

8.1 Introduction

This chapter describes the environmental and regulatory setting for Section 4(f) resources and summarizes the evaluation of the BART Extension Alternative relative to the Department of Transportation Act of 1966 as described in *VTA's BART Silicon Valley—Phase II Extension Project Section 4(f)/6(f) Technical Report* (ICF 2016) included with this SEIS/SEIR.

8.2 Regulatory Setting

Section 4(f) of the Department of Transportation Act of 1966, codified at United States Code (USC), Title 49, Section 303, states that under United States government policy, “special effort should be made to preserve the natural beauty of the countryside and public park and recreational lands, wildlife and waterfowl refuges, and historic sites.”

If a federal transportation project would result in a use under Section 4(f) of public parks, recreational lands, wildlife and waterfowl refuges, or historic sites, the Secretary of the Department of Transportation cannot approve the project unless “special effort” is made to avoid the resource. If no prudent and feasible alternatives to the use of a Section 4(f) resource exist, an analysis aimed at determining the alternative with the least harm to Section 4(f) resources is required. To determine whether Section 4(f) protection applies to lands potentially affected by a federal transportation project, two prerequisites are considered: (1) the project must involve a resource that is protected under the provisions of Section 4(f), and (2) there must be a use of that resource.

As defined in Code of Federal Regulations (CFR), Title 23, Section 774.17, resources subject to Section 4(f) consideration include publicly owned lands that are considered part of a public park; a recreational area of national, state, or local significance; a wildlife or waterfowl refuge; or a historic site of national, state, or local significance, whether publicly or privately owned. As defined in 23 CFR 774.17, the use of a protected Section 4(f) resource occurs when any of the following conditions are met.

- Land is permanently incorporated into a transportation facility.
- There is a *temporary occupancy* of land that is adverse in terms of the preservationist purposes of Section 4(f). Temporary occupancy results when Section 4(f) property, in whole or part, is required for project construction-related activities, but the property is not permanently needed for the transportation facility. Also refer to Section 8.4.1.2, *Temporary Occupancy*, for further discussion.

- There is no permanent incorporation of land, but the proximity of a transportation facility results in impacts so severe that the protected activities, features, or attributes that qualify a resource for protection under Section 4(f) are substantially impaired (i.e., *constructive use*). Also refer to Section 8.4.1.3, *Constructive Use*, for further discussion.

8.3 Affected Environment

8.3.1 Study Area

The study area for public parks and recreation areas is 1,000 feet on either side of the BART alignment. Generally, a 1,000 foot area around the BART alignment, stations, and facilities captures all parks and recreational areas that would be directly or indirectly affected by the BART Extension as well as those requiring tunnel easements.

The study area for historic sites (henceforth referred to as “historic properties”) is the Area of Potential Effects (APE) developed in accordance with 36 CFR 800.4(a)(1). The APE is the geographic area or areas within which an Undertaking may directly or indirectly cause alterations in the character or use of historic properties or archaeological sites. Two APEs were developed, one for built environment architectural resources and one for archaeological resources (see Appendices D.1 and D.2, respectively).

8.3.1.1 Consultation with the Officials with Jurisdiction

Consultation with the Cities of San Jose and Santa Clara was initiated in October 2015 to identify parks and recreation facilities under their jurisdiction. Consultation efforts consisted primarily of email correspondence and follow-up telephone conversations with San Jose Department of Parks, Recreation, and Neighborhood Services staff. Through this consultation effort, the Cities of San Jose and Santa Clara provided information regarding facilities under their respective jurisdictions. These lists were used to identify Section 4(f) resources within the study area.

With regard to cultural resources, consultation with the State Historic Preservation Officer (SHPO) is ongoing. FTA and VTA consulted the SHPO regarding the delineation of the archaeological and architectural APE and the eligibility determinations of the resources identified within the APE. Meetings with the SHPO were held on October 30, 2003, January 26, 2009, December 17, 2009, in 2013, and on January 17, 2014, February 29, 2016, May 5, 2016, and June 8, 2016. On April 6, 2016, the SHPO concurred with the delineation of the APE. The SHPO concurred on the delineation of the revised APEs on October 28, 2016 (Polanco 2016). The SHPO concurred with the eligibility determinations of the 2003 *Historic Resources Evaluation Report* (HRER) prepared by JRP Historical Consulting, LLC (JRP) within letters dated June 9, 2003, and July 9, 2003 (Mellon 2003a and 2003b). In the same concurrence letter dated October 28, 2016 (Polanco 2016), the SHPO also agreed with the eligibility determinations in the 2016 *Supplemental Built Environment Survey Report* and

agreed that FTA and VTA’s historic resources identification efforts to date were appropriate for the Undertaking.

8.3.1.2 Public Parks and Recreational Areas

Table 8-1 provides a list of the 22 properties within the study area that have been considered for evaluation as potential Section 4(f) properties. Publicly owned land is considered to be a park, recreation area, or wildlife and waterfowl refuge, and thus protected under Section 4(f), when the land has been officially designated as such by a federal, state, or local agency, and the officials with jurisdiction over the land determine its primary purpose is as a park, recreation area, or refuge (FHWA 2012). These include 11 existing parks, one existing educational garden, four planned trails, one school playfield, one planned recreational facility, and four other public spaces. Of these 22 properties, 19 existing and planned facilities are considered to be protected under Section 4(f) or would be protected under Section 4(f) once developed. The three properties not considered protected were privately owned (and thus not open to the public) or their primary purpose was not recreation. The table also provides an overview of each resource’s location relative to the BART Extension corridor, ownership, features, attributes, and significance. The locations of these potential Section 4(f) properties are depicted in Figure 8-1.

Table 8-1: Potential Section 4(f) Properties (Parks and Recreational Areas)

Map ID	Name	Description	Address/ Location	Approximate Distance from Corridor	Section 4(f) Resource?
P1	Lower Silver Creek Trail (Proposed) ^a	Size: 6.5 miles (Proposed) Features: Planned trail extension along the culverted Lower Silver Creek Agency with Jurisdiction: San Jose Department of Parks, Recreation, and Neighborhood Services	Planned from Coyote Creek to Jackson Avenue along Lower Silver Creek	The BART Extension crosses proposed trail alignment	Yes (Planned)
P2	Five Wounds Trail (Proposed) ^b	Size: 2.2 miles (Proposed) Features: Planned trail to link Berryessa BART Station to the Lower Silver Creek Trail and Coyote Creek Trail Agency with Jurisdiction: San Jose Department of Parks, Recreation, and Neighborhood Services	Planned between William Street and Taylor Street	The BART Extension crosses proposed trail alignment	Yes (Planned)
P3	Hacienda Park	Size: 0.25 acre Features: Grassy open space for picnicking Agency with Jurisdiction: San Jose Department of Parks, Recreation, and Neighborhood Services	Approximately 360 West Court, San Jose, CA 95116	Adjacent	Yes

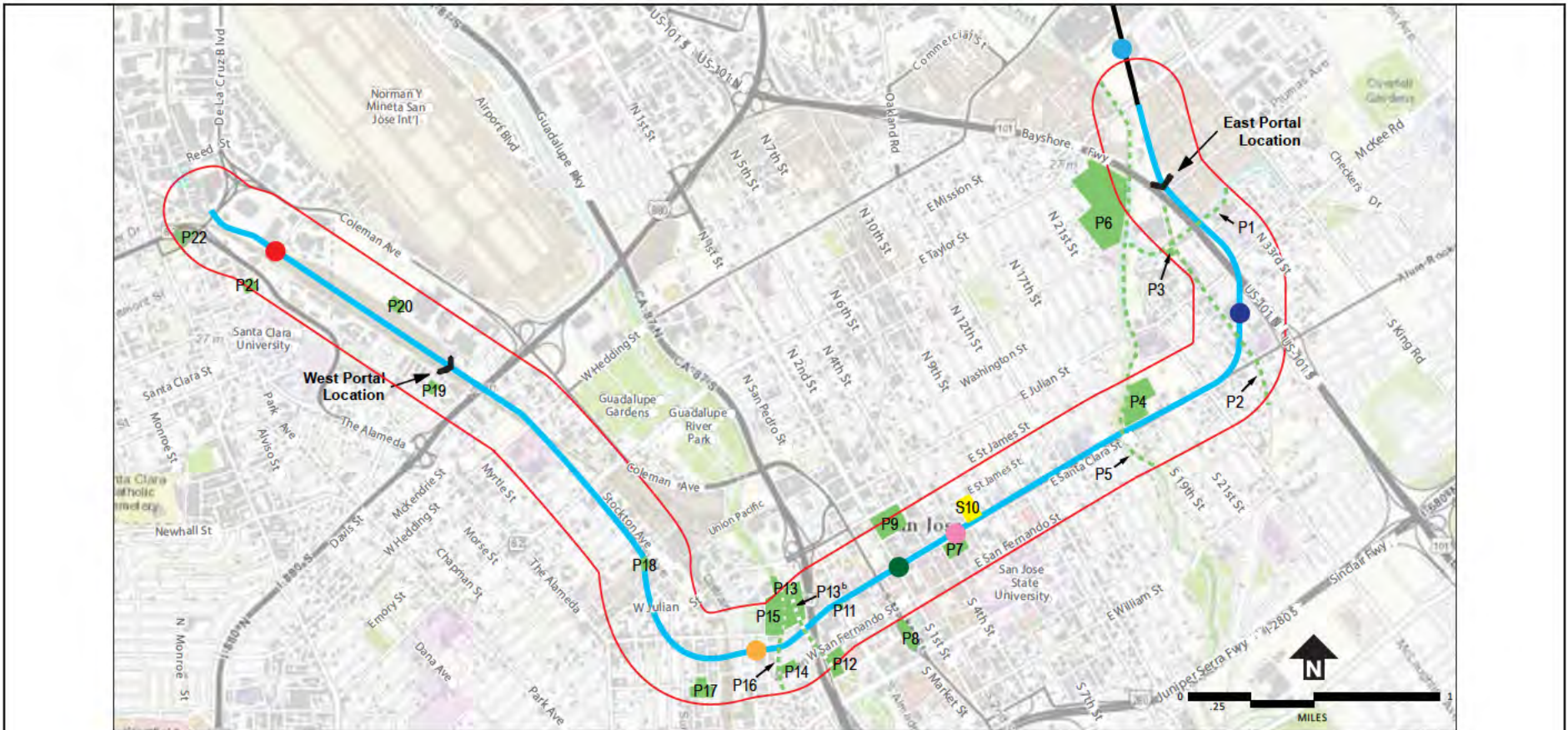
Map ID	Name	Description	Address/ Location	Approximate Distance from Corridor	Section 4(f) Resource?
P4	Roosevelt Park	Size: 11 acres Features: Skate park, basketball court, lighted softball field, handball courts, playground, picnic areas Agency with Jurisdiction: San Jose Department of Parks, Recreation, and Neighborhood Services	901 Santa Clara Street	BART alignment crosses under park	Yes
P5	Coyote Creek Trail (Proposed) ^c	Size: 18.7 miles (Proposed) Features: Planned trail extension from Berryessa BART Station to Santa Clara Street Station Agency with Jurisdiction: San Jose Department of Parks, Recreation, and Neighborhood Services	From Highway 237 to Anderson County Park	BART Extension crosses under proposed trail alignment	Yes (Planned)
P6	Watson Park	Size: 26.6 acres Features: Soccer field, playground equipment, dog play areas Agency with Jurisdiction: San Jose Department of Parks, Recreation, and Neighborhood Services	Jackson Avenue and 22 nd Street	800 feet	Yes
P7	City Hall Plaza	Size: 0.9 acre Features: Outdoor event space. Events by permit only. With a total capacity of 2,688 persons, the plaza consists of an East and a West Plaza as well as a bamboo courtyard. Agency with Jurisdiction: City of San Jose	San Jose City Hall	Adjacent	No – City Hall Plaza’s primary purpose was designed and is used as an outdoor public space as part of the City Hall campus. Event use is occasional and recreation is not the primary purpose of the plaza.
P8	Plaza de Cesar Chavez	Size: 2.3 acre Features: Picnic benches, lawns, fountain, small stage Agency with Jurisdiction: San Jose Department of Parks, Recreation, and Neighborhood Services	Market Street/Park Avenue	970 feet	Yes
P9	St. James Park	Size: 6.8 acres Features: Picnic areas, exercise course, playgrounds, sweeping lawns, and walking paths Agency with Jurisdiction: San Jose Department of Parks, Recreation, and Neighborhood Services	St. John Street/1 st Street	625 feet	Yes

Map ID	Name	Description	Address/ Location	Approximate Distance from Corridor	Section 4(f) Resource?
S10	Horace Mann Elementary School Playfields	Size: 0.7 acre (Playfields only) Features: Grass field and basketball court Agency with Jurisdiction: San Jose Unified School District	55 North 7 th Street, San Jose	Adjacent	Yes – Joint use agreement with San Jose Department of Parks, Recreation, and Neighborhood Services
P11	Almaden Entrance Triangle	Size: 0.25 acre Features: Open space with lawn and sculptural art Agency with Jurisdiction: City of San Jose	Santa Clara Street/Almaden Boulevard	Adjacent	No – This is an incidental greenspace and recreation is not primary purpose.
P12	McEnery Park	Size: 7.0 acres Features: Children’s play area, sculptural art, fountains, landscaping Agency with Jurisdiction: Guadalupe River Park Conservancy/ City of San Jose Department of Parks, Recreation, and Neighborhood Services	San Fernando Street east of the Guadalupe River	700 feet	Yes
P13	Guadalupe River Park and Trail	Size: 3-mile Parkway, 9-mile trail Features: Part of the Guadalupe River Parkway chain that runs along the Guadalupe River. The Guadalupe River Park includes public art, play areas, gardens, and picnic areas. The Guadalupe River Trail (Downtown portion) is part of the Guadalupe River Trail network and is a paved trail for bicycling and walking activities. The trail runs through the Guadalupe River Park and continues south beyond Highway 280. Agency with Jurisdiction: Guadalupe River Park Conservancy/City of San Jose Department of Parks, Recreation, and Neighborhood Services	Guadalupe River Park is located between Taylor Street and Santa Clara Street along the Guadalupe River. Trail extends from Gold Street to Virginia Street along the Guadalupe River	Guadalupe River Park is located 230 feet from the BART Extension alignment. The BART Extension crosses under the Guadalupe River Trail.	Yes
P14	San Fernando Station Plaza	Size: 0.7 acre Features: Landscaping, incidental green space described by City as a Park use, public art Agency with Jurisdiction: Santa Clara Valley Transportation Authority	San Fernando Street/Gifford Avenue	430 feet	Yes

Map ID	Name	Description	Address/ Location	Approximate Distance from Corridor	Section 4(f) Resource?
P15	Arena Green	Size: 7.0 acres Features: Part of the Guadalupe River Park. Playground equipment, carousel, sculpture art, and recreational trails. Children's Carousel operates year-round Tuesday–Sunday, 10 a.m.–5 p.m. Agency with Jurisdiction: Guadalupe River Park Conservancy/ City of San Jose Department of Parks, Recreation, and Neighborhood Services	Between Santa Clara and Julian Streets, across Autumn Street from the HP Pavilion	250 feet	Yes
P16	Los Gatos Creek Trail (Proposed) ^d	Size: Approximately 0.6 mile Features: Proposed extension of the Los Gatos Creek Trail known as Reach 5. Agency with Jurisdiction: City of San Jose Department of Parks, Recreation, and Neighborhood Services	Proposed extension from San Carlos Street to Guadalupe River Park	BART Extension crosses the proposed trail corridor.	Yes – (Planned)
P17	Cahill Park	Size: 3.7 acres Features: Neighborhood park containing small basketball court and two playground areas Agency with Jurisdiction: City of San Jose Department of Parks, Recreation and Neighborhood Services	San Fernando Street/Bush Street	350 feet	Yes
P18	Theodore Lenzen Park	Size: 0.5 acre Features: Playground equipment, picnic tables, open space Agency with Jurisdiction: City of San Jose Department of Parks, Recreation, and Neighborhood Services	Lenzen Avenue/ Stockton Avenue	BART alignment crosses under park	Yes
P19	Newhall Park	Size: 1.6 acres Features: Children's playground, lawn, and picnic areas Agency with Jurisdiction: City of San Jose Department of Parks, Recreation, and Neighborhood Services	Newhall Street/ Campbell Avenue	400 feet	Yes

Map ID	Name	Description	Address/ Location	Approximate Distance from Corridor	Section 4(f) Resource?
P20	Coleman Soccer Fields (Proposed)	Size: 12.2 acres Features: Planned soccer field complex Agency with Jurisdiction: City of San Jose Department of Parks, Recreation, and Neighborhood Services	Coleman Avenue and Brokaw Road (Approximate)	Adjacent to maintenance facility	Yes (Planned)
P21	The Forge Garden	Size: 0.5 acre Features: Educational garden and campus green space. Agency with Jurisdiction: Santa Clara University	500 El Camino Real, Santa Clara	900 feet	No – Privately owned facility, the primary purpose of which is as an educational facility.
P22	Larry J. Marsalli Park	Size: 7.0 acres Features: Open space, lighted softball field, and children’s playground equipment. Agency with Jurisdiction: City of Santa Clara Parks and Recreation Department	Portola Avenue to Lafayette Street	600 feet from maintenance facility	Yes

Source: Google Earth Pro 2015; City of San Jose 2008, 2015.
 Websites: ROEM Corp., City of San Jose, City of Santa Clara, Guadalupe River Park Conservancy, Newhall Neighborhood Association.
^aThe Lower Silver Creek Trail is a partially developed planned trail. The partially developed portion of the trail is outside the study area of the BART Extension, but the remaining planned portions of the trail are contained in the Lower Silver Creek Master Plan, which was approved in December 2007.
^bFive Wounds Trail (Proposed) would follow a former railway alignment through eastern downtown San Jose. In 2010, the community developed a conceptual plan for this trail. No further studies have been completed.
^cCoyote Creek Trail (Proposed) would extend north and south along Coyote Creek through the City of San Jose. A planning document for this segment – *Coyote Creek Trail, Story Road to Lower Silver Creek Master Plan* – was released in 2008. Final design of this segment is currently ongoing, and no construction commencement date has been identified.
^dThe proposed Reach 5 of the Los Gatos Creek Trail would extend north from the existing Los Gatos Creek Trail to intersect with the Guadalupe Creek Trail at Santa Clara Street. A planning document for this segment – *Los Gatos Creek Trail Reach 5 Master Plan* – was released in 2008. Final design of this segment is currently ongoing, and no construction commencement date has been identified.
 Note: Please see the *Section 4(f)/6(f) Technical Report* (ICF 2016) for additional details on each resource described in the table.



Source: ESRI, 2015. Google Maps, 2015

Legend

- Study Area
- BART Extension Alternative
- Berryessa Extension (under construction)
- - - Proposed Trail
- Berryessa Station (under construction)
- Alum Rock Station
- Downtown San Jose Station - East Option
- Downtown San Jose Station - West Option
- Diridon Station (North and South Options)
- Santa Clara Station
- Park
- School

- | Park and Recreation Facility | Map Icon |
|---|----------|
| Lower Silver Creek Trail (Proposed) * | P1 |
| Five Wounds Trail (Proposed) * | P2 |
| Hacienda Park | P3 |
| Roosevelt Park | P4 |
| Coyote Creek Trail (Proposed) * | P5 |
| Watson Park | P6 |
| City Hall Plaza | P7 |
| Plaza de Cesar Chavez | P8 |
| St. James Park | P9 |
| Horace Mann Elementary School | S10 |
| Almaden Entrance Triangle Park | P11 |
| McEnery Park | P12 |
| Guadalupe River Park & Trail * ^b | P13 |

- | Park and Recreation Facility | Map Icon |
|----------------------------------|----------|
| San Fernando Station Plaza | P14 |
| Arena Green | P15 |
| Los Gatos Creek Trail (Proposed) | P16 |
| Cahill Park | P17 |
| Theodore Lenzen Park | P18 |
| Newhall Park | P19 |
| Coleman Soccer Fields | P20 |
| The Forge Garden | P21 |
| Larry J. Marsalli Park | P22 |

* Feature depicted shows those portions within the Study Area

Graphics: 00332213 (6-23-2016)

Figure 8-1
Park and Recreational Facilities within 1,000 feet of BART Extension Alternative
 VTA's BART Silicon Valley-Phase II Extension Project

8.3.1.3 Cultural Resources

In 2003, historic properties were identified and evaluated as required under Section 106 of the National Historic Preservation Act (NHPA) in the 2003 HRER prepared by JRP. In 2016, JRP prepared a *Supplemental Built Environment Survey Report* to evaluate additional properties that were not considered in the 2003 study. These two reports identified a total of 29 historic properties within the APE that were listed in or determined eligible for listing in the National Register of Historic Places (NRHP). On October 28, 2016, the SHPO agreed with the eligibility determinations in the 2016 *Supplemental Built Environment Survey Report* and concurred that FTA and VTA's historic resources identification efforts to date were appropriate for the Undertaking.

Table 8-2 describes the 29 NRHP-listed and eligible properties identified within the APE for the BART Extension, all of which are protected under Section 4(f). Appendix D.1 contains the architectural APE map and depicts the location of each property listed in Table 8-2.

In addition to the historic structures identified above, archaeological sites eligible for listing or listed in the NRHP and warrant preservation in place (as opposed to archaeological sites that are important chiefly for data recovery) also come under the purview of Section 4(f). A *Finding of Effects* report, dated December 2016, was prepared to determine whether the BART Extension would adversely affect any archaeological resources that are present along the corridor (JRP, ICF, and Far Western 2016). The results of this records search indicate that only one known archaeological site (CA-SCL-363H) is located within the archaeological APE, and it is eligible for listing in the NRHP under Criteria A and D. Accordingly, portions of this site may warrant preservation in place, and the site would be considered a Section 4(f) protected resource. However, if CA-SCL-363H is important chiefly because of what can be learned by data recovery, then according to 23 CFR 774.13(b), this site would be exempt from consideration as a Section 4(f) resource. For the purposes of this analysis, it is assumed that this site warrants preservation in place and is thus considered a Section 4(f) protected historic property. Appendix D.2 contains the archaeological APE map and depicts the general location of CA-SCL-363H.

In addition to the known archaeological resource, CA-SCL-363H, *VTA's BART Silicon Valley—Phase II Extension Project Archaeological Resources Technical Report* (Far Western 2016) identified numerous locations within the APE where archaeological resources may be expected. Because these sites are yet undiscovered or otherwise unknown, their protection under Section 4(f) cannot be determined, and it is not feasible to test all areas of potential buried site sensitivity at this time. Therefore, a Draft Programmatic Agreement (PA) has been prepared for the identification and evaluation of archaeological resources in phases prior to construction of the project and treatment of archaeological resources and burials in the event that such resources are discovered during construction activities. The Draft PA includes an outline for an Archaeological Resources Treatment Plan (ARTP) that will be prepared. The ARTP will describe archaeological procedures, notification and consultation requirements, professional qualifications requirements, and procedures for the

disposition of artifacts if any are discovered. On October 28, 2016, the SHPO concurred that FTA and VTA's historic resources identification efforts to date were appropriate for the Undertaking, and the development of a Programmatic Agreement and Treatment Plan to address the phased archaeological identification efforts was appropriate (Polanco 2016).

Table 8-2: Historic Properties Determined Eligible for Listing in the NRHP

Map Reference	APN	Street Address	Year Built	NRHP Eligible or Listed? (NRHP Criteria)	Approximate Distance from BART alignment/feature
C-25	467-08-007 467-08-009 467-08-014	1375–1401 East Santa Clara Street	1916–1960	Eligible (A, C)	105 feet
C-26	467-10-043	1191 East Santa Clara Street	1949	Eligible (A, C)	30 feet
C-27	467-10-046	1169 (1167) East Santa Clara Street	1888	Eligible (C)	30 feet
D-03	467-57-082	227–247 East Santa Clara Street	1928	Eligible (A, C)	15 feet
E-08*	467-23-035	142–150 East Santa Clara Street	1913	Listed (A, C)	15 feet
E-09*	467-23-036	138 East Santa Clara Street	1905	Listed (A, C)	15 feet
E-10*	467-23-038	124–126 East Santa Clara Street	1900	Listed (A, C)	15 feet
E-11*	467-23-039	114–118 East Santa Clara Street	1920	Listed (A, C)	15 feet
E-12*	467-23-089	100 East Santa Clara Street	1912	Listed (A, C)	15 feet
E-13*	467-22-149	96 East Santa Clara Street ^a	ca. 1883	Listed (A, C)	15 feet
E-14*	467-22-148	52 East Santa Clara Street	1900	Listed (A, C)	15 feet
E-15	467-21-028	19 North 2 nd Street	1925	Eligible (C)	75 feet
E-18*	467-22-041 467-22-042	42–48 East Santa Clara Street	1930s	Listed (A, C)	15 feet

Map Reference	APN	Street Address	Year Built	NRHP Eligible or Listed? (NRHP Criteria)	Approximate Distance from BART alignment/feature
E-19*	467-22-158	36–40 East Santa Clara Street	1869	Listed (A, C)	15 feet
E-20	467-54-001 through 467-54-034	22 North 1 st Street ^b	1926	Eligible (A, C)	100 feet
E-21*	467-62-001 through 467-62-020	8–14 South 1 st Street	1926	Listed (A, C)	15 feet
E-22	259-40-038	34 West Santa Clara Street	ca. 1880 1910s 1920s	Eligible (A, C)	15 feet
E-23	259-34-018	81 West Santa Clara Street	1926	Eligible (C)	15 feet
E-24	259-34-046	101 West Santa Clara Street	1942	Eligible (A, C)	15 feet
E-25	259-38-128	374 West Santa Clara Street	1934	Eligible (A, C)	BART alignment crosses under historic property
E-27	467-20-078	30 North 3 rd Street	ca. 1903	Eligible (C)	125 feet
E-35 ^c	259-35-05	151–155 West Santa Clara Street	ca. 1884 1930 ca. 1970	Eligible (A, B, C)	15 feet
E-36	259-35-035	161–167 West Santa Clara Street	1883	Eligible (B, C)	15 feet
F-13	261-34-020	Cahill Station and Santa Clara / Alameda Underpass	1935	Listed (C)	BART alignment crosses under historic property
F-14	261-33-020	848 The Alameda	ca. 1884	Eligible (C)	75 feet
F-15	261-01-074	176 North Morrison Avenue	ca. 1898	Eligible (C)	BART alignment crosses under historic property

Map Reference	APN	Street Address	Year Built	NRHP Eligible or Listed? (NRHP Criteria)	Approximate Distance from BART alignment/feature
E-22	261-01-063	179-181 Rhodes Court	ca. 1948	Eligible (C)	BART alignment crosses under historic property
I-01	230-06-031 230-06-032 230-06-050 230-06-051	1 Railroad Avenue (Santa Clara Station)	1863–1864 1877	Listed (A, C)	160 feet
I-02	230-06-040	Benton And Railroad (Santa Clara Tower)	1904 1927	Eligible (C)	160 feet

Source: JRP Historical Consulting, LLC, 2015.

Notes:

- * Contributor to the San Jose Downtown Commercial District, which was listed in the NRHP in 1983.
- ^a This property is also known as 82 Santa Clara Street.
- ^b This property is also known as 28 North First Street.
- ^c The legal parcel includes three buildings. The Farmers Union Building at 151–155 Santa Clara Street was previously determined eligible for listing in the NRHP and California Register of Historic Resources, and the current study agrees with the previous determination. The “Old Mill” building at 25–29 North San Pedro Street and the San Pedro Square Properties Building at 35 North San Pedro Street were evaluated for the first time during the present study and found not eligible for listing in the NRHP.

8.4 Environmental Effects Analysis

8.4.1 Criteria for Determining Section 4(f) Use

8.4.1.1 Direct Use

A direct use of a Section 4(f) resource takes place when property is permanently incorporated into a proposed transportation project (23 CFR 774.17[1]). This may occur as a result of partial or full acquisition of a fee simple interest, permanent easements, or temporary easements that exceed the regulatory limits noted below (FHWA 2012). Because a substantial portion of the BART Extension would consist of construction of a tunnel that would run below several Section 4(f) resources, Twin-Bore and Single-Bore Options tunneling effects and the potential for direct use must be considered. As described in FHWA's Section 4(f) Policy Paper, Section 4(f) applies to the act of tunneling under a Section 4(f) resource only if the tunneling would result in any of the following.

1. Disturbs archaeological sites that are on or eligible for the NRHP which warrant preservation in place.
2. Causes disruption that would permanently harm the purposes for which the park, recreation area, or wildlife or waterfowl refuge was established.
3. Substantially impairs the historic values of a historic site.
4. Otherwise does not meet the exception for temporary occupancy (addressed below).

8.4.1.2 Temporary Occupancy

A temporary occupancy occurs when land from a Section 4(f) resource is occupied temporarily (i.e., during construction). As defined under 23 CFR 774.17, a use would occur when a temporary occupancy is adverse in terms of the statute's preservation purpose (i.e., the attributes of the resource that qualify it for Section 4[f] consideration). Under 23 CFR 774.13[d], a temporary occupancy of a property does not constitute a use of a Section 4(f) resource when the conditions for an exception to the requirement for Section 4(f) approval, listed below, are satisfied.

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

- There must be documented agreement by the appropriate officials having jurisdiction over the resource regarding the foregoing requirements.

8.4.1.3 Constructive Use

A constructive use of a Section 4(f) resource happens when a transportation project does not permanently incorporate land from the resource, but the proximity of the project results in impacts (i.e., noise, vibration, visual, access, and/or ecological impacts) so severe that the protected activities, features, or attributes that qualify the resource for protection under Section 4(f) are substantially impaired (23 CFR 774.15). Substantial impairment occurs only if the protected activities, features, or attributes of the resource are substantially diminished.

This determination is made through the following practices.

- Identification of the current activities, features, or attributes of the resource that may be sensitive to proximity impacts.
- Analysis of the potential proximity impacts on the resource.
- Consultation with the appropriate officials with jurisdiction over the resource.

Federal Highway Administration (FHWA) / Federal Transit Administration (FTA) Section 4(f) regulations stipulate that when a project's impacts in the vicinity of Section 4(f) resources are so severe that the resources' activities, features, attributes, or activities qualifying the property for protection under Section 4(f) are substantially impaired, then a feasible and prudent avoidance alternative must be considered by means of a Section 4(f) evaluation, even if the project does not actually intrude into the Section 4(f) property.

8.4.2 Methods

Mapping of the BART alignment, station facilities, and construction staging areas (CSAs) was reviewed. The locations of potential Section 4(f) resources (e.g., public parks, recreational lands, wildlife and waterfowl refuges, or historic properties in the vicinity) were determined based on the mapping. Section 4(f) resources were identified and mapped, and the analyzed to determine if BART Extension construction or operation and maintenance would affect the Section 4(f) resources. For the purposes of this analysis and consistent with FHWA's 2012 Section 4(f) Policy Paper, within NRHP listed or eligible historic districts, the requirements of Section 4(f) have been applied to all properties that are considered contributing to the eligibility of the historic district, as well as any individually eligible or listed historic properties within the district.

8.4.3 Effects on Section 4(f) Resources and Potential Use Assessment

8.4.3.1 Public Parks and Recreation Facilities

Potential for Direct Use

The BART Extension would not require any permanent right-of-way (ROW) to be acquired from any of the Section 4(f) properties (public parks and recreational facilities) listed in Table 8-1. This applies to all of the options being considered. The Twin-Bore and Single-Bore Options would construct tunnels below a portion of Roosevelt Park (Twin-Bore Option only), the Guadalupe River Park and Trail, and Theodore Lenzen Park. Similarly, the Twin-Bore and Single-Bore Options would construct tunnels below the alignments of several planned trails, including the Lower Silver Creek Trail, Coyote Creek Trail, and Los Gatos Creek Trail.

The proposed Twin-Bore Option would construct tunnels at a depth that would range from 40–50 feet below the ground surface of the parks or trail resources listed above while the Single-Bore Option would construct tunnels at a depth that would range from 70–90 feet below the ground surface of the park or trail resources listed above. At such a depth, surface disruptions related to construction and operation of the tunnel are not anticipated at any of the Section 4(f) properties, and no harm to the purposes of these properties would result. As described above under Section 8.4.1.1, *Direct Use*, the requirements of Section 4(f) apply to tunneling activities only if such activities cause disruptions that would permanently harm the purposes for which a park or recreation area were established. Therefore, there is no potential for use to result from the Twin-Bore or Single-Bore Options constructing tunnels below parks or recreational resources.

In addition, permanent tunnel easements below Roosevelt Park, the Guadalupe River Park and Trail, and Theodore Lenzen Park, as well as the planned Lower Silver Creek, Coyote Creek, and Los Gatos Creek Trails, would be purchased by VTA. Although these easements would grant VTA the right to construct and operate the BART Extension in tunnels below Section 4(f) resources, they would not impose restrictions on the Section 4(f) property owners to use the property or otherwise grant future right of access to VTA, such as for the purposes of routine maintenance, such that the land would be considered permanently incorporated into the transportation facility. Accordingly, no use would result from the purchasing of tunnel easements beneath Roosevelt Park, the Guadalupe River Park and Trail, Theodore Lenzen Park, or the planned Lower Silver Creek, Coyote Creek, and Los Gatos Creek Trails.

Potential for Use Resulting from Temporary Occupancy

No construction staging and/or construction easement would be required from any of the identified Section 4(f) properties. Construction work would take place primarily underground using tunnel boring machinery. CSAs are proposed in the vicinity (within 500 feet) of several

Section 4(f) resources, namely St. James Park, the Horace Mann Elementary School Playfields, Guadalupe River Park and Trail, San Fernando Station Plaza, and Arena Green. In addition, CSAs are proposed in the vicinity of several planned resources including the proposed Lower Silver Creek Trail, Five Wounds Trail, Los Gatos Creek Trail, and the Coleman Soccer Fields. In general, construction activities associated with the CSAs (i.e., materials and equipment storage, construction vehicle movement, and tunnel muck storage) would not conflict with the regular use of any of the above-listed Section 4(f) resources because access to these resources would be maintained throughout construction and typical activities that occur at parks in the study area would not be interrupted. In the case of the proposed Five Wounds Trail, the CSA would be sited within the inactive railroad ROW proposed for development of the trail. However, this ROW is owned by VTA and would remain under VTA ownership throughout construction. VTA will not move forward with development of the Five Wounds Trail until construction of the BART Extension is complete. Therefore, there is no potential for temporary occupancy of the proposed trail, and no use would result (23 CFR 774.11[i]).

Potential for Constructive Use

A majority of the BART Extension would operate underground, and no proximity impacts would be experienced at any of the Section 4(f) resources along the underground tunnel portions of the alignment. In those areas where aboveground elements (e.g., tunnel portals, maintenance facilities, aboveground station facilities) would be sited in the vicinity of a Section 4(f) resource, proximity impacts would be minor (e.g., minimal increases in noise and visual changes). In the vicinity of stations, proximity impacts would be limited to visual changes due to the presence of station entrances and associated signage and other infrastructure. Only Arena Green, the Guadalupe River Trail and Park, and the San Fernando Station Plaza are close enough to Diridon Station (South and North Options) to experience any potential proximity impacts, and the nearest park, Arena Green, is approximately 90 feet from the Diridon Station entrance. Newhall Park is located approximately 390 feet south of the proposed Newhall Maintenance Facility and crossover tracks. As existing multi-family residential structures separate the park from the proposed maintenance facility, views from Newhall Park would not be affected, and noise increases are anticipated to be minor given the distance, intervening buildings, and existing rail operations within the proposed maintenance facility site. One planned Section 4(f) resource, the Coleman Soccer Fields, is proposed to be developed on a site adjacent to the Newhall Maintenance Facility and crossover tracks. The proposed soccer facility was originally planned to be complete in 2012; however, the soccer complex has not been constructed and in January 2016, the City of San Jose deferred the award of a construction contract for the proposed soccer complex (City of San Jose 2016). Because the soccer fields are a proposed facility, they were not identified as a sensitive receptor nor were they analyzed in the noise and vibration analysis; however, based on the noise analysis conducted for the BART Extension, one sensitive receptor is in proximity to the potential Coleman Soccer Fields site, the Candlewood Suites Hotel along the west side of the existing rail tracks. This use is expected to experience a future daily

exposure (Ldn) noise level of 67 A-weighted decibels (dBA). This anticipated noise level represents an increase of 2 dBA, which is considered a moderate noise impact. In addition, the *Noise and Vibration Technical Report* (Wilson, Ihrig 2016) concluded that noise generated by the Newhall Maintenance Facility would be consistent with existing rail operations and would not result in a discernible difference in noise levels at nearby receptors. Accordingly, it is anticipated that noise generated from the maintenance facility and operation of the BART Extension would not present impacts on the proposed soccer fields that would impair the intended activities, features, or attributes of the soccer facility. In addition, the City is considering a different location at Coleman Avenue and Hedding Street for the soccer fields, which would eliminate any potential for proximity impacts from the BART Extension on the proposed soccer fields. Accordingly, no constructive use of any Section 4(f) resources is anticipated. Additional detail related to potential for constructive use at each Section 4(f) resource is provided in *Section 4(f)/6(f) Technical Report* (ICF 2016).

8.4.3.2 Cultural Resources

Potential for Direct Use

As described in the Section 4.5, *Cultural Resources*, improvements related to the construction of station facilities and streetscape improvements would be developed in the vicinity of historic properties that are protected under Section 4(f). However, no portion of an historic property would be permanently incorporated into the BART Extension. As shown in Table 8-2, the BART Extension alignment would run below and have tunnel easements from three historic properties: 374 Santa Clara Street (Map Reference E-25), 176 North Morrison Avenue (Map Reference F-15), and 179–181 Rhodes Court (Map Reference F-22). Section 4(f) applies to tunnel construction and associated activities only if they would substantially impair the historic values of a historic property. There is no potential for adverse effects on any of the historic properties where tunnels would be constructed below them; therefore, no use would result.

In addition, rail tiebacks associated with the Twin-Bore and Single-Bore Options would be constructed below various historic properties at the Downtown San Jose Station (East and West Options). Tieback anchors are long metal rods or bundled tendons drilled and grouted into the ground to brace construction support walls and adjacent property and/or structures during excavation of underground facilities. Tiebacks may remain in the ground after completion of construction. The tiebacks are estimated to be up to 110 feet in length with the last 50 feet farthest away from the trench secured in place. Tiebacks are typically spaced at 4 to 6 feet on center horizontally and 5 to 8 feet on center vertically. Tieback installation could start at approximately 3 feet below-grade. The tiebacks pose no potential for adverse effects on the historic structures, as detailed in the *Section 4(f)/6(f) Technical Report* (ICF 2016). As described above under Section 8.4.1.1, *Direct Use*, Section 4(f) applies to tunnel construction under historic properties and tiebacks used in cut-and-cover construction that may extend into historic properties only if they would substantially impair the historic values of a historic property. There is no potential for adverse effects on any of the historic

properties where tunnels or associated tiebacks would be constructed below them; therefore, no use would result.

Section 4.5, *Cultural Resources*, and Chapter 5, *Construction* state that the construction and operation of the BART Extension would not result in adverse effects on CA-SCL-363H because none of the elements of the resource that contribute to its eligibility would be disturbed as a result of tunnel boring. The Twin-Bore Option tunnels would be constructed approximately 40 feet below ground level while the Single-Bore Option tunnel would be constructed approximately 70 feet below ground level. The depth of the proposed tunnel (under both Twin-Bore and Single-Bore Options) would be well below the depth of any potential deposits associated with CA-SCL-363H, and there is no potential for the partial removal of, physical destruction of, or damage to the historic property under Section 4(f). The draft FOE prepared for the BART Extension has preliminarily concluded that there is no potential for adverse effects on historic properties including the one known archaeological historic property, CA-SCL-363H, within the APE. However, as described in Chapter 5, Section 5.5.6 *Cultural Resources*, construction of the BART Extension may adversely affect as yet unidentified archaeological sites eligible for the NRHP. FTA and VTA have therefore chosen to conduct the identification and evaluation of potential historic properties, and the resolution of any adverse effects on historic properties within the APE, in phases pursuant to 36 CFR 800.4(b)(2) and 36 CFR 800.5(a)(3), subsequent to the approval of the Undertaking. Therefore, a Draft PA has been prepared, which includes an outline for an Archaeological Resources Treatment Plan (ARTP). The preparation and implementation of the PA and ARTP are identified in Chapter 5, Section 5.5.6, *Cultural Resources*, as Mitigation Measure CUL-CNST-A. The Draft PA is included in Appendix D.3. Due to access constraints posed by existing urban development, final identification and evaluation of historic properties would occur subsequent to FTA's signing the Record of Decision and prior to the commencement of construction for the project. Applying the stipulations of the Draft PA, any undiscovered archaeological resources that are encountered during construction would be evaluated for NRHP eligibility and, if found eligible for the NRHP, would require evaluation for use under Section 4(f) if preservation in place is warranted. Consistent with 23 CFR 774.9(e), in such cases of late discovery of archaeological resources, the level of investment already made would be considered in any associated avoidance alternatives evaluation.

Potential for Use Resulting from Temporary Occupancy

Although construction activities would take place in the vicinity of historic properties, and in some cases adjacent to or underneath historic properties, these activities would not result in the destruction, damage, or physical alteration of any of the historic properties listed above. While cut-and-cover station excavation may expose historical buildings to excessive vibration, Mitigation Measures NV-CNST-P through NV-CNST-S would ensure that no adverse effect related to construction period vibration would occur. There is no potential for use to result from temporary occupancy of any of the 29 identified built environment historic properties. However, a CSA would be located within the non-contributing part of

CA-SCL-363H, which is the only known archaeological resource within the APE and is currently developed with pavement. No ground disturbance or excavation is proposed within the CSA; therefore, the temporary occupancy of the non-contributing portion of CA-SCL-363H does not pose any potential for a Section 4(f) use. Construction activities associated with the BART Extension would not alter, directly or indirectly, any of the characteristics that qualify the historic properties identified in this section for protection under Section 4(f). All construction activities, including use of the proposed CSA, would be carried out consistent with the PA and ARTP. No use would result from the BART Extension.

Potential for Constructive Use

Aboveground elements of the BART Extension include tunnel portals, ventilation structures, station entrances, parking garages, signage, intersection improvements, system facilities such as traction power substations, and a maintenance facility. In those areas where aboveground elements would be sited in the vicinity of a Section 4(f) cultural resource, proximity impacts would be minor (e.g., minimal increases in noise and vibration, and visual changes) and would not pose impacts that are so severe that the protected activities, features, or attributes that would qualify the resource for protection under Section 4(f) would be substantially impaired. Section 4.5, *Cultural Resources*, analyzed the potential for effects related to changes in character or integrity for each historic property and found that no adverse effect would result from the BART Extension. Based on Section 4.5 and analysis presented in the *Section 4(f)/6(f) Technical Report* (ICF 2016), no use to any of the built environment historic properties would result. Of the 29 historic properties identified, only one, the Church of Five Wounds (Map Reference C-25), is considered to have an inherent quiet quality. However, at the location of this historic church, the predicted operational noise level would not exceed 25 dBA, a level less than the FTA threshold of 40 dBA for institutional buildings and historic buildings with an indoor use that involves meditation and study (i.e., a church or school) (Wilson, Ihrig 2016: 4-18, 4-35; FTA 2006:3-7, 2-8, and 8-3). All other historic properties, which consist of commercial, transportation, industrial, and residential resources, do not have an inherent quiet quality that is part of their historic character or significance. Therefore, the BART Extension would not result in a constructive use of any historic properties related to noise effects.

According to the FTA Guidance Manual, operational (ground-borne) vibration primarily causes human annoyance or interference with use of equipment sensitive to vibration and damage to historic buildings from vibration from train operation is “unlikely, except when the track will be very close to the structure.” In these cases, the FTA Guidance Manual directs using the construction vibration threshold—0.12 inch/second peak particle velocity (PPV) or, alternatively 90 vibration velocity decibels (VdB) from the PPV limits—for those structures. Twin-Bore and Single-Bore Option operational vibration levels at all 29 historic properties would be below 90 VdB, thus operational vibration effects are not anticipated to result in a constructive use of any historic properties.

8.4.4 Section 6(f) Consideration

Section 6(f)(3) of the Land and Water Conservation Fund Act (LWCF) (16 USC 4601-4) contains provisions to protect federal investments in park and recreational resources and the quality of those assisted resources. The law recognizes the likelihood that changes in land use or development may make park use of some areas purchased with LWCF funds obsolete over time, particularly in rapidly changing urban areas, and provides for conversion to other use pursuant to certain specific conditions.

Section 6(f)(3): No property acquired or developed with assistance under this section shall, without the approval of the Secretary, be converted to other than public outdoor recreation uses. The Secretary shall approve such conversion only if he finds it to be in accord with the then existing comprehensive statewide outdoor recreation plan and only upon such conditions as he deems necessary to assure the substitution of other recreation properties of at least equal fair market value and of reasonably equivalent usefulness and location.

This requirement applies to all parks and other sites that have been the subject of LWCF grants of any type and includes acquisition of park land and development or rehabilitation of park facilities.

A review of the LWCF listing of grants for Santa Clara County has revealed that the Guadalupe River Park and St. James Park have been developed using LWCF grants. Land from these two resources would not be incorporated into the BART Extension, converted, or otherwise affected by the BART Extension. Although the BART Extension would construct a tunnel below the Guadalupe River Park Trail, no surface disturbance would result, and federal investments in these parks would not be affected in any way by the BART Extension. Therefore, there would be no conversion of any LWCF-funded recreational areas to a non-recreational use. Consequently, Section 6(f) would not apply.

8.4.5 Conclusion

No land from any existing or planned park, recreational resource, or historic property would be permanently incorporated into the BART Extension. As described above, the Twin-Bore and Single-Bore Option tunneling activities below three existing park/recreational Section 4(f) properties, three planned Section 4(f) trail properties, and three historic properties would not result in a use because they would not disrupt or permanently harm the purposes for which these resources were established or otherwise damage historic structures as no surface impacts would occur. Acquisition of permanent tunnel easements below these Section 4(f) properties would not be considered a use because these easements would not limit the regular use or development of the properties by their owners or otherwise incorporate Section 4(f) land into a transportation facility. Likewise, the use of tiebacks under several historic properties near the Downtown San Jose Station East and West Options would not alter the Section 4(f) properties such that the Section 4(f) use would be disrupted or permanently impaired. It has also been determined that the BART Extension would not have the potential to result in a use of the known archaeological resource CA-SCL-363H as the proposed

Twin-Bore Option and Single-Bore Option tunnels would be constructed well below the depth of any potential deposits associated with the resource.

Construction activities would not take place within any parks or recreation facilities. A CSA is proposed within the proposed corridor of one planned trail, the Five Wounds Trail. However, VTA owns the property proposed for the trail and will coordinate the BART Extension construction with the development of the trail so that construction would take place prior to development of the planned trail. Although construction activities would take place in the vicinity of historic properties, and in some cases adjacent to or underneath historic properties, no temporary occupancy of a historic property would occur, and construction activities would not result in the destruction, damage, or physical alteration of any of the historic properties. The CSA proposed under State Route 87 is within the defined boundary of one archaeological historic property, CA-SCL-363H; however, it is not anticipated that the activities proposed within the CSA would result in the physical harm of any archaeological remains such that it would constitute a use. There is no potential for temporary occupancy of any other Section 4(f) resource. Construction activities do not pose any potential use of any Section 4(f) resources.

Given that the BART Extension would operate underground in the vicinity of a majority of the Section 4(f) resources described in this chapter, proximity impacts are not anticipated throughout a majority of the study area. In those areas where aboveground elements (e.g., tunnel portals, maintenance facilities, aboveground station facilities) would be sited in the vicinity of a Section 4(f) resource, proximity impacts would be minor. Proximity impacts associated with these facilities include increased noise generated by the proposed maintenance facility, noise generated by vehicles exiting or entering the proposed tunnel, and visual presence of station facilities. Such proximity impacts associated with aboveground elements of the BART Extension would not pose impacts that are so severe that the protected activities, features, or attributes that would qualify the facility for protection under Section 4(f) would be substantially impaired. Therefore, no constructive use would occur at any Section 4(f) resources. The draft FOE prepared for the BART Extension has preliminarily concluded that there is no potential for adverse effects on historic properties. Thus, there is no potential for use of any known historic properties protected under Section 4(f). no use of Section 4(f) property would result from the BART Extension.