4.2.1 Consistency with Approved Plans and Policies

4.2.1.1 GENERAL OBJECTIVES OF THE GMPA AND PURPOSES OF GGNRA ACT

Alternative 2 is consistent with the General Objectives of the GMPA, which are identified in Section 1.1.5 of this document. Foremost, it is consistent with the General Objective of sustaining the Presidio indefinitely, both economically and physically, through the development team's organizational and financial capabilities to undertake capital investments, operate programs, and make contributions to help preserve the park's unique historic and natural qualities. This alternative is consistent with meeting the Trust Act's financial self-sufficiency mandate and the requirement that the Trust give priority to tenants that enhance the financial viability of the Presidio.

Removal of both the LAMC and LAIR buildings, modern structures that block view corridors and are architecturally non-distinctive, would be consistent with the General Objective of the GMPA to enhance the scenic resources of the Presidio. Removal of LAMC and LAIR would also contribute to the General Objective of enhancing the Presidio's cultural resources by assisting in restoring historic settings to permit an understanding of the site's significance to the National Historic Landmark district. In furtherance of this General Objective, design and siting of new construction would promote the enhancement and rehabilitation of scenic vistas, including views to the Palace of Fine Arts. New construction to replace the monolithic and architecturally non-distinctive buildings with those better tailored to the mass, scale, color, and materials of other structures in the Letterman Complex and the Presidio would be in keeping with the historic character and integrity of the historic setting. Consistent with the General Objective to provide for uses that involve stewardship and sustainability, replacement construction would promote principles of sustainable design and technology. Furthering this objective, hand-dismantling and salvaging of materials prior to building demolition and conservation and recycling strategies to be employed within the buildings and by tenants would promote and demonstrate conservation practices, including waste reduction and recycling.

This alternative is also consistent with the General Objective to provide for appropriate uses of the Presidio. Alternative 2's institutional health and research tenants, including the institute of aging, institute on eastern medicine, and culinary institute, would be consistent with the GMPA's General Objective to provide for uses that involve health and scientific discovery, education, research, and innovation. Other tenants and programs offered by this alternative, including the cross-cultural education center and the international center, would be consistent with uses that involve cross-cultural cooperation, international exchange, and communication. In addition, the provision of housing would enhance the General Objective to increase open space in other parts of the park while sustaining the Presidio economically.

Alternative 2 is also consistent with the GMPA's General Objective of addressing the needs of Presidio visitors, tenants, and residents. The provision of housing would enhance this General Objective. In addition, installation of the water treatment and urban agricultural facilities, as well as tenant programs to reduce automobile use and parking demand, would be consistent with the General Objective of the GMPA of meeting tenant and resident needs while minimizing impacts on neighboring communities.

Alternative 2 is consistent with the purposes of the GGNRA Act, which are identified in Section 1.1.5 of this document. Primarily by focusing more intensive use into an area that has been previously developed, Alternative 2 preserves the recreation area as far as possible in its natural setting. New construction would be subject to sound land use planning, including implementation of the Planning Guidelines and design review, so that it would not degrade scenic views and the natural setting.

4.2.1.2 PRESIDIO GENERAL MANAGEMENT PLAN AMENDMENT

This alternative is also consistent with a number of the more specific goals and planning principles of the GMPA. This alternative would foster the GMPA's proposed major directions for the future of the Presidio by perpetuating the site as a building and activity core. New construction would replace the LAMC as permitted under the GMPA since the LAMC would not meet essential program and management needs.

In certain respects, Alternative 2 does not match the GMPA's site-specific plan. This alternative would not promote the GMPA concept for infill construction within the complex but would focus replacement construction within a 23-acre site. Because replacement construction would occur within only a portion of the potential sites that were identified on a preliminary basis as referenced in the GMPA (i.e., outside the historic hospital complex), the alternative would not reinforce the historic hospital complex's courtyard as encouraged by the GMPA. Whereas the GMPA assumed rehabilitation and reuse of LAIR, demolition of the LAIR and other existing buildings that have been demolished or are designated for demolition so as to allow new replacement construction would also increase the total amount of gross square feet of replacement construction within the complex as envisioned in the GMPA from 503,000 to approximately 900,000 square feet. Nevertheless, the GMPA's key restrictions on maximum allowable square footage for the complex (1.3 million square feet) and maximum allowable height of new construction (60 feet) would not be exceeded by this alternative. Furthermore, replacement construction would proceed in accordance with the Planning Guidelines (as provided in Appendix B) and design review as recommended within the GMPA to ensure that new construction would be compatible with the adjacent historic buildings and patterns of development.

Alternative 2's institutional health and research tenants, including the institute of aging, institute on eastern medicine, and culinary institute would, consistent with the specific program goals of the GMPA, assist in making the Presidio a center for research and learning. Programs conducted at the institute of aging would advance intergenerational and collaborative approaches to problem solving and provide opportunities for skills development and lifelong learning. Provision of housing would support the GMPA's specific long-term goal of clustering housing opportunities near and within the park's work and major activity centers. In addition, the inn/retreat, which would include meeting space for local community organizations, would be consistent with the GMPA's specific objective to provide accommodations for visitors to create a lively community that contributes to the site. Provision of limited retail facilities and services within walking distance of housing, including the restaurants, spa, and child care facility, would reinforce the GMPA's neighborhood concept.

Alternative 2 would not, however, implement the specific proposal in the GMPA for the Letterman Complex to serve as a science and education center devoted to issues of health, life and earth sciences. Because to date no suitable tenant has been identified for the site that would adhere to the GMPA's specific proposal, this potential

land use conflict cannot be resolved. However, mitigation measures identified in Section 4.7 would be implemented to lessen adverse environmental impacts of this alternative.

4.2.1.3 SAN FRANCISCO GENERAL PLAN

While the Presidio is not subject to the *General Plan*, Alternative 2 would be consistent with *General Plan* policies of including housing in business developments. This alternative would also be consistent with the *General Plan* guideline to locate overnight accommodations in districts with an overconcentration of hotels at least 300 feet from any existing hotel, motel, or bed and breakfast establishment. However, it may not be consistent with the policy to restrict business activities of city-wide importance to districts devoted to and designated for business services.

4.2.2 Solid Waste

The LAMC is estimated to contain approximately 35,400 tons of concrete and the LAIR contains approximately 37,000 tons of concrete. Approximately 5,770 tons of concrete are contained in the building piles and pile caps. Together, these buildings are estimated to contain approximately 80,000 tons of concrete, or 143,000 cubic yards of material.

For the purposes of this impact assessment only, the analysis focuses on the "worst case" scenario (disposal of demolition materials offsite and no onsite or offsite recycling) and assumes that all debris generated by the demolition of the LAMC would be sent to a landfill and disposed of without recycling. It must be noted that the Presidio Trust is committed to diverting at least 50 percent of the project's demolition waste stream from landfill sites by salvage and reuse in order to promote and demonstrate conservation practices in waste reduction and recycling.

4.2.2.1 DISPOSAL OF DEMOLITION DEBRIS OFF SITE

Due to the demolition of both the LAMC and LAIR buildings, Alternative 2 would generate 80,000 tons of construction debris. This represents 44,600 (55 percent) more tons of debris than Alternative 1. This estimate (assuming no recycling at all) represents just over 1 percent of the 6.6 million tons total volume of waste disposed of in the nine-county Bay Area in 1997 (California Integrated Waste Management Board 1997). The impact of disposing this building debris was analyzed with respect to the following solid waste sites located in the Bay Area that are likely to receive the material:

- Redwood Sanitary Landfill in north Marin County
- Altamont Sanitary Landfill in east Alameda County
- Zanker Road Landfill in Santa Clara County

The operator of Redwood Sanitary Landfill in north Marin County and Altamont Sanitary Landfill in east Alameda County indicated that the landfill sites have sufficient capacity to handle the debris (personal communication with Paul Yamamoto, Alameda County Division Manager, Waste Management Inc.). In the case of the Altamont Sanitary Landfill, the total volume of the LAMC and LAIR debris (without recycling)

would represent just over 5 percent of its annual total tonnage (1997 totals). In the case of Redwood Sanitary Landfill, the 80,000 tons of debris would represent approximately 29 percent of its annual tonnage (1997 totals). Both of these estimates assume no recycling of LAMC and LAIR demolition debris.

The operator of Zanker Road Landfill stated that the LAMC and LAIR demolition debris would not affect the capacity of the landfill (personal communication with Paul Lineberry, Landfill Engineer). Should Zanker Road Landfill recycle none of the debris, the 80,000 tons would consume just over 9 percent of the landfill's total annual permitted capacity.

Based on these estimates, the debris that is estimated to result from demolition activities under this alternative is considerable, but represents a small portion of the solid waste sent to disposal sites within the Bay Area in one year. Given the responses from various operators of regulated landfill sites within the region, the volume of demolition debris from the LAMC and LAIR would not adversely affect the capacity of solid waste landfill sites in the Bay Area. Furthermore, to the extent that Presidio Trust conservation goals are implemented and waste reduction and recycling of building debris are instituted at the site, and the receiving landfill(s) implement their standard construction debris waste stream diversion practices, the quantity of debris directed to the landfill sites would be reduced by at least 50 percent. Therefore, demolition of the LAMC and LAIR is expected to result in a less-than-significant impact on regional solid waste disposal facilities.

4.2.3 Water Supply and Distribution

4.2.3.1 IMPACTS OF WATER CONSUMPTION ON BASELINE

This alternative would demand approximately 111,000 gpd of domestic water (Tables 12 and 13). This estimate includes recycling of 14,000 gpd of gray water or reuse of storm-water runoff for irrigation purposes. The estimated water consumption would exceed the 89,000-gpd baseline estimate for the site by 22,000 gpd. Therefore, as compared to the baseline, the demand for water under this alternative would have a negative effect on the Presidio water supply. The development team would be required to adopt water conservation measures implemented by the Presidio Trust and described in mitigation measure WS-2, *Water Supply- and Demand-Side Solutions to Reduce Cumulative Impacts* to reduce water consumption below 89,000 gpd.

4.2.3.2 IMPACTS ON FIRE FLOWS

Improvements to the water distribution system may be required to ensure adequate fire flow to new development with the Letterman Complex to meet the Uniform Fire Code, depending on the characteristics of buildings to be constructed (see mitigation measure WS-1, *Fire Flows*).

4.2.4 Schools

4.2.4.1 IMPACT ON CAPACITY AT EXISTING OR NEW SCHOOL SITES

Alternative 2 would generate 253 schoolchildren who would enroll in SFUSD schools (Table 14). The SFUSD Education Placement Center, the office responsible for managing enrollment and placing children within SFUSD schools, stated that these schoolchildren, who are likely to attend schools in the neighborhoods

surrounding the Presidio, would not require the SFUSD to develop new capacity within existing or new school sites (personal communication with Margaret Wells, Program Director of the Education Placement Center). Because this level of enrollment is within the existing capacity of SFUSD, Alternative 2 is not expected to result in an adverse impact on SFUSD schools.

4.2.5 Housing

4.2.5.1 INCREASE IN HOUSING DEMAND

At buildout, the additional regional housing demand created by employment associated with Alternative 2 would be 385 housing units (Table 15). The Presidio housing stock, including the proposed 300 to 400 units to be constructed onsite, would accommodate 100 percent of this housing demand. Because the housing demand under Alternative 2 generated by new employees from outside the Bay Area can be accommodated at the Presidio, this alternative would not adversely impact the housing market within the city of San Francisco and the surrounding Bay Area.

4.2.6 Medical Research

4.2.6.1 IMPACT ON MEDICAL RESEARCH

Under Alternative 2, a portion of the site would be leased to a tenant for senior health care facilities that would include research on aging. Thus, the alternative would have a positive impact on medical and life science research by providing research space at the site.

4.2.7 Traffic and Transportation Systems

Under Alternative 2, the existing roadway network within the 23-acre site would be modified so that Torney Avenue would be extended to intersect with Lombard Street and replace Letterman Drive as a continuous connection between Lombard Street and Lincoln Boulevard. Letterman Drive would extend from both Lombard Street and Lincoln Boulevard to dead-end within the site. Improvements to the intersection(s) of Lyon Street/Richardson Avenue/Gorgas Avenue would allow for left turns into the complex from westbound Richardson Avenue. The Gorgas Avenue Gate would be the primary entrance, with the Lombard Street Gate serving as a secondary entrance. Alternative 2 would also include improvements to the pedestrian and bicycle circulation network within the complex, as well as improved connections to adjacent areas. Alternative 2 proposes a total of 1,020 parking spaces within the 23-acre site.

4.2.7.1 ADDITIONAL TRAFFIC VOLUMES

Alternative 2 would generate 4,280 external (i.e., to areas outside the Presidio) weekday daily vehicle-trips, and 520 vehicle-trips during the p.m. peak hour into and out of the Presidio (Table 16). The combination of the housing, research/development and retreat uses would result in an equal directional distribution of p.m. peak-hour vehicle-trips, with 250 outbound trips and 270 inbound trips (Table D-9 in Appendix D). The trip generation levels used assume that the inn/retreat would function largely as a longer-stay conference facility.

Between existing and 2010 conditions, the Mason Street Gate would experience an increase of 360 vehicles during the p.m. peak hour, with project-related traffic comprising 17 percent of this increase. The project would contribute the majority of the traffic volume increase at the Gorgas Avenue Gate. Traffic volumes at this gate would increase by 540 vehicles during the p.m. peak hour, with the project-generated traffic comprising 63 percent of this growth. The existing p.m. peak-hour traffic volumes at the Lombard Street Gate would be increased by 400 vehicles. Thirteen percent of this increase would be due to Alternative 2. The existing p.m. peak hour traffic volumes at the Presidio Boulevard Gate would increase by 220 vehicles, with project-generated traffic comprising 32 percent of this increase (Table 17).

4.2.7.2 IMPACTS ON INTERSECTION OPERATING CONDITIONS

Currently, during the p.m. peak hour, two of the study intersections operate at LOS C, four intersections operate at LOS B and one intersection operates at LOS A (Table 4). Under Alternative 2, three of the study intersections (Presidio Boulevard/Letterman Drive/Lincoln Boulevard, Mason Street/Marina Boulevard/Lyon Street and Doyle Drive/Marina Boulevard/Lyon Street) would operate acceptably at LOS C during the p.m. peak hour (Table 18). Impacts to nearby intersections would be similar to Alternative 1. However, because Alternative 2 assumes more extensive improvements to the intersection of Lyon Street/Richardson Avenue/Gorgas Avenue, only two of the five study intersections (Lombard Street/Lyon Street and Lombard Street/Presidio Boulevard) on the boundary or within the Presidio would fail during the p.m. peak hour (Table 18). Intersection improvements as described in mitigation measures TR-2, *Lombard Street/Lyon Street Intersection Improvements*, and TR-3, *Lombard Street/Presidio Boulevard Intersection Improvements*, and illustrated in Figures 16 and 17 would improve the operating conditions at the intersections to acceptable levels of service. These measures include:

- Signalization and the provision of additional capacity at the intersection of Lombard and Lyon streets, which would improve the p.m. peak-hour operating conditions from LOS F to LOS B.
- Widening and restriping of the northbound approach of the intersection of Lombard Street and Presidio Boulevard, which would improve the p.m. peak-hour operating conditions from LOS E to LOS D.

4.2.7.3 INCREASED PARKING DEMAND

Alternative 2 assumes a parking supply of 1,020 parking spaces. The provision of housing as part of this alternative, which would be available to students and employees of the educational uses, would partially offset the demand generated by the research/educational uses. The parking demand of 1,110 parking spaces for Alternative 2 land uses would exceed the proposed supply of 1,020 spaces, resulting in a shortfall of 90 spaces. To ensure that the shortfall does not result in employees or visitors seeking parking outside of the Letterman Complex, major tenants would need to develop additional TDM strategies to demonstrate that parking demand would be reduced by 90 spaces, or the parking supply would need to be increased to 1,110 parking spaces. Mitigation measure TR-4, *Monitoring of Parking*, and mitigation measure TR-8, *Transportation Demand Management Program*, and measures described below would ensure that planned parking management and the development or expansion of TDM strategies would reduce parking demand both within and outside the 23-acre site. These measures would ensure no significant impacts to parking in Area A and adjacent neighborhoods. Due to the combination of residential and inn/retreat uses, weekend parking demand would be 80 percent of

weekday demand, leaving fewer spaces available for recreational uses on weekends than the other alternatives (Table D-11 in Appendix D).

4.2.7.4 IMPACTS ON PEDESTRIAN AND BICYCLE FACILITIES

Alternative 2 would result in an increase in pedestrian and bicycle activity within and in the vicinity of the Letterman Complex. During the p.m. peak hour, there would be about 230 new pedestrian and bicycle trips. This growth would be accommodated within the existing pedestrian and bicycle network. In addition, planned improvements at the site would enhance the pedestrian and bicycle environment, and facilitate the safe and direct flow of pedestrians and bicyclists to and from the Letterman Complex. Alternative 2 includes the provision of Class II bicycle facilities (separate bicycle lanes adjacent to the vehicular travel lane) within the Letterman Complex.

Implementation of recommended vehicular capacity improvements at the Lombard Street Gate may require adjustment of routes and physical improvements to facilitate access for bicycles currently entering the Presidio via the city's bike route 4 (relocated to Chestnut Street, see mitigation measure TR-6) and bike route 6 (Greenwich Street). The current *Presidio Trails and Bikeways Study* will consider alternatives to the current access on Lombard Street to include widening the current pedestrian walkway at the Lombard Street Gate, re-establishing the historic opening of the Presidio perimeter wall at Greenwich Street (subject to additional environmental review, including Section 106 compliance), relocating bike route 4 to Gorgas Avenue, or creating an expanded bicycle and pedestrian path from the Lombard Street Gate (see Figure 18).

4.2.7.5 INCREASED DEMAND FOR PUBLIC TRANSPORTATION

The 150 p.m. peak-hour transit trips generated by Alternative 2 would be accommodated on the six MUNI bus lines that currently serve the Presidio. The 29-Sunset and the 82X-Levi Plaza Express are expected to carry the greatest number of transit trips. Planned improvements to transit service to the Presidio, including a peak-period express bus service and more frequent service on MUNI's 29-Sunset line, would also serve to accommodate the increase in transit demand.

The average passenger load on Golden Gate Transit transbay buses during the a.m. and p.m. peak hours is about 30 passengers per bus, and there are about 120 buses per hour during the a.m. peak hour and about 110 buses per hour during the p.m. peak hour for about 23 different transbay routes (Golden Gate Bridge, Highway and Transportation District 1997). Alternative 2 would generate 22 transit trips to the North Bay in the p.m. peak hour. If these project-generated passengers were distributed across the 23 Golden Gate Transit routes proportionally to the existing distribution of passengers across routes, Alternative 2 would add a maximum of three passengers to each route. Even if all of the passengers added to a single route were on the same bus, the estimated passenger load would not exceed the bus capacity for any one line.

4.2.7.6 IMPACTS OF TRANSPORTATION DEMAND MANAGEMENT MEASURES

In addition to the TDM plan elements described in Alternative 1, the following TDM measures would be included as part of Alternative 2 and would contribute to encouraging non-automobile modes and reducing parking demand:

- Class II bicycle lanes within the Letterman Complex

- The allocation of a portion of the onsite housing for students of the educational uses within the 23-acre site
- Car-sharing
- Bicycle-sharing
- Onsite amenities and support services
- Pedestrian and bicyclist amenities such as onsite showers and changing rooms
- Parking time limits for short-term parking supply
- Onsite transit passes
- Carpool/vanpool matching
- Promote transportation fairs/events

These measures are geared towards encouraging pedestrian and bicycle travel through the provision of pedestrian and bicycle facilities (bicycle lanes, sidewalks and onsite showers/lockers) and bicycle-sharing. Car-sharing would provide students, employees and residents the flexibility of having an automobile available when a particular trip requires the use of an automobile (for example, a field trip to Muir Woods in Marin). Onsite restaurant and retail establishments to support the residential and employee community would reduce the number of trips that would leave the site. A TDM program, as discussed in mitigation measure TR-8, would be developed that would establish specific performance targets and a monitoring and reporting process.

4.2.7.7 CONSTRUCTION IMPACTS

The impacts associated with additional construction-related traffic on the local and regional traffic network are described under Alternative 1. A construction traffic management plan as discussed in mitigation measure TR-5 would be developed to provide specific routes and other mitigation measures to minimize traffic impacts.

4.2.8 Cultural Resources

4.2.8.1 ADVERSE EFFECT OF REMOVING LAMC/LAIR AND ADDING NEW CONSTRUCTION

Under this alternative, LAMC and LAIR would be removed and replacement construction of 900,000 square feet would be built. In contrast to the current centralized building layout of LAMC and LAIR, replacement buildings would be lower in height, distributed across the 23 acres, and would complement historic patterns of development found elsewhere around the complex. The Planning Guidelines, finalized under this EIS, and Design Guidelines for new construction would be applied to new construction to achieve a contextual and compatible approach to architecture and site planning within the historic setting. However, replacement construction on the 23-acre site would foreclose the opportunity for the construction of new infill buildings within the adjacent historic hospital complex as recommended in the GMPA. Therefore, this alternative would preclude enhancing the campus-like setting of the historic landscape and unifying the disjointed remnant historic building cluster. This would constitute an adverse effect on the adjacent historic hospital complex.

Buildings Massing and Scale – The buildings proposed in this alternative are narrow rectilinear shapes, compatible with existing buildings found throughout the Presidio, and are primarily three- and four-story buildings with punched openings, ground floor entries, and details such as porches and pitched roofs which relate well to the historic setting. Buildings would be restricted to 60-foot and 45-foot heights and their massing would be compatible with the historic setting as described in the Planning Guidelines. By orienting all buildings along the site's southern edge to the north, this alternative would not create any primary building elevations or entries facing Letterman Drive or Lombard Street. Visitors travelling on Lombard Street would see only the backs of several buildings. While the siting of these buildings would not be consistent with the Planning Guidelines, this would not constitute an adverse effect on the historic setting. Attention would be given to refining this edge of the building complex during the design development and review phase to create an attractive public face at this edge of the site, as recommended in the Planning Guidelines.

O'Reilly Greensward – The siting of new buildings close to O'Reilly Avenue would not follow the Planning Guidelines' recommendation for a "greensward" along O'Reilly Avenue. This would be an adverse effect on the O'Reilly streetscape and cluster of former officers' quarters along it. Attention would be given to refining this edge of the site during design review to avoid this adverse effect and make the site design more consistent with the Planning Guidelines' objectives.

Gorgas Avenue – The siting of activities and uses such as a greenhouse, a marketplace for produce and hardscaped outdoor spaces are appropriate to the industrial character and types of activity envisioned for Gorgas Avenue in the Planning Guidelines.

Site Circulation – A network of roads and pedestrian walks would allow circulation through the site in both east/west and, to a lesser extent, north/south directions. Additional circulation connections outlined in the Planning Guidelines would be considered during the design development phase. Connections to existing roads at Torney Avenue and Edie Road, as well as a pedestrian connection at Chestnut Street, would help to tie together the 23-acre site with the rest of the Letterman Complex.

4.2.8.2 BENEFICIAL EFFECT ON EXTANT CULTURAL LANDSCAPE FEATURES

The effect of this alternative on the existing cultural landscape would be beneficial. The historic landscape of the Letterman Complex has been compromised over time by the realignment of Lombard Drive in the 1950s, the construction of the LAMC and LAIR, and the removal of numerous historic structures. Under this alternative, significant historic landscape features within the 23-acre site would be rehabilitated and preserved in the process of making changes to accommodate new uses. Site improvements, listed below, done in conformance with *The Secretary of the Interior's Standards for the Treatment of Historic Properties*, with *Guidelines for the Treatment of Cultural Landscapes* (NPS 1996c), would enhance the historic setting and compatible new landscape elements would reinforce the significant characteristics of the Letterman Complex:

- The historic Lyon Street windrow and other remnant historic tree plantings would be maintained and rehabilitated.
- The Presidio boundary wall and Lombard Street Gate would be preserved and rehabilitated.
- Replacement construction would be sited to reinforce the historic patterns of development.
- Excess pavement throughout the 23-acre site would be removed.

4.2.8.3 ADVERSE EFFECT DUE TO REMOVAL OF TENNIS COURTS (STRUCTURES 1147 AND 1052)

Under Alternative 2, both of the historic tennis courts on the northern edge of the 23-acre site would be removed and relocated elsewhere within the Letterman Complex. Although both courts retain their original location, orientation, foundation and shape, the overall setting as well as nets, fences and surfaces have been substantially altered in recent years, thus compromising their historic integrity. Removal and replacement of both of these structures would have an adverse effect on the structures but would not compromise the National Historic Landmark district.

4.2.8.4 EFFECT ON THE PRESIDIO WALL

Alternative 2 proposes re-introduction of a pedestrian entrance through the Presidio wall along Lyon Street at the Chestnut Street intersection. Physical evidence indicates the existence of a pedestrian entrance historically in this location, which has been closed with coursed stone to match the adjacent wall. The exact date of construction of the Presidio wall in the vicinity of the Letterman Complex is estimated to be that of the Lombard Street Gate construction (c. 1896). Though the exact construction date of the pedestrian entrance through the wall is not known, it is known that it existed during the historic period of significance. Re-introduction of the entrance would be in keeping with the *Secretary of Interior's Standards for Rehabilitation* and would not constitute an adverse effect on the Presidio wall or National Historic Landmark district.

4.2.8.5 EFFECTS DUE TO INTERSECTION AND ROADWAY IMPROVEMENTS

Under this alternative, several changes would be made to the east end of the Gorgas Avenue corridor to address traffic and safety concerns. These actions include the reconfiguration of the Gorgas Avenue Gate/Lyon Street entrance and a connector from Gorgas Avenue to Richardson Drive.

Reconfiguration of the Gorgas Avenue Gate/Lyon Street entrance to address traffic safety concerns would include a reduction of non-historic pavement to the maximum extent possible, restoration of the immediate historic landscape, and a more defined sense of entry into the Presidio, as historically existed.

A new, 28-foot-wide road lane would be constructed between buildings 1160 and 1152 to facilitate movement of traffic from the Letterman Complex to Richardson Avenue. The siting of a new connector for exiting traffic from Gorgas Avenue to Richardson Avenue would result in an increase of vehicular traffic on the eastern edge of Gorgas Avenue. However, this new connector would not require the removal of Building 1160, a contributing building to the National Historic Landmark district. Building 1152, constructed in 1945 as a two-story wood, concrete and steel-frame gymnasium with red composition roof, is currently in use as a gym and would be retained. The alteration of setting at the east end of Gorgas Avenue, through increased vehicular traffic and the potential segregation of buildings 1151 and 1152 from pedestrian traffic in this area, would not constitute an adverse effect on these properties. The balance of the streetscape's industrial character would be preserved and design refinements of these intersection improvements would strive to maintain the overall streetscape and its character-defining features. Safe, pedestrian access to buildings 1151 and 1152 would also be provided through the design process.

The minor roadbed improvements at the Lombard Street/Presidio Boulevard intersection alter the immediate landscape by widening the northbound lane of Presidio Boulevard to provide one right-turn lane in addition to the through lane. Construction would be kept to a minimum to preserve and protect as much of the remnant historic landscape features as possible to retain the historic character of the road corridor.

The removal of the non-historic Letterman Drive would have no effect on the historic setting. However, the extension of Torney Avenue to connect with Lombard Street would provide a direct entry into the 23-acre site. This new entry would be inconsistent with historic circulation patterns and the historic streetscape associated with Lombard Gate. Further study would be conducted during the design review, and modifications would be made, as needed, to avoid an adverse effect on the historic setting.

Improvements to the Lombard Street Gate entrance, which would include signalization and re-striping to accommodate one turning lane and one through lane within the Presidio, would have no adverse effect on elements of the historic gate entrance. In conjunction with the intersection improvements, the historic gate and wall would be preserved through conservation work. Overall, these intersection improvements would comply with the *Secretary's Standards for the Treatment of Historic Properties*.

4.2.8.6 VISUAL IMPACTS

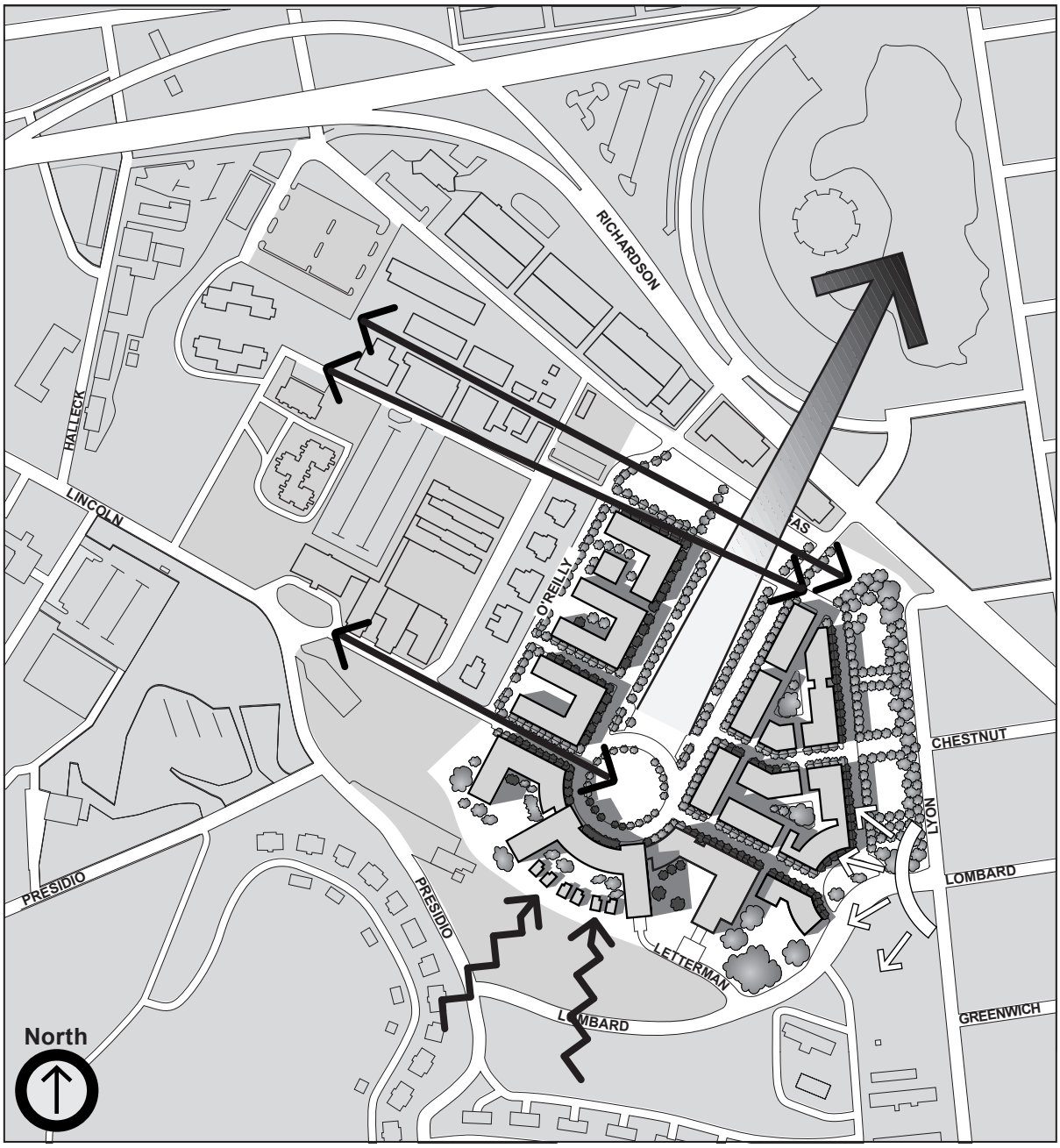
This alternative, with the removal of LAMC and LAIR, the large paved parking area that occupies the eastern half of the 23-acre site, and the introduction of lower scaled, new construction, would enhance the visual integrity of the Letterman Complex. The removal of the 10-story LAMC building, and replacement with new construction limited to 60 feet in height, would substantially improve the views from many vantage points within the Presidio. The central landscaped open space would provide views of the Palace of Fine Arts, which would enhance the scenic qualities of the 23-acre site (refer to Figure 21). This alternative would preserve the historic view corridors at Thornburg and Edie Roads and would open up the historic view corridor at Torney Avenue that is currently blocked. Views into the 23-acre site from Lyon Street would be screened by the existing windrow.

This alternative does not provide north-facing views into the center of the site or to the Palace of Fine Arts beyond Letterman Drive (which would be eliminated under this alternative) or from Lombard Street. Modifications to this edge would be considered during design review to enhance these views.

The siting of buildings near Lombard Street Gate would alter the visual setting at this important entry point. New construction would conform to the historic pattern of development for the Letterman Complex, which included buildings very close to the Lombard Street Gate. However, because of their proximity to Lombard Street, the buildings would dominate entry views into the Presidio at this point of arrival. Implementation of mitigation measure VR-1, *Planning and Design Guidelines* would address modifications to this edge during design review to minimize impacts on entry views from the gate.

4.2.8.7 BENEFICIAL EFFECT ON VISITOR EXPERIENCE

This alternative would have a beneficial effect on the visitor experience. A central commons would be developed as a public open space. Replacement construction would afford an opportunity for public gathering



Key Scenic Views and View Corridors

Historic View Corridors

Obstructed Views

Views from Entry Point

Figure 21.
Visual Impacts of Alternative 2

places and locations for programs open to the public. An active market place and demonstration gardens and greenhouses would be open for visitors to learn about urban agriculture and sustainable practices. Other amenities would include a mix of health and education programs, two restaurants and an inn/retreat, which would all contribute to a lively, sustainable urban village atmosphere open to the public.

The 23-acre site, as an integral part of the larger Letterman Complex, would be one of many sites throughout the Presidio which would "tell the story" of the Presidio in support of the five interpretive themes identified in the GMPA. Visitors would benefit through such actions as the rehabilitation of building 558 as a visitor information center, the introduction of information/orientation kiosks in central locations, the incorporation of interpretive information about the complex in public lobby spaces, and interpretive displays incorporated into the landscape at key spots. These improvements would increase public access and visitor opportunities considerably over what exists today for visitors.

4.2.8.8 EFFECT ON ARCHEOLOGICAL PROPERTIES

The initial Archeological Management Assessment conducted for the 60-acre Letterman Complex indicates that ground-disturbing activities associated with the alternative would have the likelihood of encountering archeological resources. Appendix F contains a program describing future AMAs and Monitoring Programs to be employed for all undertakings at the Letterman Complex. The AMAs and Monitoring Programs would ensure that all planned undertakings would be reviewed by a qualified archeologist prior to their implementation. Construction projects and ground-disturbing activities would be closely observed in the vicinity of sensitive archeological areas to discover, document, protect, and manage the archeological record of the Presidio. An inventory study of known archeological sites in the area of each undertaking, including test excavations, as appropriate, would be conducted to determine whether significant sites or historic features are extant and if construction might adversely affect archeological resources. Reports of any investigations would be submitted to the SHPO and the ACHP. A phased inventory, evaluation, monitoring, and treatment program for archeological resources regarding ongoing maintenance and construction in the complex would be conducted. The discovery of any human remains or associated mortuary items covered under the Native American Graves Protection and Repatriation Act would be treated in accordance with 43 CFR 10.4 (Inadvertent discoveries). The consultation and work would be conducted in accordance with the Programmatic Agreement (Appendix F to this document). As a result of these practices, an adverse effect on archeological properties would be avoided.

4.2.9 Air Quality

4.2.9.1 SHORT-TERM DEMOLITION/CONSTRUCTION IMPACTS

The impacts during demolition of buildings and replacement construction at the Letterman Complex would be similar to those shown under Alternative 1, although they may be slightly longer in duration (i.e., one to three months) due to demolition of the LAIR. Compliance with the applicable requirements for asbestos control and incorporation of mitigation measures AQ-1, *BAAQMD Control Measures,* and AQ-2, *Demolition of Existing Buildings* into the alternative would reduce the effects of demolition and construction activities to a less-than-significant level.

4.2.9.2 LONG-TERM REGIONAL OPERATION IMPACTS

Alternative 2 would result in an increase of up to approximately 4,910 internal and external vehicle trips per day. Based on URBEMIS7G modeling results, increased vehicle trips associated with the alternative would generate approximately 49 lb/day of ROG, 74 lb/day of NO_x, 32 lb/day of PM_{10} and 557 lb/day of CO. These emission rates are summarized in Table 22. Alternative 2 would not result in regional operational emissions exceeding any of the BAAQMD's significance thresholds for ROG, NO_x or PM_{10}.

Similar to the impacts under Alternative 1, direct and indirect emissions from the use of electricity and natural gas due to Alternative 2 would not be significant when compared to the emissions caused by project-related traffic, and the alternative would not have the potential to expose nearby receptors to toxic air contaminants.

4.2.9.3 LONG-TERM LOCAL OPERATIONS IMPACTS

Localized CO impacts due to project traffic are described under Alternative 1. Because 2010 traffic under Alternative 2 would result in fewer than 1,680 vehicles in the p.m. peak hour through the Lombard Street Gate, the localized CO concentrations for Alternative 2 would be less than 7.9 ppm on a 1-hour basis and less than 5.4 ppm on an 8-hour basis. These localized CO concentrations would not exceed the state ambient air quality standards for CO.

4.2.10 Noise

4.2.10.1 SHORT-TERM DEMOLITION/CONSTRUCTION NOISE IMPACTS

As described in Alternative 1 and in the GMPA EIS, construction noise would create an intermittent impact on the noise environment. The analysis of construction noise in the GMPA EIS was based on the demolition and removal of about 275 buildings, not including the LAIR (NPS 1994a). The GMPA EIS determined that buildings to be removed would need to be at least 250 feet from nearby residences and facilities in order for noise impacts to property owners to be less than 80 dBA L_{eq}. Because demolition of the LAIR building would take place about 350 feet from the nearest residential neighborhoods, demolition activities would not exceed the noise thresholds in the San Francisco Noise Ordinance.

Recreational users and other people outside the Letterman Complex would experience the construction noise throughout its duration, but because of the size and location of the Letterman Complex, most would be protected from construction noise by distance. However, short-term use of impact tools would be disruptive to recreational users within several hundred feet of construction sites. Thus, replacement construction under this alternative would have an unmitigable, potentially significant short-term impact on occupants and recreational users internal to the Letterman Complex.

4.2.10.2 LONG-TERM TRAFFIC NOISE INCREASES

The impacts of traffic noise caused by Alternative 2 would be similar to those described under Alternative 1. Traffic volumes for Alternative 2, including peak traffic volumes for Gorgas Avenue, would be within 5 percent of those shown for Alternative 1, and the associated noise level increases would be nearly equivalent. New housing uses within the Letterman Complex proposed with Alternative 2 would be sensitive receptors, but

would be designed with sufficient noise insulation for compliance with Title 24. As such, the traffic noise increases associated with Alternative 2 would not cause a significant impact.

4.2.10.3 LONG-TERM STATIONARY SOURCE NOISE IMPACTS

The impacts of stationary sources of noise associated with Alternative 2 would be similar to those shown under Alternative 1. No significant long-term stationary source noise impacts are expected.

4.2.11 Cumulative Impacts

4.2.11.1 SOLID WASTE

Demolition, construction and renovation activities at the Letterman Complex would include the disposal of approximately 80,000 tons of debris that would contribute to a cumulative reduction in regional solid waste capacity. These activities, along with the other listed projects in Table 9 would result in the disposal of a total of approximately 107,745 tons of debris.[1] This tonnage would result primarily from the demolition of the 451,000-square-foot LAMC and the 356,000-square-foot LAIR facilities at the Letterman Complex, and the 122,000-square-foot addition to building 1801 at the Public Health Service Hospital Complex. The 107,745 tons of debris generated from the Letterman Complex and the other projects represents approximately 1.6 percent of the 6.6 million tons total volume of waste disposed of in the nine-county Bay Area in 1997. Wood and masonry (composed primarily of brick and concrete) would be the largest portion of the waste stream, followed by gypsum, paper, glass, plastics, asphalt, various roofing materials, and mixed waste. Wastes would also include major appliances, heating and air conditioning equipment and ducting, furniture, carpet and flooring, wiring, plumbing, and other fixtures (though many of these items would be sold or salvaged prior to demolition). The California Integrated Waste Management Act of 1989 requires cities and counties to divert 50 percent of their waste streams from landfills. The Presidio Trust would implement cost-effective, environmentally protective alternatives to disposal of demolition debris (as listed under Alternative 1) to help meet the mandates of the state's 1989 waste diversion law. Implement of these strategies to dispose of demolition debris would reduce the impacts on regional landfills to a less-than-significant level.

4.2.11.2 WATER SUPPLY

The Lobos Creek watershed would be insufficient to supply the in-stream flow requirement necessary to maintain natural streambed characteristics and meet peak Presidio daily demands of 1.71 mgd with this alternative and the other projects listed in Table 9 that are within the Presidio (BAE 1998a). Alternative 2 and the other identified projects within the Presidio would contribute to a net cumulative peak shortfall of approximately 312,000 gpd on the Presidio-wide water supply due to excess demand (BAE 2000). However, water supply- and demand-side measures and instream flow monitoring described in mitigation measures WS-2, *Water Supply- and Demand-Side Solutions to Reduce Cumulative Impacts*, WS-3, *Instream Flow Monitoring to Reduce Cumulative Impacts*, and WT-1, *Water Reclamation Plant to Reduce Cumulative Impacts*, would result

[1] The Crissy Field project included removal of 86,000 tons of soil containing hazardous substances which were taken to federally approved dump sites. The contribution to the regional solid waste stream associated with this soil removal was not considered in the cumulative impacts on the solid waste stream as the disposal has already occurred and related to hazardous waste, rather than the general waste streams analyzed in this assessment.

in a water savings of approximately 320,000 gpd, which would minimize cumulative impacts on the system and baseline stream flow maintained in Lobos Creek.

Projects within the surrounding area would increase water consumption, but according to the city, not in excess of amounts expected and provided for in this area. In general, the projects represent replacement or renovation of existing facilities previously served by the city. New construction would be subject to current city of San Francisco water conservation code requirements. Should the Presidio Trust enter into a water purchase agreement with the city to ensure adequate water supplies during peak demand periods, there would be no significant impact on regional water demand since the pending purchase agreement would essentially replace previous agreements held by both the U.S. Army and NPS with the city.

4.2.11.3 SCHOOLS

New housing units associated with this alternative are expected to contribute to a cumulative reduction of excess capacity in schools neighboring the Presidio. However, this impact is considered less than significant because SFUSD would be reimbursed through Impact Aid Program payments for pupils living at the Presidio. The increased intensity of residential use of the 1880 Lombard Street residential building would not be of a magnitude that would result in a significant increase in school enrollment.

4.2.11.4 HOUSING

This alternative and the projects listed in Table 9 would add 3,261 employees to the local economy. The new development within the Letterman Complex accounts for 2,000 jobs, or 61 percent of this total. This growth in employment is estimated to require 628 new housing units (BAE 2000). The alternative proposes to add 400 housing units at the Letterman Complex. The listed projects include provision of 1,331 new housing units (1,304 renovated units on the Presidio and 27 new units in the Marina District.) The housing demand resulting from the projects would be more than offset by the housing units added to the local supply, largely by reactivation of housing at the Presidio. Therefore, cumulative demand under this alternative would not contribute to employment-related housing demand increases in the surrounding neighborhood or city.

4.2.11.5 TRAFFIC AND TRANSPORTATION SYSTEMS

The traffic generated by land uses under Alternative 2 would contribute to the expected increases in cumulative traffic volumes on adjacent local and regional roadways. Cumulative increases would be due to the reasonably foreseeable projects within the Presidio, including the Letterman Complex, and in the surrounding neighborhoods as shown in Table 19. Alternative 2 would make up 29 percent of the total p.m. peak-hour traffic resulting from these cumulative projects (Table 19). This proportion varies throughout the project impact zone depending on location. For example, Alternative 2 would contribute 21 percent to the growth in traffic between existing and cumulative conditions at the intersection of Lyon and Lombard streets, and 88 percent of cumulative growth in traffic at the reconfigured intersections at the Gorgas Avenue Gate, which would serve as the primary vehicular entrance to the 23-acre site. The combined cumulative projects, including Alternative 2, would generate increased traffic volumes throughout the Presidio. The cumulative projects would create 340 additional vehicles on Lincoln Boulevard during the p.m. peak hour, and Alternative 2 would make up about 16 percent of the additional traffic. The cumulative increase in traffic would cause significant impacts at the intersections of Lombard Street/Lyon Street and Lombard Street/Presidio Boulevard. However, mitigation

measures TR-2 and TR-3 would improve operating conditions at these intersections to acceptable levels (LOS D or better), as shown in Table 20.

The parking demand generated by the cumulative projects, including Alternative 2, is estimated to be 4,222 spaces. All of the additional parking demand related to cumulative projects within the Presidio would occur outside Area A, except the additional demand generated by actions at Crissy Field. The East Beach at Crissy Field would create a demand for 100 additional parking spaces (Table 21). The increased parking demand would be accommodated by the 560-space proposed supply. The land uses of Alternative 2 would comprise 31 percent of the total cumulative parking demand within the Presidio and 26 percent of the total cumulative parking demand in the project impact zone (Table 21). The other primary parking demand generating uses would include housing throughout the Presidio and office space at the Main Post. The planned parking supply of 8,390 spaces throughout the Presidio (as described in the 1994 GMPA) would be adequate for the expected cumulative demand within the Presidio.

Parking supply in the 23-acre site in Alternative 2 would not be adequate to support the predicted demand of 1,110 spaces, as discussed in Section 4.2.7.3. Mitigation measure TR-4, *Monitoring of Parking*, would ensure that the shortfall does not result in employees or visitors of the 23-acre site seeking parking outside the Letterman Complex. In the Main Post, cumulative land uses would generate 1,030 parking spaces which, when added to the current demand, yields a demand for 1,550 parking spaces, or 230 spaces less than the 1,780-space supply described for Year 2010 in the GMPA.

The city has indicated that the impact of the two Lombard Street projects on parking availability would not be substantial, although neighbors have reported that very few parking spaces are available at evening hours. The projects are expected to fall just short of estimated parking demand by about four to six spaces. This unmet parking demand would mean drivers would need to compete for on-street parking in the vicinity or outside of the immediate area (including the Presidio), which, though inconvenient, would not substantially alter the existing nature of area-wide parking conditions.

The increase in attendance due to the renovation of the Exploratorium would increase the parking demand to a maximum on weekends of 520 spaces. The Exploratorium has requested use of parking (about 210 spaces) in the Presidio for peak periods, utilizing shuttle buses if appropriate. The Exploratorium parking may need to be expanded to reduce the demand deficit as the Exploratorium increased activities. Event coordination between staff of the Trust and the Exploratorium would be required to reduce concurrent demand for available parking spaces.

The alternative's contribution to cumulative growth would have a minor cumulative effect on local and regional traffic growth and related congestion, and would be similar to Alternative 1.

4.2.11.6 CULTURAL RESOURCES

Under this alternative, LAMC and LAIR would be removed and replacement construction of 900,000 square feet would be built. In contrast to the current centralized building layout of LAMC and LAIR, replacement buildings would be lower in height, distributed across the 23 acres, and would complement historic patterns of development found elsewhere around the complex. The Planning Guidelines, finalized under this EIS, and

Design Guidelines for new construction would be applied to new construction to achieve a contextual and compatible approach to architecture and site planning within the historic setting. However, replacement construction on the 23-acre site would not allow for the construction of new infill buildings within the adjacent historic hospital complex as recommended in the GMPA. Therefore, this alternative would not contribute to cumulative beneficial effects on the National Historic Landmark district.

4.2.11.7 AIR QUALITY

Proposed development under Alternative 2 and the projects identified in Table 9 would contribute to a cumulative increase in vehicle trips on the region's roadways and would contribute to cumulative increases in regional emissions. The cumulative operational emissions would cause localized impacts at congested intersections in the vicinity of the projects, but the resulting impacts would not be expected to cause local violations of ambient air quality standards. Anticipated cumulative increases in vehicle trips would also result in increases to region-wide emissions of ozone precursors (including NO_x and ROGs) and CO. The proposed development would cause emissions of ozone precursors that fall below the thresholds set forth in federal regulations for conformity determinations (as shown in Table 22). Because emissions of ozone precursors would be less than the applicability thresholds, a conformity determination is not necessary for ozone. Emissions of CO that would be caused by the cumulative scenario under Alternative 2 are accounted for in the current maintenance plan for CO, as discussed in Section 5.4.2. Because the projects are in conformance with regional air quality plans, no further conformity analysis is necessary, and no significant cumulative impacts would occur.

4.2.11.8 NOISE

Demolition and construction activities under Alternative 2, in combination with the project to reconstruct Doyle Drive, would cause short-term cumulative noise impacts if the two projects were to be under construction at the same time. Long-term cumulative impacts around the Letterman Complex would primarily result from increased traffic on Doyle Drive (U.S. Highway 101). The long-term cumulative effect of Alternative 2 and other projects within the Presidio and nearby portions of San Francisco would be increased traffic noise on most of the roads internal and external to the Presidio.

Because the surroundings are dominated by traffic noise in the existing conditions, approximately two-fold increases in traffic would have to result from cumulative development in order to cause increases in traffic noise that would be noticeable to most people. Cumulative development with Alternative 2 would cause peak-hour traffic increases along Lombard Street, inside the Presidio, that could result in noticeable noise increases, but no noise sensitive receptors are located along this segment. None of the roadway segments near noise sensitive receptors would experience greater than two-fold peak-hour traffic increases. The conclusion in the GMPA Final EIS that long-term cumulative traffic-induced noise levels would increase due to increases in vehicle volumes remains applicable; however, the increases near sensitive receptors would not be considered significant. No significant cumulative noise impacts are expected.

4.2.12 Unavoidable Adverse Effects

The following impacts are identified as potentially significant and for which there are no mitigating measures or that would not be mitigated to a level of insignificance.

Cultural Resources – To the extent new construction would not conform to the Planning Guideline recommendations, the following departures would have a potential adverse effect on the historic and visual setting:

- Removal of LAMC and LAIR and replacement construction consistent with Planning and Design Guidelines would not allow for infill construction as recommended in the GMPA which would have an adverse effect on the adjacent historic hospital complex.
- Siting of buildings along O'Reilly Avenue would have an adverse effect on the adjacent historic structures.
- The direct entry into the 23-acre site from Lombard Street would not reflect historic circulation patterns and would have an adverse effect on the historic streetscape associated with Lombard Street Gate.
- Buildings located close to Lombard Street Gate would dominate entry views into the Presidio at this important point.

Noise – Short-term use of impact tools and demolition activities would be a source of increased noise to occupants and recreational users within the Letterman Complex. Mitigation measures proposed to reduce intrusions would reduce noise impacts but not to a level of insignificance to those users closest to (i.e., within 250 feet from) construction equipment.

4.2.13 Relationship of Short-Term Uses of the Environment and Maintenance and Enhancement of Long-Term Productivity

Use of the site for offices, education, housing, an inn/retreat, retail and other development would preclude other long-term management possibilities for the 23 acres. These uses would occur within an intensively used area the northern part of the Presidio which would allow areas in the south and along the coast to remain more natural and experience less activity and development. Reinforcement of this overall use pattern would minimize impacts on the productivity of park resources.

Use of the site for mixed uses would not affect any park ecosystem. Improvements to existing infrastructure would be considered sustainable actions that are expected to improve the operation of systems. Through implementation of the Planning Guidelines for the project, the Presidio Trust would promote environmental protection and sustainable design and encourage technologies and practices that would reduce environmental impacts or produce environmental benefits in water conservation and reclamation, energy conservation and transportation.

4.2.14 Irreversible or Irretrievable Commitments of Resources

New development would be designed and constructed to minimize consumption of energy and development of non-renewable fuels. Renewable sources of energy and new developments in energy-efficient technology, including recycling of materials and waste, would be fully explored and implemented to the extent possible. Although the site could be restored to previous conditions over time, the use of land, construction materials, energy, and financial resources to implement the alternative would, in a practical sense, be an irretrievable commitment of resources.

Archeological resources would be avoided where possible and historic resources would be protected. Where this is not possible, disturbance would be mitigated through recovery of cultural information and significant artifacts.