

3 Affected Environment and Environmental Consequences

3.1 Land Use, Housing, and Schools

3.1.1 AFFECTED ENVIRONMENT

Land use and socioeconomic (housing and school enrollment) characteristics of the Presidio and surrounding neighborhoods are described on pages 131 to 157 and pages 161 to 166 of the PTMP EIS. This description is incorporated here by reference, and portions relevant to the PHSB district are summarized below and expanded upon as necessary.

3.1.1.1 Existing Land Uses at the PHSB District and in Surrounding Areas

The PHSB district lies entirely within the Presidio of San Francisco, a national park site within the GGNRA. The PHSB district is divided between the lower plateau to the south, which contains the majority of the district's buildings including the PHSB and supporting structures, and the upper plateau to the north, which contains significant natural areas, several historic buildings, and paved areas such as the former Nike Missile Site at Battery Caulfield.

Before 1980, the PHSB was a full-service medical facility, providing acute medical and surgical services as well as dental services to patients and employing people who both lived and commuted to the site. The PHSB also provided the following programs: alcoholism program, cobalt therapy, diabetes program, family planning, geriatric day treatment center, geriatric screening, health education, mental health clinics, nutrition program, optometry services, psychiatric day hospital services, and speech therapy. The PHSB had an operating bed capacity of 260 and employed the second largest number of staff (810) of any Public Health Service hospital (Bailey et. al. 1981). Accessory uses included housing, research laboratories, gardens and recreational uses, a steam generation facility, and a laundry. There were an estimated 12 dwelling units and 86 dormitory rooms available to hospital staff within the complex. After reverting to the U.S. Army, the PHSB complex was used for a time as a satellite branch of the Army's Defense Language Institute. Today, most of the buildings in the PHSB district are vacant. Existing building uses include the following:

- Building 1802 contains Arion Press, a cultural/educational use that includes typeface and book production and printing activities.
- The bottom half of Building 1806 contains Lone Mountain Children's Center, an educational use.
- The top half of Building 1806 was rehabilitated for short-term office use, and is now partially used for offices and partially vacant.

- Buildings 1803, 1805, and 1808 were rehabilitated for short-term use by the Jewish Community Center, a cultural/educational use, and are now vacant.
- Building 1450 and 1451 have recently been or are currently occupied by Trust maintenance activities.

The Trust and NPS also use paved areas within the PSHH district for maintenance activities as follows:

- An area immediately behind Building 1801 is used as a waste transfer station where waste collected from containers throughout the park is consolidated within dumpsters for removal off-site.
- The parking area at the southern end of the upper plateau is currently used to manufacture compost from green waste collected throughout the park.
- The paved area at Battery Caulfield is used as a maintenance yard, with heavy equipment and materials storage by the NPS (lower portion) and materials storage by the Trust (upper portion).

Other land uses within the PSHH district include surface parking, natural areas, and recreational trails. A tennis court located behind the PSHH is currently closed. Surrounding land uses include natural areas (Lobos Valley and Lobos Creek) to the west, the Presidio Golf Course and a regional transportation facility (Park Presidio Boulevard/Highway 1) to the east, residential neighborhoods of the Presidio to the north and northwest, and residential neighborhoods of the city to the south. Mountain Lake lies to the east of the PSHH district, across Highway 1 from the district, and is bordered on its south by parkland under the jurisdiction of the City and County of San Francisco (CCSF) Recreation and Park Department.

3.1.1.2 Projected Future Land Uses

The PTMP (page 93) calls for revitalization of the PSHH district as a residential and educational community, and identifies these as preferred uses for buildings in the district. Specifically, the PTMP (page 94) identifies residential use as the preferred use for the PSHH (or Building 1801), sets a district goal of 200 to 210 dwelling units (page 45), and also identifies the potential for up to 190,000 square feet (sf) of educational uses (page 37).

There is an inherent contradiction in these PTMP statements, since the district contains about 100,000 sf of building space outside Building 1801 and thus cannot accommodate 190,000 sf of educational space *and* devote Building 1801 to residential use. In recognition of this contradiction, the Record of Decision (ROD) (Trust 2003c) adopted by the Trust Board of Directors in August 2002 reiterates “the Trust’s preference for residential use of the PSHH building” and notes the potential educational use of auxiliary structures.¹

The PTMP (page 95) also envisions compatible outdoor recreational uses in the PSHH district, reduced parking (page 51), and enhanced natural areas (page 95). The Nike Missile Site at Battery Caulfield is

¹ ROD, Attachment 3, page 2. Also see PTMP EIS Volume II, page 4-194, which describes the land use preference for the PSHH and notes “the actual number of units that could be provided will take further site-specific analysis, including a detailed assessment of the historic building and rehabilitation requirements.”

identified as a “generalized area of development” (page 94) with no specific land use preference.² However, the PTMP encourages maintaining the historic concentration of development on the lower plateau and enhancing open space on the upper plateau (page 94).

3.1.1.3 Existing Presidio Housing Supply and Occupancy

There are no residential tenants in the PSHH district today, although historically some hospital personnel lived on-site, occupying single-family homes, duplexes, and larger dormitory buildings. In total, the PSHH district contains a total of 12 vacant dwelling units and 86 vacant dormitory-type accommodations in Buildings 1809 through 1815.

The Presidio as a whole contains a total of 1,116 conventional dwelling units and an estimated 538 dormitory-style or single resident occupied accommodations. Of this total supply, approximately 965 conventional units have been rehabilitated and are being leased, mostly on a year-to-year basis. Additional units are in the process of being rehabilitated. About 60 single resident occupied (SRO) or dormitory-style accommodations are currently in use or are intermittently occupied. Currently, approximately 2,250 people reside at the Presidio.

Of the occupied units at the Presidio, an estimated 20 percent are currently leased to employees who work at the Presidio, whether for the Trust, the NPS, or one of the many non-residential tenants that lease space. Some of these Presidio-based employees participate in a “preferred renter” program, which currently makes about 65 units available to households with annual combined household incomes of up to 100 percent of the area median at rents equal to 30 percent of income. Current programs accommodate other employees with lower incomes, as well as Presidio public safety personnel and “on call” employees of the Trust.

3.1.1.4 Housing Policies and Projected Future Demand for Housing

With adoption of the PTMP, the Trust established housing policies giving preference to Presidio-based employees and accommodating a diverse tenant mix through housing affordability programs. Although many residences in the park are currently leased to the general public, the PTMP anticipates that Presidio-based employees and their families will eventually occupy a significant portion of Presidio housing. This estimate was based on an assessment of existing and future employment and a 1999-2001 survey of employee housing demand (see Table 5).

As stated in the PTMP and PTMP EIS, the Trust expects housing demand by Presidio-based employees to increase as employment increases and as unit diversity (i.e., the number of smaller units) increases. The Trust has agreed to monitor employee housing demand over time as employment and unit diversity at the Presidio increases.

² Elsewhere in the PTMP (pages viii and 16), Battery Caulfield is identified as within the native plant zone established by the Presidio VMP, which was adopted by the NPS and the Trust in 2001. This designation was superseded with adoption of the PTMP as described and analyzed in the PTMP Final EIS (Volume I, page 223).

Table 5. Existing and Projected Employee Housing Demand at the Presidio

	2002-2003	PTMP 2020
Presidio-Based Employees (PBE)	2,250 employees	6,886 employees
Total PBE Housing Demand ^a	1,440 units	4,406 units
Occupancy / Demand for Presidio Housing by PBE ^b	180 units	1,486 units

Source: PTMP EIS 2002 and Trust 2003 residency data.

Notes:

^a Total Housing Demand = number of PBEs ÷ 1.563 employed residents per household

^b 2020 demand assumes 1.25 PBEs per household

The PTMP establishes a maximum housing supply of 1,400 to 1,654 residences park-wide, despite fluctuations expected as a result of housing removal and other activities. The PTMP EIS projects that the PTMP would result in approximately 1,295 conventional dwelling units and 352 dormitory-style units in the year 2020 after planned housing removal and replacement. A goal of 200 to 210 overall units was established for the PHSB district.

The conversion of non-residential buildings to residential use was identified as an important strategy for replacing housing that will be removed over time to achieve natural resources goals of the PTMP. This type of conversion was also identified as an historic preservation strategy:

Rehabilitating and converting historic non-residential buildings to residential use may prove to be an excellent historic preservation strategy regardless of the demand for housing by Presidio-based employees. For example, residential use may be the best way to ensure that historic portions of the Public Health Service Hospital are sensitively rehabilitated. For that reason, senior housing or other residential uses are preferred for the hospital building (PTMP, page 43).

3.1.1.5 Existing and Projected Future School Enrollment

In 2000, there were 128 school-age children residing at the Presidio. Because the Presidio is under exclusive federal jurisdiction, it does not provide property tax revenue for the San Francisco Unified School District (SFUSD), which serves the area. In order to offset the absence of tax revenue, the federal government established the School Impact Aid Program, administered by the U.S. Department of Education. Under this program, school districts can receive compensation for non-military students living on federal property. In fiscal year 2000, the SFUSD received approximately \$67,000 from the School Impact Aid Program for all federal facilities in San Francisco.

School enrollment by Presidio residents is expected to increase over time, based on the projected increase in residential population. In 2020, this population is projected to reach 3,240, with 125 elementary school pupils, 63 middle school pupils, and 86 high school pupils, for a total school enrollment of 274.

3.1.2 ENVIRONMENTAL CONSEQUENCES

The potential impacts of development within the Presidio on land use and socioeconomic conditions are assessed on pages 269 to 292 and 296 to 298 of the PTMP EIS. The sole impact on land use, housing, and schools identified by the PTMP EIS that would occur within the PSHH district is a change in activity levels, given the district's underused condition. The PTMP EIS analysis is supplemented here by analysis of the issues specific to the alternatives being considered for the PSHH project.

3.1.2.1 Requested No Action Alternative

Under the Requested No Action Alternative, land use in the PSHH district would remain unchanged from early 2004. Specifically, Arion Press and Lone Mountain Children's Center would occupy Buildings 1802 and 1806, and another educational tenant would use the buildings recently vacated by the Jewish Community Center (Buildings 1803, 1805, and 1808). Building 1450 and 1451 would remain in use by the Trust as maintenance buildings, and Battery Caulfield would remain in use as a maintenance yard. The main hospital building, the houses on Wyman Avenue, and Buildings 1807, 1817, and 1818 would remain unrehabilitated and vacant.

The Requested No Action Alternative would not introduce residential use or any other use to the PSHH district's unrehabilitated buildings, and thus would not accommodate either adult or school-age residents. The mix of land uses proposed for the district in the PTMP would not be accomplished. As a result, the Presidio as a whole would be unlikely to sustain its existing housing supply (about 1,654 units) or accommodate the projected growth in population (3,770 residents). With estimated employment of 61 jobs, the Requested No Action Alternative would have an associated housing demand of 39 units (see Table 6 for a comparison of the alternatives).

The size and scale of the main hospital building would not change under this alternative. Because the building would remain vacant, the resulting density or level of activity in the district would be extremely modest. Only about 68,000 gross sf would be occupied within the 42-acre district, and about 58,000 gross sf would be occupied within the 18-acre lower plateau. As a comparison, 58,000 sf is less than the amount contained in the 1.5-acre city block (a half-size block) bounded by 14th and 15th Avenues, Lake Street, and the Presidio, which contains 49 dwelling units.

The Requested No Action Alternative would be inconsistent with the PTMP's land use goals, planning principles regarding preservation of historic buildings, and strategies for housing rehabilitation and conversion. Under this alternative, the district would remain underused, historic buildings would remain unoccupied, and the vision of a residential and educational community would not be fulfilled.

Table 6. Projected Land Use, Population, Employment, and School Enrollment at the PSHH District by Alternative

ALTERNATIVE	TOTAL DWELLING UNITS		SENIOR UNITS	POPULATION		EMPLOYMENT			SCHOOL ENROLLMENT
	STUDIOS & 1 BR	2+ BR		ADULT	SCHOOL-AGE	NON-RESIDENTIAL USES (GSF)	JOBS	HOUSING DEMAND (DWELLING UNITS)	FULL- OR PART-TIME STUDENTS ON-SITE
Requested No Action Alternative	0	0	0	0	0	68,000	61	39	387
Alternative 1	198	12	0	305	43	190,000	140	90	1,422
Alternative 2	300	50	0	536	74	30,000	25	16	89
Alternative 3	218	12	0	333	46	42,000	20	13	89
Alternative 4	167	102	155	385	54	30,000	>20	>13	89

Source: Presidio Trust.

Derived from PTMP EIS assumptions regarding employment density, housing demand, and the percentage of the residential population that is school-age (12.2%).

Household size = 2.6 persons per 2+BR unit, 1.6 persons per studios/1BR unit, and 1.0 person per senior unit.

School enrollment = existing Lone Mountain enrollment plus 9 students per 1,000 gsf of educational use in additional school space.

BR = bedrooms; gsf = gross square feet.

3.1.2.2 Alternative 1: PTMP Alternative

The rehabilitation and reuse of buildings within the PSHH district under Alternative 1 would result in activity levels as described in the PTMP EIS. The PSHH would be used primarily as residential apartments, although some educational use would also be included in the building. Educational uses such as schools would also fill the accessory buildings on the site, except for the residential buildings along Wyman Avenue, which would be rehabilitated for residential use.

The addition of 210 dwelling units and 190,000 sf of education-related uses under Alternative 1 would increase the level of activity within the PSHH district dramatically when compared to the Requested No Action Alternative, but would be generally consistent with the PTMP. The addition of 210 dwelling units, most of them small studios or one-bedrooms, would provide for a residential population of up to 348 people.³ Space used for education-related uses would generate an estimated 140 employees, as well

³ The PTMP EIS estimated residential population by using an average of 2.6 residents per dwelling unit, regardless of unit size, and an average of 1.6 residents per SRO unit, resulting in a Presidio-wide population projection of 3,775 residents in up to 1,654 units. To more accurately reflect the population associated with the residential apartments included in the PSHH alternatives (apartments that would generally be smaller than other Presidio units), this analysis assumes 1.6 persons per studio and one-bedroom apartment and 2.6 persons per two-bedroom apartment. One person is assumed for each senior housing unit. The revised population assumptions do not change the trip generation factors used in the traffic analysis, and derive from U.S. Census data for western San Francisco and data gathered from several rental apartment projects in areas of San Francisco outside of downtown. These data are available for review in the Presidio Trust Library, 34 Graham Street, at the Presidio.

as a substantial number of students and visitors. Housing demand associated with the increase in employment would be considerably less than the proposed increase in housing supply.

Incorporation of about 190,000 sf of non-residential uses in this alternative would create a mix of land uses that is less compatible with the surrounding residential neighborhood than a purely residential project. The mix of uses in Alternative 1 would result in overall higher activity levels (residents+employees+students) than Alternatives 2, 3, or 4. In addition, Alternative 1 would involve reuse of Building 1801 for both residential and educational use, potentially resulting in use conflicts within the main hospital building. For example, residents might be disturbed by students arriving early in the morning.

Within the context of the Presidio as a whole, the number of conventional dwelling units that are currently occupied would increase to about 1,160 or more under this alternative, depending on when units currently being rehabilitated in the Fort Scott district are brought on line. When combined with the current number of dormitory units, the total of 1,220 occupied units would remain well below the total of 1,654 units allowed for in the PTMP and below the number analyzed in the PTMP EIS. For a time, however, conventional units (as opposed to dormitory-style units) would represent a larger percentage of the overall unit count than anticipated in the PTMP EIS. As described in the PTMP, the unit mix within the Presidio will fluctuate over time, and will begin to change dramatically when the planned removal of large, conventional units at Wherry Housing is initiated.

Within the San Francisco context, the addition of 210 dwelling units would represent an increase of less than one percent in the Richmond neighborhood.⁴ In general, residential use would be compatible with surrounding neighborhood uses, which are principally residential, and educational use would be more intense than most surrounding uses due to the level of activity associated with students. The scale of the PHSH would remain far greater (taller and bigger) than nearby single-family homes, but this difference in scale already exists and would not be accentuated in any way. With 210 dwelling units in the 18-acre lower plateau, the area would have a residential density of about 12 units per acre, incrementally less than the surrounding neighborhood.⁵ Incorporation of educational use would make the area dissimilar to the immediately adjacent neighborhood, but similar to portions of the larger Richmond district that accommodate hospitals, schools, and other institutions.

Arion Press and Lone Mountain Children's Center, which are existing tenants, would remain at their current location under Alternative 1, but some interim land uses in the PHSH district would be displaced. Specifically, the waste transfer activity that currently occurs behind the PHSH would be relocated to the former U.S. Army transfer yard (across from Amatury Loop), an area within the Presidio's historic forest. Under Alternative 1, composting activities would remain in the parking lot behind the PHSH until a suitable new location is found. Battery Caulfield would remain in use as a maintenance or corporation

⁴ According to the Housing Element Final Draft for Public Review (September 2003) by the City and County of San Francisco Planning Department, there are about 36,700 dwelling units in the Richmond district, of which 28 percent are single-family homes and 17 percent are within buildings of 10 or more units.

⁵ A comparable 18-acre area within the immediately adjacent neighborhood contains 318 units, for a residential density of about 18 units per acre. See Figure A-1 in Appendix A.

yard until its transformation into open space (natural area and/or recreation) is separately planned for and funded. NPS maintenance activities at Battery Caulfield would be displaced and consolidated or relocated elsewhere in the south district of the GGNRA.

Residents of the new housing proposed within the PSHH district under Alternative 1 could include up to approximately 43 school-age children. These students would seek enrollment at area schools, including schools operated by the SFUSD. Under mitigation agreed to during the PTMP planning process, the Trust will make all reasonable efforts to collaborate with the SFUSD to locate necessary space for students residing at the Presidio and to continue participation in the federal School Impact Aid Program.

3.1.2.3 Alternative 2: Infill Alternative

The rehabilitation and reuse of buildings within the PSHH district under Alternative 2 would increase activity levels when compared to the Requested No Action Alternative, but would be somewhat less than under Alternative 1, since the resident and employee population under Alternative 1 would be supplemented by a large daytime student population. Under Alternative 2, the PSHH and the majority of other buildings on the site would be used as residential apartments, resulting in a lower daytime population of employees and students but a higher population of residents. Non-residential uses would occupy approximately 30,000 sf.

The addition of up to 350 dwelling units and 30,000 sf of non-residential uses would differ from the PTMP in two regards. First, unlike Alternative 1, Alternative 2 would place greater emphasis on residential use than on educational use. Second, as a result of the increased emphasis on residential use, the total number of dwelling units within the district would increase above the maximum of 210 specified on page 45 of the PTMP. As a result, the Trust would be constrained from reaching the maximum number of dwelling units stated for one or more other districts of the Presidio, so as to stay below the overall maximum of 1,654.

The addition of up to 350 dwelling units, most of them small studios or one-bedrooms, would provide for a residential population of about 610. This residential population would be larger than under the other alternatives. Space used for non-residential uses would generate an estimated 25 employees, far fewer than Alternative 1, and about the same as Alternatives 3 and 4.

Within the context of the Presidio as a whole, the number of conventional dwelling units that are currently occupied would increase to about 1,300 or more under this alternative, depending on when units currently being rehabilitated in the Fort Scott district are brought on line. When combined with the current number of dormitory units, the total of 1,360 occupied units would remain well below the total of 1,654 units allowed for in the PTMP and below the number analyzed in the PTMP EIS. For a time, however, conventional units (as opposed to dormitory-style units) would represent a larger percentage of the overall unit count than anticipated in the PTMP EIS. As described in the PTMP, the unit mix within the Presidio will fluctuate over time, and will begin to change dramatically when the planned removal of conventional units at Wherry Housing is initiated.

Within the San Francisco context, the addition of 350 dwelling units would represent an increase of less than one percent in the Richmond neighborhood. In general, residential uses would be compatible with surrounding neighborhood uses, which are principally residential. The scale of the PHSH would remain far greater (taller and bigger) than nearby single-family homes, but would not differ from the scale anticipated under the Requested No Action Alternative or Alternative 1. Similar to Alternative 1, occupied buildings within the 18-acre lower plateau would not exceed 383,000 gross sf. The residential density in the lower plateau would be about 19 units per acre, similar to most of the surrounding neighborhood.

Arion Press and Lone Mountain Children's Center, which are existing tenants, would remain at their current location under Alternative 2, but some interim land uses in the PHSH district would be displaced, similar to Alternative 1. Specifically, the waste transfer activity that currently occurs behind the PHSH would be relocated to the former U.S. Army transfer yard (across from Amatury Loop), an area within the Presidio's historic forest. Under Alternative 2, the parking lot behind the PHSH on the upper plateau would continue to be used for composting until a suitable new location is found. As in the Requested No Action Alternative and Alternative 1, Battery Caulfield would remain in use as a maintenance or corporation yard until its transformation into open space (natural area and/or recreation) is separately planned for and funded. NPS maintenance activities at Battery Caulfield would be displaced and consolidated or relocated elsewhere in the south district of the GGNRA.

Residents of the new housing proposed within the PHSH district under Alternative 2 could include up to approximately 74 school-age children. These students would seek enrollment at area schools, including schools operated by the SFUSD. Under mitigation agreed to during the PTMP planning process, the Trust will make all reasonable efforts to collaborate with the SFUSD to locate necessary space for students residing at the Presidio and to continue participation in the federal School Impact Aid Program.

3.1.2.4 Alternative 3: No Infill Alternative

The rehabilitation and reuse of buildings within the PHSH district under Alternative 3 would increase activity levels when compared with the Requested No Action Alternative, but not to the same extent as Alternative 1 or Alternative 2, and not to the extent described in the PTMP EIS. The main hospital building would be reduced in size and converted to residential use. The majority of other buildings on the site would also be rehabilitated for residential use. Non-residential uses would occupy approximately 42,000 sf.

The addition of up to 230 dwelling units and 42,000 sf of non-residential uses would differ from the PTMP in two regards. First, similar to Alternative 2, Alternative 3 would place greater emphasis on residential use than on educational use. Second, as a result of the increased emphasis on residential use, the total number of dwelling units within the PHSH district would increase above the maximum of 210 specified on page 45 of the PTMP. As a result, the Trust would be constrained from reaching the maximum number of dwelling units stated for one or more other districts of the Presidio, so as to stay below the overall maximum of 1,654.

The addition of up to 230 dwelling units, most of them small studios or one-bedrooms, would provide for a residential population of up to about 379. This residential population would be larger than anticipated under Alternative 1 and less than anticipated under Alternatives 2 and 4. Space devoted to non-residential uses would generate an estimated 20 employees, which would be fewer than expected under Alternative 1 and about the same as expected under Alternatives 2 and 4.

Within the context of the Presidio as a whole, the number of conventional dwelling units that are currently occupied would increase to about 1,180 or more under this alternative, depending on when units currently being rehabilitated in the Fort Scott district are brought on line. When combined with the current number of dormitory units, the total of 1,240 occupied units Presidio-wide would remain well below the total of 1,654 units allowed for in the PTMP and below the number analyzed in the PTMP EIS. For a time, however, conventional units (as opposed to dormitory-style units) would represent a larger percentage of the overall unit count than anticipated in the PTMP EIS. As described in PTMP, the unit mix within the Presidio will fluctuate over time, and will begin to change dramatically when the planned removal of conventional units at Wherry Housing is initiated.

Within the San Francisco context, the addition of 230 dwelling units would represent an increase of less than one percent in the Richmond neighborhood. In general, residential uses would be compatible with surrounding neighborhood uses, which are principally residential. The scale of the PHSH would remain far greater (taller and bigger) than nearby single-family homes, but unlike Alternative 1 and 2, Alternative 3 would address the difference in scale by removing the non-historic wings of the building. The resulting 258,000 gross sf of occupied buildings would include 230 units within the 18-acre lower plateau for a residential density of 13 units per acre on the lower plateau. This density would be incrementally lower than densities in most of the surrounding neighborhood and under Alternative 2.

Arion Press and Lone Mountain Children's Center, which are existing tenants, would remain at their current location under Alternative 3, but some interim land uses in the PHSH district would be displaced. Specifically, the waste transfer activity that currently occurs behind the PHSH would be relocated to the former U.S. Army transfer yard (across from Amatury Loop), an area within the Presidio's historic forest. Under Alternative 3, composting activities would remain at the parking lot behind the PHSH on the upper plateau until a suitable new location is found. As in Alternatives 1 and 2, Battery Caulfield would remain in use as a maintenance or corporation yard until its transformation into open space (natural area and/or recreation) is separately planned for and funded. NPS maintenance activities at Battery Caulfield would be displaced and consolidated or relocated elsewhere in the south district of the GGNRA.

Residents of the new housing proposed within the PHSH district under Alternative 3 could include up to approximately 46 school-age children. This number would be less than under Alternative 2 (74) and about the same as under Alternatives 1 and 4. These students would seek enrollment at area schools, including schools operated by the San Francisco Unified School District. Under mitigation agreed to during the PTMP planning process, the Trust will make all reasonable efforts to collaborate with the SFUSD to locate necessary space for students residing at the Presidio and to continue participation in the federal School Impact Aid Program.

3.1.2.5 Alternative 4: Battery Caulfield Alternative

The rehabilitation and reuse of buildings within the PSHH district under Alternative 4 would increase activity levels beyond the levels projected under the Requested No Action Alternative, but not to the same extent as Alternative 1, and not to the extent described in the PTMP EIS. The PSHH and the majority of other buildings on the site would be used as residential apartments. Non-residential uses would occupy approximately 30,000 sf.

The addition of up to 269 dwelling units (155 of them for seniors) and 30,000 sf of non-residential uses would constitute a change from existing conditions within the PSHH district and would differ from the PTMP in two regards. First, unlike Alternative 1 and like Alternatives 2 and 3, Alternative 4 would place greater emphasis on residential use than on educational use. Second, as a result of the increased emphasis on residential use, the total number of dwelling units within the district would increase above the maximum of 210 specified on page 45 of the PTMP. As a result, the Trust would be constrained from reaching the maximum number of dwelling units stated for one or more other districts of the Presidio, so as to stay below the overall maximum of 1,654.

The addition of up to 269 dwelling units, some of them for seniors and over 100 of them two-bedrooms, would provide for a residential population of about 439. This residential population would be larger than anticipated under Alternative 1 (348) and Alternative 3 (379), and less than anticipated under Alternative 2 (610). Space devoted to non-residential uses would generate an estimated 20 employees, which would be far fewer than expected under Alternative 1 and about the same as expected under other alternatives. Alternative 4 would also generate employees needed to support the assisted living component of the senior housing.

Within the context of the Presidio as a whole, the number of conventional dwelling units that are currently occupied would increase to about 1,219 or more under this alternative, depending on when units currently being rehabilitated in the Fort Scott district are brought on line. When combined with the current number of dormitory units, the total of 1,279 occupied units would remain well below the total of 1,654 units allowed for in the PTMP and below the number analyzed in the PTMP EIS. For a time, however, conventional units (as opposed to dormitory-style units) would represent a larger percentage of the overall unit count than anticipated in the PTMP EIS. As described in the PTMP, the unit mix within the Presidio will fluctuate over time, and will begin to change dramatically when the planned removal of conventional units at Wherry Housing is initiated.

Within the San Francisco context, the addition of 269 dwelling units would represent an increase of less than one percent in the Richmond neighborhood. In general, residential uses would be compatible with surrounding neighborhood uses, which are principally residential. The scale of the PSHH would remain far greater (taller and bigger) than nearby single-family homes, but as with Alternative 3, this difference in scale would be reduced by removal of the non-historic wings. Alternative 4 would have about the same residential density as Alternative 3 on the lower plateau (about 13 units per acre), but unlike any of the other alternatives would also introduce up to 73 dwelling units at the Battery Caulfield site within the upper plateau. This would constitute a change in land use at Battery Caulfield. District-wide, this

alternative would result in 362,000 occupied sf and 269 dwelling units on 42 total acres, about 21 acres of which are considered “previously disturbed” in the PTMP.

Arion Press and Lone Mountain Children’s Center, which are existing tenants, would remain at their current location under Alternative 4, but some interim land uses in the PHSB district would be displaced. Specifically, the waste transfer activity that currently occurs behind the PHSB would be relocated to the former U.S. Army transfer yard (across from Amatory Loop), an area within the Presidio’s historic forest. Under Alternative 4, composting activities would remain at the parking lot behind the PHSB on the upper plateau until a suitable new location is found. Unlike in Alternative 1, 2, or 3, Battery Caulfield would be converted to residential use, displacing all maintenance or corporation yard functions. Trust activities would be relocated to Battery Dynamite in the Fort Scott district, and NPS maintenance activities would be consolidated or relocated elsewhere in the south district of the GGNRA.

Residents of the new housing proposed within the district under Alternative 4 could include approximately 54 school-age children. This number would be more than under Alternatives 1 (43) and 3 (46), and fewer than under Alternative 2 (74). These students would seek enrollment at area schools, including schools operated by the SFUSD. Under mitigation agreed to during the PTMP planning process, the Trust will make all reasonable efforts to collaborate with the SFUSD to locate necessary space for students residing at the Presidio and to continue participation in the federal School Impact Aid Program.

Residential development at Battery Caulfield as proposed under Alternative 4 would be inconsistent with the PTMP’s guidance to concentrate development within the lower plateau of the PHSB district, although development would remain, as required, within a generalized area of development (i.e., the former missile site and current maintenance yard). Mitigation measures described in Section 3.11, Hydrology, Wetlands, and Water Quality, and Section 3.12, Biology, including providing wildlife corridors and buffers for native plant communities and minimizing changes in local hydrology, would be required to protect and enhance open space as envisioned in the PTMP.

3.1.2.6 Park Presidio Boulevard Access Variant

The addition of a direct access between the PHSB district and Park Presidio Boulevard would not alter land use, population, housing, employment, or school enrollment associated with any of the alternatives.

3.1.2.7 Cumulative Effects

The cumulative effects of added employment and population at the Presidio are analyzed in the PTMP EIS and would not increase as a result of any of the project alternatives analyzed here. The shift from a shared emphasis on residential and educational uses in the PTMP EIS analysis and Alternative 1 to mostly residential use in Alternatives 2, 3, and 4 would tend to reduce cumulative effects of those alternatives, even though the overall number of dwelling units in the PHSB district would be greater than originally analyzed, as would the percentage of units Presidio-wide that are conventional units versus dormitory-style units. This reduction in effects, as demonstrated by the transportation analysis (see

Section 3.2), is attributable to the higher levels of activity generally associated with educational uses than with residential uses.

From a land use and socioeconomic perspective, the reactivation of the PHSB district under Alternatives 1 through 4 after many years of vacancy would benefit San Francisco's overall housing and employment base whether considered in isolation or in combination with other changes planned for the Presidio or surrounding areas.

3.1.3 MITIGATION MEASURES

All of the alternatives will include adopted mitigation measures from the PTMP EIS as conditions of approval, and therefore none of the alternatives would result in significant environmental impacts. The Requested No Action Alternative and Alternatives 2, 3, and 4 would differ from assumptions in the PTMP EIS, but all could be accomplished within the overall parameters of the adopted Plan and would result in less activity at the site than Alternative 1. The following mitigation measures are derived from the PTMP EIS and were adopted as conditions of approval at the end of the PTMP planning and environmental review process.

CO-2 Jobs/Housing Balance Monitoring – The Trust will monitor housing demand, occupancy, unit mix, and progress toward a jobs/housing balance, and will accommodate Presidio-based employees at a range of income levels. As part of this monitoring effort, the Trust will ensure that the total number of dwelling units Presidio-wide does not exceed the maximum of 1,654.

CO-3 Collaboration with SFUSD – The Trust will make all reasonable efforts to collaborate with the SFUSD to locate necessary space for students residing at the Presidio and to continue participation in the federal School Impact Aid Program.

Preparation and review of this SEIS meets requirements of PTMP EIS Mitigation Measure CO-1 *Monitoring Area B Uses*, which requires that the Trust review proposed uses for consistency with the PTMP planning principles and consult with the NPS regarding activities with the potential to significantly affect Area A resources. No additional measures have been identified.

3.2 Transportation

Traffic, transit, parking, and other transportation-related issues within the Presidio are described on pages 168 to 183 and 302 to 327 of the PTMP EIS. This analysis is supplemented below with updated information and analysis specific to the PHSB project.

3.2.1 AFFECTED ENVIRONMENT

The PHSB district is located on the south side of the Presidio, near external roadways including Lake Street, California Street, Park Presidio Boulevard, 14th Avenue, and 15th Avenue. Access through the

PHSH district is provided by Wedemeyer Street and Battery Caulfield Road. Figure 9 shows key roadways to and through the district.

Lake Street is an east-west oriented street located immediately south of the Presidio, with bike lanes and on-street parking on both sides of the street in the vicinity of the project site, except between 14th Avenue and Park Presidio Boulevard, where there is no on-street parking. California Street is an east-west oriented street located immediately south of Lake Street with one travel lane each way and on-street parking on both sides of the street.

Park Presidio Boulevard (Highway 1) is a major north-south arterial and a state-designated facility under Caltrans jurisdiction. It has three travel lanes each way with a raised median south of its intersection with Lake Street. Approximately 450 feet north of Lake Street, Park Presidio Boulevard narrows to two travel lanes each way south of the MacArthur Tunnel. Fourteenth Avenue is a north-south oriented residential street with on-street parking on both sides of the street that narrows to a width of 30 feet north of Lake Street near the former entrance to the Presidio. The 14th Avenue Gate to the Presidio is currently closed to vehicular traffic. Fifteenth Avenue is a north-south oriented street that is approximately 40 feet wide with one travel lane each way near Lake Street and California Street and narrows to approximately 35 feet near the Presidio gate. Fifteenth Avenue has on-street parking on both sides of the street and provides access to the Presidio approximately 260 feet north of Lake Street. Wedemeyer Street and Battery Caulfield Road are Presidio roadways that provide access to the PHS site and connect 14th Avenue with Washington Boulevard north of the site. Wedemeyer Street has one travel lane each way and no on-street parking.

The 15th Avenue Gate is currently the only direct vehicular access to the PHS site from outside the Presidio. Traffic count data indicate that the weekday daily traffic through the 15th Avenue Gate has increased from about 920 vehicles in November 1998 to about 1,960 vehicles in October 2002, largely due to the occupancy of more buildings on the PHS site.

3.2.1.1 Historical and Existing Traffic Volumes

The PHS district was historically distinct from the rest of the Presidio and housed a full-service medical facility providing acute medical and surgical services, in addition to a number of out-patient services. Fourteenth Avenue provided the main access point to the hospital from the 1930s to the 1950s, when the 15th Avenue Gate was added. No reliable source of data regarding traffic generated by the hospital – which was closed in 1980 – has been discovered. However, based on the number of hospital beds (260), staff accommodations (98), and staff (810) around the time the hospital closed, standard trip generation rates would suggest that between 3,400 and 4,500 daily vehicle trips were generated, including between 270 and 350 in the PM peak hour when traffic is generally at its worst.⁶

⁶ Calculations using the Institute of Transportation Engineers (ITE) trip generation rates for hospitals are available for review at the Presidio Trust Library, 34 Graham Street.

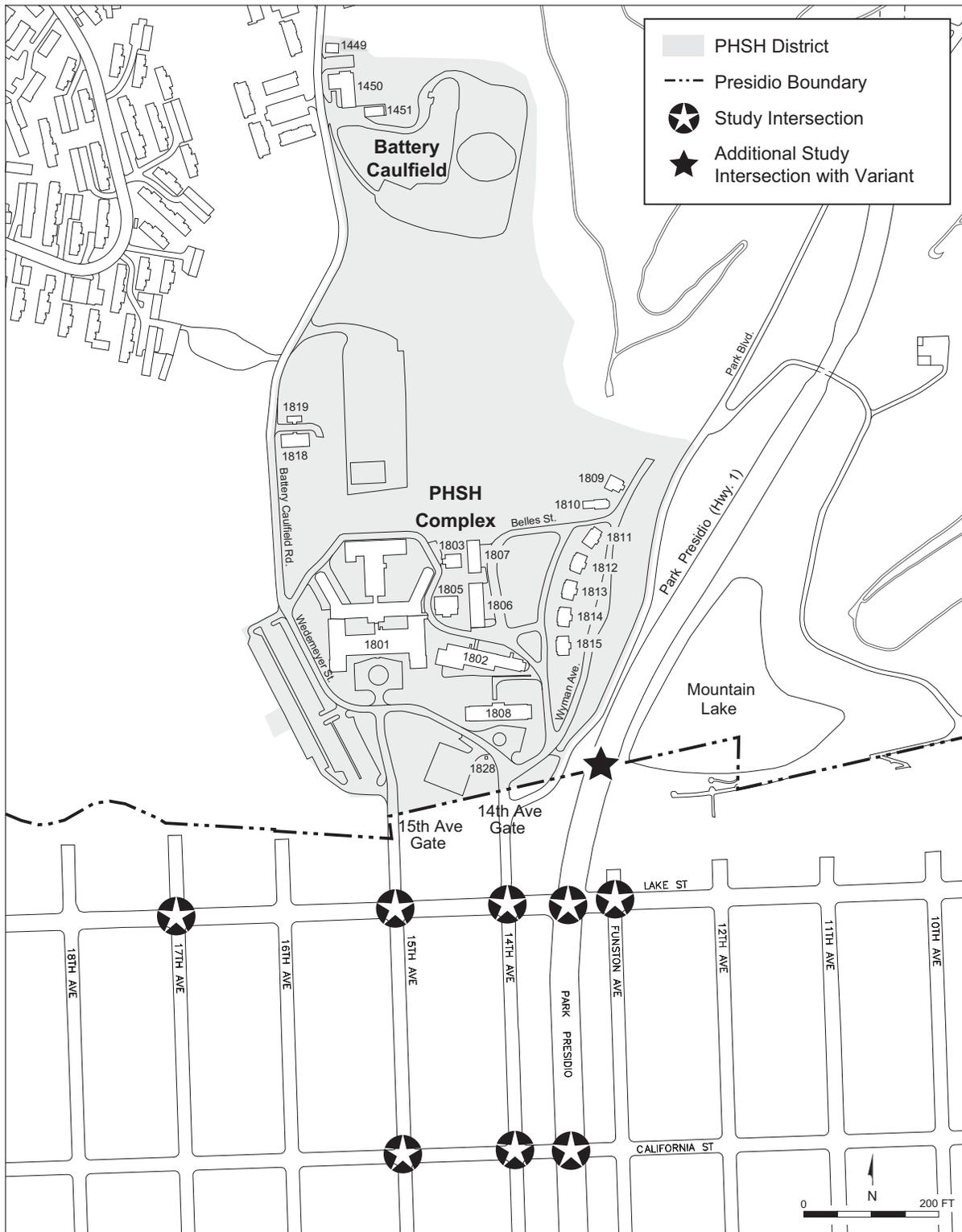


FIGURE 9. STUDY INTERSECTIONS

Source: Presidio Trust, 2004

Today, the 15th Avenue Gate entrance is the only direct vehicular access to the PHSH site from outside the Presidio. As part of the Presidio Bus Management Plan study (Robert Peccia & Associates 1999a), 24-hour machine traffic counts were conducted at the nine Presidio gates during the second week of May, the first week of August, and the third week of November 1998. The data indicate that approximately 780 to 920 vehicles per day entered the Presidio via the 15th Avenue Gate, which represented approximately one percent of all vehicles entering or exiting the park on a weekday.

Traffic volumes through the 15th Avenue Gate have increased as occupancy of buildings in the PHSH district has increased. Additional count data were collected on a weekday in October 2002, when buildings in the eastern part of the PHSH district were occupied by the Jewish Community Center, Arion Press, and Lone Mountain Children's Center. The average daily traffic volume was 1,958 vehicles and the PM peak hour traffic volume was 187 vehicles.

Residents of the neighborhood immediately south of the site have general safety concerns related to traffic flow in and through the area, such as the heavy volume of U-turns at the intersection of Lake Street/14th Avenue and pedestrian crossings of Park Presidio Boulevard at the intersection with Lake Street. Accident data obtained from the San Francisco Department of Parking and Traffic indicate that there have been 13 accidents at the intersection of Park Presidio Boulevard and Lake Street in the past five years, two of which involved pedestrians. There was also an accident at this location in 1996 that resulted in a bicyclist fatality. Neighborhood residents have expressed safety concerns related to the volume of traffic traveling through the 15th Avenue Gate as well as the speed of traffic exiting the gate.

3.2.1.2 Existing Traffic Conditions at Nearby Intersections

Existing intersection operating conditions were evaluated for weekday AM and PM peak period conditions at eight key intersections in the vicinity of the project site. These intersections would most likely experience the greatest change in traffic volumes due to changes in land uses at the project site. The eight study intersections, which are shown on Figure 9, are as follows:

- Lake Street/15th Avenue
- Lake Street/14th Avenue
- Lake Street/Park Presidio Boulevard
- California Street/15th Avenue
- California Street/14th Avenue
- California Street/Park Presidio Boulevard
- Lake Street/17th Avenue
- Lake Street/Funston Avenue

The turning movement traffic volumes at the first six study intersections were counted by Wilbur Smith Associates (WSA) during the morning and afternoon peak commute periods (7:00 to 9:00 AM and 4:00 to

6:00 PM) in November 2000 as part of the data collection efforts undertaken for the PTMP EIS. In January 2004, after review of PTMP EIS data for consistency with traffic volume data from other sources (including the preliminary data from the Doyle Drive study), new traffic counts were taken at the Lake Street/Park Presidio Boulevard and California Street/Park Presidio Boulevard intersections for the purposes of this analysis. In response to comments on the February 2004 PHS EA, the intersections of Lake Street/17th Avenue and Lake Street/Funston Avenue were added to the analysis, and traffic counts at these intersections were gathered in May 2004. For each study intersection, the peak hour total for the intersection traffic volume during each two-hour period was determined and used for the intersection capacity analysis. In order to conservatively account for the seasonal variation in traffic volumes counts, the intersection turning movement volumes gathered in the winter were adjusted upward by 11 to 15 percent. The traffic counts collected in November 2000 for the PTMP traffic analysis were adjusted upward by 15 percent based on a comparison of the November counts to May 2000 counts at several PTMP study intersections. Because the seasonal variation for local traffic at local intersections is likely to differ from the seasonal variation for regional traffic on highways and freeways, the intersections of Lake Street/Park Presidio Boulevard and California Street/Park Presidio Boulevard were adjusted upward by 11 percent based on monthly traffic volume data for the Golden Gate Bridge.

The AM and PM peak hour intersection operations analysis was conducted according to the methodology described in the 2000 Highway Capacity Manual (HCM 2000) (Transportation Research Board 2000).⁷ The HCM methodology calculates the average delay experienced by a vehicle traveling through the intersection, and assigns a corresponding level of service (LOS), which ranges from LOS A, indicating volumes well below capacity with vehicles experiencing little or no delay, to LOS F, indicating volumes near capacity with vehicles experiencing extremely high delays. An intersection operating at LOS D or better is generally considered to be operating acceptably. Levels of service E and F are generally considered unacceptable at signalized and all-way stop-controlled intersections. At two-way stop-controlled intersections, delay and LOS are calculated for each of the two stop-controlled approaches, and operating conditions are reported for the worst approach. As a result, LOS E and F are not always considered unacceptable at two-way stop-controlled intersections, because the majority of cars traveling through the intersection are not affected.⁸

For signalized intersections, the HCM 2000 methodology determines the average delay per vehicle for each lane group based on the particular movement, and traffic volume and capacity associated with that lane group. The average delay per vehicle is then aggregated for each approach and for the intersection as a whole. A combined weighted average delay and LOS are then presented for the intersection as a whole.

⁷ The results for establishing the operating conditions shown in the PTMP EIS differ slightly from those shown in this analysis because the transportation analyses conducted as part of the PTMP EIS were based on the 1994 HCM methodology, the accepted methodology at that time. Since then, the newer HCM 2000 is more widely used by traffic engineers and other transportation professionals.

⁸ The San Francisco Planning Department's Transportation Impact Analysis Guidelines for Environmental Review call for a case-by-case consideration of such conditions to determine whether mitigation is necessary and – by extension – whether the condition is considered unacceptable or “significant.” This is because the majority of motorists would experience more delay following implementation of measures (e.g., all-way stop control) to mitigate the delay of motorists at the minor approach(es).

For all-way stop-controlled intersections, average delay per vehicle is averaged across all approaches, and operating conditions are again reported for the average delay and LOS for the intersection as a whole.

Table 7 presents the results of the intersection LOS analysis for the existing weekday AM and PM peak hour conditions.⁹ As the table indicates, all eight intersections operate at LOS D or better during the weekday AM peak hour. During the weekday PM peak hour, six intersections operate at LOS D or better, with the two-way stop-controlled intersections of California Street/14th Avenue and Lake Street/14th Avenue currently operating at LOS E.

Table 7. Intersection Levels of Service – Weekday AM and PM Peak Hours
Existing Conditions

INTERSECTION	TRAFFIC CONTROL DEVICE	AM PEAK HOUR		PM PEAK HOUR	
		DELAY ^a	LOS	DELAY ^a	LOS
Lake Street/15 th Avenue	4-Way Stop	17.4	C	12.4	B
Lake Street/14 th Avenue ^b	2-Way Stop	29.3	D	36.1	E
Lake Street/Park Presidio Boulevard	Traffic Signal	24.4	C	21.5	C
California Street/15 th Avenue ^b	2-Way Stop	27.0	D	26.6	D
California Street/14 th Avenue ^b	2-Way Stop	29.6	D	41.9	E
California Street/Park Presidio Boulevard	Traffic Signal	30.5	C	38.9	D
Lake Street/17 th Avenue	2-Way Stop	15.8	C	13.8	B
Lake Street/Funston Avenue	2-Way Stop	23.5	C	23.9	C

Source: Wilbur Smith Associates 2004a.

Notes:

^a Delay is presented in seconds per vehicle based on the HCM 2000 methodology.

^b LOS and delay are shown for worst minor stop-controlled approach. Major approach is uncontrolled and without delay.
LOS: Level of service.

3.2.1.3 Projected Future Traffic Conditions

As regional population and employment continue to grow in the future, traffic on roadways near the project site is expected to increase over current levels. The increased occupancy of the Presidio as described in the PTMP would contribute to this overall increase in traffic volumes on nearby roadways, as shown in the PTMP EIS. The PTMP calls for access to and from the PHS district to be accommodated

⁹ Detailed calculations of the intersection LOS analysis are provided in Appendix B.

by a one-way couplet at the 14th and 15th Avenue Gates, with the 14th Avenue Gate accommodating inbound traffic and the 15th Avenue Gate accommodating outbound traffic.

3.2.1.4 Transit Service

Major public transit systems serving the project site include the San Francisco Municipal Railway (MUNI) and the Golden Gate Transit (GGT) system operated by the Golden Gate Bridge, Highway and Transportation District. These services provide access to other regional transit providers such as BART, AC Transit, Caltrain, SamTrans, and the regional ferry system. In addition, the Presidio's internal shuttle bus service (PresidiGo) serves the park and connects to MUNI and GGT buses at key transfer points.

Five MUNI routes provide regular scheduled daily transit service directly to the San Francisco neighborhoods adjacent to the project site: 1-California, 1AX-California "A" Express, 1BX-California "B" Express, 28-19th Avenue, and 28L-19th Avenue Limited. Figure 10 illustrates the location(s) of these routes in relation to the PHSH district. These MUNI routes operate at a frequency of 6 to 15 minutes during peak commute periods.

Recent ridership data are available for each line's maximum load point, defined as the location along the route at which the highest level of ridership typically occurs. In all instances, with the exception of the 1AX-California route, the maximum load point occurs at a substantial distance from the Presidio (at least 1.6 miles from the PHSH district). Table 8 presents the maximum load points and associated current ridership for the various MUNI bus lines serving the Presidio or its adjacent neighborhoods during the AM and PM peak commute periods. Table 8 indicates that the MUNI lines serving the PHSH district are well-used, but still have available capacity.

Golden Gate Transit (GGT) operates bus lines and ferry routes between San Francisco and Marin and Sonoma Counties. Twenty-one GGT bus lines pass through the Presidio during the AM and PM peak hours, all stopping at the Golden Gate Bridge Plaza. Only Route 10, however, proceeds south into San Francisco via Highway 1, Park Presidio Boulevard, and Geary Boulevard, with the stop nearest to the project site located at the California Street/Park Presidio Boulevard intersection.

Early in 2002, the Trust began a free-of-charge shuttle service within the Presidio (PresidiGo) that runs on compressed natural gas. The shuttle's two routes (orange and blue) serve the entire Presidio with more than 40 stops within the park, including key transfer points to MUNI and GGT buses. The service currently operates on 30-minute headways from 7:00 AM to 7:00 PM on weekdays, and on one-hour headways from 11:00 AM to 6:00 PM on weekends.

The blue PresidiGo line serves the project site with a stop at Wedemeyer Street, in front of Building 1808 (Nurses' Quarters) and the 14th Avenue Gate. It connects with the following bus lines: MUNI's 29-Sunset at Lincoln Boulevard, GGT's transbay lines at the Golden Gate Bridge Plaza, MUNI's 82X-Presidio and Wharves Express at the Transit Center near the Main Post, and MUNI's 43-Masonic on Letterman Drive. During the first nine months of 2003, the PresidiGo service carried an average of 5,620 passengers each month, or an average of about 190 passengers per day. In addition, PresidiGo provides

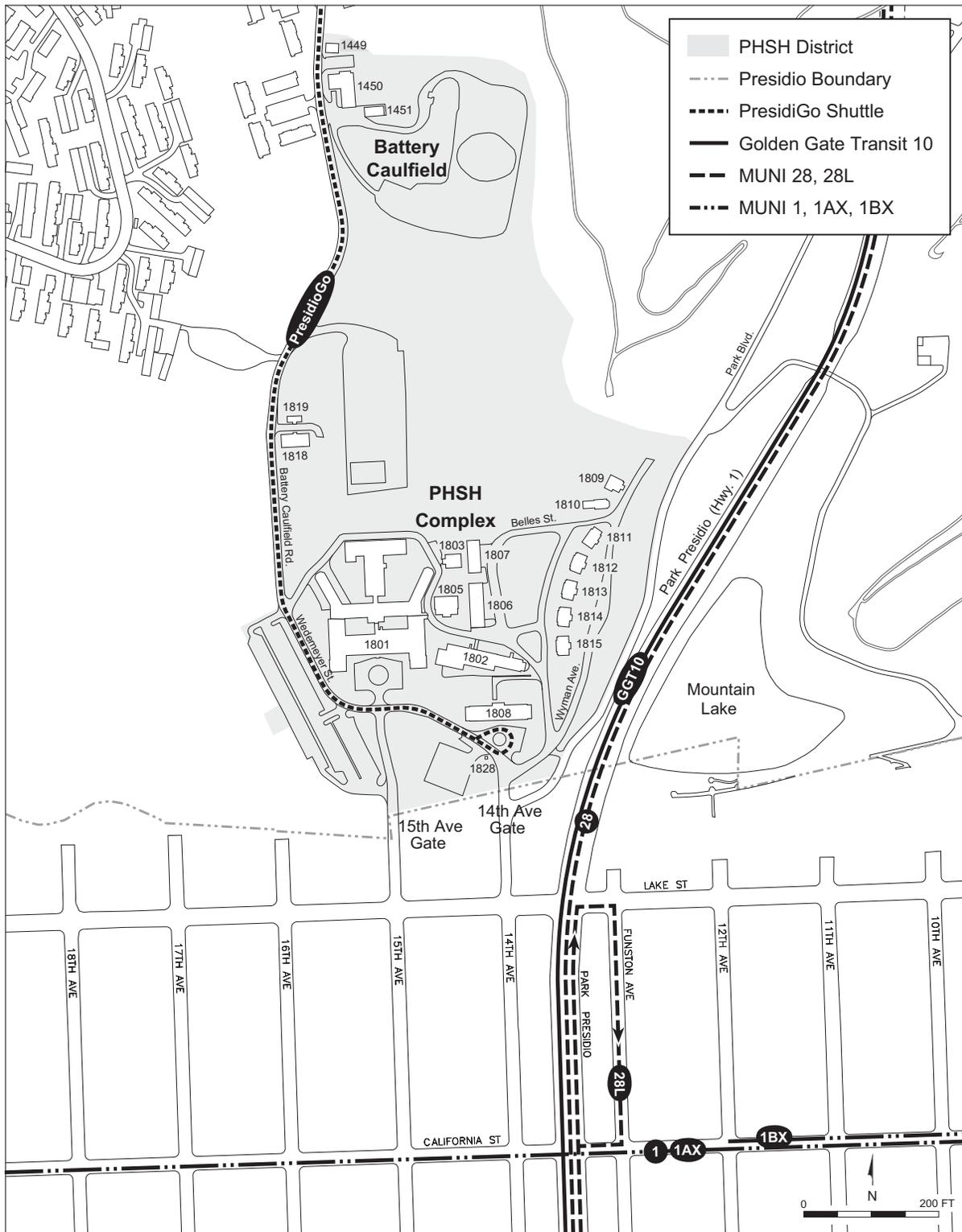


FIGURE 10. EXISTING TRANSIT ROUTES

Source: Presidio Trust, 2004

Table 8. Existing MUNI Passenger Loads

LINE	DIRECTION	AM PEAK HOUR				PM PEAK HOUR			
		MAXIMUM LOAD POINT	PEAK HOUR LOAD	PEAK HOUR CAPACITY	LOAD FACTOR	MAXIMUM LOAD POINT	PEAK HOUR LOAD	PEAK HOUR CAPACITY	LOAD FACTOR
1	to Howard/Main	Clay/Powell	929	987	94%	Clay/Polk	650	1,377	47%
	to Geary/33 rd	Sacramento/Polk	444	851	52%	Sacramento/Powell	1,243	1,533	81%
1AX	to Davis/Pine	California/Park Presidio	303	432	70%	n.a.	n.a.	n.a.	n.a.
	to Geary/33 rd	n.a.	n.a.	n.a.	n.a.	California/Park Presidio	154	314	49%
1BX	to Davis/Pine	California/Fillmore	653	765	85%	n.a.	n.a.	n.a.	n.a.
	to Park Presidio/California	n.a.	n.a.	n.a.	n.a.	California/Fillmore	248	373	66%
28	to Fort Mason	19 th Ave./Lincoln	311	588	53%	19 th Ave./Sloat	302	425	71%
	to Daly City BART	19 th Ave./Sloat	171	425	40%	19 th Ave./Lincoln	374	410	91%
28L	to Park Presidio/California	19 th Ave./Lincoln	134	273	49%	n.a.	n.a.	n.a.	n.a.
	to Daly City BART	19 th Ave./Sloat	113	331	34%	n.a.	n.a.	n.a.	n.a.

Source: MUNI, FY 2001-2002 Transit Data.

Notes:

n.a. = not applicable; indicates that no runs are made on that route in that direction during that particular time period.

Peak hour capacity is based on the MUNI Bus and Metro FY 2001-2002 Weekday Conditions. It assumes an appreciable number of standees per vehicle (somewhere between 60 percent and 80 percent of the number of seated passengers, depending on the specific transit vehicle configuration) and may not include the effects of missed or late runs.

Peak hour ridership is assumed to be 60 percent of the two-hour peak period ridership, consistent with the guidance provided by the San Francisco Planning Department's Transportation Impact Analysis Guidelines for Environmental Review.

The 1-California line operates at a three-minute headway east of Fillmore Street; the peak hour loads correspond to maximum load points that occur in this zone.

special service for tenants and events within the Presidio. Special service must be arranged in advance and is generally paid for by the tenant or event sponsor.

As regional population and employment continue to grow, transit ridership and transit service levels are projected to increase above existing levels. The increased occupancy of the Presidio, together with increased visitorship, would contribute to the overall increase in transit ridership, as projected in the PTMP EIS. Mitigation measures to address transit service levels are identified in the PTMP EIS.

3.2.1.5 Bicycle and Pedestrian Conditions

Figure 11 illustrates the existing and proposed trails and bikeways in the vicinity of the project site. Paved sidewalks connect the main buildings within the PHSH district by extending, for example, along the north side of Wedemeyer Street in front of Buildings 1801 (the former hospital building) and 1808 (the former nurses' quarters). Pedestrian paths on both sides of 15th Avenue and on the east side of 14th Avenue connect the site to the nearby park entrances. A similar network of pedestrian paths links together the buildings on Wyman Avenue. A shared pedestrian-bicycle path also crosses under Highway 1 to connect the project site to the Mountain Lake area. Implementation of the Presidio Trails and Bikeways Master Plan will extend this multi-use path around the south side of the project site to Battery Caulfield Road on the west side of the site. The Master Plan will also provide a continuous pedestrian path in the Wedemeyer Street/Battery Caulfield corridor and add pedestrian paths that connect the project site to Lobos Creek and Baker Beach Apartments.

Sixty-seven pedestrians were counted at Battery Caulfield Road from 7:00 AM to 6:00 PM during a weekday in October 1999; 157 pedestrians were counted the following Saturday during the same time period (Robert Peccia & Associates 1999b).

There are several bicycle routes through the Presidio, although bicycles and vehicles currently share a standard-width roadway along most of these routes. Near the project site, San Francisco Citywide Bicycle Route 10 is a Class II (striped bicycle lanes in roadway) facility along Lake Street. In addition, 15th Avenue, 25th Avenue, and El Camino del Mar are part of the designated San Francisco Citywide Bicycle Routes (Routes 69, 75, and 95, respectively) that continue into the Presidio. Route 69 is a Class III facility (signed route only where bicyclists share roadway with vehicles, generally with wider travel lanes). In the immediate vicinity of the project site, Route 69 follows Wedemeyer Street and Battery Caulfield Road to connect with Route 65 (Class III) at Washington Boulevard. The Presidio Trails and Bikeways Master Plan allows for an uphill bike lane on Wedemeyer Street/Battery Caulfield Road between 15th Avenue and Washington Boulevard. Park Boulevard/West Pacific Avenue at the southeast corner of the site is a Class I facility (paved off-street path separated from motor vehicle traffic) that extends from 14th Avenue and crosses under Highway 1 to connect to the Presidio Golf Course parking area on West Pacific Avenue. This facility will be extended around the south side of the PHSH site to Battery Caulfield Road on the west side of the site as part of implementation of the Presidio Trails and Bikeways Master Plan.

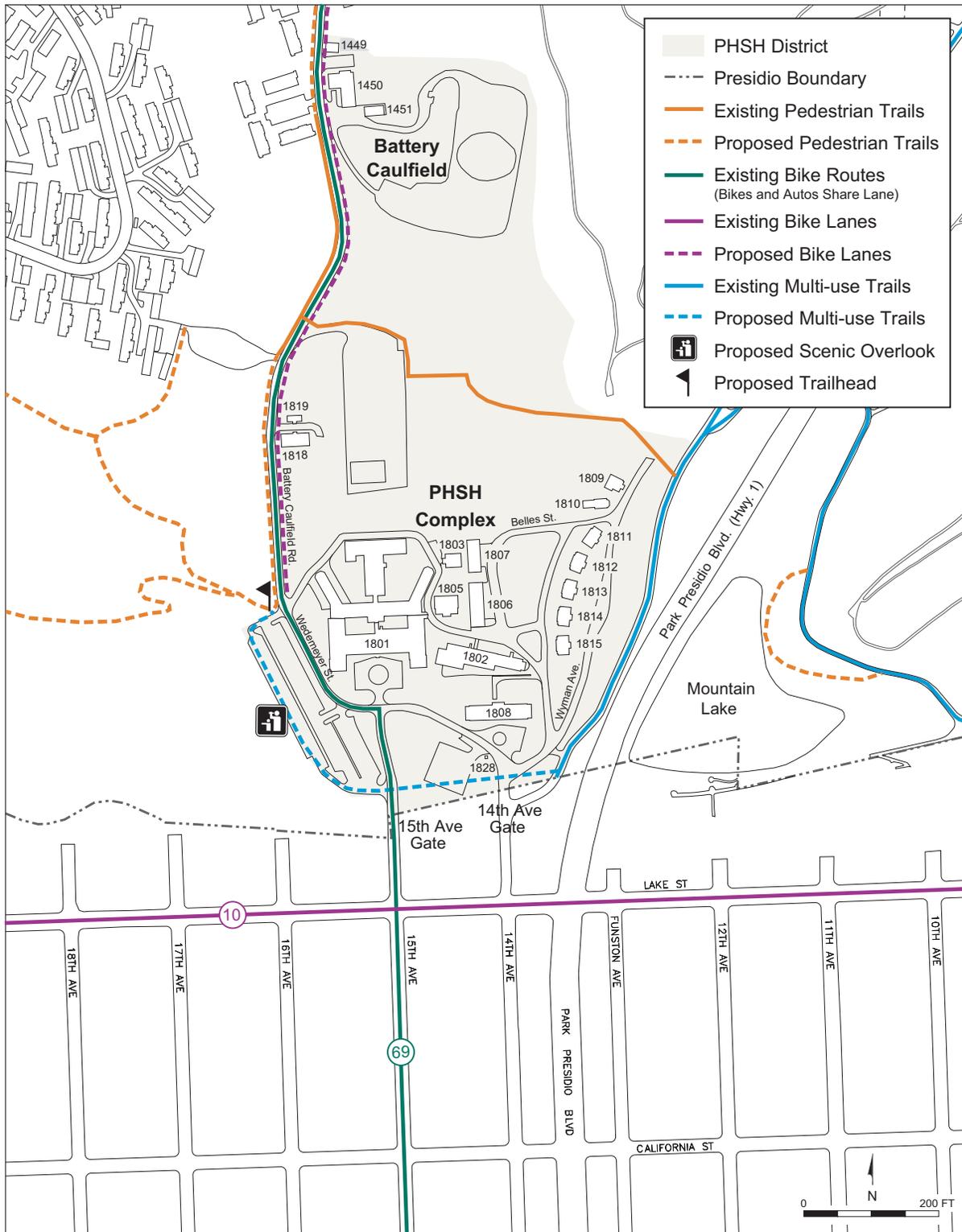


FIGURE 11. TRAILS AND BIKEWAYS

Source: Presidio Trust, 2004

Forty-five bicyclists were counted at Battery Caulfield Road from 7:00 AM to 6:00 PM during a weekday in October 1999; 241 bicyclists were counted the following Saturday during the same time period.

3.2.1.6 Parking Conditions

On-street parking in the San Francisco neighborhood near the project site entrance is not metered, but is mostly restricted to a two-hour time limit, except for local residents displaying the appropriate sticker. Near the project site, the “N” residential permit parking zone, in which an “N” sticker is required in order to legally exceed the two-hour parking limit, extends on both sides of 14th and 15th Avenues between California Street and the Presidio, on both sides of Lake Street between 14th and 15th Avenues, and on both sides of 15th Avenue and on the west side of 14th Avenue between California Street and Clement Street. The only other parking restriction in this area is for weekly street cleaning.

As part of a study to assess the potential “spillover” effects of daytime parking fees and time restrictions in the Presidio, parking supply and occupancy surveys were conducted in the early morning, midday, and late afternoon periods of weekdays in October 2001 and December 2000. Survey data indicate that there are approximately 260 on-street parking spaces on Lake and California Streets between 14th and 18th Avenues and on 14th and 15th Avenues between California Street and the Presidio. Parking occupancy data indicate that 87 percent of the parking spaces are occupied early in the morning (6:00-8:30 AM) as residents start leaving the area to go to work. About 60 percent are occupied during the middle of the day (11:00 AM-1:00 PM), and about 47 percent are occupied in the late afternoon (3:00-5:00 PM). The cluster of parked vehicles near the 15th Avenue Gate suggests that the Presidio is used by some residents in the surrounding neighborhood as a convenient parking area when sufficient on-street parking is not available, and that parking occupancy during late evenings and weekends likely nears 100 percent.

Parking is currently prohibited on the Battery Caulfield site, and there are approximately 30 parking spaces in the paved areas around Buildings 1818, 1819, and 1450. There are 306 parking spaces on the lower plateau. Because there are a number of vacant buildings within the PHS complex, most of these spaces are unoccupied.

3.2.2 ENVIRONMENTAL CONSEQUENCES

Impacts related to transportation and circulation are discussed on pages 302 to 327 of the PTMP EIS, which indicates that the level of service at a number of intersections will degrade to unacceptable levels by the year 2020, and that no mitigation is available for some intersections. The PTMP EIS analysis is incorporated here by reference, together with results of two subsequent transportation studies: Access Study at 14th /15th Avenue Gates (Presidio Trust 2003e) and Presidio Public Health Service Hospital Transportation Study: Additional Alternatives Analysis (Wilbur Smith Associates 2003). Copies of these studies are available for review at the Presidio Trust Library, 34 Graham Street. Relevant sections are summarized below and expanded upon as necessary. Analysis of transportation-related impacts for the four PHS alternatives is further detailed in technical memoranda prepared for this study and included as Appendix B.

3.2.2.1 Travel Demand

Trip generation rates, mode split, auto occupancy factors, and other travel and parking demand parameters were used to estimate the number of weekday daily, AM, and PM peak hour trips that would be generated by each of the PHSH alternatives.

The methodology is based on that used in the PTMP EIS, which, in turn, was based on standard data sources such as the San Francisco Planning Department Guidelines for Environmental Review (SF Guidelines), the State of California Department of Transportation (Caltrans), and the Institute of Transportation Engineers (ITE). Modal split and auto occupancy for each of the alternatives vary by land use type and differ between external trips and trips internal to the Presidio. All of these travel characteristics incorporate the transportation demand management (TDM) measures included in the PTMP. Parking demand has also been estimated for midday weekday, evening, and weekend conditions, based on the methodology used in the PTMP EIS.

In order to estimate the number of person trips that would be generated by each alternative, trip generation rates were developed for and applied to the different land use types (residential, senior residential, cultural/educational, recreation, office, etc.) expected under each alternative. A trip generation rate expresses the number of person trips that would be generated by a unit (dwelling unit or square foot) of given land use type. Person trips for each alternative were calculated for weekday daily, AM peak hour, and PM peak hour conditions. In order to accurately reflect the different travel behavior characteristics of different types of housing, different trip generation rates were used for senior housing and conventional housing.

Trip generation rates for each land use type were estimated based on information from the San Francisco Guidelines for Environmental Review, the Institute of Transportation Engineers Trip Generation Manual-Sixth Edition, the Caltrans' 15th Progress Report on Trip Ends Generation Research Counts, and the San Diego Traffic Generators Manual. Based on these sources, the person trip generation rates shown in Table 9 were developed to reflect the land uses described for each alternative. The cultural/educational trip rate assumed in the PTMP transportation analysis reflects a land use that is a composite of museum space and its associated educational programs. Because this rate is not representative of the day care facilities currently and recently located in the PHSH district, the rate used in the PTMP transportation analysis was adjusted upward for space assumed to be used for day care or other similar high-intensity educational use; the adjusted rate is reflected in Table 9. This includes 37,700 gross square feet in the Requested No Action Alternative and Alternative 1, 11,300 gross square feet in Alternative 2, 10,000 gross square feet in Alternative 3, and 9,600 gross square feet in Alternative 4. Detailed travel demand calculations by alternative are provided in Appendix B.

Based on the Trust's live/work model, it is expected that many of the employed residents living in the Presidio would work within the park. The expected balance of employment and residential land uses within the Presidio by 2020 creates the opportunity for Presidio residents to work within the Presidio; therefore some of the trips would both originate and terminate in the Presidio. In order to evaluate internal trips differently from trips to and from other parts of San Francisco or the Bay Area, and to

accurately reflect the effect of the jobs/housing balance on travel behavior, the number of person trips generated by the proposed land uses in each alternative was separated into external and internal trips. Depending on the alternative, approximately 5 to 14 percent of the trips generated or attracted to the project site were assumed to begin and end within the Presidio. Presidio residents working in the Presidio could walk, bike, or ride the internal shuttle service to destinations within the Presidio. Because internal trips are more likely to be made by transit, walking, or bicycling than external trips, the separation of the two types of trips allowed for the application of different assumptions regarding the mode of travel (“mode split”).

Project site-generated person trips were assigned to travel modes in order to estimate the number of auto, transit, and walk/bicycle trips. Mode split information from the PTMP EIS is also used here. This information was based on Presidio employee and resident surveys and the minimum performance standards of the Transportation Demand Management Program as outlined in Appendix D of the PTMP.

Table 9. Trip Generation Rates by Land Use

TIME PERIOD	NUMBER OF PERSON TRIPS AND TRIP DISTRIBUTION BY LAND USE TYPE						
	INDUSTRIAL/ WAREHOUSE	OFFICE ^a	CONFERENCE ^a	RECREATION ^a	CULTURAL/ EDUCATIONAL ^a	RESIDENTIAL ^b	SENIOR RESIDENTIAL ^b
Daily	6.00	15.00	8.50	45.00	67.00	10.00	5.00
<i>Inbound</i>	50%	50%	50%	50%	50%	50%	50%
<i>Outbound</i>	50%	50%	50%	50%	50%	50%	50%
AM Peak Hour	0.60	2.25	0.85	2.48	10.7	0.90	0.20
<i>Inbound</i>	80%	90%	80%	60%	53%	20%	20%
<i>Outbound</i>	20%	10%	20%	40%	47%	80%	80%
PM Peak Hour	0.90	1.50	0.85	4.50	12.1	1.05	0.25
<i>Inbound</i>	20%	15%	30%	50%	47%	70%	70%
<i>Outbound</i>	80%	85%	70%	50%	53%	30%	30%

Source: Wilbur Smith Associates 2003.

Notes:

^a Number of person trips per 1,000 gross square feet.

^b Number of person trips per dwelling unit.

Auto person trips refer to person trips involving either a driver or a passenger in a private vehicle. To determine the number of vehicle trips generated by the number of auto person trips, average vehicle occupancy was used. The assumed vehicle occupancy factor varies by land use. The chosen vehicle

occupancy factors were based on those used in the PTMP EIS, which in turn are based on Citywide Travel Behavior Survey (CTBS) travel data published by the San Francisco Planning Department.

Table 10 presents the projected daily, AM peak hour, and PM peak hour travel demand estimates by mode for typical weekday conditions for the project alternatives analyzed. Daily and peak hour travel demands vary by alternative, depending on the land uses included in each alternative and the intensity of use. Detailed travel demand calculations incorporating mode shares are provided in Appendix B.

The number of vehicle trips expected to be generated by the Requested No Action Alternative is comparable to some of the other alternatives due to the travel behavior characteristics unique to educational uses. Trips to and from educational uses typically include passenger pick-ups and drop-offs, which essentially double the number of one-way vehicle trips generated.

The modal split for the Requested No Action Alternative would be approximately 81 percent by auto, 11 percent by transit, and 8 percent by walking and bicycle. Alternative 1 would have a daily modal split of 68 percent by auto, 16 percent by transit use, and 16 percent by walking and bicycle. For the other three alternatives, the modal split would be approximately 67 to 68 percent by auto, 16 to 17 percent by transit use, and 15 to 16 percent by walking and bicycle. The average number of occupants per vehicle would be 1.3 to 1.5 for all alternatives. The number of weekday daily person trips would range from about 2,600 for Alternative 4 to approximately 9,500 for Alternative 1; vehicle trips would follow a similar pattern. In general, about 16 percent of the daily trips generated by the Requested No Action Alternative are expected to occur in the AM peak hour, and approximately 9 to 11 percent of the daily trips generated by Alternatives 1, 2, 3, and 4 would occur during the AM peak hour. About 18 percent of the daily trips generated by the Requested No Action Alternative are expected to occur in the PM peak hour, and 11 to 15 percent of the daily trips generated by Alternatives 1, 2, 3, and 4 would occur during the PM peak hour.

It is worth noting (see Table 10) that both the daily vehicle trip and the PM peak hour vehicle trip estimates for Alternatives 2, 3, and 4 and the Requested No Action Alternative are less than the comparable estimates calculated for the PHSH's historic use as a hospital (see Section 3.2.1.1 above) and less than that associated with implementation of the adopted PTMP as assumed in the PTMP EIS (Alternative 1).

The geographic distribution of employee, visitor, and resident trips to the project site was based on data gathered as part of the PTMP EIS transportation analysis, which in turn was based on a survey of Presidio employees, the San Francisco Planning Department's Guidelines for Environmental Review, and results from the San Francisco County Transportation Authority travel demand model. The PHSH-generated and -attracted trips were distributed to San Francisco, the East Bay, the North Bay, and the South Bay. The trips to and from San Francisco were further separated into four quadrants of the city, or superdistricts as described in the Citywide Travel Behavior Survey. Based on the trip distribution, external vehicle trips were assigned to the local street network, and external transit trips were assigned to the appropriate transit

Table 10. Estimated Trip Generation^a by Mode of Travel and by Alternative
Weekday Daily, AM and PM Peak Hour

TIME PERIOD	REQUESTED NO ACTION ALTERNATIVE	ALTERNATIVE 1	ALTERNATIVE 2	ALTERNATIVE 3	ALTERNATIVE 4
Daily					
Person Trips^b					
Auto	2,174	6,490	2,816	2,048	1,759
Transit	304	1,562	701	496	427
Other ^c	204	1,506	658	460	410
Total	2,682	9,558	4,175	3,004	2,596
<i>Vehicle Trips^d</i>	<i>1,501</i>	<i>4,485</i>	<i>2,212</i>	<i>1,600</i>	<i>1,346</i>
AM Peak Hour					
Person Trips^b					
Auto	343	589	298	222	171
Transit	47	120	69	50	36
Other ^c	31	107	63	45	32
Total	421	816	430	317	239
<i>Vehicle Trips^d</i>	<i>236</i>	<i>409</i>	<i>229</i>	<i>170</i>	<i>127</i>
PM Peak Hour					
Person Trips^b					
Auto	383	955	343	260	203
Transit	52	219	80	59	44
Other ^c	34	207	73	53	40
Total	469	1,381	496	372	287
<i>Vehicle Trips^d</i>	<i>262</i>	<i>659</i>	<i>265</i>	<i>199</i>	<i>151</i>

Source: Wilbur Smith Associates 2003/2004.

Notes:

^a Includes inbound and outbound trips.

^b Person trips refer to trips made by all modes.

^c "Other" includes walking, bicycling, and other modes.

^d Vehicle trips are calculated by dividing the auto person trips by the average number of persons per vehicle.

routes. More information on traffic assignments is provided in Appendix B. An additional sensitivity analysis assuming adjusted assignments requested by the Richmond Presidio Neighbors is included in responses to public comments (Appendix A).

3.2.2.2 Traffic at Local Intersections

Currently, the 15th Avenue Gate is open to vehicular (and pedestrian) traffic and the 14th Avenue Gate is open only to pedestrians. This condition would continue unchanged under the Requested No Action Alternative, but would be modified under all other alternatives. The NPS 1994 General Management Plan Amendment for the Presidio originally recognized the need for improved access to the PHS and recommended reopening the 14th Avenue Gate to vehicular traffic and operating the 14th Avenue and 15th Avenue Gates as a one-way couplet, with the 14th Avenue Gate accommodating northbound traffic entering the Presidio and the 15th Avenue Gate accommodating southbound traffic exiting the Presidio. This one-way couplet was carried forward to the PTMP EIS, studied further in a 2003 Access Study (Presidio Trust 2003e), and is a component of the adopted PTMP. Thus, the operation of the one-way couplet was assumed for the assessment of traffic impacts related to Alternatives 1, 2, 3, and 4. These four PHS alternatives were also analyzed assuming the operation of the Park Presidio Boulevard Access Variant, which would provide a new intersection on Park Presidio Boulevard and would convert both the 14th and 15th Avenue Gates to provide inbound (northbound) traffic access only.

Tables 11 and 12 compare the projected average delay per vehicle and associated intersection level of service under the various alternatives with and without the Park Presidio Boulevard Access Variant in the AM peak hour and PM peak hour in future year 2020 (the year of build-out analyzed in the PTMP EIS). The existing level of service at area intersections is also compared with the level of service under each alternative in an “existing plus project” scenario provided in response to public comments on the PHS EA (Appendix A).

With the Park Presidio Boulevard Access Variant, signal timings for other intersections on Park Presidio Boulevard could be modified to optimize individual intersection operation and progression of traffic on Park Presidio Boulevard. The analysis described below assumes slight modifications to the signal timings at the intersection of California Street/Park Presidio Boulevard in the PM peak hour with the Park Presidio Boulevard Access Variant. These modifications would not compromise the ability of pedestrians to safely cross Park Presidio Boulevard. An additional second of green time was assumed for the north-south direction at the intersection of California Street/Park Presidio Boulevard, which would decrease the green time for the east-west direction by one second. However, the modified signal timing would still provide about five seconds more pedestrian crossing time in the east-west direction than is provided by the existing signal timing at this intersection in the AM peak hour.

Requested No Action Alternative – The Requested No Action Alternative would contribute an estimated 1,501 daily vehicle trips, 236 AM peak hour vehicle trips, and 262 PM peak hour vehicle trips to the street network near the project site. Because the Requested No Action Alternative would not reopen the 14th Avenue Gate, but assumes that the 15th Avenue Gate would accommodate both inbound

Table 11. Intersection Levels of Service – Weekday AM Peak Hour
Year 2020 Conditions

INTERSECTION	CONTROL	ONE-WAY COUPLET AT 14 TH & 15 TH AVE. GATES										VARIANT: NEW PARK PRESIDIO BLVD. ACCESS WITH INBOUND ONLY TRAFFIC AT 14 TH & 15 TH AVE. GATES							
		REQUESTED NO ACTION ALT.		ALT. 1		ALT. 2		ALT. 3		ALT. 4		ALT. 1		ALT. 2		ALT. 3		ALT. 4	
		DELAY ^a	LOS	DELAY ^a	LOS	DELAY ^a	LOS	DELAY ^a	LOS	DELAY ^a	LOS	DELAY ^a	LOS	DELAY ^a	LOS	DELAY ^a	LOS	DELAY ^a	LOS
Lake Street/ 15 th Avenue	4-way stop	40.4	E	32.6	D	29.1	D	27.2	D	26.0	D	23.7	C	21.6	C	21.3	C	21.1	C
Lake Street/ 14 th Avenue ^b	2-way stop	38.0	E	>90	F	68.8	F	62.9	F	59.5	F	51.1	F	45.1	E	43.7	E	42.5	E
Lake Street/ Park Presidio Boulevard	Signal	38.0	D	38.1	D	38.1	D	37.9	D	37.9	D	39.6	D	39.6	D	39.1	D	38.6	D
California Street/ 15 th Avenue ^b	2-way stop	34.0	D	29.1	D	27.7	D	27.4	D	27.5	D	35.0	E	32.1	D	31.9	D	31.7	D
California Street/ 14 th Avenue ^b	2-way stop	36.3	E	72.1	F	53.0	F	51.7	F	50.8	F	71.1	F	61.1	F	58.2	F	55.5	F
California Street/ Park Presidio Boulevard	Signal	42.3	D	42.3	D	42.3	D	42.3	D	42.3	D	42.3	D	42.3	D	42.3	D	42.3	D
New Alternative Access/ Park Presidio Boulevard	Signal	–	–	–	–	–	–	–	–	–	–	5.7	A	5.6	A	4.9	A	4.8	A
Lake Street/17 th Avenue ^b	2-way stop	18.8	C	19.1	C	18.7	C	18.5	C	18.4	C	18.8	C	18.5	C	18.4	C	18.3	C
Lake Street/Funston Avenue ^b	2-way stop	30.7	D	31.7	D	30.6	D	30.0	D	29.6	D	27.7	D	27.0	D	26.9	D	26.9	D

Source: Wilbur Smith Associates 2004c.

Notes:

^a Delay presented in seconds per vehicle based on the HCM 2000 methodology.

^b See footnote 9.

LOS = Level of service

Table 12. Intersection Levels of Service – Weekday PM Peak Hour
Year 2020 Conditions

INTERSECTION	CONTROL	ONE-WAY COUPLET AT 14 TH & 15 TH AVE. GATES										VARIANT: NEW PARK PRESIDIO BLVD. ACCESS WITH INBOUND ONLY TRAFFIC AT 14 TH & 15 TH AVE. GATES							
		REQUESTED NO ACTION ALT.		ALT. 1		ALT. 2		ALT. 3		ALT. 4		ALT. 1		ALT. 2		ALT. 3		ALT. 4	
		DELAY ^a	LOS	DELAY ^a	LOS	DELAY ^a	LOS	DELAY ^a	LOS	DELAY ^a	LOS	DELAY ^a	LOS	DELAY ^a	LOS	DELAY ^a	LOS	DELAY ^a	LOS
Lake Street/ 15 th Avenue	4-way stop	37.2	E	28.0	D	19.2	C	18.8	C	18.3	C	19.1	C	17.4	C	17.1	C	16.9	C
Lake Street/ 14 th Avenue ^b	2-way stop	64.2	F	>90	F	>90	F	>90	F	>90	F								
Lake Street/ Park Presidio Boulevard	Signal	36.4	D	36.6	D	36.3	D	36.3	D	36.2	D	55.5	E	50.0	D	50.0	D	49.5	D
California Street/ 15 th Avenue ^b	2-way stop	75.4	F	64.1	F	47.4	E	45.5	E	44.3	E	49.1	E	42.7	E	41.0	E	39.7	E
California Street/ 14 th Avenue ^b	2-way stop	72.9	F	>90	F	>90	F	>90	F	>90	F								
California Street/ Park Presidio Boulevard	Signal	75.4	E	75.4	E	75.4	E	75.4	E	75.4	E	75.3	E	72.0	E	71.6	E	71.3	E
New Alternative Access/ Park Presidio Boulevard	Signal	–	–	–	–	–	–	–	–	–	–	8.4	A	7.0	A	6.9	A	6.8	A
Lake Street/17 th Avenue ^b	2-way stop	17.2	C	17.9	C	17.1	C	17.0	C	16.9	C	17.5	C	19.5	C	16.9	C	16.8	C
Lake Street/Funston Avenue ^b	2-way stop	41.9	E	46.4	E	40.6	E	39.9	E	39.2	E	34.1	D	33.2	D	33.1	D	32.7	D

Source: Wilbur Smith Associates 2004c.

Notes:

^a Delay presented in seconds per vehicle based on the HCM 2000 methodology.

^b See footnote 9.

LOS = Level of service

and outbound traffic, the intersection of Lake Street/15th Avenue is expected to operate at a worse level of service and the intersection of Lake Street/14th Avenue is expected to operate at a better level of service under the Requested No Action Alternative compared to Alternatives 1, 2, 3, and 4. The Requested No Action Alternative would also contribute to cumulative traffic congestion such that the level of service at a number of the study intersections would degrade to unacceptable levels in the future, as shown in Tables 11 and 12. Specifically:

- Five of the eight study intersections would operate at LOS D or better in the AM peak hour and two of the eight would operate at LOS D or better in the PM peak hour.
- The all-way stop-controlled intersection of Lake Street/15th Avenue would operate at LOS E in the AM and PM peak hours due to increased traffic volumes associated with population and employment trends in the Bay Area region, and because the 14th Avenue Gate would remain closed to vehicular traffic. Operation of the 14th Avenue and 15th Avenue Gates as a couplet as described in the PTMP would improve the operation of this intersection to LOS D or better.
- Minor approach(es) to the two-way stop-controlled intersections of Lake Street/14th Avenue and California Street/14th Avenue would operate at LOS E in the AM peak hour and LOS F in the PM peak hour. In the PM peak hour, the minor approaches to the two-way stop-controlled intersections of Lake Street/Funston Avenue and California Street/15th Avenue would also operate at LOS E or F. These conditions could be mitigated as discussed further below.
- The signalized intersection of California Street/Park Presidio Boulevard would operate at LOS E in the PM peak hour due to the increase in traffic volumes associated with Bay Area regional trends in population and employment. The PTMP EIS determined that this condition would be unmitigable, and that the Presidio's contribution to the total peak hour traffic volume at this location would be less than two percent.

LOS E or F conditions on the minor approaches of two-way stop-controlled intersections are not always considered significant, for a number of reasons.¹⁰ First, a low volume of traffic on one or both of the minor approaches to the affected intersections would incur delay, and these drivers would have the option of making a right turn to avoid delay and using a less direct route to their destination. Second, the majority of the traffic on the uncontrolled approaches (California Street or Lake Street) would not have to stop and therefore would not incur any delay. Lastly, the majority of motorists would experience worse delays following implementation of measures (e.g., all-way stop-control) to mitigate the delay at the minor approaches, and consequently the average vehicle delay for the overall intersection would likely increase upon implementation of such measures.

The possible mitigation measure identified for the Lake Street/14th Avenue intersection in the PTMP EIS included signalization and re-striping to provide a westbound left-turn pocket (Mitigation Measure TR-11). The possible mitigation measure identified in the PTMP EIS for the California Street/14th Avenue

¹⁰ See footnote 8.

intersection included installing stop signs on California Street at the intersection and re-striping to add a right-turn lane to the northbound approach, or possibly installing a traffic signal if queues on the westbound approach were determined to extend into the adjacent intersection of California Street/Park Presidio Boulevard.

While signalization would mitigate the operation of these intersections, coordination with the San Francisco Department of Parking and Traffic following its comments on the PTMP EIS raised questions about the need for improving the minor approaches to these intersections (PTMP EIS, Volume II, Section 5, page 5-59). It has been determined through subsequent analysis (Access Study at 14th/15th Avenue Gates) (Presidio Trust 2003e) that if delays consistent with LOS E or F occur on the minor approaches to Lake Street/14th Avenue, they could potentially be mitigated with other measures such as right-turn-only restrictions for the minor approaches if the City determines that this is warranted.

The delay for the minor approach(es) to the intersection of Lake Street/14th Avenue would be comparable to the delay per vehicle expected for the minor approach(es) to the intersection of Lake Street/Funston Avenue, California Street/14th Avenue or California Street/15th Avenue. Therefore, such measures would also likely improve the minor approach(es) to the intersection of California Street/14th Avenue to LOS D or better in the AM and PM peak hours, and improve the minor approach(es) to the intersection of California Street/15th Avenue and Lake Street/Funston Avenue to LOS D or better in the PM peak hour.

Alternative 1: PTMP Alternative – Under Alternative 1, more daily (4,485) and peak hour (409 AM, 659 PM) vehicle trips would be generated at the PHS site than in all other alternatives. Also, Alternative 1 would include the one-way couplet at 14th and 15th Avenues, which would not be in place in the Requested No Action Alternative. As a result of both these factors, traffic congestion experienced at local intersections would differ slightly in Alternative 1 when compared to other alternatives, as shown in Tables 11 and 12. Specifically:

- Six of the eight study intersections would operate at LOS D or better in the AM peak hour, and three of the eight would operate at LOS D or better in the PM peak hour. The intersection of Lake Street/15th Avenue would operate at LOS D in the AM and PM peak hour, as opposed to LOS E in the Requested No Action Alternative, and LOS D (in the AM) and LOS C (in the PM) in Alternatives 2, 3, and 4.
- The minor approaches to the two-way stop-controlled intersections of Lake Street/14th Avenue and California Street/14th Avenue would operate at LOS F in the AM and PM peak hours. In addition, the minor approaches to the two-way stop-controlled intersections of Lake Street/Funston Avenue and California Street/15th Avenue would operate at LOS E or F in the PM peak hour. If desired, turn restrictions at these intersections could mitigate delays to an acceptable level, as described for the Requested No Action Alternative above.
- The signalized intersection of California Street/Park Presidio Boulevard would operate at LOS E in the PM peak hour due to the projected increase in traffic volumes associated with Bay Area regional trends in population and employment. The PTMP EIS determined that this condition would be

unmitigable, and that the Presidio's contribution to the total peak hour traffic volume at this location would be less than two percent.

- With the Park Presidio Boulevard Access Variant, the same intersections would generally operate at an unacceptable level of service in the AM and PM peak hours as without the direct access, with three exceptions. First, at the signalized intersection of Lake Street/Park Presidio Boulevard, the high traffic volumes associated with the land use mix of Alternative 1 combined with the traffic patterns created by the variant would be sufficient to worsen the level of service in the PM peak hour from LOS D to LOS E. Second, at the two-way stop-controlled intersection of California Street/15th Avenue, an increase in delay of about two seconds at one of the minor approaches would change the level of service in the AM peak hour from LOS D to LOS E. Lastly, at the two-way stop-controlled intersection of Lake Street/Funston Avenue, the decrease in delay experienced by drivers on the minor approach would improve the intersection level of service from LOS E to LOS D.

The intersection of Lake Street/Park Presidio Boulevard would degrade from LOS D to LOS E because of the southbound through volumes and southbound right-turn volumes.¹¹ The most effective mitigation would be to add a southbound right-turn lane and maintain the three southbound through lanes; however the adjacent property is outside of state and federal right-of-way and within the jurisdiction of the City's Recreation and Park Department.

The main difference in traffic congestion at local intersections between the Requested No Action Alternative and Alternative 1 (without the Park Presidio Boulevard Access Variant) would be experienced by drivers at Lake Street/15th Avenue, where the level of service would be LOS C or D in the AM and PM peak hours with Alternative 1, rather than LOS E under the Requested No Action Alternative due to opening the 14th Avenue Gate to the PHS site in Alternative 1. At other intersections, drivers might experience somewhat more or less delay with Alternative 1 than with the Requested No Action Alternative, but not such that any other intersection's level of service would go from acceptable to unacceptable conditions or vice versa.

It should be noted that the two-way stop-controlled intersection of California Street/15th Avenue was not expected to operate at LOS F in 2020 in the PM peak hour when analyzed for the Final Plan Alternative in the PTMP EIS. This is for two reasons. First, the PTMP EIS used an older (1994) Highway Capacity Manual (HCM) methodology because revisions to the methodology in 2000 were very recent and not widely accepted at the time of the analysis. The HCM 2000 methodology has since become widely accepted, and using this methodology the intersection of California Street/15th Avenue is forecasted to operate at LOS F in the PM peak hour in 2020 even with the same traffic volumes used to calculate LOS D in the PTMP EIS. Second, traffic volumes associated with Alternative 1 have been adjusted (increased) to include 37,700 gross square feet of high-intensity educational space with a higher trip generation rate than the balance of the cultural/educational space based on data collected during the Jewish Community Center's recent occupancy of the PHS site. Thus, Alternative 1 (the PTMP Alternative) in this Draft

¹¹ These volumes would not occur with traffic assignments requested by commenters and presented as a "sensitivity analysis" in Appendix A.

SEIS would generate 757 more daily vehicle trips than was predicted in the PTMP EIS, and traffic volumes at area intersections, including the intersection of California Street/15th Avenue, would be incrementally greater than projected in the PTMP EIS as a result.

The California Street/15th Avenue intersection is a two-way stop-controlled intersection like California Street/14th Avenue and Lake Street/14th Avenue, and the Trust would work with the San Francisco Department of Parking and Traffic to develop acceptable improvements if the City believes these are warranted. It is likely, based on consultation with the San Francisco Department of Parking and Traffic and the 14th/15th Avenue Gate Access Study (Presidio Trust 2003e), that alternatives to signalization, such as turn restrictions on the minor approach(es) similar to Lake Street/14th Avenue, would improve the operation on the minor approaches to the intersection of California Street/15th Avenue.

Alternative 2: Infill Alternative – Alternative 2 would generate 2,212 daily vehicle trips, or about 47 percent more than the Requested No Action Alternative, and 51 percent fewer than Alternative 1 due to its emphasis on residential rather than combined residential and educational uses. In the AM peak hour, Alternative 2 would generate about 44 percent fewer vehicle trips than Alternative 1 and slightly fewer than the Requested No Action Alternative. In the PM peak hour, Alternative 2 would generate about 60 percent fewer vehicle trips than Alternative 1 and about the same number of vehicle trips as the Requested No Action Alternative. Alternative 2 would generate about 60 to 100 more vehicle trips in the AM peak hour and 70 to 110 more vehicle trips in the PM peak hour than Alternatives 3 and 4.

Despite the variation in vehicle trips generated at the site, the levels of traffic congestion that would be experienced at study intersections in the future would be similar under Alternative 2 and Alternatives 1, 3, and 4, although delays would vary somewhat as shown in Tables 11 and 12. The similarity in congestion levels is due to the capacity of the street network, and the relatively small number of vehicle trips that would be generated at the site when compared to the growth in traffic volumes that is projected to occur whether or not the PHS site is occupied. Specifically, under Alternative 2, as with Alternatives 3 and 4:

- Six of the eight study intersections would operate at LOS D or better in the AM peak hour, and three would operate at D or better in the PM peak hour, similar to Alternative 1.
- The minor approaches to the two-way stop-controlled intersections of Lake Street/14th Avenue and California Street/14th Avenue would operate at LOS F in the AM and PM peak hours. In addition, the minor approaches to the two-way stop-controlled intersections of Lake Street/Funston Avenue and California Street/15th Avenue would operate at LOS E in the PM peak hour. Turn restrictions at these intersections could mitigate delays to an acceptable level, as described for the Requested No Action Alternative above.
- The signalized intersection of California Street/Park Presidio Boulevard would operate at LOS E in the PM peak hour due to the projected increase in traffic volumes associated with Bay Area regional trends in population and employment. The PTMP EIS determined that this condition would be unmitigable, and that the Presidio's contribution to the total peak hour traffic volume at this location would be less than two percent.

- With the Park Presidio Boulevard Access Variant, the same intersections would generally operate at an unacceptable level of service in the AM and PM peak hours as without the direct access, with one exception: at the two-way stop-controlled intersection of Lake Street/Funston Avenue, the decrease in delay experienced by drivers on the minor approach would improve the level of service from LOS E to LOS D with the variant.

Similar to Alternative 1, Alternative 2 would differ from the Requested No Action Alternative at the intersection of Lake Street/15th Avenue, where the level of service would be LOS C or D in the AM and PM peak hours with Alternatives 1 and 2, rather than LOS E under the Requested No Action Alternative, due to opening the 14th Avenue Gate to the PHS site in Alternatives 1 and 2. At other intersections, drivers might experience somewhat more or less delay with Alternative 2 than with Alternative 1 and the Requested No Action Alternative, but not such that any other intersection's level of service would go from acceptable to unacceptable conditions or vice versa. For example, at the two-way stop-controlled intersection of California Street/15th Avenue, there would be an estimated 17 seconds less delay in the PM peak hour with Alternative 2 when compared to Alternative 1, resulting in LOS E rather than LOS F on the worst minor (15th Avenue) approach to the intersection.

Alternative 3: No Infill Alternative – Alternative 3 would generate 1,600 daily vehicle trips, or 7 percent more than the Requested No Action Alternative, 28 percent fewer than Alternative 2, and 64 percent fewer than Alternative 1. In the AM peak hour, Alternative 3 would generate 170 vehicle trips, or 28 percent fewer than the Requested No Action Alternative, 26 percent fewer than Alternative 2, and 58 percent fewer than Alternative 1. In the PM peak hour, Alternative 3 is expected to generate 199 vehicle trips, or 24 percent fewer than the Requested No Action Alternative, 25 percent fewer than Alternative 2, and 70 percent fewer than Alternative 1. Alternative 3 would generate about 40 more vehicle trips in the AM peak hour than Alternative 4, and about 50 more in the PM peak hour.

Despite the variation in vehicle trips generated at the site, the levels of traffic congestion that would be experienced at study intersections in the future would be similar under Alternative 3 and Alternatives 1, 2, and 4. This is due to the capacity of the street network, and the relatively small number of vehicle trips that would be generated at the site when compared to the increase in traffic volume that is projected to occur whether or not the PHS site is occupied. Specifically, under Alternative 3, as with Alternatives 1, 2, and 4:

- Six of the eight study intersections would operate at LOS D or better in the AM peak hour, and three of the eight would operate at LOS D or better in the PM peak hour.
- The minor approaches to the two-way stop-controlled intersections of Lake Street/14th Avenue and California Street/14th Avenue would operate at LOS F in the AM and PM peak hours. In addition, the minor approaches to the two-way stop-controlled intersections of Lake Street/Funston Avenue and California Street/15th Avenue would operate at LOS E or F in the PM peak hour. Turn restrictions at these intersections could mitigate delays to an acceptable level, as described for the Requested No Action Alternative above.

- The signalized intersection of California Street/Park Presidio Boulevard would operate at LOS E in the PM peak hour due to the projected growth in traffic volumes associated with Bay Area regional trends in population and employment. The PTMP EIS determined that this condition would be unmitigable, and that the Presidio's contribution to the total peak hour traffic volume at this location would be less than two percent.
- With the Park Presidio Boulevard Access Variant, the same intersections would generally operate at an unacceptable level of service in the AM and PM peak hours as without the direct access, with one exception: at the two-way stop-controlled intersection of Lake Street/Funston Avenue, the decrease in delay experienced by drivers on the minor approach would improve the level of service from LOS E to LOS D.

Similar to Alternatives 1, 2, and 4, Alternative 3 would differ from the Requested No Action Alternative at the intersection of Lake Street/15th Avenue, where the level of service would be LOS C or D in the AM and PM peak hours with Alternatives 1, 2, and 3, rather than LOS E under the Requested No Action Alternative, due to opening the 14th Avenue Gate to the PHS site in Alternatives 1, 2, 3, and 4. At other intersections, drivers might experience somewhat less delay with Alternative 3 than with Alternatives 1 and 2 and the Requested No Action Alternative. Furthermore, the levels of service with Alternative 3 would be the same as with Alternatives 2 and 4 in both the AM and PM peak hours, with or without the variant.

Alternative 4: Battery Caulfield Alternative – Alternative 4 would generate the least vehicle trips on a daily basis as well as during the AM and PM peak hours due to its emphasis on residential use and its inclusion of senior housing, which generates fewer trips compared to other residential uses. Alternative 4 is expected to generate 1,346 daily vehicle trips, or 10 percent fewer than the Requested No Action Alternative, 70 percent fewer than Alternative 1, 39 percent fewer than Alternative 2, and 16 percent fewer than Alternative 3. In the AM peak hour, Alternative 4 would generate 127 vehicle trips, or 46 percent fewer than the Requested No Action Alternative, 69 percent fewer than Alternative 1, 45 percent fewer than Alternative 2, and 25 percent fewer than Alternative 3. In the PM peak hour, Alternative 4 is expected to generate 151 vehicle trips, or 42 percent fewer than the Requested No Action Alternative, 77 percent fewer trips than Alternative 1, 43 percent fewer than Alternative 2, and 24 percent fewer than Alternative 3.

Despite the variation in vehicle trips generated at the site, the levels of traffic congestion that would be experienced at study intersections in the future would be similar under Alternative 4 and Alternatives 1, 2, and 3. This is due to the capacity of the street network, and the relatively small number of vehicle trips that would be generated at the site when compared to the increase in traffic volume that is projected to occur whether or not the PHS site is occupied. Specifically, under Alternative 4, as with Alternatives 1, 2, and 3:

- Six of the eight study intersections would operate at LOS D or better in the AM peak hour, and three of the eight would operate at LOS D or better in the PM peak hour.

- The minor approaches to the two-way stop-controlled intersections of Lake Street/14th Avenue and California Street/14th Avenue would operate at LOS F in the AM and PM peak hours. In addition, the minor approaches to the two-way stop-controlled intersections of Lake Street/Funston Avenue and California Street/15th Avenue would operate at LOS E or F in the PM peak hour. Turn restrictions at these intersections could mitigate delays to an acceptable level, as described for the Requested No Action Alternative above.
- The signalized intersection of California Street/Park Presidio Boulevard would operate at LOS E in the PM peak hour due to the projected increase in traffic volumes associated with Bay Area regional trends in population and employment. The PTMP EIS determined that this condition would be unmitigable, and that the Presidio's contribution to the total peak hour traffic volume at this location would be less than two percent.
- With the Park Presidio Boulevard Access Variant, the same intersections would generally operate at an unacceptable level of service in the AM and PM peak hours as without the direct access, with one exception: at the two-way stop-controlled intersection of Lake Street/Funston Avenue, the decrease in delay experienced by drivers on the minor approach would improve the level of service from LOS E to LOS D.

Similar to Alternatives 1, 2, and 3, Alternative 4 would differ from the Requested No Action Alternative at the intersection of Lake Street/15th Avenue, where the level of service would be LOS C or D in the AM and PM peak hours with Alternatives 1, 2, 3, and 4, rather than LOS E under the Requested No Action Alternative, due to opening the 14th Avenue Gate to the PHS site in Alternatives 1, 2, 3, and 4. At other intersections, drivers might experience somewhat less delay with Alternative 4 than with the other alternatives, but not such that any other intersection's level of service would go from acceptable to unacceptable conditions or vice versa. Furthermore, the levels of service with Alternative 4 would be the same as with Alternatives 2 and 3 in both the AM and PM peak hours, with or without the variant.

3.2.2.3 Gate Volumes and Cut-Through Traffic

While the absolute number of daily vehicle trips associated with each alternative and with the Park Presidio Boulevard Access Variant would not be of a magnitude that would substantially affect the levels of congestion expected at area intersections in the future, there would be some variation in traffic operations and in the volume of traffic traveling into and out of the Presidio.

Table 13 shows anticipated peak hour traffic volumes through the 14th and 15th Avenue Gates for each of the alternatives with and without the variant. In every alternative, including the Requested No Action Alternative, the volume of traffic is projected to increase when compared to the 187 vehicles counted at the 15th Avenue Gate in October 2002. Data collected at the intersection of 15th Avenue and Wedemeyer Street in 2001 suggest that approximately 23 percent of the traffic passing through the 15th Avenue Gate was traveling to/from areas other than the PHS district. Some percentage of this traffic was cutting through the Presidio entirely, traveling between the Golden Gate Bridge and the Richmond district.

Table 13. Comparison of Peak Hour Traffic Volumes^a through 14th/15th Avenue Gates

ALTERNATIVE	WITHOUT PARK PRESIDIO ACCESS VARIANT		WITH PARK PRESIDIO ACCESS VARIANT	
	AM PEAK HOUR	PM PEAK HOUR	AM PEAK HOUR	PM PEAK HOUR
Requested No Action Alternative	330	490	–	–
Alternative 1	380	620	200	320
Alternative 2	310	480	150	270
Alternative 3	290	450	150	250
Alternative 4	270	430	140	240

Source: Wilbur Smith Associates 2004c.

Note:

^a Forecasted 2020 gate volumes have been rounded.

Gate volumes are expected to increase in the future due to changes within the Presidio and in the surrounding neighborhood, including increased population and employment and increased congestion on Park Presidio Boulevard. In all alternatives, the roadway network and circulation system within the PHSH district would be designed to discourage cut-through traffic while retaining Battery Caulfield Road for secondary access, and traffic calming techniques would be used to slow traffic as it passes through the district.

Future increases in traffic volumes through the 14th and 15th Avenue Gates would be noticeable to immediately adjacent residents of the surrounding neighborhood and park visitors most familiar with the area. However, the relatively small differences in the number of vehicle trips over the course of the day among most alternatives – in the range of 20 to 60 vehicles in the PM peak hour except with Alternative 1 – would be difficult to detect. Similar to the existing situation, traffic would continue to be most noticeable on those days when northbound Park Presidio Boulevard backs up from the Golden Gate Bridge, sending drivers looking for alternate routes to reach the Golden Gate Bridge.

Requested No Action Alternative – Under the Requested No Action Alternative, traffic traveling through the 15th Avenue Gate would consist of motorists traveling to and from Arion Press, Lone Mountain Children’s Center and the limited number of other buildings on the eastern portion of the site, as well as motorists passing through the PHSH district to other parts of the Presidio or the Golden Gate Bridge. In 2020, approximately 330 and 490 vehicles per hour are expected to travel through the 15th Avenue Gate in the AM and PM peak hours, respectively. The expected future PM peak hour volume of 490 vehicles per hour is about 2.5 times the 187 vehicles per hour observed in October 2002. This difference is primarily related to the conservative assumption in the analysis that most of the afternoon

educational trips would occur in the PM peak hour as parents pick their children up from day care. This is a conservative or “worst case” assumption based on the observation that in October 2002, some passenger pick-ups occurred earlier in the afternoon, and passenger pick-ups were generally distributed throughout the afternoon rather than being concentrated in the PM peak hour.

Alternative 1: PTMP Alternative – Alternative 1 is expected to result in approximately 380 and 620 vehicles per hour traveling through the 14th and 15th Avenue Gates in the AM and PM peak hours, respectively. The expected future volumes through the gates under Alternative 1 is approximately 15 percent more than under the Requested No Action Alternative in the AM peak hour and 27 percent more than under the Requested No Action Alternative in the PM peak hour. A PM peak hour volume of 620 vehicles is also more than three times the PM peak hour volume of 187 vehicles per hour observed in October 2002. With the Park Presidio Boulevard Access Variant, Alternative 1 would result in about 47 percent and 48 percent less traffic through the 14th and 15th Avenue Gates during the AM and PM peak hours, respectively, compared to Alternative 1 with the couplet. Compared to the Requested No Action Alternative, Alternative 1 with the variant would result in 39 percent and 35 percent less traffic through the 14th and 15th Avenue Gates in the AM and PM peak hours, respectively.

Alternative 2: Infill Alternative – Compared to the Requested No Action Alternative, Alternative 2 would result in virtually the same number of peak hour vehicle trips through the 14th and 15th Avenue Gates in the AM peak hour and PM peak hour, respectively. Compared to Alternative 1, Alternative 2 would result in about 18 percent fewer vehicle trips through the 14th and 15th Avenue Gates in the AM peak hour and about 23 percent fewer PM peak hour vehicle trips through the gates in the PM peak hour. Lower traffic volumes through the 14th and 15th Avenue Gates would result in less traffic on nearby residential neighborhood streets than in Alternative 1.

With the Park Presidio Boulevard Access Variant, Alternative 2 would result in about half the volume of traffic through the 14th and 15th Avenue Gates during both the AM and PM peak hours compared to Alternative 2 with the couplet.

Alternative 3: No Infill Alternative – When compared to the Requested No Action Alternative, Alternative 3 would result in 12 percent and 8 percent fewer vehicle trips through the 14th and 15th Avenue Gates during the AM and PM peak hours, respectively. When compared to Alternative 1 and Alternative 2, Alternative 3 would result in 24 and 6 percent fewer trips through the 14th and 15th Avenue Gates in the AM peak hour and 27 and 6 percent fewer in the PM peak hour. With the Park Presidio Boulevard Access Variant, Alternative 3 would result in roughly half the amount of traffic through the 14th and 15th Avenue Gates during the AM and PM peak hours, respectively, as Alternative 3 with the couplet. Less traffic through the 14th and 15th Avenue Gates would result in less traffic on nearby residential neighborhood streets than in Alternatives 1 or 2.

Alternative 4: Battery Caulfield Alternative – Due to its emphasis on residential use and inclusion of senior housing, Alternative 4 would generate 18 and 12 percent fewer vehicle trips through the 14th and 15th Avenue Gates in the AM and PM peak hours, respectively, than the Requested No Action Alternative. Alternative 4 would also generate 4 to 31 percent fewer trips through the gates than