

CHAPTER 6.0 SECTION 4(F) AND 6(F) EVALUATION

6.1 Introduction

6.1.1 | Section 4(f)

Section 4(f) of the Department of Transportation Act of 1966 (49 U.S.C. 303) is intended to avoid or minimize impacts to public park and recreational areas, wildlife and waterfowl refuges, and certain historic properties.

The legislation limits the ability of the U.S. Department of Transportation (USDOT) to approve any transportation program or project requiring the use of publicly owned land of a public park, recreation area, or wildlife and waterfowl refuge of national, state, or local significance, or land of an historic site of national, state, or local significance (as determined by the federal, state, or local officials having jurisdiction over the park, area, refuge, or site) unless:

1. There is no prudent or feasible avoidance alternative to the use of the land from the Section 4(f) property; and,
2. The program or project includes all possible planning to minimize harm to the Section 4(f) property resulting from the use.

Section 4(f) of the DOT Act of 1966 applies to all operating administrations of the USDOT. The Federal Highway Administration (FHWA) and Federal Transit Administration (FTA) implement Section 4(f) requirements through regulations established at 23 CFR 774. These regulations define an avoidance alternative as “not feasible” if such an alternative cannot be built as a matter of sound engineering judgment. Similarly, the regulations state that an avoidance alternative is “not prudent” if it compromises the project to a such an extent that the stated purpose and need can no longer be met, if a project would result in unacceptable safety or operations problems, or if it were to result in severe impacts to people, the environment, or other resources (23 CFR 774.117).

6.1.2 | Section 6(f)

Established by Congress in 1965, the Land and Water Conservation Fund is a federal grant program intended to help finance the acquisition or improvement of federal, state, or local park and recreation areas. Section 6(f) of the enabling legislation restricts the conversion of land acquired or developed under these grants to a non-recreational purpose without explicit approval from the U.S. Department of the Interior (DOI). Under Section 6(f), replacement lands of equal value (monetary), location, and usefulness must be provided to obtain DOI approval of a conversion of Section 6(f) lands for transportation projects.

RESOURCE

For more information about Section 4(f), go to: <http://environment.fhwa.dot.gov/4f/index.asp>

DEFINITION

De Minimis Impact: A de minimis impact involves the use of Section 4(f) property that is generally minor in nature. A de minimis impact is one that, after taking into account avoidance, minimization, mitigation and enhancement measures, results in no adverse effect to the qualifying attributes of a Section 4(f) resource

For more information on Section 6(f), go to: <http://www.fhwa.dot.gov/wadiv/envir/section6f.cfm>

6.1.3 | Project Summary

The build alternatives involve implementing bus rapid transit (BRT) service along San Francisco's Geary corridor, between 48th Avenue to the west and the Transbay Transit Center to the east.

The San Francisco County Transportation Authority (SFCTA), in coordination with the San Francisco Municipal Transportation Agency (SFMTA), developed and analyzed several alternatives toward achieving the project's purpose and need. The alternatives considered herein are summarized in the following section. For complete descriptions of the No Build and build alternatives and associated project components, please see Section 2.2.

- **No Build Alternative**
 - No BRT service. Only previously planned/programmed transit and infrastructure improvements would occur on the Geary corridor.
- **Alternative 2: Side-Lane BRT**
 - BRT service would replace 38 Geary Rapid service and would operate in dedicated bus-only lanes on the outside edges of the Geary corridor from the Transbay Transit Center to 34th Avenue. Existing 38 Geary local and express services would continue to operate and would use bus-only lanes where constructed, elsewhere, mixed-flow travel lanes.
- **Alternative 3: Center-Lane BRT with Dual Medians and Passing Lanes**
 - West of Laguna Street, BRT service would operate in dedicated bus-only lanes in the center of the Geary corridor. East of Laguna Street, BRT service would operate in dedicated bus-only lanes on the outside edges of the Geary corridor (similar to Alternative 2). Existing 38 Geary local and express services would continue to operate and would use bus-only lanes where provided; elsewhere, mixed-flow travel lanes.
- **Alternative 3-Consolidated: Center-Lane BRT with Dual Medians and Consolidated Bus Service**
 - Same as Alternative 3; however, BRT service would replace both 38 Geary Rapid and 38 Geary local service in a new consolidated configuration along the entire Geary corridor. Express services would continue to operate and would use bus-only lanes where provide; elsewhere, mixed-flow travel lanes.
- **Hybrid Alternative/Locally Preferred Alternative (LPA)**
 - BRT service would operate along the entire corridor, dedicated bus-only lanes would be provided from the Transbay Transit Center to 34th Avenue. Bus-only lanes would be in the center of Geary Boulevard between 27th Avenue (eastbound)/28th Avenue

(westbound) and Palm Avenue. Side-running bus-only lanes would be located between the Transbay Transit Center and Palm Avenue as well as between 27th/28th avenues and 34th Avenue. The Hybrid Alternative/LPA would consolidate 38 Geary Rapid and 38 Geary local services. Express services would continue to operate and would use bus-only lanes where provided; elsewhere, mixed-flow travel lanes.

6.2 Section 4(f) Resources

6.2.1 | Parks and Recreation Properties

As listed in Table 6-1 and shown in Figure 6-1, there are 38 park and recreational properties in or in close proximity (0.5-mile radius) to the Geary corridor. The ID numbers in the table correspond to those shown in the figure.

Five of these properties are located directly adjacent to the Geary corridor:

- Hamilton Recreation Center and Playground (ID #6)
- Raymond Kimbell Playground (ID #9)
- Japantown Peace Plaza and Pagoda (ID #17)
- Sergeant John Macaulay Park (ID #23)
- Union Square (ID #19)

One resource is perpendicular to Geary Boulevard: the discontinuous path within the greenway lining both sides of Park Presidio Boulevard. In general, the resources are under local jurisdiction and comprise a mix of urban parks, playground, and recreation centers. Two resources are under federal jurisdiction (National Park Service); these two resources have public recreation aspects and attributes.

Table 6-1 Park and Recreational Facilities within 1/2 Mile of Geary Corridor

ID	NAME	LOCATION	OFFICIAL WITH JURISDICTION	KEY SECTION 4(F) ATTRIBUTES
1	Angelo J. Rossi Playground	2 Willard North St.	San Francisco Recreation and Park (SFRP)	Public recreation area
2	Argonne Playground	18th Ave. & Geary Blvd.	SFRP	Public recreation area
3	Cabrillo Playground	858 38th Ave.	SFRP	Public recreation area
4	Dupont Tennis Courts	336 31st Ave.	SFRP	Public recreation area
5	Fulton Playground	855 27th Ave.	SFRP	Public recreation area
6	Hamilton Playground and Recreation Center	1900 Geary Blvd.	SFRP	Public recreation area
7	Laurel Hill Playground	251 Euclid Ave.	SFRP	Public recreation area
8	Margaret S Hayward Playground	1016 Laguna St.	SFRP	Public recreation area

GEARY CORRIDOR BUS RAPID TRANSIT PROJECT FINAL EIS

ID	NAME	LOCATION	OFFICIAL WITH JURISDICTION	KEY SECTION 4(F) ATTRIBUTES
9	Raymond Kimbell Playground	Geary Blvd. & Steiner St.	SFRP	Public recreation area
10	Justin Herman Plaza	Steuart St. & Market St.	SFRP	Public recreation area
11	Richmond Recreation Center	251 18th Ave.	SFRP	Public recreation area
12	Rochambeau Playground	238 25th Ave.	SFRP	Public recreation area
13	Rossi Swimming Pool	600 Arguello Blvd.	SFRP	Public recreation area
14	Sue Bierman Park	Washington St. & Drumm St.	SFRP	Public park and recreation area
15	Tenderloin Recreation Center	570 Ellis St.	SFRP	Public recreation area
16	Buchanan Street Mall	Buchanan b/t Eddy & Grove St.	SFRP	Public recreation area
17	Japantown Peace Plaza And Pagoda	Post St. & Buchanan St.	SFRP	Public recreation area
18	Balboa Natural Area	Balboa St. at Great Highway	SFRP	Public recreation area
19	Union Square	Post St. & Stockton St.	SFRP	Public recreation area
20	Cottage Row Mini Park	Sutter St. & Fillmore St.	SFRP	Public park
21	Father Alfred E. Boeddeker Park	295 Eddy St.	SFRP	Public park
22	Jefferson Square	Eddy St. & Gough St.	SFRP	Public park
23	Sergeant John Macaulay Park	Larkin St. & O'Farrell St.	SFRP	Public park
24	Lincoln Park	34th Ave. & Clement St.	SFRP	Public park
25	Mini Park at 10th & Clement	351 9th Ave.	SFRP	Public park
26	Mini Park at Fillmore & Turk Sts.	Fillmore St. & Turk St.	SFRP	Public park
27	Mini Park at Bush & Baker Sts.	Bush St. & Baker St.	SFRP	Public park
28	Mini Park at O'Farrell & Beideman Sts.	O'Farrell St. & Beideman St.	SFRP	Public park
29	Mini Park at Steiner & Golden Gate Sts.	Steiner St. & Golden Gate Ave.	SFRP	Public park
30	Mountain Lake Park	One 11th Ave.	SFRP	Public park
31	Muriel Leff ("Arguello") Mini Park	419-435 7th Ave.	SFRP	Public park
32	Path/Greenway along Park Presidio Blvd.	Park Presidio Blvd.	SFRP	Public recreation area/trail
33	Lands End	680 Point Lobos Avenue	National Park Service	Public recreation area
34	Seal Rocks	Offshore	National Park Service	Public recreation area
35	Richmond Playground	149 18th Ave	SFRP	Public recreation area
36	Yerba Buena Gardens	Mission Street and 3rd Street	City and County of San Francisco	Public park and recreation area
37	St. Mary's Square	Pine Street and Quincy Street	SFRP	Public park and recreation area
38	Willie "Woo Woo" Wong Playground	853 Sacramento Street	SFRP	Public park and recreation area

The ID numbers in the table correspond to those shown in figure 6-1.

Source: Review of San Francisco Recreation and Parks data, aerial maps

6.2.2 | Wildlife and Waterfowl Refuges

There are no wildlife or waterfowl refuges within the Geary corridor. The closest federal wildlife refuge is the Marin Islands National Wildlife Refuge, located on two islands in San Francisco Bay east of the City of San Rafael approximately 16 miles north of the Geary corridor.

There are no wildlife or waterfowl refuges within 16 miles of the Geary corridor

The closest state wildlife area is the San Pablo Bay Wildlife Area in the mudflats and waters of San Pablo Bay near the mouth of the Petaluma River in Marin and Sonoma Counties. This area is approximately 30 miles northeast of the Geary corridor.

Given the distance between the above refuges and the Geary corridor, no use of any wildlife or waterfowl would foreseeably result from project implementation. Accordingly, such resources are not discussed further in this chapter.

6.2.3 | Historic Sites

Properties that are on or eligible for the National Register of Historic Places (NRHP), including historic districts, buildings, structures, objects, and certain archaeological sites qualify for Section 4(f) protection.

6.2.3.1 | HISTORIC ARCHITECTURAL RESOURCES

Prior to conducting the Section 4(f) analysis, the process to identify and evaluate historic properties as required under Section 106 of the National Historic Preservation Act was completed for the proposed project and documented in a Historic Resources Inventory and Evaluation Report (HRIER) (JRP Historical Consulting, 2017).

There are 53 historic architectural properties within the proposed project's APE considered eligible for the NRHP, all of which are considered Section 4(f) resources

Table 4.5-1 (in the Section 4.5, Cultural Resources) lists 53 eligible historic architectural properties noted in the HRIER as being within the proposed project's historic Area of Potential Effect (APE). Figures 4.5-2 through 4.5-5 illustrate the locations of most of these properties. All 53 of these properties are considered Section 4(f) resources.

Figure 6-1 Park and Recreational Facilities within 1/2-mile of Geary Corridor



Source: Jacobs, 2014 and Circlepoint, 2015

6.2.3.2 | ARCHAEOLOGICAL RESOURCES

The Archaeological and Native American Cultural Resources Sensitivity Assessment (ASA) investigated the Geary corridor APE for the potential presence of prehistoric and historic archaeological resources.

As the Geary corridor has been fully urbanized for nearly a century or longer, there are no above-ground archaeological resources existing in the Geary corridor archaeological APE. The ASA identified eight previously recorded historic-era and nine previously recorded prehistoric-era archaeological sites adjacent to, or in proximity to but outside of, the Geary corridor APE. These previously recorded sites yielded resources during prior excavation or other ground-disturbing activities.

In addition to these previously recorded sites, the ASA assessed the sensitivity of the entire Geary corridor for both historic- and prehistoric-era unrecorded resources. In terms of unknown prehistoric archaeological resources, the ASA noted that the eastern and western ends of the Geary corridor have relatively high potential to yield such resources. These are areas where blowing sand and sand dunes could have covered such resources. The ASA notes that if any such sites happen to be discovered in the course of construction, they would likely be eligible for the NRHP, given the relative lack of documented prehistoric sites on the northern San Francisco peninsula.

In contrast, the ASA finds that most of the central part of the Geary corridor, as well as any areas underlain by bedrock, have no or very low potential to yield prehistoric archaeological resources.

As for historic-period archaeological resources, the ASA notes heightened sensitivity in the areas northeast of First Street and the portion of the Geary corridor between Masonic and Gough.

If excavation associated with the build alternatives were to uncover buried, unrecorded resources, it is possible that they would qualify as Section 4(f) properties. Such resources would be considered Section 4(f) properties only if they are found eligible for the NRHP under a criterion other than Criterion "D." However, an exception at 23 CFR 774.13(b)(1) applies if archaeological site(s) are important chiefly because of what can be learned by data recovery and have minimal value for preservation in place. This exception to the requirement for 4f approval would apply both to situations where data recovery is undertaken and where the lead agency decides, with agreement of the official(s) with jurisdiction, not to recover the resource. This type of NRHP eligibility means that a given resource has historical value that is closely connected to the physical location of the resource. (23 CFR 774.13 (b)(1)). Examples of archaeological resources that would potentially be considered Section 4(f) resources include pre-historic habitation sites or villages, rock art sites, and other similar resources whose specific location is an intrinsic part of the resource's value.

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In contrast, resources that have value only in terms of data that can be recovered from them are typically not considered Section 4(f) properties. These can include trash or debris scatters or other artifacts whose location of discovery does not add substantial cultural value to the resource in question.

6.3 Section 6(f) Resources

According to data compiled by the National Park Service, several parks in the City and County of San Francisco received grants from the Land and Water Conservation Fund (LWCF) dating as far back as 1967.¹ The vast majority of LWCF grant funds were targeted at John McLaren Park and the Candlestick Point State Recreational Area (well outside the Geary corridor).

The City and County received LWCF grants for “mini-park acquisition and development and park lighting” between 1968 and 1971. Table 6-1 above indicates the presence of several mini-parks within 0.5 mile of the Geary corridor. The mini park at Bush & Baker (#27) and the Willie “Woo Woo” Wong playground (#38) received LWCF funds, and thus are considered 6(f) resources. No other parks in the Geary corridor have been identified as receiving LWCF funding at any time.

6.4 Evaluation of Potential Impacts to Section 4(f) Properties

The Section 4(f) “use” of a resource is defined and addressed at 23 CFR 774.17. A “use” is classified in one of three ways: (1) as permanent incorporation, (2) temporary occupancy, or (3) as a constructive use. Section 4(f) uses are described in more detail below. In addition to these types of Section 4(f) use, the regulations also define a “de minimis” impact.

Direct Use. A direct use occurs when lands containing Section 4(f) resources will be permanently incorporated into a transportation facility.

Temporary Occupancy. A temporary occupancy occurs when the occupancy of the Section 4(f) resource is adverse in terms of the statute’s preservation purpose as determined by 23 CFR 774.13(d), (e.g., no interference with the attributes of the resource that qualify it for Section 4(f) consideration). After the occupancy, the resource must be restored at least as good as the condition in which it was prior to construction.

A temporary occupancy (e.g., right-of-entry, construction, and other temporary easements) will not constitute a use of a Section 4(f) resource when all of the following conditions are met:

- Duration of the occupancy must be temporary (i.e., less than the time needed for construction of the project, and there should be no change in land ownership);

¹ Investigate West: Land and W: <http://www.invw.org/data/lwcf/grants-ca.html> later Conservation Fund Grants: California. Accessed on March 28, 2014.

- Scope of the work must be minor (i.e., both the nature and magnitude of the changes to the Section 4(f) resource are minimal);
- There are no anticipated permanent adverse physical impacts nor will there be interferences with the protected activities, features, or attributes of the property, on either a temporary or permanent basis;
- The land being used must be fully restored (i.e., the property must be returned to a condition that is at least as good as what existed prior to the project); and
- There must be documented agreement by the official(s) with jurisdiction over the resource regarding the previously described conditions.

In situations where the above criteria cannot be met, the temporary occupancy constitutes a use of Section 4(f) property.

Constructive Use. A constructive use of a Section 4(f) resource occurs when a transportation project does not permanently incorporate land from the resource, but the proximity of the project results in adverse impacts (e.g., noise, visual, access, and/or vibration impacts) so severe that the 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, meaning that the value of the resource in terms of its 4(f) significance will be reduced or lost. This determination is made through the following process:

- 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 having jurisdiction over the resource.

Constructive use may include these examples:

- The projected noise level increase attributable to a proposed project substantially interferes with the use and enjoyment of a noise-sensitive resource protected by Section 4(f).
- The proximity of a proposed project substantially impairs aesthetic features or attributes of a resource protected by Section 4(f), where such aesthetic features or attributes are considered important contributing elements to the value of the resource.
- A proposed project results in a restriction of access to the Section 4(f) resource, which substantially diminishes or eliminates the utility of a significant publicly owned resource.
- The vibration impact of a proposed project would substantially impair the use of a Section 4(f) resource.

De Minimis Impact. Federal regulations define a *de minimis* impact to a public park, recreation area, or wildlife/waterfowl refuge as one that would not adversely affect the activities, features, or attributes of the property qualifying the property for 4(f) protection. For historic properties, 23 CFR 774.5(b) states that a *de minimis* impact is one that would result in a Section 106 determination of “no adverse effect” or “no historic properties affected” in accordance with 36 CFR 800 and 23 CFR 774.5(b).

Guidance on the implementation of Section 4(f) states that a *de minimis* impact may be made for a permanent incorporation or a temporary occupancy of a Section 4(f) resource. Further, the guidance states that a *de minimis* impact determination can be approved without the need to develop and evaluate avoidance alternatives.²

A *de minimis* impact determination requires agency coordination with the officials having jurisdiction over the Section 4(f) property and opportunities for public involvement pursuant to 23 CFR 774.5(b), as well as concurrence from the official with jurisdiction, which is the SHPO if the Section 4(f) property is a historic property eligible for the NRHP.

6.4.1 | Evaluation of Impacts to Park and Recreational Facilities

6.4.1.1 | POTENTIAL FOR DIRECT USE OF PARK AND RECREATIONAL FACILITIES

The build alternatives, including the changes associated with the Hybrid Alternative/LPA, would not result in the permanent incorporation of any park or recreational Section 4(f) resources. The project would not use any park or recreational facility since the project would be located entirely within the existing Geary corridor or immediately adjacent sidewalk areas where no public parks or recreational facilities exist.

This takes into account the Park Presidio path, which exists within the existing discontinuous greenway on the east side of Park Presidio Boulevard between Fulton Street to the south and Lake Street on the north. The greenway is fully owned by the City and County of San Francisco and is maintained by San Francisco Recreation and Parks. The adjacent Park Presidio Boulevard roadway is part of State Route 1 and owned by Caltrans. The east side of the greenway includes a maintained dirt recreational path. An informal, unmaintained dirt trail runs also within portions of the western side of the greenway.

The greenway and path comprise a Section 4(f) resource because it is a public, recreational amenity that links Golden Gate Park with the Presidio and Mountain Lake Park. As noted above, the greenway and the path are discontinuous, interrupted by several perpendicular streets (California Street, Clement Street, Geary Boulevard, Anza Street, Balboa Street, and

² FHWA, July 2012, *Section 4(f) Policy Paper*; FTA, November 2012, Memorandum of Associate Administrator Lucy Garliauskas; *FTA Use of the FHWA Section 4(f) Policy Paper*.

Cabrillo Street), all of which are owned by the City and County of San Francisco and maintained by San Francisco Public Works.

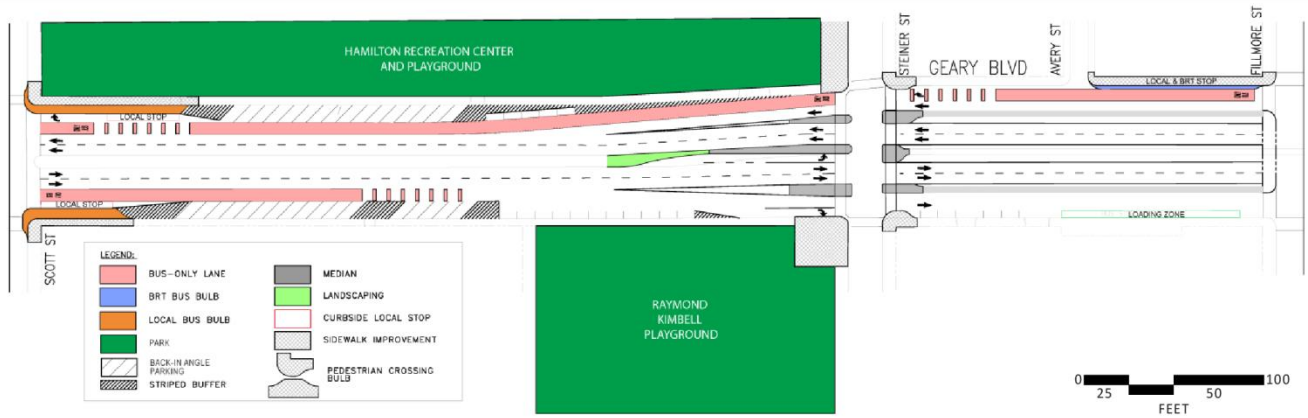
The build alternatives would make alterations to the existing Geary Boulevard roadway that currently interrupts the Park Presidio path. However, none of the build alternatives would widen Geary's existing right-of-way here or in any other location along the corridor. Therefore, none of the build alternatives would permanently incorporate any land from the Park Presidio greenway or path. With any of the build alternatives, as well as at present, recreational users of the path would be guided to cross Geary Boulevard at the existing crosswalk, some 50 feet to the west of the path.

The modifications to the Hybrid Alternative/LPA since the publication of the Draft Environmental Impact Statement/Environmental Impact Report (EIS/EIR) include 26 additional pedestrian crossing bulbs. Of these 26, three would be located within intersections near three different Section 4(f) recreational resources: Hamilton Recreation Center and Playground (ID #6 on Figure 6-1); Raymond Kimbell Playground (ID #9); and Sergeant John Macaulay Park (ID #23).

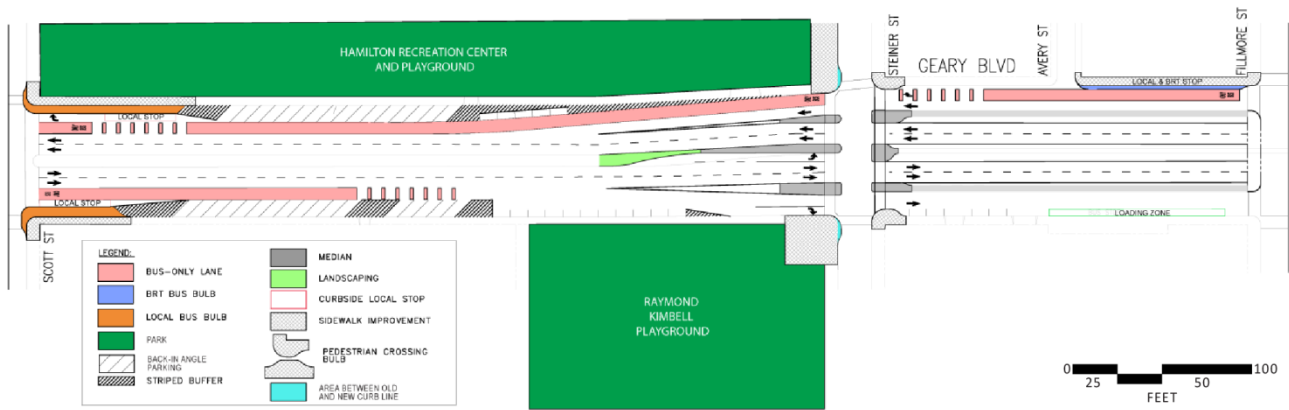
As demonstrated in Figures 6-2 and 6-3, each of the additional pedestrian crossing bulbs would be built out from the existing curb face toward the street (highlighted in light blue), within the existing paved areas of the Geary corridor. Figure 6-4 shows a photograph of a finished pedestrian crossing bulb. Bulb construction would typically include reconstruction of the adjacent existing sidewalk. None of the project infrastructure would be located within the park or recreational facility properties. The additional pedestrian improvements near these resources would act to improve pedestrian access to them, enhancing their recreational use.

Therefore, none of the build alternatives, including the Hybrid Alternative/LPA as modified after publication of the Draft EIS/EIR, would have any potential for direct use of any park or recreation facility.

Figure 6-2 Gears Boulevard/Steiner Street Intersection (Hamilton Recreation Center and Raymond Kimbell Playground)



a) Geary Boulevard/Steiner Street Intersection Assuming Removal of Steiner Bridge without Additional Pedestrian Crossing Bulbs (All build alternatives as described in Draft EIS/EIR)

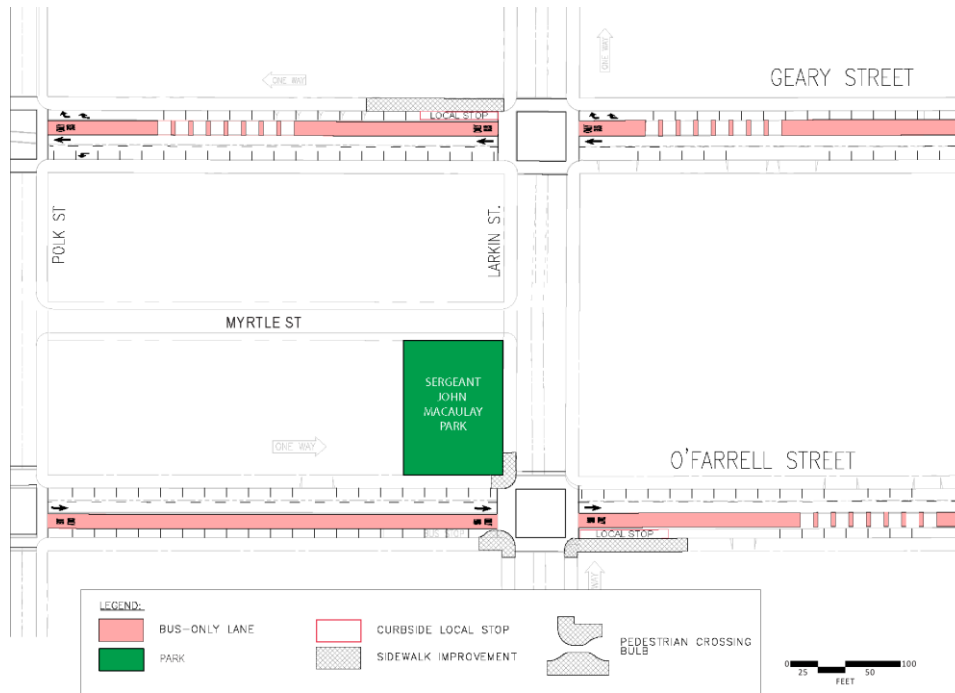


b) Geary Boulevard/Steiner Street Intersection Assuming Removal of Steiner Bridge with Additional Pedestrian Crossing Bulbs (Hybrid Alternative/LPA as modified in this Final EIS)

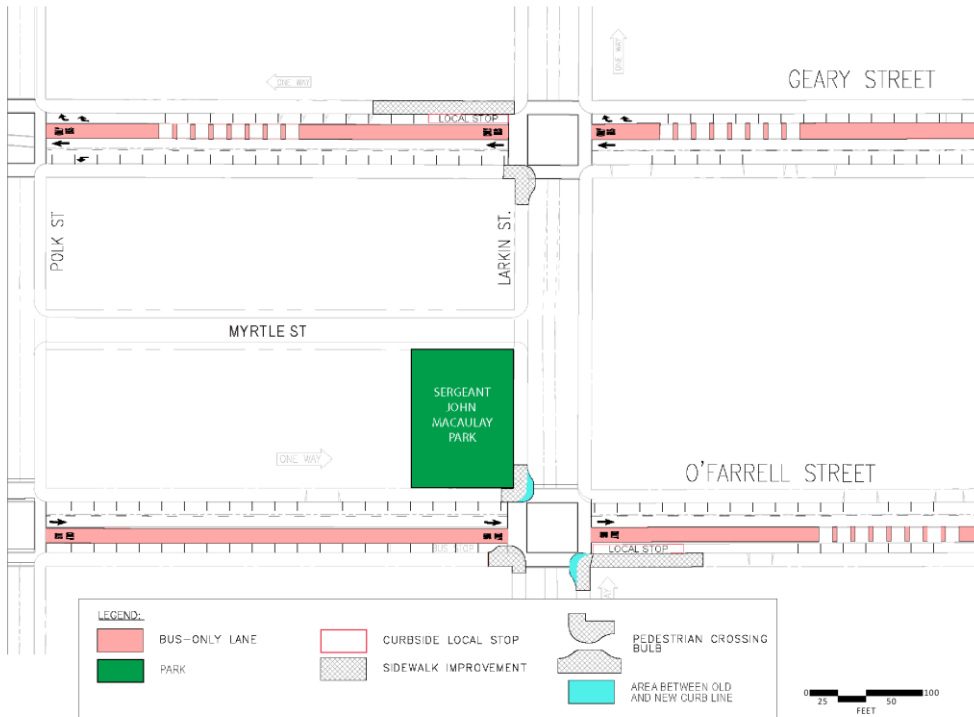
Note: Not to scale

Source: San Francisco Planning Department, 2017

Figure 6-3 O'Farrell Street/Larkin Street Intersection (Sergeant John Macaulay Park)



a) O'Farrell Street/Larkin Street Intersection without Additional Pedestrian Crossing Bulbs



b) O'Farrell Street/Larkin Street Intersection with Additional Pedestrian Crossing Bulbs

Note: Not to scale

Source: San Francisco Planning Department, 2017

Figure 6-4 Typical Pedestrian Crossing Bulb Build Out into Street

6.4.1.2 | POTENTIAL FOR TEMPORARY OCCUPANCY OF PARK AND RECREATIONAL FACILITIES

The build alternatives, including the changes associated with the Hybrid Alternative/LPA, would not result in temporary occupancy of any park or recreational Section 4(f) properties. While some temporary construction staging areas will be needed to implement the build alternatives, none would use any park or recreational spaces or access thereto. Construction activities that may occur adjacent to park and recreation locations are expected to be of short duration and would be conducted in accordance with permit conditions to protect the physical urban environment, thus limiting potential impacts during construction. This includes the construction of the additional pedestrian improvements, including the three discussed in Section 6.4.1.1, which are proposed for areas near public parks/recreation areas. Construction of these pedestrian improvements at any one location would be short in duration (4-6 days) with minimal excavation needed at each site (1.5 feet in depth). There would be no loss of access to any recreational facilities. For these reasons, temporary construction activities do not meet the criteria for a Section 4(f) temporary occupancy and are not expected to require the temporary utilization of, or have adverse effects on, any Section 4(f)-protected properties.

6.4.1.3 | POTENTIAL FOR CONSTRUCTIVE USE OF PARK AND RECREATIONAL FACILITIES

The build alternatives, including the changes associated with the Hybrid Alternative/LPA, would not result in a constructive use of any park or recreational properties. The Japantown Peace Plaza and Pagoda (ID # 17 on Figure 6-1); Union Square (ID # 19 on Figure 6-1); the Hamilton Recreation Center and Playground (ID #6 on Figure 6-1); Raymond Kimbell Playground (ID #9); and Sergeant John Macaulay Park (ID #23) could experience construction-related noise that would have the potential to exceed FTA construction thresholds. As noted in Section 6.4.1.2, construction of the pedestrian bulbs would be short in duration (4-6 days), so any construction-related increases in noise or vibration would be brief. Section 4.11.5.1 details minimization and mitigation measures that would

The project would not cause noise or vibration related proximity impacts to park or recreational properties. Therefore, constructive use of Section 4(f) parks and recreational properties would not occur

be applied during construction that would reduce noise and vibration levels below FTA thresholds and avoid adverse effects. The Japantown Peace Plaza and Pagoda, Union Square, Hamilton Recreation Center and Playground, Raymond Kimbell Playground, and Sergeant John Macaulay Park properties include parks, a pool, or playground areas that do not require quiet as an essential feature of the resource. Therefore, pursuant to 23 CFR 774.15(f)(5), the build alternatives including the changes associated with the Hybrid Alternative/LPA would not result in a substantial impairment to the activities, features, or attributes that qualify these properties for protection under Section 4(f).

Operational period noise along the Geary corridor would be below the FTA noise thresholds applicable to the subject parks and recreational facilities (see Section 4.11). As the existing project area's noise levels are typical for a dense urban environment, noise associated with the BRT system would not be different from or out of character with the existing urban setting.

It is expected that the project would cause no operational noise or vibration related proximity impacts to parks or recreational properties. Therefore, no substantial impairment of the activities, features, or attributes that qualify properties for 4(f) protection would occur from operation of any of the build alternatives, including the changes associated with the Hybrid Alternative/LPA.

6.4.2 | Evaluation of Impacts to Cultural Resources

6.4.2.1 HISTORIC ARCHITECTURAL RESOURCES

Within the Geary corridor right-of-way, which includes sidewalk areas, three potentially eligible historic architectural resources have been identified and are considered Section 4(f) resources. The SHPO is the official with jurisdiction over the identified eligible architectural resources. Additional detail on the historic resources may be found in Section 4.5.

The “Golden Triangle” light standards are eligible for the NRHP and thus treated here as a Section 4(f) property. There are approximately 189 of these Beaux-Arts style streetlights in the Union Square area; 21 are within the architectural APE. Of these 21, 14 are adjacent to improvements associated with the build alternatives.

Second are lighting standards associated with the Japan Center. These Japan Center lighting standards are located on the sidewalk on the north side of Geary Boulevard between Fillmore and Laguna Streets. The Japan Center building and grounds are a historic architectural resource. The Japan Center lighting standards in adjacent public right-of-way areas are contributing elements to the Japan Center. Both the Golden Triangle streetlights and Japan Center lighting standards are part of the urban fabric and share sidewalk space with functional elements of the streetscape, such as trash receptacles, newspaper boxes, and the like.

The Auxiliary Water Supply System (AWSS) is a historic resource, which consists of cisterns, pipes, valves, hydrants, and pump stations across San

There would be no permanent incorporation, temporary occupancy, or constructive use of any of the 53 historic architectural properties within the proposed project's APE with the implementation of mitigation measures

Francisco. As noted in Section 4.5, the Geary corridor APE includes a small percentage of all City-wide AWSS cisterns, pipes, valves, and hydrants. Cisterns, pipes, and valves are located below the ground surface. No AWSS pump stations are located within the Geary corridor APE.

The St. Francis Square Cooperative is a low-income housing development constructed in 1963 as part of the City's redevelopment effort of the Western Addition. The complex is significant as the first racially integrated cooperative housing in San Francisco and it is a historic property eligible for listing on the NRHP. No permanent incorporation of land from the St. Francis Square Cooperative would be expected, therefore no direct use of this Section 4(f) property would occur.

The build alternatives, including the changes associated with the Hybrid Alternative/LPA, would make streetscape improvements in the vicinity of the Golden Triangle streetlights and Japan Center lighting standards, as well as components of the AWSS, potentially requiring the removal and relocation of one or more streetlights/lighting standards and/or AWSS cisterns valves or hydrants. The streetscape may permanently incorporate the land on which these resources were located, which would be considered a use under Section 4(f). The relocation of the Golden Triangle streetlights or Japan Center lighting standards would be considered a direct use of these historic properties; however, these historic properties would retain overall integrity of setting, feeling, and association. Measures to minimize harm to the Golden Triangle streetlights, Japan Center streetlights, and AWSS components, such as avoidance, minimization, mitigation, and enhancement measures, were developed in coordination with the SHPO for these properties. As further described below, build alternatives, including the changes associated with the Hybrid Alternative/LPA, would result in *de minimis* impacts to these historic resources.

Section 4.5 of this document sets forth an avoidance measure (A-CUL-5) requiring that the design of any streetscape improvements in the vicinity of the Japan Center lighting standards, Golden Triangle streetlights, or AWSS components seeks first to avoid any relocation of these resources. A related minimization measure (MIN-CUL-6) states that if relocation is ultimately deemed necessary, such work must adhere to appropriate Secretary of the Interior's *Standards for the Treatment of Historic Properties* (SOI Standards) so as to maintain the historic integrity if moved to a different location.

With the application of these minimization and avoidance measures, relocation of the historic the Japan Center lighting standards, Golden Triangle streetlights, or AWSS components under the build alternatives including the changes associated with the Hybrid Alternative/LPA would result in a *de minimis* impact under Section 4(f) as their relocation would not adversely affect the features, attributes or activities that make the Section 4(f) property significant. On October 17, 2017, the SHPO, as the official with jurisdiction, concurred with FTA's "no adverse effect" determination for the Golden Triangle streetlights, Japan Center streetlights, and AWSS components. Therefore, no analysis of avoidance

alternatives is required. (See Appendix E) A temporary occupancy of these historic resources may occur if the build alternatives require temporary removal and re-installation of these resources in their same location to accommodate construction. The temporary occupancy of historic resources would be minimal so as to not constitute a use and would be expected to meet the exception criteria at 23 CFR 774.13(d) as any land being used would be fully restored and there would be no permanent adverse physical impacts. Overall, there would be no change in the integrity of location, design, setting, materials, workmanship, feeling, and association for these historic resources, if they were to be temporarily relocated. In addition, the SHPO concurred with the lead agency's Section 106 finding that the project would have "no adverse effect" to historic properties.

Regarding the potential for constructive use of historic resources, proximity effects from construction and operation of the project, including changes associated with Hybrid Alternative/LPA, would be expected to occur. The noise analysis conducted for this document (Section 4.11) showed that construction noise would have the potential to exceed FTA thresholds from certain construction equipment within 100 feet; however, adherence to mitigation measures would avoid or lessen construction period noise impacts below FTA thresholds. None of these historic resources require quiet as an essential feature and they would retain their setting, feeling, and association as the existing project area is a dense urban environment. Therefore, none of the expected proximity noise effects would be expected to result in a substantial impairment of the St. Francis Square Cooperative, the Golden Triangle streetlights, Japan Center streetlights, and AWSS components. Pursuant to 23 CFR 774.15(f)(1), a constructive use does not occur when 36 CFR 800.5 results in an agreement of "no adverse effect." On October 17, 2017, SHPO concurred that the Project would result in a "no adverse effect" to historic properties under Section 106.

Construction activities that may occur adjacent to historic resources with the potential for vibratory effects are expected to be short in duration and would be conducted in accordance with permit conditions to protect the physical environment. Construction of these improvements at any one location would last 4-6 days with minimal excavation needed at each site (largely 1 to 3 feet in depth, with limited exceptions extending to 8 and 16 feet in depth). Section 4.11 of this document describes potential vibration effects that could result from the use of construction equipment in proximity to historic resources. The implementation of measure MIN-NOISE-C1 would avoid construction vibration impacts as outlined in the Vibration Reduction and Minimization Plan. Minimization measures associated with MIN-CUL-C1 and C4 would ensure that any potential vibratory effects would be avoided or not adverse. Therefore, no substantial impairment of the activities, features, or attributes that qualify historic properties for 4(f) protection would occur.

Operational period noise along the Geary corridor would be below the FTA noise thresholds. Accordingly, no adverse effect would occur and no

mitigation measures would be required. As the existing project area's noise levels are typical for a dense urban environment, noise associated with the project would not be substantially different from or out of character with the existing urban setting. The build alternatives would cause no noise or vibration related proximity impacts to historic resources, and no substantial impairment of the activities, features, or attributes that qualify historic properties for 4(f) protection would occur. Likewise, no adverse indirect visual effects on historic resources would be expected from either construction or operation of the project. Concurrence from SHPO on the "no adverse effect" finding was received on October 17, 2017 (See Appendix E). Therefore, the build alternatives, including the changes associated with the Hybrid Alternative/LPA, would not result in a constructive use of Section 4(f) historic properties.

6.4.2.2 | | ARCHAEOLOGICAL RESOURCES

As noted in Section 4.5 of this document, there are no archaeological resources above ground in the Geary corridor. A total of 26 formally recorded archaeological sites were documented in the vicinity of or adjacent to the Geary corridor, but none are documented as extending into the Geary corridor. Accordingly, none of the project alternatives would result in any disturbance to previously recorded (i.e., known) archaeological sites. An addendum to the ASA was prepared in June 2017 to analyze project elements in any portion of the Geary corridor understood to have a moderate overall sensitivity for historic-era archaeological resources. The archaeological APE includes a depth of 1 to 3 feet below surface, with limited exceptions of 8 to 16 feet of APE depth needed (for street lights, signal poles, sewer replacement between 12th and 16th avenues on Geary, and catch basin inlet and hydrant relocations).

The addendum ASA determined that sensitivity for historic-era archaeological resources is low in the areas where the project would require excavation. Although the Market Street portion of the project area has a high potential for sites submerged below the Bay Mud, archaeological sites have only been found at depths greater than 20 feet. Since project excavations would occur at depths of no more than 16 feet, project excavations would not be sufficiently deep to encounter buried prehistoric resources. For the project portions between Masonic Avenue and Gough Street, sensitivity for encountering resources was determined to be low because the project was either within areas distributed during the original construction of Geary Street or areas previously distributed by other urban infrastructure.

As set forth in Section 4.5, in the event that any previously unknown intact archaeological resources are inadvertently discovered during construction, a determination as to NRHP eligibility will be made. If any archaeological resources are subsequently determined to be eligible for the NRHP under Criterion D (in other words, to warrant preservation in place), SFCTA, in concert with FTA, will prepare separate Section 4(f) evaluations for such resources. Such evaluations would include determinations of permanent incorporation, temporary occupancy, and/or constructive use, and, if warranted, avoidance alternatives and measures to reduce harm to any



qualifying Section 4(f) resources. Only archaeological resources that are eligible for the NRHP and warrant preservation in place will be considered under Section 4(f).

6.5 Measures to Minimize Harm

The project alternatives would not result in a use, temporary occupancy or constructive use of any parks or recreational facilities, wildlife or waterfowl refuge.

The Project would result in use with *de minimis* impacts of historic properties if Golden Triangle streetlights, Japan Center streetlights, and AWSS components were relocated. As previously discussed in Section 6.4.2.1 and Section 4.5, measures to avoid and minimize harm were included. An avoidance measure (A-CUL-5) requiring that the design of any streetscape improvements in the vicinity of the Japan Center lighting standards, Golden Triangle streetlights, or AWSS components seeks first to avoid any relocation of these resources. A related minimization measure (MIN-CUL-6) states that if relocation is ultimately deemed necessary, such work must adhere to appropriate Secretary of the Interior's *Standards for the Treatment of Historic Properties* (SOI Standards) so as to maintain the historic integrity if moved to a different location. As set forth in Section 4.5 of this document, the project incorporates avoidance and minimization measures that resulted in SHPO's finding of no adverse effect to historic architectural resources.

All of the project alternatives incorporate, to some extent, various amenities and landscape features to enhance the experience of residents, motorists, transit riders, cyclists, and pedestrians in the Geary corridor and visually blend the transportation improvements into the existing urban neighborhood setting in a manner that is compatible with its context and setting. These amenities are substantially greater for the build alternatives.

Opportunities for harmonizing the visual effects of project elements with adjacent historic properties will continue to be developed as the design consultation process goes forward. Design elements, appropriate lighting, compatible materials, and color choices that complement and do not visually compete or clash with the nearby historic properties and are sensitive to their surroundings will be identified. Design will be guided by the SOI Standards to the extent applicable. For all design elements along the Geary corridor, a consulting historic architect working on behalf of SFMTA will review project plans to assure design elements are compatible with the character-defining features of the historic district in terms of massing, size, scale, and architectural features.

The SOI Standards (36 CFR, Part 68) are, according to the agency's website, "common sense principles in non-technical language [that] were developed to help protect our nation's irreplaceable cultural resources by promoting consistent preservation practices."³ The Standards provide guidance for maintaining, repairing, and replacing historic materials, as well

³ <http://www.nps.gov/tps/standards.htm>.

as about designing new additions or making alterations to historic resources, including related landscape features and the building's site and environment, including adjacent or related new construction. The following principles are most relevant to the proposed project:

- The historic character of a property shall be retained and preserved. The removal of historic materials or alteration of features and spaces that characterize a property shall be avoided.
- New additions, exterior alterations, or related new construction shall not destroy historic materials that characterize the property. The new work shall be differentiated from the old and shall be compatible with the massing, size, scale, and architectural features to protect the historic integrity of the property and its environment.
- New additions and adjacent or related new construction shall be undertaken in such a manner that if removed in the future, the essential form and integrity of the historic property and its environment would be unimpaired.

Where project features will be located in proximity to historic structures, the SOI Standards will serve as a guide to assure that new structures are compatible with and do not radically change, obscure, damage, or destroy character-defining materials or features associated with historic properties.

Finally, as outlined and discussed in Section 4.4, Visual Resources, though some project build alternatives would create slight visual changes in the vicinity of certain park and recreational properties, the incorporation of compatibility features in the project design would minimize any visual effects on Section 4(f) properties.

6.6 Evaluation of Potential Impacts to Section 6(f) Properties

The Bush and Baker mini-park and Willie “Woo Woo” Wong playground received LWCF funds and are located within 0.5-mile of the Geary corridor. However, none of the project alternatives could foreseeably result in any adverse permanent or temporary effect to either of these Section 6(f) resources as they are both located over three blocks north of the Geary corridor. Therefore, there would be no acquisition or conversion of any Section 6(f) properties.

6.7 Coordination

For historic properties, the project's evaluation of cultural resources began with the delineation of the architectural and archaeological APEs. The SHPO reviewed and commented on the adequacy of the architectural and archaeological APEs delineated for the project alternatives in May 2015. In addition, consulting parties and Native American groups were consulted with in accordance with Section 106 (see Section 4.5 of the FEIS). On September 20, 2013 Section 106 consulting parties including area planning agencies, local governments, historical societies, museums and other parties

interested in historic preservation issues were invited to participate in the Section 106 process. No responses were received.

Per 23 CFR Section 774.5(b), in their letter dated September 14, 2017, FTA notified SHPO of the intent to make a de minimis impact determination under Section 4(f) for historic resources (namely, the Auxiliary Water Supply System, the Golden Triangle Light Standards, and light standards associated with Japan Center) based on their concurrence with the Section 106 finding of no adverse effect to historic properties. On October 17, 2017, SHPO concurred with the lead agency's Section 106 finding that the project would have "no adverse effect" to historic properties. See Appendix E for pertinent correspondence and see Section 4.5 for additional details on Section 106 consultation. As part of local agency coordination, draft cultural reports (the HRIER, Finding of Effect, and ASA) were provided to the City of San Francisco Planning Department (Historic Preservation Commission staff) for review and comment in fall 2014). As described in Section 4.5, addenda and or/updates were prepared to finalize the ASA (June 2017), HRIER (April 2017), and Finding of Effect (July 2017). (See Appendix E for a copy of this consultation correspondence).

Staff from multiple agencies of the City and County of San Francisco were consulted in fall 2014 to help identify and confirm significant public parks and recreational resources which may be Section 4(f) resources. Agencies were provided copies of and the opportunity to comment on the Draft EIS and the Section 4(f) analysis. No agencies provided comments regarding any of the parks/recreational resources identified as Section 4(f) resources.

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