impacts	Operations Impact
31	Visitacion Valley Greenway, San Francisco	Alternatives A and B: 684.8 feet		
32	Visitacion Valley Playground, San Francisco	Alternatives A and B: 1,829.2 feet		
33	Visitacion Valley Elementary School, San Francisco	Alternatives A and B: 2,042.7 feet		
34	Candlestick Point State Recreation Area, San Francisco	Alternative A: 2,334.4 feet Alternative B: 2,309.7 feet		
35	Little Hollywood Park, San Francisco	Alternatives A and B: 590.0 feet		
36	Kelloch-Velasco Park, San Francisco	Alternatives A and B: 2,403.8 feet		
37	David R. Rowe Park, Daly City	Alternative A: 2,841.5 feet Alternative B: 2,240.5 feet		
38	Mission Blue Baseball Field, Brisbane	Alternative A: 3,009.9 feet Alternative B: 2,348.5 feet		
39	Crocker Park Recreational Trail, Brisbane	Alternative A: 684.6 feet Alternative B: 480.6 feet		
40	Brisbane City Hall Dog Park, Brisbane	Alternatives A and B: 484.4 feet		
41	San Bruno Mountain State and County Park, Brisbane	Alternatives A and B: 367.0 feet		
44	Brisbane Skate Park and Basketball Courts, Brisbane	Alternatives A and B: 479.6 feet		
45	Old Quarry Road Park and Trail, Brisbane	Alternatives A and B: 937.9 feet		
46	Lipman Middle School, Brisbane	Alternatives A and B: 1,422.4 feet		
47	Brisbane Elementary School, Brisbane	Alternatives A and B: 1,177.4 feet		
48	Firth Park, Brisbane	Alternatives A and B: 1,564.0 feet		
49	Gardiner Lot, South San Francisco	Alternatives A and B: 542.9 feet		
50	Cypress and Pine Playlot, South San Francisco	Alternatives A and B: 606.2 feet		

Map ID#	Name and City	Distance to Nearest Project Feature	Construction Impacts	Operations Impact
San Bruno to San Mateo Subsection				
51	Bayshore Circle Park, San Bruno	Alternatives A and B: 317.6 feet	**Alternatives A and B:** No permanent use or TCE required. No permanent or temporary changes in access would occur.	**Alternatives A and B:** There would be no proximity impacts at parks or recreation resources located over 1,000 feet from the project. Proximity impacts would lessen with distance and would be minor or avoided for resources within 1,000 to 200 feet of the project. As a result, noise, vibration, and visual impacts would not substantially impair the protected activities, features, or attributes that qualify the parks and recreation resources for protection under Section 4(f), so no constructive use would result.
53	Forest Lane Park, San Bruno	Alternatives A and B: 297.2 feet		
56	Lomita Park, San Bruno	Alternatives A and B: 493.4 feet		
60	Central Park, Millbrae	Alternatives A and B: 536.8 feet		
62	Bayfront Park, Millbrae	Alternatives A and B: 2,366.5 feet		
63	Millbrae Spur Trail, Millbrae	Alternatives A and B: 575.9 feet		
64	Millbrae Skate Park, Millbrae	Alternatives A and B: 1,195.3 feet		
65	Spring Valley Elementary School, Millbrae	Alternatives A and B: 2,012.6 feet		
68	Bayside Fields and Dog Park, Burlingame	Alternatives A and B: 891.1 feet		
69	Paloma Playground, Burlingame	Alternatives A and B: 949.5 feet		
71	Burlingame Aquatic Center, Burlingame	Alternatives A and B: 421.1 feet		
73	Martin Luther King Jr. Park, San Mateo	Alternatives A and B: 863.5 feet		
74	San Mateo Central Recreation Center and Park, San Mateo	Alternatives A and B: 702.6 feet		
San Mateo to Palo Alto Subsection				
77	Bay Meadows Community Park, San Mateo	Alternatives A and B: 741.2 feet	**Alternatives A and B:** No permanent use or TCE required. No permanent or temporary changes in access would occur.	**Alternatives A and B:** There would be no proximity impacts at parks or recreation resources located over 1,000 feet from the project. Proximity impacts would lessen with distance and would be minor or avoided for resources within 1,000 to 200 feet of the project. As a result, noise, vibration,
78	Paddock Park, San Mateo	Alternative A: 981.5 feet Alternative B: 978.3 feet		
79	Davey Glen Park, Belmont	Alternative A: 645.2 feet Alternative B: 625.7 feet		
80	Alexander Park, Belmont	Alternative A: 393.8 feet Alternative B: 374.2 feet		
81	Central Elementary School, Belmont	Alternative A: 396.8 feet Alternative B: 363.4 feet		

Map ID#	Name and City	Distance to Nearest Project Feature	Construction Impacts	Operations Impact
82	Nesbit Elementary School, Belmont	Alternative A: 672.6 feet Alternative B: 668.8 feet		and visual impacts would not substantially impair the protected activities, features, or attributes that qualify the parks and recreation resources for protection under Section 4(f), so no constructive use would result.
83	O'Donnell Park, Belmont	Alternative A: 1,021.5 feet Alternative B: 890.8 feet		
84	Twin Pines Park, Belmont	Alternatives A and B: 859.0 feet		
85	Laureola Park, San Carlos	Alternative A: 284.9 feet Alternative B: 213.5 feet		
86	Frank D. Harrington Park, San Carlos	Alternative A: 311.7 feet Alternative B: 309.8 feet		
87	Wellesley Crescent Park, Redwood City	Alternatives A and B: 675.8 feet		
88	Mezes Park, Redwood City	Alternatives A and B: 677.8 feet		
89	Brewster/arch Parklet, Redwood City	Alternatives A and B: 690.1 feet		
91	Courthouse Square, Redwood City	Alternatives A and B: 450.7 feet		
92	City Center Plaza, Redwood City	Alternatives A and B: 293.3 feet		
95	Jardin De Ninos Park, Redwood City	Alternatives A and B: 490.7 feet		
96	Fair Oaks Community Center, Redwood City	Alternatives A and B: 570.8 feet		
97	Friendship Park, Redwood City	Alternatives A and B: 466.0 feet		
100	Cartan Athletic Fields, Atherton	Alternatives A and B: 877.0 feet		
102	Timothy Hopkins Creekside Park, Palo Alto	Alternatives A and B: 716.6 feet		
104	San Francisquito Creek and Trail, Palo Alto	Alternatives A and B: 325.5 feet		
106	Lytton Plaza, Palo Alto	Alternatives A and B: 608.2 feet		
107	Cogswell Plaza, Palo Alto	Alternatives A and B: 889.2 feet		
110	Sarah Wallis Park, Palo Alto	Alternatives A and B: 979.8 feet		
111	Boulware Park, Palo Alto	Alternatives A and B: 856.3 feet		

Map ID#	Name and City	Distance to Nearest Project Feature	Construction Impacts	Operations Impact
Mountain View to Santa Clara Subsection				
114	Rex Manor Park, Mountain View	Alternatives A and B: 301.0 feet	**Alternatives A and B:** No permanent use or TCE required. No permanent or temporary changes in access would occur.	**Alternatives A and B:** Proximity impacts would lessen with distance and would be minor or avoided for resources within 1,000 to 200 feet of the project. As a result, noise and visual impacts would not substantially impair the protected activities, features, or attributes that qualify the parks and recreation resources for protection under Section 4(f), so no constructive use would result.
115	Jackson Park, Mountain View	Alternatives A and B: 692.7 feet		
116	Dana Park, Mountain View	Alternatives A and B: 781.3 feet		
118	Willowgate Community Garden	Alternatives A and B: 334.6 feet		
120	Chetwood Park, Mountain View	Alternatives A and B: 903.3 feet		
121	Magnolia Park, Mountain View	Alternatives A and B: 588.0 feet		
122	Vargas Elementary School, Sunnyvale	Alternatives A and B: 828.6 feet		
123	Cannery Park, Sunnyvale	Alternatives A and B: 408.9 feet		
125	Victory Village Park, Sunnyvale	Alternatives A and B: 639.1 feet		
127	Bracher Elementary School, Santa Clara	Alternatives A and B: 453.9 feet		
San Jose Diridon Station Approach Subsection				
128	Discovery Dog Park, San Jose	Alternative A: 970.0 feet Alternative B: 764.5 feet	**Alternatives A and B:** No permanent use or TCE required. No changes in access would occur.	**Alternatives A and B:** There would be no proximity impacts at parks or recreation resources located over 1,000 feet from the project. Proximity impacts would lessen with distance and would be minor or avoided for resources within 1,000 to 200 feet of the project. As a result, noise and visual impacts would not substantially impair the protected activities,
138	Del Monte Park, San Jose	Alternative A: 311.1 feet Alternative B: 895.2 feet		
143	Palm Haven Plaza, San Jose	Alternative A: 854.5 feet Alternative B: 1,979.1 feet		
144	Hummingbird Park, San Jose	Alternative A: 893.4 feet Alternative B: 2,355.1 feet		
145	Jesse Frey Community Garden, San Jose	Alternative A: 406.3 feet Alternative B: 284.0 feet		
147	Roberto Antonio Balermino Park, San Jose	Alternatives A and B: 713.5 feet		

Map ID#	Name and City	Distance to Nearest Project Feature	Construction Impacts	Operations Impact
148	Three Creeks Trail, San Jose	Alternatives A and B: 760.3 feet		features, or attributes that qualify the parks and recreation resources for protection under Section 4(f), so no constructive use would result.

Sources: Authority 2019c, 2019d; Google, Inc. 2018
TCE = temporary construction easement

Table 4-7 Section 4(f) Use Determinations for Parks and Recreation Areas within 200 feet of the Project Footprint

Map ID#	Name and City	Distance to Nearest Project Feature[1]	Construction Impact	Operations Impact	Use Determination
San Francisco to South San Francisco Subsection					
1	San Francisco Bay Trail-1 (existing and planned), San Francisco to South San Francisco	Alternatives A and B: 0 (adjacent)	**Alternatives A and B:** No permanent use or TCE required. No temporary or permanent changes in access would occur.	**Alternatives A and B**: Operations would increase the number of trains operating in the corridor and increase the frequency of train horn noise. Minor changes in the visual environment. However, noise and visual impacts would not substantially impair the protected activities, features, or attributes that qualify the resources for protection under Section 4(f), and no constructive use would result.	No Use See Sections 4.6.1.1–4.6.1.5 and Figures 4-24–4-27
8	Mission Creek Park, San Francisco	Alternatives A and B: 30.0 feet	**Alternatives A and B:** No permanent use or TCE required. Construction activities would temporarily reduce but not eliminate access. Incorporation of project features and mitigation measures will maintain access to the parks.		
9	Mission Bay Dog Park, San Francisco	Alternatives A and B: 14.7 feet			
12	Mariposa Park, San Francisco	Alternatives A and B: 188.0 feet	**Alternatives A and B**: No permanent use or TCE required. No temporary or permanent changes in access would occur.		
14	Pennsylvania Garden, San Francisco	Alternatives A and B: 0 feet (existing Caltrain right-of-way)			
20	Tunnel Top Park, San Francisco	Alternatives A and B: 0 feet (on surface of existing Caltrain tunnel)	**Alternatives A and B**: No permanent use or TCE required. No temporary or permanent changes in access would occur.	**Alternatives A and B**: The project alternatives would be in a tunnel beneath the parks and garden. Noise, vibration, and visual impacts would not substantially impair the protected activities, features, or attributes that qualify the resources for protection under Section 4(f), and no constructive use would occur.	No Use See Sections 4.6.1.6–4.6.1.8 and Figures 4-28–4-30
21	Palou and Phelps Park, San Francisco	Alternatives A and B: 0 feet (on surface of existing Caltrain tunnel)			
23	Florence Fang Asian Community Garden, San Francisco	Alternatives A and B: 0 feet (on surface of existing Caltrain tunnel)			

Map ID#	Name and City	Distance to Nearest Project Feature[1]	Construction Impact	Operations Impact	Use Determination
42	Brisbane Lagoon Fisherman's Park, Brisbane	Alternatives A and B: 0 feet (adjacent)	**Alternatives A and B:** No permanent use or TCE required. No temporary or permanent changes in access would occur.	**Alternatives A and B:** Operations would increase the number of trains operating in the corridor and increase the frequency of train horn noise. Minor proximity impacts from changes in noise and the visual environment at Fisherman's Park. Noise and visual impacts would not substantially impair the protected activities, features, or attributes that qualify Brisbane Lagoon Fisherman's Park for protection under Section 4(f), and no constructive use would result.	No Use See Section 4.6.1.9 and Figures 4-31a–4-31b
43	Brisbane Community Park, Brisbane	Alternatives A and B: 21.6 feet	**Alternatives A and B:** No permanent use or TCE required. No temporary or permanent changes in access would occur.	**Alternatives A and B:** Noise and visual impacts would not substantially impair the protected activities, features, or attributes that qualify Brisbane Community Park for protection under Section 4(f), and no constructive use would result.	No Use See Section 4.6.1.10 and Figure 4-32
San Bruno to San Mateo Subsection					
52	Herman Park, San Bruno	Alternatives A and B: 47.0 feet	**Alternatives A and B:** No permanent use or TCE required. No changes in access would occur.	**Alternatives A and B:** Operations would increase the number of trains operating in the corridor and increase the frequency of train horn noise. Minor changes to the visual environment. However, noise and visual impacts would not substantially impair the protected activities, features, or attributes that qualify the resources for protection under Section 4(f), and no constructive use would result.	No Use See Sections 4.6.1.1, and 4.6.1.11–4.6.1.14 and Figures 4-24, and 4-33–4-34, and 4-36–4-37
54	Posy Park, San Bruno	Alternatives A and B: 0 feet (adjacent)			
1	San Francisco Bay Trail-2 (planned), Millbrae	Alternatives A and B: 0 feet (adjacent)–2,366.5 feet	**Alternatives A and B:** No permanent use or TCE required. Construction activities would temporarily reduce but not eliminate access. Incorporation of project features and mitigation measures will maintain access to the parks.		
55	Lions Park, San Bruno	Alternatives A and B: 58.7 feet			

Map ID#	Name and City	Distance to Nearest Project Feature[1]	Construction Impact	Operations Impact	Use Determination
57	Lomita Park Elementary, Millbrae	Alternatives A and B: 48.2 feet	**Alternatives A and B:** No permanent use or TCE required. No changes in access would occur.		
58	Marina Vista Park, Millbrae	Alternatives A and B: 536.8 feet[1]	**Alternatives A and B:** No permanent use or TCE required. Construction activities would temporarily reduce but not eliminate access. Incorporation of project features and mitigation measures will maintain access to the park.	**Alternatives A and B:** Proximity impacts would be minor or avoided because of the distance from the project and intervening residential development, and no constructive use would result.	No Use See Section 4.6.1.15
59	Monterey Park, Millbrae	Alternatives A and B: within existing Caltrain right-of-way	**Alternatives A and B:** No permanent use or TCE required. Construction activities would temporarily reduce but not eliminate access. Incorporation of project features and mitigation measures will maintain access to the park.	**Alternatives A and B:** Operations would increase the number of trains operating in the corridor and increase the frequency of train horn noise. Minor changes to the visual environment. Noise and visual impacts would not substantially impair the protected activities, features, or attributes that qualify the resources for protection under Section 4(f), and no constructive use would result.	No Use See Section 4.6.1.16 and Figure 4-35
61	Bayside Manor Park, Millbrae	Alternatives A and B: 380.0 feet[1]	**Alternatives A and B:** No permanent use or TCE required. Construction activities would temporarily reduce but not eliminate access. Incorporation of project features and mitigation measures will maintain access to the park.	**Alternatives A and B:** Proximity impacts would be minor or avoided because of the distance from the project and intervening residential development, and no constructive use would result.	No Use See Section 4.6.1.17

Map ID#	Name and City	Distance to Nearest Project Feature[1]	Construction Impact	Operations Impact	Use Determination
66	Village Park, Burlingame	Alternatives A and B: 98.6 feet tracks	**Alternatives A and B:** No permanent use or TCE required. No changes in access would occur.	**Alternatives A and B:** Operations would increase the number of trains operating in the corridor and increase the frequency of train horn noise. Minor changes to the visual environment. Noise and visual impacts would not substantially impair the protected activities, features, or attributes that qualify the resources for protection under Section 4(f), and no constructive use would result.	No Use See Sections 4.6.1.18–4.6.1.20 and Figures 4-38–4-40
67	Laguna Park, Burlingame	Alternatives A and B: 199.5 feet			
70	Alpine Park, Burlingame	Alternatives A and B: 79.4 feet			
72	Washington Park, Burlingame	Alternatives A and B: 58.1 feet	**Alternatives A and B:** No permanent use or TCE required. No changes in access would occur.	**Alternatives A and B:** Operations would increase the number of trains operating in the corridor and increase the frequency of train horn noise. Minor changes to the visual environment. Moderate noise impact because of 2-dBA increase over existing noise level. However, noise and visual impacts would not substantially impair the protected activities, features, or attributes that qualify the Washington Park for protection under Section 4(f), and no constructive use would result.	No Use See Section 4.6.1.21 and Figure 4-41

Map ID#	Name and City	Distance to Nearest Project Feature[1]	Construction Impact	Operations Impact	Use Determination
San Mateo to Palo Alto Subsection					
75	Hayward Park Square, San Mateo	Alternatives A and B: 79.3 feet	**Alternatives A and B:** No permanent use or TCE required. No changes in access would occur.	**Alternative A:** Operations would increase the number of trains operating in the corridor and increase the frequency of train horn noise. Minor changes to the visual environment. Noise and visual impacts would not substantially impair the protected activities, features, or attributes that qualify Hayward Park Square for protection under Section 4(f), and no constructive use would result. **Alternative B:** Operations would increase the number of trains operating in the corridor and increase the frequency of train horn noise. Changes to the visual environment because of the four-track passing tracks, or other HSR infrastructure. Noise and visual impacts would not substantially impair the protected activities, features, or attributes that qualify the resources for protection under Section 4(f), and no constructive use would result.	No Use See Section 4.6.1.22 and Figure 4-42

Map ID#	Name and City	Distance to Nearest Project Feature[1]	Construction Impact	Operations Impact	Use Determination
76	Trinta Park, San Mateo	Alternatives A and B: 0 feet, within footprint	**Alternative A:** No permanent use or TCE required. No changes in access would occur.	**Alternative A**: Operations would increase the number of trains operating in the corridor and increase the frequency of train horn noise. Minor changes to the visual environment. Noise impacts would not substantially impair the protected activities, features, or attributes that qualify Trinta Park for protection under Section 4(f), and no constructive use would result.	No Use See Section 4.6.1.23 and Figure 4-43a
			Alternative B: No permanent use or TCE required; construction activities would block vehicular access from Leslie Street. Incorporation of project features and mitigation measures will maintain access to the park.	**Alternative B**: Operations would increase the number of trains operating in the corridor and increase the frequency of train horn noise. Changes to the visual environment because of the four-track passing tracks, or other HSR infrastructure. Noise and visual impacts would not substantially impair the protected activities, features, or attributes that qualify Trinta Park for protection under Section 4(f), and no constructive use would result.	No Use See Section 4.6.1.23 and Figure 4-43b
90	Little River Park, Redwood City	Alternatives A and B: 0 feet (within existing station footprint)	**Alternatives A and B:** No permanent use or TCE required. No changes in access would occur.	**Alternatives A and B:** Operations would increase the number of trains operating in the corridor and increase the frequency of train horn noise. Noise and visual impacts would not substantially impair the protected activities, features, or attributes that qualify Little River Park for protection under Section 4(f), and no constructive use would result.	No Use See Section 4.6.1.24

Map ID#	Name and City	Distance to Nearest Project Feature[1]	Construction Impact	Operations Impact	Use Determination
93	John S. Roselli Memorial Park, Redwood City	Alternatives A and B: 0 feet (adjacent)	**Alternatives A and B:** No permanent use or TCE required. Construction activities could temporarily reduce but not eliminate access. Incorporation of project features and mitigation measures will maintain access to the park.	**Alternatives A and B:** Operations would increase the number of trains operating in the corridor and increase the frequency of train horn noise. Minor changes to the visual environment. Moderate noise impact because of 2-dBA increase over existing noise level. Noise impacts would not substantially impair the protected activities, features, or attributes that qualify John S. Roselli Memorial Park for protection under Section 4(f), and no constructive use would result.	No Use See Section 4.6.1.25 and Figure 4-44
94	Main Street Dog Agility Park, Redwood City	Alternatives A and B: 7.3 feet	**Alternatives A and B**: No permanent use or TCE required. Construction activities could temporarily reduce but not eliminate access. Incorporation of project features and mitigation measures will maintain access to the park.	**Alternatives A and B:** Operations would increase the number of trains operating in the corridor and increase the frequency of train horn noise. Minor changes to the visual environment. Noise impacts would not substantially impair the protected activities, features, or attributes that qualify Main Street Dog Agility Park for protection under Section 4(f), and no constructive use would result.	No Use See Section 4.6.1.26 and Figure 4-45
98	Reading Park, Atherton	Alternatives A and B: 119.9 feet	**Alternatives A and B**: No permanent use or TCE required. No changes in access would occur.	**Alternatives A and B:** Operations would increase the number of trains operating in the corridor and increase the frequency of train horn noise. Minor changes to the visual environment. Noise impacts would not substantially impair the protected activities, features, or attributes that qualify Reading Park for protection under Section 4(f), and no constructive use would result.	No Use See Section 4.6.1.27 and Figure 4-46

Map ID#	Name and City	Distance to Nearest Project Feature[1]	Construction Impact	Operations Impact	Use Determination
99	Holbrook-Palmer Park, Atherton	Alternatives A and B: 0 feet (adjacent)	**Alternatives A and B**: No permanent use or TCE required. Construction activities would temporarily reduce but not eliminate access. Incorporation of project features and mitigation measures will maintain access to the park.	**Alternatives A and B:** Operations would increase the number of trains operating in the corridor and increase the frequency of train horn noise. Minor changes to the visual environment. Moderate noise impact because of 5-dBA increase over existing noise levels. Noise impacts would not substantially impair the protected activities, features, or attributes that qualify the Holbrook-Palmer Park for protection under Section 4(f), and no constructive use would result.	No Use See Section 4.6.1.28 and Figure 4-47
101	Burgess Park, Menlo Park	Alternatives A and B: 54.7 feet	**Alternatives A and B**: No permanent use or TCE required. No changes in access would occur.	**Alternatives A and B**: Operations would increase the number of trains operating in the corridor and increase the frequency of train horn noise. Minor changes to the visual environment. Noise impacts would not substantially impair the protected activities, features, or attributes that qualify Burgess Park for protection under Section 4(f).	No Use See Section 4.6.1.29 and Figure 4-48
103	El Palo Alto Park, Palo Alto	Alternatives A and B: 0 feet (adjacent)	**Alternatives A and B**: No permanent use or TCE required. Construction activities could temporarily reduce but not eliminate access. Incorporation of project features and mitigation measures will maintain access to the park.	**Alternatives A and B:** Operations would increase the number of trains operating in the corridor and increase the frequency of train horn noise. Minor changes to the visual environment. Moderate noise impact because of 2-dBA increase over existing noise levels. Noise impacts would not substantially impair the protected activities, features, or attributes that qualify the El Palo Alto Park for protection under Section 4(f), and no constructive use would result.	No Use See Section 4.6.1.30 and Figure 4-49

Map ID#	Name and City	Distance to Nearest Project Feature[1]	Construction Impact	Operations Impact	Use Determination
105	El Camino Park, Palo Alto	Alternatives A and B: 0 feet (adjacent)	**Alternatives A and B**: No permanent use or TCE required. Construction activities could temporarily reduce but not eliminate access. Incorporation of project features and mitigation measures will maintain access to the park.	**Alternatives A and B:** Operations would increase the number of trains operating in the corridor and increase the frequency of train horn noise. Minor changes to the visual environment. Noise impacts would not substantially impair the protected activities, features, or attributes that qualify El Camino Park for protection under Section 4(f), and no constructive use would result.	No Use See Section 4.6.1.31 and Figure 4-49
108	Peers Park, Palo Alto	Alternatives A and B: 0.2 feet (adjacent)	**Alternatives A and B**: No permanent use or TCE required. No changes in access would occur.	**Alternatives A and B:** Operations would increase the number of trains operating in the corridor and increase the frequency of train horn noise. Minor changes to the visual environment. Noise and visual impacts would not substantially impair the protected activities, features, or attributes that qualify Peers Park for protection under Section 4(f), and no constructive use would result.	No Use See Section 4.6.1.32 and Figure 4-50
109	Jerry Bowden Park, Palo Alto	Alternatives A and B: 69.1 feet	**Alternatives A and B**: No permanent use or TCE required. No changes in access would occur.	**Alternatives A and B:** Operations would increase the number of trains operating in the corridor and increase the frequency of train horn noise. Minor changes to the visual environment. Moderate noise impact because of 2-dBA increase over existing noise level. Noise impacts would not substantially impair the protected activities, features, or attributes that qualify Jerry Bowden Park for protection under Section 4(f), and no constructive use would result	No Use See Section 4.6.1.33 and Figure 4-51

Map ID#	Name and City	Distance to Nearest Project Feature[1]	Construction Impact	Operations Impact	Use Determination
112	Robles Park, Palo Alto	Alternatives A and B: 43.3 feet	**Alternatives A and B**: No permanent use or TCE required. No changes in access would occur. Construction of a new radio tower at alternate site 2 would be visible from the resource, but construction of the radio tower at alternate site 1 would not be visible from the resource.	**Alternatives A and B:** Operations would increase the number of trains operating in the corridor and increase the frequency of train horn noise. Minor changes to the visual environment. Noise impacts would not substantially impair the protected activities, features, or attributes that qualify the Robles Park for protection under Section 4(f), and no constructive use would result.	No Use See Section 4.6.1.34 and Figure 4-52
Mountain View to Santa Clara Subsection					
113	Rengstorff Park, Mountain View	Alternatives A and B: 32.6 feet	**Alternatives A and B:** No permanent use or TCE required. Construction activities would temporarily reduce but not eliminate access. Incorporation of project features and mitigation measures will maintain access to the park.	**Alternatives A and B:** Operations would increase the number of trains operating in the corridor and increase the frequency of train horn noise. Minor changes to the visual environment. Noise impacts would not substantially impair the protected activities, features, or attributes that qualify the Rengstorff Park for protection under Section 4(f), and no constructive use would result.	No Use See Section 4.6.1.35 and Figure 4-53
117	Centennial Plaza, Mountain View	Alternatives A and B: 0 feet (adjacent)	**Alternatives A and B:** No permanent use or TCE required. Construction activities would temporarily reduce but not eliminate access. Incorporation of project features and mitigation measures will maintain access to the park.	**Alternatives A and B:** Operations would increase the number of trains operating in the corridor and increase the frequency of train horn noise. Minor changes to the visual environment. Noise and visual impacts would not substantially impair the protected activities, features, or attributes that qualify the resources for protection under Section 4(f), and no constructive use would result.	No Use See Sections 4.6.1.36–4.6.1.40 and Figures 4-54–4-58
119	Stevens Creek Trail, Mountain View	Alternatives A and B: 0 feet (overcrossing)	**Alternatives A and B**: No permanent use or TCE required. No changes in access would occur.		
124	Plaza Del Sol, Sunnyvale	Alternatives A and B: 95.0 feet			

Map ID#	Name and City	Distance to Nearest Project Feature[1]	Construction Impact	Operations Impact	Use Determination
126	Bracher Park, Santa Clara	Alternatives A and B: 10.1 feet			
128	San Tomas Aquino Creek Trail, Santa Clara	Alternatives A and B: 0 feet (undercrossing)			
San Jose Diridon Station Approach Subsection					
129	Guadalupe River Park, San Jose	Alternative A: 298.3 feet Alternative B: 0 feet (adjacent)	**Alternatives A and B:** No permanent use or TCE required. No temporary or permanent changes in access would occur	**Alternative A:** Proximity impacts would be minor or avoided because of the distance from the project. Noise and visual impacts would not substantially impair the protected activities, features or attributes that qualify Guadalupe River Park for protection under Section 4(f), and no constructive use would result. **Alternative B:** Operations would increase the number of trains operating in the corridor and increase the frequency of train horn noise. Minor changes in the visual environment. Noise and visual impacts would not substantially impair the protected activities, features, or attributes that qualify Guadalupe River Park for protection under Section 4(f), and no constructive use would result.	No Use See Section 4.6.1.41 and Figure 4-59

Map ID#	Name and City	Distance to Nearest Project Feature[1]	Construction Impact	Operations Impact	Use Determination
130	Reed Street Dog Park, Santa Clara	Alternatives A and B (Viaduct to I-880): 13.9 feet Alternative B (Viaduct to Scott Boulevard): 0 feet (within footprint)	**Alternatives A and B (Viaduct to I-880):** No permanent use or TCE required. No temporary or permanent changes in access would occur.	**Alternatives A and B (Viaduct to I-880):** Operations would increase the number of trains operating in the corridor and increase the frequency of train horn noise. Minor proximity impacts from changes to the visual environment. Noise and visual impacts would not substantially impair the protected activities, features, or attributes that qualify Reed Street Dog Park for protection under Section 4(f), and no constructive use would result.	No Use See Section 4.6.1.42 and Figure 4-60
			Alternative B (Viaduct to Scott Boulevard): Permanent use of 0.18 acre (12%) and temporary use of 0.12 acre; construction activities would temporarily block one of two access points to the park along Lafayette St (at the existing track crossing) north of Warburton Ave, reducing but not eliminating access. Incorporation of project features and mitigation measures will maintain access to the park.	**Alternative B (Viaduct to Scott Boulevard):** Discussion of proximity impacts is not required because a permanent use has been established.	*De minimis* impact See Section 4.6.1.42 and Figure 4-60

Map ID#	Name and City	Distance to Nearest Project Feature[1]	Construction Impact	Operations Impact	Use Determination
131	Reed and Grant Streets Sports Park, Santa Clara	Alternatives A and B (Viaduct to I-880): 0 feet (adjacent) Alternative B (Viaduct to Scott Boulevard): 0 feet (within footprint)	**Alternatives A and B (Viaduct to I-880):** No permanent use or TCE required. No temporary or permanent changes in access would occur.	**Alternatives A and B (Viaduct to I-880):** Minor proximity impacts from changes in noise and in the visual environment. However, noise and visual impacts would not be of a severity that the protected activities, features, or attributes that qualify Reed and Grant Streets Sports Park for protection under Section 4(f) are substantially impaired, and no constructive use would result.	No use See Section 4.6.1.43 and Figure 4-61
			Alternative B (Viaduct to Scott Boulevard): Permanent use of 0.82 acre (11%) of the park and temporary use of 0.27 acre. The TCE vehicular access point at the Lafayette Street and Reed Street intersection would decrease but not eliminate access. Incorporation of project features and mitigation measures will maintain access to the park.	**Alternative B (Viaduct to Scott Boulevard):** Discussion of proximity impacts is not required because a permanent use has been established.	*De minimis* impact See Section 4.6.1.43 and Figure 4-61

Map ID#	Name and City	Distance to Nearest Project Feature[1]	Construction Impact	Operations Impact	Use Determination
132	Larry J. Marsalli Park, Santa Clara	Alternatives A and B (Viaduct to I-880): 292.1 feet Alternative B (Viaduct to Scott Boulevard): 0 feet (within TCE)	**Alternatives A and B (Viaduct to I-880):** No permanent use or TCE required. No permanent or temporary changes in access would occur.	**Alternatives A and B (Viaduct to I-880):** Proximity impacts would be minor or avoided because of the distance from the project. Noise and visual impacts would not substantially impair the protected activities, features, or attributes that qualify Marsalli Park for protection under Section 4(f), and no constructive use would result.	No Use See Section 4.6.1.44 and Figure 4-62
			Alternative B (Viaduct to Scott Boulevard): No permanent use; temporary occupancy of 0.51 acre; construction activities would temporarily block two of three access points to the park, the access point along Alviso Street and Lewis Street, and The Alameda, reducing but not eliminating access. Incorporation of project features and mitigation measures will maintain access to the park. Construction activities would meet the criteria for the exception in 23 C.F.R. § 774.13(d) and Section 4(f) would not apply.	**Alternative B (Viaduct to Scott Boulevard):** Minor proximity impacts from changes in noise and the visual environment. However, noise and visual impacts would not substantially impair the protected activities, features, or attributes that qualify Larry J. Marsalli Park for protection under Section 4(f), and no constructive use would result.	No Use See Figure 4-62
133	Newhall Park, San Jose	Alternatives A and B (Viaduct to I-880): 191.3 feet Alternative B (Viaduct to Scott Boulevard): 188.7 feet	**Alternatives A and B:** No permanent use or TCE required. No permanent or temporary changes in access would occur.	**Alternatives A and B:** Minor proximity impacts from changes in noise and in the visual environment. However, noise and visual impacts would not substantially impair the protected activities, features, or attributes that qualify Newhall Park for protection under Section 4(f), and no constructive use would result.	No Use See Section 4.6.1.45 and Figure 4-63

Map ID#	Name and City	Distance to Nearest Project Feature[1]	Construction Impact	Operations Impact	Use Determination
134	College Park, San Jose	Alternative A: 527.8 feet Alternative B: 0 feet (within TCE)	**Alternative A:** No permanent use or TCE required. No permanent or temporary changes in access would occur.	**Alternative A:** Proximity impacts would be minor or avoided because of the distance from the project and no constructive use would result.	No Use See Section 4.6.1.46 and Figure 4-64
			Alternative B: (Viaduct to I-880): No permanent use; temporary occupancy of 0.04 acre; construction activities would temporarily block two access points along Elm Street and West Hedding Street, reducing but not eliminating access. Incorporation of project features and mitigation measures will maintain access to the park along West Hedding Street. Construction activities would meet the criteria for the exception in 23 C.F.R. § 774.13(d) and Section 4(f) would not apply.	**Alternative B:** Because of the distance of the park from the centerline (660 feet), which is where the project alternative would operate, proximity impacts would not result.	No Use See Section 4.6.1.46 and Figure 4-64
			Alternative B (Viaduct to Scott Boulevard): No permanent use; temporary occupancy of 0.02 acre; same access changes as Alternative B (Viaduct to I-880). Construction activities would meet the criteria for the exception in 23 C.F.R. § 774.13(d) and Section 4(f) would not apply.		

Map ID#	Name and City	Distance to Nearest Project Feature[1]	Construction Impact	Operations Impact	Use Determination
135	Theodore Lenzen Park, San Jose	Alternative A: 292.3 feet Alternative B: 36.4 feet	**Alternatives A and B:** No permanent use or TCE required. No permanent or temporary changes in access would occur.	**Alternative A:** Proximity impacts would be minor or avoided because of the distance from the project. Noise and visual impacts would not substantially impair the protected activities, features, or attributes that qualify Theodore Lenzen Park for protection under Section 4(f), and no constructive use would result. **Alternative B:** Minor proximity impacts from changes in noise and in the visual environment. Noise and visual impacts would not substantially impair the protected activities, features, or attributes that qualify Theodore Lenzen Park for protection under Section 4(f), and no constructive use would result.	No Use See Section 4.6.1.46 and Figure 4-65
136	Cahill Park, San Jose	Alternative A: 116.4 feet Alternative B: 114.7 feet	**Alternatives A and B:** No permanent use or TCE required. No permanent or temporary changes in access would occur.	**Alternatives A and B:** Minor proximity impacts from changes in noise and in the visual environment that would not substantially impair the protected activities, features, or attributes that qualify Cahill Park for protection under Section 4(f), and no constructive use would result.	No Use See Section 4.6.1.48 and Figure 4-66

Map ID#	Name and City	Distance to Nearest Project Feature[1]	Construction Impact	Operations Impact	Use Determination
137	Los Gatos Creek Trail, San Jose	Alternative A: 0 feet (on existing Caltrain bridge above trail) Alternative B: 0 feet (on new viaduct over trail	**Alternative A:** No permanent use or TCE required. No permanent or temporary changes in access would occur.	**Alternative A:** Minor proximity impacts from changes in noise and in the visual environment. Noise and visual impacts would not be of a severity that the protected activities, features, or attributes that qualify Los Gatos Creek Trail for protection under Section 4(f) would be substantially impaired, and no constructive use would result.	No Use See Section 4.6.1.49 and Figure 4-67
			Alternative B: Permanent easement of 0.55 acre/0.02 mile (0.21%) and permanent use of 0.11 acre of the trail (within the 0.55 acre) and temporary use of 1.31 acres. TCE at one of three access points on W San Carlos Street would reduce but not eliminate access. Incorporation of project features and mitigation measures will maintain access to the trail.	**Alternative B:** Discussion of proximity impacts is not required because a permanent use has been established.	*De minimis* impact See Section 4.6.1.49 and Figure 4-67
138	Guadalupe River Trail (Reach 6), San Jose	Alternative A: 0 feet (adjacent) Alternative B: 0 feet (within footprint)	**Alternative A:** No permanent use or TCE required. No permanent or temporary changes in access would occur.	**Alternatives A:** Minor proximity impacts from changes in noise and the visual environment. Noise and visual impacts would not substantially impair the protected activities, features, or attributes that qualify Guadalupe River Trail (Reach 6) for protection under Section 4(f), and no constructive use would result.	No Use See Section 4.6.1.50 and Figure 4-68
			Alternative B: Permanent use of 0.8 acre/0.17 mile (1.89%) and temporary use of 0.7 acre. Incorporation of project features and mitigation measures will maintain access to the trail.	**Alternative B:** Discussion of proximity impacts is not required because a permanent use has been established.	*De minimis* impact See Section 4.6.1.50 and Figure 4-68

Map ID#	Name and City	Distance to Nearest Project Feature[1]	Construction Impact	Operations Impact	Use Determination
141	Biebrach Park, San Jose	Alternative A: 10.1 feet Alternative B: 395.3 feet	**Alternatives A and B:** No permanent use or TCE required. No permanent or temporary changes in access would occur.	**Alternative A:** Minor proximity impacts from changes in noise and the visual environment that would not substantially impair the protected activities, features, or attributes that qualify Biebrach Park for protection under Section 4(f), and no constructive use would result.	No Use See Section 4.6.1.51 and Figure 4-69
				Alternative B: Noise and visual impacts would not substantially impair the protected activities, features, or attributes that qualify Biebrach Park for protection under Section 4(f), and no constructive use would result.	
142	Fuller Park, San Jose	Alternative A: 0 feet (within footprint) Alternative B: 443.4 feet	**Alternative A:** Permanent use of 0.03 acre (2.6%) and temporary use of 0.01 acre. No permanent or temporary changes in access would occur.	**Alternative A:** Discussion of proximity impacts is not required because a permanent use has been established.	*De minimis* impact See Section 4.6.1.52 and Figure 4-70
			Alternative B: No permanent use or TCE required. No permanent or temporary change in access would occur.	**Alternative B:** Proximity impacts would be minor or avoided because of the distance from the project. Noise and visual impacts would not substantially impair the protected activities, features, or attributes that qualify Fuller Park for protection under Section 4(f), and no constructive use would result.	No Use See Figure 4-70

Map ID#	Name and City	Distance to Nearest Project Feature[1]	Construction Impact	Operations Impact	Use Determination
146	Tamien Park, San Jose	Alternative A: 0 feet (adjacent) Alternative B: 0 feet (within footprint)	**Alternative A:** No permanent use or TCE required. No changes in access would occur.	**Alternative A:** Minor proximity impacts from changes in noise and in the visual environment. Noise and visual impacts would not substantially impair the protected activities, features, or attributes that qualify Tamien Park for protection under Section 4(f) and no constructive use would result.	No Use See Section 4.6.1.53 and Figure 4-71
			Alternative B: Permanent use of 0.22 acre (6.3%) and temporary use of 0.05 acre. However, PK-MM#4: Design Refinements to Avoid Aboveground Park Encroachment at Tamien Park, will reposition the aboveground portions of the straddle bent column out of the park and reconfigure the column footing. Therefore, no permanent use would be required. No changes in access would occur. Construction activities would meet the criteria for the exception in 23 C.F.R. § 774.13(d) and Section 4(f) would not apply.	**Alternative B**: Minor proximity impacts from changes in noise and in the visual environment. Noise and visual impacts would not substantially impair the protected activities, features, or attributes that qualify Tamien Park for protection under Section 4(f) and no constructive use would result.	No Use See Section 4.6.1. 53 and Figure 4-71

Sources: Authority 2019c, 2019d; Google, Inc. 2018
dBA = A-weighted decibel
I- = Interstate
TCE= temporary construction easement
[1] While Marina Vista and Bayside Manor Parks are more than 200 feet from the project footprint, they are included in Table 4-7 because of the potential for temporary construction-related reductions in access.

Permanent Visual Impacts

As described in Section 3.15, Aesthetics and Visual Quality, 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 Section 4(f) 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. 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.

Activities in most parks and recreational facilities 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, important views (such as the San Francisco Bay or San Bruno Mountain) would not be blocked and project elements would be in an existing urban transportation corridor where views of trains and railway infrastructure 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 and recreational facilities would not be affected by visual changes. 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 that would interfere with protected activities or prevent use of the Section 4(f) resources with views of these improvements. Project features will 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 will require the Authority to consult with local jurisdictions to develop contextually appropriate aesthetic solutions for non-station structures (AVQ-IAMF#2).

Operational Noise Impacts

Changes to the noise environment related to train operations also would occur, as discussed in Section 3.4, Noise and Vibration; Volume 2, Appendix 3.4-A, Noise and Vibration Technical Report; and in the *San Jose to Merced Project Section Noise and Vibration Technical Report* (San Jose to Merced Noise and Vibration Technical Report) (Authority 2019e). 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 that train horns sound when entering stations and approaching at-grade crossings.

While project operations would add to the existing noise and vibration levels along the alignment, the parks and recreational facilities 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, the Authority uses noise impact criteria and methods adopted by the FRA to assess the contribution of noise from HSR construction and operations to the existing environment and FTA methods to assess the contribution of noise from conventional-speed rail operations and stationary facilities, including Caltrain and freight. 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.

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).[7] 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 BART 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.

Train passbys and associated horn noise would be most frequent during the morning and evening peak commute times (6:30 a.m. to 9:30 a.m. and 4:30 p.m. to 7:30 p.m.) when approximately 20 trains per hour (consisting of both Caltrain and HSR trains) would travel in either direction through the corridor. Trains would sound the warning horns 0.25 mile before each at-grade crossing and station. At speeds of 110 miles per hour for both Caltrain and HSR trains, train 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 resource. Additionally, train horn noise would be most noticeable at the closest point to the at-grade crossing or station.

The Authority would implement mitigation measures to minimize the impacts of operational noise. NV-MM#3: Implement Proposed California High-Speed Rail Project Noise Mitigation Guidelines, NV-MM#4: Vehicle Noise Specification, NV-MM#5: Special Track Work at Crossovers and Turnouts, and NV-MM#6: Additional Noise Analysis during Final Design will require implementing HSR noise guidelines, special trackwork at crossovers and turnouts, and additional noise analysis during final design.

As indicated in Volume 2, Appendix 3.4-A, and the San Jose to Merced Noise and Vibration Technical Report (Authority 2019e), no vibration impacts were identified at the parks and recreational facilities in the RSA. Operation of the project alternatives would not have the potential to cause building damage because the vibration levels would not approach damage thresholds (Authority 2019e). Additionally, 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 and result in a nuisance for 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).

[7] The transportation analysis in Section 3.2, Transportation, of this Final EIR/EIS is based on updated projected freight rail increases in the 2018 California State Rail Plan. These projections for freight increases indicate that the total number of freight trains in 2040 would be up to 12 freight trains per day on average (Table 3.2-23 in Section 3.2 of the Final EIR/EIS). As the noise analysis is based on an assumption of up to 23 freight trains per day, the analysis is conservative and captures potential fluctuations above the projected average of 12 trains per day. The freight volume assumption used for the noise analysis was based on an older freight volume projection from 2014, which assumed higher growth than indicated in the more recent 2018 California State Rail Plan. Additional noise analysis would occur during final design to confirm mitigation requirements, and the freight assumptions would be updated for that analysis based on the most recent freight projections at that time.

4.6.1.1 San Francisco Bay Trail Use Assessment (ID#1)

The Bay Trail is a multi-use trail (pedestrian and bicycle) that extends 5.4 miles from north of South Beach Park to Oyster Point in the San Francisco to South San Francisco Subsection (Bay Trail-1). In the San Bruno to San Mateo Subsection, a planned portion (2.8 miles) of the Bay Trail extends from Lions Park to Millbrae Avenue and Bayside Park (Bay Trail-2).

Bay Trail-1 consists of 3.4 miles of existing trail and 2.0 miles of planned trail in the San Francisco to South San Francisco Subsection. The trail is under the jurisdiction of the Association of Bay Area Governments and Metropolitan Transportation Commission (San Francisco Bay Trail 2019a, 2019b). It is primarily east of and outside the RSA; however, it is within 0.5 mile of the 4th and King Street Station and Brisbane LMF site, and in the 1,000-foot RSA south of the Brisbane Lagoon. The trail is on-street adjacent to the project footprint (Alternatives A and B) where U.S. Highway (US) 101 spans the existing rail corridor and Sierra Point Parkway, south of the Brisbane Lagoon. An off-street section of trail travels adjacent to the project footprint where the trail traverses Oyster Cove. Bay Trail-2 is a 2.8-mile planned trail in the San Bruno to San Mateo Subsection, which extends from north of Lions Park (San Bruno) and runs adjacent to the rail corridor to Millbrae Avenue and then turns east to Bayfront Park. This section of the trail is in the Millbrae Station RSA. Figures 4-24a through 4-24c illustrate Bay Trail-1 and Bay Trail-2.

Bay Trail-1 (Existing and Planned): The project alternatives would not intersect the trail (existing or planned portions, if completed before project construction) as illustrated on Figures 4-24a and 4-24b, so there would be no permanent incorporation or use of the trail. While the existing trail is adjacent to the project in two locations, no land would be temporarily used during construction. The existing and planned portion (if completed before construction) of the trail would be 583.6 feet east of the TCE on Lagoon Road. Noise and construction emissions could make use of portions of the trail less desirable during construction; however, construction activities would be more than 300 feet from this section of the trail, including at the two locations adjacent to the project. Construction and operations of the project alternatives would not affect access to the trail (existing or planned portions). Depending on their location, trail users could see construction activities and vehicles related to expansion of the 4th and King Street Station, as well as the relocation and reconstruction of the Tunnel Avenue overpass and extension of Lagoon Road. Views east to the San Francisco Bay, however, would not be blocked and trail users would be moving through the area rather than spending extended periods viewing construction activities.

Proximity impacts on the trail from operational noise would be limited because the trail is primarily located at a distance from the project footprint, including at-grade crossings and stations where horn noise could be heard (Figures 4-24a and 4-24b). In addition, track shifts and other modifications (four-quadrant gates and radio towers) would not substantially change the visual character of the existing corridor.

Bay Trail-2 (Planned): Should the trail be completed before project construction begins, the trail would extend east of and adjacent to the rail corridor and traverse around the TCE at the Millbrae Station (Figure 4-24c). Future trail users would be affected by exposure to noise, vibration, and construction emissions, which could make use of the trail less desirable during construction. The trail would be in an urban environment where ambient noise already exists, including noise from rail operations and SFO. The project would comply with FRA and FTA guidelines for minimizing construction noise and vibration levels and minimize fugitive dust emissions. Access to the trail from the west could be affected by the TCEs at Center Street and Hillcrest Boulevard where a four-quadrant gate would be installed and the existing underpass widened, respectively. Construction of the four-quadrant gate (2 to 4 weeks of active construction) would require closing one lane of traffic, but lane closure would not be required during the 4 to 6 months of less intense and intermittent activities needed to complete installation of the four-quadrant gate. Underpass widening would take 6 to 9 months and would also result in closing one lane of traffic, so access to the trail would be maintained. Because access would be maintained during construction, the temporary disruption in access would have a limited impact on the protected activities of the trail. 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, bicyclists, and pedestrians will continue to have access to the trail (PK-IAMF#1, TR-IAMF#2, TR-IAMF#4, TR-IAMF#5).

In the event that the planned portions of the trail are not built before project construction, the project would not intersect the planned alignment (Figure 4-24c), so Alternatives A and B would not prevent future construction of the trail or make it discontinuous. Accordingly, temporary construction-related impacts and operational visual and noise impacts would not be of a severity that the protected activities, features, or attributes that qualify the Bay Trail for protection under Section 4(f) would be substantially impaired, and no constructive use would occur under either project alternative.

4.6.1.2 Mission Creek Park Use Assessment (ID#8)

Mission Creek Park is a 10-acre park at 451 Berry Street in San Francisco, along the banks of Mission Creek. The park includes sand volleyball courts, a tennis court, basketball courts, grass lawns, a pavilion, a tree-lined esplanade, a small outdoor amphitheater, and a boat launch. Mission Creek Park is managed by the San Francisco Office of Community Investment and Infrastructure (Mission Bay Parks 2018a). The closest portion of the park is 30.0 feet east of the project footprint for Alternatives A and B. As an outdoor land use, the park is not considered vibration sensitive.[8]

No land from Mission Creek Park would be permanently incorporated, as illustrated on Figure 4-25; therefore, no permanent use would result. Additionally, no land would be temporarily used during construction. Noise, vibration, and construction emissions could make use of the park less desirable during construction. While the overall use of the park is not considered noise sensitive, the outdoor amphitheater is a noise-sensitive use. The amphitheater is on the south bank of Mission Creek, over 800 feet south of the TCE at the existing 4th and King Street Station. Both the park and amphitheater would remain usable during construction. Multistory residential and commercial buildings between the station and the portion of the park on the north bank of the creek would minimize these potential proximity impacts. The project would comply with FRA and FTA guidelines for minimizing construction noise and vibration levels, and minimize fugitive dust and construction emissions. Depending on their location in Mission Creek Park, park users could see construction activities and vehicles related to alterations at the existing 4th and King Street Station, although they would result in minor temporary impacts on visual quality. Important views to the San Francisco Bay would not be blocked by project construction. There would be no temporary interference with the protected activities during construction, including the use of the amphitheater.

A TCE at the Seventh Street and Mission Bay Drive intersection would temporarily reduce vehicular access to the park from the west at Seventh Street for the construction of four-quadrant gates over a period of 2 to 4 weeks of active construction as a result of closure of one lane of traffic. The lane closures would not be required during the 4 to 6 months of less intense and intermittent activities needed to complete installation of the four-quadrant gates. This temporary decrease in vehicular access would not substantially impair the protected activities, features, or attributes that qualify the park for protection under Section 4(f) because only one lane at Seventh Street would be closed at a time and access from Berry Street and Fourth Street would not be affected during construction. Because access would be maintained during construction, the temporary disruption in access would have a limited impact on the protected activities at the park. Temporary construction impacts on access and traffic, such as road closures and other disruptions, would be minimized by providing detours and signage so motorists, bicyclists, and pedestrians will continue to have access to the park (PK-IAMF#1, TR-IAMF#2, TR-IAMF#4, TR-IAMF#5).

[8] FRA vibration impact criteria are based on the impacts of vibration on nearby structures and while vibration could be perceptible to and result in a nuisance for park or outdoor users, the motion does not provoke the same adverse human reaction as that associated with the shaking of a building (FRA 2012).

Access to the park would not be affected by operation of the project alternatives. Proximity impacts on Mission Creek Park associated with HSR operations would include minor changes in the visual environment from additional trains operating in the corridor and installation of the four-quadrant gate at Seventh Street. However, these visual changes would conform to the existing character of the area and would not constitute a substantial qualitative impact on the protected activities at the park.

Changes to the noise environment would be associated with the increased frequency of train horn noise from more trains operating in the corridor. However, park users would be primarily participating in active uses and focused on playing sports (e.g., volleyball, basketball, walking), activities that do not require quiet or tranquil surroundings. Additionally, the amphitheater is over 900 feet south of the 4th and King Street Station and over 1,800 feet east of the at-grade crossing at Mission Bay Drive. In addition, there are multistory residential and commercial buildings between the station and the amphitheater on the south bank of the creek. As a result, it is anticipated that increased noise resulting from HSR operations would have limited impacts on the protected activities of Mission Creek Park.

Accordingly, temporary construction-related impacts and operational visual and noise impacts would not substantially impair the protected activities, features, or attributes that qualify Mission Creek Park for protection under Section 4(f), and no constructive use would result under Alternatives A and B.

4.6.1.3 Mission Bay Dog Park Use Assessment (ID#9)

Mission Bay Dog Park is a 0.3-acre park at 451 Berry Street in San Francisco, at the westernmost extent of Mission Creek Park. The park provides picnic tables, water fountains, and a large gravel play area for dogs. The dog park is managed by the San Francisco Office of Community Investment and Infrastructure (Mission Bay Parks 2018b). The park is 14.7 feet east of the project footprint for Alternatives A and B. As an outdoor land use, the park is not considered vibration sensitive.

No land from Mission Bay Dog Park would be permanently incorporated, as illustrated on Figure 4-25; therefore, no permanent use would result. Additionally, no land would be temporarily used during construction. The park is 14.7 feet east of the existing Caltrain tracks and across Berry Street. No track modifications are proposed in this location and the nearest construction activities would be 141 feet west at a TCE at Seventh Street where a four-quadrant gate would be installed. Noise and construction emissions could make use of the park less desirable for 2 to 4 weeks of active construction. However, this use is not considered noise sensitive and dog owners using the picnic tables are already exposed to an urban noise environment. The project would comply with FRA and FTA guidelines for minimizing construction noise and vibration, and minimize fugitive dust and construction emissions. Park users would be focused on dog activities and views of the installation of the four-quadrant gate would be of short duration and would not affect use of the park. Views of construction vehicles and equipment at the 4th and King Street Station would be blocked by multistory residential and commercial buildings between the park and station. There would be no temporary interference with the protected activities of the dog park during construction.

A TCE at the Seventh Street and Mission Bay Drive intersection would temporarily reduce vehicular access to the park from the west at Seventh Street. This decrease in access would be required for the construction of safety improvements on Seventh Street (four-quadrant gate) and only require closure of one lane at a time for a period of 2 to 4 weeks during active construction, but lane closure would not be needed during the less intensive and intermittent activities needed to complete installation. Because access would be maintained during construction, the temporary disruption in access would have a limited impact on the protected activities of Mission Bay Dog Park. 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, bicyclists, and pedestrians will continue to have access to the dog park (PK-IAMF#1, TR-IAMF#2, TR-IAMF#4, TR-IAMF#5).

Access to the park would not be affected by operation of the project alternatives. Proximity impacts on Mission Bay Dog Park associated with HSR operations would be limited to minor changes to the visual environment as a result of more trains operating in the corridor and the four-quadrant gate at Seventh Street. However, these visual changes would conform to the existing character of the area and would not create a substantial qualitative impact on the protected activities at the park. The dog park does not require quiet or tranquil surroundings and is already close to the Caltrain right-of-way. While HSR operations would increase the number of trains operating in the corridor and number of horn events, it is anticipated that increased noise from HSR operations would have limited impacts on the protected activities of Mission Bay Dog Park. Accordingly, temporary construction-related impacts and operational visual and noise impacts would not substantially impair the protected activities, features, or attributes that qualify Mission Bay Dog Park for protection under Section 4(f), and no constructive use would occur under Alternative A or Alternative B.

4.6.1.4 Mariposa Park Use Assessment (ID#12)

Mariposa Park is a 2.4-acre park west of Hospital Street and north of Mariposa Street in San Francisco. The park has a grass lawn, walking paths, kids play area, and benches and tables. The park is 188.0 feet east of the project footprint for Alternatives A and B, and is managed by the San Francisco Office of Community Investment and Infrastructure (Mission Bay Parks 2018e). As an outdoor land use, the park is not considered vibration sensitive.

No land from Mariposa Park would be permanently incorporated, as illustrated on Figure 4-26; therefore, no permanent use would result. Additionally, no land would be temporarily used during construction. Access to the park would not be affected by construction or operation of the project alternatives. The park is 890.0 feet southeast of the TCE at 16th Street where a four-quadrant gate would be installed primarily over 2 to 4 weeks of active construction. While use of the park could be less desirable, given the distance from construction activities, proximity impacts would be minor or avoided. The picnic tables are in the northeastern corner of the park, over 1,000 feet from the TCE. The project would comply with FRA and FTA guidelines for minimizing construction noise and would minimize fugitive dust and construction emissions.

Proximity impacts on Mariposa Park associated with HSR operations would be limited to minor changes to the visual environment because a multistory commercial building would block views of trains from most but not all locations in the park. While the park is 188.0 feet east of the project footprint, the tracks enter Tunnel No. 1 at Mariposa Street and the closest at-grade crossing where horns would sound is 890.0 feet from the park. Changes to the noise environment related to HSR operations would be minor or avoided for these reasons and because the presence of the commercial building between the park and the tracks would further minimize indirect noise impacts. As a result, temporary construction-related impacts and operational visual and noise impacts would not substantially impair the protected activities, features, or attributes that qualify Mariposa Park for protection under Section 4(f), and no constructive use would occur under the project alternatives.

4.6.1.5 Pennsylvania Garden Use Assessment (ID#14)

Pennsylvania Garden is a 0.2-acre garden at 251 Pennsylvania Avenue in San Francisco. The garden consists almost entirely of native species/xeric/drought-tolerant plants with paths, trees, garden beds, and a dog area. The park is maintained by volunteers but owned by the California Department of Transportation (Caltrans) (San Francisco Parks Alliance n.d.[l]). The garden is west of and adjacent to the southbound exit off Interstate (I-) 280 to 18th and Mariposa Streets where the tracks enter the existing Caltrain portal of Tunnel No. 1.

No land from the garden would be permanently incorporated, as illustrated on Figure 4-27, so no permanent use would result. Additionally, no land would be temporarily used during construction. Construction and operations of the project alternatives would not affect access to the park. The garden is 1,171.8 feet south of the TCE at 16th Street where a four-quadrant gate would be installed over 2 to 4 weeks of active construction. There would be no proximity impacts related to construction.

Pennsylvania Garden is not considered vibration sensitive because it is an outdoor land use. Noise impacts from HSR operations would be minor because the tracks would be in the tunnel under I-280 and the nearest at-grade crossing is more than 1,171.8 feet from the garden, so there would be no proximity impacts from operation noise or visual changes. As a result, temporary construction-related impacts and operational noise, vibration, and visual impacts would not substantially impair the protected activities, features, or attributes that qualify Pennsylvania Garden for protection under Section 4(f), and no constructive use would occur under the project alternatives.

4.6.1.6 Tunnel Top Park Use Assessment (ID#20)

Tunnel Top Park is a 0.5-acre park at 1100 Pennsylvania Avenue in San Francisco, on the surface of the existing Caltrain Tunnel No. 2. The park has seating areas, reflection spaces, a wetland garden, a dog run, and a community garden. The park is maintained by volunteers but is owned by Caltrans (San Francisco Parks Alliance n.d.[a]).

No land from the park would be permanently incorporated, as illustrated on Figure 4-28, so no permanent use would result. Additionally, no land would be temporarily used during construction. Construction and operation of the project alternatives would not affect access to the park. The park is 2,927.3 feet north of track modifications south of I-280 near Jerrold Avenue. There would be no proximity impacts related to project construction.

The tunnel portal is at the southern end of the park and proximity impacts associated with HSR operations would be limited to minor changes to the visual environment because more trains would be operating in the corridor, but would not substantially change the existing visual environment at the park. As an outdoor land use, Tunnel Top Park is not considered vibration sensitive. There are no at-grade crossings or stations within 0.25 mile of the park where horns would sound. Increased noise resulting from HSR operations would have a limited impact on the protected activities of Tunnel Top Park. As a result, operational noise, vibration, and visual impacts would not substantially impair the protected activities, features, or attributes that qualify Tunnel Top Park for protection under Section 4(f), and no constructive use would occur under the project alternatives.

4.6.1.7 Palou and Phelps Park Use Assessment (ID#21)

Palou and Phelps Park is a 2.6-acre park at Palou Avenue and Phelps Street in San Francisco, on the surface of the existing Caltrain Tunnel No. 3. The park has a small playground and steep grassland hill with trails. The park is owned and maintained by San Francisco Recreation and Parks Department (San Francisco Parks Alliance n.d.[o]).

No land from the park would be permanently incorporated, as illustrated on Figure 4-29, so no permanent use would result. Additionally, no land would be temporarily used during construction. Construction and operations of the project alternatives would not affect access to the park. The park is 589.9 feet south of minor track modifications to at-grade tracks, a new radio tower, and protection of utilities in place. The project would comply with FRA and FTA guidelines for minimizing construction noise and minimize fugitive dust and construction emissions. While use of the park could be less desirable during construction, given the distance from construction activities, proximity impacts would be minor or avoided.

The park is 177.0 feet south of where the existing tracks enter the tunnel near Palou Avenue and proximity impacts associated with HSR operations would be limited to minor changes to the visual environment because more trains would be visible from some locations in the park, but this would not change the visual character of the area. The park is not considered vibration sensitive because it is an outdoor land use. There are no at-grade crossings or stations within 1,000 feet of the park where horns would sound. Increased noise resulting from HSR operations would have a limited impact on the protected activities of Palou and Phelps Park. As a result, temporary construction-related impacts and operational noise, vibration, and visual impacts would not substantially impair the protected activities, features, or attributes that qualify Palou and Phelps

Park for protection under Section 4(f), and no constructive use would occur under the project alternatives.

4.6.1.8 Florence Fang Asian Community Garden Use Assessment (ID#23)

Florence Fang Asian Community Garden is a 1.1-acre community garden at Diana Street in San Francisco, on the surface of the existing Caltrain Tunnel No. 3. The garden is maintained by garden volunteers but is owned by Caltrans (Florence Fang Asian Garden n.d.).

No land from the garden would be permanently incorporated, as illustrated on Figure 4-30, so no permanent use would result. Additionally, no land would be temporarily used during construction. Construction and operations of the project alternatives would not affect access to the park. The garden is near the southern tunnel portal, 1,490 feet north of where minor track modifications would occur, so there would be no proximity impacts related to construction.

Proximity impacts associated with HSR operations would be limited to minor changes to the visual environment related to additional trains operating in the corridor, but this would not change the visual character of the area. The park is not considered vibration sensitive because it is an outdoor land use. There are no at-grade crossings or stations within 0.25 mile of the park where horns would sound. Increased noise from HSR operations would have a limited impact on the protected activities of the garden. As a result, operational noise, vibration, and visual impacts would not substantially impair the protected activities, features, or attributes that qualify Florence Fang Asian Community Garden for protection under Section 4(f), and no constructive use would occur under the project alternatives.

4.6.1.9 Brisbane Lagoon Fisherman's Park Use Assessment (ID#42)

Brisbane Lagoon Fisherman's Park is along Sierra Point Parkway in Brisbane. It is 150 acres, including the lagoon, benches, and surface parking (City of Brisbane 2001), and adjacent to the project alternatives. Users can fish in the lagoon. No land from the Brisbane Lagoon Fisherman's Park would be permanently incorporated, as illustrated on Figures 4-31a and 4-31b, and no permanent use would result. Additionally, neither alternative would require a temporary use of the Brisbane Lagoon Fisherman's Park to build the alternatives.

The lagoon is only accessible from points along Lagoon Road or Sierra Point Parkway on the eastern side of the lagoon, and construction and operation of the alternatives would not affect access from either location. The fishing area with benches and parking is on the east bank of the lagoon on Sierra Point Parkway adjacent to US 101, just over 1,000 feet south of the TCE on Lagoon Road and 1,800 feet east of the tracks. Given the distance from construction activities, impacts from construction noise, vibration, or emissions would be avoided. Fishermen at Brisbane Lagoon have views west toward San Bruno Mountain and would also see construction activities and vehicles related to construction of the Brisbane LMF, relocation of the Tunnel Avenue overpass, and extension of Lagoon Road for up to 3 years. However, important views of San Bruno Mountain would not be blocked and construction activities would be at a distance that would reduce the visual impact on users at the fishing area on the east bank.

Both alternatives would run west of and adjacent to the lagoon at a distance of 1,800 feet from the fishing area. Proximity impacts on Brisbane Lagoon Fisherman's Park associated with operation of either alternative would be limited because additional trains operating in the corridor would not change the character of the visual environment from the fishing area or northern shore. Users on the northern shore of the lagoon could see the Brisbane LMF, but at a distance of over 1,000 feet. From the fishing area, views north to the LMF would be even farther away (2,744 feet [Alternative A] or 3,461 feet [Alternative B]).

There are no at-grade crossings or stations within 1,000 feet of the east or northern shores where horns would sound, and given the distance of the fishing area from the LMF (2,744 feet [Alternative A] or 3,461 feet [Alternative B]), there would be no proximity impacts from operational noise at Brisbane Lagoon Fisherman's Park. Accordingly, temporary construction-related impacts and permanent noise and visual impacts would not substantially impair the protected activities,

features, or attributes that qualify Brisbane Lagoon Fisherman's Park for protection under Section 4(f), and no constructive use would result.

4.6.1.10 Brisbane Community Park Use Assessment (ID#43)

Brisbane Community Park is a 3.0-acre park at Old County Road and San Francisco Street in Brisbane. The park has grassy lawn areas, picnic areas, a play structure, restrooms, and an outdoor gazebo. The park is owned and maintained by the City of Brisbane Parks and Recreation Department (City of Brisbane 2010a).

No land from Brisbane Community Park would be permanently incorporated under either project alternative; therefore, no permanent use would result, as shown on Figure 4-32. Additionally, neither alternative would require a temporary use of the Brisbane Community Park to build the alternatives.

The park's developed areas are in the westernmost portion, more than 500 feet southwest of the TCE on Bayshore Boulevard at the existing intersection with Old County Road and Tunnel Avenue. The park is also 500 feet south of the Bayshore Boulevard intersection with Valley Drive. The eastern extent of the park is a vegetated area without facilities on an embankment between Old County Road and San Francisco Avenue that is 21.6 feet southwest of and elevated above the TCE on Bayshore Boulevard. While use of the park could be less desirable, given the distance from construction activities and intervening vegetation and commercial development, proximity impacts would be minor or avoided. The project would comply with FRA and FTA guidelines for minimizing construction noise and minimize fugitive dust and construction emissions. Views of construction equipment and activities would be blocked by intervening development and vegetation with trees.

The park is accessed from Park Lane, Old County Road, Visitacion Avenue, and San Francisco Avenue and construction and operation of the alternatives would not affect access from these roadways.

There would be no proximity impacts on Brisbane Community Park associated with operation of the project alternatives related to operational noise or visual changes. The developed portions of the park are more than 700 feet west of the track alignment and direct views of trains and the rail corridor would be blocked by intervening vegetation and commercial development. The outdoor gazebo is over 1 mile south of the Bayshore Caltrain Station and there are no at-grade crossings in this area where train horns would sound. The park is also over 1,800 feet from either LMF location. Given the distance between the park and alignment, operational noise impacts would not affect the protected activities of Brisbane Community Park.

Accordingly, temporary construction-related impacts and permanent noise and visual impacts would not substantially impair the protected activities, features, or attributes that qualify Brisbane Community Park for protection under Section 4(f), and no constructive use would result.

4.6.1.11 Herman Park Use Assessment (ID#52)

Herman Park is at the intersection of Diamond and Herman Streets in San Bruno. It is 0.2 acre and contains a playground and grassy area. The park is managed by the City of San Bruno Community Services Department (City of San Bruno n.d.[d]). No land from Herman Park would be permanently incorporated under Alternative A or B, as illustrated on Figure 4-33; therefore, no permanent use would result. The park is 47.0 feet west of and across Herman Street from the project footprint for both alternatives and neither alternative would require a temporary use of the park during construction. Construction and operations of the project alternatives would not affect access to the park.

Noise, vibration, and construction emissions would make use of the play and lawn areas less desirable during construction. At this location, the existing Caltrain at-grade tracks would be shifted more than 3 feet over 5 to 10 days. The project would comply with FRA and FTA guidelines for minimizing construction noise, as well as minimize fugitive dust emissions, and the park would remain usable during construction. The park is currently adjacent to the existing

Caltrain corridor. Park users would have views of construction activities and equipment related to the track shifts for 5 to 10 days, but would be focused on using the playground equipment. While construction materials and equipment would be visible, they would not prevent use of the park and would have a limited impact on the protected activities at the park.

Proximity impacts on Herman Park associated with HSR operations would be limited to changes to the visual environment from more trains operating in the corridor. However, trains and at-grade track facilities are already visible from the park so adding trains to the corridor would not result in a substantial change to the existing visual character of the area. The park is not considered vibration sensitive because it is an outdoor land use.

Operations would increase the number of trains (Caltrain and HSR combined) operating in the corridor and therefore increase the frequency of train horn noise. Herman Park is 532 feet south of the at-grade crossing at Scott Street and 1,037 feet north of the San Bruno Caltrain Station. However, the park is currently adjacent to the Caltrain right-of-way and park users would be focused on using the playground equipment, which does not require quiet or tranquil surroundings. The Authority would implement mitigation measures to minimize the impacts of operational noise (NV-MM#3, NV-MM#4, NV-MM#5, NV-MM#6). As a result, it is anticipated that increased noise resulting from HSR operations would have a limited impact on the protected activities of the park. Accordingly, temporary construction-related impacts and permanent noise and visual impacts would not substantially impair the protected activities, features, or attributes that qualify Herman Park for protection under Section 4(f), and no constructive use would result.

4.6.1.12 Posy Park Use Assessment (ID#54)

Posy Park is a 0.3-acre park at San Mateo and Huntington Avenues in San Bruno, at the southern end of the existing San Bruno Caltrain Station. The park is managed by the City of San Bruno Community Services Department and contains open space with benches for public use (City of San Bruno n.d.[e]). Posy Park was relocated and rebuilt as part of the Caltrain San Bruno Grade Separation Project (City of San Bruno 2017). As illustrated on Figure 4-34, the existing Caltrain station right-of-way and the park boundary overlap where the station was built as part of the grade separation project. The park's open space and benches are at the base of the stairs and ramp used to access the station platform on embankment above the park. The park is on the street level on San Mateo Avenue. The station platform would be extended 145 feet south to accommodate curve straightening. A landscape strip exists between the ramp and tracks at the station level. All platform work would occur between the existing tracks and landscape strip on the embankment above the park. No land from Posy Park would be permanently acquired and no permanent use would result. The benches and landscaped areas are at the base of the concrete retaining wall that form the stairs and ramp to the station. Additionally, neither alternative would require temporary use of Posy Park during construction. Construction and operation of the project alternatives would not affect access to the park.

Use of the open space and benches would be less desirable for up to 12 months during construction extending the existing platforms and track modifications 351.5 feet to the north because of noise, vibration, and construction air emissions. The project would comply with FRA and FTA guidelines for minimizing construction noise and vibration levels, as well as minimize fugitive dust and construction emissions, and the park would remain usable during construction. The park is currently adjacent to the existing Caltrain corridor and park users would have views of construction activities and equipment. While construction materials and equipment would be visible, these visual changes would not prevent use of the park.

Proximity impacts on Posy Park associated with HSR operations would be limited to changes to the visual environment from more trains operating in the corridor. However, trains and some track facilities are currently visible from the park at street level so adding trains to the corridor would not substantially alter the visual character of the area. As an outdoor land use, the park is not considered vibration sensitive.

The increase in trains (Caltrain and HSR combined) operating in the corridor would also increase the frequency of train horn noise. Since the park is currently adjacent to the Caltrain right-of-way

and San Bruno Station, a quiet environment is not part of the protected activities of the park. It is anticipated that increased noise resulting from HSR operations would have a limited impact on Posy Park. The Authority would implement mitigation measures to minimize the impacts of operational noise (NV-MM#3, NV-MM#4, NV-MM#5, NV-MM#6). Accordingly, temporary construction-related impacts and operational visual and noise impacts would not substantially impair the protected activities, features, or attributes that qualify Posy Park for protection under Section 4(f), and no constructive use would occur under either project alternative.

4.6.1.13 Lions Park Use Assessment (ID#55)

Lions Park is at the south end of First and Third Avenues in San Bruno. The park is 3.0 acres with a play structure, grass area, and ball field. The park is managed by the City of San Bruno Community Services Department (City of San Bruno n.d.[f]).

No land from Lions Park would be permanently acquired; therefore, no permanent use would result as illustrated on Figure 4-36. The park is 58.7 feet east of the project footprint for both alternatives and neither alternative would require a temporary use of the park during construction. Construction and operation of the project alternatives would not affect access to the park.

The park is 891.7 feet north of where the tracks would be shifted up to 3 feet over 5 to 10 days. While use of the park could be less desirable, given the distance from construction activities, proximity impacts would be minor or avoided. The project would comply with FRA and FTA guidelines for minimizing construction noise and vibration levels and minimize fugitive dust and construction emissions. Views of construction equipment and activities would be limited because of the mature trees between the park and construction activities.

Proximity impacts on Lions Park associated with HSR operations would include changes to the visual environment from more trains operating in the corridor, which would not result in a substantial change to the existing visual character of the area. As an outdoor land use, the park is not considered vibration sensitive. There would also be changes to the noise environment related to train operations as discussed in Section 3.4. While the park is 58.7 feet east of the project footprint, there are no at-grade crossings or stations within 0.25 mile of the park where train horns would sound. In addition, park users would be primarily participating in active uses that do not require quiet or tranquil surroundings. The noise environment at the park currently includes noise from train passbys as well as noise from SFO. The Authority would implement mitigation measures to minimize the impacts of operational noise (NV-MM#3, NV-MM#4, NV-MM#5, NV-MM#6). As a result, it is anticipated that increased noise from HSR operations would have a limited impact on the protected activities of Lions Park. Temporary construction-related impacts and operational visual and noise impacts would not substantially impair the protected activities, features, or attributes that qualify Lions Park for protection under Section 4(f), and no constructive use would occur under either project alternative.

4.6.1.14 Lomita Park Elementary Use Assessment (ID#57)

Lomita Park Elementary School is at 200 Santa Helena Avenue in Millbrae. The play areas are 2.57 acres and contain playgrounds, play areas, blacktop, a basketball court, and a baseball field available for public use outside of school hours (Millbrae School District n.d.). No land from Lomita Park Elementary School would be permanently acquired; there would be no permanent use, as illustrated on Figure 4-37. Additionally, neither alternative would require temporary use of the sports fields during construction. Construction and operation of the project alternatives would not affect access to the school.

The sports fields are 48.2 feet west of the project footprint for both alternatives and separated from the alignment by mature trees and vegetation. Construction activities related to track shifts (more than 3 feet) including noise and construction emissions could make use of the school play areas less desirable during construction for up to 10 days. The project would comply with FRA and FTA guidelines for minimizing construction noise and vibration levels as well as minimize fugitive dust emissions, and the play areas would remain usable during construction. Views of

construction equipment and activities would be limited because of the mature trees east of and between the play area and the Caltrain tracks.

Proximity impacts on Lomita Park Elementary School associated with operation of the alternatives would include minor changes in the visual environment because more trains could be visible through the vegetation from the sports fields, but these changes would be similar to the existing visual environment. As an outdoor land use, the school district play area is not considered vibration sensitive. Changes to the noise environment related to train operations would occur, as discussed in Section 3.4; however, the school district play area is 48.2 feet west of the project footprint and there are no at-grade crossings or stations within 0.25 mile of the play area where train horns would sound. In addition, play area users would be participating in active uses that do not require quiet or tranquil surroundings. In addition, the noise environment at the play area currently includes noise from train passbys as well as noise from SFO and US 101. The Authority would implement mitigation measures to minimize the impacts of operational noise (NV-MM#3, NV-MM#4, NV-MM#5, NV-MM#6). As a result, temporary construction-related impacts and operational visual and noise impacts would not substantially impair the protected activities, features, or attributes that qualify Lomita Park Elementary School for protection under Section 4(f), and no constructive use would occur.

4.6.1.15 Marina Vista Park Use Assessment (ID#58)

Marina Vista Park is on Spruce Avenue and Bay Street in Millbrae. It is 0.7 acre with a basketball court, playground, open field, barbeques, and picnic areas. The park is managed by the City of Millbrae Parks Division (City of Millbrae 2018e). The park is 536.8 feet east of the project footprint. No land from Marina Vista Park would be permanently acquired, so no permanent use would result. Additionally, neither alternative would require temporary use of Marina Vista Park during construction.

The park is 558.5 feet east of where the tracks would be shifted (more than 3 feet) and a four-quadrant gate would be installed at Center Street, taking 2 to 4 weeks of active construction. Noise and construction emissions could make use of the park less desirable during construction. The project would comply with FRA and FTA 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 residential neighborhood between the park and the tracks and Center Street would block views of construction activities.

Center Street is the only vehicular access point to the neighborhood between the park and the alignment. Construction of the four-quadrant gate would limit access, but only one lane would be closed at a time for a period of 2 to 4 weeks of active construction, while lane closure would not be needed during the 4 to 6 months of less intensive and intermittent activities for completion of the installation. Because access would be maintained during construction, the temporary disruption in access would have a limited impact on the protected activities of Marina Vista Park. 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, bicyclists, and pedestrians will continue to have access to the park (PK-IAMF#1, TR-IAMF#2, TR-IAMF#4, TR-IAMF#5).

There would be no operational visual impacts because views of the alignment would be blocked. As an outdoor land use, the park is not considered vibration sensitive. Operations would increase the number of trains operating in the corridor and frequency of horn noise. However, given the distance of the park from the alignment and at-grade crossing as well as the intervening residential development, operational noise impacts would have a limited impact, if any, on the protected activities at the park. As a result, temporary construction-related impacts and operational visual and noise impacts would not substantially impair the protected activities, features, or attributes that qualify Marina Vista Park for protection under Section 4(f), and no constructive use would occur.

4.6.1.16 Monterey Park Use Assessment (ID#59)

Monterey Park is located between the existing tracks and Monterey Street in Millbrae. It is 1.5 acres with a 0.2-mile paved trail and landscaping. The park is owned and maintained by BART (City of Millbrae 2019). Most of the park and trail (approximately 0.9 acre and 0.16 mile) is within the existing Caltrain right-of-way, and the trail is approximately 50 feet east of the existing tracks and fence line. No land from the park would be permanently acquired outside the existing fenced right-of-way, so no permanent use would result. Additionally, there would be no temporary use of Monterey Park during construction.

The park is adjacent to the tracks that would be shifted (more than 3 feet and within the existing fenced right-of-way) and a four-quadrant gate would be installed at Center Street, taking 2 to 4 weeks of active construction. The park is approximately 248 feet south of Center Street, where the four-quadrant gate would be installed. Noise, vibration, and construction emissions would make use of the park less desirable during construction. The project would comply with FRA and FTA guidelines for minimizing construction noise and vibration levels, and it would minimize fugitive dust and construction emissions; the park and trail would remain usable during construction. There would be direct views of construction activities along the tracks and at Center Street.

As described for Marina Vista Park, Center Street is the only vehicular access point to the neighborhood and Monterey Street. Construction of the four-quadrant gate would limit access, but only one lane would be closed at a time for a period of 2 to 4 weeks of active construction, while lane closure would not be needed during the 4 to 6 months of less intensive and intermittent activities needed to complete the installation. Because access would be maintained during construction, the temporary change in access would have a limited impact on the protected activities of Monterey Park. 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, bicyclists, and pedestrians will continue to have access to the park (PK-IAMF#1, TR-IAMF#2, TR-IAMF#4, TR-IAMF#5).

Proximity impacts on Monterey Park associated with HSR operations would include changes to the visual environment from more trains operating in the corridor. However, trains and track facilities are currently visible from the park so adding trains to the corridor would not substantially alter the visual character of the area. As an outdoor land use, the park is not considered vibration sensitive.

The increase in trains (Caltrain and HSR combined) operating in the corridor would also increase the frequency of train horn noise. Since the park is currently adjacent to the Caltrain right-of-way, a quiet environment is not part of the protected activities of the park. Park users would hear train horns sound on approach to Center Street, but there are no other at-grade crossings or stations within 0.25 mile of the park. It is anticipated that increased noise resulting from HSR operations would have a limited impact on Monterey Park. The Authority would implement mitigation measures to minimize the impacts of operational noise (NV-MM#3, NV-MM#4, NV-MM#5, NV-MM#6). Accordingly, temporary construction-related impacts and operational visual and noise impacts would not substantially impair the protected activities, features, or attributes that qualify Monterey Park for protection under Section 4(f), and no constructive use would occur under either project alternative.

4.6.1.17 Bayside Manor Park Use Assessment (ID#61)

Bayside Manor Park is on Lerida Avenue in Millbrae. It is 35.4 acres and contains a basketball court, a playground, and an open-space area. The park is 822.6 feet east of the project footprint and is managed by the City of Millbrae Parks Division (City of Millbrae 2018e). No land from Bayside Manor Park would be permanently acquired, so no permanent use would occur. Additionally, neither alternative would require temporary use of Bayside Manor Park during construction.

The park is 822.6 feet east of the TCE on Hillcrest Boulevard and 870.0 feet northeast of the TCE at the Millbrae Station. While noise and construction emissions could make use of the park less desirable during construction, because of the distance from the TCEs and the residential neighborhood between the park and the TCEs, the impacts would be minor or avoided. The project would comply with FRA and FTA guidelines for minimizing construction noise and vibration levels as well as minimize fugitive dust emissions. The residential neighborhood between the park and the TCEs would block views of construction activities.

Both alternatives would widen the existing underpass at Hillcrest Boulevard over 6 to 9 months, the only vehicular access to the neighborhood between the park and the alignment. While widening the underpass would limit access, only one lane would be closed at a time, maintaining access during construction, so the temporary disruption in access would have a limited impact on the protected activities of Bayside Manor Park. 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, bicyclists, and pedestrians will continue to have access to the park (PK-IAMF#1, TR-IAMF#2, TR-IAMF#4, TR-IAMF#5).

There would be no operational visual impacts because views of the alignment and Millbrae Station would be blocked. As an outdoor land use, the park is not considered vibration sensitive. While operations would increase the number of trains operating in the corridor and the frequency of horn noise, the Millbrae Station would be over 1,000 feet from the park. In addition, residential development between the park and station would further reduce operational noise. Accordingly, the temporary construction-related impacts and operational visual and noise impacts would not substantially impair the protected activities, features, or attributes that qualify Bayside Manor Park for protection under Section 4(f), and no constructive use would result.

4.6.1.18 Village Park Use Assessment (ID#66)

Village Park is at 1535 California Drive in Burlingame. It is 1.9 acres and contains a playground, restrooms, picnic area, basketball court, soccer field. The park is managed by the Burlingame Parks and Recreation Department (City of Burlingame 2018). The park is 98.8 feet southwest of the project footprint, as illustrated on Figure 4-38. No land from Village Park would be permanently incorporated under Alternative A or B, so no permanent use would result. Additionally, neither alternative would require temporary use of Village Park during construction. Construction and operation of the project alternatives would not affect access to the park. As an outdoor land use, the park is not considered vibration sensitive.

Village Park is 164.1 feet southwest of the tracks that would be shifted more than 3 feet; construction would last for up to 10 days. The park is separated from the alignment by California Drive and dense vegetation with trees along the western edge of the tracks. Noise, vibration, and construction emissions would make use of the park less desirable during construction. The northeastern corner of the park is closest to the track shift, while the developed portions of the park are more than 200 feet farther south. The project would comply with FRA and FTA guidelines for minimizing construction noise and minimize fugitive dust and construction emissions. Mature trees in the park, as well as the dense vegetation and trees between California Drive and the tracks, would block views of construction activities.

There would be no operational visual impacts at the park because views of the alignment would be blocked. The park is not considered vibration sensitive because it is an outdoor land use. There would also be changes to the noise environment related to more trains operating in the corridor and an increased frequency of horn noise. While the park is 98.8 feet southwest of the alignment, there are no at-grade crossings or stations within 0.25 mile of the park where train horns would sound. In addition, park users would primarily be participating in active uses such as using the playground, or playing basketball or soccer, activities that do not require quiet or tranquil surroundings. The Authority would implement mitigation measures to minimize the impacts of operational noise (NV-MM#3, NV-MM#4, NV-MM#5, NV-MM#6). As a result, it is anticipated that increased noise resulting from HSR operations would have a limited impact on the protected activities of Village Park. As a result, temporary construction-related impacts and operational visual and noise impacts would not substantially impair the protected activities,

features, or attributes that qualify Village Park for protection under Section 4(f), and no constructive use would occur under either project alternative.

4.6.1.19 Laguna Park Use Assessment (ID#67)

Laguna Park is at 1414 Laguna Street, in Burlingame. It is 0.5 acre with two tennis courts and a children's play area. The park is managed by the Burlingame Parks and Recreation Department (City of Burlingame 2018). The park is 199.5 feet southwest of the project footprint for both alternatives, as illustrated on Figure 4-39. No land from Laguna Park would be permanently acquired and no permanent use would result. Additionally, neither alternative would require temporary use of Laguna Park during construction. Construction and operation of the project alternatives would not affect access to the park. As an outdoor land use, the park is not considered vibration sensitive.

Laguna Park is 199.5 feet southwest of the project and separated from the project by a row of single-family homes, California Drive, and vegetation with trees along the western edge of the alignment. At this location, the tracks would be shifted less than 3 feet over a period of 2 to 3 days. Noise, vibration, and construction air emissions would make use of the park less desirable during construction. The project would comply with FRA and FTA guidelines for minimizing construction noise and minimize fugitive dust and construction emissions. Views of construction equipment and activities would be blocked by intervening development and vegetation with trees.

There would be no proximity impacts on Laguna Park associated with HSR operations from changes in the visual environment, because views of trains operating in the corridor would be blocked by the residential development and vegetation with trees along the corridor. The park is not considered vibration sensitive because it is an outdoor land use. There would be changes to the noise environment from more trains operating in the corridor and increased frequency of horn noise; however, there are no at-grade crossings or stations within 0.25 mile of the park where horns would sound. In addition, the residential development between the park and tracks would reduce the impacts of operational noise on the park. The Authority would implement mitigation measures to minimize the impacts of operational noise (NV-MM#3, NV-MM#4, NV-MM#5, NV-MM#6). As a result, it is anticipated that increased noise resulting from HSR operations would have a limited impact on the protected activities of Laguna Park. Temporary construction-related impacts and operational visual and noise impacts would not substantially impair the protected activities, features, or attributes that qualify Laguna Park for protection under Section 4(f), and no constructive use would occur under either project alternative.

4.6.1.20 Alpine Park Use Assessment (ID#70)

Alpine Park is at the corner of Alpine and Carolan Avenues in Burlingame. It is 0.1 acre with a playground and picnic tables. The park is 79.4 feet northeast of and across Carolan Avenue from the project footprint for both alternatives (City of Burlingame 2018). No land from Alpine Park would be permanently acquired under Alternative A or B, as illustrated on Figure 4-40, so no permanent use would occur. Additionally, neither alternative would require temporary use of Alpine Park during construction. Construction and operation of the project alternatives would not affect access to the park. As an outdoor land use, the park is not considered vibration sensitive.

Alpine Park is 910.8 feet northeast of Oak Grove Avenue where a four-quadrant gate would be installed over a period of 2 to 4 weeks of active construction. While noise and construction emissions could make use of the park less desirable during construction, at this distance indirect impacts would be minor or avoided. The project would comply with FRA and FTA guidelines for minimizing construction noise and minimize fugitive dust and construction emissions. Because of the distance of the park from Oak Grove Avenue, and the intervening development and landscaping, there would be no visual impacts related to construction.

Proximity impacts on Alpine Park associated with HSR operations would include changes to the visual environment from the additional trains operating on the corridor, which would not substantially change the existing visual character of the area. Changes to the noise environment related to train operations would occur, because of the increased number of trains and frequency

of train horn sound. However, the closest at-grade crossing is Oak Grove Avenue, 910.8 feet from the park, and there are no stations within 0.25 mile where train horns would sound. The Authority would implement mitigation measures to minimize the impacts of operational noise (NV-MM#3, NV-MM#4, NV-MM#5, NV-MM#6). The park is currently in proximity to the Caltrain right-of-way and a quiet environment is not part of the protected activities of the park, so it is anticipated that increased noise resulting from HSR operations would have a limited impact on the protected activities at the park. Accordingly, temporary construction-related impacts and operational visual and noise impacts would not substantially impair the protected activities, features, or attributes that qualify Alpine Park for protection under Section 4(f), and no constructive use would occur under either project alternative.

4.6.1.21 Washington Park Use Assessment (ID#72)

Washington Park is at 850 Burlingame Avenue in Burlingame. It is 18.9 acres, with tennis courts, a playground, restrooms, a basketball court, picnic areas, and baseball facilities (City of Burlingame 2018). The park is 58.1 feet northeast of the project footprint, as illustrated on Figure 4-41. No land from Washington Park would be permanently incorporated under the project alternatives and no permanent use would result. Additionally, neither alternative would require temporary use of Washington Park during construction. As an outdoor land use, the park is not considered vibration sensitive.

Washington Park is 158.5 and 640.8 feet east of TCEs at North Lane and Howard Avenue, respectively, where four-quadrant gates would be installed over a period of 2 to 4 weeks of active construction each, under either alternative. Noise, vibration, and construction emissions would make use of the park less desirable during construction of the four-quadrant gates at the two intersections. The project would comply with FRA and FTA guidelines for minimizing construction noise, as well as minimize fugitive dust emissions, and the park would remain usable during construction. Depending on their location, park users could have views of construction activities and equipment for up to 4 weeks at each location. Park users would be focused on specific activities such as tennis, using the playground equipment, basketball or baseball and views of construction equipment and activities would not prevent users from participating in these activities.

Access to the park would not be affected by operations of the project alternatives, but a TCE at North Lane and California Drive west of the at-grade crossing would temporarily decrease vehicular access to the park from the west during construction. This decrease in access would be required for the construction of safety improvements on North Lane (four-quadrant gates) and only require closure of one lane at a time for a period of 2 to 4 weeks of active construction, while lane closure would not be needed during the 4 to 6 months of less intensive and intermittent activities needed to complete the installation. Because access would be maintained during construction, the temporary disruption in access would have a limited impact on the protected activities of Washington Park. 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, bicyclists, and pedestrians will continue to have access to the park (PK-IAMF#1, TR-IAMF#2, TR-IAMF#4, TR-IAMF#5).

Visual impacts on Washington Park associated with operation of either alternative would be limited because views of the four-quadrant gates and trains in the existing corridor would conform to the existing visual character of the area. Operations would increase the number of trains (Caltrain and HSR combined) operating in the corridor and increase the frequency of train horn noise. Washington Park is within 90 feet of the at-grade crossing at North Lane and the Burlingame Caltrain Station, and 626 feet northeast of the at-grade crossing at Howard Avenue. At Washington Park, operations would increase noise levels over the existing level by 2 A-weighted decibels [dBA], from 77 dBA to 79 dBA, resulting in a moderate noise impact (as defined in Section 3.4 and Volume 2, Appendix 3.4-A). The frequency of horns sounding would increase primarily during peak commute times (6:30 a.m. to 9:30 a.m. and 4:30 p.m. to 7:30 p.m.) and park users could hear the train horn for up to 24 seconds. However, park users would be focused on participating in active uses at the park (e.g., tennis, playground equipment, basketball, baseball), activities that do not require quiet or tranquil surroundings. The Authority would

implement mitigation measures to minimize the impacts of operational noise (NV-MM#3, NV-MM#4, NV-MM#5, NV-MM#6). As a result, it is anticipated that increased noise from HSR operations would have a limited impact on the protected activities of Washington Park. Temporary construction-related impacts and operational visual and noise impacts would not substantially impair the protected activities, features, or attributes that qualify Washington Park for protection under Section 4(f), and no constructive use would occur under either project alternative.

4.6.1.22 Hayward Park Square Use Assessment (ID#75)

Hayward Park Square is a park at 1189 South B Street in San Mateo. It is 0.28 acre, contains picnic areas, and is managed by the City of San Mateo Parks and Recreation (City of San Mateo 2017e). The park is 79.3 feet southwest of the project footprint for both alternatives (Figure 4-42) and no land from Hayward Square would be permanently incorporated, so no permanent use would result. Additionally, neither alternative would require temporary physical occupation of Hayward Square to build the alternatives. Construction and operation of the project alternatives would not affect access to the park. As an outdoor land use, the park is not considered vibration sensitive.

The park is 79.3 feet west of the tracks and under Alternative A, the tracks would be shifted over 3 feet over a period of up to 10 days. Under Alternative B, the two-track alignment would diverge to four at-grade tracks and construction would take 9 to 12 months at this location. Noise, vibration, and construction emissions would make use of the park less desirable during construction. The project would comply with FRA and FTA guidelines for minimizing construction noise and vibration levels, as well as minimize fugitive dust emissions, and the park would remain usable during construction. Park users would see construction equipment and activities under both alternatives, but these views would last longer under Alternative B. While construction materials and equipment would be visible, it would not prevent use of the park. Mature trees in the park would help minimize visual impacts.

Under Alternative A, proximity impacts on Hayward Park Square associated with HSR operations would be limited because trains are currently visible from the park, so the visual character of the area would not be substantially altered.

Under Alternative B, the two-track alignment would diverge to four tracks at grade with passing tracks. As described in Section 3.15, expansion of the railway from two to four tracks would increase its scale and visual presence, contrasting with the existing visual environment. While the expanded infrastructure would be visible from the park, it would not create a substantial qualitative change in the use or enjoyment of the park. Permanent visual impacts would be minimized by visually integrating structures into communities to reduce the intrusiveness of expanded railway infrastructure track and systems that cannot be shielded from sensitive viewers (AVQ-IAMF#1) and consulting with local jurisdictions to develop contextually appropriate aesthetic solutions for non-station structures (AVQ-IAMF#2).

Increases in noise related to train operations also would occur, as discussed in Section 3.4. Changes to the noise environment related to train operations would occur, because of the increased number of trains and frequency of train horn sound. There are no at-grade crossings or stations where train horns would sound within 1,000 feet of Hayward Park Square. The Authority would implement mitigation measures to minimize the impacts of operational noise (NV-MM#3, NV-MM#4, NV-MM#5, NV-MM#6). The park is currently in proximity to the Caltrain right-of-way and a quiet environment is not part of the protected activities of the park, so it is anticipated that increased noise resulting from HSR operations would have a limited impact on the protected activities at the park. Temporary construction-related impacts and operational visual and noise impacts would not substantially impair the protected activities, features, or attributes that qualify Hayward Park Square for protection under Section 4(f), and no constructive use would occur under either project alternative.

4.6.1.23 Trinta Park Use Assessment (ID#76)

Trinta Park is at 150 19th Avenue in San Mateo. It is 2.2 acres with a playground, two little league baseball fields, basketball courts, picnic benches, and restrooms, and is managed by the City of San Mateo Parks and Recreation (City of San Mateo 2017f). As illustrated on Figure 4-42a, the existing Caltrain right-of-way overlaps 0.11 acre of the park where a batting cage and storage and restroom building are adjacent to Leslie Street, which is also in the existing right-of-way. No construction activities would occur in the area of overlap in the park under either project alternative. No land from Trinta Park outside the overlap area would be permanently incorporated under Alternative A or B, so no permanent use would result. No construction activities would occur within the park boundary, so no temporary use of Trinta Park would occur. As an outdoor land use, the park is not considered vibration sensitive.

Alternative A

Construction and operation of Alternative A would not affect access to the park. The park is 87.0 feet southwest of the tracks that would be shifted over 3 feet with construction lasting up to 10 days. Noise, vibration, and construction emissions would make use of the park less desirable during construction. The project would comply with FRA and FTA guidelines for minimizing construction noise and vibration levels, as well as minimize fugitive dust emissions, and the park would remain usable during construction. Park users would see construction equipment and activities, but would be focused on playing baseball and basketball and using the play equipment. While construction materials and equipment would be visible, it would not prevent use of the park.

Proximity impacts on Trinta Park associated with HSR operations under Alternative A would be limited, because while more trains operating in the corridor would be visible, trains are currently visible from the park and the visual character of the area would not be substantially altered. The park is adjacent to the existing rail corridor and park users would be focused on playing baseball and basketball. Operations would increase the number of trains (Caltrain and HSR combined) operating in the corridor, increasing the frequency of train horn noise at at-grade crossings and stations. Trinta Park is 316 feet south of the Hayward Park Caltrain Station but there are no at-grade crossings within 0.25 mile of the park. The park is currently adjacent to the Caltrain right-of-way and park users would be focused on using the playground equipment and playing baseball and basketball—activities that do not require quiet or tranquil surroundings. Accordingly, temporary construction impacts and operational visual and noise impacts would not substantially impair the protected activities, features, or attributes that qualify Trinta Park for protection under Section 4(f), and no constructive use would result under Alternative A.

Alternative B

Noise, vibration, and air emissions from construction activities 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.

Under Alternative B, Leslie Street would be permanently closed to accommodate construction of the passing tracks, which would block access by vehicles as well as block three of four pedestrian access points and one of two maintenance access points. Leslie Street extends along the east side of Trinta Park and is in the existing Caltrain right-of-way (Figure 4-43b). The park is fully fenced, including the two ball fields to contain foul balls within the ball field. There are four existing pedestrian access points along the fence line, one from 19th Avenue on the north and three from Leslie Street on the east as illustrated on Figure 4-43b. Two larger access points are locked for use by grounds maintenance and equipment. One maintenance access point is in the eastern fence on Leslie Street, and the second is also from Leslie Street but outside the portion of the roadway that would be closed. Access would be maintained on 19th Avenue for pedestrians and vehicles and for maintenance on Leslie Street, so these changes in access would not prevent ground maintenance or the recreational use of the playground, baseball fields, basketball courts, and picnic benches. During the design phase, the contractor will prepare a technical memorandum documenting how pedestrian and maintenance access to Trinta Park will be

maintained to reduce the number of permanent changes in access and circulation in the park, following completion of construction activities (PK-MM#2: Provide Permanent Park Access). The technical memorandum will be submitted to the Authority for review and approval. Upon approval by the Authority, the contractor will implement the activities identified in the technical memorandum. The activities will be incorporated into the design specifications and will be a pre-construction requirement. The technical memorandum will be provided to the OWJ to demonstrate how access would be permanently maintained.

Proximity impacts on Trinta Park associated with HSR operations under Alternative B would include changes to the visual environment because the passing tracks would be visible from the park. Although Alternative B would be in the existing Caltrain corridor, as described in Section 3.15, expansion of the railway from two to four tracks would increase its scale and visual presence, contrasting with the existing visual environment. The park is adjacent to the existing rail corridor and park users would be focused on playing baseball and basketball and using playground equipment. While the expanded infrastructure would be visible, it would not create a substantial qualitative change in the use or enjoyment of the park. Permanent visual impacts would be minimized by visually integrating structures into communities to reduce the intrusiveness of expanded railway track and systems that cannot be shielded from sensitive viewers (AVQ-IAMF#1) and consulting with local jurisdictions to develop contextually appropriate aesthetic solutions for non-station structures (AVQ-IAMF#2). Operational noise impacts would be the same as described for Alternative A. Accordingly, temporary construction impacts including the changes in access, and operational visual and noise impacts would not substantially impair the protected activities, features, or attributes that qualify Trinta Park for protection under Section 4(f), and no constructive use would result under Alternative B.

4.6.1.24 Little River Park Use Assessment (ID#90)

Little River Park is at James Avenue and California Street in Redwood City and in the footprint of the existing Redwood City Station. It is a 0.9-acre park with landscaped areas and benches, and is managed by Redwood City Parks, Recreation and Community Services (City of Redwood City 2018g).

The park is along the southern boundary of the existing Redwood City Caltrain Station commuter parking lot west of the pick-up and drop-off area. A small stream runs through the park and the park is available for public use. The park is 311.8 feet southwest of the existing Caltrain corridor, and no construction activities would occur in this area. There would be no permanent use or temporary use of the park during construction. Construction and operation of the project alternatives would not affect access to the park. As an outdoor land use, the park is not considered vibration sensitive.

The park is 311.8 feet southwest of the existing Caltrain corridor at Marshall Street, where a four-quadrant gate would be installed over a 2- to 4-week period of active construction. During periods of active construction, use of the benches could be less desirable from noise and air emissions related to installation of the four-quadrant gate at Marshall Street. The project would comply with FRA and FTA guidelines for minimizing construction noise and vibration levels, as well as minimize fugitive dust emissions, and the park would remain usable during construction. Views of construction activities and equipment would be blocked by mature trees between Marshall Street and the park.

The park is near the existing Redwood City Caltrain Station, so the visual character of the area would not be substantially altered by the increased number of trains in the rail corridor with HSR operations. Increases in horn noise from HSR operations also would occur, as discussed in Section 3.4, but the park is currently located at the station and over 300 feet from the at-grade crossing at Marshall Street. The Authority would implement mitigation measures to minimize the impacts of operational noise (NV-MM#3, NV-MM#4, NV-MM#5, NV-MM#6). As a result, it is anticipated that increased noise resulting from HSR operations would have a limited impact on the park. Temporary construction impacts and operational visual and noise impacts would not substantially impair the protected activities, features, or attributes that qualify Little River Park for protection under Section 4(f), and no constructive use would occur under the project alternatives.

4.6.1.25 John S. Roselli Memorial Park Use Assessment (ID#93)

John S. Roselli Memorial Park is at the intersection of Pennsylvania Avenue and Maple Street in Redwood City. It is 0.4 acre with mature trees and a grassy area for public use (City of Redwood City 2018g), and is northeast and adjacent to the project footprint for both alternatives, as illustrated on Figure 4-44. No land from John S. Roselli Memorial Park would be permanently incorporated under the project alternatives, so no permanent use would result. Additionally, neither alternative would require temporary use of the park during construction. As an outdoor land use, the park is not considered vibration sensitive.

The park is 169.3 feet east of the TCE at Maple Street where a four-quadrant gate would be installed over a 2- to 4-week period of active construction. Construction noise and air emissions could make use of the park less desirable during construction. The project would comply with FRA and FTA 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 would reduce indirect construction impacts. Views of construction activities and equipment would be blocked by the mature pines and a multistory building between Maple Street and the park.

Access to the park would not be affected by HSR operations, but construction of safety improvements (four-quadrant gates) on Maple Street would temporarily decrease vehicular access under the project alternatives. This decrease in access would only involve closure of one lane at a time for a period of 2 to 4 weeks during active construction, but lane closure would not be required during the 4 to 6 months of less intensive and intermittent activities needed to complete installation of the gate. Access would be maintained during construction, so the temporary disruption in access would have a limited impact on the protected activities of John S. Roselli Memorial Park. 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, bicyclists, and pedestrians will continue to have access to the park (PK-IAMF#1, TR-IAMF#2, TR-IAMF#4, TR-IAMF#5).

Proximity impacts on John S. Roselli Memorial Park associated with HSR operations would be limited because the park is currently adjacent to the tracks with views of trains operating in the corridor, so the additional trains operating on the corridor would not change the visual character of the area. The mature pine trees throughout the park would block most but not all views of the tracks.

In addition, changes to the noise environment related to train operations would also occur, as discussed in Section 3.4. HSR operations would increase the number of trains (Caltrain and HSR) operating in the corridor, which would increase the frequency of train horns sounding, as discussed in Section 3.4. John S. Roselli Memorial 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. Operations would increase noise levels over the existing level by 2 dBA, from 77 dBA to 79 dBA, resulting in a moderate noise impact (as defined in Section 3.4 and Volume 2, Appendix 3.4-A). However, the park is currently adjacent to the Caltrain right-of-way and a quiet environment is not part of the protected activities of the park. The Authority would implement mitigation measures to minimize the impacts of operational noise (NV-MM#3, NV-MM#4, NV-MM#5, NV-MM#6). As a result, it is anticipated that increased noise resulting from HSR operations would have a limited impact on the protected activities of John S. Roselli Memorial Park. Temporary construction impacts as well as operational visual and noise impacts would not substantially impair the protected activities, features, or attributes that qualify John S. Roselli Memorial Park for protection under Section 4(f), and no constructive use would occur under the project alternatives.

4.6.1.26 Main Street Dog Agility Park Use Assessment (ID#94)

Main Street Dog Agility Park is at 1295 Main Street in Redwood City. It is 0.41 acre, with lighted dog agility equipment (City of Redwood City 2018e). The park is 7.3 feet southwest of the project footprint for both alternatives, as illustrated on Figure 4-45. No land from Main Street Dog Agility

Park would be permanently incorporated under the project alternatives, so no permanent use would result. Additionally, neither alternative would require temporary use of Main Street Dog Agility Park during construction. As an outdoor land use, the dog park is not considered vibration sensitive.

The park is 8.9 feet southeast of the TCE at Main Street and where a four-quadrant gate would be installed over 2 to 4 weeks of active construction. Construction noise, vibration and air emissions would make use of the dog park less desirable during construction. The dog park is not considered noise sensitive. The project would comply with FRA and FTA guidelines for minimizing construction noise and vibration levels, as well as minimize fugitive dust emissions, and the dog park would remain usable during construction. While views of construction equipment and vehicles would be visible from the dog park, users would be focused on playing with their dogs and views of construction activities would not prevent users from participating in these activities.

Construction of safety improvements (four-quadrant gates) on Main Street would temporarily decrease vehicular access under the project alternatives. This decrease in access would only involve closure of one lane at a time for a period of 2 to 4 weeks during active construction, but lane closure would not be required during the 4 to 6 months of less intensive and intermittent activities needed to complete installation of the gate. Access would be maintained during construction, so the temporary disruption in access would have a limited impact on the protected activities of Main Street Dog Agility Park. 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, bicyclists, and pedestrians will continue to have access to the dog park (PK-IAMF#1, TR-IAMF#2, TR-IAMF#4, TR-IAMF#5).

Proximity impacts on Main Street Dog Agility Park associated with operation of the project alternatives would be limited because additional trains operating in corridor would not change the visual character of the area currently visible from the park. Access to the park would not be affected by HSR operations.

Operations would increase the number of trains (Caltrain and HSR) operating in the corridor, so the frequency of noise from train horns would also increase. Main Street Dog Agility Park is 126 feet south of the at-grade crossing at Main Street, 550 feet south of the at-grade crossing at Maple Street, and 540 feet north of the at-grade crossing at Chestnut Street. The dog agility park is currently adjacent to the Caltrain corridor and a quiet environment is not part of the protected activities of the park. The Authority would implement mitigation measures to minimize the impacts of operational noise (NV-MM#3, NV-MM#4, NV-MM#5, NV-MM#6). As a result, temporary construction-related impacts and operational noise and visual impacts would not substantially impair the protected activities, features, or attributes that qualify Main Street Dog Agility Park for protection under Section 4(f), and no constructive use would result.

4.6.1.27 Reading Park Use Assessment (ID#98)

Reading Park is at 2 Dinkelspiel Station Lane in Atherton. It is 0.4 acre with landscaping and grass area (City of Redwood City 2018e). The park is 119.9 feet southwest of the footprint at the Atherton Station. No land from Reading Park would be permanently incorporated under either alternative and no permanent use would result as illustrated on Figure 4-46. Additionally, the project alternatives would not require temporary use of Reading Park during construction. Construction and operation of the project alternatives would not affect access to the park. As an outdoor land use, the park is not considered vibration sensitive.

The park is 119.9 feet southwest of tracks that would be shifted less than 3 feet at the Caltrain Atherton Caltrain Station. Construction noise, vibration, and air emissions would make use of the park less desirable during construction. The project would comply with FRA and FTA guidelines for minimizing construction noise and vibration levels, as well as minimize fugitive dust emissions, and the park would remain usable during construction. Views of construction equipment and vehicles would be mostly blocked by the mature vegetation and trees on the park grounds, and along the eastern side of Dinkelspiel Station Lane between the tracks and the park. Visual

impacts would be limited because the mature vegetation and trees would block most views, but partial views of trains passing could be still seen through the vegetation.

Operations would increase the number of trains (Caltrain and HSR) operating in the corridor, so the frequency of noise from train horns would also increase. The park is 142 feet west of the Atherton Station, 750 feet south of the at-grade crossing at Fair Oaks Lane and 651 feet north of the at-grade crossing at Watkins Avenue. The Authority would implement mitigation measures to minimize the impacts of operational noise (NV-MM#3, NV-MM#4, NV-MM#5, NV-MM#6). Temporary construction-related impacts and operational visual and noise impacts would not substantially impair the protected activities, features, or attributes that qualify Reading Park for protection under Section 4(f), and no constructive use would result.

4.6.1.28 Holbrook-Palmer Park Use Assessment (ID#99)

Holbrook-Palmer Park is at 150 Watkins Avenue in Atherton. It is 22 acres with a ball field, tennis courts, playground, gardens, and walking paths (Town of Atherton n.d.[a]), and is adjacent to the project footprint as illustrated on Figure 4-47. The existing Caltrain right-of-way overlaps the park parcel. Construction activities would include track shifts of less than 3 feet narrowing the track centers, and no construction activities would occur in the area of overlap in the park. No land from Holbrook-Palmer Park would be permanently incorporated under Alternative A or B and no permanent use would result. Additionally, neither alternative would require temporary use of Holbrook-Palmer Park during the track shift. As an outdoor land use, the park is not considered vibration sensitive.

The park is adjacent to the tracks where minor modifications (less than 3 feet) would be made and 8.0 feet east of the TCE (four-quadrant gate at Watkins Avenue) and 774.6 feet south of the TCE at the Atherton Station. Construction noise, vibration and air emissions would make use of the park less desirable during construction, primarily related to the track modifications and four-quadrant gate installation. The project would comply with FRA and FTA guidelines for minimizing construction noise and vibration levels, as well as minimize fugitive dust emissions, and the park would remain usable during construction. Views of construction equipment and vehicles would be mostly blocked by the mature trees along the park boundary and Watkins Avenue.

Access to the park would not be affected by HSR operations, but the project alternatives would install four-quadrant gates at Watkins Avenue, temporarily reducing access from the west. Construction of the four-quadrant gate would result in closing one lane of traffic at a time for a period of 2 to 4 weeks during active construction, but lane closure would not be required during the 4 to 6 months of less intensive and intermittent activities needed to complete installation of the gate. Because access would be maintained during construction, the temporary disruption in access would not affect the protected activities of Holbrook-Palmer Park. 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, bicyclists, and pedestrians will continue to have access to the park (PK-IAMF#1, TR-IAMF#2, TR-IAMF#4, TR-IAMF#5).

Permanent visual impacts on Holbrook-Palmer Park would be limited because mature trees and landscaping block direct views of the alignment. In addition, changes to the noise environment related to train operations would occur, as discussed in Section 3.4. Operations would increase the frequency of noise from train horns. 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. At Holbrook-Palmer Park, operations would increase noise levels over the existing level by 5 dBA, from 76 dBA to 81 dBA, resulting in a moderate noise impact (as defined in Section 3.4 and Volume 2, Appendix 3.4-A). The frequency of horns sounding would increase primarily during peak commute times (6:30 a.m. to 9:30 a.m. and 4:30 p.m. to 7:30 p.m.) and park users could hear the train horn for up to 24 seconds. The park is currently adjacent to the Caltrain corridor and park users would be primarily focused on active uses (e.g., baseball, tennis, playground equipment, walking), activities that do not require quiet or tranquil surroundings. The Authority would implement mitigation measures to minimize the impacts of operational noise (NV-MM#3, NV-MM#4, NV-MM#5, NV-MM#6). Temporary construction-related impacts as well as operational noise and visual impacts would not substantially impair the

protected activities, features, or attributes that qualify Holbrook-Palmer Park for protection under Section 4(f), and no constructive use would result.

4.6.1.29 Burgess Park Use Assessment (ID#101)

Burgess Park is at 701 Laurel Street in Menlo Park. It is 9.31 acres with a baseball field, basketball court, open play field, playground, soccer field, and tennis court, and skate park (City of Menlo Park 2018). The park is 54.7 feet northeast of the project footprint (Figure 4-48). No land from Burgess Park would be permanently incorporated under Alternative A or B and no permanent use would result. Additionally, neither alternative would require temporary use of Burgess Park during construction. Construction and operation of the project alternatives would not affect access to the park. As an outdoor land use, the park is not considered vibration sensitive.

The park is 834.8 feet east of the TCE at Ravenswood Avenue where a four-quadrant gate would be installed over 2 to 4 weeks of active construction. While use of the park could be less desirable during construction, given the distance from construction activities, proximity impacts would be minor or avoided. The project would comply with FRA and FTA guidelines for minimizing construction noise and minimize fugitive dust and construction emissions. Views of construction equipment and activities would be limited because of buildings and mature trees between the park and Ravenswood Avenue.

Burgess Park is 54.7 feet northeast of the tracks. An existing row of landscaping with trees and Alma Street separate the tracks from the park and would partially block views from the park. Visual impacts on the park associated with HSR operations would be minor because the additional trains operating on the corridor would not substantially change the visual character of the area.

Operations would increase the frequency of noise from train horns. The park is 1,165 feet south of the Menlo Park Caltrain Station and 850 feet south of the at-grade crossing at Menlo Avenue. Park users would be focused on participating in active sports (e.g., basketball, baseball, tennis, playground equipment, soccer, skating), activities that do not require quiet or tranquil surroundings. The Authority would implement mitigation measures to minimize the impacts of operational noise (NV-MM#3, NV-MM#4, NV-MM#5, NV-MM#6). Accordingly, temporary construction-related impacts and operational noise and visual impacts would not substantially impair the protected activities, features, or attributes that qualify Burgess Park for protection under Section 4(f), and no constructive use would result.

4.6.1.30 El Palo Alto Park Use Assessment (ID#103)

El Palo Alto Park is at 117 Palo Alto Avenue in Palo Alto. It is 0.5 acre with interpretive plaques, Coast Redwoods, and a lighted pedestrian/bike path (City of Palo Alto 2010). The park is adjacent to the project footprint, and the existing Caltrain right-of-way overlaps the park boundary, as illustrated on Figure 4-49. The tracks would be shifted less than 3 feet in this location, but all work would occur in the existing right-of-way and would not affect the trail or park. No land from El Palo Alto Park would be permanently incorporated under the project alternatives, so no permanent use would result. Additionally, neither alternative would require temporary use of the park during construction. As an outdoor land use, the park is not considered vibration sensitive.

The park is adjacent to where the tracks would be shifted (less than 3 feet) and the TCE at Alma Street where a four-quadrant gate would be installed. Construction noise, vibration, and air emissions would make use of the park less desirable during construction for up to 4 weeks. The project would comply with FRA and FTA guidelines for minimizing construction noise and vibration levels, as well as minimize fugitive dust emissions, and the park would remain usable during construction. Depending on the location in the park, construction equipment and vehicles would be visible from the park, although the mature trees along the eastern edge of the tracks would partially block such views and use of the park would not be prevented.

Access to the park would not be affected by HSR operations, but construction of safety improvements (four-quadrant gates) on Alma Street would temporarily affect vehicular access by

closing one lane at a time for a period of 2 to 4 weeks, but lane closures would not be required during the 4 to 6 months needed to complete installation of the gate. Pedestrian and vehicular access would be maintained during construction. 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 cyclists will continue to have access to the park (PK-IAMF#1, TR-IAMF#2, TR-IAMF#4, TR-IAMF#5).

Proximity impacts on El Palo Alto Park associated with HSR operations would be minor because more trains operating in the corridor would not substantially alter the visual character of the area. In addition, mature trees in the park and along the right-of-way would partially block direct views.

In addition, changes to the noise environment related to operations would occur as discussed in Section 3.4, primarily as a result of an increase in the frequency of noise from train horns. El Palo Alto Park is adjacent to the at-grade crossing at Alma Street and 1,045.6 feet north of the Palo Alto Caltrain Station. Operations would increase noise levels over the existing level by 2 dBA, from 78 dBA to 80 dBA, resulting in a moderate noise impact (as defined in Section 3.4 and Volume 2, Appendix 3.4-A). The frequency of horns sounding would increase primarily during peak commute times (6:30 a.m. to 9:30 a.m. and 4:30 p.m. to 7:30 p.m.). The Authority would implement mitigation measures to minimize the impacts of operational noise (NV-MM#3, NV-MM#4, NV-MM#5, NV-MM#6). Because the park does not rely on quiet or tranquil surroundings to serve its recreational purpose, it is anticipated that increased operational noise would have a limited impact on the protected activities of El Palo Alto Park. Temporary construction-related impacts and operational noise and visual impacts would not substantially impair the protected activities, features, or attributes that qualify El Palo Alto Park for protection under Section 4(f), and no constructive use would result.

4.6.1.31 El Camino Park Use Assessment (ID#105)

El Camino Park is at 155 El Camino Real in Palo Alto. It is 12.19 acres, with a synthetic soccer field, lighted softball diamond with bleachers, restrooms, and a parking lot (City of Palo Alto 2015). It is adjacent to the project footprint on the west as illustrated on Figure 4-49. No land from El Camino Park would be permanently incorporated under Alternative A or B, so no permanent use would result. Additionally, neither alternative would require temporary use of El Camino Park during construction. As an outdoor land use, the park is not considered vibration sensitive.

The park is adjacent to where the tracks would be shifted (less than 3 feet) and to the TCE at Alma Street where a four-quadrant gate would be installed. Noise, vibration, and construction emissions would make use of the park less desirable during construction for up to 4 weeks of active construction. The project would comply with FRA and FTA 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. Park users would have direct views of construction equipment and activities; however, users would be focused on playing soccer or softball and such views would not prevent use of the park.

Access to the park would not be affected by HSR operations, but construction of safety improvements (four-quadrant gates) on Alma Street would temporarily affect vehicular access; however, only one lane would be closed at a time for a period of 2 to 4 weeks during active construction, but lane closures would not be required during the 4 to 6 months needed to complete installation of the gate. Access would be maintained during construction and would not affect the protected activities of El Camino Park. 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, bicyclists, and pedestrians will continue to have access to the park (PK-IAMF#1, TR-IAMF#2, TR-IAMF#4, TR-IAMF#5). Proximity impacts on El Camino Park associated with HSR operations would be minor because more trains operating in the corridor would not substantially change the visual character of the area.

Operations would increase the frequency of noise from train horns. The park is north of and adjacent to the Palo Alto Caltrain Station and 65 feet west of the at-grade crossing at Alma Street. The park is currently adjacent to the existing corridor and park users would be engaged in

playing sports (soccer and softball), activities that do not require quiet or tranquil surroundings. The Authority would implement mitigation measures to minimize the impacts of operational noise (NV-MM#3, NV-MM#4, NV-MM#5, NV-MM#6). Because the park does not rely on quiet or tranquil surroundings to serve its recreational purpose, increased operational noise would have a limited impact on the protected activities of El Camino Park. Temporary construction-related impacts and operational noise and visual impacts as well as temporary changes in access would not substantially impair the protected activities, features, or attributes that qualify El Camino Park for protection under Section 4(f), and no constructive use would result.

4.6.1.32 Peers Park Use Assessment (ID#108)

Peers Park is at 1899 Park Boulevard in Palo Alto. It is 4.7 acres with tennis courts, picnic tables, children's play areas, a basketball court, a field house, and restrooms, and is managed by the City of Palo Alto Community Services (City of Palo Alto 2007d). The park is adjacent to the project footprint on the west as illustrated on Figure 4-50. No land from Peers Park would be permanently incorporated and no permanent use would result. Additionally, neither alternative would require temporary use of Peers Park during construction. Construction and operation of the project alternatives would not affect access to the park. As an outdoor land use, the park is not considered vibration sensitive.

While the park is adjacent to the existing tracks, no construction activities would occur within 1,000 feet of the park, so there would be no temporary indirect impacts from noise, vibration, air emissions or visual changes during project construction. Proximity impacts on Peers Park associated with HSR operations would be minor because more trains operating in the existing corridor would not substantially change the visual character of the area. Additionally, mature trees in the park and along the right-of-way would partially block direct views toward the tracks.

Changes to the noise environment related to train operations would occur, as discussed in Section 3.4, primarily as a result of the increased frequency of horn noise. However, there are no at-grade crossings or stations within 1,000 feet of the park. The park is currently adjacent to the existing rail line and park users would primarily be participating in active uses, such as tennis, play equipment, and basketball, that do not require a quiet or tranquil environment. As a result, it is anticipated that increased operational noise would have a limited impact on the protected activities of Peers Park. Operational noise and visual impacts would not substantially impair the protected activities, features, or attributes that qualify Peers Park for protection under Section 4(f), and no constructive use would result.

4.6.1.33 Jerry Bowden Park Use Assessment (ID#109)

Jerry Bowden Park is between High and Alma Streets, at North California Avenue, in Palo Alto. It is 2 acres with an open grassy area, playground, picnic area, benches, and public art, and is managed by the City of Palo Alto Community Services (City of Palo Alto 2007b). The park is 69.1 feet northeast of the project footprint as illustrated on Figure 4-51. No land from Jerry Bowden Park would be permanently incorporated by the project alternatives, so no permanent use would result. Additionally, neither alternative would require temporary use of Jerry Bowden Park during construction. Construction and operation of the project alternatives would not affect access to the park. As an outdoor land use, the park is not considered vibration sensitive.

The park is 526.9 feet northeast of where the tracks would be shifted less than a foot over 1 to 2 days. While noise and construction emissions could make use of the park less desirable during construction, given the distance from the track shifts and short duration, indirect impacts would be minor. Park users would not have views of construction equipment or activities because of the distance and intervening development and landscaping.

The park is 69.1 feet northeast of the existing California Avenue Caltrain Station and an increase in the number of trains operating in the corridor would not substantially change the visual character of the area. Mature trees clustered throughout the park would partially block direct views of the rail corridor, depending on location.

Changes to the noise environment related to train operations would also occur, as discussed in Section 3.4. The park is northeast of the California Avenue Caltrain Station and there are no at-grade crossings within 1,000 feet of the park. However, at Jerry Bowden Park, operations would operations would increase noise levels over the existing level by 2 dBA, from 75 dBA to 77 dBA, resulting in a moderate noise impact (as defined in Section 3.4 and Volume 2, Appendix 3.4-A). The frequency of horns sounding would increase primarily during peak commute times (6:30 a.m. to 9:30 a.m. and 4:30 p.m. to 7:30 p.m.). Since the outdoor park is currently in proximity to the existing Caltrain station, a quiet environment is not part of the protected activities of the park. The Authority would implement mitigation measures to minimize the impacts of operational noise (NV-MM#3, NV-MM#4, NV-MM#5, NV-MM#6). As a result, it is anticipated that increased noise resulting from HSR operations would have a limited impact on the protected activities of Jerry Bowden Park. Temporary construction-related impacts and operational noise and visual impacts would not substantially impair the protected activities, features, or attributes that qualify Jerry Bowden Park for protection under Section 4(f), and no constructive use would result.

4.6.1.34 Robles Park Use Assessment (ID#112)

Robles Park is at 4116 Park Boulevard in Palo Alto. It is 4.7 acres with playgrounds, picnic areas, barbecues, benches, multipurpose bowl—a semi-circular wall set in the grass—with colorful tile art, basketball court, softball backstop, and a footpath. The park is managed by the City of Palo Alto Community Services (City of Palo Alto 2007g). The park is 51.3 feet southwest of the project footprint. No land from Robles Park would be permanently incorporated as illustrated on Figure 4-52, so no permanent use would result from the project alternatives. Additionally, neither alternative would require temporary use of Robles Park during construction. Construction and operation of the project alternatives would not affect access to the park. As an outdoor land use, the park is not considered vibration sensitive.

The park is 43.3 feet and across Park Boulevard from the TCE where a radio tower would be installed over a period of 3 to 6 months. In addition, four-quadrant gates would be installed at Meadow Drive and Charleston Road, 544.9 feet to the southwest and 728.5 feet to the northwest, respectively. Noise and construction emissions would make use of the park less desirable during construction of the radio tower, while indirect impacts from installation of the four-quadrant gates would be minor or avoided. Park users would have direct views of construction equipment and activities for up to 6 months, should the radio tower at alternate site 2 be installed. There would be no views of the two other construction locations because they would be blocked by the intervening development and landscaping.

A row of single-family homes separates the park from the alignment 187.3 feet to the east, so trains and track facilities would not be visible from the park. However, construction of the new radio tower would be visible from the park depending on the tower's location. The radio tower would have two options for environmental clearance. Construction of the radio tower at alternate site 2 would be visible from the park while the construction of the radio tower at alternate site 1 would not be visible from the park because it would be farther away on the east side of the rail corridor. Permanent visual impacts would be minimized by visually integrating structures into communities to reduce the intrusiveness of expanded track and systems such as radio towers that cannot be shielded from sensitive viewers (AVQ-IAMF#1) and consulting with local jurisdictions to develop contextually appropriate aesthetic solutions for non-station structures (AVQ-IAMF#2).

Changes to the noise environment related to train operations would also occur, because of the increased frequency of noise from train horns. The park is 540 feet southwest of the at-grade crossing at Meadow Drive and 766 feet northwest of the at-grade crossing at Charleston Road. Park users would primarily be focused on participating in active uses such as using playground equipment, basketball, softball and walking; activities that do not require quiet or tranquil surroundings. The Authority would implement mitigation measures to minimize the impacts of operational noise (NV-MM#3, NV-MM#4, NV-MM#5, NV-MM#6). As a result, it is anticipated that the increase in operational noise would have a limited impact on the protected activities of Robles Park. Temporary construction-related impacts and operational noise and visual impacts would not

substantially impair the protected activities, features, or attributes that qualify Robles Park for protection under Section 4(f), and no constructive use would result.

4.6.1.35 Rengstorff Park Use Assessment (ID#113)

Rengstorff Park is at 201 South Rengstorff Avenue in Mountain View. It is 27 acres with barbecue facilities and picnic area, baseball field, basketball court, skate park, children's playground, passive areas, softball field, swimming pool, tennis courts, an outdoor volleyball court, and restrooms. The park is managed by the City of Mountain View Community Services (City of Mountain View 2018a). The park is 55.7 feet southwest of the project footprint as illustrated on Figure 4-53. No land from Rengstorff Park would be permanently incorporated under Alternative A or B, so no permanent use would result. Additionally, neither alternative would require temporary physical occupation of Rengstorff Park for construction. As an outdoor land use, the park is not considered vibration sensitive.

The park is 32.6 feet southwest of the TCE at Rengstorff Avenue where a four-quadrant gate would be installed over a 2- to 4-week period of active construction activities. Noise, vibration, and construction emissions would make use of the northern portion of the park less desirable during construction. Park users would have views of construction equipment and activities depending on location or near the northern corner. The project would comply with FRA and FTA 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 reduce views of construction at Rengstorff Avenue.

Access to the park would not be affected by operations, but construction of the four-quadrant gates on Rengstorff Avenue would temporarily affect vehicular access from the north. This would result in closing one lane at a time for a period of 2 to 4 weeks only, while lane closures would not be needed over the 4 to 6 months required to complete installation of the gate. Because access would be maintained during construction, the temporary disruption in access would have a limited impact on the protected activities of Rengstorff Park. 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, bicyclists, and pedestrians will continue to have access to the park (PK-IAMF#1, TR-IAMF#2, TR-IAMF#4, TR-IAMF#5).

Additional trains operating in the corridor would not substantially change the visual character of the area. The trees along the edge of the alignment as well as clusters of trees throughout the park would partially block but not eliminate direct views.

Increases in noise from train operations also would occur, as discussed in Section 3.4. Operations would increase the frequency of noise from train horns. The park is 74.5 feet southwest of the at-grade crossing at Rengstorff Avenue and there are no other at-grade crossings or stations within 0.25 mile of the park. Park users would primarily be engaged in active uses such as using playground equipment, baseball, basketball, skating, swimming, softball, tennis, and volleyball; activities that do not require quiet or tranquil surroundings. The Authority would implement mitigation measures to minimize the impacts of operational noise (NV-MM#3, NV-MM#4, NV-MM#5, NV-MM#6). As a result, it is anticipated that the increase in operational noise would have a limited impact on the protected activities of Rengstorff Park. Temporary construction-related impacts and operational visual and noise impacts and temporary changes in access would not substantially impair the protected activities, features, or attributes that qualify Rengstorff Park for protection under Section 4(f), and no constructive use would occur under the project alternatives.

4.6.1.36 Centennial Plaza Use Assessment (ID#117)

Centennial Plaza is at Castro Street and Evelyn Avenue at the Mountain View Caltrain Station in Mountain View. It is a 0.45-acre plaza and partially overlapped by the existing Caltrain station right-of-way as illustrated on Figure 4-54. The park has children’s play equipment, picnic area, landscaping, and benches, and is managed by the City of Mountain View Community Services (City of Mountain View 2018a). Only safety improvements on Castro Street would occur at this

location, which is outside the plaza boundary and overlap area. No land from Centennial Plaza would be permanently acquired under Alternative A or B; therefore, no permanent use would result. Additionally, neither alternative would require temporary physical occupation of Centennial Plaza for construction. As an outdoor land use, the park is not considered vibration sensitive.

The plaza is 4.9 feet from the TCE at Castro Street where a four-quadrant gate would be installed over a 2- to 4-week period of active construction. Noise, vibration, and construction emissions would make use of the plaza less desirable during construction, but the park would remain usable. The project would comply with FRA and FTA guidelines for minimizing construction noise and vibration levels, as well as minimize fugitive dust emissions. Park users would have views of construction equipment and activities while the gate is installed, but these views would not prevent use of the plaza.

Construction of the four-quadrant gate on Castro Street would temporarily decrease vehicular access from the north as a result of requiring closure of one lane of traffic at a time for a period of 2 to 4 weeks only but not during the 4 to 6 month period needed to complete installation of the gate. Because access would be maintained during construction, the temporary disruption in access would have a limited impact on the protected activities of Centennial Plaza. 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, bicyclists, and pedestrians will continue to have access to the plaza (PK-IAMF#1, TR-IAMF#2, TR-IAMF#4, TR-IAMF#5).

Access to the park would not be affected by operations. Proximity impacts on Centennial Plaza associated with HSR operations would be limited because the park is currently adjacent to the existing Caltrain corridor, and additional trains would not substantially alter the existing visual character of the area. Increases in noise from train operations also would occur, primarily related to the increased frequency of horn noise. The Authority would implement mitigation measures to minimize the impacts of operational noise (NV-MM#3, NV-MM#4, NV-MM#5, NV-MM#6). The plaza is currently adjacent to the tracks and Mountain View Caltrain Station and a quiet environment is not part of the protected activities of the plaza, so increased noise resulting from HSR operations would have a limited effect on the protected activities of Centennial Plaza. Temporary construction-related impacts and operational visual and noise impacts and temporary disruptions in access would not substantially impair the protected activities, features, or attributes that qualify Centennial Plaza for protection under Section 4(f), and no constructive use would occur under the project alternatives.

4.6.1.37 Stevens Creek Trail Use Assessment (ID#119)

Stevens Creek Trail is a 5.0-mile paved pathway along the creek through woodlands, tidal marshes and city neighborhood parks, with a 0.25-mile pedestrian overcrossing spanning Central Expressway, Evelyn Avenue, light rail, and the Caltrain tracks (Figure 4-55). The trail is managed by the cities of Mountain View, Los Altos, and Cupertino (City of Mountain View 2018b). No land from Stevens Creek Trail would be permanently incorporated under Alternative A or B, so no permanent use would result. Additionally, neither alternative would require temporary use of Stevens Creek Trail during construction. Construction and operation of the project alternatives would not affect access to the trail. As an outdoor land use, the park is not considered vibration sensitive.

The trail spans the tracks where they would be shifted less than a foot over a period of 1 to 2 days. 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 rail corridor, as well as in areas near the rail corridor, making use of the trail less desirable during construction. The project would comply with FRA and FTA guidelines for minimizing construction noise and vibration levels, as well as minimize fugitive dust emissions, and the trail would remain usable during construction. Trail users would have views of construction equipment and activities as they cross over the trail, but these views would not prevent use of the trail.

The trail currently spans the existing Caltrain corridor, so proximity impacts from visual changes would be minor because additional trains operating in the corridor would not change the visual

character of the area. Increases in noise from train operations also would occur, as discussed in Section 3.4. There are no at-grade crossings or stations within 0.25 mile of the trail. The Authority would implement mitigation measures to minimize the impacts of operational noise (NV-MM#3, NV-MM#4, NV-MM#5, NV-MM#6). Since Stevens Creek Trail does not rely on quiet or tranquil surroundings to serve its recreational purpose, it is anticipated that operational noise would have limited impacts on the protected activities of the trail. Temporary construction-related impacts and operational visual and noise impacts and temporary changes in access would not substantially impair the protected activities, features, or attributes that qualify Stevens Creek Trail for protection under Section 4(f), and no constructive use would occur.

4.6.1.38 Plaza del Sol Use Assessment (ID#124)

Plaza del Sol is at 200 West Evelyn Avenue in Sunnyvale. It is a 1.6-acre plaza with benches, landscaping, and pavement. The plaza is managed by the City of Sunnyvale Department of Library and Recreational Services (City of Sunnyvale 2018). The plaza is 95.0 feet southwest of the project footprint across West Evelyn Avenue from the Sunnyvale Caltrain Station (Figure 4-56). No land from Plaza del Sol would be permanently incorporated under Alternative A or B and no permanent use would result. Additionally, neither project alternative would require temporary use of Plaza del Sol during construction. Construction and operation of the project alternatives would not affect access to the plaza. As an outdoor land use, the plaza is not considered vibration sensitive.

The plaza is 200 feet south of the TCE where a radio tower would be co-located (3 to 6 months of construction activity) and 720.8 feet south of the TCE at Sunnyvale Avenue where a four-quadrant gate would be installed over a 2- to 4-week period of active construction. Noise and construction emissions could make use of the plaza less desirable during construction of the radio tower, while indirect impacts from installation of the four-quadrant gate would be minor or avoided because of the distance from the park to the construction activities. The project would comply with FRA and FTA guidelines for minimizing construction noise and minimize fugitive dust emissions, and the plaza would remain usable during construction. Users would have views of the radio tower being installed, but such views would not prevent use of the plaza.

Proximity impacts on Plaza del Sol associated with HSR operations would include minor changes to the visual environment because additional trains operating in the corridor would not substantially change the visual character of the area. Increases in noise from train operations also would occur, as discussed in Section 3.4, primarily from the increased frequency of horn noise. Since the outdoor plaza is currently across from the Sunnyvale Caltrain Station, a quiet environment is not part of the protected activities of the park, so it is anticipated that increased noise resulting from HSR operations would have a limited impact on the protected activities of Plaza del Sol. The Authority would implement mitigation measures to minimize the impacts of operational noise (NV-MM#3, NV-MM#4, NV-MM#5, NV-MM#6). Temporary construction-related impacts and operational visual and noise impacts would not substantially impair the protected activities, features, or attributes that qualify Plaza del Sol for protection under Section 4(f), and no constructive use would occur.

4.6.1.39 Bracher Park Use Assessment (ID#126)

Bracher Park is at 2560 Alhambra Drive in Santa Clara. It is 3.5 acres with a picnic area, barbecues, restrooms, and a play area, and is managed by City of Santa Clara Parks and Recreation (City of Santa Clara 2018a). The park is 10.1 feet southwest of the project footprint as illustrated on Figure 4-57. No land from Bracher Park would be permanently incorporated under the project alternatives and no permanent use would result. Additionally, neither project alternative would require temporary use of Bracher Park during construction. Construction and operation of the project alternatives would not affect access to the park. As an outdoor land use, the park is not considered vibration sensitive.

The park is 10.1 feet from where the tracks would be shifted less than 3 feet over a period of 1 to 2 days. Noise, vibration, and construction emissions would make use of portions of the park less desirable during construction, including the pathway and basketball court. The project would

comply with FRA and FTA guidelines for minimizing construction noise and vibration levels, as well as minimize fugitive dust emissions, and the park would remain usable during construction. Park users would have views of construction equipment and activities while tracks are shifted, but these views would not prevent use of the park.

The park is within 10 feet of the existing Caltrain corridor, so permanent visual impacts would be minor because the project would not substantially change the existing visual character of the area. Increases in noise from train operations would occur, as discussed in Section 3.4, primarily related to the increase in the frequency of train horn noise. There are no at-grade crossings or stations with 0.25 mile of the park. The Authority would implement mitigation measures to minimize the impacts of operational noise (NV-MM#3, NV-MM#4, NV-MM#5, NV-MM#6). Since the outdoor park is currently within 10.1 feet of the existing corridor, a quiet environment is not part of the protected activities of the park, so it is anticipated that increased noise resulting from HSR operations would have a limited impact on the protected activities of Bracher Park. Temporary construction-related impacts and operational visual and noise impacts would not substantially impair the protected activities, features, or attributes that qualify Bracher Park for protection under Section 4(f), and no constructive use would occur.

4.6.1.40 San Tomas Aquino Creek Trail Use Assessment (ID#128)

San Tomas Aquino Creek Trail extends from Scott Boulevard to Monroe Street in Santa Clara, a distance of 1.25 miles for walking, running, and bicycling, and is managed by the City of Santa Clara Parks and Recreation (City of Santa Clara 2018b). The trail crosses under the existing Caltrain right-of-way as illustrated on Figure 4-58. No land from San Tomas Aquino Creek Trail would be permanently incorporated under Alternative A or B, so no permanent use would result. Additionally, neither alternative would require temporary use of San Tomas Aquino Creek Trail during construction. No construction activities or track modifications would occur at the location where the trail crosses under the tracks and the trail is accessed from the north at Walsh Avenue and south at Monroe Street. Further, operations would not affect access to the trail because the trail is accessed from the north at Walsh Avenue and south at Monroe Street. No construction activities would occur within 1,000 feet of the trail so there would be no temporary indirect impacts.

Proximity impacts on San Tomas Aquino Creek Trail associated with operation of either alternative would be minor because the project would not substantially change the visual character of the corridor. Changes to the noise environment related to HSR operations would occur, as discussed in Section 3.4, primarily related to the increased frequency of horn noise. There are no at-grade crossings or stations within 0.25 mile of the trail undercrossing. The Authority would implement mitigation measures to minimize the impacts of operational noise (NV-MM#3, NV-MM#4, NV-MM#5, NV-MM#6). Because the trail does not rely on quiet or tranquil surroundings to serve its recreational purpose, it is anticipated that increased operational noise would have a limited impact on the protected activities of San Tomas Aquino Creek Trail. Operational noise and visual impacts would not substantially impair the protected activities, features, or attributes that qualify the San Tomas Aquino Creek Trail for protection under Section 4(f), and no constructive use would occur under the project alternatives.

4.6.1.41 Guadalupe River Park Use Assessment (ID#129)

Guadalupe River Park is at 438 Coleman Avenue in San Jose, encompassing 120 acres. Guadalupe River Park is a 3-mile ribbon of park land that runs along the banks of the Guadalupe River in downtown San Jose from I-880 at the north to I-280 at the south. Its components include Discovery Meadow (Children's Discovery Museum); John P. McEnery Park; Arena Green and Arena Green East (playground, carousel, plazas, tennis courts, walking paths); Guadalupe Gardens (Community Garden, Columbus Park, Taylor Street Rock Garden, Heritage Rose Garden, Visitor Center); and areas for public art. The nearest project feature of Alternative A is more than 200 feet from Guadalupe River Park; therefore, no use would occur and it is only discussed in Table 4-7. Guadalupe River Park is immediately adjacent to Alternative B (both viaduct options). No land from Guadalupe River Park would be permanently acquired under either

project alternative, as illustrated on Figure 4-59; therefore, no permanent use would result. Additionally, no land would be temporarily required during project construction.

Noise, vibration, and construction emissions would make use of portions of the park less desirable during construction of Alternative B. However, this resource is in an urban setting, where a certain amount of ambient noise already exists and the project would comply with FRA and FTA guidelines for minimizing construction noise and vibration levels, as well as minimize fugitive dust emissions, and the park would remain usable during construction. Park users would have views of construction equipment and activities while construction is under way, but these views would not prevent use of the park.

Proximity impacts on Guadalupe River Park associated with project operations under Alternative B would be limited to minor changes to the visual environment, because the viaduct associated with Alternative B would be visible from the park at a distance of 480 feet to the west. The project will adopt design standards (AVQ-IAMF#1) and a design review process to guide the development of non-station area structures (AVQ-IAMF#2). Mitigation measures (AVQ-MM#3: Incorporate Design Aesthetic Preferences into Final Design and Construction of Non-Station Structures, AVQ-MM#4: Provide Vegetation Screening along At-Grade and Elevated Guideways Adjacent to Residential Areas, and AVQ-MM#6: Screen Traction Power Distribution Stations and Radio Communication Towers) will reduce the visual impact of the viaduct on the park. Increases in noise from train operations also would occur, as discussed in Section 3.4. However, operation of Alternative B on viaduct in the existing transportation corridors would not introduce substantial additional sources of train noise, because train sounds would be primarily confined within the viaduct structure. Because the park is currently adjacent to the Caltrain right-of-way, it is anticipated that increased noise resulting from HSR operations would have limited impact on the protected activities of Guadalupe River Park. As a result, temporary construction-related impacts and permanent visual and noise impacts would not substantially impair the protected activities, features, or attributes that qualify Guadalupe River Park for protection under Section 4(f), and no constructive use would result under Alternative B.

4.6.1.42 Reed Street Dog Park Use Assessment (ID#130)

The Reed Street Dog Park is at 888 Reed Street in Santa Clara. It encompasses 1.5 acres and is adjacent to or within the project footprint of both project alternatives. Reed Street Dog Park is a dog park with open spaces for dogs to play. It also includes a picnic area, barbeques, and a play area for children.

Alternatives A and B (Viaduct to I-880)

No land from Reed Street Dog Park would be permanently incorporated into the project footprint under Alternatives A and B (Viaduct to I-880), as illustrated on Figure 4-60; therefore, no permanent use would result. Additionally, no land would be required temporarily during project construction. Construction and operation of the project alternatives would not affect access to the park. Alternatives A and B (Viaduct to I-880) would run at grade adjacent to the southern end of the dog park.

The park is adjacent to the existing tracks that would be shifted more than 3 feet, taking 5 to 10 days. Noise, vibration, and construction emissions would make use of portions of the park less desirable during construction. The project would comply with FRA and FTA guidelines for minimizing construction noise and vibration levels, as well as minimize fugitive dust emissions, and the park would remain usable during construction. Park users would have views of construction equipment and activities while construction is under way, but these views would not prevent use of the park.

Proximity impacts on Reed Street Dog Park associated with HSR operations under Alternatives A and B (Viaduct to I-880) would be limited to minor changes to the visual environment because additional trains and some track facilities associated with the embankment would be visible from the park. However, because Alternatives A and B (Viaduct to I-880) would be within the existing Caltrain corridor, additional trains operating in the corridor would not substantially change the visual environment. Increases in noise from train operations also would occur, as discussed in

Section 3.4, primarily related to the increase in the frequency of train horn noise. Operations would increase the number of trains operating in the corridor and increase the frequency of train horn noise. There are no at-grade crossings or stations with 0.25 mile of the park. The Authority would implement mitigation measures to minimize the impacts of operational noise (NV-MM#3, NV-MM#4, NV-MM#5, NV-MM#6). Since the outdoor dog park is currently adjacent to the Caltrain right-of-way and a quiet environment is not part of the protected activities of the dog park, it is anticipated that increased noise resulting from HSR operations would have limited impact on the protected activities of Reed Street Dog Park. Temporary construction-related impacts and operational visual and noise impacts would not substantially impair the protected activities, features, or attributes that qualify Reed Street Dog Park for protection under Section 4(f), and no constructive use would result under Alternatives A and B (Viaduct to I-880).

Alternative B (Viaduct to Scott Boulevard)

A small portion of Reed Street Dog Park (0.18 acre, 12 percent of the total park area) would be permanently incorporated under Alternative B (Viaduct to Scott Boulevard), resulting in a permanent use of the park, while an additional 0.12 acre would be temporarily used during construction. This portion of the park at its southern and western edges would be used to build and operate Alternative B (Viaduct to Scott Boulevard), as illustrated on Figure 4-60. Construction staging areas would also be needed to reconstruct the Lafayette Street crossing, which would replace the existing pedestrian overpass with an underpass. Permanent incorporation would be required because the long viaduct under Alternative B (Viaduct to Scott Boulevard) would have a wider footprint than the short viaduct under Alternative B (Viaduct to I-880). The affected portion of the park land is currently vegetated and open space and does not contain any recreational facilities or include any of the open space used by dogs for the dog park facility. Alternative B (Viaduct to Scott Boulevard) would leave most of the park intact and contiguous for continued use during construction and operations. Alternative B (Viaduct to Scott Boulevard) would require the existing fencing around the perimeter of the park to be relocated during construction; the fence would be relocated to outside 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 will 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 will submit the restoration plan to the Authority for review and obtain Authority approval.

During the construction period, construction activities would temporarily block one of two access points to the park along Lafayette Street (at the existing track crossing) north of Warburton Avenue, reducing but not eliminating access. Access to the park from the entrance on Reed Street via Grant Street would be maintained, which is the primary entrance to the park and includes the parking lot. The closure along Lafayette Street would be shorter than the duration of construction. This street closure would not be of a severity that the protected activities, features, or attributes that qualify the park for protection under Section 4(f) would be substantially impaired because access would be maintained along Reed Street. Project design features (PK-IAMF#1, TR-IAMF#2, TR-IAMF#4, TR-IAMF#5) avoid or minimize temporary impacts on access to and use of parks and recreation facilities. The project includes project features to maintain access to park and recreation facilities, including the requirement that the contractor prepare and submit to the Authority a technical memorandum that identifies project design features to minimize impacts on parks and recreation facilities, such as safe and attractive access for existing travel modes (e.g., motorists, bicyclists, pedestrians) to existing park and recreation facilities (PK-IAMF#1). Detours and signage will help to avoid impacts on access and prevent park or recreational users from being inconvenienced by temporary disruptions to traffic patterns. Upon approval by the Authority, the contractor will implement the project design features identified in the technical memorandum and they will be incorporated into the design specifications and will be a pre-construction requirement (PK-MM#3: Implement Project Design Features). Additionally, another mitigation measure (PK-MM#1) will provide alternative access via a temporary detour to the dog park using existing roadways or other public rights-of-way, and prior to construction, the

contractor will prepare a technical memorandum for the Authority documenting how the contractor will maintain connections to the unaffected park portions or nearby roadways during construction. The technical memorandum will be submitted to the Authority for review and approval. Upon approval by the Authority, the contractor will implement the activities identified in the technical memorandum. The activities will be incorporated into the design specifications and will be a pre-construction requirement. These technical memoranda will be provided to the OWJ to demonstrate how access will be maintained. Because access will be maintained during construction, temporary disruptions in access will have limited impact on the protected activities of Reed Street Dog Park. Accordingly, this permanent use would not adversely affect the protected activities, features, or attributes that qualify the park for protection under Section 4(f). Therefore, the use under Alternative B (Viaduct to Scott Boulevard) would have a *de minimis* impact.

4.6.1.43 Reed and Grant Streets Sports Park Use Assessment (ID#131)

Reed and Grant Streets Sports Park is at the corner of Reed and Grant Streets in Santa Clara. The park encompasses 9 acres adjacent to the existing Caltrain right-of-way. The park contains five lighted soccer fields of various sizes, a 3,500-square-foot multipurpose recreation building, a landscaped promenade and entry plaza, a children's playground with seating and picnic area, gathering and viewing areas, and a maintenance yard and building. The park is adjacent to or within the project footprint for both project alternatives.

Alternatives A and B (Viaduct to I-880)

No land from Reed and Grant Streets Sports Park would be permanently incorporated into the project footprint under Alternatives A and B (Viaduct to I-880), as illustrated on Figure 4-60; therefore, no permanent use would result. Additionally, no land would be required temporarily during project construction. Construction and operation of Alternatives A and B (Viaduct to I-880) would not affect access to the park. Alternatives A and B (Viaduct to I-880) would run at grade adjacent to the southern end of the park.

The park is adjacent to the existing tracks that would be shifted more than 3 feet, taking 5 to 10 days. Noise, vibration, and construction emissions would make use of portions of the park less desirable during construction. The project would comply with FRA and FTA guidelines for minimizing construction noise and vibration levels, and it would minimize fugitive dust emissions; the park would remain usable during construction. Park users would have views of construction equipment and activities while construction is under way, but these views would not prevent use of the park.

Proximity impacts on Reed and Grant Streets Sports Park associated with HSR operations under Alternatives A and B (Viaduct to I-880) would be limited to minor changes to the visual environment because additional trains and some track facilities associated with the embankment would be visible from the park. However, because Alternatives A and B (Viaduct to I-880) would be within the existing Caltrain corridor, additional trains operating in the corridor would not substantially change the visual environment. Increases in noise from train operations also would occur, as discussed in Section 3.4, primarily related to the increase in the frequency of train horn noise. Operations would increase the number of trains operating in the corridor and increase the frequency of train horn noise. There are no at-grade crossings or stations with 0.25 mile of the park. The Authority would implement mitigation measures to minimize the impacts of operational noise (NV-MM#3, NV-MM#4, NV-MM#5, NV-MM#6). Since the outdoor park is currently adjacent to the Caltrain right-of-way and a quiet environment is not part of the protected activities of the park, it is anticipated that increased noise resulting from HSR operations would have limited effect on the protected activities of Reed and Grant Streets Sports Park. Temporary construction-related impacts and operational visual and noise impacts would not substantially impair the protected activities, features, or attributes that qualify Reed and Grant Streets Sports Park for protection under Section 4(f), and no constructive use would result under Alternatives A and B (Viaduct to I-880).

Alternative B (Viaduct to Scott Boulevard)

A small portion of Reed and Grant Streets Sports Park (0.82 acre, 11 percent of the total park area) would be permanently incorporated under Alternative B (Viaduct to Scott Boulevard), resulting in a permanent use of the park, while an additional 0.27 acre would be temporarily used during construction. This land would be acquired from the park along the southwestern edge adjacent to the right-of-way and would be used to build footings and columns for the viaduct, as illustrated on Figure 4-61. This portion of the park includes parts of the children's playground and soccer fields, and construction of Alternative B (Viaduct to Scott Boulevard) will require reconfiguration of the soccer fields to make them usable (PK-MM#5). During the design phase, the contractor will prepare a technical memorandum documenting how access and use of the existing park will be maintained during and following completion of construction activities. This measure will ensure access is permanently maintained to Reed and Grant Streets Sports Park, both during and following construction. Prior to any ground-disturbing activities at the park, the contractor will 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 will be removed (LU-IAMF#3). Before beginning construction use of land, the contractor will submit the restoration plan to the Authority for review and obtain Authority approval.

In addition, the TCE at the intersection of Lafayette Street and Reed Street for Alternative B (Viaduct to Scott Boulevard) would impede access to the park from the west. However, access from Grant Street would be maintained. Project features (PK-IAMF#1) will maintain access to park and recreation facilities because the contractor will prepare and submit to the Authority a technical memorandum that identifies project design features to be implemented to minimize impacts on parks and recreation facilities, such as providing safe and attractive access for existing travel modes (e.g., motorists, bicyclists, pedestrians) to existing parks. Upon approval by the Authority, the contractor will implement the project design features identified in the technical memorandum. The project design features will be incorporated into the design specifications and will be a pre-construction requirement.

Even with these project features and mitigation measures, the use of Reed and Grant Streets Sports Park would change because the configuration of the soccer fields would change and there would be some associated loss of parking. However, the change in location of the soccer fields and loss of some parking would not diminish the use of this facility. Accordingly, this permanent use would not adversely affect the protected activities, features, or attributes that qualify the park for protection under Section 4(f). Therefore, the use under Alternative B (Viaduct to Scott Boulevard) would have a *de minimis* impact.

4.6.1.44 Larry J. Marsalli Park Use Assessment (ID#132)

Larry J. Marsalli Park is at 1425 Lafayette Street in Santa Clara, just south of State Route (SR) 82, El Camino Real. It encompasses 7 acres and is 292.1 feet from Alternative A and Alternative B (Viaduct to I-880), but in the project footprint of Alternative B (Viaduct to Scott Boulevard). Therefore, no use would occur under Alternative A and Alternative B (Viaduct to I-880), so they are only discussed in Table 4-7. The park includes open-space areas, restrooms, a lighted softball field, and a children's playground.

No land from Larry J. Marsalli Park would be permanently incorporated into the project under Alternative B (Viaduct to Scott Boulevard); therefore, no permanent use would result. However, 0.51 acre would be used during construction, resulting in temporary occupancy of the park. This land in the southern portion of the park along De La Cruz Boulevard, as illustrated on Figure 4-62, would be used as a TCE to 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, and the Santa Clara Caltrain Station. Replacement of the overcrossing with an undercrossing would take 1 year, while building the viaduct would take 2 years. This portion of the park is currently vegetated and open space. Alternative B (Viaduct to Scott Boulevard) would leave most of the park intact and contiguous for continued use during

construction and operations, 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 will 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 will submit the restoration plan to the Authority for review and obtain Authority approval.

The temporary occupancy of Larry J. Marsalli Park under Alternative B (Viaduct to Scott Boulevard) would be so minimal as to not constitute a use of the park within the meaning of Section 4(f), and it meets the conditions for the exception in 23 C.F.R. Section 774.13(d): it would be of shorter duration than the time needed for construction of the project; there would be no change in ownership of the land; the scope of the work would be minor; there would be no permanent physical impacts; there would be no temporary or permanent interference with the protected activities, features, or attributes of the property; and the property would be fully restored to a condition at least as good as it was prior to the project).

Construction activities would temporarily block two of three access points along Alviso Street and Lewis Street and The Alameda, diminishing access under Alternative B (Viaduct to Scott Boulevard). Access to the park from the entrance on Lafayette Street off of El Camino Real would be maintained, which includes the main entrance to the park and the parking lot, and accommodates more capacity than Alviso Street and Lewis Street. Also, these street closures would be shorter than the duration of construction. The street closure and bridge reconstruction would not substantially impair the protected activities, features, or attributes that qualify the park for protection under Section 4(f) because access would be maintained along Lafayette Street. The project includes project features (PK-IAMF#1, TR-IAMF#2, TR-IAMF#4, TR-IAMF#5) to avoid or minimize temporary impacts on access to and use of the parks and recreation facilities. Detours and signage will help to avoid impacts on access and prevent park or recreational users from being inconvenienced by temporary disruptions to traffic. Project features (PK-IAMF#1) will maintain access to park and recreation facilities because the contractor will prepare and submit to the Authority a technical memorandum that identifies project design features to minimize impacts on parks and recreation facilities, such as providing safe and attractive access for existing travel modes (e.g., motorists, bicyclists, pedestrians) to existing park and recreation facilities. Upon approval by the Authority, the contractor will implement the project design features identified in the technical memorandum and they will be incorporated into the design specifications and will be a pre-construction requirement (PK-MM#3). Additionally, a mitigation measure (PK-MM#1) will provide alternative access via a temporary detour to the park using existing roadways or other public rights-of-way, and prior to construction, the contractor will prepare a technical memorandum for the Authority documenting how the contractor will maintain connections to the unaffected park portions or nearby roadways during construction. These technical memoranda will be provided to the OWJ to demonstrate how access will be maintained. Because access will be maintained during construction, temporary decreases in access would have a limited impact on the protected activities of Larry J. Marsalli Park.

Noise, vibration, and construction emissions would make use of portions of the park less desirable during reconstruction of the De La Cruz Boulevard overcrossing that would last up to 1 year, while building the viaduct would take 2 years. The project would comply with FRA and FTA guidelines for minimizing construction noise and vibration levels, as well as minimize fugitive dust emissions, and the park would remain usable during construction. Park users would have views of construction equipment and activities while construction is under way, but these views would not prevent use of the park.

Proximity impacts on Larry J. Marsalli Park associated with HSR operations under Alternative B (Viaduct to Scott Boulevard) would be limited to changes to the visual environment from the new viaduct over De La Cruz Boulevard that would be visible from the park. However, the viaduct would be within the existing Caltrain corridor, which is approximately 400 feet from the park, which would reduce the sensitivity of park users. The project will adopt design standards (AVQ-

IAMF#1) and a design review process to guide the development of non-station area structures (AVQ-IAMF#2). Mitigation measures (AVQ-MM#3, AVQ-MM#4, AVQ-MM#6) calling for visual screening will reduce the visual impact of the project alternatives on the park. While the viaduct would be visible, it would not create a substantial qualitative change in the use or enjoyment of the park. Increases in noise from train operations also would occur, as discussed in Section 3.4, primarily related to the increase in the frequency of train horn noise. However, HSR operations on viaduct under Alternative B (Viaduct to Scott Boulevard) in the existing transportation corridor would not introduce substantial additional sources of train noise, because train sounds would be primarily confined within the viaduct structure, which is approximately 400 feet from the park. The park is currently adjacent to the Caltrain right-of-way and De La Cruz Boulevard, and it is anticipated that increased noise resulting from HSR operations would have a limited impact on the protected activities of Larry J. Marsalli Park. Temporary construction-related impacts and operational visual and noise impacts would not substantially impair the protected activities, features, or attributes that qualify Larry J. Marsalli Park for protection under Section 4(f), and no constructive use would result under Alternative B (Viaduct to Scott Boulevard).

4.6.1.45 Newhall Park Use Assessment (ID#133)

Newhall Park is at 972 Newhall Street in San Jose. It is 1.4 acres and is 191.3 feet from the footprint of Alternative A and Alternative B (Viaduct to I-880), and 188.7 feet from the footprint of Alternative B (Viaduct to Scott Boulevard). The park includes lawn areas, a gazebo, and a picnic area. No land from Newhall Park would be permanently incorporated under any either project alternative, as illustrated on Figure 4-63; therefore, no permanent use would result. Additionally, no land would be required temporarily during project construction. Construction and operation of the project alternatives would not affect access to the park.

The park would be 196.7 and 233.7 feet west of Alternatives A and B (Viaduct to I-880) where the tracks would be shifted (over 3 feet) over 5 to 10 days, and 188.7 feet west of viaduct construction under Alternative B (Viaduct to Scott Boulevard) over a period of 2 years. Noise, vibration, and construction emissions would make use of the park less desirable during construction. The project would comply with FRA and FTA guidelines for minimizing construction noise and vibration levels, as well as minimize fugitive dust emissions, and the park would remain usable during construction. Park users would have views of construction equipment and activities while construction is under way, but these views would not prevent use of the park.

Proximity impacts on Newhall Park associated with HSR operations would be limited to minor changes to the visual environment under Alternatives A and B (Viaduct to I-880) because additional trains and track facilities would be similar to the existing visual environment. Under Alternative B (Viaduct to Scott Boulevard), the new viaduct would be visible from the park. The project will adopt design standards (AVQ-IAMF#1) and a design review process to guide the development of non-station area structures (AVQ-IAMF#2). Mitigation measures (AVQ-MM#3, AVQ-MM#4, AVQ-MM#6) with visual screening will reduce the visual impact of the project alternatives on the park. While the viaduct would be visible, it would not create a substantial qualitative change in the use or enjoyment of the park. Increases in noise from train operations also would occur, as discussed in Section 3.4. Operations would increase the number of trains operating in the corridor and increase the frequency of train horn noise. However, under Alternative A and B (Viaduct to I-880) there are no grade crossings or stations within 0.25 mile of the park and under Alternative B (Viaduct to Scott Boulevard) operations on viaduct in the existing transportation corridors would not introduce substantial additional sources of train noise, because train sounds would be primarily confined within the viaduct structure. Since the park is currently near the Caltrain right-of-way, it is anticipated that increased noise resulting from HSR operations would have a limited impact on the protected activities of Newhall Park. Accordingly, temporary construction-related impacts and operational visual and noise impacts would not substantially impair the protected activities, features, or attributes that qualify Newhall Park for protection under Section 4(f), and no constructive use would occur under the project alternatives.

4.6.1.46 College Park Use Assessment (ID#134)

College Park is at Elm and West Hedding Streets in San Jose. It occupies 0.1 acre. The nearest project feature of Alternative A is more than 200 feet from College Park, so there would be no use and it is only discussed in Table 4-7. The park is within the project footprint for Alternative B but 660 feet from the centerline. The park includes open space and a bench. No land from College Park would be permanently incorporated under any of the project alternatives; therefore, no permanent use would result.

During construction, Alternative B (Viaduct to I-880) would require use of 0.04 acre and Alternative B (Viaduct to Scott Boulevard) would use 0.02 acre, resulting in temporary occupancy of the park. This land in the southern portion of the park along Elm Street and West Hedding Street, as illustrated on Figure 4-64, would be used as a TCE to allow the reconstruction of the existing West Hedding Street overcrossing, which would be replaced with a new overpass (Alternative B [Viaduct I-880]) or by an undercrossing guideway (Alternative B [Viaduct to Scott Boulevard]) with construction of either structure taking up to 1 year. However, the TCE would only be needed for up to 4 weeks to tie in the new curb. Alternative B would leave most of the park intact and contiguous for continued use during construction, including all of the park 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 will 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 will submit the restoration plan to the Authority for review and obtain Authority approval.

The temporary occupancy of College Park under Alternative B would be so minimal as to not constitute a use of the park within the meaning of Section 4(f), and it meets the conditions for the exception in 23 C.F.R. Section 774.13(d): it would be of shorter duration than the time needed for construction of the project; there would be no change in ownership of the land; the scope of the work would be minor; there would be no permanent physical impacts; there would be no temporary or permanent interference with the protected activities, features, or attributes of the property; and the property would be fully restored to a condition at least as good as it was prior to the project.

Under Alternative B (Viaduct to I-880) and Alternative B (Viaduct to Scott Boulevard), TCEs at and along Elm Street and West Hedding Street would temporarily diminish access to the park because of the bridge reconstruction in the TCE along West Hedding Street. Although the park would be surrounded on three sides by a TCE, access from West Hedding Street would be maintained during construction and the street closures would be shorter than the duration of construction. The street closure and bridge reconstruction would not substantially impair the protected activities, features, or attributes that qualify the park for protection under Section 4(f) because access would be maintained along West Hedding Street. The project includes project features (PK-IAMF#1, TR-IAMF#2, TR-IAMF#4, TR-IAMF#5) to avoid or minimize temporary impacts on access to and use of the parks and recreation facilities. Project features (PK-IAMF#1) will maintain access to park and recreation facilities because the contractor will prepare and submit to the Authority a technical memorandum that identifies project design features to minimize impacts on parks and recreation facilities, such as providing safe and attractive access for existing travel modes (e.g., motorists, bicyclists, pedestrians) to existing park and recreation facilities. Detours and signage will help to avoid impacts on access and prevent park or recreational users from being inconvenienced by temporary disruptions to traffic. Upon approval by the Authority, the contractor will implement the project design features identified in the technical memorandum and they will be incorporated into the design specifications and will be a pre-construction requirement (PK-MM#3). Additionally, a mitigation measure (PK-MM#1) will provide alternative access via a temporary detour to the park using existing roadways or other public rights-of-way, and prior to construction, the contractor will prepare a technical memorandum for the Authority documenting how the contractor will maintain connections to the unaffected park portions or nearby roadways during construction. These technical memoranda

will be provided to the OWJ to demonstrate how access will be maintained. Because access will be maintained during construction, temporary disruption in access would have a limited impact on the protected activities of College Park.

Noise, vibration, and construction emissions would make use of portions of the park less desirable during replacement of Hedding Street overcrossing, which would take up to 1 year, and while building the viaduct, which would take 2 years. The project would comply with FRA and FTA guidelines for minimizing construction noise and vibration levels, as well as minimize fugitive dust emissions, and the park would remain usable during construction. Park users would have views of construction equipment and activities while construction is under way, but these views would not prevent use of the park.

Proximity impacts on College Park associated with HSR operations would be limited to minor changes to the visual environment under Alternative B (Viaduct to I-880) because additional trains and some track facilities would not result in a substantial change to the visual environment. However, under Alternative B (Viaduct to Scott Boulevard), the new 60-foot viaduct could be visible from the park but at a distance because the park is 660 feet from the centerline. While the viaduct would be visible, it would not create a substantial qualitative change in the use or enjoyment of the park. The project will adopt design standards (AVQ-IAMF#1) and a design review process to guide the development of non-station area structures (AVQ-IAMF#2). Mitigation measures (AVQ-MM#3, AVQ-MM#4, AVQ-MM#6) with visual screening will reduce the visual impact of the project alternatives on the park. Increases in noise from noise environment related to train operations also would occur, as discussed in Section 3.4. Operations would increase the number of trains operating in the corridor and increase the frequency of train horn noise. While there are no grade crossings within 0.25 mile of the park, the College Park Caltrain Station is approximately 1,200 feet southeast. However, under Alternative B (Viaduct to Scott Boulevard), operation of the project on viaduct in the existing transportation corridors would not introduce substantial additional sources of train noise because train sounds would be primarily confined within the viaduct structure. Since the park is currently 660 feet from the Caltrain right-of-way, it is anticipated that increased noise resulting from HSR operations would have a limited impact on the protected activities of College Park. Accordingly, temporary construction-related impacts and operational visual and noise impacts would not substantially impair the protected activities, features, or attributes that qualify College Park for protection under Section 4(f), and no constructive use would occur under either of the project alternatives.

4.6.1.47 Theodore Lenzen Park Use Assessment (ID#135)

Theodore Lenzen Park is at Stockton Avenue and Lenzen Street in San Jose. It is 0.5 acre and includes two playgrounds. The nearest project feature of Alternative A is more than 200 feet from Theodore Lenzen Park, so there would be no use and it is only discussed in Table 4-7. The park is 36.4 feet from Alternative B.

No land from Theodore Lenzen Park would be permanently incorporated under Alternative B (either viaduct option), as illustrated on Figure 4-65; therefore, no permanent use would result. Additionally, no land would be required temporarily during project construction. The park is 36.4 feet from where a permanent utility easement would be located, but over 300 feet from the TCE for either viaduct option.

Noise, vibration, and construction emissions would make use of portions of the park less desirable during building of the aerial viaduct that would take 2 years. The project would comply with FRA and FTA guidelines for minimizing construction noise and vibration levels, as well as minimize fugitive dust emissions, and the playgrounds would remain usable during construction. Park users would have views of construction equipment and activities while construction is under way, but these views would not prevent use of the park.

Proximity impacts on Theodore Lenzen Park associated with HSR operations would be limited to minor changes to the visual environment because while the new aerial viaduct could be visible, it would be at a distance of over 900 feet from the structure and the distance would reduce the visual sensitivity of viewers at the park. Project features include adoption of design standards

(AVQ-IAMF#1) and a design review process to guide the development of non-station area structures (AVQ-IAMF#2). Mitigation measures (AVQ-MM#3, AVQ-MM#4, AVQ-MM#6) calling for visual screening will reduce the visual impact of Alternative B on the park. Changes to the noise environment related to train operations also would occur, as discussed in Section 3.4. However, operation of Alternative B on viaduct in these existing transportation corridors would not introduce substantial additional sources of train noise because train sounds would be primarily confined within the viaduct structure. Since the park is currently near the Caltrain right-of-way, it is anticipated that increased noise resulting from HSR operations would have a limited impact on the protected activities of Theodore Lenzen Park. Accordingly, operational visual and noise impacts would not substantially impair the protected activities, features, or attributes that qualify Theodore Lenzen Park for protection under Section 4(f), and no constructive use would occur.

4.6.1.48 Cahill Park Use Assessment (ID#136)

Cahill Park is on San Fernando Street in San Jose. It is 3.7 acres, includes a half-size basketball court, playground, and grassy areas, and is 116.4 feet from the TCE under Alternative A and 114.7 feet from the TCE under Alternative B. Both TCEs encompass the San Jose Diridon Station. No land from Cahill Park would be permanently incorporated under either alternative, as illustrated on Figure 4-66 and no permanent use would result. Additionally, no land would be required temporarily during project construction.

Noise, vibration, and construction emissions would make use of portions of the park less desirable during construction under both alternatives. Track modifications under Alternative A would last several days; building of the aerial viaduct that would take 2 years and would occur while building the aerial station, which would take 3 to 4 years (Alternative B). The project would comply with FRA and FTA 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 reduced by the two rows of multifamily housing between project construction and the park. Park users could have views of construction equipment and activities while construction is under way depending on their location, but these views would not prevent use of the park.

Proximity impacts on Cahill Park associated with HSR operations would be limited to minor changes to the visual environment under Alternative A because additional trains and improvements to the Diridon Station would not substantively change the visual environment. The new viaduct and station would be visible from the park under Alternative B. However, because the park is already in proximity to the station and tracks, and park users would be actively engaged in playing basketball or using the playground or grassy areas, the visual changes would not prevent participation in these activities. The project will adopt design standards (AVQ-IAMF#1) and a design review process to guide the development of non-station area structures (AVQ-IAMF#2). Mitigation measures (AVQ-MM#3, AVQ-MM#4, AVQ-MM#6) with visual screening will reduce the visual impact of the project alternatives on the park. Changes to the noise environment related to train operations also would occur, as discussed in Section 3.4. Operations would increase the number of trains operating in the corridor and increase the frequency of train horn noise. While there are no grade crossings within 0.25 mile, the Diridon Station is within 0.25 mile and the frequency of train horn noise would increase under Alternative A. For Alternative B, project operation on viaduct in these existing transportation corridors would not introduce substantial additional sources of train noise, because train sounds would be primarily confined within the viaduct structure. Since the park is currently near the Caltrain right-of-way and Diridon Station, it is anticipated that increased noise resulting from HSR operations would have a limited impact on the protected activities of Cahill Park. Accordingly, temporary construction-related impacts and operational visual and noise impacts would not substantially impair the protected activities, features, or attributes that qualify Cahill Park for protection under Section 4(f), and no constructive use would occur under the project alternatives.

4.6.1.49 Los Gatos Creek Trail Use Assessment (ID#137)

The Los Gatos Creek Trail extends for 10 miles from Lexington Reservoir above Los Gatos to South Montgomery Avenue in San Jose, along Los Gatos Creek. Operated by the City of San

Jose Department of Parks, Recreation & Neighborhood Services, the trail can be used by pedestrians and bicyclists.

Alternative A

Alternative A would be on an existing Caltrain bridge over the trail. No land from Los Gatos Creek Trail would be permanently incorporated into the project footprint under Alternative A, as shown on Figure 4-67; therefore, no permanent use would result. Additionally, no land would be required temporarily during project construction. A new track would be added to the existing Caltrain bridge. Temporary construction-related impacts from noise and air emissions would make the portion of trail under the existing bridge less desirable. The project would comply with FRA and FTA guidelines for minimizing construction noise and vibration levels, as well as minimize fugitive dust emissions, and the trail would remain usable during construction. Trail users could have views of construction equipment and activities while construction is under way, but these views would not prevent use of the trail. Therefore, there would be no permanent or temporary use under Section 4(f).

Proximity impacts on Los Gatos Creek Trail associated with HSR operations would include minor changes to the visual environment due to additional trains using the existing Caltrain bridge. However, because Alternative A would be in the existing Caltrain corridor, visual impacts would be minor. Changes to the noise environment related to train operations also would occur, as discussed in Section 3.4. However, operation of Alternative A on an existing bridge in these existing transportation corridors would not introduce substantial additional sources of train noise because train sounds already occur. Since the trail crosses under the Caltrain right-of-way, it is anticipated that increased noise resulting from HSR operations would have limited effect on the protected activities of Los Gatos Creek Trail. Accordingly, temporary construction-related impacts and operational visual and noise impacts would not substantially impair the protected activities, features, or attributes that qualify Los Gatos Creek Trail for protection under Section 4(f), and no constructive use would occur under Alternative A.

Alternative B

Alternative B would require a permanent easement for the new aerial viaduct over Los Gatos Creek and Los Gatos Creek Trail (0.55 acre/0.02 mile, 0.21 percent of the total trail area), and may require footings (approximately 0.11 acre within the 0.55-acre permanent easement) for the new viaduct within park land north of the creek and trail, resulting in a permanent use. Alternative B would also require temporary use of 1.31 acres of the trail during construction. The area of the trail affected is between South Montgomery Street and just south of San Carlos Street, as illustrated on Figure 4-67. The HSR viaduct would cross over the trail, Los Gatos Creek, and San Carlos Street at this location. The permanent incorporation would consist of the potential physical location of the footings north of the creek and trail in park land. Therefore, the physical trail would remain intact and usable within the 0.55-acre easement, despite the need for this minimal (0.11-acre) permanent incorporation of park land for the footings, and no permanent trail realignment would be necessary.

Temporary utility work would be necessary to protect a stormwater canal in place during construction, and TCEs at San Carlos Street would be necessary to perform utility work and build the HSR viaduct. These areas of temporary use would be on the ground level and would require temporary use of the edges of the trail during construction. However, the core middle portion of the trail would remain usable during the construction period through incorporation of project features and mitigation measures. A TCE on West San Carlos Street would block access to the Los Gatos Creek Trail from this street; however, access would remain available from at least eight other access points along the trail. Temporary changes in access would not prevent use of the trail. The viaduct would span the trail so it would not divide the trail in two or make the trail unusable during construction. Temporary realignment of the trail would not be required. This change in access would not be of a severity that the protected activities, features, or attributes that qualify the trail for protection under Section 4(f) would be substantially impaired because access would be maintained at eight other access points. The project includes project features (PK-IAMF#1, TR-IAMF#2, TR-IAMF#4, TR-IAMF#5) to avoid or minimize temporary impacts on

access to and use of the parks and recreation facilities. Project features (PK-IAMF#1) will maintain access to park and recreation facilities because the contractor will prepare and submit to the Authority a technical memorandum that identifies project design features to minimize impacts on parks and recreation facilities, such as providing safe and attractive access for existing travel modes (e.g., motorists, bicyclists, pedestrians) to existing park and recreation facilities. Detours and signage will help to avoid impacts on access and prevent park or recreational users from being inconvenienced by temporary disruptions to traffic. Upon approval by the Authority, the contractor will implement the project design features identified in the technical memorandum and they will be incorporated into the design specifications and will be a pre-construction requirement (PK-MM#3). Additionally, a mitigation measure (PK-MM#1) will provide alternative access via a temporary detour to the trail using existing roadways or other public rights-of-way, and prior to construction, the contractor will prepare a technical memorandum for the Authority documenting how the contractor will maintain connections to the unaffected trail portions or nearby roadways during construction). These technical memoranda will be provided to the OWJ to demonstrate how access will be maintained. Because access will be maintained during construction, temporary changes in access would have a limited impact on the protected activities of Los Gatos Creek Trail.

This potential permanent and temporary construction use would not affect the trail because access would be maintained and the trail would remain usable throughout construction and operation. Proximity impacts on Los Gatos Creek Trail associated with HSR operations would be limited to changes to the visual environment due to the new overhead viaduct. Changes to the noise environment related to train operations also would occur, as discussed in Section 3.4. However, operation of Alternative B on an overhead viaduct at this location would not introduce substantial additional sources of train noise because train sounds already occur. Since the trail would cross under the future viaduct, it is anticipated that increased noise resulting from HSR operations would have a limited effect on the protected activities of Los Gatos Creek Trail. Accordingly, operational visual and noise impacts would not be of a severity that the protected activities, features, or attributes that qualify Los Gatos Creek Trail for protection under Section 4(f) would be adversely affected, and no constructive use would occur under Alternative B. Therefore, the Authority's finding is that the use under Alternative B would have a *de minimis* impact on the Los Gatos Creek Trail.

4.6.1.50 Guadalupe River Trail (Reach 6) Use Assessment (ID#140)

The Guadalupe River Trail, Reach 6 expansion is an extension of the existing Guadalupe River Trail, a recreational pedestrian and bicycle trail spanning 9 miles along the Guadalupe River through San Jose. Reach 6 extends from the Children's Discovery Museum at Woz Way, south along the east side of SR 87 to Virginia Street. Reach 6 is adjacent to the project footprint of Alternative A and within the project footprint of Alternative B (both viaduct options).

Alternative A

No land from Reach 6 would be permanently incorporated, as illustrated on Figure 4-68; therefore, no permanent use would result. Additionally, no land would be temporarily required during construction. Access to the trail would not be affected by construction or operation of Alternative A.

Reach 6 is 170.5 feet east of where the tracks would be shifted more than 3 feet over 5 to 10 days. During this time, noise, vibration, and construction emissions would make use of portions of the trail less desirable. The project would comply with FRA and FTA guidelines for minimizing construction noise and vibration levels, as well as minimize fugitive dust emissions, and the park would remain usable during construction. Trail users could have views of construction equipment and activities while construction is under way, but these views would not prevent use of the trail.

Alternative A would be at grade to the west of Reach 6. Proximity impacts on Reach 6 associated with operation of Alternative A would be limited to minor changes to the visual environment because additional trains operating in the corridor would not substantively change the visual environment and the rail infrastructure would be slightly visible from only a very small portion of

the trail. Increases in noise from train operations also would occur, as discussed in Section 3.4. There are no at-grade crossings or stations within 0.25 mile of the trail. The Authority would implement mitigation measures to minimize the impacts of operational noise (NV-MM#3, NV-MM#4, NV-MM#5, NV-MM#6). Since Reach 6 is currently adjacent to the Caltrain right-of-way, it is anticipated that increased noise resulting from HSR operations would have a limited impact on the protected activities of Reach 6. Accordingly, temporary construction-related impacts and operational visual and noise impacts would not substantially impair the protected activities, features, or attributes that qualify Reach 6 for protection under Section 4(f), and no constructive use would result.

Alternative B

Alternative B would require permanent incorporation of 0.8 acre/0.17 mile (1.89 percent of the total trail area) from Reach 6, resulting in a permanent use. In addition, 0.70 acre would be required during construction. This land in the western portion of the trail (east side of SR 87) would be used to build the HSR aerial structure, which would cross over West Virginia Street and Reach 6, then over the Caltrain rail bridge, the Guadalupe River, and Willow Street (Figure 4-68). This portion of the trail is currently vegetated and open space. This permanent incorporation would not affect the overall use of the trail because it is on the western edge of the trail, allowing most of the trail to remain intact and operational. The viaduct would span the trail, so the permanent use would not divide the trail in two because the entire width of the trail would not be used and temporary realignment would not be required.

The project includes project features (PK-IAMF#1, TR-IAMF#2, TR-IAMF#4, TR-IAMF#5) to avoid or minimize temporary impacts on access to and use of the parks and recreation facilities. Detours and signage will help to avoid impacts on access and prevent park or recreational users from being inconvenienced by temporary disruptions to traffic. Project features (PK-IAMF#1) will also maintain access to park and recreation facilities because the contractor will prepare and submit to the Authority a technical memorandum that identifies project design features to minimize impacts on trails and recreation facilities, such as providing safe and attractive access for existing travel modes (e.g., motorists, bicyclists, pedestrians) to existing trails and recreation facilities. Upon approval by the Authority, the contractor will implement the project design features identified in the technical memorandum and they will be incorporated into the design specifications and will be a pre-construction requirement (PK-MM#3). Additionally, a mitigation measure (PK-MM#1) will provide alternative access via a temporary detour to the trail using existing roadways or other public rights-of-way, and prior to construction, the contractor will prepare a technical memorandum for the Authority documenting how the contractor will maintain connections to the unaffected trail portions or nearby roadways during construction. These technical memoranda will be provided to the OWJ to demonstrate how access will be maintained. Through these project features and mitigation measures, Reach 6 would remain usable during project construction and operations. Accordingly, this permanent use would not adversely affect the protected activities, features, or attributes that qualify the trail for protection under Section 4(f). Therefore, the use would be a *de minimis* impact under Alternative B.

4.6.1.51 Biebrach Park Use Assessment (ID#141)

Biebrach Park is at Delmas Street and Virginia Street in San Jose. It is 5 acres and contains basketball courts, a handball court, restrooms, a swimming pool, children's play areas, and barbeque facilities. It is 10.1 feet from a TCE on Delmas Avenue under Alternative A. The nearest project features of Alternative B are more than 200 feet from Biebrach Park, so this alternative is only discussed in Table 4-7.

No land from Biebrach Park would be permanently incorporated, as illustrated on Figure 4-69; therefore, no permanent use would result. Additionally, no land would be temporarily required during construction. Access to the park would not be affected by construction or operation of Alternative A.

Noise, vibration, and construction emissions could make use of portions of the park less desirable during track modifications of more than 3 feet over 5 to 10 days and reconstruction of the existing

Delmas Avenue underpass over 6 to 9 months. The project would comply with FRA and FTA guidelines for minimizing construction noise and vibration levels, as well as minimize fugitive dust emissions, and the park would remain usable during construction. Park users could have views of construction equipment and activities while construction is under way, but these views would not prevent use of the park.

Alternative A would be at grade south of Biebrach Park. Proximity impacts on Biebrach Park associated with operation of Alternative A would be limited to minor changes to the visual environment because the rail infrastructure would be slightly visible from the park. However, additional trains operating in the corridor would not substantively change the visual environment. Changes to the noise environment related to train operations also would occur, because more trains would operate in the corridor and while there are no grade crossings within 0.25 mile, the Virginia Street Station is within 0.25 mile and the frequency of train horn noise would increase. The Authority would implement mitigation measures to minimize the impacts of operational noise (NV-MM#3, NV-MM#4, NV-MM#5, NV-MM#6). Since the outdoor Biebrach Park is currently near the Caltrain right-of-way, it is anticipated that increased noise resulting from HSR operations would have a limited impact on the protected activities of Biebrach Park. Accordingly, temporary construction-related impacts and operational visual and noise impacts would not substantially impair the protected activities, features, or attributes that qualify Biebrach Park for protection under Section 4(f), and no constructive use would result.

4.6.1.52 Fuller Park Use Assessment (ID#142)

Fuller Park is at Fuller Avenue and Park Avenue in San Jose. It is a linear park adjacent to the existing UPRR track that is split into two portions by Delmas Avenue. It encompasses 1.14 acres and is within the project footprint of Alternative A. Fuller Park contains game tables, a bocce ball court, and a horseshoe pit. The nearest project features of Alternative B are more than 200 feet from Fuller Park, so there would be no use under that alternative and it is only discussed in Table 4-7.

A small portion of Fuller Park (0.03 acre, 2.6 percent of the total park area) would be permanently incorporated under Alternative A, resulting in a permanent use of the park. 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 4-70. 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. In addition, 0.01 acre would be required during construction for up to 3 months. 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 east of Delmas Avenue, 0.01 acre of the park adjacent to the current UPRR right-of-way would be used as an access TCE for up to 1.5 years and another 0.01 acre would be incorporated into the HSR right-of-way. These areas are on the northeastern edge of the park, directly adjacent to the existing right-of-way. This portion of the park does not contain any recreational facilities.

Fuller Street provides primary access to the park and would not be affected. Alternative A would leave most of the park intact and contiguous for continued use during construction and operations. Prior to any ground-disturbing activities at the park related to installation of the train control site, access TCE, or other work, the contractor will 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 will submit the restoration plan to the Authority for review and obtain Authority approval.

Accordingly, this permanent use would not adversely affect the protected activities, features, or attributes that qualify the park for protection under Section 4(f). The Authority's finding is that the use of Fuller Park under Alternative A would have a *de minimis* impact. The OWJ, the City of San Jose Department of Parks, Recreation & Neighborhood Services, concurred with this finding in a letter dated September 28, 2021.

4.6.1.53 Tamien Park Use Assessment (ID#146)

Tamien Park is a 3.5-acre park at 1197 Lick Avenue in San Jose next to the Tamien Caltrain and Santa Clara Valley Transportation Authority (VTA) light-rail stations. It provides picnic tables, shade structures, ping pong tables, a restroom, children's playground with play equipment, multi-use turf area, a lighted basketball court, a multi-use soccer field, a stage, and an outdoor gym. Tamien Park is an active sports park with no noise-sensitive uses. The Tamien Park Master Plan states "[T]his area provides the greatest opportunity to create intensive high density residential or mixed use development design to support transit use, since both the Caltrain and VTA Light Rail Tamien stations are located here. This area is currently undergoing a transformation from a mix use area of single family homes with small industrial facilities to the transit-oriented community envisioned in the Tamien Station Area Specific Plan" (City of San Jose 2015).

Alternative A

No land from Tamien Park would be permanently incorporated under Alternative A, as illustrated on Figure 4-71, so no permanent use would result. Additionally, no land would be required temporarily during project construction.

The existing tracks north of the park would be shifted more than 3 feet, taking 5 to 10 days. Noise, vibration, and construction emissions would make use of the park less desirable during construction. The project would comply with FRA and FTA guidelines for minimizing construction noise and vibration levels, as well as minimize fugitive dust emissions, and the park would remain usable during construction. Park users would have views of construction equipment and activities during construction, but these views would not prevent use of the park.

Proximity impacts on Tamien Park associated with operations under Alternative A would be limited to minor changes to the visual environment (i.e., the new track west of the existing station adjacent to the park) because additional trains operating in the corridor would not substantively change the visual environment. The project will adopt design standards (AVQ-IAMF#1) and a design review process to guide the development of non-station area structures (AVQ-IAMF#2). Mitigation measures (AVQ-MM#4, AVQ-MM#5) calling for visual screening will reduce the visual impact of Alternative A on the park. Changes to the noise environment related to train operations also would occur, as discussed in Section 3.4, primarily from the increased frequency of horn noise at Tamien Caltrain Station. There are no at-grade crossings within 0.25 mile of the park. Since the park is an active sports park and is already in proximity to an existing station, a quiet environment is not part of the protected activities of the park, so it is anticipated that increased noise resulting from HSR operations would have a limited impact on the protected activities of Tamien Park. The Authority would implement mitigation measures to minimize the impacts of operational noise (NV-MM#3, NV-MM#4, NV-MM#5, NV-MM#6). Temporary construction-related impacts and operational visual and noise impacts would not substantially impair the protected activities, features, or attributes that qualify Tamien Park for protection under Section 4(f), and no constructive use would result under Alternative A.

Alternative B

Alternative B would require permanent incorporation of 0.22 acre (6.3 percent of the total park area) from Tamien Park as a result of the placement of straddle bent columns and footings on the western edge of the park, which would affect the multi-use soccer field. However, PK-MM#4: Design Refinements to Avoid Aboveground Park Encroachment at Tamien Park, will reposition the aboveground portions of the straddle bent column out of the park and reconfigure the column footing so there will be no aboveground encroachment into the park. This measure will permanently maintain use of the soccer field at Tamien Park, both during and following construction. Below-ground encroachment into the park may still be required for the footing, but this would not affect any of the uses or facilities in the park because it would be underground. Therefore, no permanent use would be required.

However, 0.05 acre of land would be required during construction under Alternative B, resulting in temporary occupancy of the park for construction of the straddle bent for the viaduct, as illustrated on Figure 4-71. The TCE would be within the perimeter landscaping adjacent to the

multi-use soccer field. The TCE area adjacent to the multi-use soccer field would be temporarily closed for approximately 6 months during construction, while the soccer field would remain open. However, this temporary closure would only affect the 0.05 acre located at the western edge of the park. Alternative B would leave most of the park intact and contiguous for continued use during construction and would not affect access from Goodyear Street and Lick Avenue.

Alternative B would require the existing fencing around the perimeter of the park to be relocated during construction; the fence would be relocated to outside the TCE boundary. In addition, any trees or vegetation located within the TCE boundary would be removed during construction. Prior to any ground-disturbing activities at the park, the contractor will 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 will submit the restoration plan to the Authority for review and obtain Authority approval.

The temporary occupancy of Tamien Park under Alternative B would be so minimal as to not constitute a use of the park within the meaning of Section 4(f), and it meets the conditions for the exception in 23 C.F.R. Section 774.13(d): it would be of shorter duration than the time needed for construction of the project; there would be no change in ownership of the land; the scope of the work would be minor; there would be no permanent adverse physical impacts; there would be no temporary or permanent interference with the protected activities, features, or attributes of the property; and the property would be fully restored to a condition at least as good as it was prior to the project).

Temporary construction-related impacts from noise, vibration, and construction emissions would last longer and be more extensive under Alternative B compared to Alternative A because of viaduct construction. Proximity impacts associated with operations under Alternative B would include changes to the visual environment, primarily from the elevated viaduct, while additional trains operating in the corridor would not substantively change the visual environment. Design standards (AVQ-IAMF#1) and a design review process to guide the development of non-station area structures (AVQ-IAMF#2) as well as mitigation measures (AVQ-MM#4, AVQ-MM#5) calling for visual screening will reduce the visual impact of Alternative B on the park. Changes to the noise environment related to operations also would occur, as discussed in Section 3.4, but the trains would operate within the viaduct with parapet walls that would reduce train noise. The park is an active sports park and is already in proximity to the existing tracks and a quiet environment is not part of the protected activities of the park, so it is anticipated that increased noise resulting from HSR operations would have a limited impact on the protected activities of Tamien Park. The Authority would implement mitigation measures to minimize the impacts of operational noise (NV-MM#3, NV-MM#5, NV-MM#6). Temporary construction-related impacts and operational visual and noise impacts would not substantially impair the protected activities, features, or attributes that qualify Tamien Park for protection under Section 4(f), and no constructive use would result under Alternative B.

Sources: Authority 2019c; CPAD 2017

MAY 2019

Figure 4-24a San Francisco Bay Trail (Northern Portion)

Sources: Authority 2019c; CPAD 2017

JUNE 2021

Figure 4-24b San Francisco Bay Trail (Central Portion)

Sources: Authority 2019c; CPAD 2017

JUNE 2021

Figure 4-24c San Francisco Bay Trail (Southern Portion)

Sources: Authority 2019c; CPAD 2017

JUNE 2019

Figure 4-25 Mission Creek Park and Mission Bay Dog Park

Sources: Authority 2019c; CPAD 2017

JUNE 2019

Figure 4-26 Mariposa Park

Sources: Authority 2019c; CPAD 2017

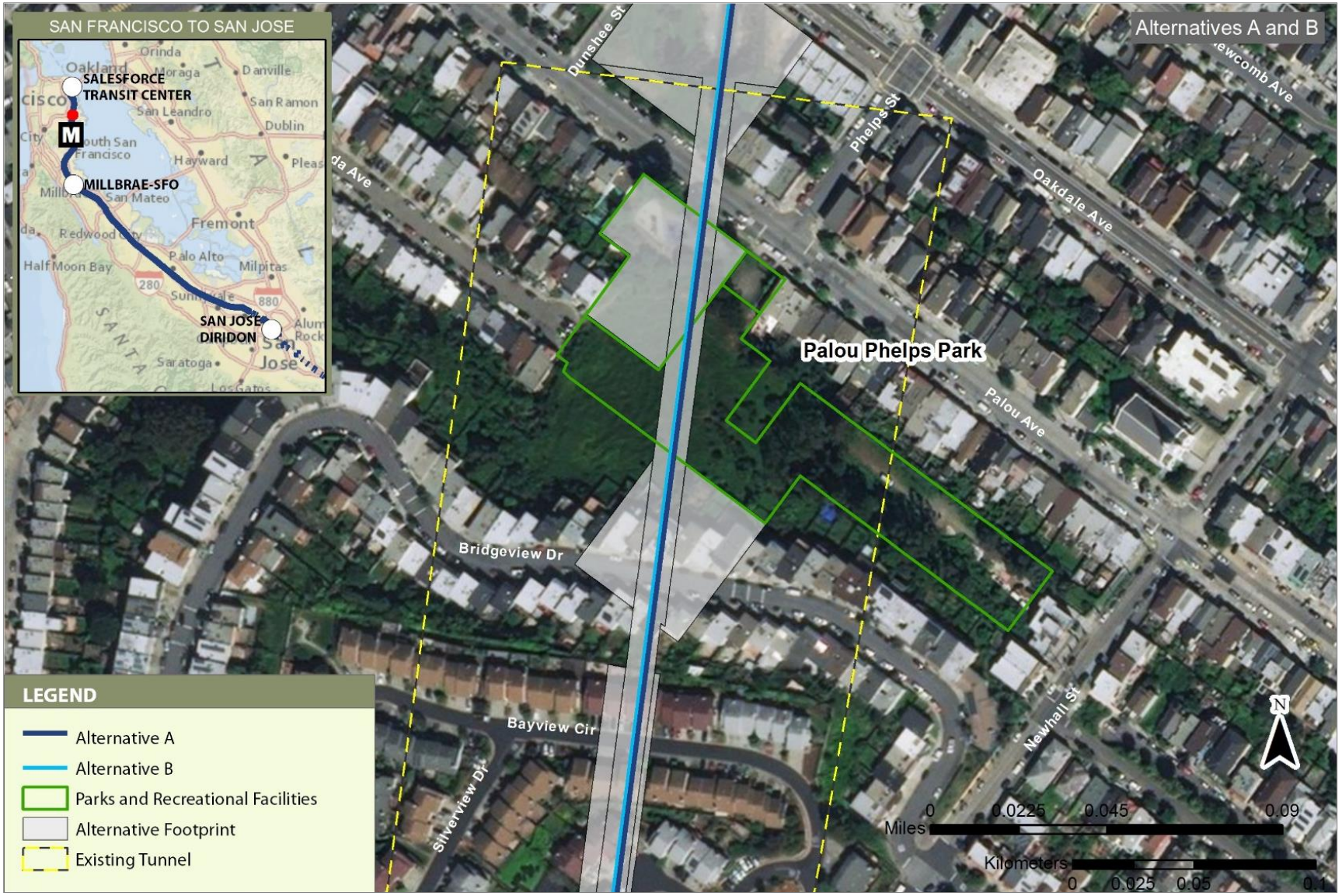
JUNE 2019

Figure 4-27 Pennsylvania Garden

Sources: Authority 2019c; CPAD 2017

JUNE 2019

Figure 4-28 Tunnel Top Park



Sources: Authority 2019c; CPAD 2017

JUNE 2019

Figure 4-29 Palou and Phelps Park

Sources: Authority 2019c; CPAD 2017

JUNE 2019

Figure 4-30 Florence Fang Asian Community Garden

Sources: Authority 2019c; CPAD 2017

JUNE 2021

Figure 4-31a Brisbane Lagoon Fisherman's Park

Sources: Authority 2019c; CPAD 2017

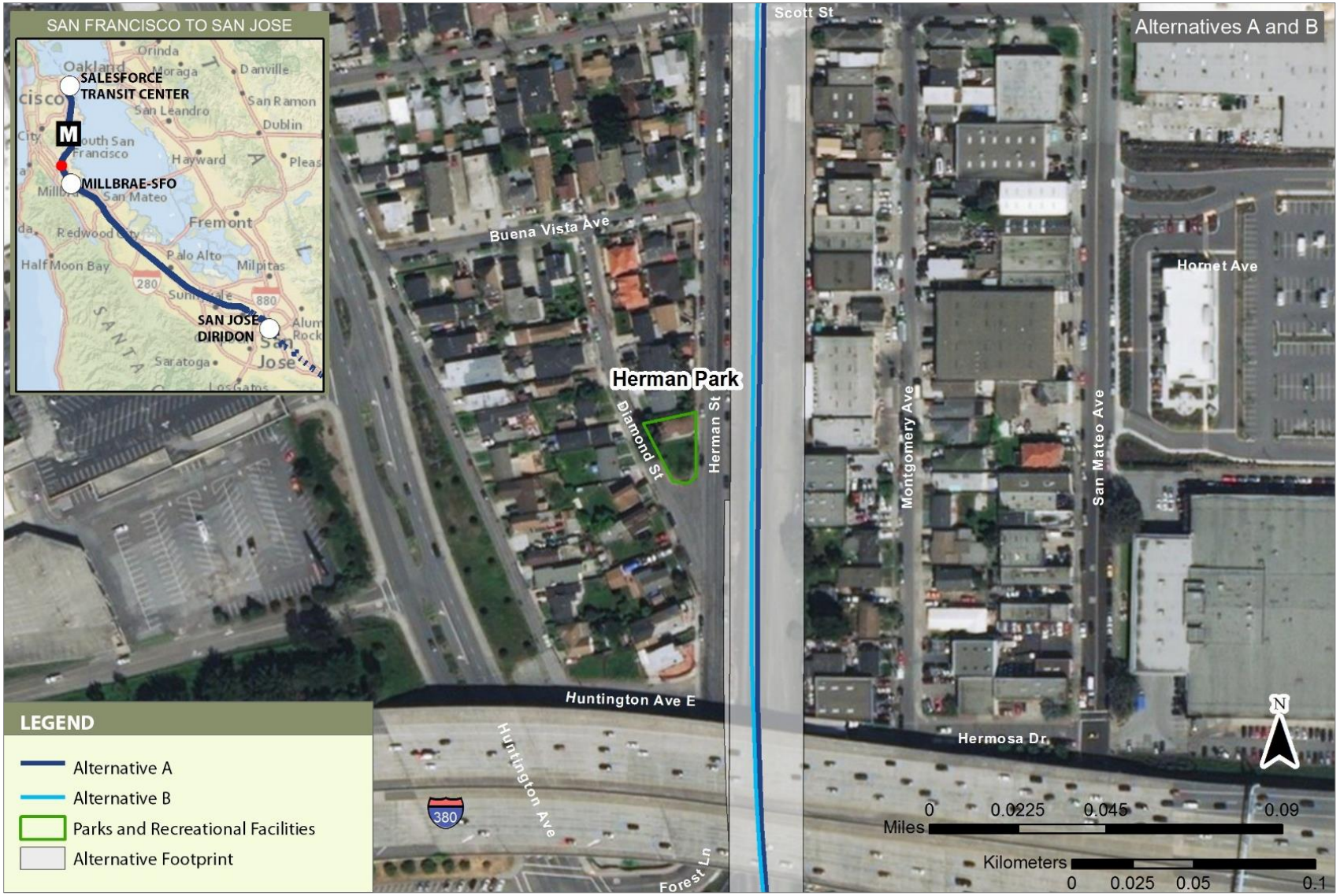
JUNE 2021

Figure 4-31b Brisbane Lagoon Fisherman's Park

Sources: Authority 2019c; CPAD 2017

JUNE2021

Figure 4-32 Brisbane Community Park, Skate Park and Basketball Courts, City Hall Dog Park, and Old Quarry Road Park and Trail



Sources: Authority 2019c; CPAD 2017

JUNE 2019

Figure 4-33 Herman Park

Sources: Authority 2019c; CPAD 2017 JUNE 2019

Figure 4-34 Posy Park

Sources: Authority 2019c; CPAD 2017
AUGUST 2021
The park is within the existing fenced Caltrain right-of-way and no construction activities would occur outside that area.

Figure 4-35 Monterey Park

Sources: Authority 2019c; CPAD 2017

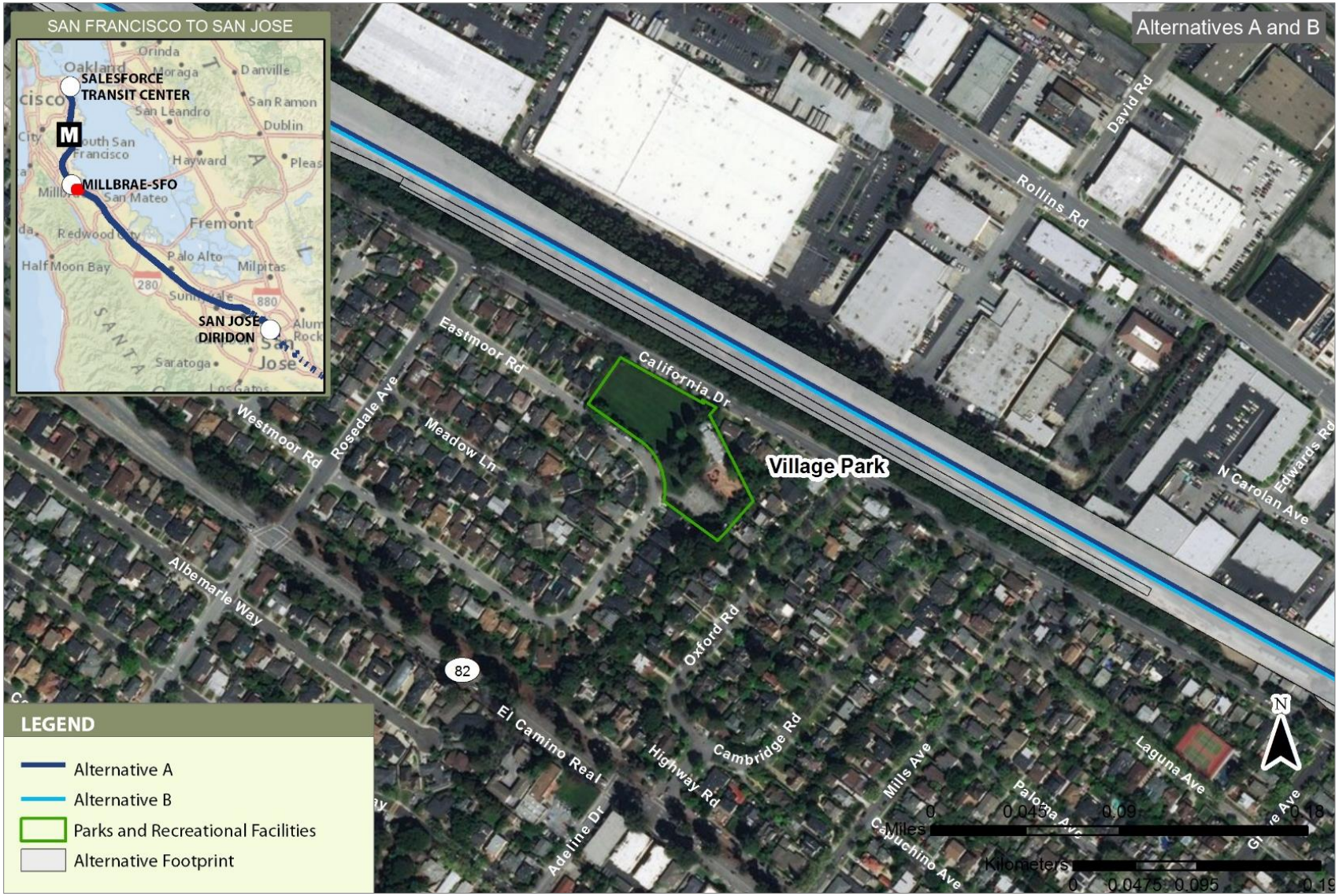
JUNE 2019

Figure 4-36 Lions Park

Sources: Authority 2019c; CPAD 2017

JUNE 2019

Figure 4-37 Lomita Park Elementary School



Sources: Authority 2019c; CPAD 2017

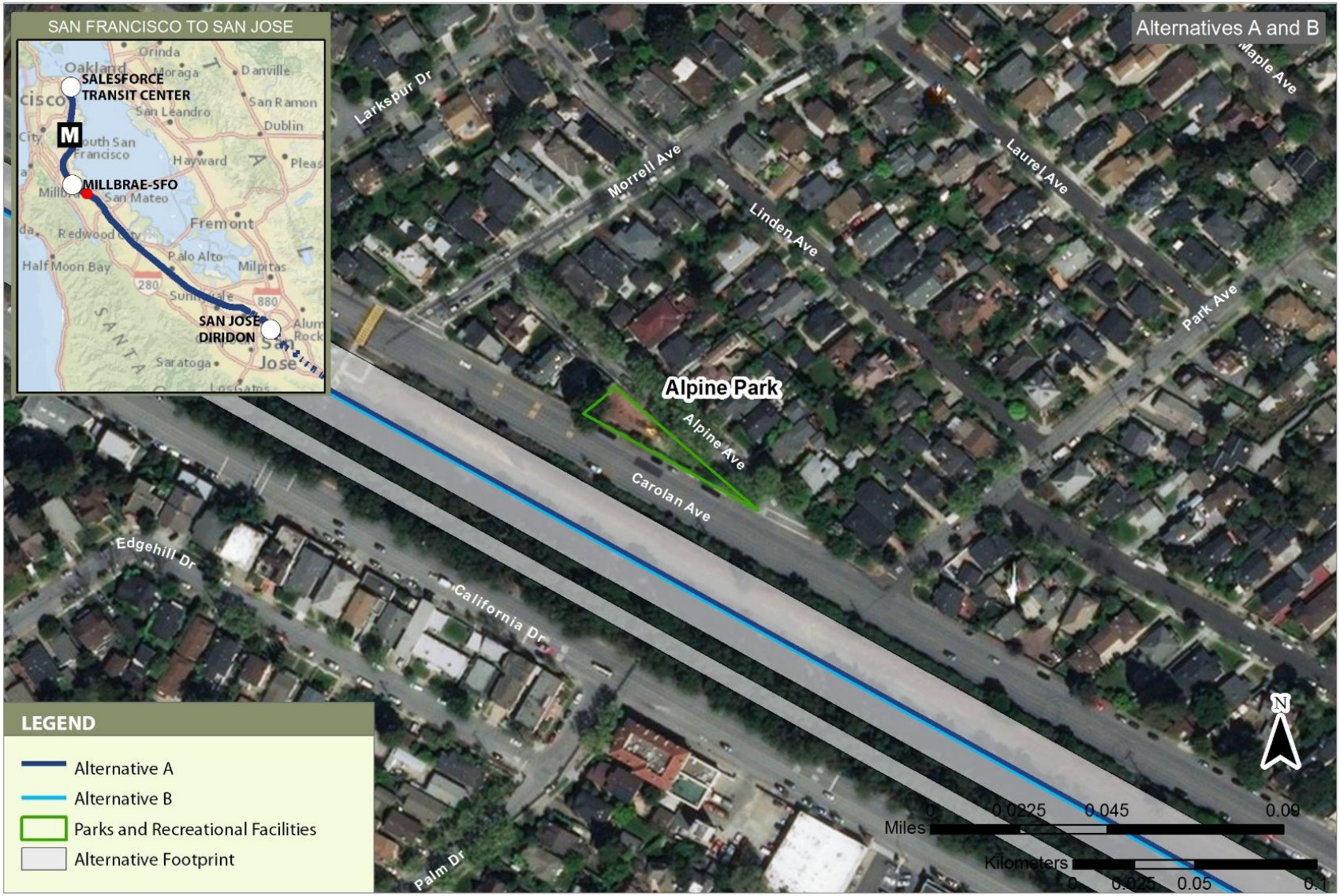
JUNE 2019

Figure 4-38 Village Park

Sources: Authority 2019c; CPAD 2017

JUNE 2019

Figure 4-39 Laguna Park



Sources: Authority 2019c; CPAD 2017

JUNE 2019

Figure 4-40 Alpine Park

Sources: Authority 2019c; CPAD 2017

JUNE 2019

Figure 4-41 Washington Park

Sources: Authority 2019c; CPAD 2017

JUNE 2019

Figure 4-42 Hayward Park Square

Sources: Authority 2019c; CPAD 2017

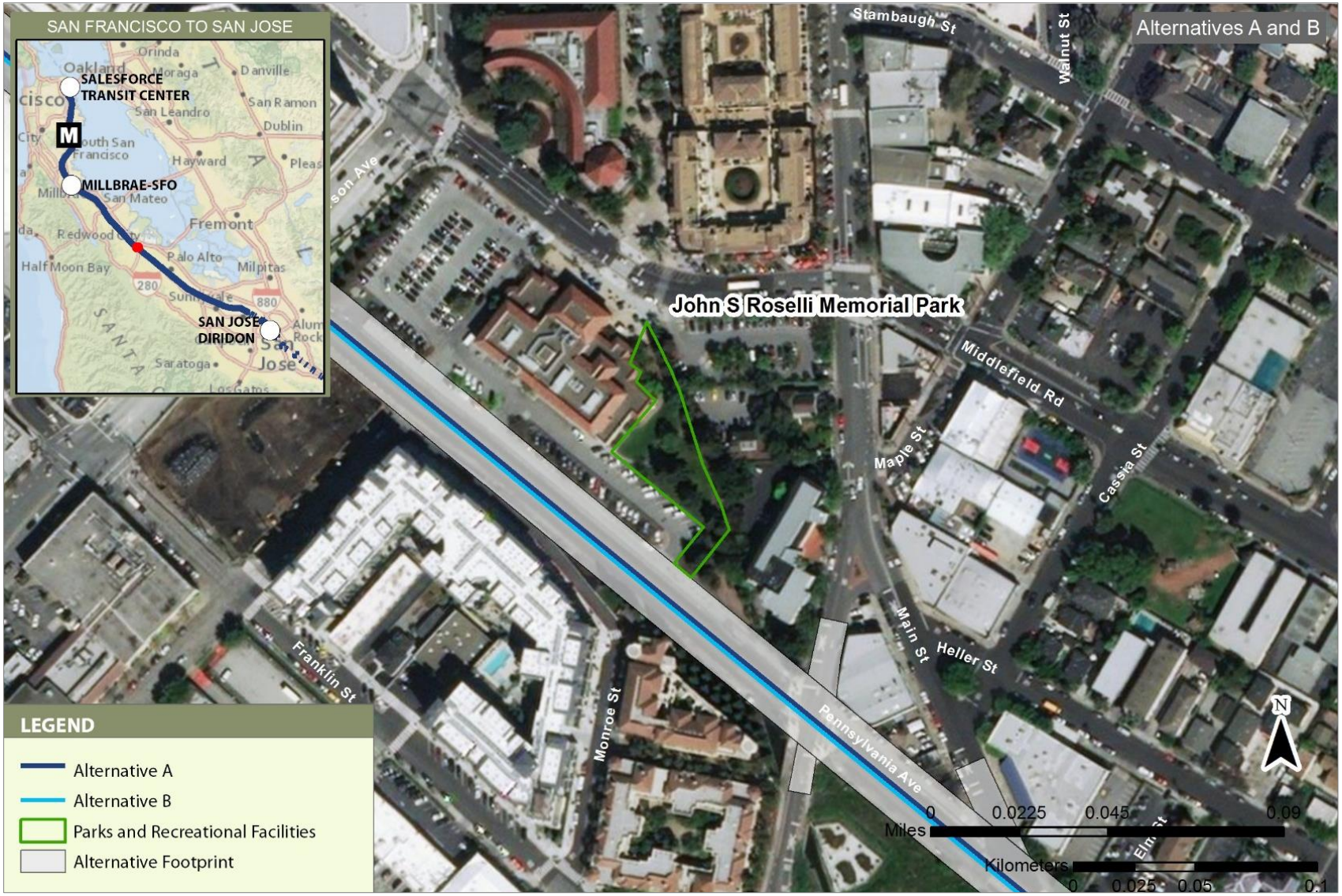
JUNE 2019

Figure 4-43a Trinta Park

Sources: Authority 2019c; CPAD 2017

JUNE 2019

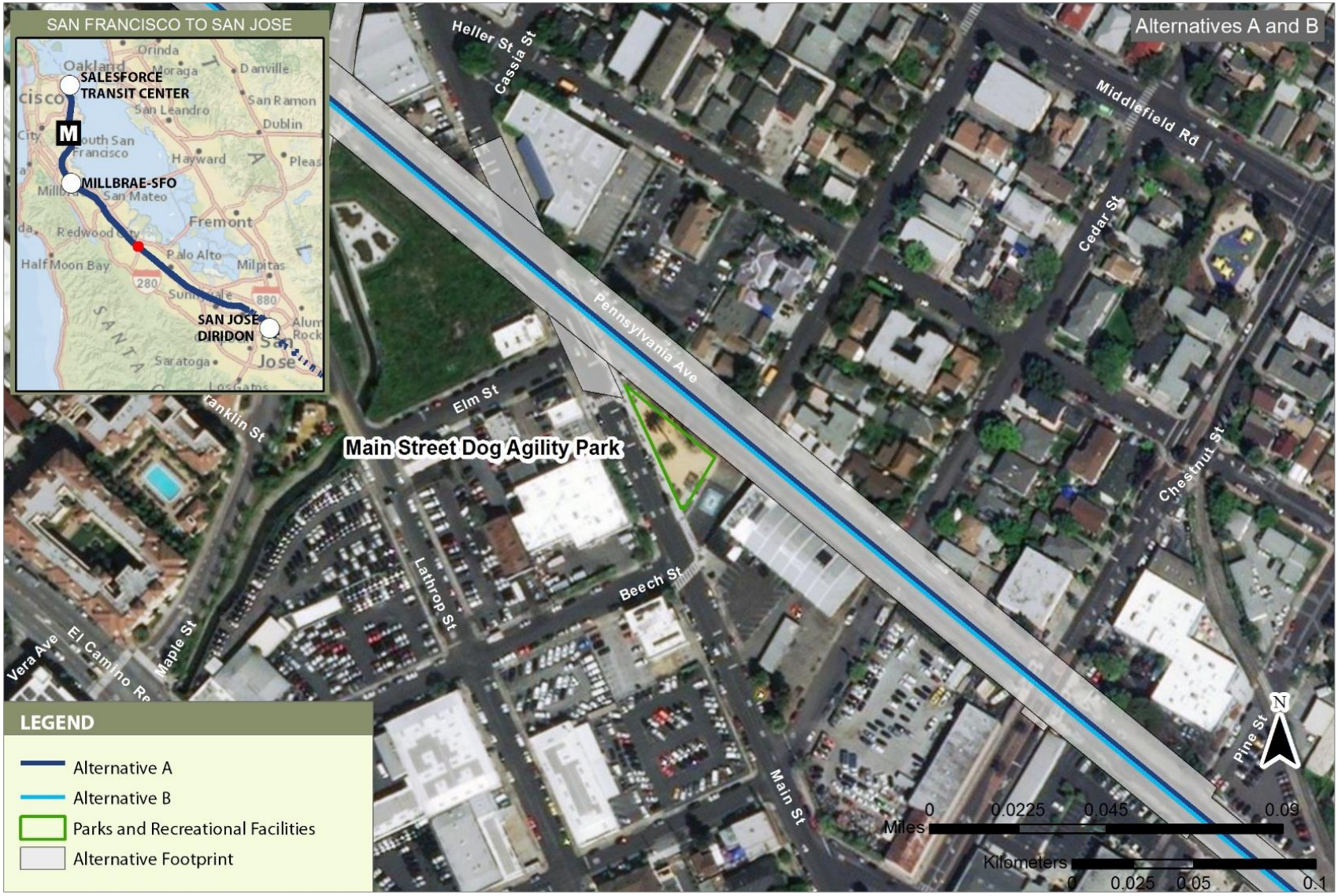
Figure 4-43b Trinta Park



Sources: Authority 2019c; CPAD 2017

JUNE 2019

Figure 4-44 John S. Roselli Memorial Park



Sources: Authority 2019c; CPAD 2017

JUNE 2019

Figure 4-45 Main Street Dog Agility Park

Sources: Authority 2019c; CPAD 2017

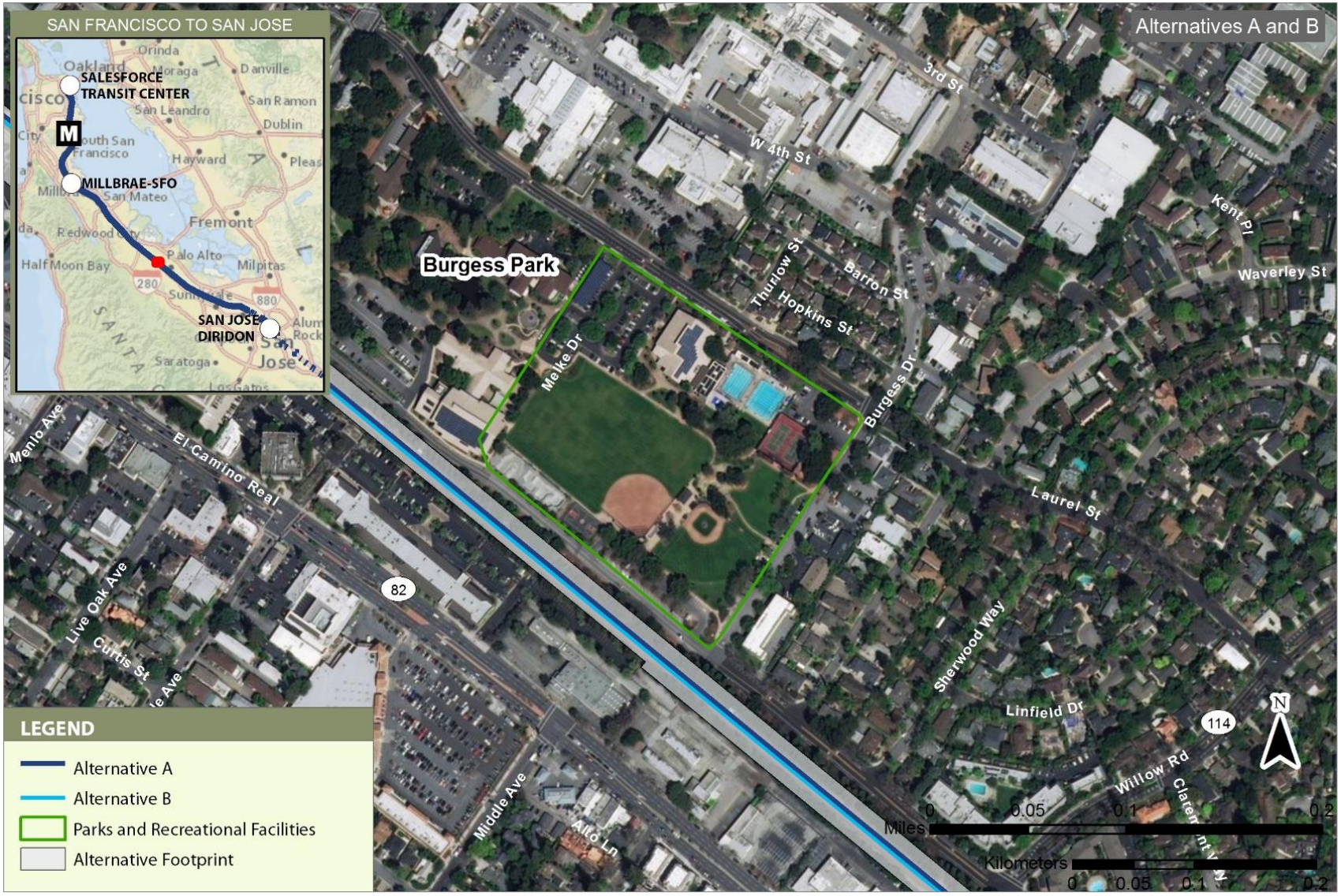
JUNE 2019

Figure 4-46 Reading Park

Sources: Authority 2019c; CPAD 2017

JUNE 2019

Figure 4-47 Holbrook-Palmer Park



Sources: Authority 2019c; CPAD 2017

JUNE 2019

Figure 4-48 Burgess Park

Sources: Authority 2019c; CPAD 2017

JUNE 2019

Figure 4-49 El Palo Alto and El Camino Parks

Sources: Authority 2019c; CPAD 2017

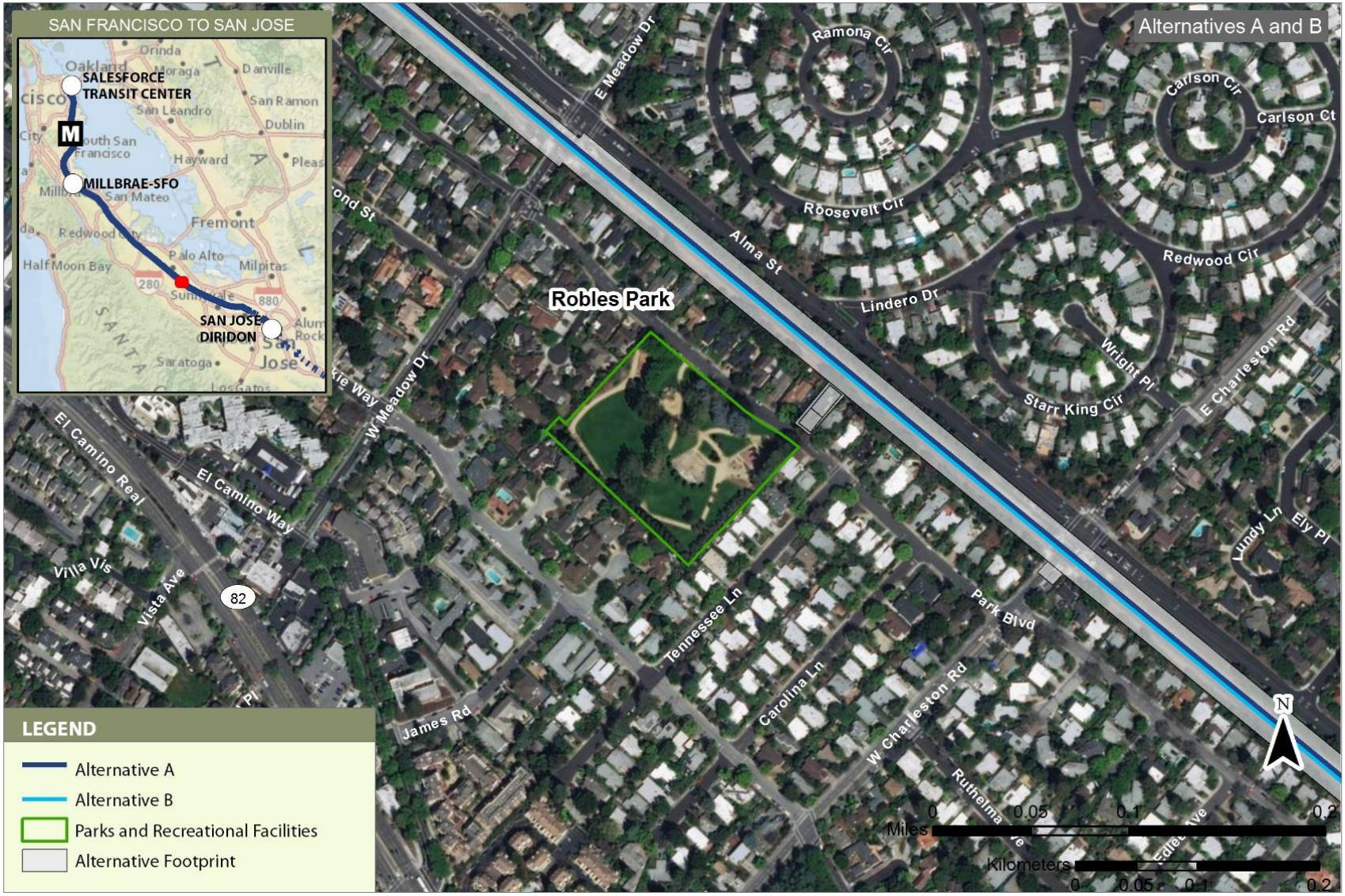
JUNE 2019

Figure 4-50 Peers Park

Sources: Authority 2019c; CPAD 2017

JUNE 2019

Figure 4-51 Jerry Bowden Park



Sources: Authority 2019c; CPAD 2017

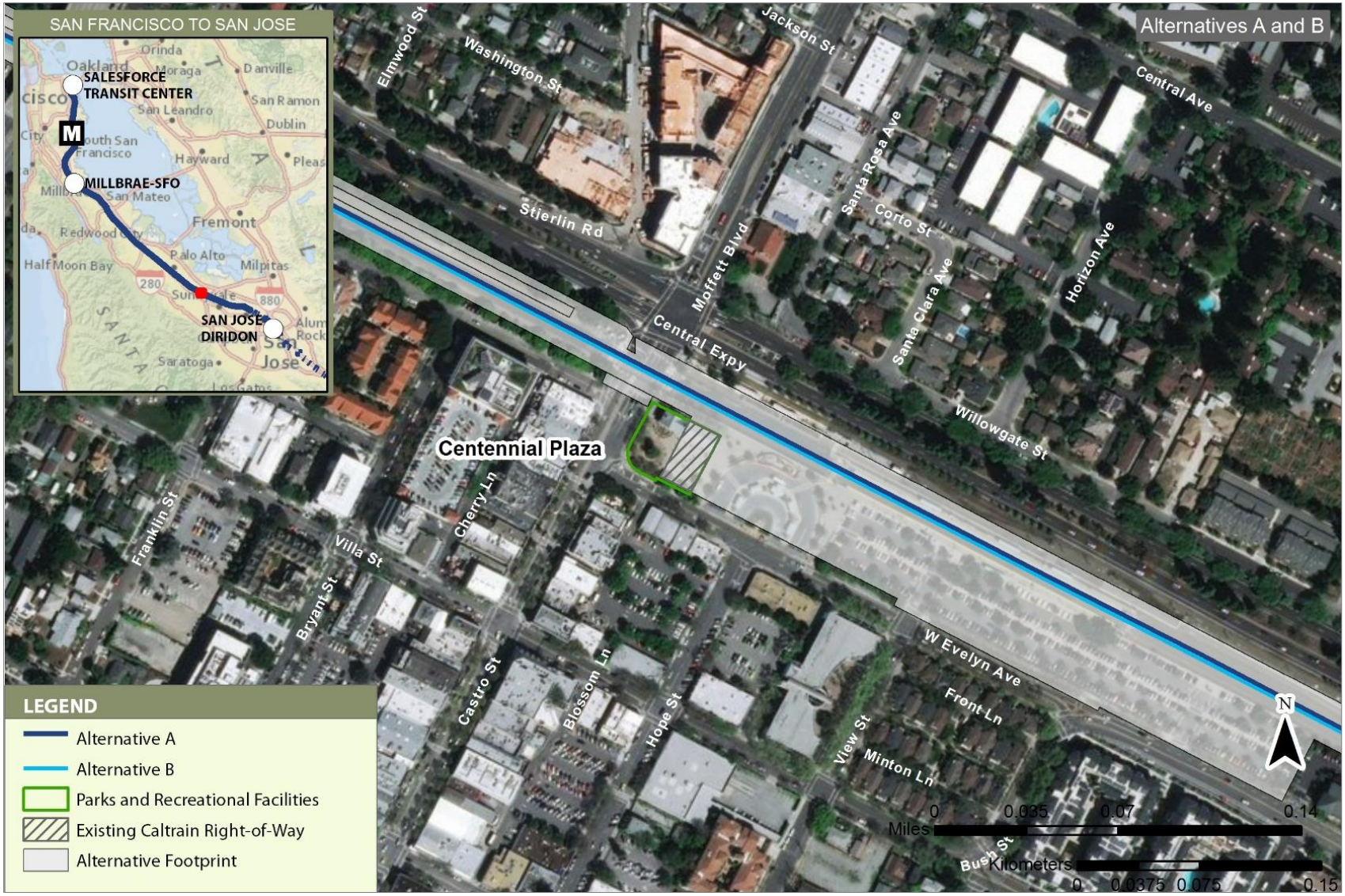
JUNE 2019

Figure 4-52 Robles Park

Sources: Authority 2019c; CPAD 2017

JUNE 2019

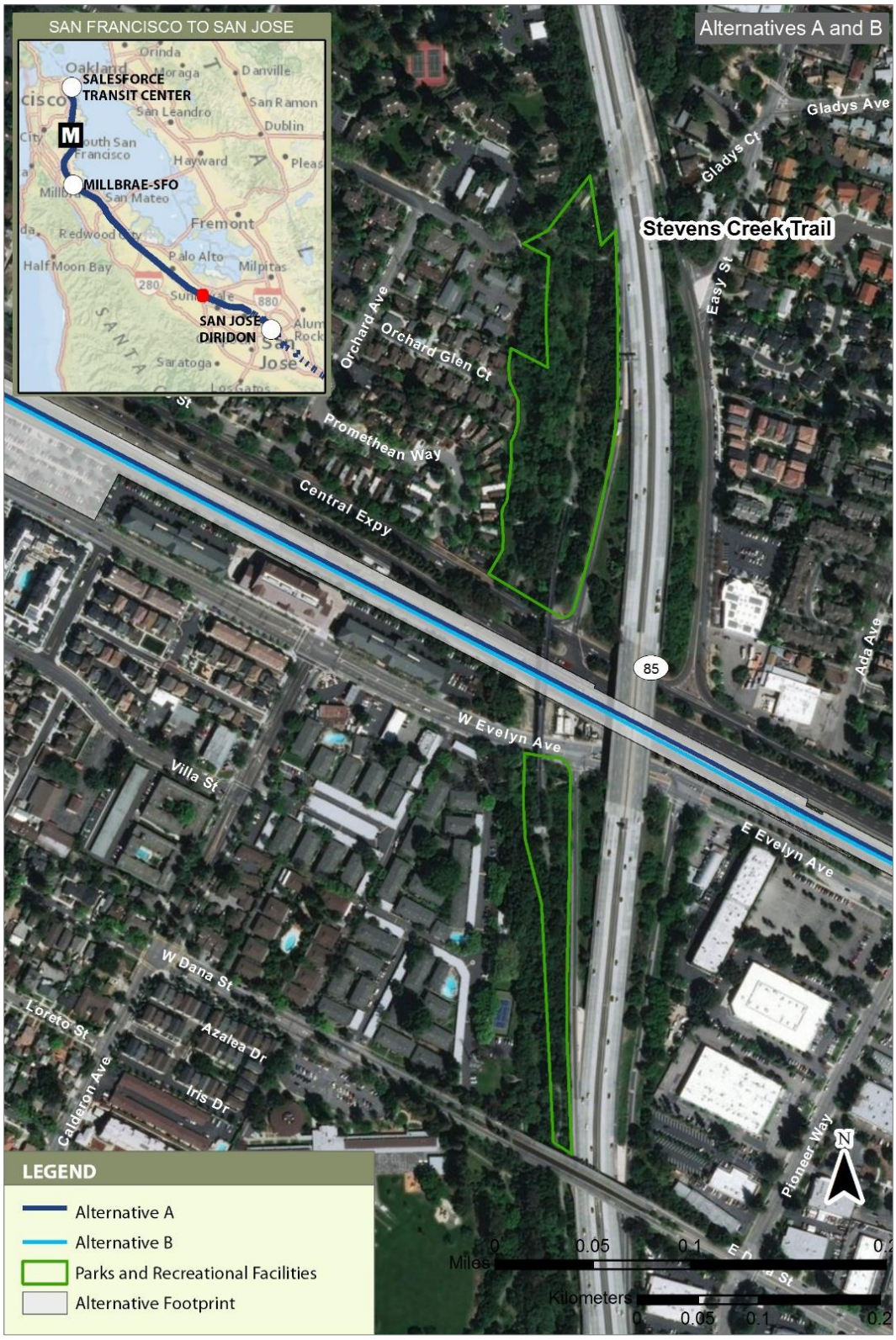
Figure 4-53 Rengstorff Park



Sources: Authority 2019c; CPAD 2017

JUNE 2019

Figure 4-54 Centennial Plaza



Sources: Authority 2019c; CPAD 2017

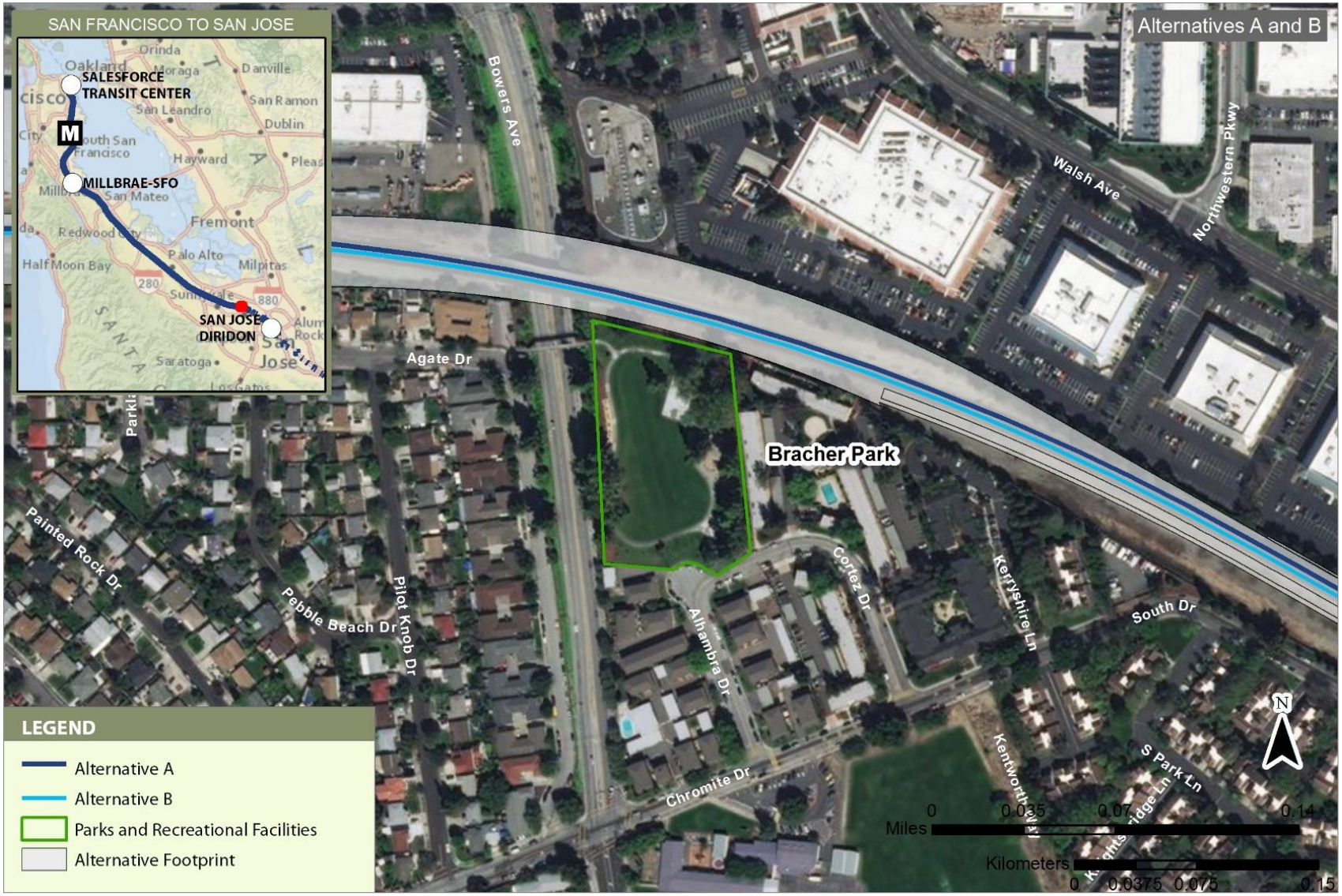
JUNE 2019

Figure 4-55 Stevens Creek Trail

Sources: Authority 2019c; CPAD 2017

JUNE 2019

Figure 4-56 Plaza Del Sol



Sources: Authority 2019c; CPAD 2017

JUNE 2019

Figure 4-57 Bracher Park

Sources: Authority 2019c; CPAD 2017

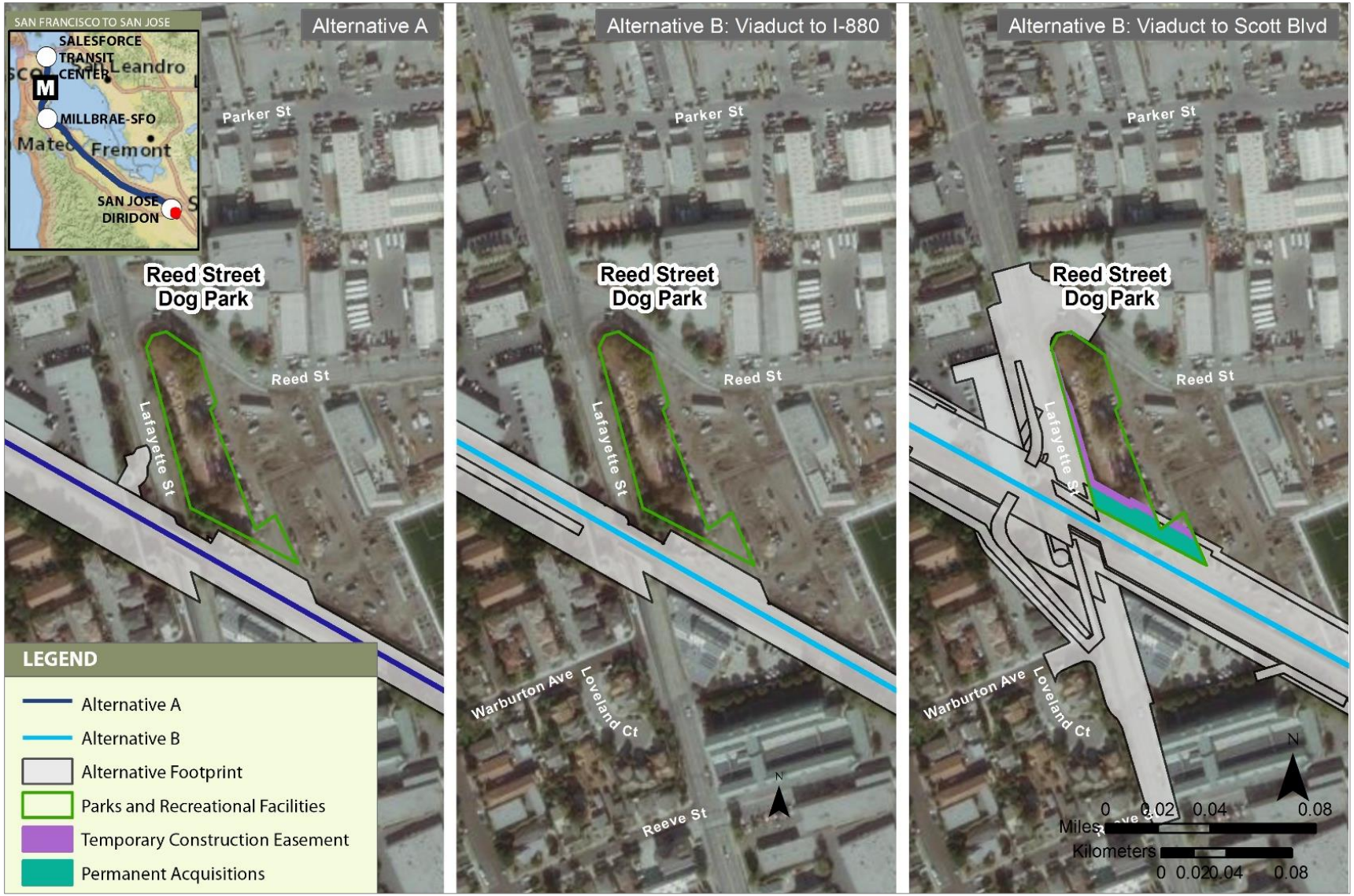
JUNE 2019

Figure 4-58 San Tomas Aquino Creek Trail

Sources: Authority 2019c; CPAD 2017

APRIL 2020

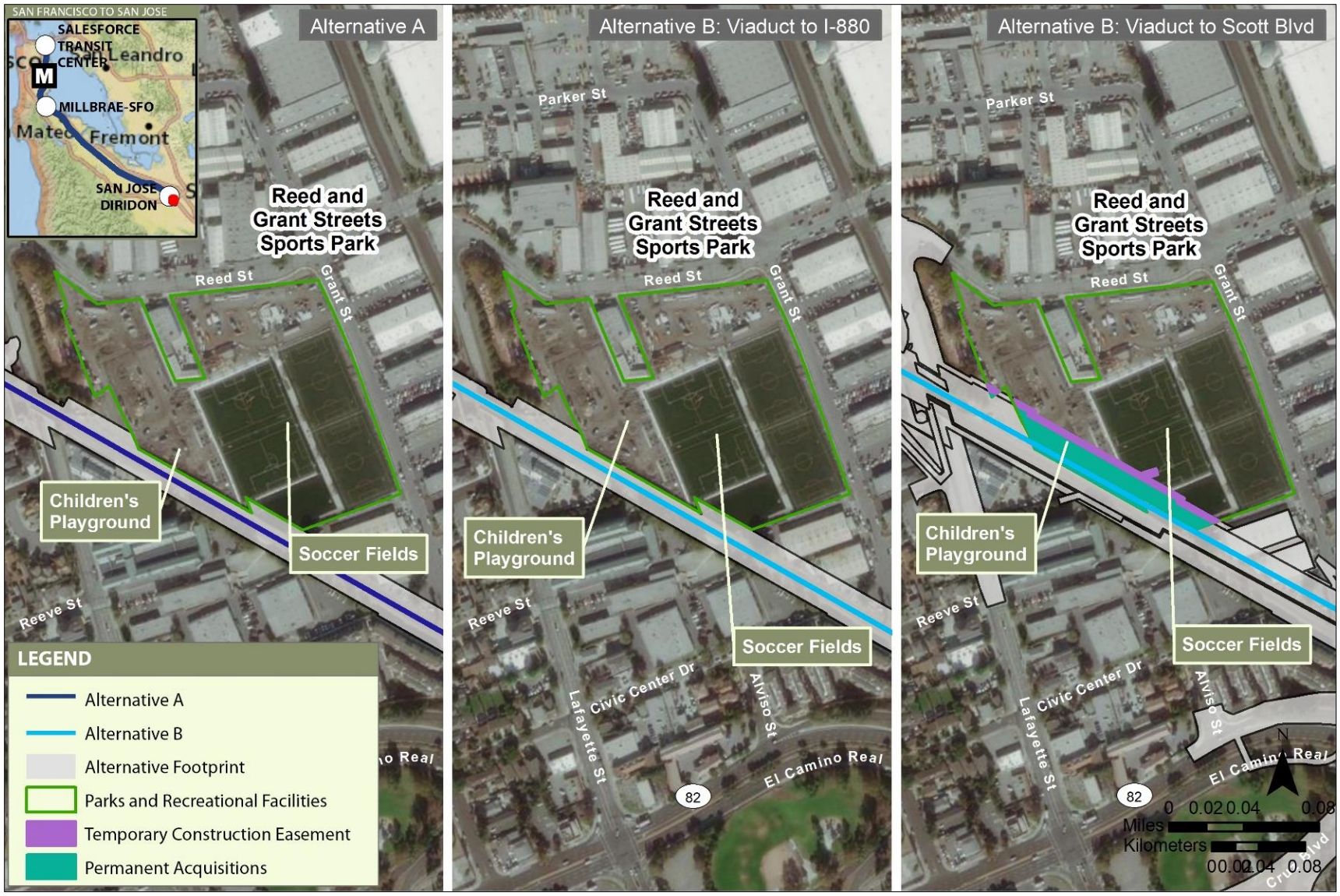
Figure 4-59 Guadalupe River Park



Sources: Authority 2019c; CPAD 2017

MAY 2021

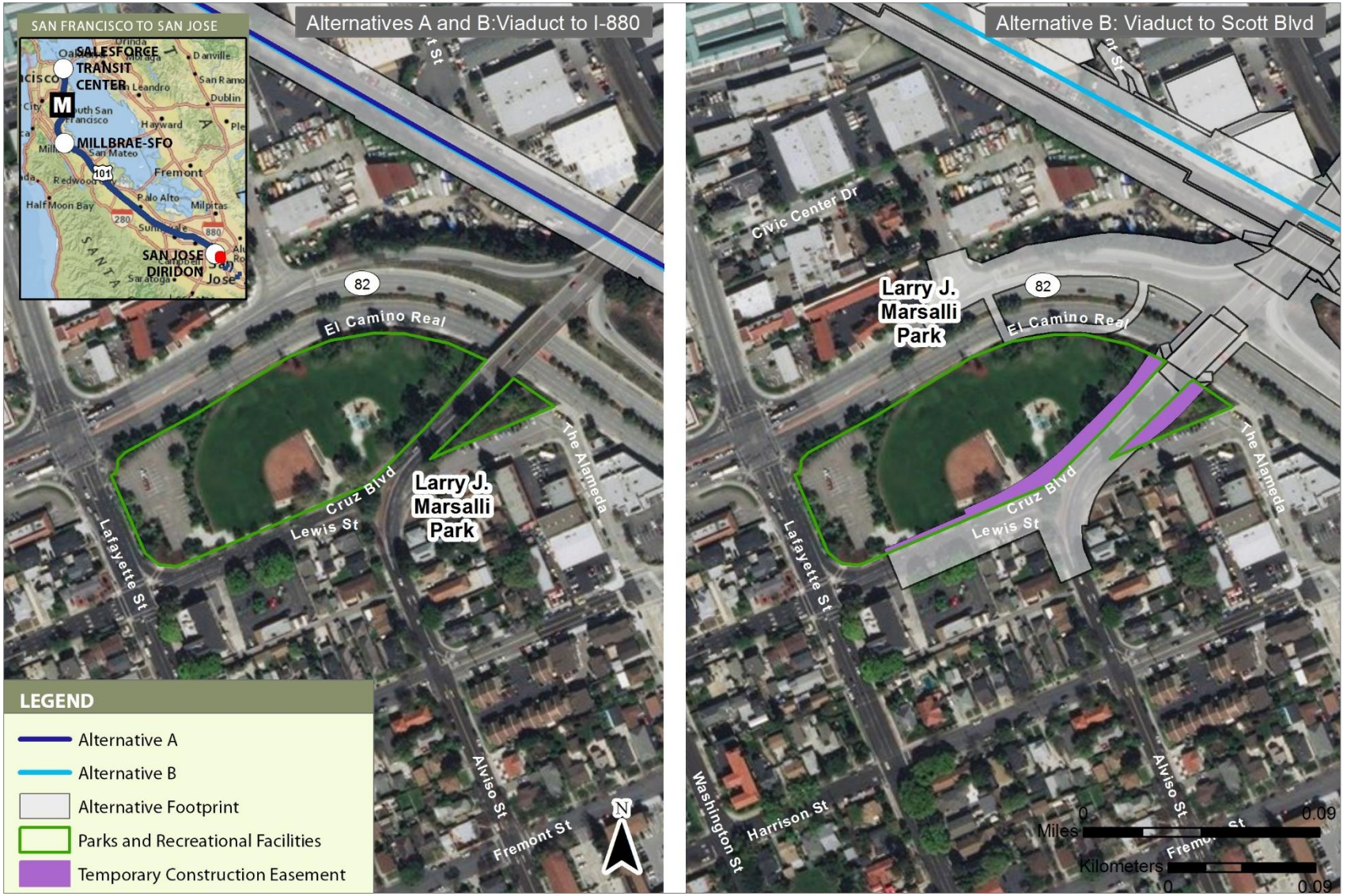
Figure 4-60 Reed Street Dog Park



Sources: Authority 2019c; CPAD 2017

MAY 2021

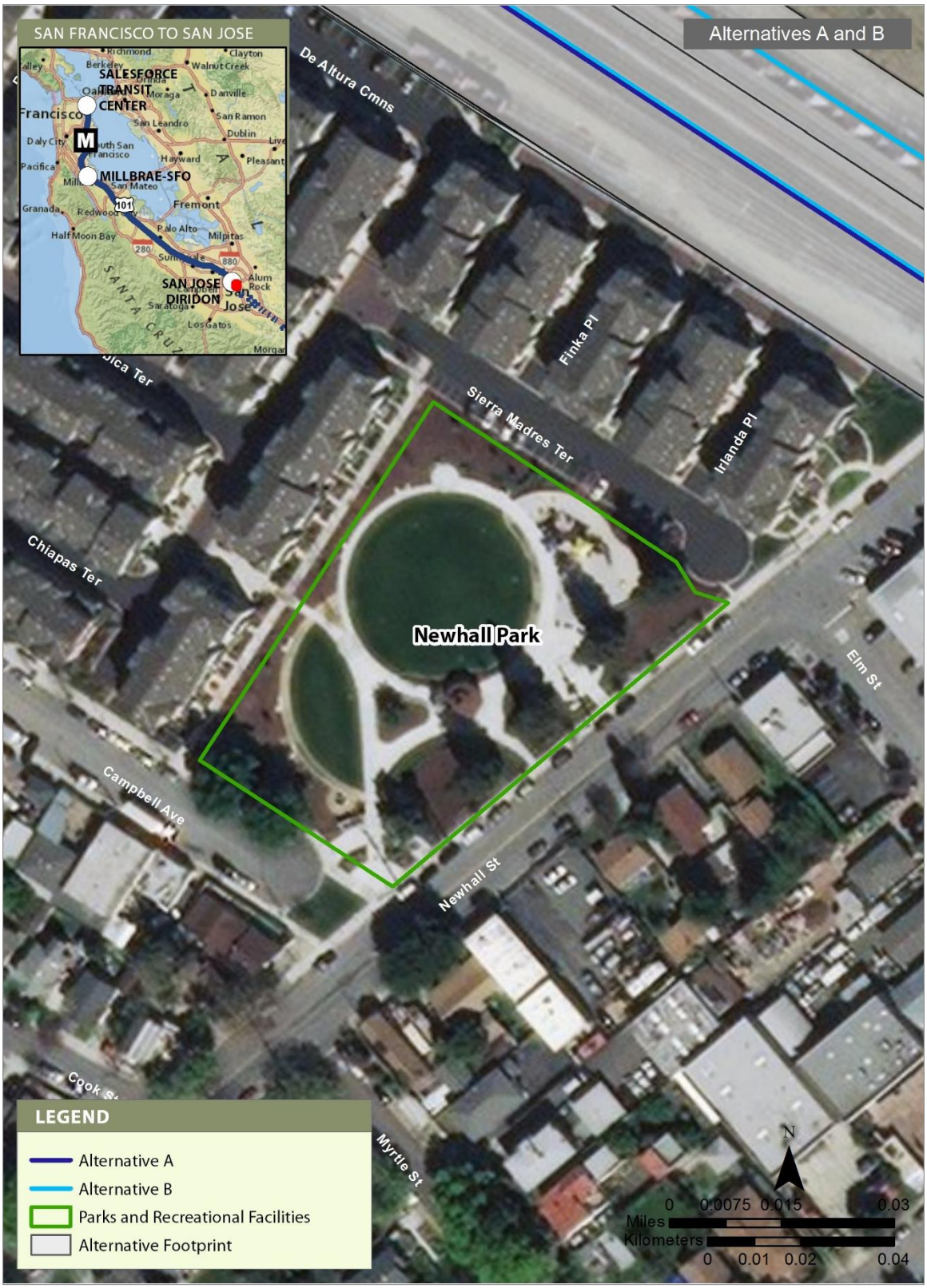
Figure 4-61 Reed and Grant Streets Sports Park



Sources: Authority 2019c; CPAD 2017

JUNE 2019

Figure 4-62 Larry J. Marsalli Park



Sources: Authority 2019c; CPAD 2017 JUNE 2019

Figure 4-63 Newhall Park

Sources: Authority 2019c; CPAD 2017

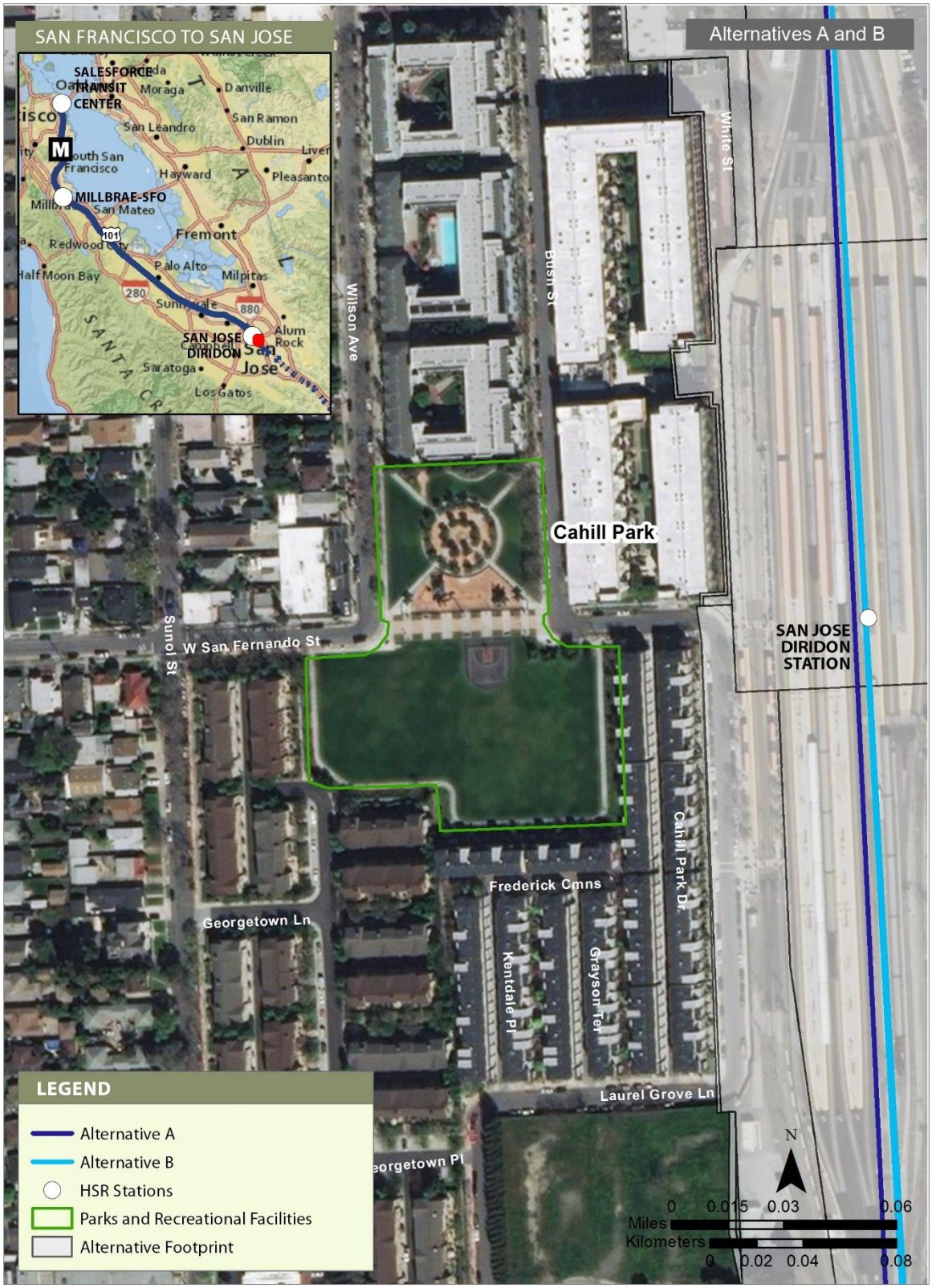
JUNE 2019

Figure 4-64 College Park

Sources: Authority 2019c; CPAD 2017

JUNE 2019

Figure 4-65 Theodore Lenzen Park



Sources: Authority 2019c; CPAD 2017 JUNE 2019

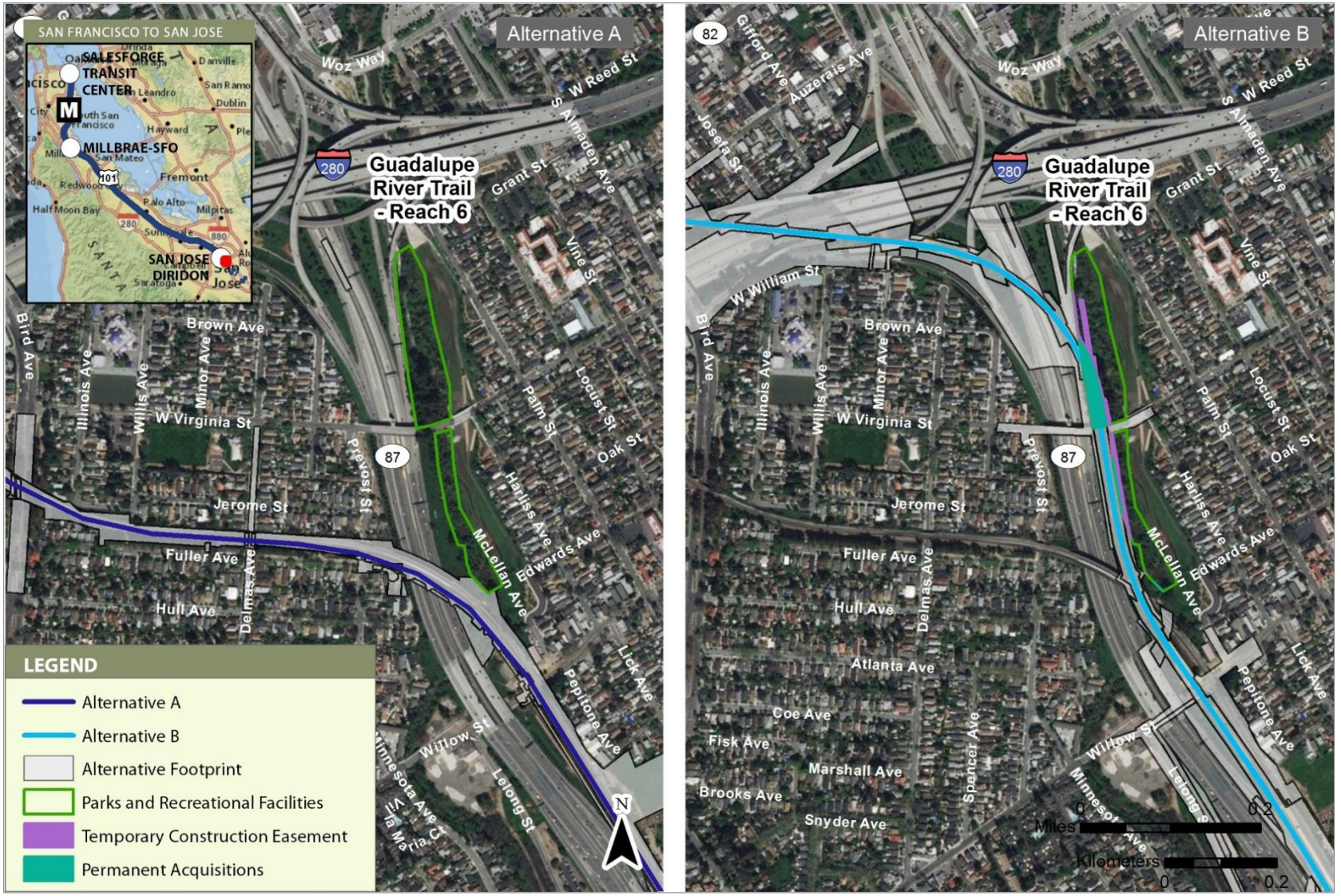
Figure 4-66 Cahill Park

Sources: Authority 2019c; CPAD 2017

NOVEMBER 2021

With Alternative A, there would be no permanent acquisition or physical, on-the-ground encroachment in the Los Gatos Creek Trail as the project would be on an existing Caltrain bridge above the Los Gatos Creek Trail.

Figure 4-67 Los Gatos Creek Trail



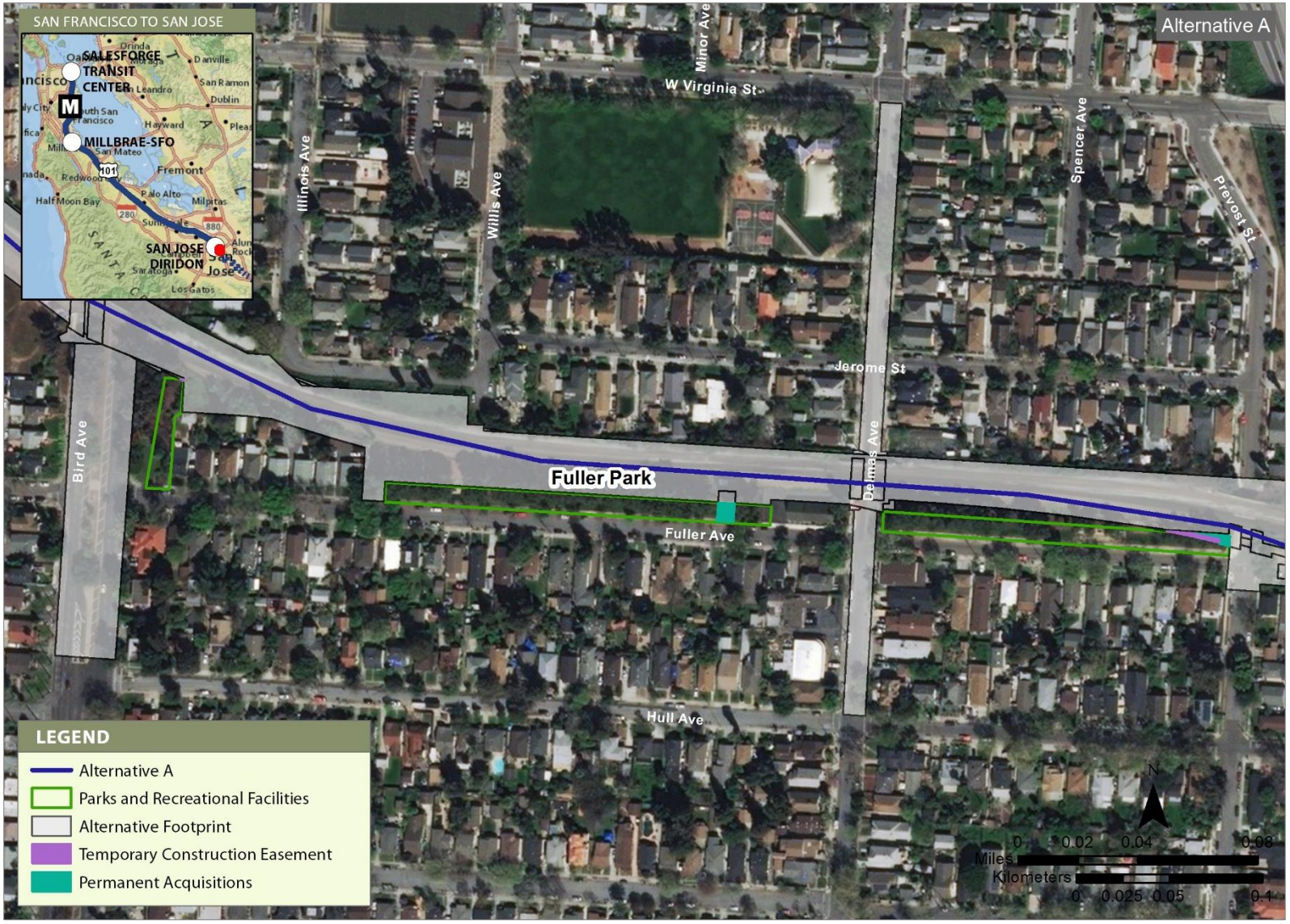
Sources: Authority 2019c; CPAD 2017
JUNE 2019
Alternative B would be on aerial viaduct over the trail and would not make it discontinuous.

Figure 4-68 Guadalupe River Trail (Reach 6)

Sources: Authority 2019c; CPAD 2017

JUNE 2019

Figure 4-69 Biebrach Park



Sources: Authority 2019c; CPAD 2017

JUNE 2019

Figure 4-70 Fuller Park

Source: Authority 2019c

AUGUST 2021

Figure 4-71 Tamien Park

4.6.1.54 *Summary of Section 4(f) Use Determinations of Parks and Recreational Facilities*

The project alternatives in the San Francisco to South San Francisco Subsection through the Mountain View to Santa Clara Subsection would not permanently incorporate land from the parks or recreational facilities into the rail corridor, nor would there be a temporary use of these resources during construction. Temporary construction-related impacts and operational visual, vibration, and noise impacts would not substantially impair the protected activities, features, or attributes that qualify the parks or recreational facilities for protection under Section 4(f) in these four subsections. However, there would be Section 4(f) uses of parks and recreational facilities in the San Jose Diridon Station Approach Subsection as shown in Table 4-8. In some cases, resources are within the project footprint of more than one alternative. In total, Alternative A would affect one resource, Alternative B (Viaduct to I-880) would affect two resources, and Alternative B (Viaduct to Scott Boulevard) would affect four resources. A *de minimis* impact is unlikely to be a significant differentiating factor between alternatives because the net harm resulting from the *de minimis* impact is negligible.

Table 4-8 Summary of Section 4(f) Uses of Parks, Recreation, and Wildlife and Waterfowl Refuges

Alternative	Number of Parks and Recreational Facilities Impacts	Parks and Recreation Facilities Section 4(f) Determinations
San Jose Diridon Station Approach Subsection		
Alternative A	1	Fuller Park (*de minimis* impact)
Alternative B (Viaduct to I-880)	2	Los Gatos Creek Trail (*de minimis* impact) Guadalupe River Trail, Reach 6 (*de minimis* impact)
Alternative B (Viaduct to Scott Boulevard)	4	Reed Street Dog Park (*de minimis* impact) Reed and Grant Streets Sports Park (*de minimis* impact) Los Gatos Creek Trail (*de minimis* impact) Guadalupe River Trail, Reach 6 (*de minimis* impact)

I- = Interstate

4.6.2 Cultural Resources

Section 106 of the NHPA requires federal agencies to consider a project's effect on cultural resources in much the same way as Section 4(f). The Section 106 process is the method by which historic properties are identified, project effects on historic properties are determined, and how adverse effects on historic properties would be avoided, minimized, or mitigated. Section 4(f) uses the results of the Section 106 process to analyze if the project would result in a use of a historic property under Section 4(f).

The most important difference between the two statutes is the way each of them measures impacts on cultural resources. Whereas Section 106 is concerned with "adverse effects," Section 4(f) is concerned with "use" of protected properties. An adverse effect does not necessarily result in a Section 4(f) use unless the effect substantially impairs the attributes and features that qualify the resource for protection under Section 4(f).

A Section 4(f) use of a historic property is analyzed by (1) identifying if the project would permanently incorporate land from the property and (2) reviewing the effects on the property as documented during the Section 106 process. If an alternative would permanently incorporate land from the property or result in a temporary use (i.e., does not meet the criteria for temporary occupancy discussed in Section 4.1.4.2) and would also result in an adverse effect under Section 106, this impact would constitute a Section 4(f) use. If the project would result in a permanent incorporation or temporary use, but does not result in an adverse effect under Section 106, then

the impact would be a *de minimis* determination, provided SHPO concurs with the no adverse effect determination.

Based on the analysis conducted for cultural resources (see Section 3.16), four NRHP-listed or eligible historic properties would be adversely affected under Section 106 by the project alternatives. Three of these properties have been determined to incur Section 4(f) uses because they would be permanently incorporated into the HSR right-of-way.

A finding of adverse effect does not automatically result in a Section 4(f) use. Where there is an adverse effect on a protected property because of the proximity of the project, such as visual or noise impacts, the Authority completes a property-specific evaluation to determine whether these adverse effects would substantially impair the attributes that qualify this resource for protection under Section 4(f). Section 4(f) constructive use determinations are based on analyzing the potential proximity impacts on the properties, taking into account the activities, features, or attributes that qualify the property for protection under Section 4(f).

- If the property is permanently incorporated or temporarily used, then there is a Section 4(f) use.
- If the project is outside of the historic property boundary but the proximity effects substantially impair activities, features, or the attributes that qualify the property for protection under Section 4(f), then there is a Section 4(f) constructive use.
- If the project is outside of the historic property boundary and the proximity effects do not substantially impair the activities, features, or attributes that qualify the property for protection under Section 4(f), then there is no use under Section 4(f).
- If the property is permanently incorporated or temporarily used and there is no adverse effect, then the use would be a *de minimis* impact (if SHPO concurs).

The locations of historic properties are illustrated on Figures 4-13 through 4-23. Most of the historic properties are entirely in the project footprint. For this reason, the assessments related to permanent incorporation or temporary use were based on whether construction activities occurred within the historic property boundary. In addition, as described in Section 3.16, because all of the historic properties identified in the APE are adjacent to an existing railroad, a quiet setting is not considered to be a character-defining feature or an important aspect of integrity for any of the historic properties in the RSA. No historic properties were identified as potentially vulnerable to vibration impacts from construction or operation of the project in the San Francisco to South San Francisco, San Bruno to San Mateo, San Mateo to Palo Alto, and Mountain View to Santa Clara Subsections. Additionally, as discussed in Volume 2, Appendix 3.4-A, operation of the project alternatives would not have the potential to cause building damage because the vibration levels would not approach damage thresholds. However, some properties in the San Jose Diridon Station Approach Subsection are potentially vulnerable to vibration impacts from construction activities (Authority 2019e). A discussion for potential construction vibration impacts is provided for those resources. No historic properties in the San Jose Diridon Station Approach Subsection were identified as potentially vulnerable to vibration impacts from operations.

Impacts, Section 106 findings, and use assessments for all Section 4(f) historic properties are shown in Table 4-9. Detailed use assessments for only those Section 4(f) historic properties that are subject to a use, would have a *de minimis* impact, would meet the criteria for an exception from Section 4(f), or could result in a constructive use immediately follow Table 4-9; these potential impacts are also illustrated on Figures 4-72 through 4-97. For this resource topic, the DDV would result in different levels of impacts for Alternative A (with and without the DDV) for certain historic sites. Where different levels of impact would occur, Alternative A's impacts with and without the DDV are noted. Unless so noted, Alternative A with and without the DDV would result in the same level of impact. All NRHP eligibility determinations have been made by the Authority, the lead agency for Section 106; SHPO concurred with these determinations for both alternatives on July 12, 2019, August 19, 2019, and on October 9, 2019, for the Willie Mays Jr. House. SHPO concurred with findings of effect on March 27, 2020, and May 18, 2020.

Table 4-9 Built Historic Properties Evaluated for Potential Section 4(f) Use

Map ID#	Name/City	Distance from Project Footprint	Construction Impact	Operations Impact	Adverse Effect Determination[1]	Section 4(f) Use Determination
San Francisco to South San Francisco						
01	San Francisco Fire Department AWSS, San Francisco	Alternatives A and B: 0 feet, within footprint (subsurface pipe system)	**Alternatives A and B:** No permanent use or TCE required.	**Alternatives A and B:** This type of property would not be affected by noise or visual impacts. Therefore, no constructive use would result.	No effect	No Use See Sections 4.6.2.1–4.6.2.2 and Figures 4-72–4-74
03; 03a; 03b	Central Waterfront Historic District, San Francisco	Alternatives A and B: 0 feet, footprint is within the historic district		**Alternatives A and B:** Noise, vibration, and visual impacts would not substantially impair the protected attributes that qualify the Central Waterfront Historic District for protection under Section 4(f), and no constructive use would result.	No effect	
05	SPRR Tunnel No. 3; Central Waterfront Historic District contributor, San Francisco	Alternatives A and B: 0 feet, within footprint (existing Caltrain tunnel)	**Alternatives A and B:** No permanent use or TCE required. No changes in access would occur.	**Alternatives A and B:** Noise, vibration, and visual impacts would not substantially impair the protected attributes that qualify the SPRR Tunnels No. 3 and No. 4 for protection under Section 4(f), and no constructive use would result.	No effect	No Use See Sections 4.6.2.3–4.6.2.4 and Figures 4-75–4-76b
06	SPRR Tunnel No. 4; Central Waterfront Historic District contributor, San Francisco	Alternatives A and B: 0 feet, within footprint (existing Caltrain tunnel)				
07	SPRR Bayshore Roundhouse, Brisbane	Alternative A: 1,190 feet west Alternative B: 430 feet west	**Alternatives A and B:** No permanent use or TCE required. No changes in access would occur.	**Alternatives A and B:** Noise, vibration, and visual impacts would not substantially impair the protected attributes that qualify the SPRR Bayshore Roundhouse for protection under Section 4(f), and no constructive use would result.	No effect	No Use See Section 4.6.2.5 and Figures 4-77a and 4-77b

Map ID#	Name/City	Distance from Project Footprint	Construction Impact	Operations Impact	Adverse Effect Determination[1]	Section 4(f) Use Determination
08	Airport Boulevard Underpass/South San Francisco Subway, South San Francisco	Alternatives A and B: 0 feet, within footprint	**Alternatives A and B:** No permanent use; TCE of 0.002 acre required. Construction activities would meet the criteria for exceptions in 23 C.F.R. § 774.13(a)(2–3) and Section 4(f) would not apply. No changes in access would occur.	**Alternatives A and B:** This type of property would not be affected by noise or visual impacts. Therefore, no constructive use would result.	No adverse effect	No Use See Section 4.6.2.6 and Figure 4-78
San Bruno to San Mateo Subsection						
12	SPRR Depot/ Millbrae Station, Millbrae	Alternatives A and B: 0 feet, within footprint	**Alternatives A and B:** Permanent use of 1.0 acre, requiring relocation of the structure.	**Alternatives A and B:** Noise, vibration, and visual impacts would not substantially impair the protected attributes that qualify the SPRR Depot/Millbrae Station for protection under Section 4(f), and no constructive use would result.	No adverse effect	*De minimis* impact See Section 4.6.2.7 and Figure 4-79
13	Jules Francard Grove/Francard Tree Rows, Burlingame	Alternatives A and B: 0 feet, within footprint	**Alternatives A and B:** No permanent use or TCE required. No changes in access would occur.	**Alternatives A and B:** Noise, vibration, and visual impacts would not substantially impair the protected attributes that qualify the historic properties for protection under Section 4(f), and no constructive use would result.	No adverse effect	No Use See Sections 4.6.2.8–4.6.2.9 and Figures 4-80–4-81
14	SPRR Depot/ Burlingame Railroad Station, Burlingame	Alternatives A and B: 0 feet, within footprint				

Map ID#	Name/City	Distance from Project Footprint	Construction Impact	Operations Impact	Adverse Effect Determination[1]	Section 4(f) Use Determination
San Mateo to Palo Alto Subsection						
18	SPRR Depot/San Carlos Station, San Carlos	Alternative A: 0 feet, within footprint	**Alternative A:** No permanent use or TCE required. No changes in access would occur.	**Alternatives A and B:** Noise, vibration, and visual impacts would not substantially impair the protected attributes that qualify the SPRR Depot/San Carlos Station for protection under Section 4(f), and no constructive use would result.	No adverse effect	No Use See Section 4.6.2.10 and Figures 482a - and 4-82b
		Alternative B: 0 feet, within footprint	**Alternative B:** No permanent use; proposed temporary occupancy of 0.05 acre required. No changes in access would occur. Temporary occupancy would meet the criteria for the exception in 23 C.F.R. § 774.13(d) and Section 4(f) would not apply.			
21; 21a	SPRR Dumbarton Cutoff Linear Historic District, Redwood City	Alternatives A and B: 0 feet, adjacent	**Alternatives A and B:** No permanent use or TCE required. No changes in access would occur.	**Alternatives A and B:** Noise, vibration, and visual impacts would not substantially impair the protected attributes that qualify the historic properties for protection under Section 4(f), and no constructive use would result.	No adverse effect	No Use See Section 4.6.2.11–4. 6.2.13 and Figures 4-83a –4-85
22	Willie Mays Jr. House, Atherton	Alternatives A and B: 0 feet, adjacent				
24	SPRR Depot/ Atherton Station, Atherton	Alternatives A and B: 0 feet, within footprint				
25	Carriage House and Water Tower, Holbrook-Palmer Estate (Elmwood), Atherton	Alternatives A and B: 1,073–1,133 feet	**Alternatives A and B:** No permanent use or TCE required. No changes in access would occur.	**Alternatives A and B:** Noise, vibration, and visual impacts would not substantially impair the protected attributes that qualify the Carriage House and Water Tower, Holbrook-Palmer Estate (Elmwood) for protection under Section 4(f), and no constructive use would result.	No effect	No Use See Section 4.6.2.14 and Figure 4-86

Map ID#	Name/City	Distance from Project Footprint	Construction Impact	Operations Impact	Adverse Effect Determination[1]	Section 4(f) Use Determination
28	SPRR Depot/Menlo Park Railroad Station, Menlo Park	Alternatives A and B: 0 feet, within footprint	**Alternatives A and B:** Construction of a new radio tower at alternate site 2 would result in the permanent use of 0.040 acre and TCE of 0.002 acre.	**Alternatives A and B:** Noise, vibration, and visual impacts would not substantially impair the protected attributes that qualify the SPRR Depot/Menlo Park Railroad Station for protection under Section 4(f), and no constructive use would result.	No adverse effect	*De minimis* impact See Section 4.6.2.15 and Figure 4-87
29	SPRR San Francisquito Creek Bridge, Palo Alto	Alternatives A and B: 0 feet, within footprint	**Alternatives A and B:** No permanent use; TCE of 0.002 acre required. Construction activities would meet the criteria for exceptions in 23 C.F.R. § 774.13(a)(2–3) and Section 4(f) would not apply. No changes in access would occur.	**Alternatives A and B:** This type of property would not be affected by noise or visual impacts. Therefore, no constructive use would result.	No adverse effect	No Use See Section 4.6.2.16 and Figure 4-88
30	El Palo Alto, Palo Alto	Alternatives A and B: 0 feet, within footprint	**Alternatives A and B:** No permanent use or TCE required. No changes in access would occur.	**Alternatives A and B**: Noise, vibration, and visual impacts would not substantially impair the protected attributes that qualify El Palo Alto for protection under Section 4(f), and no constructive use would result.	No adverse effect	No Use See Section 4.6.2.17 and Figure 4-89
31	Palo Alto SPRR Depot, Palo Alto	Alternatives A and B: 0 feet, within footprint	**Alternatives A and B:** No permanent use. Construction activities would meet the criteria for exceptions in 23 C.F.R. § 774.13(a)(2–3) and Section 4(f) would not apply. No changes in access would occur.	**Alternatives A and B**: Noise, vibration, and visual impacts would not substantially impair the protected attributes that qualify the Palo Alto SPRR Depot for protection under Section 4(f), and no constructive use would result.	No adverse effect	No Use See Section 4.6.2.18 and Figure 4-90
32	University Avenue Underpass, Palo Alto	Alternatives A and B: 0 feet, within footprint	**Alternatives A and B:** No permanent use or TCE required. No changes in access would occur.	**Alternatives A and B:** These types of properties would not be affected by noise or visual impacts. Therefore, no constructive use would result.	No adverse effect	No Use See Sections 4.6.2.19–4.6.2.20 and Figures 4-91–4-92
35	Embarcadero Underpass, Palo Alto	Alternatives A and B: 0 feet, within footprint				

Map ID#	Name/City	Distance from Project Footprint	Construction Impact	Operations Impact	Adverse Effect Determination[1]	Section 4(f) Use Determination
37 37a 37b 37c	Tract 795, Charleston Meadows, Palo Alto	Alternatives A and B: 0 feet, adjacent	**Alternatives A and B:** No permanent use or TCE required. No changes in access would occur.	**Alternatives A and B:** Noise, vibration and visual impacts would not substantially impair the protected attributes that qualify the historic properties for protection under Section 4(f), and no constructive use would result.	No adverse effect	No Use See Section 4.6.2.21 and Figure 4-93
San Jose Diridon Station Approach Subsection						
0141	Santa Clara Railroad Historical Complex (Santa Clara Depot), Santa Clara	Alternatives A and B: 0 feet (adjacent)	**Alternatives A and B:** No permanent use or TCE required. No changes to access would occur.	**Alternatives A and B (Viaduct to I-880):** Noise and visual impacts would not substantially impair the protected attributes that qualify Santa Clara Railroad Historical Complex Santa Clara Depot for protection under Section 4(f), and no constructive use would result.	No adverse effect	No Use See Section 4.6.2.22 and Figure 4-94
				Alternative B (Viaduct to Scott Boulevard): Same as Alternatives A and B (Viaduct to I-880), except for greater change to historic setting.	Adverse effect	
0210	Bellarmine College Preparatory and Polhemus House, San Jose	Alternative A: 610 feet Alternative B: 0 feet (adjacent)	**Alternatives A and B:** No permanent use or TCE required. No changes to access would occur.	**Alternatives A and B:** Noise and visual impacts would not substantially impair the protected attributes that qualify the historic properties for protection under Section 4(f), and no constructive use would result.	No adverse effect	No Use
0304	623 Stockton Avenue, San Jose	Alternative A: 436 feet Alternative B: 0 feet (adjacent)				
0497	SPRR Depot/Diridon Station, Hiram Cahill Depot, San Jose	Alternatives A and B: 0 feet (within footprint)	**Alternatives A and B:** Permanent use, requiring demolition of a contributing structure.	**Alternatives A and B:** Not applicable because of structure demolition.	Adverse effect	Use See Section 4.6.2.23 and Figure 4-95

Map ID#	Name/City	Distance from Project Footprint	Construction Impact	Operations Impact	Adverse Effect Determination[1]	Section 4(f) Use Determination
0522	Sunlite Baking Company, San Jose	Alternatives A and B: 0 feet (within footprint)	**Alternative A:** No permanent use or TCE required. No changes to access would occur.	**Alternative A:** Noise and visual impacts would not substantially impair the protected attributes that qualify Sunlite Baking Company for protection under Section 4(f), and no constructive use would result.	No adverse effect	No Use See Section 4.6.2.24 and Figure 4-96
			Alternative B: Permanent use, requiring demolition of the structure.	**Alternative B:** Not applicable because the structure would be demolished.	Adverse effect	Use See Section 4.6.2.24 and Figure 4-96
0585	415 Illinois Avenue, San Jose	Alternative A: 776 feet Alternative B: 0 feet (within footprint)	**Alternative A:** No permanent use or TCE required. No changes to access would occur.	**Alternative A:** Noise and visual impacts would not substantially impair the protected attributes that qualify 415 Illinois Avenue for protection under Section 4(f), and no constructive use would result.	No adverse effect	No Use See Section 4.6.2.25 and Figure 4-97
			Alternative B: Project design requires demolition of the structure. However, CUL-MM#11 will relocate the project component ATC site to a nearby parcel, and demolition would no longer be necessary. Therefore, no permanent use or TCE required. No changes to access would occur.	**Alternative B:** Noise and visual impacts would not substantially impair the protected attributes that qualify 415 Illinois Avenue for protection under Section 4(f), and no constructive use would result.	Adverse effect	

ATC = automatic train control
AWSS = Auxiliary Water Supply System
C.F.R. = Code of Federal Regulations
I- = Interstate
SPRR = Southern Pacific Railroad
TCE = temporary construction easement
[1] No adverse effect is considered to be either no use or *de minimis* impact.

4.6.2.1 San Francisco Fire Department Auxiliary Water Supply System Use Assessment (ID#01)

The San Francisco Auxiliary Water Supply System (AWSS) is an independent fire protection system eligible for listing in the NRHP under Criterion A for its direct association with the 1906 San Francisco earthquake and conflagration and San Francisco's recovery from that disaster. It is also eligible under Criterion C at the local level for its engineering and architectural design. The historic district boundary is identified as the "footprints of the pipes, tunnels, buildings, and structures themselves." The AWSS system includes more than 135 miles of high-pressure underground pipeline.

The AWSS pipes are present underground in existing road or rail rights-of-way in 11 locations (Figure 4-72). Under Alternatives A and B, underground pipes associated with the AWSS are located in four locations in the APE where construction activities would occur. While the AWSS is a city-wide system, the locations that intersect with proposed project activities include: Fourth Street between Townsend and King Streets; Fifth Street between Bluxome Street and King Street; Townsend Street and King Street Station beneath the Sixth Street I-280 Freeway Ramp; and the intersection of Seventh Street and Mission Bay Drive. In these locations, the project would include activities such as introduction of TCE, reconstruction of station platforms and pedestrian access ramps, installation of a four-quadrant gate, and construction of blended rail right-of-way within portions of Barry Street. None of these project activities would include subsurface excavation to the depth where the AWSS pipes are located.

Underground pipes associated with the AWSS are also located under the existing Caltrain right-of-way beneath Southern Embarcadero Freeway between Mariposa Street and 18th Street, Cesar Chavez Street between Mississippi Street and Pennsylvania Avenue, and Evans Street at I-280. While the HSR system would utilize existing tracks for HSR service, the project would not include track modifications that alter the horizontal alignment of the existing Caltrain right-of-way at these locations.

In addition, underground pipes associated with the AWSS are located under the existing Caltrain right-of-way in tunnels parallel with Seventh Street between Berry Street and Mission Bay Drive, beneath the Southern Embarcadero Freeway at 20th Street and 22nd Street, and beneath Palou Avenue. However, the project would not include work in the tunnels.

While the project alternatives would be on the surface above the AWSS, the project alternatives would not involve subsurface excavation to the depth where the AWSS pipes are located and would not alter the characteristics that qualify the AWSS for inclusion in the NRHP. As a result, the project alternatives would not result in a Section 4(f) use of the AWSS.

The Authority has made a finding of no effect on this resource for both project alternatives. Because the project alternatives would have no effect on the San Francisco AWSS, the Authority has made a finding of no use for this resource.

4.6.2.2 Central Waterfront Historic District Use Assessment (ID#03; ID#03a; ID#03b)

The Central Waterfront Historic District is eligible for listing in the NRHP under Criterion A at the local level under the themes of industrial development and settlement during the period between 1854 and 1948. Although no specific character-defining features were identified in two evaluations (2001 and 2008) of the historic district, the *San Francisco to San Jose Project Section Historic Architectural Survey Report* (Authority 2019a), which received SHPO concurrence in August 2019, identified the integrity of its contributing buildings and structures, including SPRR Tunnels Nos. 1 and 2 (ID#03a and ID#03b); the mostly flat natural topography including the eastern waterfront; transportation grid (including railroad); and its 19th- and 20th-century industrial and residential architecture. The 500-acre Central Waterfront Historic District encompasses three smaller historic districts—Dogpatch Historic District, Pier 70 Historic District, and 3rd Street Industrial Historic District—but these smaller districts are outside the APE. The historic district is generally bounded by Pennsylvania Street to the west, 16th Street to the north,

and Islais Creek to the south. The district's eastern border extends into the San Francisco Bay to encompass Piers 70 and 80.

Built between 1904 and 1907, the single-bore SPRR Tunnel No. 1 was previously found eligible for listing in the NRHP as a contributor to the Central Waterfront Historic District. The previous evaluation of this historic property did not explicitly list the character-defining features or boundary, but the tunnel's original alignment; length; bore dimensions; original brick, concrete, and steel I-beam construction; and architectural details at the tunnel portals (red brick with sandstone) should be considered character-defining features. The property's boundary is its physical footprint, which encompasses all of the character-defining features.

Built between 1904 and 1907, the double-bore SPRR Tunnel No. 2 was previously found eligible for listing in the NRHP as a contributor to the Central Waterfront Historic District. The previous evaluation of this historic property did not explicitly list the character-defining features or boundary, but the tunnel's original alignment; length; bore dimensions; original brick, concrete, and steel I-beam construction; and architectural details at tunnel portals (red brick with sandstone) should be considered character-defining features. The property's boundary is its physical footprint, which encompass all of the character-defining features.

Under Alternatives A and B (Figures 4-73 to 4-74b), the existing rail right-of-way enters the Central Waterfront Historic District at grade in the northwest corner, transitions from grade to tunnel in two locations (tunnel south of 18th Street, at grade north of 22nd Street, and tunnel south of 23rd Street) before exiting the district boundary at 25th Street. Alternatives A and B would not include work in SPRR Tunnel No. 1 or SPRR Tunnel No. 2. The HSR system would utilize the existing tracks for HSR service and would not include track modifications that alter the horizontal alignment of the existing Caltrain right-of-way. A communications radio tower would be co-located with a Caltrain paralleling station in a vacant lot (not a district contributor) west of I-280 on the western edge of the district.

While the transportation grid, including the railroad, is considered to be a contributing feature of the district, the project does not propose modifications to the rail in this location and would not undermine the resource's ability to convey its significance under NRHP Criterion A. In addition, the existing elevated I-280 highway would block the view of the radio tower from the rest of the district on the east side of the highway.

The project alternatives would not alter contributing components of the Central Waterfront Historic District, including tunnels or the transportation grid. Introduction of the radio tower would not alter any contributing components or the setting of the district. As such, the project alternatives would not alter characteristics that qualify the Central Waterfront Historic District for inclusion in the NRHP and the integrity of the resource would not be diminished; the project alternatives would not result in a Section 4(f) use of the Central Waterfront Historic District.

The Authority has made a finding of no effect on this resource for the project alternatives. Because the project alternatives would have no effect on the Central Waterfront Historic District, the Authority has made a finding of no use for this resource.

4.6.2.3 Southern Pacific Railroad Tunnel No. 3 Use Assessment (ID#05)

Built between 1904 and 1907, the tunnel was previously found eligible for the NRHP under Criterion A for its association with the Bayshore Cutoff project, an important feature of SPRR's systemwide improvement program at the turn of the 20th century, and the development of San Francisco. The tunnel is also eligible under Criterion C as an example of the drift- and core-bracing construction that was unusual at that time, and for its distinctive use of architectural decoration at the tunnel's portals. Character-defining features include its original alignment, bore dimensions and length; original brick, concrete, and steel I-beam construction; and architectural details at tunnel portals (brick with sandstone). The property's boundary is its physical footprint, which encompasses all character-defining features.

Under Alternatives A and B (Figure 4-75), no permanent or temporary construction use would occur. No modification to SPRR Tunnel No. 3 is proposed. The tunnel was not identified as

potentially vulnerable to vibration impacts from construction or operation of the project. The existing Caltrain tracks in the tunnel would be used to accommodate HSR service, but no work would take place in the tunnel, no alterations to the structure have been proposed, and none of the structure's character-defining features would be altered, so the project alternatives would not result in a Section 4(f) use of SPRR Tunnel No. 3.

The Authority has made a finding of no effect on this resource for the project alternatives. Because the project alternatives would have no effect on SPRR Tunnel No. 3, the Authority has made a finding of no use for this resource.

4.6.2.4 Southern Pacific Railroad Tunnel No. 4 Use Assessment (ID#06)

Built between 1904 and 1907, SPRR Tunnel No. 4 was previously found eligible for the NRHP under Criterion A for its association with the Bayshore Cutoff project, an important feature of SPRR's systemwide improvement program at the turn of the 20th century, and the development of San Francisco. The tunnel is also eligible under Criterion C as an example of the drift- and core-bracing construction that was unusual at that time, and for its distinctive use of architectural decoration at the tunnel's portals. Character-defining features include its original alignment, bore dimensions and length; original brick, concrete, and steel I-beam construction; and architectural details at tunnel portals (brick with sandstone). The property's boundary is its physical footprint, which encompasses all character-defining features.

Under Alternatives A and B (Figure 4-76), no permanent or temporary construction use would occur. The tunnel was not identified as potentially vulnerable to vibration impacts from construction or operation of the project. The existing Caltrain tracks in the tunnel would be used to accommodate HSR service, but no work would take place in the tunnel structure and no alterations to the structure have been proposed, and none of the structure's character-defining features would be altered, so Alternatives A and B would not result in a Section 4(f) use of SPRR Tunnel No. 4.

The Authority has made a finding of no effect on this resource for the project alternatives.

Because the project alternatives would have no effect on SPRR Tunnel No. 4, the Authority has made a finding of no use for this resource.

4.6.2.5 Southern Pacific Railroad Bayshore Roundhouse Use Assessment (ID#07)

The SPRR Bayshore Roundhouse (ID#07) is listed on the NRHP under Criterion C at the local level as a distinctive example of an early-20th-century railroad support facility. The roundhouse and the turntable pit contribute to the significance of the historic property. No character-defining features were listed in the NRHP nomination, but key elements of this historic property include its proximity and orientation to the rail line, massing, semi-circular footprint, brick construction, turntable pit, and original fenestration and arched window and door openings. The boundary of this historic property is a pie-shaped portion of the parcel associated with Assessor's Parcel Number (APN) 005340080 and includes the roundhouse, associated whisker tracks (i.e., the tracks leading to the open-air stalls) area, and the turntable pit.

Under Alternative A (Figure 4-77a), the project would not include any activities within the historic property boundary of the SPRR Bayshore Roundhouse. Outside the parcel boundary, construction activities would include: modification of the Bayshore Caltrain Station and associated surface parking lot, southbound platform, and a new pedestrian overpass approximately 0.2 mile south of the existing station to accommodate the realignment of the mainline tracks for the East Brisbane LMF; upgrades to existing Caltrain tracks in existing Caltrain right-of-way to accommodate blended Caltrain/HSR service, including horizontal track modifications approximately 1,200 feet east of the resource; modifications associated with overhead contact system (OCS) poles and inclusion of an OCS pole electrical safety zone; construction of a new LMF on the east side of the existing Caltrain right-of-way, approximately 1,500 feet east of the resource; permanent maintenance access easement approximately 1,200 feet east of the resource; and a TCE approximately 1,190 feet east of the resource.

Under Alternative B (Figure 4-77b), the project would not include any activities within the historic property boundary of the SPRR Bayshore Roundhouse. Outside the parcel boundary, the project would include: upgrades to existing Caltrain tracks in the existing Caltrain right-of-way to accommodate blended Caltrain/HSR service, including horizontal track modifications approximately 1,200 feet east of the resource; extensive track expansion on the west side of the existing Caltrain right-of-way (approximately 460 feet southeast of the resource), including construction of an LMF with 17 tracks in the rail yard adjacent and parallel to a maintenance building containing eight shop tracks with interior access and inspection pits for underside and truck inspections; modifications associated with OCS poles and inclusion of an OCS pole electrical safety zone; and a TCE approximately 430 feet southeast of the resource.

Operations would increase the number of trains operating in the corridor and frequency of horn noise. Because the roundhouse is a railroad support facility, a quiet setting is not a character-defining feature or an important aspect of integrity of the SPRR Bayshore Roundhouse. No historic properties were identified as being vulnerable to vibration, including the roundhouse, nor would the project alternatives result in building damage because the vibration levels do not approach damage thresholds (Volume 2, Appendix 3.4-A). More trains operating in the corridor would be consistent with the historic setting of the SPRR Bayshore Roundhouse.

Under Alternatives A and B (Figures 4-77a and 4-77b), no permanent or temporary construction use would occur, because no project activities would occur within the parcel boundary of the SPRR Bayshore Roundhouse and no physical alteration of the resource would occur. While modifications under Alternatives A and B would alter the specific relationship of the roundhouse and existing tracks east of the resource, expansion of track and systems in the vicinity of the resource would continue to contextualize its historic function and would not alter the roundhouse's historic setting such that it would undermine its integrity. Alternatives A and B would not alter the characteristics of the SPRR Bayshore Roundhouse that qualify it for inclusion in the NRHP and would not result in a Section 4(f) use of the SPRR Bayshore Roundhouse.

The Authority has made a finding of no effect on this resource for the project alternatives. Since the project alternatives would have no effect on the SPRR Bayshore Roundhouse and would not include any activities within the historic property boundary, the Authority has made a finding of no use for this resource.

4.6.2.6 Airport Boulevard Underpass/South San Francisco Subway Use Assessment (ID#08)

Completed in 1927, the concrete deck bridge is eligible for inclusion in the NRHP at the local level under Criterion A for its association with San Francisco Peninsula highway development and the early-20th-century movement to eliminate hazardous grade crossings. It is also eligible under NRHP Criterion C as an important example of an underpass that influenced later structures designed and built using Classical-inspired architectural elements. Character-defining features include its size and massing, concrete deck construction, concrete abutment walls with steel pipe handrails and Classical architectural ornamentation. The property boundary is limited to the footprint of the historic structure (Bridge No. 35C0017), which extends from the point where handrails begin at the sidewalks on either side of the underpass to the limits of the abutment walls.

Under Alternatives A and B (Figure 4-78), existing Caltrain tracks would be upgraded to accommodate blended Caltrain/HSR service, requiring a TCE of 0.002 acre. Track modifications at this location would include horizontal changes of more than 3 feet and may require modifications associated with OCS poles and OCS pole electrical safety zone. Construction in this location also would include permanent relocation of stormwater utilities perpendicular to the structure and a TCE adjacent to the stormwater utilities relocation parallel to the south side of the underpass, but these modifications would cause no alterations to the structure.

Project features have been designed to minimize the potential for inadvertent damage to the resource during construction. The contractor will prepare a pre-construction conditions assessment of the underpass and based on the condition of the structure, the contractor will

develop a plan for its protection, if necessary. Any necessary measures will be in place prior to any construction activities (CUL-IAMF#6: Pre-Construction Conditions Assessment, Plan for Protection of Historic Built Resources, and Repair of Inadvertent Damage). Construction staff will be alerted of the need to avoid affecting this built resource in the reports completed for CUL-IAMF#6, and will be tasked to maintain protective measures throughout construction (CUL-IAMF#2: WEAP Training Session). An architectural historian will monitor the efficacy of the protective measures, as defined in the protection plan. Should any inadvertent damage occur during construction, the architectural historian, and if needed a structural engineer, will assess the damage and determine the best approach to repair the underpass, following the SOI's Standards for the Treatment of Historic Properties and in consultation with the Authority and the SHPO (CUL-IAMF#6). The contractor will prepare a built environment monitoring plan (BEMP) prior to construction to detail the monitoring methods and process required for ground-disturbing activities within 1,000 feet of the property (CUL-IAMF#7: Built Environment Monitoring Plan). The contractor will put protective measures in place prior to construction (CUL-IAMF#8: Implement Protection and/or Stabilization Measures).

After construction is complete, the TCE areas will be returned to their pre-construction conditions and there would be no permanent change in the setting of the resource. While changes would be made to the existing at-grade Caltrain tracks on the underpass, these modifications would not meaningfully alter the structure's setting, which is currently a rail right-of-way and would remain a rail right-of-way. This change would not undermine the resource's integrity of feeling or association as an underpass, nor would this change prevent the resource from conveying its significance.

Operations would increase the number of trains operating in the corridor and the frequency of horn noise. However, the underpass would not be affected by noise or visual impacts and it was not identified as being vulnerable to vibration impacts from construction or operation.

The Authority has made a finding of no adverse effect on this resource for the project alternatives. According to FRA regulations at 23 C.F.R. § 774.13(a)(2), Section 4(f) does not apply to certain improvements of railroad or rail transit lines that are in use or were historically used for the transportation of goods or passengers, including, but not limited to, maintenance, preservation, rehabilitation, operation, modernization, reconstruction, and replacement of railroad or rail transit line elements. In addition, under 23 C.F.R. § 774.13(a)(3), Section 4(f) does not apply to work such as maintenance, rehabilitation, operation, modernization, reconstruction, or replacement of a historic transportation facility (e.g., underpass) where the Authority finds that the work would not adversely affect the historic qualities for which the property is NRHP eligible or listed and the OWJ has not objected to this finding. The temporary occupancy and track and utility modifications would meet the criteria for the exceptions in 23 C.F.R. § 774.13(a)(2–3) and would not constitute a use of this resource within the meaning of Section 4(f).

4.6.2.7 Southern Pacific Railroad Depot/Millbrae Station Use Assessment (ID#12)

Completed in 1907, the two-story SPRR depot is listed on the NRHP and is significant at the local level under Criterion A in the context of transportation and for its association with the development of the Millbrae community. The depot is also architecturally significant at the local level under Criterion C as an example of an early-20th-century Colonial Revival depot. No specific character-defining features were listed in the NRHP nomination; however, key elements of this building as identified in a 1992 Preservation Covenant for this station consist of its location and proximity to the rail line, scale and massing, and plan. Exterior character-defining features also include: hip roof, wooden roof shingles, wood siding, fenestration pattern, exterior wood porch, window, transom, baggage door and office door frames, sashes and hardware, soffit, knee-brackets and eaves, columns, paint colors, and Millbrae Historical Society plaque. Interior character-defining features include original wood wainscot and lathe and plaster wall finish. The boundary of this historic property generally encompasses the building footprint, which measures 94 feet long and 62 feet wide, on the parcel associated with APN 024355010.

The historic SPRR Depot/Millbrae Station was previously relocated to accommodate past station improvements and the parcel (1 acre) the historic station is on would be incorporated into the new HSR station. Under Alternatives A and B (Figure 4-79), the historic SPRR Depot/Millbrae Station and its associated surface parking along California Drive would be relocated approximately 100 feet north and set back from the existing railway right-of-way by an additional 40 feet west to accommodate track modifications. With the RSP Design Variant, the historic SPRR Depot/Millbrae Station would be relocated approximately 23 feet west and 34 feet south of its existing location. New HSR infrastructure, including a new stationhouse, would be built at the existing modern Millbrae Station. The project would also include modifications associated with OCS poles and an OCS pole electrical safety zone, a TCE immediately west of the historic station building relocation site, temporary electrical utilities relocation immediately north and south of the historic station building relocation site, and permanent telecommunication utilities relocation immediately north of the historic station building relocation site. The California Drive right-of-way 20 feet east of the historic station building relocation site would be retained.

Project features have been designed to minimize the potential for inadvertent damage to the resource during construction and relocation. The contractor will prepare a pre-construction conditions assessment of the historic SPRR Depot/Millbrae Station and based on the condition of the structure, the contractor will develop a plan for its protection. Stabilization or other measures will be identified to avoid or minimize inadvertent adverse effects. In this case, other applicable measures will include preparation of a relocation plan for the historic station (CUL-IAMF#6). Protection measures, including relocation, will be in place prior to any construction activities. Construction staff will be alerted of the need to avoid affecting this built resource in the reports completed for CUL-IAMF#6, and will be tasked to maintain protective measures throughout construction, including during relocation (CUL-IAMF#2). An architectural historian will monitor the efficacy of the protective measures, as defined in the protection and relocation plans. Should any inadvertent damage occur during construction or relocation, the architectural historian, and if needed a structural engineer, will assess the damage and determine the best approach to repair the depot, following the SOI's Standards for the Treatment of Historic Properties and in consultation with the Authority and the SHPO (CUL-IAMF#6). The contractor will prepare a BEMP prior to construction to detail the monitoring methods and process required for ground-disturbing activities within 1,000 feet of the property (CUL-IAMF#7). The contractor will put protective measures in place prior to construction (CUL-IAMF#8).

The SPRR Depot/Millbrae Station has previously been relocated from its original location, so the relocation proposed as part of the project would not further degrade that aspect of integrity or alter its use. While location and proximity to the rail line are included as character-defining features of the property, because the proposed relocation site is only 100 feet north and only set back an additional 40 feet from the existing rail right-of-way (or less—34 feet south and 24 feet west—with the RSP Design Variant), it would still retain integrity of setting, feeling, and association, and the ultimate use of the property would not change. Operations would increase the number of trains operating in the corridor and frequency of horn noise. As a railroad station, a quiet setting is not a character-defining feature or an important aspect of integrity of the SPRR Depot/Millbrae Station. No historic properties were identified as being vulnerable to vibration, including the historic station, nor would the project alternatives result in building damage because the vibration levels would not approach damage thresholds (Volume 2, Appendix 3.4-A). More trains operating in the corridor would be consistent with the historic setting of the SPRR Depot/Millbrae Station. Therefore, the project would not adversely affect the activities, features, and attributes that qualify the resource for protection under Section 4(f).

The Authority has made a finding of no adverse effect on this resource for the project alternatives. Because Alternatives A and B would have no adverse effect on the SPRR Depot/Millbrae Station, the Authority has made a *de minimis* impact finding for this resource.

4.6.2.8 Jules Francard Grove/Francard Tree Rows Use Assessment (ID#13)

Planted between 1874 and 1880, this row of Blue Gum eucalyptus trees is eligible for the NRHP as significant under Criterion A for its association with the early settlement of the Burlingame area

and the founding of the City of Burlingame. The grove is also significant under NRHP Criterion C as the work of John McLaren, a master landscape designer. No character-defining features or boundary for this historic property were specifically listed in the 2015 evaluation; however, the location of the grove adjacent to the railroad, as well as the length of the row, and number and size of mature trees should be considered character defining. The boundary of the historic property is the footprint of the grove.

Under Alternatives A and B (Figure 4-80), no permanent or temporary construction use would occur, because the project would not include any activity within the historic property boundary and there would be no track modifications in this location. The TCE in the existing roadway of Oak Grove Avenue between California Avenue and Carolan Avenue would be approximately 20 feet south of the closest tree in the northern section of the tree row and approximately 40 feet north of the closest tree in the southern section of the tree row. Approximately 65 feet south of the southernmost tree in the row would be a TCE in the existing roadway of North Lane, between California Avenue and Carolan Avenue.

Construction staff will be alerted of the need to avoid affecting this resource in the reports completed for CUL-IAMF#6. Should any inadvertent damage occur during construction, an architectural historian and, if needed, an arborist will assess the damage and determine the best approach to address the damage, following the SOI's Standards for the Treatment of Historic Properties and in consultation with the Authority and the SHPO (CUL-IAMF#6).

Because the project alternatives would not alter characteristics of the Jules Francard Grove/Francard Tree Row that qualify it for inclusion in the NRHP by upgrading the adjacent rail or installing four-quadrant gates, Alternatives A and B would not result in a Section 4(f) use of the Jules Francard Grove/Francard Tree Row.

The Authority has made a finding of no adverse effect on this resource for the project alternatives.

Since the project alternatives would have no adverse effect on Jules Francard Grove/Francard Tree Row and would not include any activities within the historic property boundary, the Authority has made a finding of no use for this resource.

4.6.2.9 Southern Pacific Railroad Depot/Burlingame Railroad Station Use Assessment (ID#14)

The former SPRR depot is listed on the NRHP as significant at the state level under Criterion C as an early example of a Mission Revival-style building. Character-defining features as identified in the 1992 Preservation Covenant consist of both exterior and interior elements. Exterior features include roof tiles (salvaged from Mission Dolores and Mission San Antonio de Padua), "metal caps and flashing; soffits and eaves; lath and stucco wall finish; canals; window and paneled door frames, sashes and historic-period hardware; fascia trim; metal air grilles; dentil moldings; paint colors; benches; historic-period landscaping; and historic markers." Interior features consist of "flooring; benches; exposed rafters and ceiling paneling; wooden bulletin board;" the waiting room's wall and ceiling finish; and the ticket office's integrated cabinets and historic-period fixtures. California Drive and the railroad track are identified as the southwest and northeast boundary of the property associated with APN 029216010; the NRHP nomination did not identify any southeast or northwest limits but noted the property was 1 acre. It is therefore presumed that North Lane and South Lane define the northwest and southeast boundaries of the historic property.

Under Alternatives A and B (Figure 4-81), no permanent or temporary construction use would occur, because no activity would occur in the historic property boundary. The project alternatives would feature a four-quadrant gate approximately 65 feet north of the depot in the roadway where the existing rail right-of-way intersects North Lane.

Project features have been designed to minimize the potential for inadvertent damage to the resource during construction. Construction staff will be alerted of the need to avoid affecting this built resource in the reports completed for CUL-IAMF#6. Should any inadvertent damage occur during construction, an architectural historian, and if needed a structural engineer, will assess the

damage and determine the best approach to repair the depot, following the SOI's Standards for the Treatment of Historic Properties and in consultation with the Authority and the SHPO (CUL-IAMF#6).

Under Alternatives A and B, no modification to the SPRR Depot/Burlingame Railroad Station is proposed and none of the depot's character-defining features that qualify it for inclusion in the NRHP would be altered. Operations would increase the number of trains operating in the corridor and frequency of horn noise. As a railroad station, a quiet setting is not a character-defining feature or an important aspect of integrity of the SPRR Depot/Burlingame Railroad Station. No historic properties were identified as being vulnerable to vibration, including the historic station, nor would the project alternatives result in building damage because the vibration levels do not approach damage thresholds (Volume 2, Appendix 3.4-A). More trains operating in the corridor would be consistent with the historic setting of the SPRR Depot/Burlingame Railroad Station. As a result, Alternatives A and B would not result in a Section 4(f) use of the SPRR Depot/Burlingame Railroad Station.

The Authority has made a finding of no adverse effect on this resource for the project alternatives. Since the project alternatives would have no adverse effect on the SPRR Depot/Burlingame Railroad Station and no activity would occur in the historic property boundary, the Authority has made a finding of no use for this resource.

4.6.2.10 Southern Pacific Railroad Depot/San Carlos Station Use Assessment (ID#18)

Built in 1888, the former SPRR depot is listed on the NRHP as significant at the state level under Criterion A for its association with the development of San Carlos into a commuter-oriented suburb and under Criterion C as an architecturally distinctive and rare example of a Richardsonian Romanesque-style railroad station. No specific character-defining features were noted in the NRHP nomination; however, key elements of this building identified in a 1992 Preservation Covenant consist of the depot's interior and exterior elements such as its "sandstone masonry; mortar color, composition, and beaded application; slate roof; roof cresting; roof finials; flashing, gutters and downspouts; fascia and cornice molding; soffits and eaves; dentil course on tower; braces under roof eaves; windows, paneled doors; bay doors; historic-period hardware; scored concrete paving in loggia; historic exterior light fixtures and globes; and existing paint colors;" interior "scored concrete floor; window sills and historic-period hardware; brick fireplace; wall finish; historic-period tile flooring in restrooms; historic period doors and bathroom fixtures." The boundary of this historic property generally encompasses its legal parcel, associated with APN 050076030. Noncontributing features in the parcel boundary include the pedestrian underpass and station platforms.

Under Alternative A (Figure 4-82a), no permanent or temporary construction use would occur, because the project would not include any activity within the historic property boundary, and no modifications would be made to the depot building. In addition, Alternative A would not include any alterations to the existing at-grade Caltrain right-of-way.

Under Alternative B, no modifications would be made to the depot building. Alternative B would include four tracks on embankment in the northern section of existing rail right-of-way transitioning to four tracks of at-grade rail right-of-way in the southern section of the existing right-of-way (east of existing depot building). Upgrades to the existing rail would support blended service east of the depot and include installation of passing tracks in the existing right-of-way east of the station. The current platforms and pedestrian underpass (in the legal parcel boundary and 0.05 acre) would be removed and relocated approximately 2,260 feet south over a period of approximately 3 to 6 weeks, and a permanent OCS pole electrical safety zone easement would be east of the blended right-of-way. In addition, a TCE would be east of the safety zone. Both the OCS pole electrical safety zone easement and the TCE would be outside the historic property boundary. Any project construction activities would be allowed in areas designated as TCE, including but not limited to materials staging, operation of construction equipment, and installation of protective fencing. After construction is complete, the TCE area would be returned to its pre-construction condition, and there would be no permanent change in the setting of the resource.

Project features have been designed to minimize the potential for inadvertent damage to the resource during construction. For Alternatives A and B, the contractor will prepare a pre-construction conditions assessment of the SPRR Depot/San Carlos Station and, based on the condition of the structure, the contractor will develop a plan for its protection. These measures will be in place prior to any construction activities (CUL-IAMF#6). Construction staff will be alerted of the need to avoid affecting this built resource in the reports completed for CUL-IAMF#6, and will be tasked to maintain protective measures throughout construction (CUL-IAMF#2). An architectural historian will monitor the efficacy of the protective measures, as defined in the protection plan. Should any inadvertent damage occur during construction, the architectural historian, and if needed a structural engineer, will assess the damage and determine the best approach to repair the depot, following the SOI's Standards for the Treatment of Historic Properties and in consultation with the Authority and the SHPO (CUL-IAMF#6). The contractor will prepare a BEMP prior to construction to detail the monitoring methods and process required for ground-disturbing activities within 1,000 feet of the property (CUL-IAMF#7). The contractor will put protective measures in place prior to construction (CUL-IAMF#8).

Under Alternative A, no modification to the SPRR Depot/San Carlos Station is proposed and none of the depot's character-defining features that qualify it for the NRHP would be altered. Operations would increase the number of trains operating in the corridor and frequency of horn noise. As a railroad station, a quiet setting is not a character-defining feature or an important aspect of integrity of the SPRR Depot/San Carlos Station. No historic properties were identified as being vulnerable to vibration, including the historic station, nor would Alternative A result in building damage because the vibration levels would not approach damage thresholds (Volume 2, Appendix 3.4-A). More trains operating in the corridor would be consistent with the historic setting of the SPRR Depot/San Carlos Station. As a result, Alternative A would not result in a constructive use of the SPRR Depot/San Carlos Station.

Alternative B (Figure 4-82b) would not alter any of the depot's character-defining features and its integrity of location, design, materials, and workmanship would be retained. While modifications to the existing at-grade Caltrain tracks and OCS, relocation of the current platforms and pedestrian underpass, inclusion of OCS pole electrical safety zone, and elevation of a portion of the nearby track from at grade to embankment would alter the depot's setting, because the physical context of the depot would continue to be that of a rail right-of-way, these changes would not undermine the resource's integrity of feeling or association as a train depot, nor would this change prevent the resource from conveying its significance. Furthermore, after construction is complete, the TCE area east of the safety zone (outside the historic property boundary) would be returned to its pre-construction condition, and there would be no permanent change in the setting of the resource due to the TCE. The TCE within the historic property boundary is associated with relocation of the platforms and pedestrian underpass, both of which are noncontributing features. The temporary occupancy of the historic property under Alternative B would be so minimal as to not constitute a use of the historic site within the meaning of Section 4(f), and it meets the conditions for the exception in 23 C.F.R. Section 774.13(d): it would be of shorter duration than the time needed for construction of the project; there would be no change in ownership of the land; the scope of the work would be minor; there would be no permanent adverse physical impacts; there would be no temporary or permanent interference with the protected activities, features, or attributes of the property; and the property would be fully restored to a condition at least as good as it was prior to the project.

Under Alternative B, no modification to the SPRR Depot/San Carlos Station would occur and the depot's character-defining features that qualify it for inclusion in the NRHP would not be altered. Alternative B would not result in a Section 4(f) use of the SPRR Depot/San Carlos Station.

The Authority has made a finding of no adverse effect under Alternative A. There would be no use of the SPRR Depot/San Carlos Station under Alternative A because there would be no activity within the historic property boundary, no modifications would be made to the depot building, and there would be no adverse effect. The Authority has also made a finding of no adverse effect for Alternative B. There would be no use of the SPRR Depot/San Carlos Station under Alternative B because there would be no permanent incorporation of land and the

temporary occupancy would meet the criteria for the exception in 23 C.F.R. § 774.13(d) since it would be so minimal as to not constitute a use of this resource, and there would be no adverse effect. Therefore, the Authority has made a finding of no use for the SPRR Depot/San Carlos Station for both project alternatives.

4.6.2.11 Southern Pacific Railroad Dumbarton Cutoff Linear Historic District Use Assessment (ID#21; ID#21a)

The SPRR Dumbarton Cutoff Linear Historic District (ID#21) is composed of the Dumbarton Cutoff railroad line (ID#21a) and its appurtenances (i.e., two bridges, an underpass, and two culverts). Only a small segment of the linear historic district—the westernmost end of the Dumbarton Cutoff tracks that connect to the SPRR main line—is in the project vicinity. The Dumbarton Cutoff Linear Historic District is significant under Criterion A for its association with significant systemwide improvements to the SPRR, the economic growth of San Francisco during the first half of the 20th century, and with national defense activities during World Wars I and II. The district meets Criterion B for its association with SPRR President E.H. Harriman, who led the growth of the SPRR during the first 2 decades of the 20th century and envisioned and spearheaded the construction of the cutoff. In addition, the historic district is significant under Criterion C because some of its contributing bridges (outside the APE) are representative examples of their respective type. The historic property boundary of the contributing Dumbarton Cutoff rail line is its footprint.

Under Alternatives A and B (Figures 4-83a and 4-83b), no permanent or temporary construction use would occur, because no track modifications would be made to the cutoff or the mainline where it meets the cutoff as part of the project alternatives. The project would include an existing permanent easement 150 feet north of the cutoff line where a communications radio tower would be co-located with a Caltrain switching station, approximately 160 feet northeast of where the Dumbarton Cutoff Railroad Line meets the existing Caltrain right-of-way. Alternatives A and B would not substantially alter the characteristics that qualify the SPRR Dumbarton Cutoff Linear Historic District for inclusion in the NRHP. While the project would alter the cutoff railroad line's setting, this change would be relatively minor in the context of the extent of the district as a whole and the integrity of the resource would not be substantially diminished overall. As a result, Alternatives A and B would not result in a Section 4(f) use of the SPRR Dumbarton Cutoff Linear Historic District.

The Authority has made a finding of no adverse effect on this resource for the project alternatives. The project alternatives would have no adverse effect on the SPRR Dumbarton Cutoff Linear Historic District and there would be no permanent incorporation of land from or temporary occupancy of the historic district, so the Authority has made a finding of no use for this resource.

4.6.2.12 Willie Mays Jr. House Use Assessment (ID#22)

Developed in 1964, the 1.12-acre residential property is eligible for the NRHP under Criterion B at a national level for its association with baseball superstar Willie Mays, Jr., a person important to African-American and professional baseball history, and for its association with the attention Mays' fame drew to racial discrimination in housing. Character-defining features are as follows: setting in an affluent enclave in San Mateo County; siting between the Caltrain railroad tracks and Mount Vernon Lane on a dead-end road; access via a long, gated private driveway; mature trees and a landscaped yard; stained concrete circle driveway with a grass and rock island; form and massing as a single-story Ranch-style residence with a single-story garage; system of cross-gabled roofs covered in cedar shingles; recessed double-door entry on the façade; primary windows that feature large fixed panes with smaller windows below, rectangular windows just below the roofline; overhead garage doors; horizontal wood siding with stone veneer accents on the porte-cochère pillars and around the double-door entry. The northern projection on the west side was added in 2009, but appears to be sympathetic in design and materials. The historic property boundary is the legal parcel, associated with APN 060241040.

Under Alternatives A and B (Figure 4-84), no permanent or temporary construction use would occur. The project would include upgrades to the existing Caltrain right-of-way to support blended

service. Track modifications in this location would include horizontal alignment changes of more than 1 foot and less than 3 feet. Operations would increase the number of trains operating in the corridor and frequency of horn noise. The house is adjacent to the existing Caltrain alignment so a quiet setting is not a character-defining feature of the property. No historic properties were identified as being vulnerable to vibration, including the residence, nor would the project alternatives result in building damage because the vibration levels would not approach damage thresholds (Volume 2, Appendix 3.4-A). No modification to the Willie Mays Jr. House is proposed and no activities are proposed within the property's legal parcel boundary, so Alternatives A and B would not result in a Section 4(f) use of Willie Mays Jr. House.

The Authority has made a finding of no adverse effect on this resource for the project alternatives. Because the project alternatives would have no adverse effect on Willie Mays Jr. House and would not permanently incorporate land from or temporarily occupy the historic property, the Authority has made a finding of no use for this resource.

4.6.2.13 Southern Pacific Railroad Depot/Atherton Station Use Assessment (ID#24)

Built in 1913, this former SPRR Depot was found eligible for listing in the NRHP as significant at the local level under Criterion C as a distinctive example of a Mediterranean Revival-style railroad station. Character-defining features are all of those dating from 1913: the original massing and shape; tiled hip roof; roof brackets; concrete columns; and interior finish. The side wings, glass enclosures, and modern reproduction lampposts and clock are all non-original, do not contribute to the significance of this building, and are not character-defining features. Surrounding paving and street furniture are modern additions that post-date the period of significance and do not contribute to the architectural significance of this building. The boundary of this property is the building's physical footprint, on a portion of the parcel associated with APN 060321180.

Under Alternatives A and B (Figure 4-85), no permanent or temporary construction use would occur. The project would upgrade the existing Caltrain right-of-way to support blended service and track modifications in this location would include horizontal alignment changes of more than 1 foot and less than 3 feet. Trackwork in this location may require relocation of OCS poles and OCS pole electrical safety zones. However, Alternatives A and B would not modify the existing depot building. Temporary electrical utilities relocation would take place in the existing Fair Oaks Lane right-of-way north of the station. A TCE would also be included in the existing Fair Oaks Lane right-of-way north of the station. Any project construction activities would be allowed in areas designated as TCE, including but not limited to materials staging, operation of construction equipment, and installation of protective fencing. After construction is complete, the TCE area would be returned to its pre-construction condition, and there would be no permanent change in the setting of the resource.

Project features have been designed to minimize the potential for inadvertent damage to the resource during construction. The contractor will prepare a pre-construction conditions assessment of the SPRR Depot/Atherton Station and based on the condition of the structure, the contractor will develop a plan for its protection. These measures will be in place prior to any construction activities (CUL-IAMF#6). Construction staff will be alerted of the need to avoid affecting this built resource in the reports completed for CUL-IAMF#6, and will be tasked to maintain protective measures throughout construction (CUL-IAMF#2). An architectural historian will monitor the efficacy of the protective measures, as defined in the protection plan. Should any inadvertent damage occur during construction, the architectural historian, and if needed a structural engineer, will assess the damage and determine the best approach to repair the depot, following the SOI's Standards for the Treatment of Historic Properties and in consultation with the Authority and the SHPO (CUL-IAMF#6). The contractor will prepare a BEMP prior to construction to detail the monitoring methods and process required for ground-disturbing activities within 1,000 feet of the property (CUL-IAMF#7). The contractor will put protective measures in place prior to construction (CUL-IAMF#8).

Under Alternatives A and B, no modification to the SPRR Depot/Atherton Station is proposed and none of the depot's character-defining features would be altered. While changes would be made to

the existing at-grade Caltrain tracks east of the depot and to the OCS, these modifications would not meaningfully alter the setting. These changes would not undermine the resource's integrity of feeling or association as a train depot, nor would this prevent the resource from conveying its significance. A temporary electrical utilities relocation in the existing Fair Oaks Lane right-of-way would not result in a permanent change in the setting of the resource. After construction is complete, the TCE area outside the property's boundary would be returned to its pre-construction condition and would not interfere with the protected activity of the property. Operations would increase the number of trains operating in the corridor and frequency of horn noise. As a railroad station, a quiet setting is not a character-defining feature or an important aspect of integrity of the SPRR Depot/Atherton Station. No historic properties were identified as being vulnerable to vibration, including the historic station, nor would the project alternatives result in building damage because the vibration levels would not approach damage thresholds (Volume 2, Appendix 3.4-A). More trains operating in the corridor would be consistent with the historic setting of the SPRR Depot/Atherton Station. As a result, Alternatives A and B would not result in a Section 4(f) use of the SPRR Depot/Atherton Station.

The Authority has made a finding of no adverse effect on this resource for the project alternatives. Because the project alternatives would have no adverse effect on the SPRR Depot/Atherton Station and would not permanently incorporate land from or temporarily occupy the historic property, the Authority has made a finding of no use for this resource.

4.6.2.14 Carriage House and Water Tower, Holbrook-Palmer Estate (Elmwood) Use Assessment (ID#25)

This carriage house and water tower are listed in the NRHP as eligible under Criterion C as rare examples of agricultural ancillary buildings built during the estate development of southern San Mateo County during the 19th century. Furthermore, the carriage house and water tower are significant under Criterion C for their architecture style, Colonial Revival and Second Empire, respectively. No specific character-defining features were listed in the NRHP nomination, but key elements of this historic property include each building's proximity and orientation to one another, their size and massing, original materials, and those distinctive features of their respective styles. The boundary of these historic buildings encompasses the footprints of the buildings, on the parcel associated with APN 061310100, and generally bounded to the west by the parking lot between the main house and water tower and to the north by the park entrance driveway at Watkins Avenue.

Under Alternatives A and B (Figure 4-86), no permanent or temporary construction use would occur. The project would not modify the carriage house or water tower and no activity is proposed near the building footprints or in the legal parcel boundary of the Holbrook-Palmer Estate. Both alternatives would include at-grade upgrades to the existing Caltrain right-of-way west of the parcel's western property boundary to support blended service. Track modifications in this location would include horizontal alignment changes of more than 1 foot and less than 3 feet. Trackwork in this location may require relocation of OCS poles and OCS pole electrical safety zones. The project would also include installation of a new four-quadrant gate where the existing Caltrain right-of-way intersects Watkins Avenue, approximately 1,073 feet southwest of the water tower and 1,133 feet southwest of the carriage house.

Under Alternatives A and B, no modification to the carriage house or water tower are proposed and none of the character-defining features would be altered. While changes would be made to the existing at-grade Caltrain tracks and OCS west of the estate, these modifications would not meaningfully alter the setting. The nearest track modification would be west of the property and would be screened by trees and other non-historic built features on the estate. Similarly, the new four-quadrant gate at Watkins Avenue would not be visible from the carriage house and water tower locations, would not alter the resource's setting, and would not undermine the resource's integrity of feeling or association such that it prevents the resource from conveying its significance. Operations would increase the number of trains operating in the corridor and frequency of horn noise. No historic properties were identified as being vulnerable to vibration, including the carriage house and water tower, nor would the project alternatives result in building damage because the vibration

levels would not approach damage thresholds (Volume 2, Appendix 3.4-A). Visual changes from more trains operating in the corridor would be screened by trees and other non-historic built features on the estate. As a result, Alternatives A and B would not result in a Section 4(f) use of the carriage house and water tower on the Holbrook-Palmer Estate.

The Authority has made a finding of no effect on this resource for the project alternatives. Because Alternatives A and B would have no effect on the carriage house and water tower on the Holbrook-Palmer Estate and would not permanently incorporate land from or temporarily occupy the historic property, the Authority has made a finding of no use for this resource.

4.6.2.15 Southern Pacific Railroad Depot/Menlo Park Railroad Station Use Assessment (ID#28)

This former SPRR Depot at Menlo Park is listed in the NRHP as eligible at the local level under Criterion A for its role in the development of Menlo Park. The depot is also architecturally significant at the local level under NRHP Criterion C as the building reflects the shifting tastes in architectural styles during the late 19th century. Character-defining features, as identified in the 1992 Preservation Covenant, for the passenger depot's exterior include wood siding and shingles; non-metal window frames and sashes; scored concrete floor; wood shingle roof with cresting, finials, eaves, soffits and brackets; wood air vents; exterior doors and door frames; wood screen doors; wood turned trim; exterior light fixtures and globes; and palm trees. Interior features include wainscoting; door and window trim and hardwood; interior windows separating the offices; paneled doors; ticket counter; tongue-and-groove ceiling; and built-in cabinets. The boundary is defined by its legal parcel associated with APN 061441150.

Under Alternatives A and B (Figure 4-87) the project would not include any modifications to the SPRR Depot/Menlo Park Railroad Station building. Both alternatives feature two potential locations for a new communication radio tower. Alternate site 1 would be approximately 250 feet north of the station's northern parcel boundary and would not result a permanent or temporary use. Alternate site 2 would be in the southeast corner of the legal parcel boundary (immediately west of the existing Caltrain right-of-way) and would result in a permanent use of 0.04 acre and temporary use of 0.002 acre during construction. Four-quadrant gates would be located where the existing Caltrain right-of-way intersects Oak Grove Avenue (north of the parcel) and Ravenswood Avenue (south of the parcel), with TCEs on both sides of the intersections outside the property boundary. Any construction activities would be allowed in areas designated as TCE, including but not limited to materials staging, operation of construction equipment, and installation of protective fencing. After construction is complete, the TCE area would be returned to its pre-construction condition.

Project features will minimize the potential for inadvertent damage to the resource during construction. The contractor will prepare a pre-construction conditions assessment of the SPRR Depot/Menlo Park Railroad Station and based on the condition of the structure, the contractor will develop a plan for its protection. These measures will be in place prior to any construction activities (CUL-IAMF#6). Construction staff will be alerted of the need to avoid affecting this built resource in the reports completed for CUL-IAMF#6, and will be tasked to maintain protective measures throughout construction (CUL-IAMF#2). An architectural historian will monitor the efficacy of the protective measures, as defined in the protection plan. Should any inadvertent damage occur during construction, the architectural historian, and if needed a structural engineer, will assess the damage and determine the best approach to repair the depot, following the SOI's Standards for the Treatment of Historic Properties and in consultation with the Authority and the SHPO (CUL-IAMF#6). The contractor will prepare a BEMP prior to construction to detail the monitoring methods and process required for ground-disturbing activities within 1,000 feet of the property (CUL-IAMF#7). The contractor will put protective measures in place prior to construction (CUL-IAMF#8).

Under Alternatives A and B, no modification to the SPRR Depot/Menlo Park Railroad Station is proposed and none of the depot's character-defining features would be altered. The depot's setting currently includes a rail right-of-way and associated rail-related uses, so introduction of a new communications radio tower (in either of the proposed locations) and introduction of four-

quadrant gates at Oak Grove Avenue and Ravenswood Avenue would not meaningfully alter the setting. In addition, after construction is complete, all TCE areas would be returned to the pre-construction condition and would not interfere with the protected activity of the property. As a result, there would be no permanent or temporary use, if the radio tower is built at alternate site 1. However, if the tower is built at alternate site 2, there would be a use because 0.04 acre of the historic property would be permanently incorporated into the project, although the project would not meaningfully alter the station's setting.

Operations would increase the number of trains operating in the corridor and frequency of horn noise. As a railroad station, a quiet setting is not a character-defining feature or an important aspect of integrity of the SPRR Depot/Menlo Park Railroad Station. No historic properties were identified as being vulnerable to vibration in this subsection, including the historic station, nor would the project alternatives result in building damage because the vibration levels would not approach damage thresholds (Volume 2, Appendix 3.4-A). More trains operating in the corridor would be consistent with the historic setting of the SPRR Depot/Menlo Park Railroad Station.

The Authority has made a finding of no adverse effect on this resource for the project alternatives. Because Alternatives A and B would have no adverse effect on the SPRR Depot/Menlo Park Railroad Station, the Authority has made a *de minimis* impact finding for this resource. The Authority consulted with the SHPO prior to making the *de minimis* impact finding in a letter dated May 1, 2020.

4.6.2.16 Southern Pacific Railroad San Francisquito Creek Bridge Use Assessment (ID#29)

Built in 1902, the bridge is eligible for listing in the NRHP as significant at the local level under Criterion A for its association with the development of Palo Alto and under NRHP Criterion C as a distinctive example of a steel through truss bridge. Key elements include its location crossing the San Francisquito Creek, its proximity to the tree known as El Palo Alto, as well as the massing, riveted-steel construction, and its Baltimore Petit through truss design. The boundary of this historic property is the footprint of the bridge, which contains all character-defining features.

Under Alternatives A and B (Figure 4-88), no permanent use would occur, but the existing at-grade Caltrain tracks would be upgraded to accommodate blended service, requiring a TCE affecting 0.002 acre of the bridge. Track modifications would include horizontal track shift of more than 1 foot, but less than 3 feet on the SPRR San Francisquito Creek Bridge. Trackwork in this location may also require modifications to the OCS and OCS pole electrical safety zone. A four-quadrant gate would also be installed where the existing alignment intersects Alma Street, 300 feet south of the bridge.

While trackwork would take place on the bridge structure, no alterations to the structure would be undertaken. Project features will minimize the potential for inadvertent damage to the resource during construction. The contractor will prepare a pre-construction conditions assessment of the bridge and based on the condition of the structure, the contractor will develop a plan for its protection. These measures will be in place prior to any construction activities (CUL-IAMF#6). Construction staff will be alerted of the need to avoid affecting this built resource in the reports completed for CUL-IAMF#6, and will be tasked to maintain protective measures throughout construction (CUL-IAMF#2). An architectural historian will monitor the efficacy of the protective measures, as defined in the protection plan. Should any inadvertent damage occur during construction, the architectural historian, and if needed a structural engineer, will assess the damage and determine the best approach to repair the bridge, following the SOI's Standards for the Treatment of Historic Properties and in consultation with the Authority and the SHPO (CUL-IAMF#6). The contractor will prepare a BEMP prior to construction to detail the monitoring methods and process required for ground-disturbing activities within 1,000 feet of the property (CUL-IAMF#7). The contractor will put protective measures in place prior to construction (CUL-IAMF#8). After construction is complete, the TCE areas will be returned to their pre-construction conditions and there would be no permanent change in the setting of the bridge.

Under Alternatives A and B, no modification to the SPRR San Francisquito Creek Bridge would occur and none of the structure's character-defining features would be altered. While changes would be made to the existing at-grade Caltrain tracks on the bridge and potentially to the OCS, these modifications, as well as introduction of four-quadrant gates at Alma Street, would not meaningfully alter the setting. This change would not undermine the resource's integrity of feeling or association as a rail bridge, nor would it prevent the resource from conveying its significance. Operations would increase the number of trains operating in the corridor and the frequency of horn noise. However, the bridge would not be affected by noise or visual impacts and it was not identified as being vulnerable to vibration impacts from construction or operation.

The Authority has made a finding of no adverse effect on this resource for the project alternatives. According to FRA regulations at 23 C.F.R. § 774.13(a)(2), Section 4(f) does not apply to certain improvements of railroad or rail transit lines that are in use or were historically used for the transportation of goods or passengers, including, but not limited to, maintenance, preservation, rehabilitation, operation, modernization, reconstruction, and replacement of railroad or rail transit line elements. In addition, under 23 C.F.R. § 774.13(a)(3), Section 4(f) does not apply to work such as maintenance, rehabilitation, operation, modernization, reconstruction, or replacement of a historic transportation facility (e.g., bridge) where the Authority finds that the work would not adversely affect the historic qualities for which the property is NRHP eligible or listed and the OWJ has not objected to this finding. For the reasons described above, the TCE and track modifications would meet the criteria for exceptions in 23 C.F.R. § 774.13(a)(2–3) and would not constitute a use within the meaning of Section 4(f).

4.6.2.17 El Palo Alto Use Assessment (ID#30)

El Palo Alto is a Coast Redwood (*Sequoia sempervirens*) estimated to be approximately 1,077 years old. The tree is eligible for listing on the NRHP at the state and local levels under Criterion A. First having been used as a navigation landmark and for ceremonies by Native Americans, El Palo Alto also is the site of the end of Spanish explorer Portola's expedition in search of Monterey Bay, which resulted in the discovery of San Francisco. The tree thereafter served as landmark during the plotting of the adjacent rail line, as well as surveys for local roads. Character-defining features include location on the creek, proximity to the rail line, and its size and shape. The boundary of this historic property encompasses the area of its canopy and its character-defining features.

Under Alternatives A and B (Figure 4-89), no permanent or temporary construction use would occur. The project would not include modifications to the El Palo Alto tree but would include upgrades to the existing Caltrain right-of-way, as described for the SPRR San Francisquito Creek Bridge.

Under Alternatives A and B, no modification to the El Palo Alto tree is proposed and none of the tree's character-defining features would be altered. While changes would be made to the existing at-grade Caltrain tracks on the bridge and potentially to the OCS, these modifications, as well as introduction of four-quadrant gates at Alma Street, would not meaningfully alter the setting. This change would not undermine the resource's integrity of feeling or association, nor would it prevent the resource from conveying its significance, so Alternatives A and B would not result in a Section 4(f) use of El Palo Alto.

The Authority has made a finding of no adverse effect on this resource under Section 106 for the project alternatives. Because the project alternatives would have no adverse effect on El Palo Alto and would not permanently incorporate land from or temporarily occupy the historic property, the Authority has made a finding of no use for this resource.

4.6.2.18 Palo Alto Southern Pacific Railroad Depot Use Assessment (ID#31)

This former SPRR Depot at Palo Alto is listed in the NRHP as eligible at the local level under Criterion C as an important example of the Streamline Moderne architectural style. Character-defining features include its Streamline Moderne-style architectural details: its massing and composition, glass blocks, curved corners and horizontal striping, portholes, interior ornament

and mural. The boundary encompasses 1.2 acres around the depot and its contributing elements, on the parcel associated with APN 12031021. The boundary is delineated by the northeast and southwest street curbs and extends 15 feet northwest of the baggage building and 15 feet southeast of the passenger waiting shelter and depot.

Under Alternatives A and B (Figure 4-90), no permanent use would occur because the project would not include modifications to the Palo Alto SPRR Depot, which is outside the project footprint. However, both alternatives would feature upgrades to the existing Caltrain right-of-way and platforms adjacent to the depot to support blended service, which are within the historic property boundary. Track modifications in this location would include horizontal alignment changes of less than 1 foot on the existing track beds, and platform modifications would include upgrading the tactile strips and/or other minor platform safety improvements.

Project features will minimize the potential for inadvertent damage to the resource during construction. The contractor will prepare a pre-construction conditions assessment of the Palo Alto SPRR Depot and based on the condition of the structure, the contractor will develop a plan for its protection. These measures will be in place prior to any construction activities (CUL-IAMF#6). Construction staff will be alerted of the need to avoid affecting this built resource in the reports completed for CUL-IAMF#6, and will be tasked to maintain protective measures throughout construction (CUL-IAMF#2). An architectural historian will monitor the efficacy of the protective measures, as defined in the protection plan. Should any inadvertent damage occur during construction, the architectural historian, and if needed a structural engineer, will assess the damage and determine the best approach to repair the depot, following the SOI's Standards for the Treatment of Historic Properties and in consultation with the Authority and the SHPO (CUL-IAMF#6). The contractor will prepare a BEMP prior to construction to detail the monitoring methods and process required for ground-disturbing activities within 1,000 feet of the property (CUL-IAMF#7). The contractor will put protective measures in place prior to construction (CUL-IAMF#8).

Under Alternatives A and B, no modification to the Palo Alto SPRR Depot would be undertaken and none of the depot's character-defining features would be altered. While changes would be made to the existing at-grade Caltrain tracks and platforms adjacent to the depot, these modifications would not meaningfully alter the setting. This change would not undermine the resource's integrity of feeling or association as a train depot, nor would this prevent the resource from conveying its significance. Operations would increase the number of trains operating in the corridor and frequency of horn noise. As a railroad station, a quiet setting is not a character-defining feature or an important aspect of integrity of the Palo Alto SPRR Depot. No historic properties were identified as being vulnerable to vibration, including the historic station, nor would the project alternatives result in building damage because the vibration levels would not approach damage thresholds (Volume 2, Appendix 3.4-A). More trains operating in the corridor would be consistent with the historic setting of the Palo Alto SPRR Depot. As a result, Alternatives A and B would not result in a constructive use of the Palo Alto SPRR Depot.

The Authority has made a finding of no adverse effect on this resource for the project alternatives. According to FRA regulations at 23 C.F.R. § 774.13(a)(2), Section 4(f) does not apply to certain improvements of railroad or rail transit lines that are in use or were historically used for the transportation of goods or passengers, including, but not limited to, maintenance, preservation, rehabilitation, operation, modernization, reconstruction, and replacement of railroad or rail transit line elements. In addition, under 23 C.F.R. § 774.13(a)(3), Section 4(f) does not apply to work such as maintenance, rehabilitation, operation, modernization, reconstruction, or replacement of a historic transportation facility where the Authority finds that the work would not adversely affect the historic qualities for which the property is NRHP eligible or listed and the OWJ has not objected to this finding. For the reasons described above, the TCE and track modifications would meet the criteria for exceptions in 23 C.F.R. § 774.13(a)(2–3) and would not constitute a use within the meaning of Section 4(f).

4.6.2.19 University Avenue Underpass Use Assessment (ID#32)

The underpass is eligible for the NRHP under Criterion C as an important early example of the use of Modern design for underpasses. It also is significant at the local level under NRHP Criterion A for its association with transportation in Palo Alto, specifically for providing a grade-separated link between Palo Alto and Stanford University, and for stimulating local development. The character-defining features of the University Avenue underpass are that it carries both vehicular and rail traffic; its size and massing; location; reinforced-concrete and steel construction; concrete deck slabs supported by a central pier; row of bevel-cut openings in central pier and piers separating the roadway and walkway; “1940” imprinted in the center pier; concrete abutments described as “double deck cellular;” pedestrian undercrossings and ramps; asymmetrical cloverleaf roadway approaches; four landscaped islands created by cloverleaf approaches; retaining walls; square steel pipe railings at sidewalks and roadways; University Avenue median; three light standards on University Avenue, two on the southwest side of the underpass and one on the northeast side; and ten light standards along the cloverleaf approach roads, six on the southwest side and four on the northeast side. The modern dual-fixture lights at the sidewalks nearest the railroad are not character defining. The boundary of this historic property is defined by the footprint of the engineered structure and includes all of the character-defining features. The outer limits of the boundary are the edges of the cloverleaf roadway approaches at the southwest and northeast, and the edges of the approaches to the pedestrian ramps at the northwest and southeast.

Under Alternatives A and B (Figure 4-91), no permanent or temporary construction use would occur because the HSR system would not modify rail on the University Avenue underpass. Track modifications would include a change in horizontal alignment of less than 1 foot north and south of the underpass.

Project features will minimize the potential for inadvertent damage to the resource during construction. Construction staff will be alerted of the need to avoid affecting this built resource in the reports completed for CUL-IAMF#6, and will be tasked to maintain protective measures throughout construction (CUL-IAMF#2). Should any inadvertent damage occur during construction, an architectural historian, and if needed a structural engineer, will assess the damage and determine the best approach to repair the underpass, following the SOI’s Standards for the Treatment of Historic Properties and in consultation with the Authority and the SHPO (CUL-IAMF#6).

Under Alternatives A and B, no modification to the University Avenue underpass would be undertaken and the structure’s character-defining features would be not be altered. While no track modifications are proposed for the segment of rail on the underpass, changes would be made to the existing at-grade Caltrain tracks north and south of the underpass. However, these changes would not meaningfully alter the tunnel’s setting, would not undermine the resource’s integrity of feeling or association as a rail tunnel, and would not prevent the resource from conveying its significance. Operations would increase the number of trains operating in the corridor and the frequency of horn noise. However, the underpass would not be affected by noise or visual impacts and it was not identified as being vulnerable to vibration impacts from construction or operation. As a result, Alternatives A and B would not result in a Section 4(f) use of the University Avenue underpass.

The Authority has made a finding of no adverse effect on this resource for the project alternatives. Because the project alternatives would have no adverse effect on the University Avenue underpass and would not permanently incorporate land from or temporarily occupy the historic property, the Authority has made a finding of no use for this resource.

4.6.2.20 Embarcadero Underpass Use Assessment (ID#35)

Completed in 1936, the underpass is eligible for the NRHP at the local level under NRHP Criterion A for its association with transportation in Palo Alto, specifically for providing a grade-separated connection between Palo Alto and Stanford University, and stimulating local development. Key elements of this underpass structure include its size and massing; location;

reinforced-concrete and steel construction; pedestrian undercrossings and ramps; and its Moderne-style features and decoration (e.g., fluted pilasters; balustrade; lampposts on pedestals; and articulated panels and moldings). The boundary of the property is the engineered structure's footprint, inclusive of all character-defining features.

Under Alternatives A and B (Figure 4-92), no permanent or temporary construction use would occur because there would be no track modifications altering the horizontal alignment of the existing right-of-way in this location. Both alternatives would include introduction of a communication radio tower approximately 72 feet northwest of the underpass in an existing parking lot.

Under Alternatives A and B, no modification to the Embarcadero underpass would be undertaken and none of the structure's character-defining features would be altered. Operations would increase the number of trains operating in the corridor and the frequency of horn noise. However, the underpass would not be affected by noise or visual impacts and it was not identified as being vulnerable to vibration impacts from construction or operation. As a result, Alternatives A and B would not result in a Section 4(f) use of the Embarcadero underpass.

The Authority has made a finding of no adverse effect on this resource for the project alternatives. Because the project alternatives would have no adverse effect on the Embarcadero underpass and would not permanently incorporate land from or temporarily occupy the historic property, the Authority has made a finding of no use for this resource.

4.6.2.21 Tract 795, Charleston Meadows Use Assessment (ID#37)

Tract 795, commonly known as Charleston Meadows, in Palo Alto is a 20-acre residential subdivision comprised of 96 parcels. Most of the subdivision parcels are outside the APE and the present study evaluated three residences on Park Boulevard at the northeastern boundary of the subdivision within the APE—4133 Park Boulevard (ID#37a), 4118 Park Boulevard (ID#37b), and 4126 Park Boulevard (ID#37c). These parcels were included in the APE to facilitate consideration of potential impacts on setting or visual impacts given the proposed project would include construction of an approximately 100-foot-high radio tower. Evaluations of these properties concluded the houses would be contributors to a historic district if Charleston Meadows were studied in its entirety and found to be eligible. The historic boundary is comprised of 96 mostly rectangular parcels that range in size between 0.136 and 0.26 acre within the tract, composed of properties on Tennessee Lane, Carolina Lane, Park Boulevard, and Wilkie Way, north of West Charleston Road and west of the existing rail right-of-way. For the three contributing properties, the historic boundaries are the property boundaries of the legal parcels that encompass all their character-defining features.

Under Alternatives A and B (Figure 4-93) the existing rail right-of-way is at grade adjacent to the northeast boundary of the district and adjacent to the northeast boundary of 4133 Park Boulevard. Alternatives A and B would be utilized to accommodate HSR service, but would not include track modifications near the historic property. The rail right-of-way would be outside the potential historic district boundary, and outside the boundaries of 4133 Park Boulevard, 4118 Park Boulevard, and 4126 Park Boulevard. Radio tower #8A alternative site 1 would be on the east side of the existing rail right-of-way, approximately 80 feet east of the district's easternmost boundary, and approximately 230 feet southeast of the eastern side of 4133 Park Boulevard, 380 feet southeast of the eastern side of 4118 Park Boulevard, and 360 feet southeast of the eastern side of 4126 Park Boulevard. Radio tower #8A alternative site 2 would be outside the potential historic district boundary in the residential parcel adjacent to the northernmost corner of the historic district, adjacent to the northwest side of 4133 Park Boulevard, 155 feet northeast of 4118 Park Boulevard, and 176 feet northeast of 4126 Park Boulevard. Alternatives A and B would also include installation of a new four-quadrant gate within the existing rail right-of-way at Charleston Road, adjacent to the southeast corner of the district and approximately 647 feet southeast of 4133 Park Boulevard, 684 feet southeast of 4118 Park Boulevard, and 632 feet southeast of 4126 Park Boulevard.

Under Alternatives A and B (Figure 4-93), no permanent or temporary construction use would occur because the tracks would not be modified in this location and there would be no permanent incorporation of land or temporary occupancy within the boundaries of the potential historic district. Both alternatives would include introduction of a radio tower outside of but adjacent to the historic district boundary and a four-quadrant gate at Charleston Road also outside of but adjacent to the potential historic district boundary.

The project would not alter contributing components of Tract 795, including contributing properties 4133 Park Boulevard, 4118 Park Boulevard, and 4126 Park Boulevard. Introduction of a radio tower and four-quadrant gate would not alter any contributing components or the setting of the district. As described in Section 3.16, no historic properties were identified as noise or vibration sensitive. While the proposed project would increase the number of trains operating in the corridor and the frequency of horn noise, because the district is considered eligible under Criterion A for architectural significance, increased noise levels would not alter the character-defining features that make this property eligible for listing in the NRHP. In addition, the vibration levels would not approach damage thresholds (Volume 2, Appendix 3.4-A). As a result, operational visual and noise impacts would not be of a severity that the protected activities, features, or attributes that qualify the Tract 795 or contributing properties 4133 Park Boulevard, 4118 Park Boulevard, and 4126 Park Boulevard for protection under Section 4(f) would be substantially impaired, and no constructive use would occur under Alternatives A and B.

The Authority has made a finding of no adverse effect on this resource for the project alternatives. Because the project alternatives would have no adverse effect on the Tract 795, including contributing properties 4133 Park Boulevard, 4118 Park Boulevard, and 4126 Park Boulevard, and would not permanently incorporate land from or temporarily occupy the resource, the Authority has made a finding of no use for this resource.

4.6.2.22 Santa Clara Railroad Historical Complex (Santa Clara Depot) Use Assessment (ID#0141)

The Santa Clara Railroad Historical Depot is individually listed in the NRHP; the larger complex was determined eligible for the NRHP. This resource is a combination of two neighboring parcels that includes the listed depot and three outbuildings not included in the NRHP nomination: the control tower (1926), the maintenance-of-way speeder shed (1926) and the maintenance-of-way section tool house (1895). The complex, which includes the listed depot, is eligible under NRHP Criterion A at the local level of significance for its association with the agricultural, industrial, educational, and commercial development of Santa Clara County. The complex is also eligible under NRHP Criterion C as one of the largest surviving wood-frame depots in California and one of few intact examples of board-and-batten depots. The three outbuildings have been reevaluated and found eligible for the NRHP with SHPO concurrence. The footprint of these three buildings and the footprint of the depot building compose the historic boundary of the Santa Clara Railroad Historical Complex.

Under Alternatives A and B (Viaduct to I-880) (Figure 4-94), no permanent use or temporary construction use would occur. Existing at-grade Caltrain tracks would be upgraded to accommodate blended Caltrain/HSR service. New UPRR and Caltrain tracks would be built just north of the HSR guideway, beginning near Benton Street to just past the Santa Clara Station. The existing UPRR tracks would be shifted to the north side of the HSR right-of-way. Existing at-grade railroad tracks are on the north side of the resource and the presence of at-grade railroad tracks adjacent to the complex is part of its historic setting. TCEs would be within the property boundary of the Santa Clara Depot and would surround the primary depot building and the control tower. However, the TCEs would be outside the historic boundary of the complex. The control tower, depot building and southbound platforms would be retained. However, as with any TCE, any activities in support of project construction would be allowed in areas designated as TCE, such as materials staging, operation of construction equipment, and installation of protective fencing. Construction activities within the boundaries of the TCE have the potential to result in inadvertent damage or demolition of the resource or its character-defining features.

Under Alternative B (Viaduct to Scott Boulevard) (Figure 4-94), new HSR tracks on a 35-foot viaduct with additional 27-foot OCS poles would be built in the current railroad right-of-way

passing adjacent to the Santa Clara Railroad Historical Complex, and would be north of the historic property boundary. The viaduct piers and their footings would be located to avoid the historic buildings in the station complex, but would require demolition and rebuilding of the northbound platform, which is not a contributing element of the resource. The new viaduct would be placed approximately 75 feet north of the primary depot building. Additionally, under Alternative B (Viaduct to Scott Boulevard), an existing fiber optic utility line east of the contributing speeder shed and tool house would be shifted west, to a location adjacent to the east façades of these two buildings. Relocation of this utility line would not involve physical change to the contributing buildings of the Santa Clara Railroad Historical Complex. A TCE would be located in the area around the three contributing outbuildings (the control tower, speeder shed, and tool house) and the primary depot building, but not within the historic property boundary. Any activities in support of construction of the project would be allowed in areas designated as TCE, including but not limited to materials staging, operation of construction equipment, and installation of protective fencing. Construction activities within the boundaries of the TCE have the potential to result in inadvertent damage to or demolition of the resource or its character-defining features.

Under both project alternatives, the contractor will prepare a pre-construction conditions assessment of the depot, tool house, speeder shed and control tower. Based on the condition of each of the buildings, the contractor will then develop a plan for their protection. These measures will be in place prior to any construction activities (CUL-IAMF#6). Construction staff will be alerted of the need to avoid affecting any of these built resources in the reports completed for CUL-IAMF#6, and will be tasked to maintain protective measures throughout construction (CUL-IAMF#2). An architectural historian will monitor the efficacy of the protective measures, as defined in the protection plan. Should any inadvertent damage occur during construction, the design-builder's qualified architectural historian, and if needed a structural engineer, will assess the damage and determine the best approach to repair the buildings, following the SOI's Standards for the Treatment of Historic Properties and in consultation with the Authority and the SHPO (CUL-IAMF#6). The contractor will prepare a BEMP prior to construction to detail the monitoring methods and process required for ground-disturbing activities within 1,000 feet of the property (CUL-IAMF#7). The contractor will put protective measures in place prior to the start of construction (CUL-IAMF#8). After construction is complete, the TCE area will be returned to its pre-construction condition.

Additionally, Alternative B (Viaduct to Scott Boulevard) would include pile driving within 50 feet of the historic resource, which has the potential to diminish those characteristics that qualify it for listing, such as roof shingles, siding, roof brackets and windows that could be damaged by vibration. Project features will be in place to help protect the resource from inadvertent damage to the characteristics that qualify it for listing in the NRHP: preparation of a pre-construction conditions assessment, plan for protection of historic built resources, and repair of inadvertent damage (CUL-IAMF#6), preparation of a BEMP (CUL-IAMF#7), and protection and/or stabilization measures (CUL-IAMF#8). Under Alternatives A and B (Viaduct to I-880), construction activities would not generate sufficient vibration to cause impacts on the historic resource.

Operations would increase the number of trains operating in the corridor and frequency of horn noise. Shifting the tracks under Alternatives A and B (Viaduct to I-880) would cause a limited permanent change to the setting of the resource, which would continue to include at-grade tracks to the north. The complex is currently near the existing UPRR and Caltrain right-of-way, so a quiet setting is not a character-defining feature of the property. As a result, operational visual and noise impacts would not substantially impair the protected activities, features, or attributes that qualify the resource for protection under Section 4(f) and there would be no Section 4(f) use of the Santa Clara Railroad Historical Complex under Alternatives A and B (Viaduct to I-880). The Authority has made a finding of no adverse effect on this resource for Alternatives A and B (Viaduct to I-880).

Alternative B (Viaduct to Scott Boulevard) would result in a change in the setting from a railroad complex with at-grade tracks to an elevated track structure above the existing complex that would visually overwhelm the modestly sized, one-story buildings that contribute to the significance of the Santa Clara Railroad Historical Complex. While Alternative B (Viaduct to Scott Boulevard) would not alter characteristics of the historic buildings that qualify the Santa Clara Railroad Historical Complex for inclusion in the NRHP, the effects would impair the historic setting and

feeling such that the Viaduct to Scott Boulevard option would have an adverse effect. The Authority has made a finding of adverse effect for this resource for Alternative B (Viaduct to Scott Boulevard) because of impairment of its integrity of setting and feeling.

The permanent changes to the Santa Clara Railroad Historical Complex would not be of a severity that the protected activities, features, or attributes that qualify the resource for protection under Section 4(f) would be substantially impaired, and thus would not result in a constructive use. For historic properties, a constructive use would occur when the integrity of the historic property is compromised to such a degree that it would be difficult or impossible to understand its historical significance. As a general matter, a Section 4(f) constructive use means that the value of the resource will be meaningfully reduced or lost, whereas under NEPA and Section 106 a historic property can be adversely affected if there is a reduction in its ability to convey its historical significance, even if the impairment is not substantial and it would not lose its eligibility for listing in the NRHP. Although Alternative B (Viaduct to Scott Boulevard) would have an adverse effect on the Santa Clara Railroad Historical Complex due to some changes to the visual and auditory setting and demolition of a platform that is not a character-defining feature, the Authority has made a finding of no constructive use for this resource because the project alternative would not substantially impair the attributes that qualify the resource for listing, nor cause substantial impairment to the resource that would affect its historic use as a transportation facility. Despite the changes to the setting, the resource would still remain eligible for the NRHP, and the protected activities, features, and attributes of the resource would still easily convey the station's historic significance. For these reasons, the Authority has made a finding of no use for this resource under Alternative B (Viaduct to Scott Boulevard), because there would be no permanent incorporation of land from, temporary occupancy of, or constructive use of the resource.

4.6.2.23 Southern Pacific Railroad Depot/Diridon Station, Hiram Cahill Depot Use Assessment (ID#0497)

The SPRR Depot District is a multiple-component property listed in the NRHP. The district is significant under NRHP Criterion C as a property that fully expresses the Italian Renaissance Revival style. Within the historic boundary, the 1992 nomination documented a total of 10 contributing buildings and structures. Three structures have been demolished since the NRHP nomination in 1992: the water tower, herder's shack and compressor house. The contributing resources to the district that are extant are the Diridon Station depot building, car cleaner's shack, the iron fence, Santa Clara underpass, two butterfly sheds, and the train tracks. Both project alternatives (Figure 4-95) would result in adverse effects on the property under Section 106 because components of the historic property would be demolished, a use under Section 4(f).

Under Alternative A, HSR tracks would be blended with Caltrain tracks at grade in the approach to the SPRR Depot. 27-foot-tall OCS poles would be installed within the Caltrain and HSR right-of-way. The new HSR right-of-way would employ the existing rail overpass that crosses West Santa Clara Street, which is a character-defining feature of the historic resource. However, the existing rail tracks within the yard of the station and area where running lines divide into platform tracks would be reconfigured. HSR trains would use the two center platforms of the station, which would be extended to the south to reach a length of between 1,390 and 1,470 feet. Under Alternative A, a new HSR station facility would be built west of the existing historic depot building. The HSR station facility would have a smaller footprint than the facility proposed under Alternative B, and would allow a greater distance between its volume and the rear of historic depot building; under Alternative A, the buildings would not directly abut one another. The new HSR station facility would wrap around the north and south ends of the historic depot building, and the south wing would require the demolition of the car cleaner's shack. The footprint of the new HSR station would also overlap the locations of a portion of the iron fence north of the primary depot building. The existing pedestrian concourse crossing underneath the tracks, which is a character-defining feature of the resource, would be abandoned under Alternative A but would remain in place. The proposed station facility would additionally involve a raised concourse to provide access to the HSR platforms, and vertical circulation paths would require the butterfly sheds at the station platforms to be removed. This alternative would also relocate the current automobile parking lots and transit station north of the SPRR Depot; the transit station would be placed along Cahill,

Crandall, and Stover Streets. The DDV would remove up to 7 feet and add up to 10 feet of infill to the platforms between tracks 6 and 7 and between tracks 8 and 9 in a 117-foot section on the north end of the station to accommodate track shifts. The DDV would add up to 4 feet of infill to the platforms between tracks 6 and 7 and between tracks 8 and 9 in a 92-foot section on the south end of the station to accommodate track shifts. These platforms are not historic elements of the Diridon Station. The DDV would also add 2 feet of infill on the west side of the platform between tracks 4 and 5, which is not a historic feature. These track shifts and platform modifications with the DDV would not affect the character-defining features of the historic Diridon Station. The butterfly shelter over the platform is a contributing historic feature and would be removed under Alternative A with or without the DDV.

Under Alternative B, aerial platforms would be elevated to approximately 65 feet and serviced by a four-track aerial station facility with elevated mezzanine-level concourse and two 30-foot-wide, 1,410-foot-long dedicated HSR platforms constructed above the existing Caltrain tracks and platforms. The new HSR station facility would include modern multistory structures built to the north, south, and west of the existing Diridon Station/Hiram Cahill Depot, and would be immediately adjacent to the west façade of the SPRR Depot. In addition, while the depot building itself would not be altered, construction of the new HSR station service building would require the demolition of contributors to the historic property, such as the wall and fence system, iron gate with square classical posts and curvilinear details on the north side of the depot, existing train tracks, and car cleaner's shack.

Under both alternatives, while design of the HSR station building proposes reuse of the existing Diridon Station/Hiram Cahill Depot, it does not provide details about how the station would be reused, which character-defining features would be retained or lost, what efforts would be undertaken to comply with the SOI's Standards for Rehabilitation, or what design guidelines would be employed so that new construction would be compatible with the character of the existing depot building. However, CUL-MM#10: Station Design Consistent with the SOI's Standards for the Treatment of Historic Properties, will be implemented at this resource. The Authority will issue requests for qualifications to receive statements of qualifications from qualified firms (contractor) for station designs and related services. Such firms will be contracted to provide professional consultant and design services for all design stages through final design. Selected firms will be responsible for making their designs context sensitive and meeting the SOI's Standards for the Treatment of Historic Properties. The Authority will require the contractor to provide three schemes for Authority review, including an evaluation of each scheme. The deliverables will also include drawings, such as plans, elevations, and renderings. The contractor will be required to include in each evaluation a historic property design compatibility report prepared by a qualified architectural historian describing how the scheme is consistent with the SOI's Standards for Rehabilitation for infill designs or additions, and if any restoration or rehabilitation would be required of the historic buildings and structures and how such restoration is consistent with the SOI's Standards for Restoration. The report will be reviewed and commented upon by the Authority's professionally qualified staff and may require revision prior to transmitting it to the SHPO and other MOA signatories and consulting parties, as specified in the MOA and BETP.

Under both alternatives, the project includes features to avoid inadvertent damage and demolition of two of the contributing resources: the depot building and the Santa Clara underpass. The contractor will prepare a pre-construction conditions assessment of these resources, and, based on the condition of each of the contributing features, develop a plan for their protection; protective measures will be in place prior to any construction activities (CUL-IAMF#6). Construction staff will be informed of the need to avoid affecting any of these built resources, as well as tasked to maintain protective measures throughout construction (CUL-IAMF#2). An architectural historian will monitor the efficacy of the protective measures, as defined in the protection plan. Should any inadvertent damage occur during construction, the design-builder's qualified architectural historian and, if needed, a structural engineer, will assess the damage and determine the best approach to repair the buildings, following the SOI's Standards for the Treatment of Historic Properties and in consultation with the Authority and the SHPO (CUL-IAMF#6). The contractor will prepare a BEMP prior to construction to detail the monitoring methods and process required

for ground-disturbing activities within 1,000 feet of the property (CUL-IAMF#7). The contractor will put protective measures in place prior to the start of construction (CUL-IAMF#8). After construction is complete, TCEs will be returned to their pre-construction condition.

Additionally, Alternative B would include pile driving within 50 feet of the historical resource, which has the potential to diminish those characteristics that qualify it for listing. The following project features will be incorporated for this resource: preparation of a pre-construction conditions assessment, plan for protection of historic built resources, and repair of inadvertent damage (CUL-IAMF#6), preparation of a BEMP (CUL-IAMF#7), and protection and/or stabilization measures (CUL-IAMF#8).

The Authority has made a finding of adverse effect for this resource for Alternatives A and B.

Both project alternatives require construction of a modern multistory station infrastructure north and west of the existing Diridon Station/Hiram Cahill Depot, resulting in the demolition or destruction of character-defining features during construction. Thus, Alternatives A and B would result in a Section 4(f) use.

4.6.2.24 Sunlite Baking Company Use Assessment (ID#0522)

The Sunlite Baking Company is a one-story building eligible for listing under NRHP Criterion C as a distinctive example of the Art Moderne architectural style interpreted for an industrial production facility. The historic property boundary is the footprint of the building on the parcel. The building's irregular plan is composed of the original (northeast) volume, built in 1936 as an industrial-scale bakery, appended to a series of additions. The central feature is a stepped Streamline Moderne-style entrance that rises slightly above the roofline and contains a recessed entry, made of a steel pedestrian door underneath a projecting canopy. The architectural features that directly convey the building's architectural style remain largely intact such that it continues to convey its significance under Criterion C.

Under Alternative A (Figure 4-96), no permanent use or temporary occupancy would occur. The parcel containing the resource would be in an area temporarily designated for construction access during implementation of the project, although no property acquisition would occur, and the resource would not physically be used for access or otherwise temporarily used during construction. All work would be outside the historic property boundary, which is the footprint of the building. The HSR right-of-way would be blended with the Caltrain tracks in the existing Caltrain right-of-way, which lies approximately 50 feet from the rear façade of the Sunlite Baking Company. New 27-foot-tall OCS poles would be installed within the Caltrain and HSR rights-of-way. Under Alternative A, Cahill Street would not be extended south beyond Otterson Street. Additionally, telecommunication utilities would be relocated within the South Montgomery Street right-of-way, which leads east of the Sunlite Baking Company. The utility relocation would occur approximately 50 feet from the primary façade of the resource.

Operations would increase the number of trains operating in the corridor and frequency of horn noise. Additional trains operating in the corridor would be similar to the existing visual environment. The baking company is currently near to the Caltrain right-of-way, so a quiet setting is not a character-defining feature or an important aspect of integrity of the historic property. Accordingly, operational visual and noise impacts would not substantially impair the protected activities, features, or attributes that qualify the resource for protection under Section 4(f), and no constructive use would occur under Alternative A.

Alternative A would not materially impair the resource and its setting such that the significance of the resource would be substantially changed. The Authority has made a finding of no adverse effect for this resource for Alternative A. Because Alternative A would have no adverse effect on the Sunlite Baking Company and would not permanently incorporate or temporarily occupy the historic property, the Authority has made an impact finding of no use for this resource.

Alternative B (Figure 4-96) would result in adverse effects on the property under Section 106 because the Sunlite Baking Company would be demolished. A portion of the resource is in the path of the new HSR right-of-way, with track on viaduct, and a new permanent roadway right-of-

way with bike lane. A new HSR station parking lot would be built on the western half of the parcel, with drop-off and pick-up areas in the center of the parcel. These changes would expand the existing Caltrain right-of-way to the west.

The Authority has made a finding of adverse effect for this resource for Alternative B. Because the Sunlite Baking Company would be demolished and permanently incorporated into the project footprint, resulting in the alteration of its physical characteristics such that the qualities that qualify it for listing in the NRHP would be destroyed, Alternative B would result in a Section 4(f) use.

4.6.2.25 415 Illinois Avenue (ID#0585)

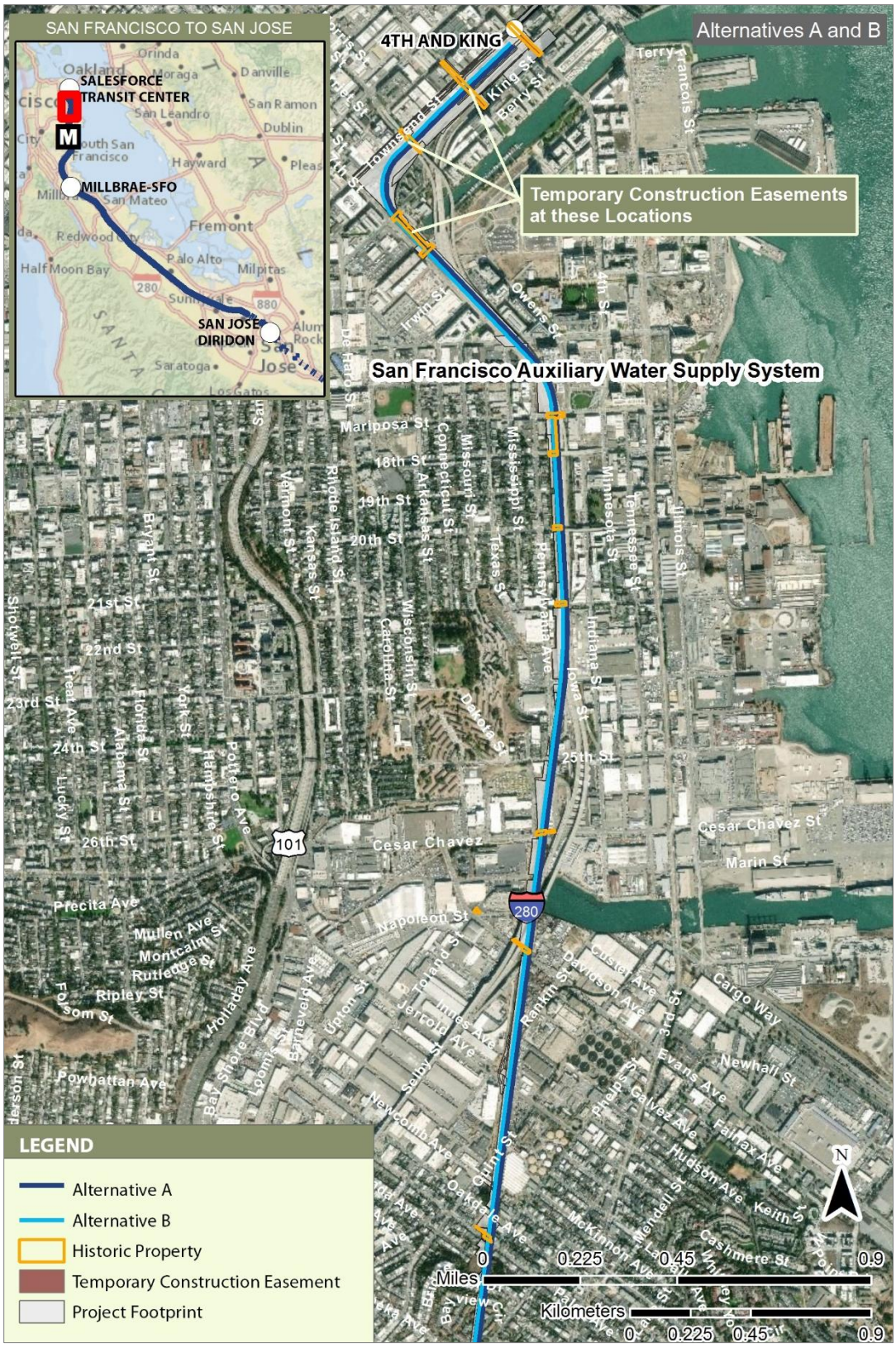
415 Illinois Avenue is a small, one-story residential building that is a good example of a turn-of-the-century worker's cottage in San Jose. The property is individually eligible for listing in the NRHP under Criterion C. The period of significance for 415 Illinois Avenue is 1899 to 1950, the era in which the residence was built and used as a worker's cottage. The historic property boundary is the footprint of the worker's cottage building (on APN 26419038). Alternative A is approximately 776 feet from the resource; therefore, it Alternative A is only discussed in Table 4-9.

Alternative B (Figure 4-97) would result in adverse effects on the property under Section 106 because the project would demolish the resource and construct an automatic train control (ATC) site within the parcel that currently contains the resource. Additionally, an approximately 70-foot-tall HSR viaduct would be built that crosses the southern corner of the parcel. The viaduct would be outside the historic property boundary, which is the footprint of the building. However, a mitigation measure (CUL-MM#11: Relocate Automatic Train Control Site to Avoid Demolition of 415 Illinois Avenue) has been designed to avoid demolition of the resource during construction. The ATC site will be relocated on a nearby parcel within the footprint of Alternative B, such that demolition of the resource will no longer be necessary.

With this mitigation measure, proximity impacts on the resource associated with HSR operations would be vibration-related damage to the characteristics that qualify 415 Illinois Avenue for listing in the NRHP, increased noise, and changed visual environment. In order to protect the physical characteristics of 415 Illinois Avenue from vibration impacts during HSR construction, CUL-MM#11 will also require the incorporation of the following project features: preparation of a pre-construction conditions assessment, plan for protection of historic built resources, and repair of inadvertent damage (CUL-IAMF#6); preparation of a BEMP (CUL-IAMF#7); and protection and/or stabilization measures (CUL-IAMF#8). With CUL-MM#11 and project design features, vibration would not diminish the physical characteristics of the resource such that it no longer qualifies for listing in the NRHP. Since the resource is currently near the Caltrain right-of-way, it is anticipated that increased noise and changes to the visual environment resulting from HSR operations would have a limited effect on the protected activities of the resource.

The permanent changes to the setting of 415 Illinois Avenue would not be of a severity that the protected activities, features, or attributes that qualify the resource for protection under Section 4(f) would be substantially impaired, and thus would not result in a constructive use. For historic properties, a constructive use would occur when the integrity of the historic property is compromised to such a degree that it would be difficult or impossible to understand its historical significance. As a general matter, a Section 4(f) constructive use means that the value of the resource would be meaningfully reduced or lost, whereas under NEPA and Section 106 a historic property can be adversely affected if there is a reduction in its ability to convey its historical significance, even if the impairment is not substantial and it would not lose its eligibility for listing in the NRHP. Accordingly, operational vibration, noise, and visual impacts would not be of a severity that the protected activities, features, or attributes that qualify the resource for protection under Section 4(f) would be substantially impaired, and no constructive use would occur under Alternative B.

The Authority has made a finding of adverse effect for this resource for Alternative B. Although 415 Illinois Avenue would be demolished and permanently incorporated into the project footprint before mitigation, CUL-MM#11 will prevent its demolition. Therefore, Alternative B would not alter its physical characteristics such that the qualities that qualify it for listing in the NRHP would be destroyed, so Alternative B would result in no Section 4(f) use.

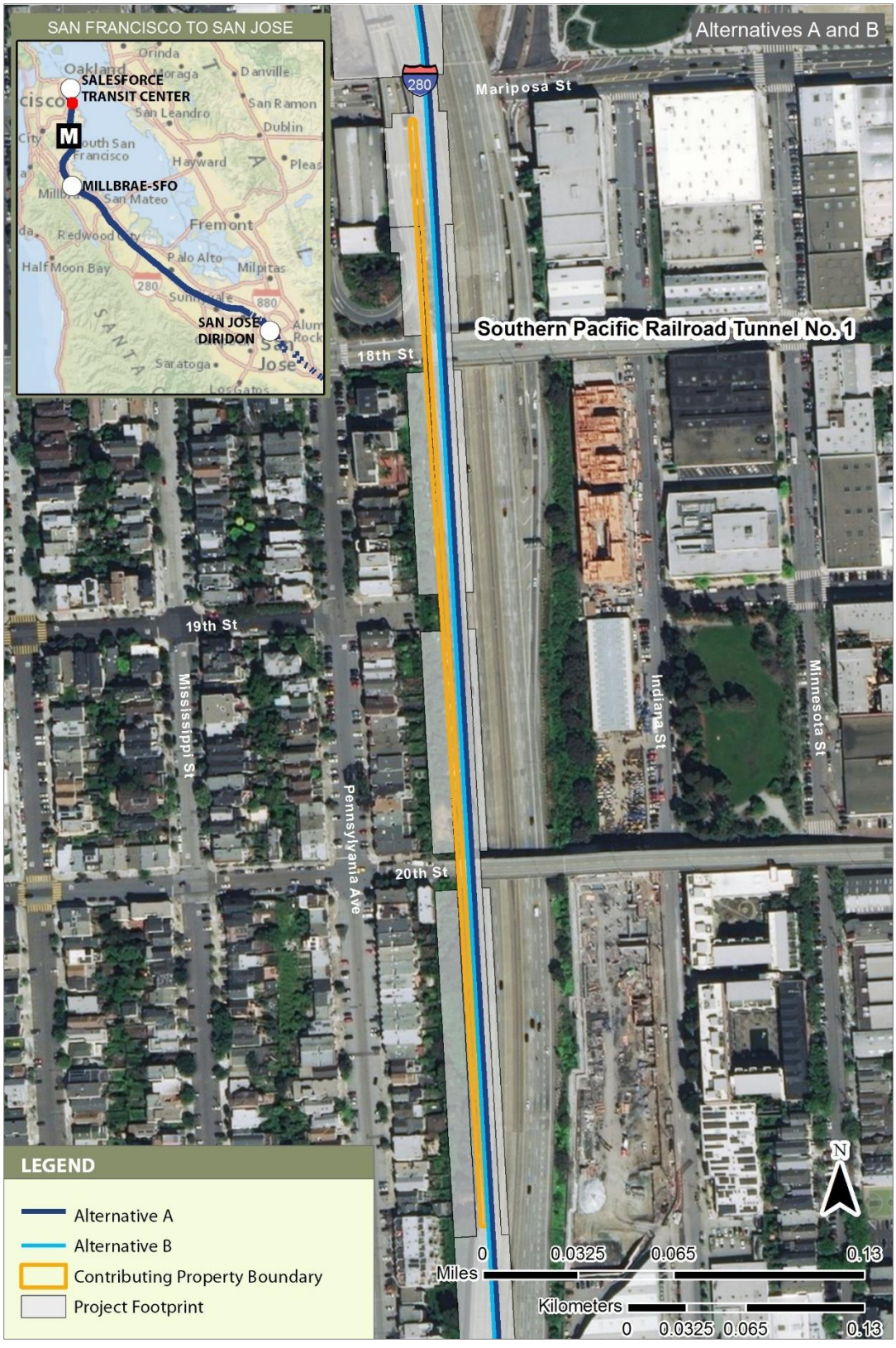


Sources: Authority 2019a, 2019c JUNE 2019

Figure 4-72 San Francisco Auxiliary Water Supply System

Sources: Authority 2019a, 2019c JUNE 2019

Figure 4-73 Central Waterfront Historic District



Sources: Authority 2019a, 2019c JUNE 2019

Figure 4-74a Central Waterfront Historic District, Southern Pacific Railroad Tunnel No. 1

Sources: Authority 2019a, 2019c JUNE 2019

Figure 4-74b Central Waterfront Historic District, Southern Pacific Railroad Tunnel No. 2

Sources: Authority 2019a, 2019c JUNE 2019

Figure 4-75 Southern Pacific Railroad Tunnel No. 3

Sources: Authority 2019a, 2019c JUNE 2019

Figure 4-76 Southern Pacific Railroad Tunnel No. 4

Sources: Authority 2019a, 2019c

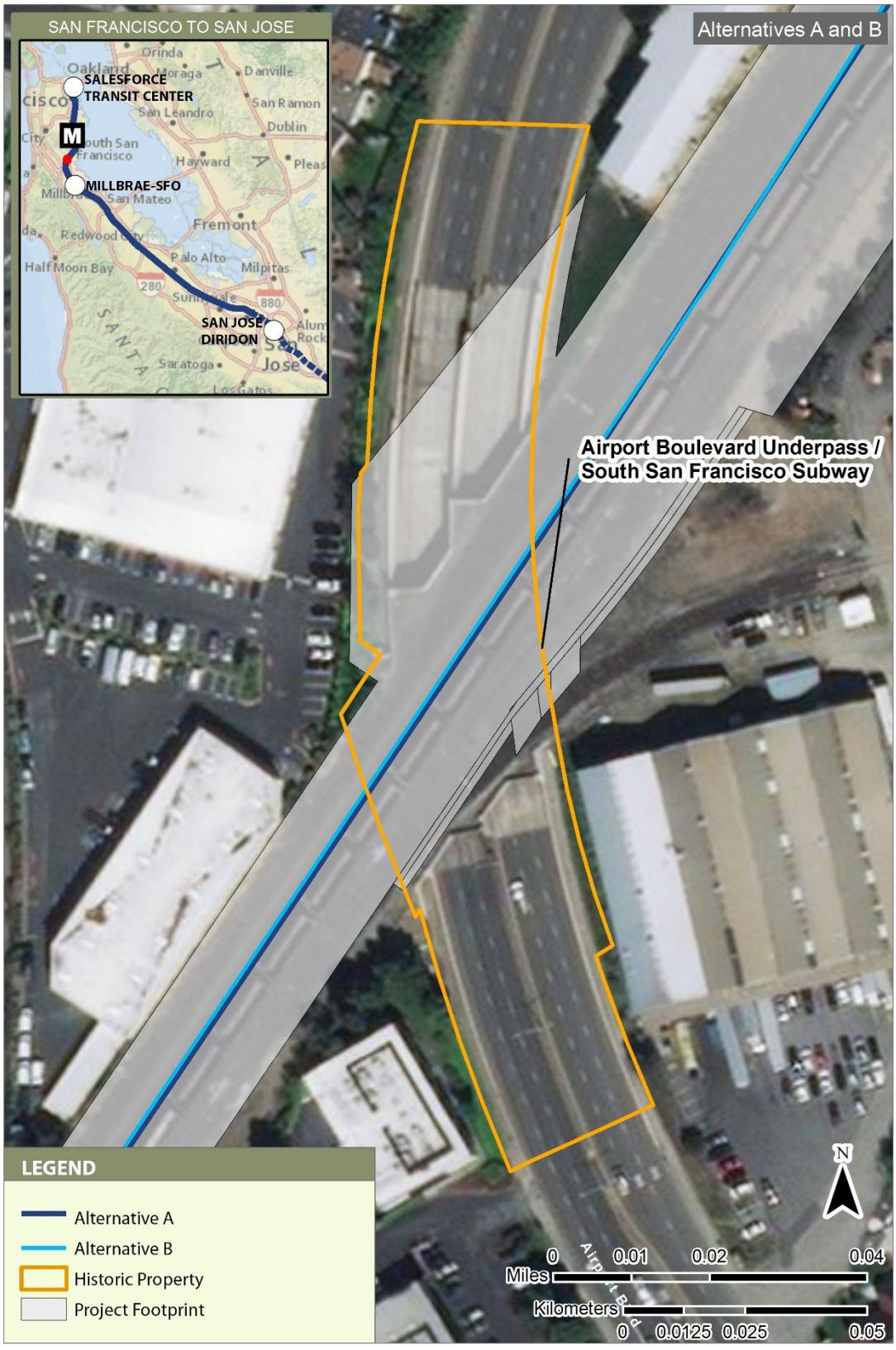
MARCH 2020

Figure 4-77a Southern Pacific Railroad Bayshore Roundhouse

Sources: Authority 2019a, 2019c

MARCH 2020

Figure 4-77b Southern Pacific Railroad Bayshore Roundhouse

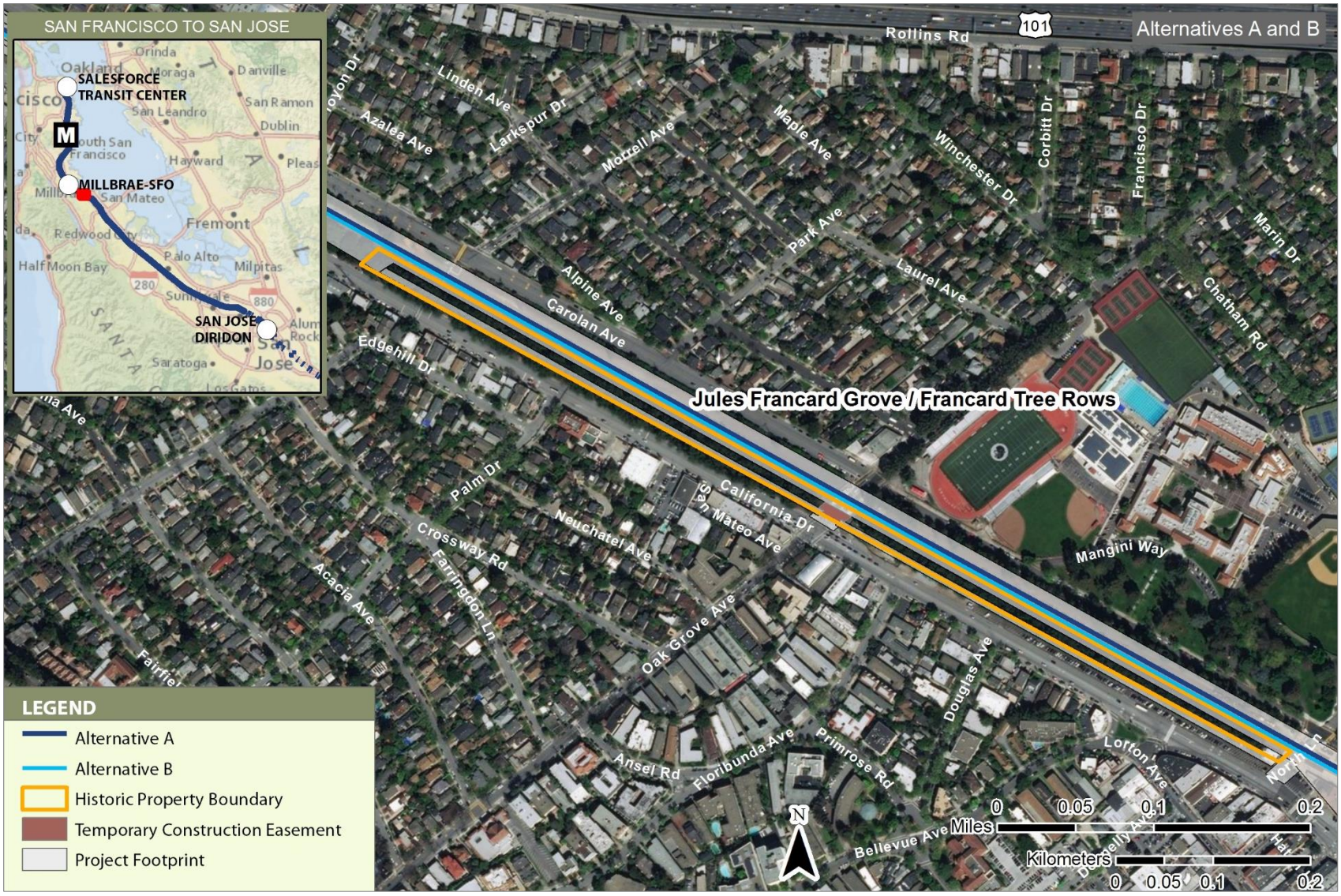


Sources: Authority 2019a, 2019c MARCH 2020

Figure 4-78 Airport Boulevard Underpass/South San Francisco Subway

Sources: Authority 2019a, 2019c MARCH 2020

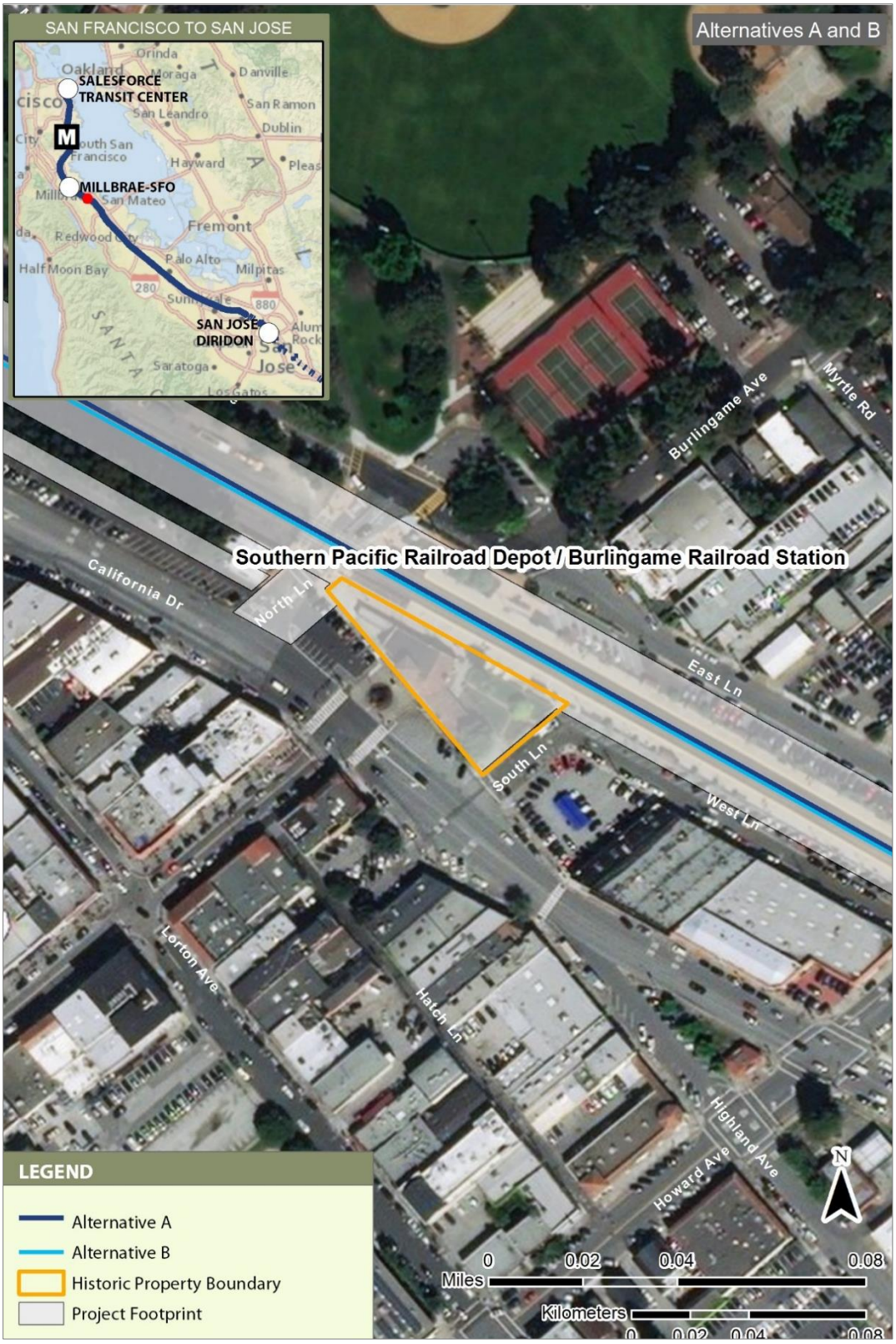
Figure 4-79 Southern Pacific Railroad Depot/Millbrae Station



Sources: Authority 2019a, 2019c

JUNE 2019

Figure 4-80 Jules Francard Grove/Francard Tree Rows



Sources: Authority 2019a, 2019c JUNE 2019
No activities would occur within the historic property boundary of the SPRR Depot.

Figure 4-81 Southern Pacific Railroad Depot/Burlingame Railroad Station

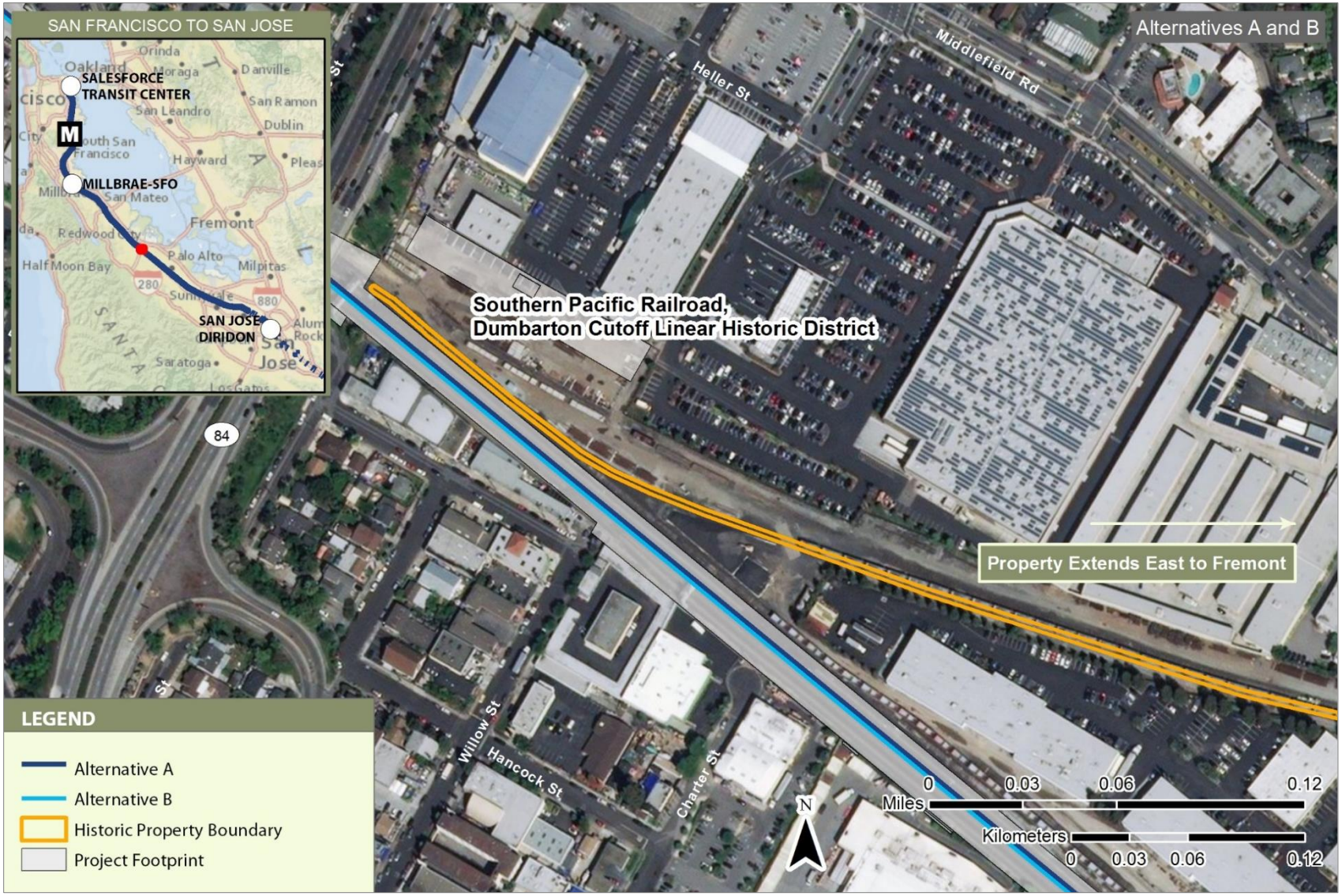
Sources: Authority 2019a, 2019c APRIL 2020

Figure 4-82a Southern Pacific Railroad Depot/San Carlos Station

Sources: Authority 2019a, 2019c

APRIL 2020

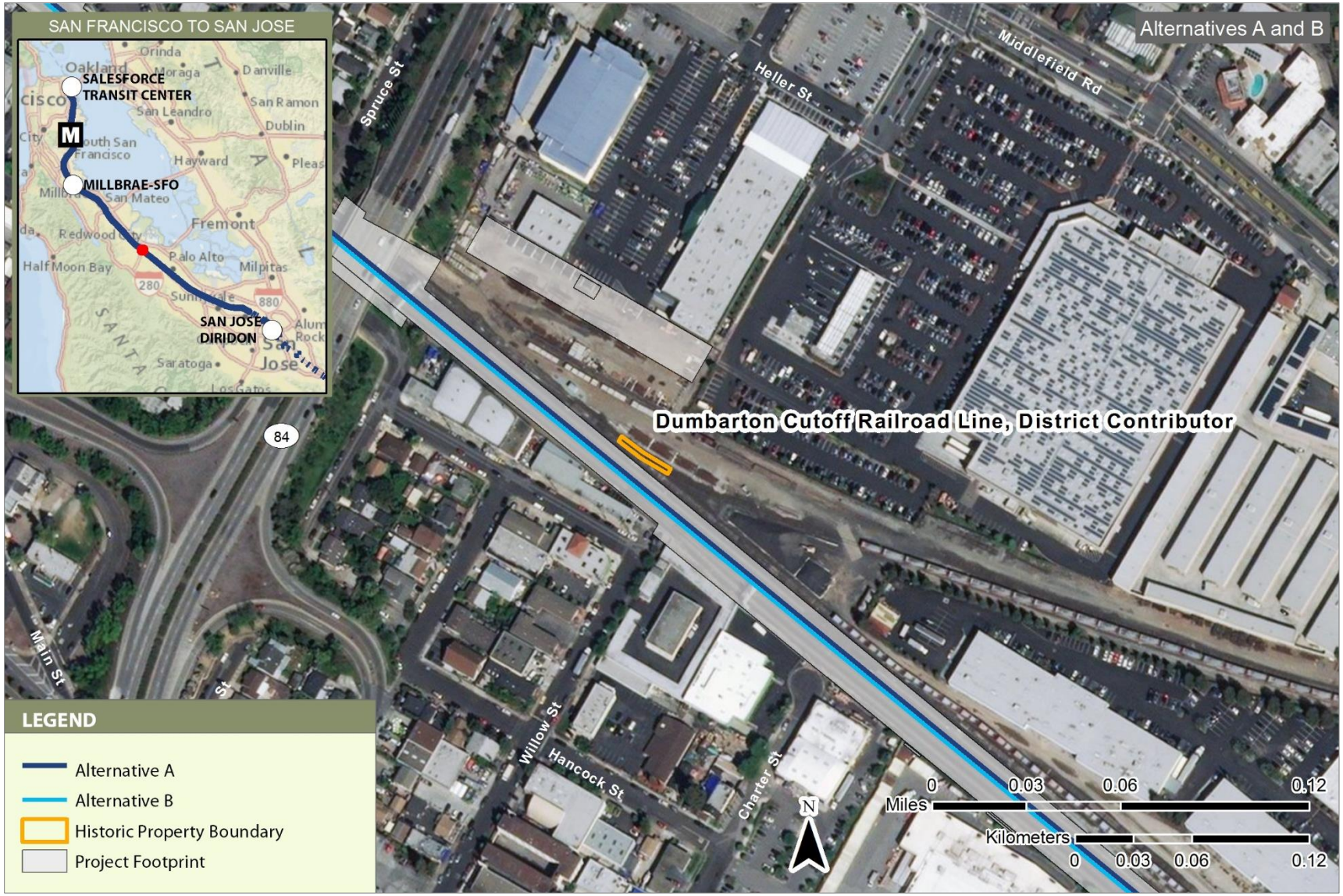
Figure 4-82b Southern Pacific Railroad Depot/San Carlos Station



Sources: Authority 2019a, 2019c

JUNE 2019

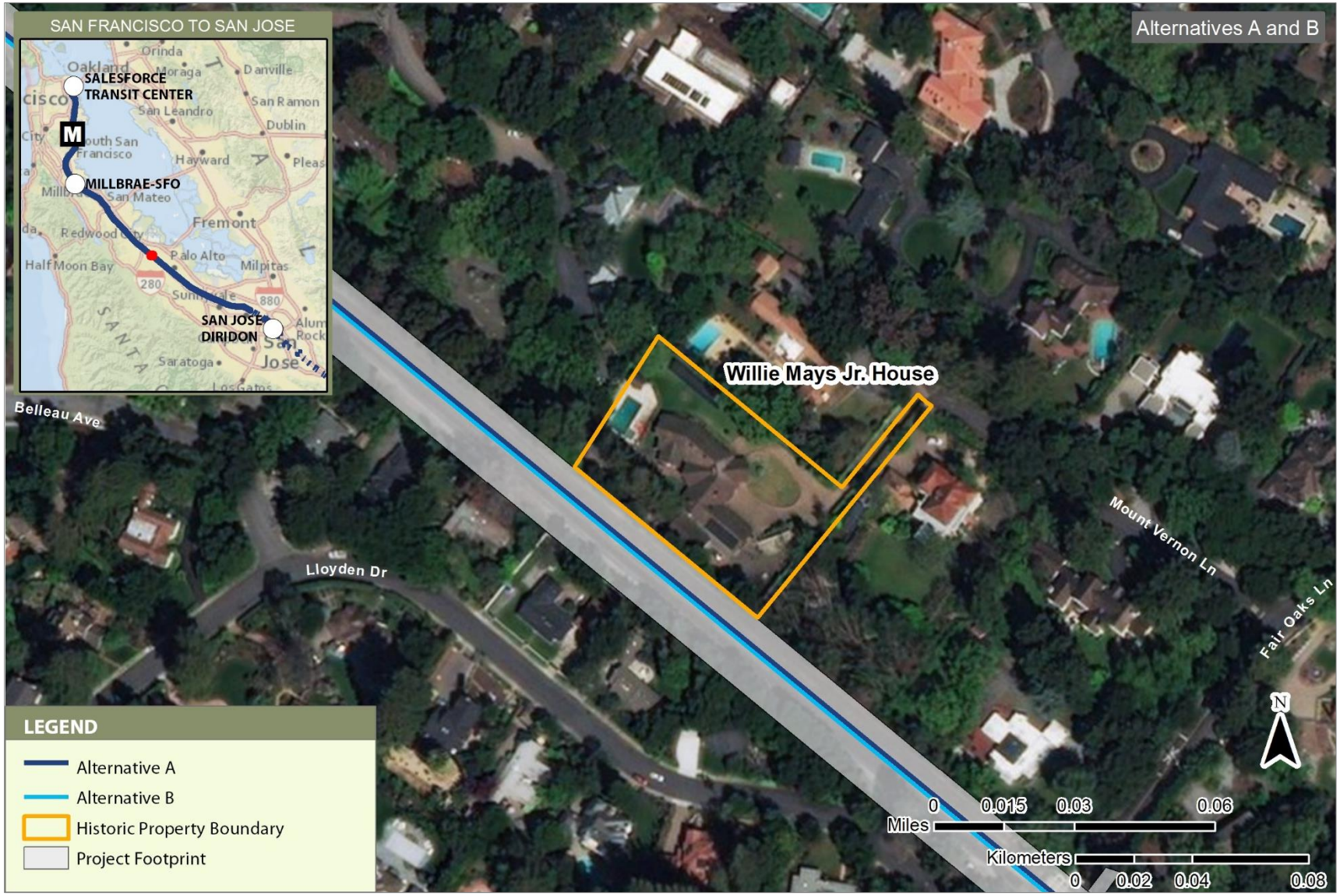
Figure 4-83a Southern Pacific Railroad Dumbarton Cutoff Linear Historic District



Sources: Authority 2019a, 2019c

JUNE 2019

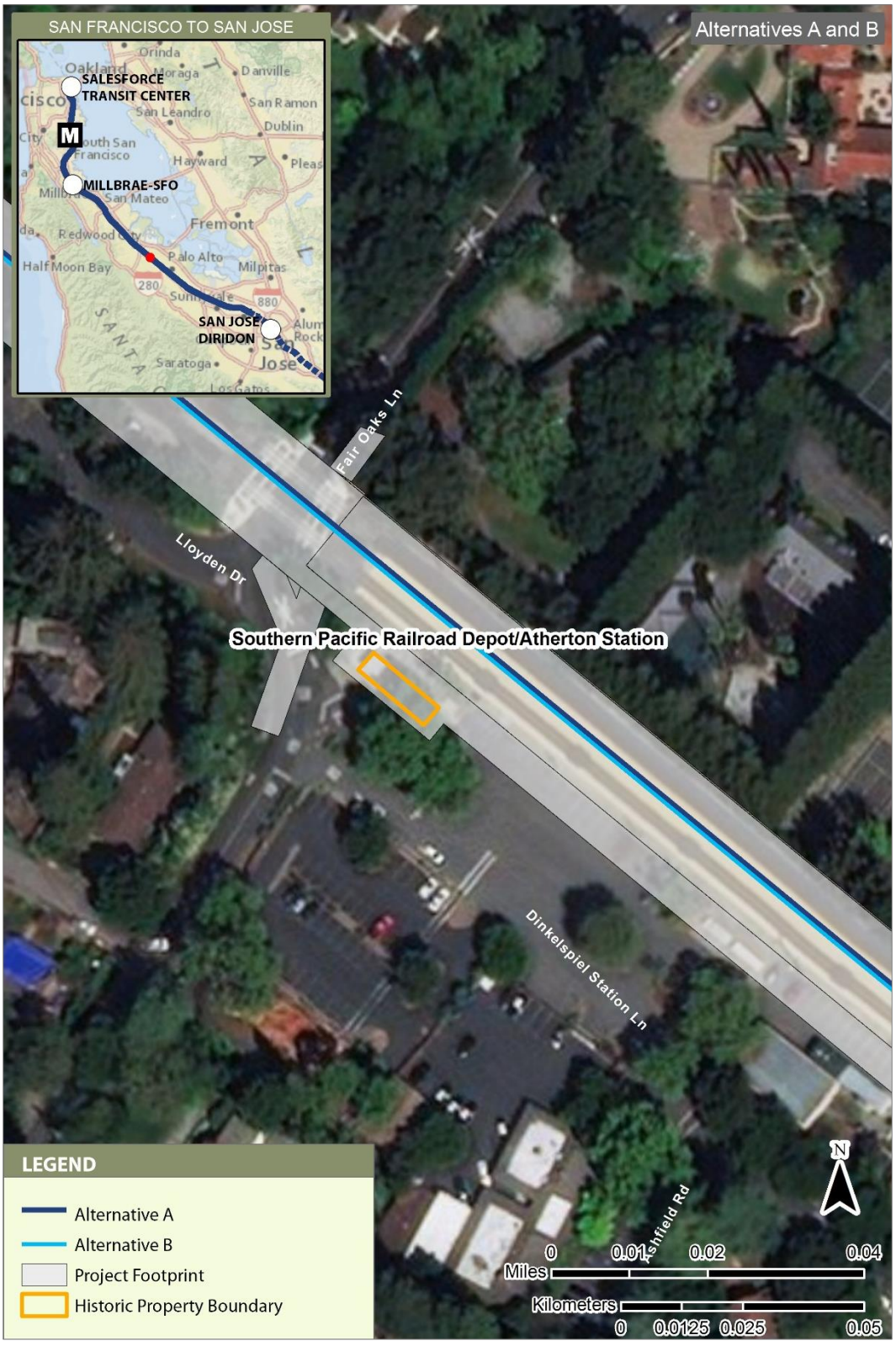
Figure 4-83b Dumbarton Cutoff Railroad Line



Sources: Authority 2019a, 2019c

JUNE 2019

Figure 4-84 Willie Mays Jr. House

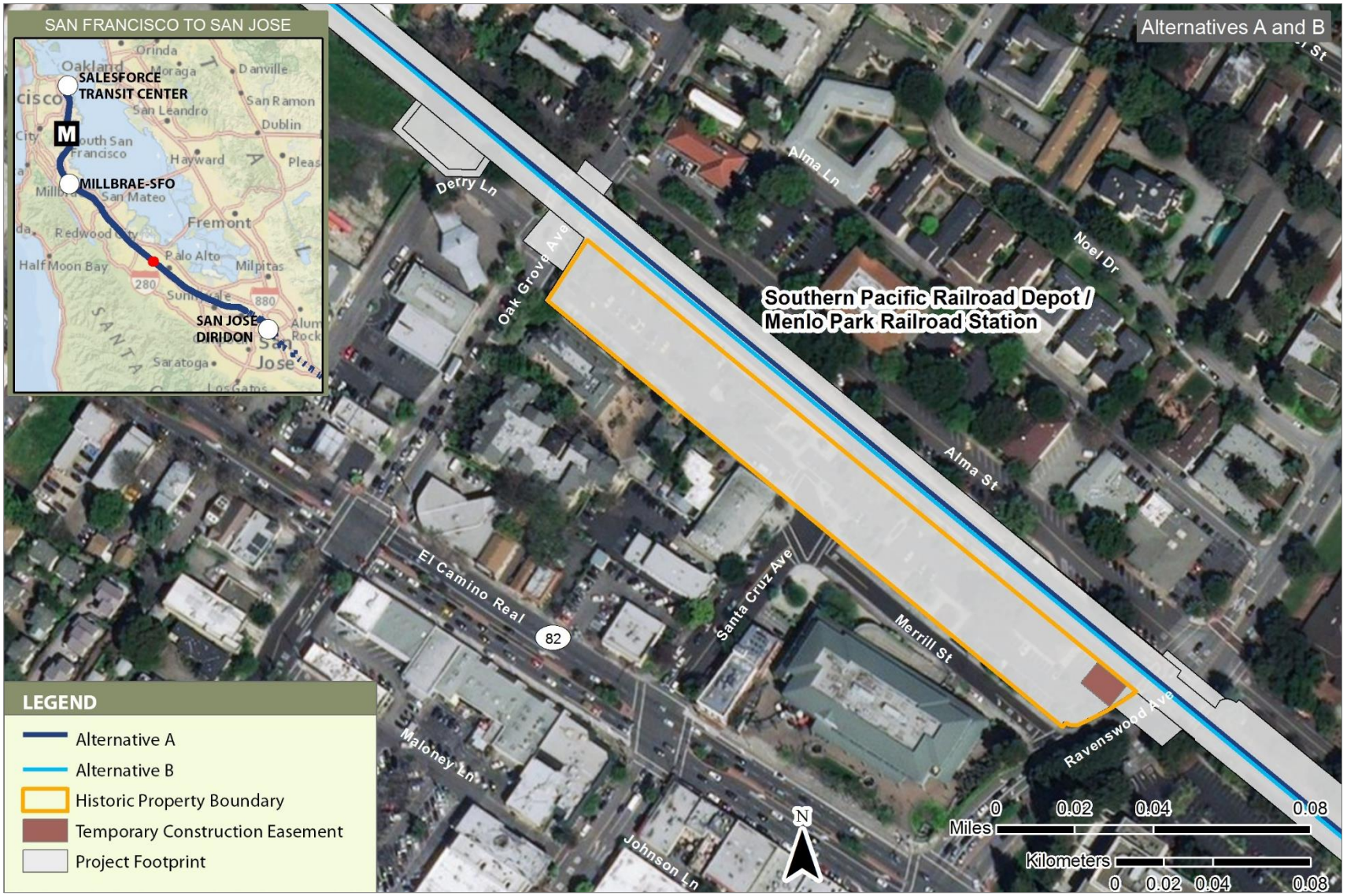


Sources: Authority 2019a, 2019c MARCH 2020

Figure 4-85 Southern Pacific Railroad Depot/Atherton Station

Sources: Authority 2019a, 2019c MARCH 2020

Figure 4-86 Carriage House and Water Tower, Holbrook-Palmer Estate (Elmwood)



Sources: Authority 2019a, 2019c

JUNE 2019

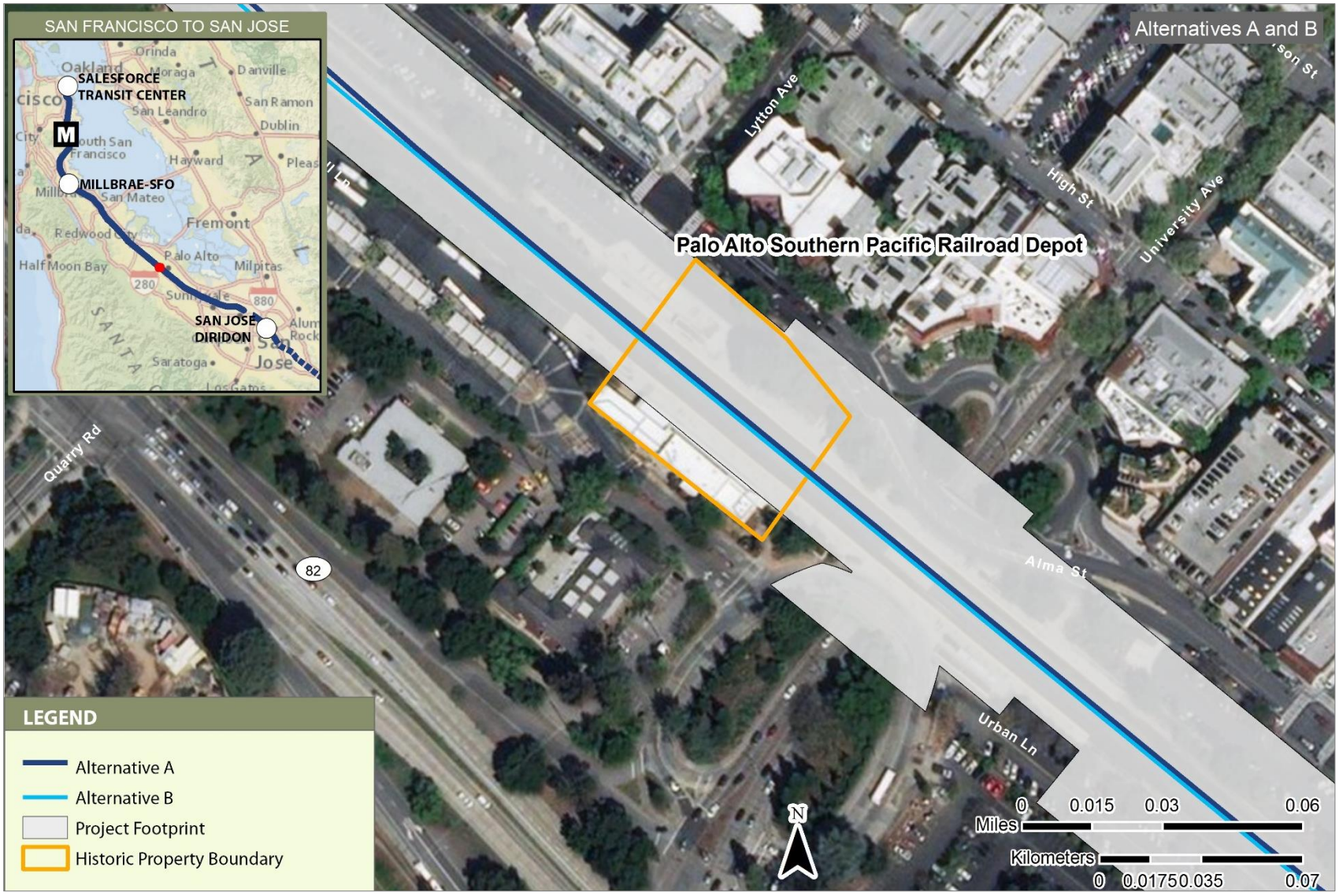
Figure 4-87 Southern Pacific Railroad Depot/Menlo Park Railroad Station

Sources: Authority 2019a, 2019c JUNE 2019

Figure 4-88 Southern Pacific Railroad San Francisquito Creek Bridge

Sources: Authority 2019a, 2019c JUNE 2019

Figure 4-89 El Palo Alto



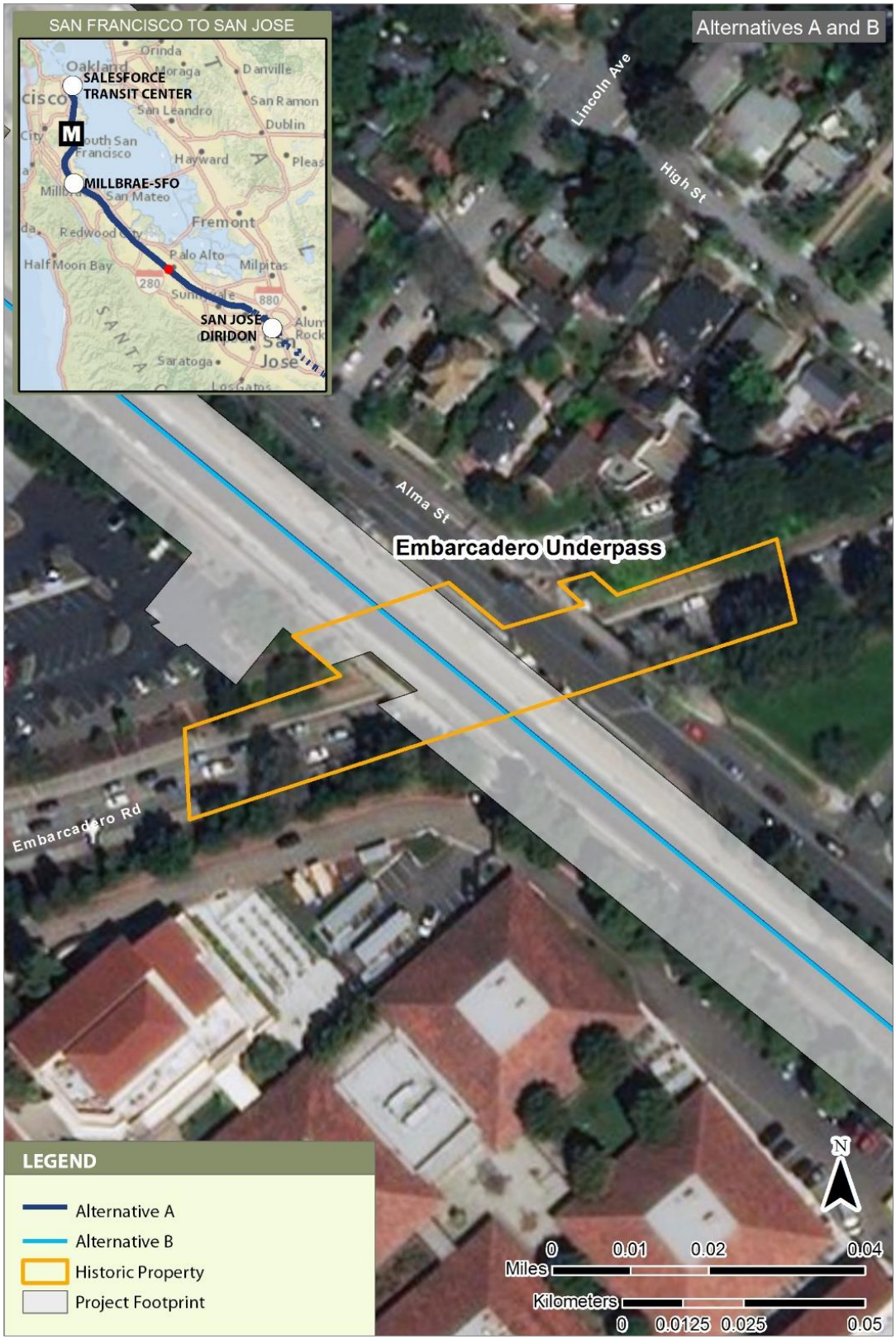
Sources: Authority 2019a, 2019c

MARCH 2020

Figure 4-90 Palo Alto Southern Pacific Railroad Depot

Sources: Authority 2019a, 2019c JUNE 2019

Figure 4-91 University Avenue Underpass

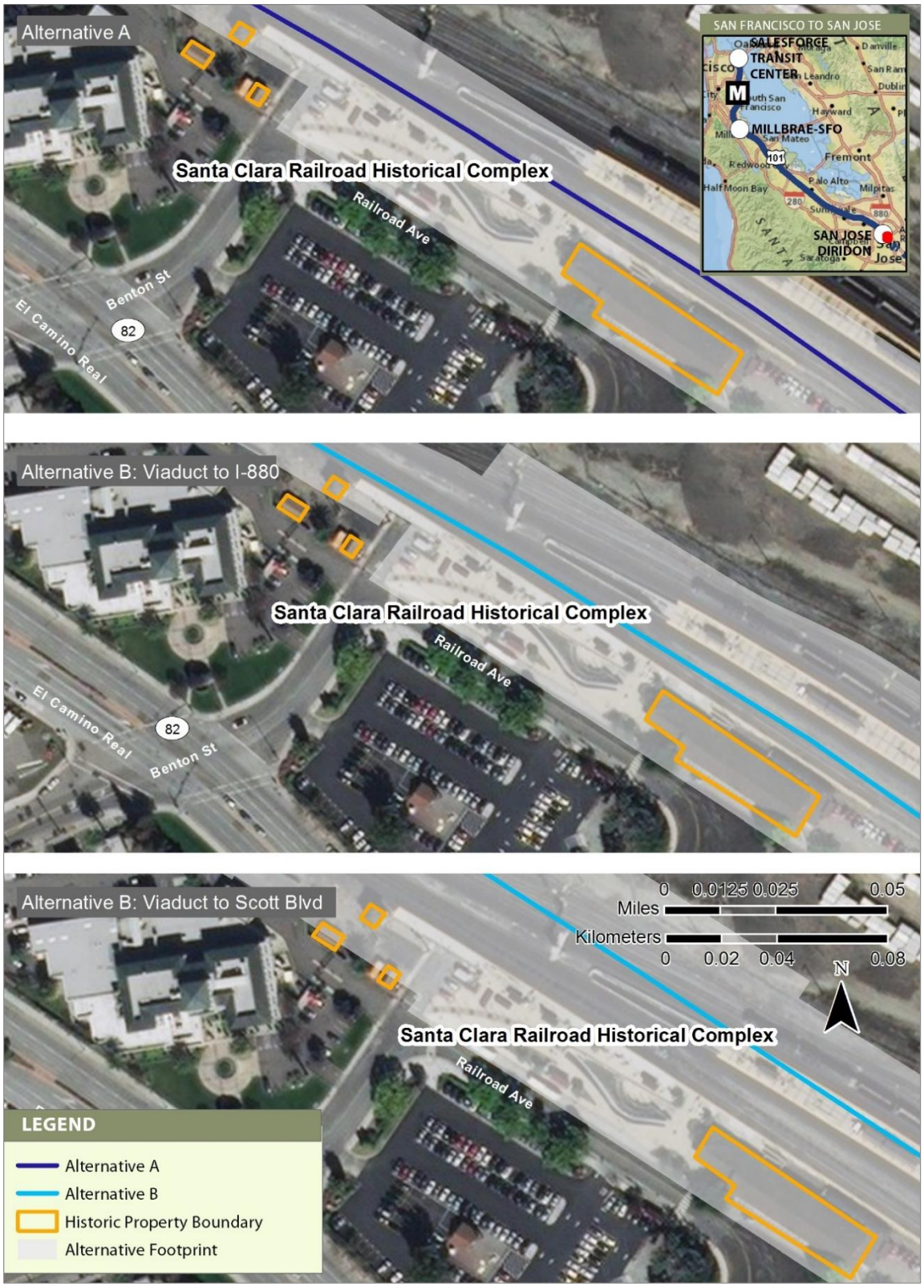


Sources: Authority 2019a, 2019c JUNE 2019

Figure 4-92 Embarcadero Underpass

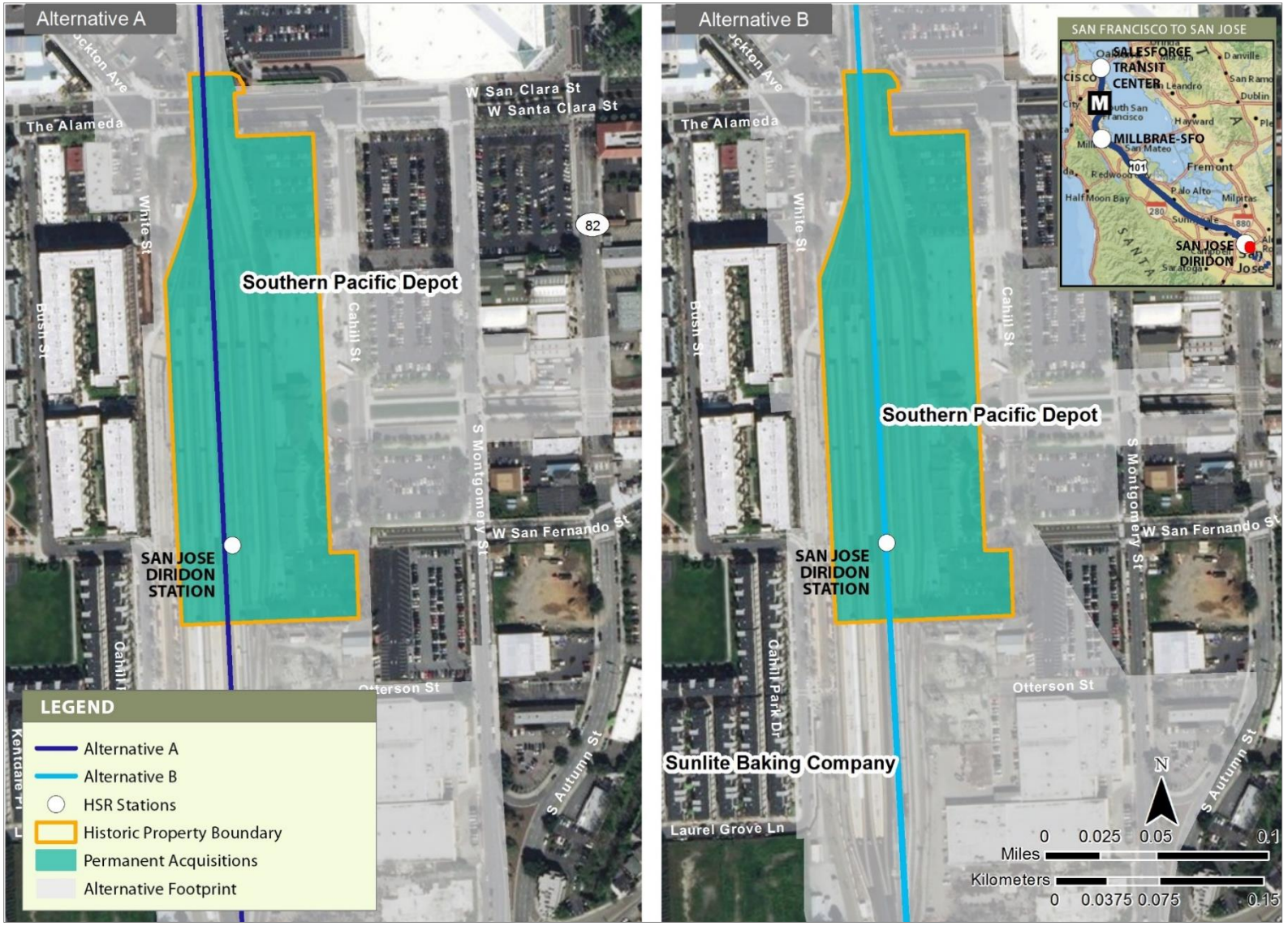
Sources: Authority 2019a, 2019c JUNE 2019

Figure 4-93 Tract 795, Charleston Meadows



Sources: Authority 2019b, 2019d JUNE 2019
No activities would occur within the historic property boundary of the Santa Clara Railroad Historical Complex.

Figure 4-94 Santa Clara Railroad Historical Complex Santa Clara Depot



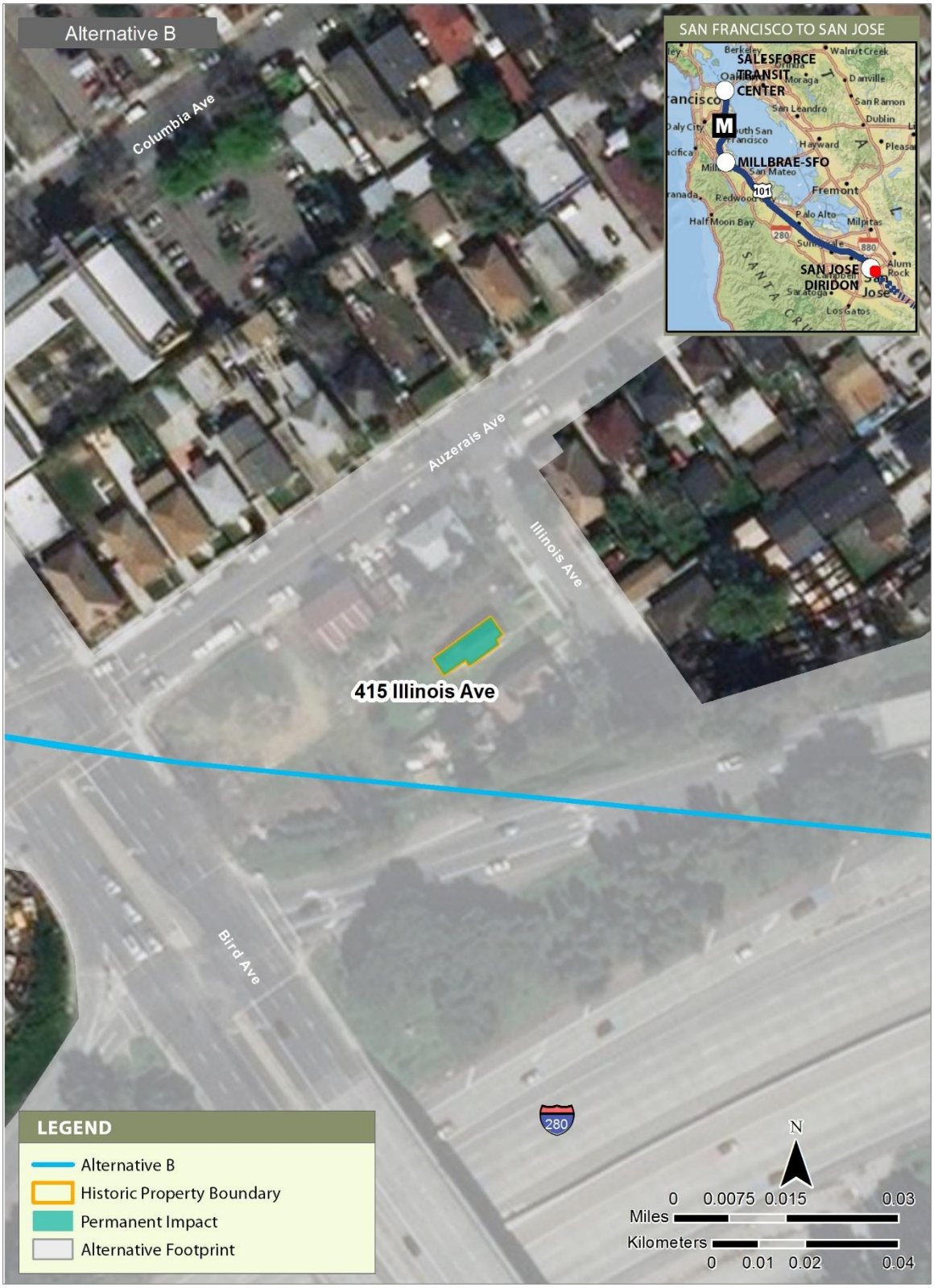
Sources: Authority 2019b, 2019d

JUNE 2019

Figure 4-95 Southern Pacific Depot (Diridon Station, Hiram Cahill Depot)

Sources: Authority 2019b, 2019d JUNE 2019

Figure 4-96 Sunlite Baking Company



Sources: Authority 2019b, 2019d JUNE 2019

Figure 4-97 415 Illinois Avenue

4.6.2.26 Summary of Section 4(f) Use Determinations of Historic Properties

A summary of Section 4(f) uses of NRHP-listed or eligible historic properties is shown in Table 4-10. Of the 27 NRHP-listed or -eligible historic properties in the RSA, Alternative A would affect three historic properties and Alternative B would affect four historic properties. A *de minimis* impact is unlikely to be a significant differentiating factor between alternatives because the net harm resulting from the *de minimis* impact is negligible.

Table 4-10 Summary of Section 4(f) Uses of NRHP-Listed or Eligible Properties

Alternative	Number of Historic Property Impacts	Historic Property Section 4(f) Determinations
San Bruno to San Mateo Subsection		
Alternatives A and B	1	SPRR Depot/Millbrae Station (ID#12) (*de minimis* impact)
San Mateo to Palo Alto Subsection		
Alternatives A and B	1	SPRR Depot/Menlo Park Railroad Station (ID#28) (*de minimis* impact)
San Jose Diridon Station Approach Subsection		
Alternative A	1	SPRR Depot/Diridon Station/Hiram Cahill Depot (ID#0497) (use)
Alternative B	2	SPRR Depot/Diridon Station/Hiram Cahill Depot (ID#0497) (use) Sunlite Baking Company (ID#0522) (use)

NRHP = National Register of Historic Places
SPRR = Southern Pacific Railroad

4.7 Avoidance Alternatives

Section 4(f) requires the selection of an alternative that avoids the use of Section 4(f) properties if that alternative is deemed feasible and prudent. The Purpose and Need statement presented in Chapter 1 of this Final EIR/EIS tiers off the approved program EIR/EIS documents (Authority and FRA 2005). The project alternatives evaluation process conducted as part of the HSR project for the San Jose to Central Valley Wye Project Extent concluded that there were no feasible and prudent HSR alternatives within the San Jose Diridon Station Approach Subsection that did not result in a use of Section 4(f) resources (Authority and FRA 2010, 2011a, 2011b). Although the project alternatives analysis process considered multiple criteria, the screening emphasized the project objective to maximize the use of existing transportation corridors and available right-of-way to the extent feasible; the result of this effort was the carrying forward of the north-south alignment alternatives that follow the existing Caltrain and UPRR rail corridor. The project alternatives evaluation process resulted in the conclusion that, in accordance with 49 U.S.C. Section 303(c), there was no feasible and prudent HSR alternative within the study area.

The reason for this finding is as follows:

- All HSR project alternatives were designed to follow existing railroad corridors to the extent allowed by design speeds. Locating the HSR alignment along these corridors is an objective of the project intended to minimize impacts on the natural and human environment. Any alternative that did not follow these or other transportation corridors would substantially increase the number of displacements, overall community disruption, adverse impacts on natural environment resources, and adverse social and economic impacts.
- Any alternative that did not follow these or other transportation corridors would not meet the Purpose and Need of the project because such an alternative would fail to link the major metropolitan areas of the state, deliver predictable and consistent travel times, and relieve capacity constraints of the existing transportation system as intercity travel demand in California increases, in a manner sensitive to and protective of California's unique natural resources.

The Authority and the FRA solicited input from the public and agencies through the project-level environmental review process from commencement in 2009 and the Authority is continuing ongoing coordination throughout development of the Final EIR/EIS. The development of initial project-level alternatives in 2009 followed the process described in *Technical Memorandum: Alternatives Analysis Methods for Project Level EIR/EIS, Version 2* (Authority 2009). The Authority evaluated potential alternatives against HSR system performance criteria. The project alternatives screening process and evaluation criteria are discussed in detail in Section 2.5.2, Alternatives Consideration Process and Chronology, of this Final EIR/EIS.

Each alternative was evaluated to isolate concerns and to screen and refine the overall alternative to avoid key environmental issues or improve performance. The project alternatives not carried forward had greater direct and indirect environmental impacts, were impracticable, or failed to meet the Purpose and Need for the project.

The No Project Alternative, which includes improvements that would be implemented independent of the project and is fully described in Chapter 2, would not include the construction of the HSR project or any associated facilities and would thus have no impact on any Section 4(f) or Section 6(f) resources associated with the construction and operations of the HSR system. However, there could be impacts on Section 4(f) or Section 6(f) resources as a result of the existing and planned improvements associated with the No Project Alternative. This alternative would not address the Authority's Purpose and Need for the project. This alternative is insufficient to meet existing and future travel demand; current and projected future congestion of the transportation system would continue to result in deteriorating air quality, reduced reliability, and increased travel times. Because the No Project Alternative does not meet the project Purpose and Need, it is not prudent and is not discussed further as an avoidance alternative for any Section 4(f) resources.

Greater detail on alternatives considered but dismissed is provided in Section 2.5, Alternatives Considered during Alternatives Screening Process, of this Final EIR/EIS, and in the *Final Program EIR/EIS for the Proposed California High-Speed Train System* (Authority and FRA 2005), the *Technical Memorandum: Alternatives Analysis Methods for Project EIR/EIS, Version 2* (Authority 2009), *Preliminary Alternatives Analysis Report: San Jose to Merced Section High-Speed Train Project EIR/EIS* (Authority and FRA 2010), and two San Jose to Merced supplemental alternatives analysis reports: *Supplemental San Jose to Merced Section Alternatives Analysis Report* (Authority and FRA 2011a) and *Supplemental Alternatives Analysis Report: San Jose to Merced Section High-Speed Train Project EIR/EIS* (Authority and FRA 2011b), available by request via the Authority's website.

As described in Section 4.6.1, Parks and Recreational Facilities, all uses of parks and recreation facilities would have a *de minimis* impact. With a *de minimis* impact determination, individual resource avoidance assessments are not required. Cultural resources with *de minimis* impact determinations are also not included in the following section. Therefore, the following section only provides individual resource avoidance assessments for Section 4(f) uses of cultural resources that are not a *de minimis* impact.

4.7.1 Individual Resource Avoidance Assessments

4.7.1.1 Southern Pacific Railroad Depot/Diridon Station/Hiram Cahill Depot

The SPRR Depot/Diridon Station/Hiram Cahill Depot is in downtown San Jose. The depot was restored to SOI standards in 1994, and continues to function as a rail station as it did historically, serving Amtrak, Caltrain, Altamont Corridor Express, and VTA light rail. Additionally, multiple bus lines are serviced from the depot, retaining and expanding its function as a transportation hub. The depot remains an important resource and landmark in San Jose, and is considered a high-value resource.

Both project alternatives would result in a Section 4(f) use of SPRR Depot/Diridon Station/Hiram Cahill Depot because both entail the construction of a modern multistory station infrastructure to the north, south, and west of the existing Diridon Station/Hiram Cahill Depot (Figure 4-95). In

addition, the demolition or destruction of character-defining features would occur during construction. The design team evaluated design modifications to determine if the use of the resource could be avoided. Changes to the vertical profile of the project alternatives could involve trench, tunnel, or at-grade options. However, an underground alternative would conflict with the future BART station at Diridon. The tunnel option was eliminated from consideration because of the level of the water table. At-grade alternatives would require additional right-of-way, would be constrained by existing VTA tracks on the west side of the station as well as existing residential buildings and Cahill Park, which is also a Section 4(f) resource. The SAP Center at San Jose and associated features are east of the station. Therefore, these vertical profile changes are either not feasible because of engineering constraints or not prudent because of existing physical constraints, cost, displacements, and the potential for use at Cahill Park.

Horizontal alignment changes were also evaluated. Shifting the station location to avoid the resource would require shifting the track and station away from existing transportation corridors, which would deviate from a requirement of Prop 1A. Also, having HSR at San Jose Diridon Station is an essential component of the HSR system and having a San Jose station located elsewhere to avoid the Section 4(f) resource would not meet the purpose of the project which is to construct, maintain, and operated an electrified high-speed train system connecting the SFTC in San Francisco to Diridon Station. Additionally, there are existing VTA tracks on the west side of the station as well as existing residential buildings and Cahill Park, while the SAP Center at San Jose and associated features are east of the station. Therefore, horizontal profile changes are not prudent because of existing constraints, project objectives, displacements, the potential for use at Cahill Park, and cost.

One other potential design modification under Alternative B could include moving the bents to avoid the historic fence, which would require increasing the height of the viaduct to accommodate longer spans. This would be an expensive design modification, and would not ultimately avoid the use of the property.

Therefore, avoidance of this resource is not possible because Diridon Station/Hiram Cahill Depot is an integral part of the HSR system and modifications to the resource are necessary to accommodate HSR service. Additionally, the relative value of this resource to the community would remain intact because it would still function as a transportation hub. Therefore, there is no prudent avoidance alternative.

4.7.1.2 Sunlite Baking Company

The Sunlite Baking Company is south of and adjacent to the existing San Jose Diridon Station. Prior to 2016, AT&T operated out of the building, but in late 2016 an investment firm, Rhyolite Enterprises LLC, bought the parcel, likely to develop the area to complement San Jose's real estate boom. It is unclear what the property is used for currently, but it is likely vacant or being rented for industrial purposes, inconsistent with its historic use. Considering there are additions outside the period of the significance and the property is in fair condition, it is considered a moderate-value resource.

Alternative B would result in a Section 4(f) use of the Sunlite Baking Company because a portion of the resource is in the path of the new HSR right-of-way, with track on viaduct, and a new permanent roadway right-of-way with bike lane (Figure 4-96). Alternative B would also entail construction of a new HSR station parking lot in the western half of the parcel, and drop-off and pick-up areas in the center of the parcel. These facilities would result in demolition of the building.

The design team evaluated design modifications to determine if the use of the resource could be avoided. Changes to the vertical profile of Alternative B could involve underground, tunnel, or at-grade options. However, an underground alternative would conflict with the future BART station at Diridon. The tunnel option was eliminated from consideration because of the level of the water table. At-grade alternatives would require additional right-of-way, and would be constrained by existing VTA tracks on the west side of the station as well as existing residential buildings and Cahill Park, which is also a Section 4(f) resource. The SAP Center and associated features are east of the station. Therefore, these vertical profile changes are either not feasible because of

engineering constraints or not prudent because of existing physical constraints, cost, displacements, and the potential for use at Cahill Park.

The design team also evaluated horizontal alignment changes. Shifting the station location to avoid the resource would require shifting the track and station away from existing transportation corridors (Prop 1A states that the HSR system be designed to follow existing transportation and utility corridors to the extent feasible and functionally viable), and would require substantial right-of-way acquisition elsewhere as well as result in conflicts with city zoning and the general plan. Also, having HSR at Diridon Station is an essential component of the HSR system and having a San Jose station located elsewhere to avoid the Section 4(f) resource would not meet the purpose of the project. Because the Sunlite Baking Company building is adjacent to Diridon Station, it cannot be avoided. Additionally, there are existing VTA tracks on the west side of the station as well as existing residential buildings and Cahill Park, while the SAP Center and associated features are east of the station. Therefore, these horizontal profile changes are not prudent because of existing constraints, project objectives, displacements, the potential for use at Cahill Park, and cost.

Therefore, avoidance of this resource is not possible under Alternative B because San Jose Diridon Station is an integral part of the HSR system and demolition of Sunlite Baking Company is necessary to accommodate HSR service at San Jose Diridon Station. Additionally, the relative value of Sunlite Baking Company to the community is moderate, the resource is currently vacant, and it is not providing significant value to the community. It would not be prudent to expend the resources necessary to avoid this resource. Therefore, because of the extensive cost, right-of-way, and displacements that would be required to avoid this resource, and the relative value of this resource, there is no prudent avoidance alternative under Alternative B. The use of Sunlite Baking Company could be avoided by selecting Alternative A, which would avoid the resource. Alternative A is the feasible and prudent alternative to the Section 4(f) use that would result from Alternative B.

4.7.1.3 Summary of Avoidance Alternatives

Table 4-11 shows a summary of which alternative could be used as an avoidance alternative for the resources that incur a Section 4(f) use in the San Jose Diridon Station Approach Subsection.

Table 4-11 Summary of Section 4(f) Avoidance Alternatives

Resource	Alternative A	Alternative B	No Avoidance Alternative
San Jose Diridon Station Approach Subsection			
SPRR Depot/Diridon Station/Hiram Cahill Depot (ID#0497)			X
Sunlite Baking Company (ID#0522)	X		

SPRR = Southern Pacific Railroad

4.8 Measures to Minimize Harm

Measures to minimize harm include IAMFs that are incorporated into the project design to avoid or minimize impacts. The incorporation of IAMFs does not imply there is a use of Section 4(f)-protected properties. Mitigation and enhancement measures to compensate for unavoidable project impacts mitigate project impacts that cannot be avoided or minimized with the incorporation of IAMFs. Each applicable IAMF and mitigation measure is described in Table 4-12, as applicable to each Section 4(f)-protected property, as required by 49 U.S.C. § 303(c)(2). Additionally, avoidance alternatives have been developed to avoid uses to Section 4(f) properties where possible, as described in Section 4.7, Avoidance Alternatives, and will be coordinated with the OWJs over the resource. The Authority is continuing ongoing coordination, as appropriate, with these officials.

Table 4-12 Measures to Minimize Harm

Impact	Measures to Minimize Harm
Potentially Affected Park: Trinta Park (Alternative B)	
Potential permanent changes in access and circulation	▪ PK-MM#2: Provide Permanent Park Access: During the design phase, the contractor will prepare a technical memorandum documenting how pedestrian and maintenance access to Trinta Park will be maintained to reduce the number of permanent changes in access and circulation in the park, following completion of construction activities. Upon approval by the Authority, the technical memorandum will be provided to the OWJ to demonstrate how access will be maintained, and the contractor will implement the activities identified in the technical memorandum. The activities will be incorporated into the design specifications and will be a pre-construction requirement.
Potentially Affected Parks: Reed Street Dog Park (Alternative B [Viaduct to Scott Boulevard]); Los Gatos Creek Trail (Alternative B); Guadalupe River Trail, Reach 6 (Alternative B); and Fuller Park (Alternative A)	
▪ Acquisition of land from park ▪ Temporary construction activities in the park ▪ Temporary changes in access	▪ Final design will continue to minimize right-of-way impacts on Reed Street Dog Park; Los Gatos Creek Trail; Guadalupe River Trail, Reach 6; and Fuller Park. Acquisition of land would be pursuant to California Code of Civil Procedure Section 1240 for the permanent use of land in each park. ▪ The Authority will continue to work with the agencies with jurisdiction on the establishment of appropriate compensation in terms of allowance or additional property to accommodate displaced park use during construction. Options could include preparing a plan for alternative public recreation resources during the period of closure and preparing signs and newsletters describing the project, its schedule, and alternative public recreational opportunities. ▪ The Authority will coordinate public involvement efforts prior to construction activities to notify the public about any changes to park access. ▪ The Authority will maintain access to park and recreation facilities to the greatest extent practicable. ▪ 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 will prepare a technical memorandum documenting how connections to the unaffected portions of parks or trails or nearby roadways will be maintained during construction. Specific to access affecting trails, the contractor will provide alternative access via a temporary detour or permanent realignment of the trail using existing roadways or other public rights-of-way during construction. The contractor will provide detour signage and lighting and alternative routes that meet public safety requirements. The technical memorandum will be submitted to the Authority for review and approval. Upon approval by the Authority, the technical memorandum will be provided to the OWJ to demonstrate how access will be maintained, and the contractor will implement the activities identified in the technical memorandum. The activities will be incorporated into the design specifications and will be a pre-construction requirement. ▪ PK-MM#3: Implement Project Design Features: Upon approval by the Authority, the contractor will implement the project design features identified in the technical memorandum prepared as part of PK-IAMF#1. The project design features will be incorporated into the design specifications and will be a pre-construction requirement.

Impact	Measures to Minimize Harm
SPRR Depot/Millbrae Station (Alternatives A and B)	
Demolition, destruction, relocation, or alteration of built resources or setting	CUL-IAMF#6: Pre-Construction Conditions Assessment, Plan for Protection of Historic Built Resources, and Repair of Inadvertent Damage ▪ Relocate the property to avoid its destruction and minimize adverse effects resulting from physical damage or alteration. The relocation of the historic property will be specified in the built environment treatment plan by the Authority or the principal investigator and take into account the historic site and layout (i.e., the orientation of the buildings to the cardinal directions) and their potential re-use. ▪ A relocation plan will be prepared to provide for protection and stabilization of the building or structures before, during, and after the move, as well as measures to address inadvertent damage.
SPRR Depot/Menlo Park Railroad Station (Alternatives A and B)	
Alteration of built resources setting	CUL-IAMF#6: Pre-Construction Conditions Assessment, Plan for Protection of Historic Built Resources, and Repair of Inadvertent Damage ▪ The new radio tower will be built in the legal parcel boundary. After completing construction, the disturbed area needed to build the radio tower will be returned to its pre-construction condition.
SPRR Depot/Diridon Station/Hiram Cahill Depot (ID#0497) (Alternatives A and B)	
Property demolition or acquisition Design and construction of a new station building consistent with the SOI's Standards for the Treatment of Historic Properties	▪ CUL-MM#6: Prepare and Submit Additional Recordation and Documentation: The property will be fully documented prior to construction to record the character-defining features of the depot complex and its setting. ▪ CUL-MM#7: Prepare Interpretive or Educational Materials: An interpretive exhibit will be created about the history of the depot, including the annex and associated features. A qualified historian and designer will craft a public exhibition documenting the significant history of the property. ▪ CUL-MM#10: Station Design Consistent with the SOI's Standards for the Treatment of Historic Properties: The station design would be prepared post-ROD. The Authority will issue RFQs to receive SOQs from qualified firms (contractor) for station designs and related services. Such firms will be contracted to provide professional consultant and design services for all design stages through final design. Selected firms will be responsible for making their designs context sensitive and meeting the SOI's Standards for the Treatment of Historic Properties.
Sunlite Baking Company (ID#0522) (Alternative B)	
Property demolition or acquisition	▪ CUL-MM#6: Prepare and Submit Additional Recordation and Documentation: The property will be fully documented prior to construction to capture the architectural quality of the resource as a distinctive example of the Art Moderne architectural style interpreted for an industrial production facility. ▪ CUL-MM#7: Prepare Interpretive or Educational Materials: An interpretive exhibit will be created about the history of the resource and its architecture. A qualified historian and designer will craft a public exhibition documenting the significant history of the resource.

Authority = California High-Speed Rail Authority
RFQ = request for qualifications
ROD = Record of Decision
SOI = Secretary of the Interior
SOQ = statement of qualifications
SPRR = Southern Pacific Railroad

For effects on historic properties, as previously described, the PA outlines an approach for compliance with Section 106 of the NHPA. In compliance with Section 106, mitigation measures would be negotiated in consultation that may include federal, state, and local agencies, Native American tribes, and other interested parties. An MOA then formalizes these measures; agreed-upon mitigation would be implemented after the MOA is executed. An MOA that is under development for the Project Section will address the treatment of adverse effects from the project. The MOA will stipulate which treatment measures will be applied to which historic properties and that the treatment of built resources will be described in the BETP, and the treatment of known and anticipated archaeological resources will be described in the ATP. IAMFs and mitigation measures for all historic properties are listed together in Table 4-12, as applicable to each historic property. As described, the project will include all possible planning to minimize harm to Section 4(f) properties resulting from use, as required by 49 U.S.C. Section 303(c)(2).

4.9 Section 4(f) Least Harm Analysis

When there is no feasible and prudent avoidance alternative to using Section 4(f) resources, the Authority must approve the alternative that causes the least overall harm to Section 4(f) resources in light of the preservation purpose of the statute. To ascertain which alternative that uses Section 4(f) properties would cause the least overall harm, the Authority considers the following seven factors:

- Ability to mitigate adverse impacts on each Section 4(f) property (including any measures that result in benefits to the property)
- Relative severity of the remaining harm, after mitigation, to the protected activities, attributes, or features that qualify each Section 4(f) property for protection
- Relative significance of each Section 4(f) property
- Views of the OWJ over each Section 4(f) property
- Degree to which each alternative meets the Purpose and Need for the project
- After reasonable mitigation, the magnitude of any adverse impacts on resources not protected by Section 4(f)
- Substantial differences in costs among the project alternatives

The first four factors relate to the net harm that each project alternative would cause to the Section 4(f) property, and the remaining three factors take into account concerns with the project alternatives that are not specific to Section 4(f).

Considering the foregoing discussion of the project's use of Section 4(f) properties and alternatives assessment, there is no feasible and prudent avoidance alternative to the use of one Section 4(f) property, regardless of which project alternative is selected:

- SPRR Depot/Diridon Station/Hiram Cahill Depot

The following discussion demonstrates the overall least harm alternative for impacts in the project footprint that is consistent with the Preferred Alternative (see Chapter 8, Preferred Alternative).

4.9.1 Least Harm Analysis for San Francisco to San Jose Project Alternatives

Because both project alternatives would result in a Section 4(f) use of the SPRR Depot/Diridon Station/Hiram Cahill Depot, the Authority has completed the following least harm analysis for the project. Table 4-13 shows the Section 4(f) properties that would incur a use as a result of the project alternatives and characterizes each alternative using the seven least harm analysis factors (23 C.F.R. § 774.3(c)).

For historic properties that would be demolished, measures to mitigate their loss are part of the Section 106 consultation. However, for Section 4(f), their loss constitutes a full use that cannot be mitigated under Section 4(f).

Table 4-13 Least Harm Analysis for the San Francisco to San Jose Project Alternatives

Least Harm Factor	Alternative A	Alternative B (Viaduct to I-880)	Alternative B (Viaduct to Scott Boulevard)
Section 4(f) property incurring a use	Use of one resource: ▪ **SPRR Depot/Diridon Station/Hiram Cahill Depot**	Use of two resources: ▪ **SPRR Depot/Diridon Station/Hiram Cahill Depot** ▪ **Sunlite Baking Company**	Use of two resources: ▪ **SPRR Depot/Diridon Station/Hiram Cahill Depot)** ▪ **Sunlite Baking Company**
Factor 1: The ability to mitigate adverse impacts on each Section 4(f) property (including any measures that result in benefits to the property)	Alternative A would affect the same resource in the same manner as described for Alternative B (Viaduct to I-880), except **Sunlite Baking Company** would not be adversely affected under Alternative A.	**SPRR Depot/Diridon Station/Hiram Cahill Depot** and **Sunlite Baking Company**: Impacts for structure demolition or demolition of contributing features cannot be mitigated.	Alternative B (Viaduct to Scott Boulevard) would affect the same resources in the same manner as described for Alternative B (Viaduct to I-880).
Factor 2: The relative severity of the remaining harm, after mitigation, to the protected activities, attributes, or features that qualify each Section 4(f) property for protection	Alternative A would affect the same resource in the same manner as described for Alternative B (Viaduct to I-880), except **Sunlite Baking Company** would not be adversely affected under Alternative A. Therefore, severity is not a differentiating factor related to this resource.	**Southern Pacific Depot (Diridon Station/Hiram Cahill Depot** and **Sunlite Baking Company**: Mitigation will not reduce overall harm to the structure or contributing features because part of it would be demolished.	Same as Alternative B (Viaduct to I-880)

Least Harm Factor	Alternative A	Alternative B (Viaduct to I-880)	Alternative B (Viaduct to Scott Boulevard)
Factor 3: The relative significance of each Section 4(f) property	Same as Alternative B (Viaduct to I-880), except **Sunlite Baking Company** would not be adversely affected under Alternative A.	**SPRR Depot/Diridon Station/Hiram Cahill Depot**: The SPRR Depot, also known as Diridon Station, is listed on the NRHP and is a City of San Jose landmark. The site has six extant contributing features. The depot was restored to SOI's standards in 1994, and continues to function as a rail station as it did historically, serving Amtrak, Caltrain, ACE, and VTA Light Rail. Additionally, multiple bus lines are serviced from the depot, retaining and expanding its function as a transportation hub. The depot remains an important resource and landmark in San Jose and is considered a high-value resource for the purposes of Section 4(f). **Sunlite Baking Company**: The Sunlite Baking Company is eligible for listing on the NRHP as a distinctive example of Art Moderne architecture interpreted for an industrial production facility. Prior to 2016, AT&T operated out of the building, but in late 2016 an investment firm, Rhyolite Enterprises LLC, bought the parcel, likely to develop the area to complement San Jose's real estate boom. It is unclear what the property is used for currently, but it is likely vacant or being rented for industrial purposes, inconsistent with its historic use. Considering there are additions outside the period of the significance and the property is in fair condition, it is considered a moderate-value resource for the purposes of Section 4(f).	Same as Alternative B (Viaduct to I-880)

Least Harm Factor	Alternative A	Alternative B (Viaduct to I-880)	Alternative B (Viaduct to Scott Boulevard)
Factor 4: The views of the official(s) with jurisdiction over each Section 4(f) property	**SPRR Depot/Diridon Station/Hiram Cahill Depot:** The property is individually listed in the NRHP. On March 27, 2020, SHPO concurred with the finding of adverse effect under Section 106 for Alternative A (Preferred Alternative). **Sunlite Baking Company**: SHPO concurred with the NRHP eligibility of the property on July 12, 2019. On March 27, 2020, SHPO concurred with the finding of no adverse effect under Section 106 for Alternative A (Preferred Alternative).	The Authority sought concurrence from SHPO on findings of adverse effect under Section 106 for Alternative A (Preferred Alternative), but has not consulted on Section 106 for Alternative B (Viaduct to I-880). If the Authority pursues this alternative, additional consultation would be required to satisfy both Section 106 and Section 4(f).	Same as Alternative B (Viaduct to I-880)
Factor 5: The degree to which each alternative meets the Purpose and Need for the project	Meets the project Purpose and Need. Minimizes the project footprint and decreases nontransportation right-of-way acquisition by staying at grade within the existing Caltrain right-of-way between San Francisco and West Alma Avenue in San Jose.	Meets the project Purpose and Need.	Meets the project Purpose and Need.
Factor 6: After reasonable mitigation, the magnitude of any adverse impacts on resources not protected by Section 4(f)	Most moderate (4,295) and severe (1,770) noise impacts at residential locations. Least number (20) of aquatic resources realigned, modified, or otherwise affected. Least number of displacements: 14 residential, 48 commercial and industrial (49 with the DDV), and 3 community and public facility displacements. Least impact on jurisdictional aquatic resources (11.7 acres).	Second most moderate (4,186) and severe (1,648) noise impacts at residential locations. Greatest number (28) of aquatic resources realigned, modified, or otherwise affected. Second greatest number of displacements: 42 residential, 171 commercial and industrial, and 6 community and public facility displacements. Greatest impact on jurisdictional aquatic resources (18.1 acres).	Fewest moderate (4,141) and severe (1,628) noise impacts at residential locations. Same number (28) of aquatic resources realigned, modified, or otherwise affected as Alternative B (Viaduct to I-880). Greatest number of displacements: 62 residential, 202 commercial and industrial, and 7 community and public facility displacements. Same impact as Alternative B (Viaduct to I-880) on jurisdictional aquatic resources (18.1 acres).
Factor 7: Substantial differences in costs among the project alternatives	Alternative A would have a lower capital cost: $4.25 billion.	Alternative B (Viaduct to I-880) would have the second highest capital cost: $6.13 billion.	Alternative B (Viaduct to Scott Boulevard) would have the highest capital cost: $6.86 billion.

Least Harm Factor	Alternative A	Alternative B (Viaduct to I-880)	Alternative B (Viaduct to Scott Boulevard)
Summary	Alternative A would result in the permanent use of SPRR Depot, a high-value resource. Alternative A would result in the most noise impacts on residential locations, but the least impacts on displacements and aquatic resources. It would also have the lowest capital cost.	Alternative B (Viaduct to I-880) would result in the permanent use of two cultural resources; one is high value (SPRR Depot), and one is of moderate value (Sunlite Baking Company). Alternative B (Viaduct to I-880) would result in the second greatest noise impacts on residential locations, displacements, and jurisdictional aquatic resources. Alternative B (Viaduct to I-880) would also have the second highest capital cost.	Alternative B (Viaduct to Scott Boulevard) would result in the permanent use of the same cultural resources as Alternative B (Viaduct to I-880). Alternative B (Viaduct to Scott Boulevard) would result in the fewest noise impacts on residential locations, and the same impacts as Alternative B (Viaduct to I-880) on aquatic resources. It would result in the greatest number of displacements, and the highest capital cost.

ACE = Altamont Corridor Express
I- = Interstate
NRHP = National Register of Historic Places
SHPO= State Historic Preservation Officer
SOI = Secretary of the Interior
SPRR = Southern Pacific Railroad
VTA = Santa Clara Valley Transportation Authority

4.9.2 Net Harm to Section 4(f) Property

Factors one through four in Table 4-13 consider the net harm that each alternative would cause to a Section 4(f) property. Overall, Alternative A would use one Section 4(f) resource, compared to two for Alternative B (both viaduct options).

Both project alternatives would result in the permanent use and demolition of the SPRR Depot/Diridon Station/Hiram Cahill Depot or contributing features. Impacts on this property are the same under both project alternatives and so are not differentiating factors among the project alternatives and are not discussed further.

In addition, Alternative B (both viaduct options) would use one other Section 4(f) resource in which the relative value of the resource should be considered. Alternative B (both viaduct options) would result in a permanent use of the Sunlite Baking Company, because of structure demolition. Sunlite Baking Company is a resource of moderate value. Sunlite Baking Company was purchased in late 2016 by an investment firm, Rhyolite Enterprises LLC, likely in order to develop the area to complement San Jose's real estate boom. It is currently vacant or being rented for industrial purposes, inconsistent with its historic use, but the property is in fair condition.

In total, Alternative B would affect one moderate-value resource and one high-value resource. Therefore, after considering the relative value of these resources, Alternative B would have the greatest impacts on Section 4(f) resources, while Alternative A would result in the least impacts on Section 4(f) resources.

4.9.3 Impacts on Environmental Resources Outside of Section 4(f) Uses

Factors five through seven in Table 4-13 show a comparison with non-Section 4(f) considerations and are helpful in determining overall least harm where the impacts on the Section 4(f) qualifying attributes of the resources do not provide a clear distinction. As shown in Table 4-13, while all project alternatives are consistent with the project's Purpose and Need, each would result in different comparative impacts on the other resource areas. For example, Alternative B (Viaduct to Scott Boulevard) would result in the most displacements. Alternative A would have the lowest capital costs and would result in the fewest displacements and fewest impacts on aquatic resources. Impacts on jurisdictional aquatic resources and habitat for special-status plants are the primary considerations of the U.S. Army Corps of Engineers in its determination of the least environmentally damaging practicable alternative. Alternative B (Viaduct to I-880) would result in the second most displacements and noise impacts on residential locations. Alternative B (either viaduct option) would also have higher capital costs than Alternative A.

Based on this information, while each of the project alternatives would cause impacts on resources not protected by Section 4(f), Alternative A would cause the least amount of impacts on non-Section 4(f) resources compared to Alternative B.

4.10 Final Section 4(f) Determination

This final Section 4(f) determination is for Alternative A with the DDV, the Authority's Preferred Alternative for the San Francisco to San Jose Project Section.

Based upon the above considerations, the Authority has determined that there is no feasible and prudent alternative to the use of the SPRR Depot/Diridon Station/Hiram Cahill Depot, and the proposed action includes all possible planning to minimize harm to the SPRR Depot/Diridon Station/Hiram Cahill Depot resulting from such use.

For parks and recreation areas, the Authority has made *de minimis* impact determinations for one resource that would be used under Alternative A: Fuller Park. This determination is based on the written concurrence from the OWJ received on September 28, 2021.

In addition, the Authority has made *de minimis* impact determinations for two cultural resources, the SPRR Depot/Millbrae Station and SPRR/Menlo Park Railroad Station. The Authority consulted with consulting parties under Section 106, and on May 18, 2020, the Authority received written concurrence from SHPO in the no adverse effect findings in accordance with Section 106.

The Authority informed SHPO of its intent to make *de minimis* impact findings based on its concurrence in the finding of no adverse effect on May 18, 2020.

The Authority has determined that Alternative A would cause the least overall harm in light of Section 4(f)'s preservationist purpose.

4.11 Section 6(f)

There are nine Section 6(f) properties in the RSA as shown in Table 4-14 and illustrated on Figures 4-2 through 4-12. The table also includes potential impacts on these resources and as shown, the project alternatives would not require permanent or temporary acquisition of land from any of the Section 6(f) properties. In addition, construction activities would not occur within any of the resources. Therefore, no impacts on Section 6(f) resources would occur.

Table 4-14 Section 6(f) Resources and Findings

Map ID#	Section 6(f) Resource	Section 6(f) Fund Details	Project Impacts	Finding
13	Jackson Playground and Park, San Francisco	1970: Grant developed a play area and lighting for tennis and basketball courts	No land would be permanently or temporarily acquired from Jackson Playground and Park under the project alternatives. No construction activities would occur within the park boundaries and operation of the project alternatives would have no impact on the park. The project alternatives would not endanger the federal investment made in the park.	No impact on Section 6(f) resource
21	Palou and Phelps Park, San Francisco	1968: Grant developed playgrounds	No land would be permanently or temporarily acquired from Palou and Phelps Park under the project alternatives. The park is on the surface of the existing Caltrain tunnel where no construction work would occur. The blended HSR/Caltrain right-of-way below the park would not impose restrictions on the Section 6(f) property owners to use the property such that the land would be considered permanently incorporated into the transportation facility. The closest construction work would take place more than 500 feet north of the park. The project alternatives would not endanger the federal investment made in the park.	No impact on Section 6(f) resource
29	John McLaren Park, San Francisco	1967, 1971, 1978, 1980, 1983, 2002: Grants cumulatively developed a day camp, tot lots, sanitary facilities, an overlook, play fields, a view tower, support facilities, two tennis courts, pathways, landscaping, picnic areas, signage, walkways, fencing, and irrigation	No land would be permanently or temporarily acquired from John McLaren Park under the project alternatives. No construction activities would occur within the park boundaries and operation of the project alternatives would have no impact on the park. The project alternatives would not endanger the federal investment made in the park.	No impact on Section 6(f) resource

Map ID#	Section 6(f) Resource	Section 6(f) Fund Details	Project Impacts	Finding
30	Visitacion Valley Greenway, San Francisco	2000: Grant developed picnic areas, stone patio, dry creek bed, garden bridges, terraced hillside, decomposed granite pathways and steps, and vernacular art by community artists	No land would be permanently or temporarily acquired from Visitacion Valley Greenway under the project alternatives. No construction activities would occur within the park boundaries and operation of the project alternatives would have no impact on the greenway. The project alternatives would not endanger the federal investment made in the greenway.	No impact on Section 6(f) resource
34	Candlestick Point State Recreation Area, San Francisco	1978, 1979, 1980: Grants developed a sewer system, water system, electrical system, area lighting, picnic areas, fishing facilities, hiking and bike trails, and parking	No land would be permanently or temporarily acquired from Candlestick Point State Recreation Area under the project alternatives. No construction activities would occur within the park boundaries and operation of the project alternatives would have no impact on the recreation area. The project alternatives would not endanger the federal investment made in the recreation area.	No impact on Section 6(f) resource
36	Kelloch-Velasco Park, San Francisco	1977: Grant developed landscaping, irrigation, basketball, multipurpose game courts, tot lot, senior's area, playground, par course, lighting and fencing	No land would be permanently or temporarily acquired from Kelloch-Velasco Park under the project alternatives. No construction activities would occur within the park boundaries and operation of the project alternatives would have no impact on the park. The project alternatives would not endanger the federal investment made in the park.	No impact on Section 6(f) resource
63	Millbrae Skate Park, Millbrae	2001: Grant built an outdoor skateboard-inline skate park	No land would be permanently or temporarily acquired from Millbrae Skate Park under the project alternatives. No construction activities would occur within the park boundaries and operation of the project alternatives would have no impact on the skate park. The project alternatives would not endanger the federal investment made in the skate park.	No impact on Section 6(f) resource
129	Guadalupe River Park	1992: LWCF development grant developed 2.33 acres of the park including trails, open turf area, outdoor events area, and support facilities	No land would be permanently or temporarily acquired from Guadalupe River Park under either project alternative. No construction activities would occur within the park boundaries and operation of the project alternatives would have no impact on the park. Construction activities would temporarily block two of many access points at Coleman Avenue and Autumn Street, reducing but not eliminating access. Incorporation of project features and mitigation measures will maintain access to the park. Therefore, the project alternatives would not endanger the federal investment made in this park.	No impact on Section 6(f) resource

Map ID#	Section 6(f) Resource	Section 6(f) Fund Details	Project Impacts	Finding
129	Guadalupe Gardens (part of the Guadalupe River Park)	2003: LWCF development grant for site preparation, irrigation, and planting of grasses for a 4-acre open turf area	No land would be permanently or temporarily acquired from Guadalupe Gardens under the project alternatives. No construction activities would occur within the park boundaries and operation of the project alternatives would have no impact on the park. Construction activities would temporarily block two of many access points at Coleman Avenue and Autumn Street, reducing but not eliminating access. Incorporation of project features and mitigation measures will maintain access to the park. Therefore, the project alternatives would not endanger the federal investment made in this park.	No impact on Section 6(f) resource

Sources: NPS 2016, 2017
HSR = high-speed rail
LWCF = Land and Water Conservation Fund