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DATE:	March 30, 2016
TO:	Historic Preservation Commission
FROM:	Rich Sucré, Historic Preservation Technical Specialist, (415) 575-9108
REVIEWED BY:	Tim Frye, Preservation Coordinator, (415) 575-6822
RE:	**Review and Comment on the Draft Environmental Impact Report, UCSF Research Building and City Parking Garage Expansion at the Priscilla Chan and Mark Zuckerberg San Francisco General Hospital and Trauma Center Campus** **Case No. 2013.0225U**

BACKGROUND

The University of California San Francisco (UCSF) seeks review and comment on the *Draft Environmental Impact Report, UCSF Research Building and City Parking Garage Expansion at the Priscilla Chan and Mark Zuckerberg San Francisco General Hospital and Trauma Center Campus* (March 2016). The DEIR is accessible online at:

http://campusplanning.ucsf.edu/pdf/UCSF_ZSFG_DEIR.pdf

On March 2, 2016, the Architectural Review Committee (ARC) of the Historic Preservation Commission (HPC) reviewed the Design Criteria for the UCSF Research Building, which were developed to address historic resource impacts associated with the proposed research facility. Currently, an architectural design for the research facility has not been developed, and the design criteria have been developed to ensure that the proposed research facility is consistent and compatible with the surrounding San Francisco General Hospital Historic District, which has been determined eligible for the National Register of Historic Places (National Register). UCSF has incorporated the comments from ARC into a revised version of the Draft Criteria (See Attached).

PROPERTY DESCRIPTION

Currently, the project site consists of a surface parking lot located on the northwest corner of Vermont and 23rd Streets. The project site includes several historic site features, including a historic water fountain, a brick guardhouse, and two brick pillars. Bordering the southern edge of the project site is a historic fence. The project site is located within the P (Public) Zoning District and a 105-E Height and Bulk District.

The project site is located within the San Francisco General Hospital Historic District, which was determined eligible for the National Register under Criterion A (Events) for "its association with the development of San Francisco's public health system, as well as for its contributions to national public health trends, medical research and education in the 20th Century" and under Criterion C (Architecture) "as a distinctively planned architectural complex dedicated to the

administration and delivery of healthcare in the early 20th Century, and as the work of a master architect, Newton J. Tharp." The period of significance extends from 1915 to 1938.

Additional information including the list of the character-defining features and the contributing buildings are located within the attached consultant report (See ARG, *Historical Background and Design Criteria, UCSF Research Facility at ZSFG*). The consultant addresses the character-defining features in the following categories: overall form and continuity; age; scale and proportion; fenestration; materials; color; texture; detail; and, landscape features.

PROPOSED PROJECT DESCRIPTION

The proposed project includes demolition of the existing surface parking lot, construction of a new research facility on the hospital campus, and the relocation of a historic water fountain to another location within the SFGH Historic District. The proposed research facility would contain 175,000 gross square feet, and would be five-stories tall (or 80-feet in height). The project would retain historic features on the project site, including a fence, a guardhouse and two gate pillars.

STAFF ANALYSIS/RECOMMENDATIONS

The Department has confirmed that the comments from the ARC have been incorporated into the revised Design Criteria. The Department has no comments on the cultural resource analysis presented in the DEIR.

REQUESTED ACTION

The HPC may publish a comment letter to UCSF on the adequacy of the Draft Environmental Impact Report.

ATTACHMENTS

- Exhibits, including Parcel Map, 1998 Sanborn Fire Insurance Map, Zoning Map, Aerial Photograph, and Site Photos
- Architectural Resources Group (ARG), *Historical Background and Design Criteria, UCSF Research Facility at ZSFG*, prepared for UCSF Campus Planning, Revised March 2016
- Cultural and Paleontological Resources Section from the *Draft Environmental Impact Report, UCSF Research Building and City Parking Garage Expansion at the Priscilla Chan and Mark Zuckerberg San Francisco General Hospital and Trauma Center Campus* (March 2016)

Parcel Map

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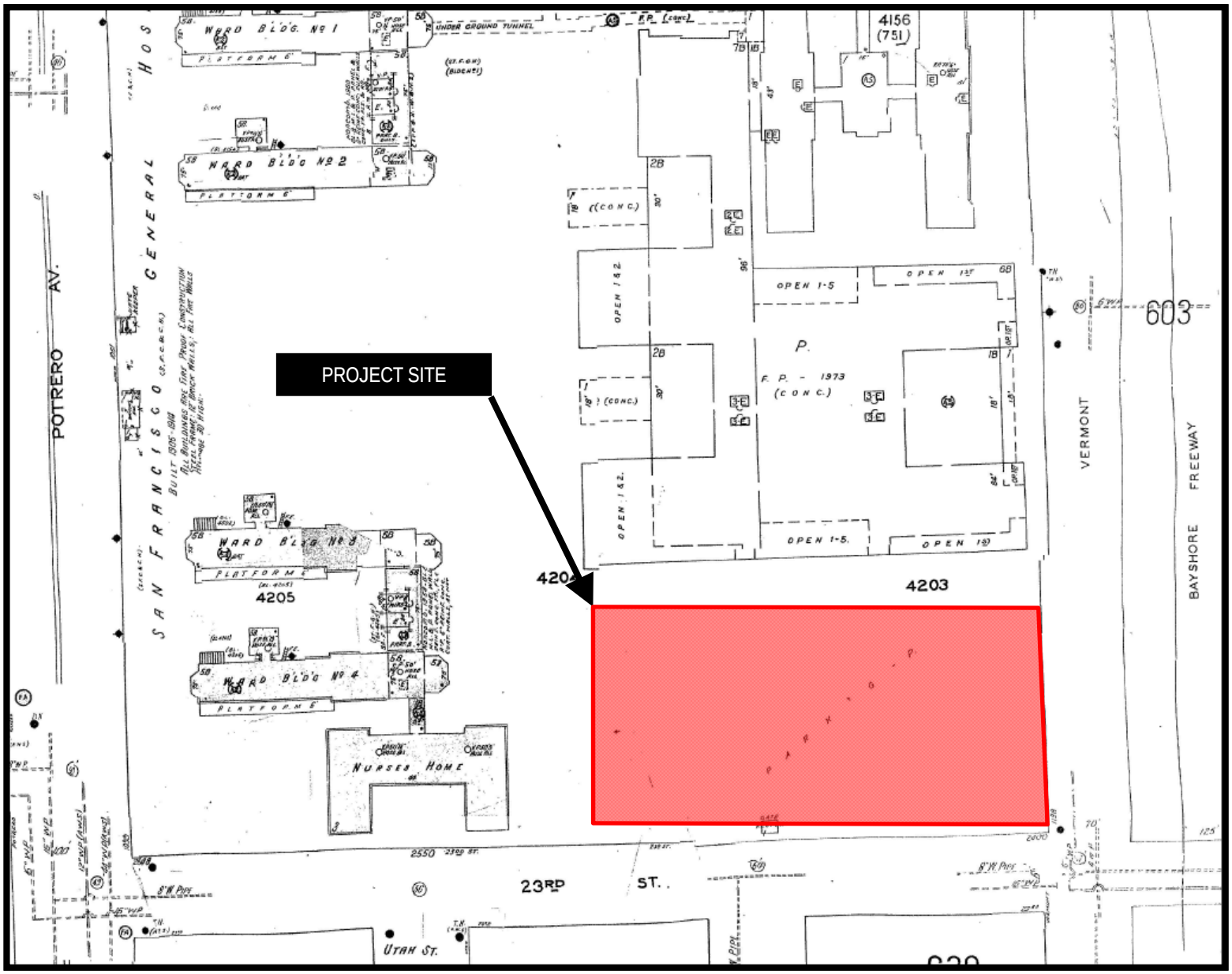
Sanborn Map*



**The Sanborn Maps in San Francisco have not been updated since 1998, and this map may not accurately reflect existing conditions.*

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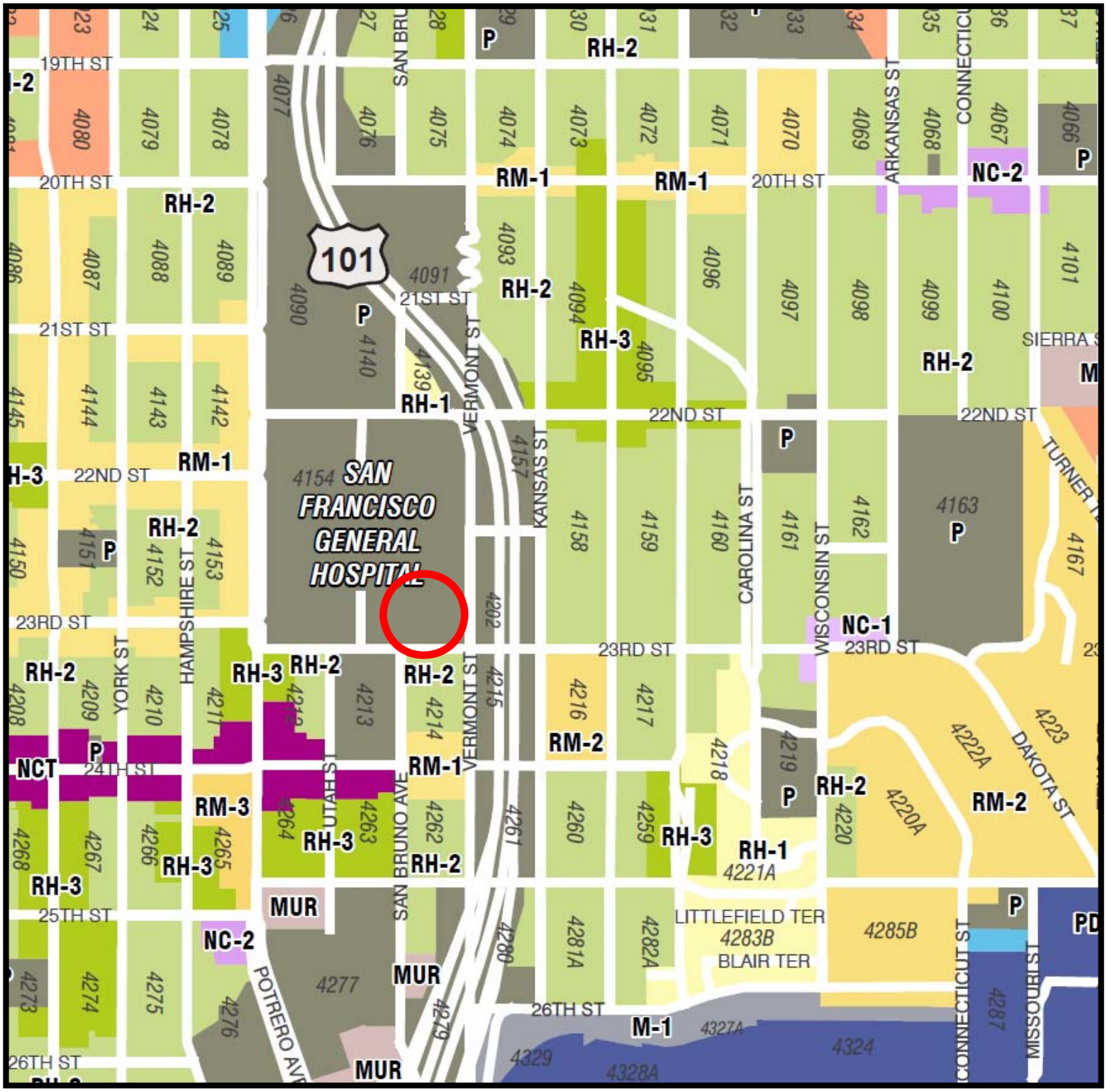
Zoning Map



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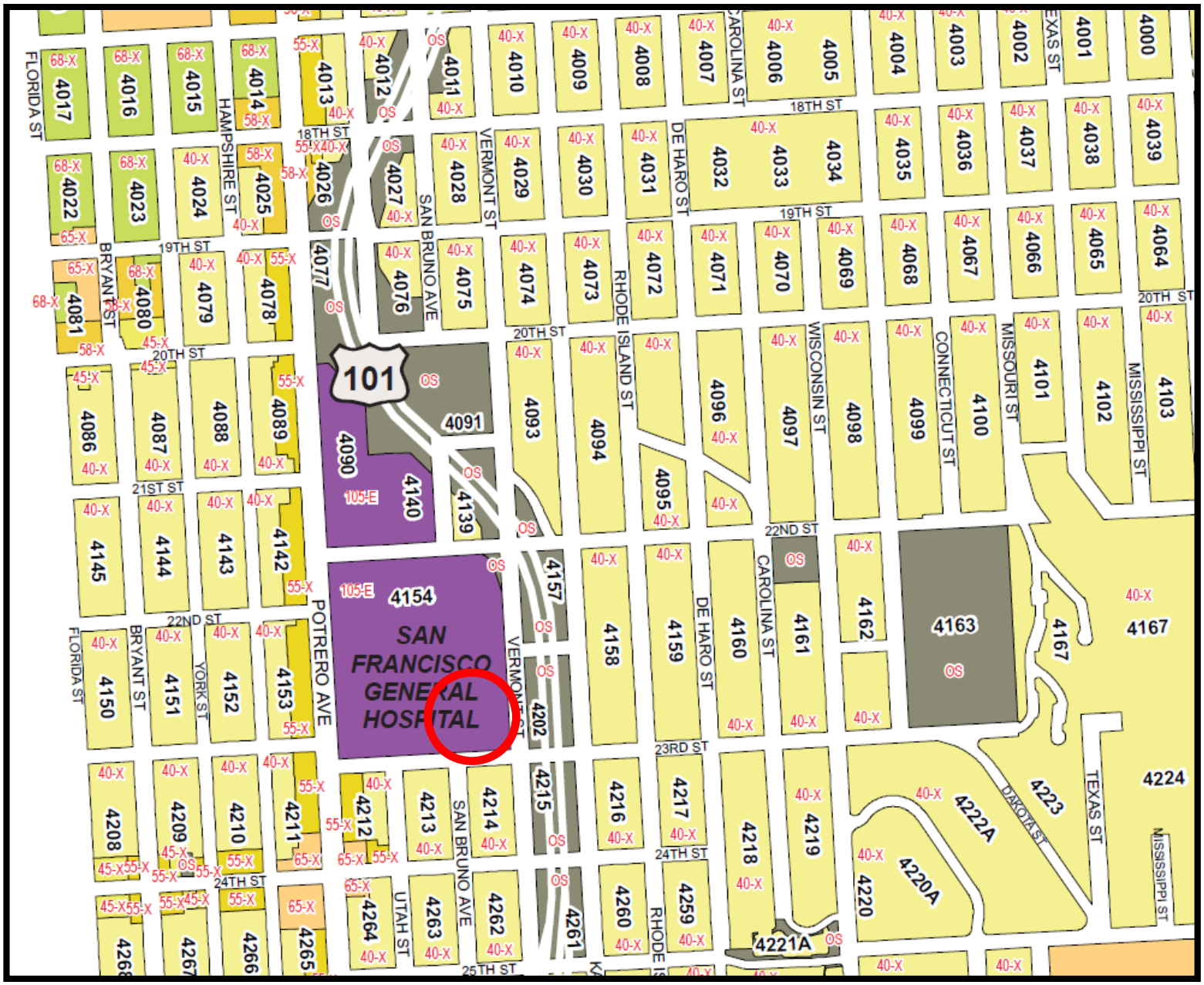
Height Map



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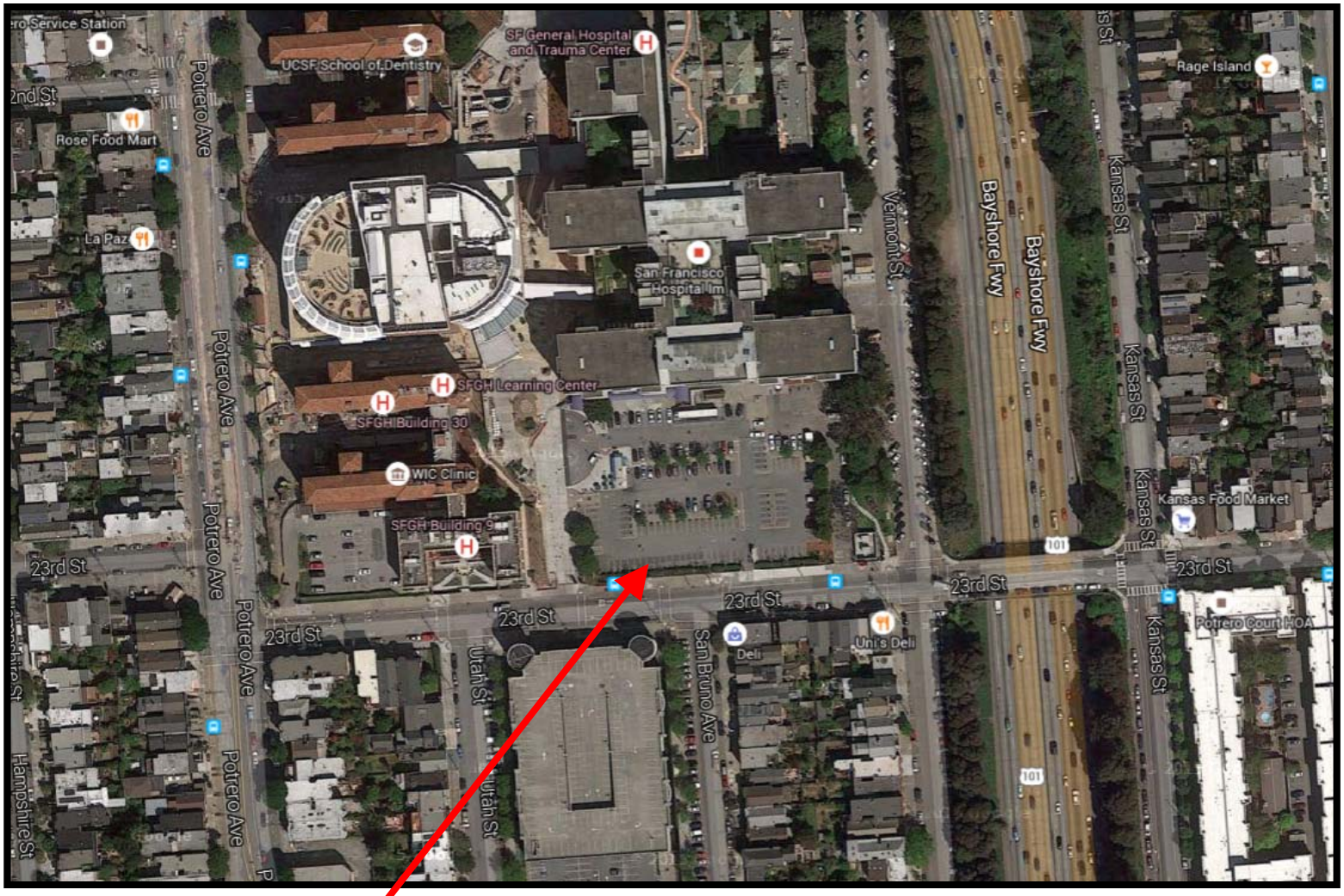
Aerial Photo



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Site Photo

View along 23rd Street Looking East (Source: Google Maps, July 2015)

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Case Number 2013.0225U
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Site Photo

View along 23rd Street Looking West (Source: Google Maps, July 2015)

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4.3 Cultural and Paleontological Resources

4.3.1 Introduction

Cultural resources include architectural resources, prehistoric and historical archeological resources, tribal cultural resources, and human remains. Paleontological resources are also evaluated in this section. The environmental setting describes the existing resources in the project vicinity and the potential for cultural and paleontological resources to be within the project area. The impact discussion reviews the criteria for significant impacts on cultural and paleontological resources and identifies mitigation measures that would reduce impacts to a less-than-significant level, as appropriate.

4.3.1.1 CEQA Area of Potential Effect

Federal regulations require the identification of historic properties within the "area of potential effects" (APE) of a project, defined as the geographic area within which an undertaking may directly or indirectly cause alterations in the character or use of historic properties (36 CFR 800.16[d]). For compliance with CEQA, the San Francisco Planning Department uses the term CEQA-APE (C-APE); thus, this analysis uses the term C-APE as synonymous with APE for this project.

The direct C-APE comprises all areas of ground disturbing activity including staging, work, and access areas. The maximum horizontal area of disturbance would be approximately 79,000 square feet (1.8 acres) for the proposed UCSF research building and approximately 20,000 square feet (0.46 acres) for the expansion of the existing ZSFG parking garage. The maximum depth of excavation for new construction would be approximately 6 feet below the existing surface. No excavation or grading will occur in the staging areas; therefore the staging area C-APE will include the horizontal extent and a minimal depth (less than 6 inches) from potential disturbance relating to the placement and movement of personnel, materials (including gravel, as needed), and heavy equipment.

The indirect C-APE includes adjacent historic properties that could experience impacts associated with the project, if any such properties exist. Other considerations include construction-related vibration—such as that generated by jackhammers, drill rigs, and vibratory rollers—which can cause structural damage to historic buildings and structures (Wilson, Ihrig & Associates, 2009: 40). The construction equipment that would have the greatest peak particle velocity (PPV) is a vibratory roller, which has a typical PPV of 0.210 in/sec at 25 feet. The Federal Transit Administration (FTA) provides an equation for estimating vibration at different distances based on a reference PPV at a distance of 25 feet for various types of construction equipment (**Table 4.3-1**). Thus, the horizontal extent of the C-APE includes the potential for significant vibration due to construction equipment or methods.

TABLE 4.3-1
VIBRATION DAMAGE THRESHOLD TO HISTORIC BUILDINGS FROM CONSTRUCTION EQUIPMENT

Equipment Type	Typical Peak Particle Velocity (PPV) at 25 feet	Approx. Distance of Damage Threshold (0.12 PPV in/sec)
Vibratory roller	0.210 in/sec	25 feet
Drill rig	0.12 in/sec	25 feet
Bulldozer	0.089 in/sec	20 feet
Jackhammer	0.035 in/sec	15 feet

SOURCE: Wilson, Ihrig & Associates et al., 2012

4.3.2 Environmental Setting

4.3.2.1 Environmental Setting

The proposed project is in the Bay Area–Delta Bioregion. This bioregion consists of a variety of natural communities that range from the open waters of San Francisco Bay and the Sacramento–San Joaquin River Delta to salt and brackish marshes to chaparral and oak woodlands. The temperate climate is Mediterranean in nature, with relatively mild, wet winters and warm, dry summers. At one time, the vicinity was a sand dune environment, but today very little native vegetation remains. The San Francisco Bay Area and the surrounding region historically contained an abundance of natural resources, which would have been taken advantage of by early Native and non-Native populations. The region hosts a wide variety of natural communities, including salt marsh, scrub brush, grassland, and foothill woodlands. Deer, elk, and waterfowl were plentiful, as were marine and bay resources such as seals, otters, abalone, mussels, oysters, clams and numerous fish species. Franciscan chert was an easily obtainable local raw material for stone tools. Obsidian could be obtained from the Anadel and Napa Glass Mountain quarries to the north (Moratto, 1984).

The region has undergone dramatic landscape changes since humans began to inhabit the region more than 10,000 years ago. Rising sea levels and increased sedimentation into streams and rivers are among some of the changes (Helley et al., 1979). In many places, the interface between older land surfaces and alluvial fans are marked by a well-developed buried soil profile, or a paleosol. Paleosols preserve the composition and character of the earth's surface prior to subsequent sediment deposition; thus, paleosols have the potential to preserve archeological resources if the area was occupied or settled by humans (Meyer and Rosenthal, 2007). Because human populations have grown since the arrival of the area's first inhabitants, younger paleosols (late Holocene) are more likely to yield archeological resources than older paleosols (early Holocene or Pleistocene).

Geologic maps and the project preliminary geotechnical report indicate that the research building C-APE is underlain by relatively shallow fill over medium to dense dune sand (Kleinfelder, 2014). The geoarcheological study of the block just to the south (Parsons, 1995), which used field sampling and an analysis of landscape formation, concluded that the "dune sand" deposits

thought to underlie the shallow fill within the research building C-APE represent an intact Colma Formation surface sensitive for prehistoric deposits. This potential is enhanced by the identification of an ancient stream channel perhaps in the eastern portion of the C-APE.

4.3.2.2 Cultural Setting

Prehistoric and ethnohistoric contexts are presented below. Archeological resources include both prehistoric and historical archeological resources. This discussion of prehistoric archeology addresses cultural patterns in the project vicinity through the time of European contact. Historical archeological resources, starting with the Mission period, are discussed below under the heading Historical Context.

Prehistoric Context

Categorizing the prehistoric period into cultural stages allows researchers to describe a broad range of archeological resources with similar cultural patterns and components during a given timeframe, thereby creating a regional chronology. Milliken et al. (2007) provide a framework for the interpretation of the San Francisco Bay Area and have divided human history in the San Francisco Bay Area into four periods: the *Paleoindian Period* (11,500 to 8000 B.C.), the *Early Period* (8000 to 500 B.C.), the *Middle Period* (500 B.C. to A.D. 1050), and the *Late Period* (A.D. 1050 to 1550). Economic patterns, stylistic aspects, and regional phases further subdivide cultural patterns into shorter phases. This scheme uses economic and technological types, socio-politics, trade networks, population density, and variations of artifact types to differentiate between cultural periods.

The *Paleoindian Period* (11,500 to 8000 B.C.) was characterized by big-game hunters occupying broad geographic areas. Evidence of human habitation during *Paleoindian Period* has not yet been discovered in the San Francisco Bay Area. During the *Early Period* (*Lower Archaic*; 8000 to 3500 B.C.), geographic mobility continued from the *Paleoindian Period* and is characterized by the millingslab and handstone as well as large wide-stemmed and leaf-shaped projectile points. The first cut shell beads and the mortar and pestle are documented in burials during the *Early Period* (*Middle Archaic*; 3500 to 500 B.C.), indicating the beginning of a shift to sedentism. During the *Middle Period*, which includes the *Lower Middle Period* (*Initial Upper Archaic*; 500 B.C. to A.D. 430), and *Upper Middle Period* (*Late Upper Archaic*; A.D. 430 to 1050), geographic mobility may have continued, although groups began to establish longer-term base camps in localities from which a more diverse range of resources could be exploited. The first rich black middens are recorded from this period. The addition of milling tools, obsidian and chert concave-base projectile points, and the occurrence of sites in a wider range of environments suggest that the economic base was more diverse. By the *Upper Middle Period*, mobility was being replaced by the development of numerous small villages. Around A.D. 430 a "dramatic cultural disruption" occurred evidenced by the sudden collapse of the *Olivella* saucer bead trade network. During the *Initial Late Period* (*Lower Emergent*; A.D. 1050 to 1550), social complexity developed toward lifeways of large, central villages with resident political leaders and specialized activity sites. Artifacts associated with the period include the bow and arrow, small corner-notched projectile points, and a diversity of beads and ornaments.

Prehistoric Archeological Investigations in San Francisco

Systematic investigation of prehistoric sites on the northern San Francisco peninsula began with Nelson's shellmound survey conducted between 1906 and 1909 (Nelson, 1909). Nelson pursued his interest in San Francisco prehistory with excavations at CA-SFR-7 (the Crocker Mound) on the Bay's southeastern shoreline approximately almost 4 miles south of the C-APE, among other investigations (Moratto, 1984:233). Nelson found that CA-SFR-7 contained a variety of flaked stone, worked bone, faunal remains, and 23 human burials. The constituents of this mound indicated long-term residential occupation. Two years later, L. L. Loud excavated another shellmound (CA-SFR-6), approximately 3 feet (1 meter) thick, near the Palace of Fine Arts (Stewart and Praetzellis, 2003). While interest in the prehistory of the northern San Francisco peninsula began in the early 1900s, the area generally received little attention until more recent times. This was partially a result of the destruction and/or burial of sites due to historic settlement and development.

Within the past 30 years, the body of work focusing on the prehistoric archeology of the northern San Francisco peninsula has expanded, as archeological sites have been uncovered during construction or development activities within the city. Approximately 50 prehistoric archeological sites have been documented within the northern San Francisco peninsula and Yerba Buena Island; the majority of these were within one-half mile or less from the historic margins of the San Francisco Bay. Most of the prehistoric sites are shell midden sites, which have their greatest concentrations in the South of Market neighborhood (north of the C-APE) and the Hunters Point-Bayview-Candlestick Point-Visitacion Valley area (south of the C-APE). Although midden sites in the latter area have been known since the 1870s and include some of the largest shellmound sites in San Francisco, they have not been thoroughly investigated and their dating is not well understood. The South of Market sites have, on the other hand, largely only come to light since the 1980s and have been subject to various analytical and absolute dating techniques. These shell midden sites are also remarkable within Bay Area shellmound studies because many of them possess good physical integrity as a result of having been buried beneath natural sand dune deposits for hundreds of years following their abandonment.

The Anthropological Studies Center (ASC) at Sonoma State University defined a National Register-eligible district that incorporates several prehistoric sites within sand dunes formed along the north side of Mission Bay, within the South of Market neighborhood (ASC, 2010). These sites are considered to represent elements of a large multi-village community. The California State Historic Preservation Officer has recently determined that at least seven previously recorded prehistoric habitation sites are part of this district. The district is recommended as eligible under National Register Criterion A and California Register Criterion 1, association with events that made a significant contribution to the broad patterns of our history, as well as Criteria D/4, for its ability to yield important new insights into regional prehistory in the vicinity of Mission Bay.

Ethnohistoric Context

Based on a compilation of ethnographic, historic, and archeological data, Milliken (1995) describes a group known as the Ohlone, who once occupied the general vicinity of the proposed projects. While traditional anthropological literature portrayed the Ohlone peoples as having a static culture, today it is better understood that many variations of culture and ideology existed

within and between villages. While these "static" descriptions of separations between native cultures of California make it an easier task for ethnographers to describe past behaviors, this masks Native American adaptability and self-identity. California's Native Americans never saw themselves as members of larger "cultural groups," as described by anthropologists. Instead, they saw themselves as members of specific villages, perhaps related to others by marriage or kinship ties, but viewing the village as the primary identifier of their origins.

Levy (1978) describes the language group spoken by the Ohlone, known as "Costanoan." This term is originally derived from a Spanish word designating the coastal peoples of Central California. Today Costanoan is used as a linguistic term that references to a larger language family spoken by distinct sociopolitical groups that spoke at least eight languages (as different as Spanish is from French) of the same Penutian language group. The Ohlone once occupied a large territory from San Francisco Bay in the north to the Big Sur and Salinas Rivers in the south. The San Francisco peninsula is located within former *Ramaytush* territory, where little ethnographic data have been collected due to severe population reductions during the historic period (Levy, 1978).

Economically, Ohlone engaged in hunting and gathering. Their territory encompassed both coastal and open valley environments that contained a wide variety of resources, including grass seeds, acorns, bulbs and tubers, bear, deer, elk, antelope, a variety of bird species, and rabbit and other small mammals. The Ohlone acknowledged private ownership of goods and songs, and village ownership of rights to land and/or natural resources; they appear to have aggressively protected their village territories, requiring monetary payment for access rights in the form of clamshell beads, and even shooting trespassers if caught. After European contact, Ohlone society was severely disrupted by missionization, disease, and displacement. Today, the Ohlone still have a strong presence in the San Francisco Bay Area, and are highly interested in their historic and prehistoric past.

Historical Context

Spanish, Mexican, and Early American Periods

Initial European exploration of the San Francisco peninsula began in 1769 and lasted until 1810. During this period, a number of Spanish expeditions penetrated the territory occupied by the Ohlone peoples. Between 1769 and 1776, forays led by Portola, Ortega, Fages, Fages and Crespi, Anza (two expeditions), Rivera, and Moraga were carried out. Favorable reports led to the founding of seven missions in the region between 1770 and 1797.

In the spring of 1776, the site of San Francisco was chosen by Juan Batista Anza for the establishment of a mission and military post. Later that same year, the Mission San Francisco de Asís (also known as Mission Dolores) and Presidio de San Francisco were officially dedicated and Jose Joaquin Moraga (Anza's lieutenant) took formal possession in the name of King Carlos III.

The Spanish annexation and colonization of Alta California, as manifested in the religious-military mission system, produced profound changes in the cultures of the indigenous population. The missions resettled and concentrated the aboriginal hunter-gatherer population into

agricultural communities. The concentration of population, coupled with the indigenous people's lack of immunity to European diseases, caused the tribes to be decimated by common diseases which were generally not fatal to Europeans. It has been estimated that the Ohlone population declined from 10,000 or more in 1770 to less than 2,000 in 1832.

Mexico established jurisdiction over Alta California in April of 1822. During the Mexican Period (1822–1848), control over this remote area by the central and local Mexican authorities was never strong. California became part of the United States as a consequence of the U.S. victory over Mexico in the Mexican War. The territory was formally ceded in the treaty of Guadalupe Hidalgo in 1848, and was admitted as a state in 1850.

Prior to the discovery of gold at Sutter's Mill on January 24, 1848, development in San Francisco consisted of the Spanish/Mexican facilities (i.e., the Presidio and Mission) and a small settlement known as Yerba Buena situated on the shores of the cove by the same name. The inhabitants of Yerba Buena were predominantly non-Spanish, English-speaking immigrants (e.g., U.S. or British citizens). Sometime before the Gold Rush, the inhabitants of Yerba Buena officially changed the name of their settlement to San Francisco. Following the discovery of gold, San Francisco transformed quickly from an isolated hamlet into a bustling center of commerce. After the discovery of gold, the population of San Francisco grew from 375 people in 1847 to 2,000 by February 1849, and by the end of 1849, there may have been as many as 20,000 people living in the City (CCSF, 2011).

San Francisco City and County Hospital

The following sections outlining the history of the San Francisco General Hospital (ZSFG) and the Neighborhood Context are adapted from Page & Turnbull (2003).

In the initial five years of the Gold Rush in San Francisco, no institutional medical care was available. This was the case even given the high rates of diarrhea, dysentery, scurvy, typhus, and occasional outbreaks of cholera among a crowded, poorly-sheltered population often arriving from oppressive mining stints, long sea voyages, or isthmus crossings. Medical care was restricted to short-term physician treatments. In 1853, the federal government opened the U.S. Marine Hospital (1853–1868) on Rincon Point. The 500-patient capacity, four-story, masonry building was a prominent visual landmark for many years. The mission of the Marine Hospital was restricted to the care of merchant marines who suffered primarily from venereal, parasitic, kidney and skin diseases, as well as scurvy, and gunshot wounds. The State Marine Hospital opened in 1853-1854 to care for the general indigent or seriously ill population in a masonry building on Stockton Street between Pacific Street and Broadway, but was closed in 1855. In 1855, the San Francisco was stricken by an Asiatic cholera epidemic, and responded by purchasing the State Marine Hospital and contracting a religious order, the Sisters of Mercy, to manage the hospital as a City and County hospital. After the City failed to reimburse the order, the Sisters of Mercy purchased the building in 1857 and re-opened it as the first Roman Catholic hospital (St. Mary's Hospital) in the city.

The City constructed a new, three-story, masonry, 150-bed City and County Hospital in 1857 overlooking the North Beach shoreline on Francisco Street between Powell and Stockton streets. Dr. Hugh Toland, the head surgeon of the City and County Hospital, established a medical school, the Toland Medical College, on an adjoining site in 1864, which in 1873 became of the Medical Department of the University of California. By 1867, the capacity of the Francisco Street hospital chronically exceeded the medical care demand, and certain patients were transferred to the newly constructed County Almshouse at Laguna Honda. The following year, a 24-bed smallpox isolation hospital was constructed on the Almshouse campus. In 1867, the State Surgeon General, Dr. Beverly Cole, persuaded the local health board to close the County Hospital and condemn the building as deleterious to the health and recovery of hospital patients.

In 1872, a new hospital complex was opened in an isolated location next to the Magdalene Asylum, now occupied by ZSFG. The new hospital was a two-story, wood- frame complex of semi-free-standing ward buildings linked by a common corridor to a centrally placed administration building conforming to what was known as the "pavilion" plan. The pavilion plan hospital originated in France and was widespread throughout Europe. More recently, the pavilion plan had been passionately advocated by many in the American medical establishment and had been officially adopted by the U.S. Marine Hospital Service. The U.S. Marine Hospital constructed in the San Francisco Presidio in 1874–1876 was considered a model. The pavilion hospital plan was a product of the "miasmic" theory of infection that postulated that diseases were transmitted by polluted air, or, more specifically, by "gases and minute solid particles" emitted by the bodies of sick and wounded patients. It was radically argued by some that the prime necessity for effective medical treatment was the availability of "pure air," to which even "diet, beds, and even shelter and repose" were of secondary importance.

Originally considered charity institutions for the indigent, hospitals had long been based on a congregate ward model which, according to the miasmic theory of disease, meant that hospitalization itself could pose a serious health risk. The San Francisco County Hospital of 1872-1907 was constructed in a sparsely developed area, upland from the flat valley later known as the Mission District on the west slope of Potrero Hill. In plan, the hospital complex was arranged along a wide, central two-story corridor with six "finger" ward buildings projecting to either side. Centrally placed was an administration building and kitchen-dining facility. The administration building was the main point of entry to the hospital, and consisted of administrative offices, the apothecary, and storerooms for pharmacological supplies. On the east side of the central corridor, opposite the administrative wing, was a two-story building containing the patients and nurses dining-rooms.

The wood-frame San Francisco City and County Hospital survived the 1906 Earthquake and Fire, but an outbreak of pneumonic plague the following year resulted in its closure and condemnation. In 1907, the County Hospital was demolished and the debris burned.

Between 1909–1915, a new County Hospital was constructed within approximately the same site as the 1872 hospital. The new hospital, placing greater importance on fire risk management, was of steel frame and masonry construction, suggesting that hospital planner did not place as much

of an emphasis on the miasmic problem. The new hospital still adhered to the pavilion plan; in fact it was similar in layout to the 1872–1907 hospital. The new hospital had a long central corridor following, as before, a north-south axis with four and five-story finger ward buildings projecting from the corridor westward. The three-story central building opposite the corridor to the east was a large three-story with basement building in "U"-plan, identified simply as "Service" Building on the 1913–1915 Sanborn Map. This building probably contained the hospital kitchen, kitchen storage rooms, and perhaps hospital patient and staff dining rooms. New features in the 1915 hospital include a large Power House plant on the former laundry site, a new expanded laundry plant, a three-story "Nurse's Home," where previously had been a hospital chapel, and a new "Receiving Building," which actually consisted of several interlinked two-story buildings fronting 22nd Street.

All of the building components of the 1909 hospital were separated by large open areas. The hospital campus also was enlarged to include a block upslope between Vermont and San Bruno streets, where a new City and County Tuberculosis Hospital was constructed in a modified-pavilion plan. This modified plan consisted of a one-story corridor connecting four one-story and one two-story parallel men's ward buildings to a two-story dining-room, kitchen, and reading room facility and, at the extreme northern end, a two-story women's ward building.

The ZSFG campus expanded and modernized throughout the 20th century. In 1931, the City purchased the former Magdalene Asylum block, which had become St. Catherine's Training School for Girls, for the construction of a new cancer institute and psychiatry hospital. During the late 1960s and early-to-mid 1970s, the 1909–1915 administration building and kitchen/dining room facility, power house, and laundry were demolished and a new main hospital building was completed in 1976. The advent of federal Medicare/Medicaid programs eventually enabled the hospital to expand outpatient services, develop important specialties, and to acquire new laboratories and diagnostic procedures. These advances further established the national stature of the hospital while continuing to evolve the campus and facilities throughout the 1970s and 1980s. In 1991, a behavioral health rehabilitation facility was constructed on land north of Building 90, and in 2004 an ambulatory care building (Building 4) was built east of Building 1. The parking garage and adjacent surface parking lot fronting 23rd Street, between San Bruno Avenue and Vermont Street, was completed in 1996. As part of the SFGH Rebuild Program, construction began in 2009 on a new 9-story acute care facility fronting on Potrero Avenue on the former west lawn between Buildings 10/20 and 20/30. The new acute care facility, which was renamed the Priscilla Chan and Mark Zuckerberg San Francisco General Hospital and Trauma Center, was completed in November 2015 with patient move-in planned for spring 2016.

Neighborhood Context

By 1913, area surrounding the ZSFG campus had been built out predominantly with multi- family residential units. The areas adjacent to the ZSFG campus today are comprised of a mixture of styles and uses, with residential units predominating, including single family, flats, and apartment units. Other buildings include mixed-use commercial and residential, with stores and restaurants on the first floors, and residential units above. Most are multi-story, consisting of two- and three-story buildings, and many have garages. Several buildings have been significantly altered, with

the addition of modern façades, fenestration, stucco wall cladding, and other adaptations. Although the majority of the buildings surrounding the ZSFG campus date to the first quarter of the 20th Century, many were also built within the last 50 years, reflecting a variety of building styles and periods found in many parts of San Francisco.

Research Methods and Results

This current analysis relies on three previous cultural resources studies as well as additional site specific data compiled by ESA. LSA Associates (2008) completed a baseline study for architectural resources at ZSFG. The study consisted of background research, including an archival records search and literature review, contacts with potentially interested parties, historical archival research, internet research, and field reviews. San Francisco Planning Department, EP archeologists prepared a preliminary archeological review (PAR) for the SFGH Replacement Project that included a review of archeological literature and databases as well as an analysis of archeological site sensitivity. Additionally, for the adjacent SFGH Replacement Project, URS (2009) completed additional archeological research including geoarcheological coring and analysis and an extended subsurface survey and analysis. Finally, Architectural Resources Group (ARG) completed a historical background and design criteria report in 2016 for the proposed research building. The report was informed by input received by the San Francisco Planning Department and the Architectural Review Committee of the San Francisco Historic Preservation Commission.

Architectural Resources

The ZSFG campus comprises a historic district, referred to as the SFGH Historic District (SFGH District). In 2008, LSA Associates evaluated the SFGH District's eligibility for listing in the National Register and the California Register, assessed the potential for project related impacts to the SFGH District under CEQA, and identified mitigation measures that would reduce the severity of potential impacts to the SFGH District. The following information about the SFGH District is adapted from the 2008 LSA historic resources evaluation report.

The original ZSFG campus, completed in 1915, was designed by Newton J. Tharp, City Architect of San Francisco. The four extant original Second Renaissance Revival brick buildings within the facility include the "finger wards" (Buildings 10/20 and 30/40), the receiving building (Building 1), and the Nurse's Home (Building 9). A communicable disease hospital (Building 100) was later designed in the same Second Renaissance Revival style by Fred K. Meyer and John Reid Jr., Associates, and was completed in 1917. Building 80/90, a maternity and psychiatric hospital designed in the Art Deco style in 1938 by Martin J. Rist, was also constructed of brick with terra cotta detailing. The Main Hospital (completed in 1976), parking lots, temporary structures, and landscaping are located in areas formerly occupied by buildings dating from 1915-1917. Six of the 14 buildings on the ZSFG campus appear to be eligible for listing in the National Register and California Register as a district (see discussion of District contributors, below). The District's period of significance extends from 1915 to 1938.

The SFGH District is recommended eligible under Criterion A/1 for its association with the development of San Francisco's public health system, as well as for its contributions to national public health trends, medical research, and education in the 20th century. The SFGH District is also

recommended eligible under Criterion C/3 as a distinctively planned architectural complex dedicated to the administration and delivery of health care in the early 20th century, and as the work of a master architect. Because the SFGH District is recommended eligible for listing in the National Register, it is also automatically eligible for listing in the California Register. A Preservation Technical Specialist with the San Francisco Planning Department reviewed and concurred with this eligibility conclusion. Therefore, the SFGH District qualifies under Category A.2 of San Francisco Planning Department Preservation Bulletin No. 16 (. . . properties that have been determined to appear or may become eligible, for the California Register), and is considered a historical resource for the purposes of CEQA.

District Contributors

- Building 1/1A/1B/1C – Receiving Building (1915)
- Building 9 – Nurse's Home (1915)
- Building 10/20 – Hospital Wards (1915)
- Building 30/40 – Hospital Wards (1915)
- Building 80/90 – Ambulatory Care (1938)
- Building 100 – Isolation Hospital (1917)
- Brick and steel perimeter fencing
- Brick gatehouses on Potrero Avenue and 23rd Street
- Gate pillars on 23rd Street [the west pillar is no longer present]
- Brick bus shelter along Potrero Avenue
- Three-tiered fountain in Lot B/C [relocated from the demolished Tubercular Ward]
- Formal pedestrian entry at Potrero Avenue with staircase, period light standards and flagpole [demolished to accommodate acute care hospital]

Character-Defining Features, SFGH Historic District

The SFGH Historic District includes the following character-defining features:

- **Overall Form and Continuity.** Building heights on the original campus were up to five stories, with the fifth stories of the finger wards (Buildings 10/20 and 30/40) added in 1931. Other original buildings are two-to-three stories in height (Buildings 1, 9, and 100), while the 1930s Building 80/90 is seven stories high.

- **Age.** All five of the extant Second Renaissance Revival buildings on the original core campus were constructed in 1915-1917, while the Art Deco Building 80/90 was completed in 1938.

- **Scale and Proportion.** The contributing buildings of the SFGH District have different masses and shapes, varying from long narrow finger wards, to blocks with wings, to U-shaped and multi-winged U-shaped. All of the original buildings reflect elements of Second Renaissance Revival style architecture in arches, horizontal configurations, scale, mass, proportion, and flat or gabled rooflines. The Art Deco Building 80/90 is much higher and more massive, and reflects the scale and vertical banding and rhythm of its period. None of the contributing buildings have the mass of the Main Hospital.

- **Fenestration.** Windows in Buildings 1, 9, and 100 are recessed. Some of the windows are rectangular, one-over-one light, double hung, frame sash. Other windows are paired or grouped and arched with terra cotta emblems, and some have single rectangular openings embellished with brick corbelling and terra cotta spandrels. Fenestration on the finger wards consists of horizontal bands of flat-arched, one-over-one light, double hung, wood frame windows, with groups of triple-arched and flat-arched windows on the sanitary towers. The façades emphasize a horizontal configuration defined by fenestration, and relate to each other in shape and proportion. Building 80/90 has slightly recessed vertical window openings, as well as bay windows distinguished by copper cladding forming window mullions and spandrels with pre-cast upper window hoods. Original windows include eight-light, casement sash units topped with paired, four-light transom units. Some windows on the contributing buildings have been replaced, covered with glass or clay bricks or otherwise modified, but most are original.

- ***Materials.*** All the 1915-1938 buildings are constructed of reinforced concrete, faced with polychrome Flemish bond brick, featuring decorative brick and terra cotta detailing and arched or rectangular window openings. Gable and shed roofs are covered with clay Mission tiles, while flat roofs are coated with tar and gravel. Window frames are wood. Building 80/90 has pre-cast stone sills, stone hoods, water tables, coping stones, and copper spandrels and mullions; the primary entry features double bronze doors.

- **Color.** Red and "clinker" brick colors predominate, with terra cotta emblems, cornices, columns, colonnettes, corbels, spandrels, stringcourses, and water tables. Clay roof tiles are red or green, and copper cladding is green.

- **Texture.** Overall texture of the contributing buildings in the SFGH District is rough brick accented with smooth terra cotta.

- **Detail.** The original mid-1910s Second Renaissance Revival style campus contains extensive period architectural detail. Generally, the façades emphasize a horizontal configuration defined by the fenestration, a coping band or water table at the foundation, a stringcourse band, and the cornice. Brick detailing includes corbelled cornices, arched window openings, decorative friezes, tympanums, parapets, decorative bonds, and diamond shaped and other patterning. Terra cotta details include coping, spandrels, cornices, emblems, insets, colonnettes, panels, medallions, and other features. Art Deco features on Building 80/90 include pre-cast stone coping, window heads, entries, hoods, sills, stringcourses, and water tables, as well as copper clad bay windows and bronze doors.

- **Landscape Features.** The SFGH District is bounded by brick and steel perimeter fencing, constructed of brick posts with terra cotta capitals and medallions, interspersed with vertical metal railings. The primary entries are characterized by double-arched decorative metal gates. Brick gatehouses, located at each primary entry to the south campus (one each on Potrero Avenue and 23rd Street, as well as one at the entry to the north campus on 22nd Street), feature gable and parapet Mission tile roofs, Craftsman brackets, doors, and windows with metal grilles. The brick bus shelter, with Mission tile gable roof, arched bays, and Palladian windows, is also an important feature. The wide concrete stairway from Potrero Avenue, flanked by brick windowpane casings with terra cotta details and formal gardens, is an important element of the 1915 design and appears to retain its integrity of design. Lighted by period metal electroliers, the stairway and gardens provide a human scale entry and a sense of arrival. Although not all dating to the 1915 period, concrete pathways, lawns, and ornamental plantings provide open spaces and contrasting greenery in the midst of the red and terra cotta colors.

Contributing District Features Within or Near the B/C Lot

The proposed site for the UCSF research building is the B/C Lot, the surface parking lot separated from Building 9 (Nurse's Home) to the east by the secondary entrance drive, which extends north from 23rd Street. The B/C Lot is immediately south of the former Main Hospital in the southeastern corner of the SFGH Historic District.

Prior to construction of the Main Hospital, this location was occupied by Building 50/70 (the Tubercular Ward), which exhibited a finger ward design similar to Buildings 10/20 and 30/40. Although the B/C Lot itself is a non-contributor to the District, contributing features that are within or immediately adjacent to the B/C Lot include the following:

- **Fountain.** The three-tiered water fountain within the B/C Lot that has been converted to use as a planter was formerly located in the center of the Building 50/70 courtyard. The fountain was temporarily relocated during demolition of Building 50/70 and was reinstalled atop a new base in its original location following construction of the present parking lot.
- **Guardhouse.** A brick guardhouse sits at the southwest corner of the B/C Lot. This building features a clay tile-clad gable roof with paired craftsman brackets and exposed rafter tails. The entrance features a bracketed hood clad in clay tiles, and a paneled door flanked by sidelights.
- **Gate Pillar.** Adjacent to the Guardhouse stands a square brick pillar with concrete base and terra cotta capitol, surmounted by a metal carriage light. This is the east pillar of the two gate pillars that formerly bracketed the south entrance to the campus, which is adjacent to the B/C Lot's southwestern corner. The west pillar is no longer extant.
- **Fence.** A portion of the brick and steel perimeter fence that surrounds much of the SFGH Historic District extends along the southern edge of the B/C Lot. This fence consists of a low brick wall surmounted by a metal rail set between square brick posts with terra cotta capitals and medallions.

Non-Contributing District Features Within or Near the B/C Lot

In addition to the B/C Lot itself, the former Main Hospital, completed in 1976 in a modern Brutalist architectural style, is a non-contributor to the SFGH District.

The ZSFG parking garage and adjacent surface parking lot fronting Twenty-Third Street between San Bruno Avenue and Utah Street was completed in 1996. These structures are to the south of, and outside, the SFGH Historic District, separated by the width of Twenty-Third Street. Given the relatively recent date of construction of these structures, they would not meet the minimum age threshold (45 years) for consideration for listing in the California Register of Historical Resources, and are not considered historical resources as defined by CEQA.

Buildings fronting the existing parking garage and surface lot, located on San Bruno Avenue, Utah, and Twenty-Fourth streets, are predominantly single- and multi-family residential buildings, some with ground floor commercial uses. Although the majority of the buildings surrounding the ZSFG campus date to the first quarter of the 20th century, many have been constructed more recently, reflecting a variety of building styles and periods found in many parts of San Francisco. A review of the Office of Historic Preservation's (OHP's) Historic Property Directory for San Francisco, as well

as the preservation section of the San Francisco Property Information Map, identifies no recorded architectural resources on the streets fronting the ZSFG parking garage. These areas have not been the subject of a neighborhood survey or evaluation, however, and many of these buildings are more than 45 years old. As many of the buildings surrounding the ZSFG parking structure would meet the minimum age threshold, they could be eligible for listing in the CRHR upon future review and if other evaluation criteria applied, such as associations with important historical events, important persons, or represent the embodiment of a particular architectural style.

Historical Archeological Resources

There is no evidence that any buildings, structures, or development related to the Spanish and Mexican periods existed within the C-APE, although several early ranching buildings and structures may have within several blocks of the C-APE (Dean 2008:2-3). Based on the land use history outlined below the types of historical archeological resources that could be encountered relate primarily to the original hospital, late 19th and early 20th century residences, and 20th century railcar related buildings and maintenance yards. Archeological resources could include features such as the remains of stone, concrete, or adobe footings and walls; artifact filled wells or privies; and deposits of metal, glass, and/or ceramic refuse.

B/C Lot / Proposed UCSF Research Building

The first development in the research building C-APE includes outbuildings associated with the original 1872 hospital as well as several residential buildings. The 1889 Sanborn maps show outbuildings at the corner of Nevada (Twenty-Third Street) and Nebraska (no longer extant) labeled “hose cart shed” and “yard.” These structures may have been related to the vegetable garden and other quasi-agricultural activities that the hospital maintained and depended on. The hospital promoted and required the strong participation of patients in these activities and related ones such as landscape maintenance and horticulture as part of a patient’s “recovery” program (Dean, 2016).

In 1886 the block bounded by Nevada (Twenty-Third Street), Nebraska, Vermont, and Humboldt was divided into several lots; six lots had small residences. Residences at 1118, 1120, and 1122 Vermont Street were one-story; two had rear outbuildings. Three additional residences are shown at 1113, 1115, 1123 Nebraska Street. Two buildings were one-story with basements and attached outbuildings. One building is labeled “Vacant Launderette.”

By 1899 Nevada Street had been renamed San Bruno Avenue. The 1899 Sanborn map shows more residences constructed on the block at 1137-39, 1141-43, and 1147 San Bruno. The same small one-story outbuildings associated with the hospital are shown at the corner of Vermont and Twenty-Third Street.

The 1913 Sanborn map shows the C-APE as vacant; the residences and hospital had been demolished. The 1872 hospital was burned down in 1908 following years of public critique as to its adequacy and an outbreak of pneumonic plague in the hospital in 1907. As a plague eradication measure, the hospital site was heavily excavated to remove structural and infrastructural remains. Records indicate that major ground disturbance occurred and that

demolition of the hospital was very thorough, with all fixtures and furnishings removed, the buildings torn down and burned, and any remaining pipes and salvageable materials sold to scrappers (JRP, 2009).

Between 1909 and 1915 a new solid masonry (brick over concrete foundation) pavilion-plan hospital facility was constructed largely within the footprint of the prior hospital. The new hospital structure did not extend into the research building C-APE but, as with the 1872 hospital, it is possible that accessory structures, also perhaps agriculturally-related, may have extended into the C-APE. At some point in the first-half of the 20th century, the South East Wing was constructed, portions of which extended within the proposed research building C-APE. The residential buildings on the eastern half of the research building C-APE in the later 19th century had all been demolished by 1915. In the 1970s, substantial portions of the 1915 hospital were demolished to allow construction of the Main Hospital Building (Building 5), which also required extension of the hospital site east to Vermont Street.

Existing Parking Garage / Garage Expansion

The first development of the southern half of the block bounded by Twenty-Third Street (former Nevada), San Bruno (former Nebraska), Twenty-Fourth Street (former Sonoma), and Utah Street is shown on the 1899 Sanborn map. The block is labeled "Market St R.R. Co's. Old Car Barns. Used for storage of old cars." A small rectangular two-story building labeled as a dwelling is attached.

The 1913 and 1950 Sanborn maps show the United Railyards of San Francisco Car Barn and Repair Shop. Several small rooms include an "Office," a "Club Rooms" (with a basement), a "W.C.," and a room labeled "Oils." The one- and two-story building was an un-reinforced brick-walled construction with a wooden truss roof including several wire glass skylights. Most recently used as the headquarters for the San Francisco Municipal Railway (MUNI) Ways and Structures Division, the car barn was demolished in 1995 to construct the existing parking garage.

The archeological monitoring program conducted for the existing parking garage (Parsons, 1995), discovered several historical archeological features, including a well and trash pit possibly associated with a 19th century domestic use of the site and several features (three types of rail lines, 13 streetcar tracks, a series of concrete chambered mechanics' work trenches associated with a Market Street Railway railyard and maintenance facility (1900 – 1940). None of the historical archeological features were determined to be legally significant (Dean, 2016).

Historic-period materials, if identified, might include stone, concrete, or adobe footings and walls, as well as artifact-filled wells or privies; and deposits of metal, glass, and/or ceramic refuse.

Prehistoric Archeological Resources

In 2009, archeologists from URS completed a geoarcheological sensitivity analysis and site investigation for the SFGH Rebuild Project. Five soil boring were completed in the vicinity of the Rebuild Project (just northwest of the proposed UCSF research building C-APE and approximately 700 feet north of the C-APE for the expansion of the existing ZSFG parking garage). Core samples

were extracted in 4-foot segments in 2-inch-diameter clear tubes in order to assess the nature and extent of subsurface sediments, and to capture evidence of any substantial archeological deposits. Stratigraphic soil units were identified based on physical characteristics such as composition, color, superposition, textural transitions, and pedogenic properties (i.e., relative soil development).

In summary, no prehistoric archeological materials were identified as a result of the geoarcheological investigation in 2009. One buried surface was identified within consolidated and heavily oxidized dune deposits and dated to approximately 22,000 years before present (B.P.), indicating that it was buried long before human occupation of the Americas. This surface is covered with at least 12 feet (3.5 meters) of additional Pleistocene sand deposits, the upper horizons of which were dated to approximately 8,200 years B.P. This upper dune surface represents the upper contact with the historic ground surface, and appears to have been heavily disturbed or completely removed throughout much of the SFGH Rebuild Project area, due to historical and modern development. Any prehistoric archeological materials that might have originally been associated with this surface would likely have been heavily disturbed or completely removed (URS, 2009).

As described in the Environmental Setting section above, the project preliminary geotechnical report concludes that the research building C-APE is underlain by relatively shallow fill over medium to dense dune sand (Kleinfelder, 2014). The geoarcheological study of the block just to the south (Parsons, 1995) concluded that the "dune sand" represents an intact Colma Formation surface sensitive for prehistoric deposits. This potential is enhanced by the identification of an ancient stream channel perhaps in the eastern portion of the site.

Previous geoarcheological analysis for the existing parking garage (Parsons, 1995) found that the stable Pleistocene land form between the San Miguel Hills and Potrero Hill did not experience the erosional effects from sea level rise or of becoming deeply buried by long periods of sand re-deposition from the west that have been the case in other parts of San Francisco. This ancient stable landform (the Colma Formation) would have been available for prehistoric occupation at least during the Holocene epoch. The geoarcheological study prepared for the parking garage project identified a buried paleosol (the Colma Formation) dating within the Late Holocene (4,000 years B.P. to the present) adjoining an ancient stream channel within the eastern portion of the project site along San Bruno Street. This stable land surface, which is sensitive for prehistoric deposits, was relatively shallow but extended to depths approximately 2 meters below ground surface.

Prehistoric archeological materials, if identified, might include obsidian and chert flaked-stone tools (e.g., Projectile points, knives, scrapers) or toolmaking debris; culturally darkened soil ("midden") containing heat-affected rocks, baked clay fragments, or faunal food remains (bone and shell); stone milling equipment (e.g., mortars, pestles, handstones, or milling slabs); and battered stone tools, such as hammerstones and pitted stones.

4.3.2.3 Paleontological Setting

Paleontological resources are the fossilized remains of plants and animals, including vertebrates (animals with backbones), invertebrates (e.g., starfish, clams, ammonites, and marine coral), and fossils of microscopic plants and animals (microfossils). The age and abundance of fossils depend

on the location, topographic setting, and particular geologic formation in which they are found. Fossil discoveries not only provide a historical record of past plant and animal life but can assist geologists in dating rock formations. Fossil discoveries can expand our understanding of the time periods and the geographic range of existing and extinct flora and fauna.

Geological Context

The C-APE is underlain by Quaternary-age (Pleistocene) alluvium. These are predominantly flat-lying unconsolidated to moderately consolidated deposits of sand, silt, gravel and cobbles that have been carried by creeks from the hills to the east. Typically, these deposits are coarse-grained close to the base of mountains and near the head of alluvial fans (i.e., they contain more gravel and sand), whereas Quaternary-age alluvium closer to the bay margins tend to contain more silt and mud.

Paleontological Assessment Guidelines

The Society of Vertebrate Paleontology (SVP) established guidelines for the identification, assessment, and mitigation of adverse impacts on nonrenewable paleontological resources (SVP, 2010). Most practicing paleontologists in the United States adhere closely to the SVP's assessment, mitigation, and monitoring requirements as outlined in these guidelines, which were approved through a consensus of professional paleontologists. Many federal, state, county, and city agencies have either formally or informally adopted the SVP's standard guidelines for the mitigation of adverse construction-related impacts on paleontological resources. The SVP has helped define the value of paleontological resources and, in particular, indicates that geologic units of *high* paleontological potential are those from which vertebrate or significant invertebrate or plant fossils have been recovered in the past (i.e., are represented in institutional collections). Only invertebrate fossils that provide new information on existing flora or fauna or on the age of a rock unit would be considered significant. Geologic units of *low* paleontological potential are those that are not known to have produced a substantial body of significant paleontological material. As such, the sensitivity of an area with respect to paleontological resources hinges on its geologic setting and whether significant fossils have been discovered in the area or in similar geologic units.

The SVP further states the following:

- Vertebrate fossils and fossiliferous deposits are considered significant nonrenewable paleontological resources, and are afforded protection by federal, state, and local environmental laws and guidelines.
- A paleontological resource is considered to be older than recorded history or 5,000 years before present and should not be confused with archeological resource sites.
- Invertebrate fossils are not significant paleontological resources, unless they are present with an assemblage of vertebrate fossils or they provide undiscovered information on the origin and character of the plant species, past climatic conditions or the age of the rock unit itself.
- Certain plant or invertebrate fossils may be designated as significant by a project paleontologist, special interest group, lead agency or local government.

With these principles, the SVP has outlined criteria for screening the paleontological potential of rock units and established assessment and mitigation procedures tailored to such potential (SVP, 1996; SVP, 2010). **Table 4.3-2** lists the criteria for high-potential, undetermined, and low-potential rock units.

TABLE 4.3-2
PALEONTOLOGICAL POTENTIAL CRITERIA

Paleontological Potential	Description
High	Geologic units from which vertebrate or significant invertebrate or plant fossils have been recovered in the past, or rock formations that would be lithologically and temporally suitable for the preservation of fossils. Only invertebrate fossils that provide new information on existing flora or fauna or on the age of a rock unit would be considered significant.
Undetermined	Geologic units for which little to no information is available.
Low	Geologic units that are not known to have produced a substantial body of significant paleontological material, as demonstrated by paleontological literature and prior field surveys, and which are poorly represented in institutional collections.

SOURCE: SVP, 2010

Paleontological Resources Potential

ESA conducted a search of the paleontological locality database of the University of California Museum of Paleontology (UCMP) to identify vertebrate fossil localities within San Francisco County (UCMP, 2015). Several vertebrate fossil discoveries in a Pleistocene-age geologic context are listed in the UCMP database for the San Francisco area. For the *San Francisco General Hospital Seismic Compliance Hospital Replacement Program EIR,* UCMP staff conducted a fossil locality search. That search identified two Pleistocene fossil localities in the immediate vicinity of the C-APE: a whale vertebra near the First and Mission Street intersection, and the humerus of a giant ground sloth near Laguna Honda Hospital, east of the Sunset District. Other discoveries include mammoth and equine fossils near the Bay Bridge footings, and a mammoth tooth 110 feet below the existing ground surface during excavation for the Transbay Transit Center at First and Mission streets. No fossils have been previously identified in or adjacent to the C-APE.

In accordance with SVP criteria for assigning paleontological potential ratings the C-APE would have a high paleontological potential because vertebrate fossils have been recovered from similar geologic units in the past.

4.3.3 Regulatory Considerations

4.3.3.1 Federal Regulations

Project compliance with the National Historic Preservation Act (NHPA) may be used as part of a project's compliance with the National Environmental Policy Act (NEPA) if federal permits or funding for a project is required. To establish the significance of a property, the National Register

of Historic Places (National Register) criteria for evaluation set forth in 36 CFR Part 60.4 must be applied. The following criteria are designed to guide the states, federal agencies, and the Secretary of the Interior in evaluating potential entries for the National Register. The quality of significance in American history, architecture, archeology, and culture is present in districts, sites, buildings, structures, and objects that:

A) Are associated with events that have made significant contribution to the broad patterns of our history; or

B) Are associated with the lives of persons significant in our past; or

C) Embody the distinctive characteristics of a type, period, or method of construction or that represent the work of a master or that possess high artistic values or that represent a significant and distinguishable entity whose components may lack individual distinction; or

D) Have yielded, or may be likely to yield, information important in prehistory or history.

The question of integrity is another factor that must be addressed when determining the eligibility of a resource for listing in the National Register. The Secretary of the Interior describes integrity as "the ability of a property to convey its significance." A property must retain certain intact physical features in order to convey its significance under one or more of the National Register criteria. Integrity is judged on seven aspects; location, design, setting, workmanship, materials, feeling, and association.

If a particular resource meets one of these criteria and retains sufficient integrity to convey its historical significance, it is considered as an eligible "historic property" for listing in the National Register. In addition, unless exceptionally significant, a property must be at least 50 years old to be eligible for listing.

Section 106

Section 106 of the NHPA of 1966 requires that a federal agency with direct or indirect jurisdiction over a proposed federal or federally assisted undertaking, or issuing licenses or permits, must consider the effect of the proposed undertaking on historic properties. An historic site or property may include a prehistoric or historic district, site, building, structure, or object included in, or eligible for inclusion in the National Register maintained by the U.S. Secretary of the Interior. Federal agencies must also allow the Advisory Council on Historic Preservation (ACHP) to comment on the proposed undertaking and its potential effects on historic properties.

The implementing regulations for Section 106 of the NHPA (36 CFR 800) require consultation with the State Historic Preservation Officer (SHPO), the ACHP, federally recognized Indian tribes and other Native Americans, and interested members of the public throughout the compliance process. The four principal steps are:

- Initiate the Section 106 process (36 CFR 800.3);
- Identify historic properties, resources eligible for inclusion in the National Register (36 CFR 800.4);

- Assess the effects of the undertaking on historic properties within the area of potential effect (36 CFR 800.5); and
- Resolve adverse effects (36 CFR 800.6).

Adverse effects on historic properties are often resolved through preparation of a memorandum of agreement or programmatic agreement developed in consultation between the federal agency, the SHPO, Indian tribes, and interested members of the public. The ACHP is also invited to participate. The agreement describes stipulations to mitigate adverse effects on historic properties or listing in the National Register (36 CFR 60).

4.3.3.2 State Regulations

The State of California implements the NHPA of 1966, as amended, through its statewide comprehensive cultural resource surveys and preservation programs. The California Office of Historic Preservation (OHP), as an office of the California Department of Parks and Recreation (DPR), implements the policies of the NHPA on a statewide level. The OHP also maintains the California Historical Resources Inventory. The SHPO is an appointed official who implements historic preservation programs within the state's jurisdictions.

California Register of Historical Resources

The California Register of Historical Resources (California Register) is "an authoritative listing and guide to be used by state and local agencies, private groups, and citizens in identifying the existing historical resources of the state and to indicate which resources deserve to be protected, to the extent prudent and feasible, from substantial adverse change" (Public Resources Code [PRC] Section 5024.1[a]). The criteria for eligibility to the California Register are based on National Register criteria (PRC Section 5024.1[b]). Certain resources are determined by the statute to be automatically included in the California Register, including those formally determined eligible for or listed in the National Register.

To be eligible for the California Register a historical resource must be significant at the local, state, and/or federal level under one or more of the following criteria:

1) Is associated with events that have made a significant contribution to the broad patterns of California's history and cultural heritage;

2) Is associated with the lives of persons important in our past;

3) Embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of an important creative individual, or possesses high artistic values; or,

4) Has yielded, or may be likely to yield, information important in prehistory or history (PRC Section 5024.1[c]).

For a resource to be eligible for the California Register, it must also retain enough integrity to be recognizable as a historical resource and to convey its significance. A resource that does not

retain sufficient integrity to meet the National Register criteria may still be eligible for listing in the California Register.

California Environmental Quality Act

CEQA considers archeological resources as an intrinsic part of the physical environment and, thus, requires for any project that the potential of the project to adversely affect archeological resources be analyzed (CEQA Section 21083.2). For a project that may have an adverse effect on a significant archeological resource, CEQA requires preparation of an environmental impact report (CEQA and Guidelines Section 21083.2, Section 15065). CEQA recognizes two different categories of significant archeological resources: "unique" archeological resource (CEQA Section 21083.2) and an archeological resource that qualifies as a "historical resource" under CEQA (CEQA and Guidelines 21084.1, 15064.5).

Significance of archeological resources

An archeological resource can be significant as both or either a "unique" archeological resource and as an "historical resource" but the process by which the resource is identified, under CEQA, as either one or the other is distinct (CEQA and Guidelines 21083.2[g] and 15064.5[a][2]).

An archeological resource is an "historical resource" under CEQA if the resource is:

- listed on or determined eligible for listing on the California Register (CEQA Guidelines Section 15064.5). This includes National Register-listed or -eligible archeological properties.
- listed in a "local register of historical resources"[1]
- listed in a "historical resource survey" (CEQA Guidelines Section 15064.5[a][2]).

Generally, an archeological resource is determined to be an "historical resource" due to its eligibility for listing to the California Register / National Register because of the potential scientific value of the resource, that is, "has yielded, or may be likely to yield, information important in prehistory or history" (CEQA Guidelines Section 15064.5 [a][3]). An archeological resource may be California Register-eligible under other Evaluation Criteria, such as Criterion 1, association with events that have made a significant contribution to the broad patterns of history; Criterion 2, association with the lives of historically important persons; or Criterion 3, association with the distinctive characteristics of a type, period, region, or method of construction. Appropriate treatment for archeological properties that are California Register-eligible under Criteria other than Criterion 4 may be different than that for a resource that is significant exclusively for its scientific value.

Failure of an archeological resource to be listed in any of these historical inventories, is not sufficient to conclude that the archeological resource is not an "historical resource". When the lead agency believes there may be grounds for a determination that an archeological resource is a

[1] A "local register of historical resources" is a list of historical or archeological properties officially adopted by ordinance or resolution by a local government. (Public Resources Code 5020.1 [k]).

"historical resource", then the lead agency should evaluate the resource for eligibility for listing to the California Register (CEQA Guidelines Section 15064.5[a][4]).

A "unique archeological resource" is a category of archeological resources created by the CEQA statutes (CEQA Guidelines Section 21083.2[g]). An archeological resource is a unique archeological resource if it meets any of one of three criteria:

1) Contains information needed to answer important scientific research questions and that there is a demonstrable public interest in that information;

2) Has a special and particular quality such as being the oldest of its type or the best available example of its type;

3) Is directly associated with a scientifically recognized important prehistoric or historic event or person.

Under CEQA, evaluation of an archeological resource as an "historical resource" is privileged over the evaluation of the resource as a "unique archeological resource", in that, CEQA requires that "when a project will impact an archeological site, a lead agency shall first determine whether the site is an historical resource" (CEQA Section 15064.5 [c][1]).

Evaluation of an archeological resource as scientifically significant

In requiring that a potentially affected archeological resource be evaluated as an historical resource, that is as an archeological site of sufficient scientific value to be California Register-eligible, CEQA presupposes that the published guidance of the OHP for CEQA providers is to serve as the methodological standard by which the scientific, and thus, the California Register-eligibility, of an archeological resource is to be evaluated. As guidance for the evaluation of the scientific value of an archeological resource, the OHP has issued two guidelines: *Archeological Resource Management Reports* (1989) and the *Guidelines for Archeological Research Designs* (1991).

Integrity of archeological resource

Integrity is an essential criterion in determining if a potential resource, including an archeological resource, is an historical resource. In terms of CEQA "integrity" can, in part, be expressed in the requirement that an historical resource must retain "the physical characteristics that convey its historical significance" (CEQA Section 15064.5 [b]).

For an archeological resource that is evaluated for California Register-eligibility under Criterion 4: "has yielded or may be likely to yield information important to prehistory or history," integrity is conceptually different than how it is usually applied to the built environment. For an historic building, possessing integrity means that the building retains the defining characteristics from the period of significance of the building. In archeology, an archeological deposit or feature may have undergone substantial physical change from the time of its deposition but it may yet have sufficient integrity to qualify as a historical resource. The integrity test for an archeological resource is whether the resource can yield sufficient data (in type, quantity, quality, diagnosticity) to address significant research questions. Thus, in archeology "integrity" is often closely associated with the development of a research design that identifies the types of physical

characteristics ("data needs") that must be present in the archeological resource and its physical context to adequately address research questions appropriate to the archeological resource.

Assembly Bill 52

In September of 2014, the California Legislature passed Assembly Bill (AB) 52, which added provisions to the PRC regarding the evaluation of impacts on tribal cultural resources under CEQA, and consultation requirements with California Native American tribes. In particular, AB 52 now requires lead agencies to analyze project impacts on "tribal cultural resources" separately from archeological resources (PRC Section 21074; 21083.09). The Bill defines "tribal cultural resources" in a new section of the PRC Section 21074. AB 52 also requires lead agencies to engage in additional consultation procedures with respect to California Native American tribes (PRC Section 21080.3.1, 21080.3.2, 21082.3). Finally, AB 52 requires the Office of Planning and Research to update Appendix G of the CEQA Guidelines by July 1, 2016 to provide sample questions regarding impacts to tribal cultural resources (PRC Section 21083.09).

Other Provisions of California Public Resources Code

Several sections of the PRC protect paleontological resources. PRC Section 5097.5 prohibits "knowing and willful" excavation, removal, destruction, injury, and defacement of any paleontological feature on public lands (lands under state, county, city, district, or public authority jurisdiction, or the jurisdiction of a public corporation), except where the agency with jurisdiction has granted permission.

Section 7050.5 of the Health and Safety Code protects human remains by prohibiting the disinterring, disturbing, or removing of human remains from any location other than a dedicated cemetery. Section 5097.98 of the PRC (and reiterated in CEQA Section 15064.59 [e]) also states that in the event of the accidental discovery or recognition of any human remains in any location other than a dedicated cemetery, the following steps shall be taken:

1) There shall be no further excavation or disturbance of the site or any nearby area reasonably suspected to overlie adjacent human remains until:

    A) The coroner of the county in which the remains are discovered must be contacted to determine that no investigation of the cause of death is required, and

    B) If the coroner determines the remains to be Native American:

        1. The coroner shall contact the Native American Heritage Commission within 24 hours.

        2. The Native American Heritage Commission shall identify the person or persons it believes to be the most likely descended from the deceased Native American.

        3. The most likely descendent may make recommendations to the landowner or the person responsible for the excavation work, for means of treating or disposing of, with appropriate dignity, the human remains and any associated grave goods as provided in PRC Section 5097.98, or

2) Where the following conditions occur, the landowner or his authorized representative shall rebury the Native American human remains and associated grave goods with appropriate dignity on the property in a location not subject to further subsurface disturbance.

   A) The Native American Heritage Commission is unable to identify a most likely descendent or the most likely descendent failed to make a recommendation within 48 hours after being notified by the commission.

   B) The descendant identified fails to make a recommendation; or, the landowner or his authorized representative rejects the recommendation of the descendant, and the mediation by the Native American Heritage Commission fails to provide measures acceptable to the landowner.

4.3.3.3 Local

San Francisco Planning Department Preservation Bulletin 16

The San Francisco Planning Department has issued a Preservation Bulletin (No. 16) entitled *San Francisco Planning Department CEQA Review Procedures for Historic Resources*, which integrates the CEQA Guidelines into the City's existing regulatory framework. As a certified local government and CEQA lead agency for the City and County of San Francisco, the San Francisco Planning Department has instituted guidelines and a system for CEQA review of historic resources. The following categories have been established for use in determining the significance of historic resources, based upon their evaluation and inclusion in specific registers or surveys:

- **Category A: Historic resources (divided into two sub-categories)**

  Category A.1: Resources listed on or formally determined to be eligible for the California Register. These properties will be evaluated as historic resources for the purposes of CEQA. Only a change in the property's status as listed in or determined to be eligible for listing in the California Register of Historical Resources by the California Historic Resources Commission will preclude evaluation of the property as a historical resource under CEQA.

  Category A.2: Adopted local registers, and properties that have been determined to appear or may become eligible, for the California Register. These properties will be evaluated as historic resources for purposes of CEQA. Only a preponderance of the evidence demonstrating that the resource is not historically or culturally significant will preclude evaluation of the property as an historic resource. In the case of Category A.2, resources included in an adopted survey or local register, generally the "preponderance of the evidence" must consist of evidence that the appropriate decision-maker has determined that the resource should no longer be included in the adopted survey or register. Where there is substantiated and uncontroverted evidence of an error in professional judgment, of a clear mistake, or that the property has been destroyed, this may also be considered a "preponderance of the evidence that the property is not an historic resource."

- **Category B:** ***Properties requiring further consultation and review.*** Properties that do not meet the criteria for listing in Categories A.1 or A.2, but for which the City has information indicating that further consultation and review will be required to evaluate whether a property is an historic resource for the purposes of CEQA.

- **Category C:** ***Properties determined not to be historic resources, or properties for which the City has no information indicating that the property is an historic resource.*** Properties that have been affirmatively determined not be historic resources, properties less than 50 years of age, and properties for which the City has no information.

San Francisco City Landmarks

San Francisco City Landmarks are buildings, properties, structures, sites, districts, and objects that possess special character or special historical, architectural or aesthetic interest or value and that are an important part of the City's historical and architectural heritage. City Landmarks are important to San Francisco's history and are significant and unique examples of the past. Adopted in 1967 as Article 10 of the City Planning Code, City Landmarks are protected from inappropriate alterations and demolitions, with all significant alterations reviewed by the San Francisco Historic Preservation Commission. There are currently 266 landmark sites and eleven historic districts in San Francisco subject to Article 10. Article 11 of the City Planning Code (*Preservation of Buildings and Districts of Architectural, Historical, and Aesthetic Importance in the C-3 Districts*) contains procedures for the designation of important buildings and districts, as well as for the review of changes to, or removal of, such properties. However, Article 11 applies to downtown San Francisco rather than the Project area.

4.3.4 Significance Standards

Implementation of the project would have a significant effect on cultural or paleontological resources if it were to:

- Cause a substantial adverse change in the significance of a historical resource as defined in Section 15064.5, including those resources listed in Article 10 or Article 11 of the San Francisco Planning Code;
- Cause a substantial adverse change in the significance of an archeological resource pursuant to Section 15064.5;
- Disturb any human remains, including those interred outside of formal cemeteries;
- Cause a substantial adverse change in the significance of a tribal cultural resource as defined in PRC Section 21074; or
- Directly or indirectly destroy a unique paleontological resource or site, or a unique geologic feature.

4.3.5 Analysis Methodology

4.3.5.1 Architectural/Structural Resources

CEQA Guidelines Section 15064.5 requires the lead agency to consider the effects of a project on historical resources. A historical resource is defined as a building, structure, site, object, or district (including landscapes) listed in or determined to be eligible for listing in the California Register, or determined by a lead agency to be significant in the architectural, engineering,

scientific, economic, agricultural, educational, social, political, or cultural annals of California. The following discussion will focus on architectural and structural resources.

Potential impacts on architectural resources are assessed by identifying any activities that could affect resources that have been identified as historical resources for the purposes of CEQA. Resources identified as historical resources under CEQA include those that are significant because of their association with important events, people, or architectural styles or master architects, or for their informational value (National Register and California Register Criteria A/1, B/2, C/3, and D/4) and that retain sufficient historical integrity to convey their significance. Criterion D/4, however, is typically applied to the evaluation of historical archeological resources and not to architectural resources, as described below.

Once a resource has been identified as a CEQA historical resource, it then must be determined whether the impacts of the project would "cause a substantial adverse change in the significance" of the resource (CEQA Guidelines Section 15064.5[b]). A substantial adverse change in the significance of a historical resource means "physical demolition, destruction, relocation, or alteration of the resource or its immediate surroundings such that the significance of the historic resource would be materially impaired" (CEQA Guidelines Section 15064[b][1]). A historical resource is materially impaired through the demolition or alteration of the resource's physical characteristics that convey its historical significance and that justify its inclusion in the California Register (CEQA Guidelines Section 15064.5[b][2][A]).

Archeological Resources

Archeological resources are considered both as historical resources according to Section 15064.5 as well as unique archeological resources as defined in Section 21083.2(g). The significance of most prehistoric and historical archeological sites is usually assessed under National Register and California Register Criterion D/4. This criterion stresses the importance of the information potential contained within the site, rather than its significance as a surviving example of a type or its association with an important person or event. Archeological resources may also be assessed under CEQA as unique archeological resources, defined as archeological artifacts, objects, or sites that contain information needed to answer important scientific research questions.

Human Remains

Human remains, including those buried outside of formal cemeteries, are protected under several state laws, including PRC Section 5097.98 and Health and Safety Code Section 7050.5. These laws are identified above in Section 5.5.2.2, State Regulations and Legal Compliance. This analysis considers impacts including intentional disturbance, mutilation, or removal of interred human remains.

Tribal Cultural Resources

CEQA Section 21074.2 requires the lead agency to consider the effects of a project on tribal cultural resources. As defined in Section 21074, tribal cultural resources are sites, features, places, cultural landscapes, sacred places, and objects with cultural value to a California Native

American tribe that are listed, or determined to be eligible for listing, on the national, state, or local register of historical resources. Both archeological resources and human remains can be considered tribal cultural resources.

Once a resource has been identified as a tribal cultural resource, public agencies shall, when feasible, avoid damaging effects and consider measures to mitigate that impact (PRC Section 21084.3). A lead agency could minimize significant adverse impacts by avoiding the resource, treating the resource with culturally appropriate dignity, which includes protecting the cultural character and integrity of the resource, protecting the traditional use of the resource, and protecting the confidentiality of the resource.

Paleontological Resources

The paleontological analysis identifies the potential to encounter paleontological resources (i.e., plant, animal or invertebrate fossils or microfossils) during excavations associated with the Program. The paleontological potential of the units to be disturbed was determined, and the potential to encounter paleontological resources at each site was evaluated. A potentially significant impact on paleontological resources would occur if: (1) construction of the program component were to move or excavate previously undisturbed geologic bedrock (native rock); and (2) the bedrock were to be disturbed has a high paleontological potential.

4.3.6 Impacts and Mitigation Measures

Impact CP-1: Construction of the proposed project could cause a substantial adverse change in the significance of the SFGH Historic District, a historical resource as defined in Section 15064.5, including those resources listed in Article 10 or Article 11 of the San Francisco Planning Code. (Potentially Significant)

CEQA Guidelines Section 15064.5 requires the lead agency to consider the effects of a project on historical resources. A historical resource is defined as a building, structure, site, object, or district (including landscapes) listed in or determined to be eligible for listing in the California Register, or determined by a lead agency to be significant in the architectural, engineering, scientific, economic, agricultural, educational, social, political, or cultural annals of California. The following discussion will focus on architectural and structural resources. Archeological resources, including archeological resources that are potentially historical resources according to Section 15064.5, are addressed below.

Impacts of the Research Building

The proposed research building would result in no direct impacts to the SFGH Historic District, such as demolition or substantial alteration of any of its contributory features. It would be constructed on the B/C Lot, which is non-contributory to the SFGH Historic District. However, the proposed project could have an indirect impact to the setting of the SFGH District because it would be within the rear viewsheds of Building 30/40 and the adjacent Building 9, the Nurse's Home, which are contributory features of the District. This impact would be reduced because the proposed research building would be located immediately south of, and adjacent to, the former

Main Hospital, a modern building that is not a contributor to the SFGH District. In addition, the rear viewsheds of Building 30/40 and 9 have been compromised by the construction of the former Main Hospital and the adjacent parking lot. Contributory District features located near the project site, including a fence, a guardhouse and two gate pillars, would be retained in place, while a water fountain located in the B/C Lot would be relocated to a new site on the ZSFG campus.

The architectural design of the building has not been developed, and anticipated characteristics of the building are limited to height, massing, and footprint. Given the absence of specific design plans, the proposed research building could be architecturally incompatible with the nearby contributors to the SFGH Historic District. Construction of a new building within the District that is incompatible with adjacent contributors could result in a substantial alteration to the historic setting of the District, which would be considered a significant, indirect impact to historical resources under CEQA. Implementation of Mitigation Measure CP-1, Design Guidelines for New Construction, would ensure that the proposed project would be compatible with the SFGH Historic District, would maintain the District's character and integrity, and would be in substantial conformance with the *Secretary of the Interior's Standards for Rehabilitation*. These guidelines were developed by the architecture firm Architectural Resources Group (ARG) in 2016 specifically for use in this EIR (ARG, 2016).

As shown in Table 4.3.1, historic resources located more than 25 feet away from the source of the construction-related vibration would generally fall below the standard damage threshold caused by various types of construction equipment. Construction of the proposed research building would generate construction-related vibration, however, the source of this vibration would be over 60 feet away from the closest historic building in the SFGH District, Building 9, and would be over 25 feet away from the historic brick guardhouse, gate pillar, and brick and metal fence on Twenty-Third Street. As such, no indirect impacts to historic architectural resources are anticipated from construction-related vibration.

Mitigation Measure CP-1: Design Guidelines for the Research Building.

The design of the proposed research building shall adhere to the following design guidelines.

Siting

1. The west elevation of the building should be generally parallel to the north-south entry road that bisects the campus. At the ground level, the setback of the building from this north-south road should be similar in extent to the setbacks from this road exhibited by Building 1/1A/1B/1C, Building 9, Building 10/20, and Building 30/40.

2. In keeping with the site's urban setting, the south elevation of the building should be generally rectilinear and parallel to Twenty-Third Street.

Height, Scale and Massing

1. The height of the building should be kept at or below the 85-foot-height of Buildings 10/20 and 30/40. This height is exclusive of rooftop mechanical equipment, assuming such equipment is sufficiently setback and differentiated in material that is does not "read" as a vertical extension of the façade.

2. The façades of the new building should have a vertical orientation that is underscored by bays at the building corners that project relative to the central portions of the façades.

3. Blank, mirrored, or opaque facades should be avoided.

4. On the south and west façades, architectural elements should be used to divide the façades into intervals similar to those found elsewhere in the District, including Building 9 and the Building 30/40 "finger wards." This could be accomplished through a variety of means, including the use of bays, setbacks, horizontal belt courses, and/or changes in material or ornamentation.

Materials and Cladding

1. Given the prevalence of brick within the SFGH Historic District, the use of masonry (including brick and terra cotta) exclusively or in combination with other compatible exterior cladding materials is encouraged. Masonry should be a prominent material if used in combination with other materials.

2. New construction should use materials in a manner that creates details and textures that draw from the District and that give the building a three-dimensional character. Monolithic wall treatments should be avoided.

Windows

1. Fenestration patterns and proportions, as well as the percent of the façade devoted to fenestration, should be consistent with the District, especially adjacent contributory buildings (Buildings 9 and 30/40). Building 9 features recessed, double-hung, wood sash windows of either round arched or rectangular shape that are arranged singly and in pairs. Building 30/40 exhibits a variety of window types. Most of the building's windows are recessed, double-hung, wood sash windows of round arched or rectangular shape that are arranged either singly or in groups of three. The fifth floor (added in 1931) features wood sash, paired casement windows surmounted by arched transom and separated by terra cotta colennettes. The chamfered, east-facing bays of the building feature rectangular, wood sash, paired casement windows surmounted by rectangular transoms. These windows are arranged singly, in pairs and in groups of four. Accordingly, use of recessed, punched windows on at least substantial portions of the building exterior is encouraged. Uninterrupted expanses of full-height glazing should be avoided. Arranging windows into bands of two, three or more is encouraged.

2. In keeping with the District contributors, windows should have a vertical orientation. Use of rectangular windows and/or round arched windows is encouraged.

Street Frontage

1. The south façade of the building should incorporate at least one prominent pedestrian entry.

Site Features

1. The brick Guardhouse and Gate Pillar should be retained in their current location. If temporary relocation is necessary to accommodate construction, a Historic Architect satisfying the Secretary of the Interior's Professional Qualifications Standards should be engaged to oversee the temporary relocation and reinstallation of these historic resources.

2. The brick and metal fence along the southern edge of the site should be retained in its current location. If temporary relocation of any portion of the fence is necessary to accommodate construction, a Historic Architect satisfying the Secretary of the Interior's Professional Qualifications Standards should be engaged to oversee the temporary relocation and reinstallation of this historic resource.

3. A conservator well-versed in the assessment of historic fountains and related statuary should be engaged to evaluate the feasibility of relocating the fountain, which exhibits noticeable wear and may be constructed of fairly porous cement.

4. If deemed feasible, the fountain should be moved to a location elsewhere within the SFGH Historic District that reflects the character and prominence of its original location within the grass lawn courtyard of the Tubercular Ward (the fountain should not be located between parking spots). Accordingly, the fountain should be relocated to an area south or west of the proposed building, where it can continue its current use as a planter.

Significance after Mitigation: Less than Significant.

Impacts of the Expanded Parking Garage

The proposed expansion of the ZSFG parking garage would have no significant direct or indirect impacts on the SFGH Historic District, as this project area is located to the south and outside of the District, separated by the width of Twenty-Third Street, which would provide a sufficient visual and physical buffer between these two areas. The garage itself is not considered a historical resource, and alterations to this structure would have no impact on historic resources.

Buildings fronting the existing parking garage located on San Bruno Avenue, Utah and Twenty-Fourth streets, are predominantly single- and multi-family residential, and exhibit a mixture of architectural styles and periods of construction which generally date to the first quarter of the 20th Century. Although no recorded historic resources are located on the streets fronting the ZSFG parking garage, most are more than 45 years old, and would meet the minimum age threshold for listing in the California Register of Historical Resources. If historic architectural resources were recorded in the vicinity of the parking garage as a result of future architectural survey and evaluation efforts, these potential resources would be separated from the expanded parking garage by the width of the surrounding streets, which would also provide a sufficient visual and physical buffer between these two areas.

As described above, historic resources located more than 25 feet away from the source of the construction-related vibration would generally fall below the standard damage threshold caused by various types of construction equipment. The expanded parking garage area would be over 60 feet away from the nearest contributors to the SFHG District (guardhouse and gate), and over 60 feet away from any potential historical resources along San Bruno Avenue, Utah and Twenty-Fourth streets. As such, no indirect impacts to historic resources resulting from construction-related vibration from this portion of the project are anticipated. As such, no significant direct or indirect impacts on historic resources resulting from the proposed garage expansion project are anticipated.

Mitigation: None required.

Impact CP-2: Construction of the proposed project could cause a substantial adverse change in the significance of an archeological resource pursuant to Section 15064.5. (Potentially Significant)

This section discusses archeological resources, both as historical resources according to Section 15064.5 as well as unique archeological resources as defined in Section 21083.2(g).

Given the historic and prehistoric proximity of an extensive marsh to the northwest at the intersection of Potrero Avenue and Twenty-Second Street; two 19th century prehistoric shellmound sites north of the Precita Creek marshlands; and the geoarcheologically identified paleosol (Colma Formation) land surface that extends throughout at least portions of both the garage expansion and research building C-APE, there is a reasonable likelihood that Holocene period prehistoric deposits may be present within the C-APE. There is also moderate likelihood that historical archeological features may be present within the garage expansion C-APE associated with the railway and maintenance yard whose legal significance (National Register/California Register-eligibility) cannot be determined in the absence of preparation of a research design. Domestic archeological deposits may also be within the C-APE of the eastern half of the research building associated with 19th century households occupying the dwellings/flats along former San Bruno Avenue and Vermont Street.

Excavation, grading, and the movement of heavy construction vehicles and equipment could expose and cause impacts to prehistoric and historical archeological resources, which would be a significant impact. Regarding the scientific values as archeological resources, implementation of Mitigation Measure CP-2 (Archeological Research Design, Testing and Evaluation Plan, Archeological Monitoring Program and/or Archeological Data Recovery Program) would reduce this impact to less than significant. Mitigation Measure CP-2 would formalize UCSF and the City's commitment to conduct archeological testing and monitoring (as well as data recovery, if warranted), and would require that archeological testing and monitoring program be consistent with the City's standard protocols.

> **Mitigation Measure CP-2: Archeological Research Design, Testing and Evaluation Plan, Archeological Monitoring Program and/or Archeological Data Recovery Program.**
>
> ***Archeological Research Design, Testing, and Evaluation Plan.*** Because archeological resources may be present within the C-APE for both the B/C Lot and the parking garage expansion site, the following measures shall be undertaken to avoid any potentially significant adverse effect from the proposed project on archeological resources.
>
> UCSF shall retain the services of an archeological consultant to prepare and implement an Archeological Research Design, Testing, and Evaluation Plan (ARDTEP) prior to project construction of the research building. The City shall similarly retain the services of an

archeological consultant to prepare and implement a separate ARDTEP prior to construction of the parking garage expansion.

Each ARDTEP will guide fieldwork and help to determine if identified archeological remains qualify as significant. Each ARDTEP shall be prepared by professionals who meet the Secretary of the Interior's Professional Qualifications Standards in historical archeology, prehistoric archeology, and history (36 CFR Part 61)[2], and shall be reviewed and approved by UCSF for the research building site and the City's Environmental Review Officer (ERO) for the garage expansion site.

Each ARDTEP shall address and ensure the following: (1) a geoarcheological landscape approach to identify potential presence of paleosols that may have provided living surfaces for prehistoric populations; (2) the appropriateness of specific protocols for the identification and evaluation of paleosol deposits; (3) the full exposure, documentation, and recordation of the former residences, businesses, and hospital related outbuildings; and (4) appropriate field investigation strategies for the identification and evaluation of other types of historical archeological deposits and/or features (e.g., burned structural/building contents debris, artifact filled privies, etc.).

At a minimum, the *research design* component of each ARDTEP shall contain the following sections:

- Introduction and Purpose
- Project Location and Description
- Regulatory Context
- Methods and Sources
- Holocene Landscape Evolution
- Prehistory and Ethnography
- History
- Previous Archeological Research
  - Prehistoric Archeology
  - Historical Archeology
- Archeological Research Design
- Geoarcheology
- Archival and Oral History Research
  - Block Histories by Address
- Research Context: Prehistoric Archeology
  - Research Themes and Issues
  - Data Requirements
  - Property Types: Prehistoric Archeology
  - Archeological Sensitivity: Prehistoric
- Research Context: Historical Archeology
  - Research Themes and Issues
  - Data Requirements

[2] Secretary of the Interior. Standards and Guidelines for Archeology and Historic Preservation, Professional Qualifications Standards.

  - Property Types: Historical Archeology
  - Archeological Sensitivity: Historical Archeology

At a minimum, the *testing component* of each ARDTEP will contain the following sections:

- Introduction and Purpose
- Test Areas and their Potential Significance Fieldwork Methods
- Hazardous Materials, Health, and Safety
- Treatment of Human Remains and Burial Goods Public Involvement
- Laboratory Work
  - Laboratory Methods
- Archeological Evaluation Plan: Evaluation Procedures and Criteria Integrity
- Infield Evaluation Post-field Evaluation
- Reporting and Dissemination of Results
  - Public Outreach
- Curation

Each ARDTEP will be used to inform decisions regarding project design, and will be carried out prior to project construction.

At the completion of the archeological testing program, the archeological consultant shall submit a written report of the findings to UCSF for the research building site and the City or its designated representative for the garage expansion site. If based on the archeological testing program the archeological consultant finds that significant archeological resources may be present, UCSF and the City or its designated representative in consultation with the archeological consultant shall determine if additional measures are warranted for each respective site. Additional measures that may be undertaken include additional archeological testing, archeological monitoring, and/or an archeological data recovery program. No archeological data recovery shall be undertaken without the prior approval of UCSF for the research building site and the City or its designated representative for the garage expansion site. If UCSF determines that a significant archeological resource is present on the research building site, or the City or its designated representative determines that a significant archeological resource is present on the garage expansion site, and that the resource could be adversely affected by the proposed project, at the discretion of UCSF or the City either:

A. The proposed research building or garage expansion shall be re-designed so as to avoid any adverse effect on the significant archeological resource; or

B. A data recovery program shall be implemented, unless UCSF (for the research building site) or the City or its designated representative (for the garage expansion site) determines that the archeological resource is of greater interpretive than research significance and that interpretive use of the resource is feasible.

Consultation with Descendant Communities. On discovery of an archeological site[3] associated with descendant Native Americans, the Overseas Chinese, or other descendant

[3] By the term "archeological site" is intended here to minimally include any archeological deposit, feature, burial, or evidence of burial.

group on the research building site or garage expansion site, an appropriate representative[4] of the descendant group and UCSF (for the research building site) and the City or its designated representative (for the garage expansion site) shall be contacted. The representative of the descendant group shall be given the opportunity to monitor archeological field investigations of the sites and to consult with UCSF regarding the research building site, and the City or its designated representative for the garage expansion site, regarding appropriate archeological treatment of the site, of recovered data from the site, and, if applicable, any interpretative treatment of the associated archeological site. A copy of the Final Archeological Resources Report shall be provided to the representative of the descendant group.

Archeological Monitoring Program. If UCSF (for the research building site) or the City or its designated representative (for the garage expansion site) in consultation with the archeological consultant determines that an archeological monitoring program shall be implemented, the archeological monitoring program for each respective site shall minimally include the following provisions:

- The archeological consultant and UCSF (for the research building site) or the City or its designated representative (for the garage expansion site) shall meet and consult on the scope of the archeological monitoring program (AMP) reasonably prior to any project-related soils disturbing activities commencing. UCSF (for the research building site) or the City or its designated representative (for the garage expansion site) in consultation with the archeological consultant shall determine what project activities shall be archeologically monitored. In most cases, any soils- disturbing activities, such as demolition, foundation removal, excavation, grading, utilities installation, foundation work, driving of piles (foundation, shoring, etc.), site remediation, etc., shall require archeological monitoring because of the risk these activities pose to potential archeological resources and to their depositional context;

- The archeological consultant shall advise all project contractors to be on the alert for evidence of the presence of the expected resource(s), of how to identify the evidence of the expected resource(s), and of the appropriate protocol in the event of apparent discovery of an archeological resource;

- The archeological monitor(s) shall be present on each respective project site according to a schedule agreed upon by the archeological consultant and UCSF (for the research building site) or the City or its designated representative (for the garage expansion site) until UCSF or the City or its designated representative has, in consultation with project archeological consultant, determined that project construction activities could have no effects on significant archeological deposits;

- The archeological monitor shall record and be authorized to collect soil samples and artifactual/ecofactual material as warranted for analysis;

- If an intact archeological deposit is encountered, all soils-disturbing activities in the vicinity of the deposit shall cease. The archeological monitor shall be empowered to

[4] An "appropriate representative" of the descendant group is here defined to mean, in the case of Native Americans, any individual listed in the current Native American Contact List for the City and County of San Francisco maintained by the California Native American Heritage Commission and in the case of the Overseas Chinese, the Chinese Historical Society of America. An appropriate representative of other descendant groups should be determined in consultation with the Department archeologist.

temporarily redirect demolition/excavation/pile driving/ construction activities and equipment until the deposit is evaluated. If in the case of pile driving activity (foundation, shoring, etc.), the archeological monitor has cause to believe that the pile driving activity may affect an archeological resource, the pile driving activity shall be terminated until an appropriate evaluation of the resource has been made in consultation with UCSF (for the research building site) or the City or its designated representative (for the garage expansion site). The archeological consultant shall immediately notify UCSF (for the research building site) or the City or its designated representative (for the garage expansion site) of the encountered archeological deposit. The archeological consultant shall make a reasonable effort to assess the identity, integrity, and significance of the encountered archeological deposit, and present the findings of this assessment to UCSF or the City or its designated representative, respectively.

Whether or not significant archeological resources are encountered, the archeological consultant shall submit a written report of the findings of the monitoring program to UCSF (for the research building site) or the City or its designated representative (for the garage expansion site).

Archeological Data Recovery Program. If UCSF (for the research building site) or the City or its designated representative (for the garage expansion site) in consultation with the archeological consultant determines that an archeological data recovery program shall be implemented, the archeological data recovery program shall be conducted in accord with an archeological data recovery plan (ADRP). The archeological consultant and UCSF (for the research building site) or the City or its designated representative (for the garage expansion site) shall meet and consult on the scope of the ADRP prior to preparation of a draft ADRP. The archeological consultant shall submit a draft ADRP to UCSF (for the research building site) or the City or its designated representative (for the garage expansion site). The ADRP shall identify how the proposed data recovery program will preserve the significant information the archeological resource is expected to contain. That is, the ADRP will identify what scientific/historical research questions are applicable to the expected resource, what data classes the resource is expected to possess, and how the expected data classes would address the applicable research questions. Data recovery, in general, should be limited to the portions of the historical property that could be adversely affected by the proposed project. Destructive data recovery methods shall not be applied to portions of the archeological resources if nondestructive methods are practical.

The scope of the ADRP shall include the following elements:

- *Field Methods and Procedures*. Descriptions of proposed field strategies, procedures, and operations.
- *Cataloguing and Laboratory Analysis*. Description of selected cataloguing system and artifact analysis procedures.
- *Discard and Deaccession Policy*. Description of and rationale for field and post-field discard and deaccession policies.
- *Interpretive Program*. Consideration of an on-site/off-site public interpretive program during the course of the archeological data recovery program.

- *Security Measures*. Recommended security measures to protect the archeological resource from vandalism, looting, and non-intentionally damaging activities.
- *Final Report*. Description of proposed report format and distribution of results.
- *Curation*. Description of the procedures and recommendations for the curation of any recovered data having potential research value, identification of appropriate curation facilities, and a summary of the accession policies of the curation facilities.

Human Remains and Associated or Unassociated Funerary Objects. The treatment of human remains and of associated or unassociated funerary objects discovered during any soils disturbing activity shall comply with applicable State and Federal laws. This shall include immediate notification of the Coroner of the City and County of San Francisco and in the event of the Coroner's determination that the human remains are Native American remains, notification of the California State Native American Heritage Commission (NAHC) who shall appoint a Most Likely Descendant (MLD) (PRC Section 5097.98). The archeological consultant and UCSF (for the research building site) or the City or its designated representative (for the garage expansion site), and MLD shall make all reasonable efforts to develop an agreement for the treatment of, with appropriate dignity, human remains and associated or unassociated funerary objects (CEQA Guidelines Section 15064.5[d]). The agreement should take into consideration the appropriate excavation, removal, recordation, analysis, custodianship, curation, and final disposition of the human remains and associated or unassociated funerary objects.

Final Archeological Resources Report. The archeological consultant shall submit a Draft Final Archeological Resources Report (FARR) to UCSF (for the research building site) or the City or its designated representative (for the garage expansion site) that evaluates the historical significance of any discovered archeological resource and describes the archeological and historical research methods employed in the archeological testing/monitoring/data recovery program(s) undertaken. Information that may put at risk any archeological resource shall be provided in a separate removable insert within the final report.

Once approved by UCSF (for the research building site) or the City or its designated representative (for the garage expansion site), copies of the FARR shall be distributed as follows: California Archeological Site Survey Northwest Information Center (NWIC) shall receive one (1) copy and UCSF (for the research building site) or the City or its designated representative (for the garage expansion site) shall receive a copy of the transmittal of the FARR to the NWIC. The Environmental Planning division of the Planning Department shall receive one bound, one unbound and one unlocked, searchable PDF copy on CD of the FARR (for the garage expansion site) along with copies of any formal site recordation forms (CA DPR 523 series) and/or documentation for nomination to the National Register of Historic Places/California Register of Historical Resources. In instances of high public interest in or the high interpretive value of the resource, the City or its designated representative may require a different final report content, format, and distribution than that presented above for the garage expansion site.

Significance after Mitigation: Less than Significant.

Impact CP-3: Construction of the proposed project could disturb any human remains, including those interred outside of formal cemeteries. (Potentially Significant)

Based on the background research and geological assessment, there is generally a low potential for project construction to uncover human remains. Although no known human burials have been identified within the project C-APE, the possibility of encountering human remains cannot be entirely discounted. Earth-moving activities associated with project construction could result in direct impacts on previously undiscovered human remains.

If encountered, the treatment of human remains and of associated or unassociated funerary objects discovered during any soils disturbing activity shall comply with applicable State and federal laws, including immediate notification of the Coroner of the City and County of San Francisco and in the event of the Coroner's determination that the human remains are Native American remains, notification of the California State Native American Heritage Commission (NAHC) who shall appoint a Most Likely Descendant (MLD) (PRC Section 5097.98).

UCSF (for the research building site) or the City (for the garage expansion site) would be required to retain a qualified archeological consultant, who in conjunction with UCSF (for the research building site) or the City (for the garage expansion site) and the MLD, shall make all reasonable efforts to develop an agreement for the treatment of, with appropriate dignity, human remains and associated or unassociated funerary objects (CEQA Guidelines Section 15064.5[d]). The agreement should take into consideration the appropriate excavation, removal, recordation, analysis, curation, possession, and final disposition of the human remains and associated or unassociated funerary objects.

These requirements are consistent with provisions listed in Mitigation Measure CP-2, Archeological Research Design, Testing and Evaluation Plan, Archeological Monitoring Program and/or Archeological Data Recovery Program.

Because the project would be required to comply with the regulations described above and to implement the measures specified under those regulations, impacts related to disturbance of human remains would be less than significant.

Significance after Mitigation: Less than Significant

Impact CP-4: Construction of the proposed project could cause a substantial adverse change in the significance of a tribal cultural resource as defined in PRC Section 21074. (Potentially Significant)

CEQA Section 21074.2 requires the lead agency to consider the effects of a project on tribal cultural resources. As defined in Section 21074, tribal cultural resources are sites, features, places, cultural landscapes, sacred places, and objects with cultural value to a California Native American tribe that are listed, or determined to be eligible for listing, on the national, state, or local register of historical resources. Background research at the NWIC did not reveal recorded tribal cultural resources in the

C-APE. On January 20, 2016 UCSF sent letters to five tribes who requested information on UCSF projects in San Francisco. No responses were received. Based on the results of the background research and consultation efforts, the project would have a less than significant impact on tribal cultural resources. In the event that construction activities disturb previously unrecorded archeological sites that are also considered tribal cultural resources, inadvertent damage would be considered a significant impact. With implementation of Mitigation Measure CP-2, Archeological Research Design, Testing and Evaluation Plan, Archeological Monitoring Program and/or Archeological Data Recovery Program as described above, the proposed project would have a less-than-significant impact on previously unrecorded tribal cultural resources.

Significance after Mitigation: Less than Significant

Impact CP-5: Construction of the proposed project could directly or indirectly destroy a unique paleontological resource or site, or a unique geologic feature. (Potentially Significant)

A significant impact would occur if a project would destroy a unique paleontological resource or site, or a unique geologic feature. Based on the assessment provided above there is the potential to encounter and adversely impact paleontological resources at the research building and/or the parking garage expansion sites, which could result in a significant impact. This impact would be reduced to less-than-significant level with implementation of Mitigation Measure CP-5, Inadvertent Discovery of Paleontological Resources. This requires the contractor to stop all ground disturbance within 50 feet if a paleontological resource is encountered during excavation and to implement actions to investigate the discovery and recover the fossil remains by a qualified professional, as appropriate, before ground disturbing activities can resume.

Mitigation Measure CP-5: Inadvertent Discovery of Paleontological Resources.

The following measures shall be implemented should construction result in the accidental discovery of paleontological resources:

To reduce the potential for the proposed project to result in a significant impact on paleontological resources, UCSF (for the research building site) or the Planning Department (for the garage expansion site) shall arrange for a paleontological training by a qualified paleontologist regarding the potential for such resources to exist in the project site and how to identify such resources. The training could consist of a recorded presentation of the initial training that could be reused for new personnel. The training shall also include a review of penalties for looting and disturbance of these resources. An alert sheet shall be prepared by the qualified paleontologist and shall include the following:

1. A discussion of the potential to encounter paleontological resources.
2. Instructions for reporting observed looting of a paleontological resource; and instructions that if a paleontological deposit is encountered within a project area, all soil disturbing activities in the vicinity of the deposit shall cease and UCSF

(for the research building site) or the Planning Department (for the garage expansion site) shall be notified immediately.

3. Who to contact in the event of an unanticipated discovery.

If potential fossils are discovered by construction crews, all earthwork or other types of ground disturbance within 50 feet of the find shall stop immediately until the qualified professional paleontologist can assess the nature and importance of the find. Based on the scientific value or uniqueness of the find, the paleontologist may record the find and allow work to continue, or recommend salvage and recovery of the fossil. The paleontologist may also propose modifications to the stop-work radius based on the nature of the find, site geology, and the activities occurring on the site. If treatment and salvage is required, recommendations shall be consistent with the Society of Vertebrate Paleontology 2010 guidelines and currently accepted scientific practice, and shall be subject to review and approval by UCSF (for the research building site) or the City or designee (for the garage expansion site). If required, treatment for fossil remains may include preparation and recovery of fossil materials so that they can be housed in an appropriate museum or university collection, and may also include preparation of a report for publication describing the finds. UCSF (for the research building site) or the City (for the garage expansion site) shall be responsible for ensuring that treatment is implemented and reported. If no report is required, UCSF or the City shall nonetheless ensure that information on the nature, location, and depth of all finds is readily available to the scientific community through university curation or other appropriate means.

Significance after Mitigation: Less than Significant.

4.3.6.1 Cumulative Impacts

The geographic scope for potential cumulative impacts encompasses past, present, and reasonably foreseeable projects within the SFGH District, as well as those in the immediately surrounding neighborhood, that could affect cultural resources. The list of reasonably foreseeable future actions in the neighborhood surrounding the ZSFG campus is based on a review of the San Francisco Planning Department's list of active permits.

Historic Architectural Resources

The 2008 SFGH Rebuild Program EIR identified a significant and unavoidable impact to the integrity of the SFGH District resulting from the construction of the new acute care hospital (renamed the Priscilla Chan and Mark Zuckerberg San Francisco General Hospital and Trauma Center in 2015). The EIR stated that, "The hospital would result in the loss of the remaining few contributing landscape features, and would disrupt important visual and spatial relationships that define the SFGH District as a significant concentration of buildings united by common historical values. The proposed project would overwhelm the ordered design of the SFGH District envisioned by Newton J. Tharp as an expression of the City Beautiful Movement. For these reasons, the proposed project would result in an adverse impact that would be considered a significant impact under CEQA. While the project sponsor would implement the Architectural

Resources Mitigation Measures to reduce the severity of impacts to the architectural resources, this would not reduce the impacts to a less-than-significant level." (San Francisco Planning Department, 2008).

The proposed research building would alter the SFGH District by introducing a new, five-story, 175,000 gsf building within the boundaries of the District, which could combine with impacts of the SFGH Rebuild Program. Implementation of Mitigation Measure CP-1 Design Guidelines for New Construction, would assure that the new facility is architecturally compatible with the character-defining features of the District, thereby reducing both the individual and cumulative impact of the proposed project to a less-than-significant level.

Reasonably foreseeable projects in the vicinity of the ZSFG campus includes relatively minor alterations primarily to smaller scale residential buildings, such as vertical and horizontal additions to single family homes, which would not be expected to have significant adverse impacts on historic architectural resources, including any which could combine with the impacts of the proposed project to form a significant cumulative impact to historic resources.

Archeological Resources, Tribal Cultural Resources, and Human Remains

As discussed in Impacts CP-2 and CP-3, excavation associated with the proposed project would have a significant impact related to the potential to encounter previously unrecorded archeological resources and/or human remains interred outside of a formal cemetery. Cumulative projects in the proposed project vicinity could also involve excavation that has the potential to encounter previously unrecorded archeological resources or human remains, which would be a potentially significant cumulative impact. The proposed project's contribution to this impact would be cumulatively considerable.

As discussed in Impacts CP-2 and CP-3, the proposed project's potential to encounter previously unrecorded archeological resources and human remains would be reduced to a less-than-significant level with implementation of Mitigation Measures CP-2 (Archeological Research Design, Testing and Evaluation Plan, Archeological Monitoring Program and/or Archeological Data Recovery Program) (see Impact CP-2, above, for description). These measures require that if an archeological resource may be present within the project area, UCSF or the City is required to retain the services of a qualified archeological consultant to assist in evaluating the find. With regard to the accidental discovery of human remains, in particular, the San Francisco County coroner must be notified immediately, and, in the event the coroner determined that the remains were Native American, the NAHC must be notified. Implementation of these measures would effectively avoid damage to or loss of resources, and little to no residual impact would remain after mitigation. With implementation of these mitigation measures, the project's contribution to this cumulative impact would not be cumulatively considerable (less than significant).

As discussed in Impact CP-4, tribal cultural resources in the project area or in the vicinity have not been identified. Assuming none are identified, there would be no cumulative impact to tribal cultural resources from implementation of the proposed project.

Paleontological Resources

As discussed in Impact CP-5, the proposed project could have a significant impact related to the potential to encounter paleontological resources during excavation within Pleistocene-age alluvium, which has a high paleontological potential. Cumulative projects in the proposed project vicinity may involve excavation in the same geologic unit or other paleontologically sensitive landforms. These cumulative projects could also encounter paleontological resources during construction, which would be a potentially significant cumulative impact, and the proposed project's contribution to this impact would be cumulatively considerable.

Impact CP-5 notes that the proposed project's impacts on paleontological resources would be site-specific and limited to the project construction areas, and would be reduced to a less-than-significant level with implementation of Mitigation Measure CP-5 (Inadvertent Discovery of Paleontological Resources) (see Impact CP-5, above, for description). This measure requires UCSF at the research building site and the Planning Department at the garage expansion site ensure proper procedures are followed in the event that potentially significant resources are unearthed. Implementation of this mitigation measure would ensure that any paleontological resources encountered during construction would be recovered and appropriately managed. Implementation of this measure would effectively avoid damage to or loss of resources, and little to no residual impact would remain after mitigation. Therefore, the proposed project's contribution to this cumulative impact would not be cumulatively considerable (less than significant).

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Architectural
Resources Group

Architecture
Planning
Conservation

Historical Background and Design Criteria
UCSF Research Facility at ZSFG

Prepared for

University of California, San Francisco (UCSF) Campus Planning

Prepared by

Architectural Resource Group, Inc.
San Francisco, CA

Revised March 2016

Architectural
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Historical Background and Design Criteria
UCSF Research Facility at Priscilla Chan and Mark Zuckerberg San Francisco General Hospital and Trauma Center
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1. Introduction

The University of California, San Francisco (UCSF) has engaged Architectural Resources Group (ARG) to review a proposed research facility that would be located on the campus of the Priscilla Chan and Mark Zuckerberg San Francisco General Hospital and Trauma Center (ZSFG). The ZSFG campus has been identified as a historic district eligible for listing on the National Register of Historic Places.[1] In support of the environmental review being conducted for the project, ARG was asked to review historical documentation pertaining to the ZSFG campus and identify design criteria for the building that would ensure the facility would be in keeping with the *Secretary of the Interior's Standards for Rehabilitation*. (See Appendix C for a discussion of these Standards.) Following submittal of the draft version in August 2015, ARG made minor revisions to the report in January 2016 in response to Planning Department comments on the draft. Additional revisions were made following in response to comments from the Architectural Review Committee of the Historic Preservation Commission.

2. Project Description

UCSF is proposing to build a research facility on the portion of the ZSFG campus known as B/C Lot. (See Figures 1-3.) This surface parking lot is located in the southeast corner of the ZSFG campus, at the northwest corner of Vermont and 23rd Streets. (Photographs of the project site are included below in Appendix A.) The proposed research facility will comprise approximately 175,000 square feet, of which approximately sixty percent will be dry laboratory space and the remainder wet laboratory space. Historic features at the site, including a fence, a guardhouse and two gate pillars, will be retained in place, while a water fountain located in the B/C Lot will be relocated to a new site on the ZSFG campus. For purposes of ARG's analysis, the project is assumed to also include the creation of a campus street on the north side of the proposed research facility, with circulation space, landscaping, and a one-way eastbound driveway. At this time, an architectural design for the building has not been developed and anticipated characteristics of the building are limited to height, massing and footprint. (Higher resolution versions of the following site plan and massing diagram of the proposed facility are included below in Appendix B.)

[1] LSA Associates, "Historical Resources Evaluation Report for the San Francisco General Hospital Seismic Compliance Replacement Program," Prepared for the City and County of San Francisco, March 2008.

Figure 1. Map of Priscilla Chan and Mark Zuckerberg San Francisco General Hospital and Trauma Center.

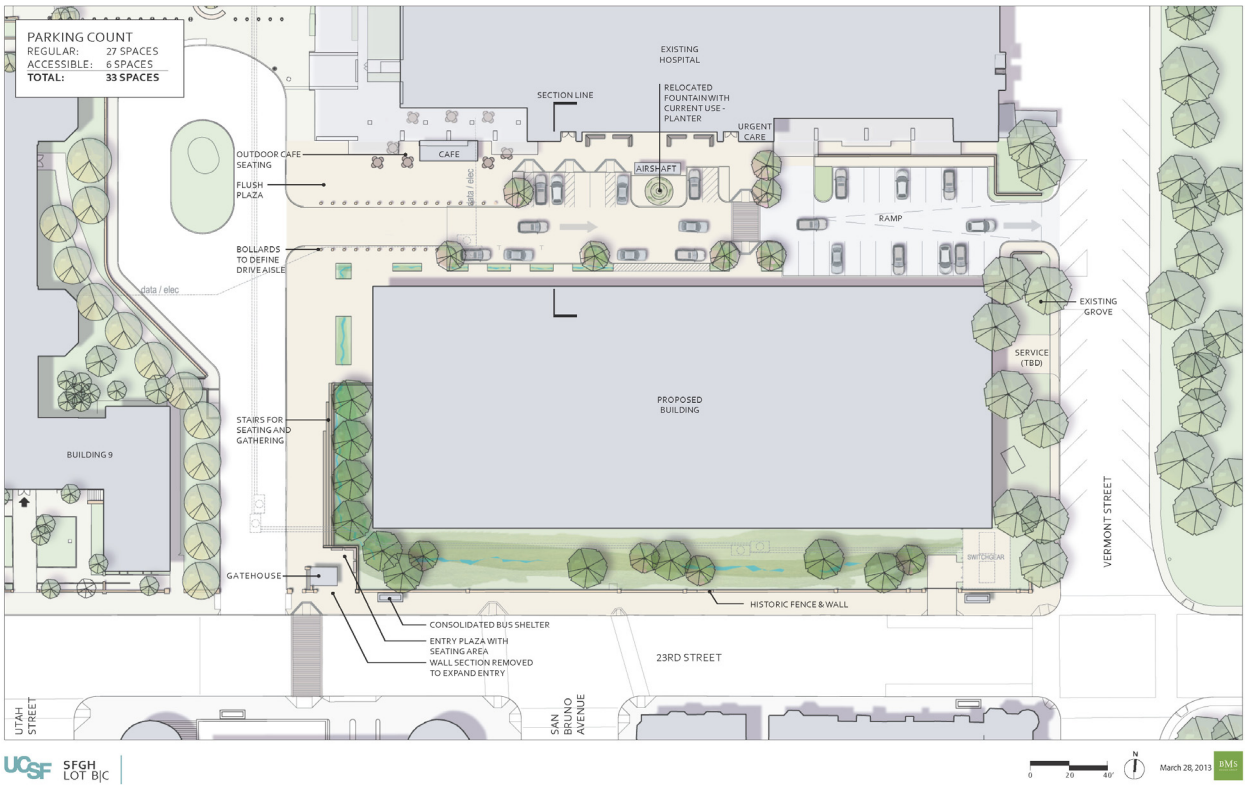


Figure 2. Site Plan, UCSF Research Facility.

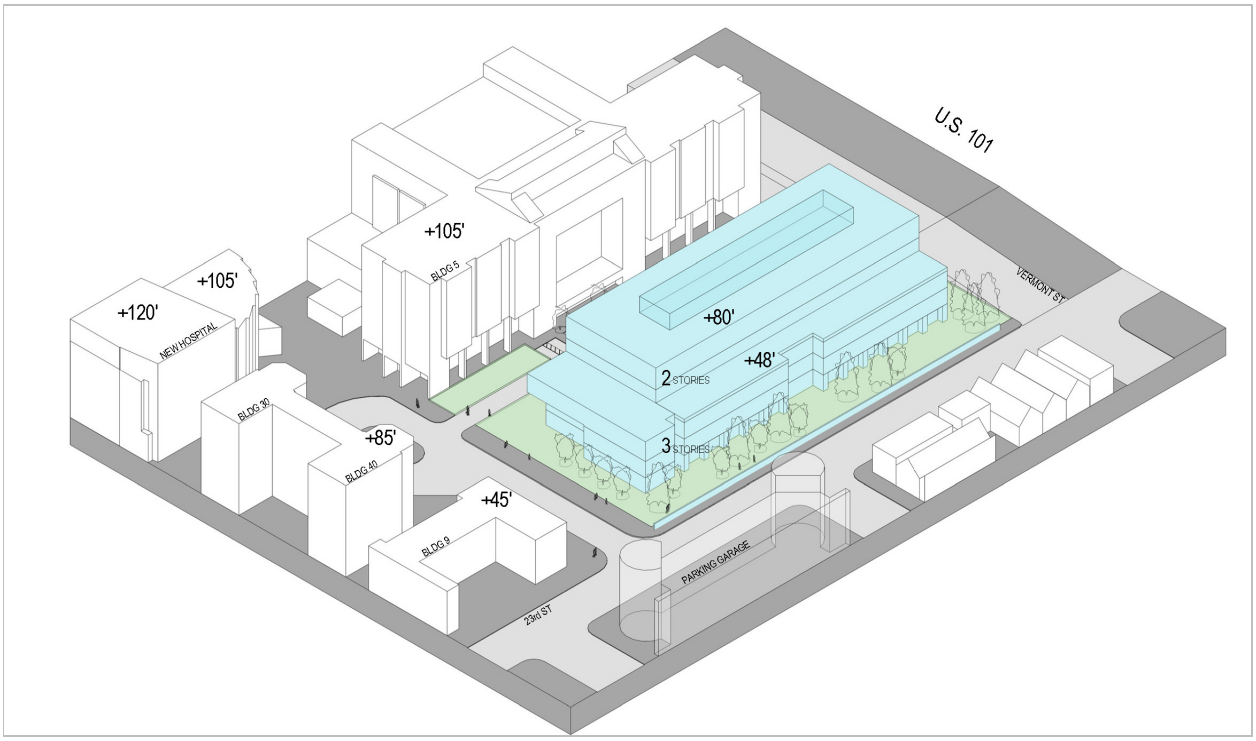


Figure 3. Massing Diagram, UCSF Research Facility.

3. Historical Background

3.1 San Francisco General Hospital

The ZSFG campus is located along Potrero Avenue in the Potrero district of San Francisco and was until recently known as San Francisco General Hospital (SFGH).[2] The campus is bound to the east and north by US-101, to the south by Vermont Street, and to the west by Potrero Avenue. The original campus was designed by Newton J. Tharp, City Architect of San Francisco, and completed in 1915. According to LSA Associates' 2008 HRER (and Page & Turnbull's 2003 evaluation on which it is based), the SFGH Historic District appears eligible for National Register listing under Criterion A (Events/Pattern of Events) "for its association with the development of San Francisco's public health system, as well as for its contributions to national public health trends, medical research, and education in the 20th century" and under Criterion C (Architecture) "as a distinctively planned architectural complex dedicated to the administration and delivery of health care in the early 20th century, and as the work of a master architect."[3] The District's period of significance extends from 1915 to 1938.

Six extant buildings were identified as contributors to the historic district:

- Building 1/1A/1B/1C – Receiving Building (1915)
- Building 9 – Nurse's Home (1915)
- Building 10/20 – Hospital Wards (1915)
- Building 30/40 – Hospital Wards (1915)
- Building 80/90 – Ambulatory Care (1938)
- Building 100 – Isolation Hospital (1917)

LSA also identified several landscape features that contribute to the SFGH Historic District, including:

- Brick and steel perimeter fencing
- Brick gatehouses on Potrero Avenue and 23rd Street
- Gate pillars on 23rd Street [the west pillar is no longer present]
- Brick bus shelter along Potrero Avenue
- Three-tiered fountain in Lot B/C
- Formal pedestrian entry at Potrero Avenue with staircase, period light standards and flagpole [demolished to accommodate acute care hospital]

The four contributing buildings constructed in 1915 were designed by Newton J. Tharp in the Second Renaissance Revival style. Building 100 was designed by Fred K. Meyer and John Reid Jr., Associates in the same Second Renaissance Revival Style. Building 80/90 was designed by Martin J. Rist in the Art Deco style, but like the other contributors, features brick cladding with terra cotta details.

When completed in 1915, the SFGH campus was the city's most comprehensive and modern health facility.[4] Buildings 10/20 and 30/40 exhibit the "Nightingale" or finger ward plan that was once characteristic of the campus as a whole. This design was meant to maximize light, ventilation and

[2] Throughout this report, the SFGH acronym will be used only in specific reference to the historic San Francisco General Hospital campus.
[3] LSA Associates (2008), 1, 4.
[4] LSA Associates (2008), 17.

sanitary conditions and was common in hospital construction in the nineteenth century until the early twentieth century, when it was replaced with modern hospital blocks. As such, "the wards at SFGH represent perhaps some of the last of their type to be built during the era."[5]

The tuberculosis hospital at SFGH was demolished to make way for the Main Hospital, construction of which was completed in 1976.[6] Architects Stone, Marraccini, and Patterson designed the Main Hospital in the Brutalist style, in marked contrast to the existing buildings on the campus.

Character-Defining Features, SFGH Historic District
LSA Associates identified the following character-defining features of the SFGH Historic District. The design criteria specified below ensure that these features will not be affected adversely by the proposed UCSF Research Facility.

Overall Form and Continuity
Building heights on the original campus were up to five stories, with the fifth stories of the finger wards (Buildings 10/20 and 30/40) added in 1931. Other original buildings are two-to-three stories in height (Buildings 1, 9, and 100), while the 1930s Building 80/90 is seven stories high.

Age
All five of the extant Second Renaissance Revival buildings on the original core campus were constructed in 1915-1917, while the Art Deco Building 80/90 was completed in 1938.

Scale and Proportion
The contributing buildings of the SFGH District have different masses and shapes, varying from long narrow finger wards, to blocks with wings, to U-shaped and multi-winged U-shaped. All of the original buildings reflect elements of Second Renaissance Revival style architecture in arches, horizontal configurations, scale, mass, proportion, and flat or gabled rooflines. The Art Deco Building 80/90, however, is much higher and more massive, and reflects the scale and vertical banding and rhythm of its period. None of the contributing buildings, however, have the mass of the Main Hospital.

Fenestration
Windows in Buildings 1, 9, and 100 are recessed. Some of the windows are rectangular, one-over-one light, double hung, frame sash. Other windows are paired or grouped and arched with terra cotta emblems, and some have single rectangular openings embellished with brick corbelling and terra cotta spandrels. Fenestration on the finger wards consists of horizontal bands of flat-arched, one-over-one light, double hung, wood frame windows, with groups of triple-arched and flat-arched windows on the sanitary towers. The façades emphasize a horizontal configuration defined by fenestration, and relate to each other in shape and proportion. Building 80/90 has slightly recessed vertical window openings, as well as bay windows distinguished by copper cladding forming window mullions and spandrels with pre-cast upper window hoods. Original windows include eight-light, casement sash units topped with paired, four-light transom units. Some windows on the contributing buildings have been replaced, covered with glass or clay bricks or otherwise modified, but most are original.

[5] LSA Associates (2008), 18.
[6] LSA Associates (2008), 22.

Materials

All the 1915-1938 buildings are constructed of reinforced concrete, faced with polychrome Flemish bond brick, featuring decorative brick and terra cotta detailing and arched or rectangular window openings. Gable and shed roofs are covered with clay Mission tiles, while flat roofs are coated with tar and gravel. Window frames are wood. Building 80/90 has pre-cast stone sills, stone hoods, water tables, coping stones, and copper spandrels and mullions; the primary entry features double bronze doors.

Color

Red and "clinker" brick colors predominate, with terra cotta emblems, cornices, columns, colonnettes, corbels, spandrels, stringcourses, and water tables. Clay roof tiles are red or green, and copper cladding is green.

Texture

Overall texture of the contributing buildings in the SFGH District is rough brick accented with smooth terra cotta.

Detail

The original mid-1910s Second Renaissance Revival style campus contains extensive period architectural detail. Generally, the façades emphasize a horizontal configuration defined by the fenestration, a coping band or water table at the foundation, a stringcourse band, and the cornice. Brick detailing includes corbelled cornices, arched window openings, decorative friezes, tympanums, parapets, decorative bonds, and diamond shaped and other patterning. Terra cotta details include coping, spandrels, cornices, emblems, insets, colonnettes, panels, medallions, and other features. Art Deco features on Building 80/90 include pre-cast stone coping, windowheads, entries, hoods, sills, stringcourses, and water tables, as well as copper clad bay windows and bronze doors.

Landscape Features

The SFGH District is bounded by brick and steel perimeter fencing, constructed of brick posts with terra cotta capitals and medallions, interspersed with vertical metal railings. The primary entries are characterized by double-arched decorative metal gates. Brick gatehouses, located at each primary entry to the south campus (one each on Potrero Avenue and 23rd Street, as well as one at the entry to the north campus on 22nd Street), feature gable and parapet Mission tile roofs, Craftsman brackets, doors, and windows with metal grilles. The brick bus shelter, with Mission tile gable roof, arched bays, and Palladian windows, is also an important feature. The wide concrete stairway from Potrero Avenue, flanked by brick windowpane casings with terra cotta details and formal gardens, is an important element of the 1915 design and appears to retain its integrity of design. Lighted by period metal electroliers, the stairway and gardens provide a human scale entry and a sense of arrival. Although not all dating to the 1915 period, concrete pathways, lawns, and ornamental plantings provide open spaces and contrasting greenery in the midst of the red and terra cotta colors.[7]

[7] LSA Associates (2008), 39-40. Note that the identified interior character-defining features were omitted from this list because they would not be affected by the UCSF Research Facility.

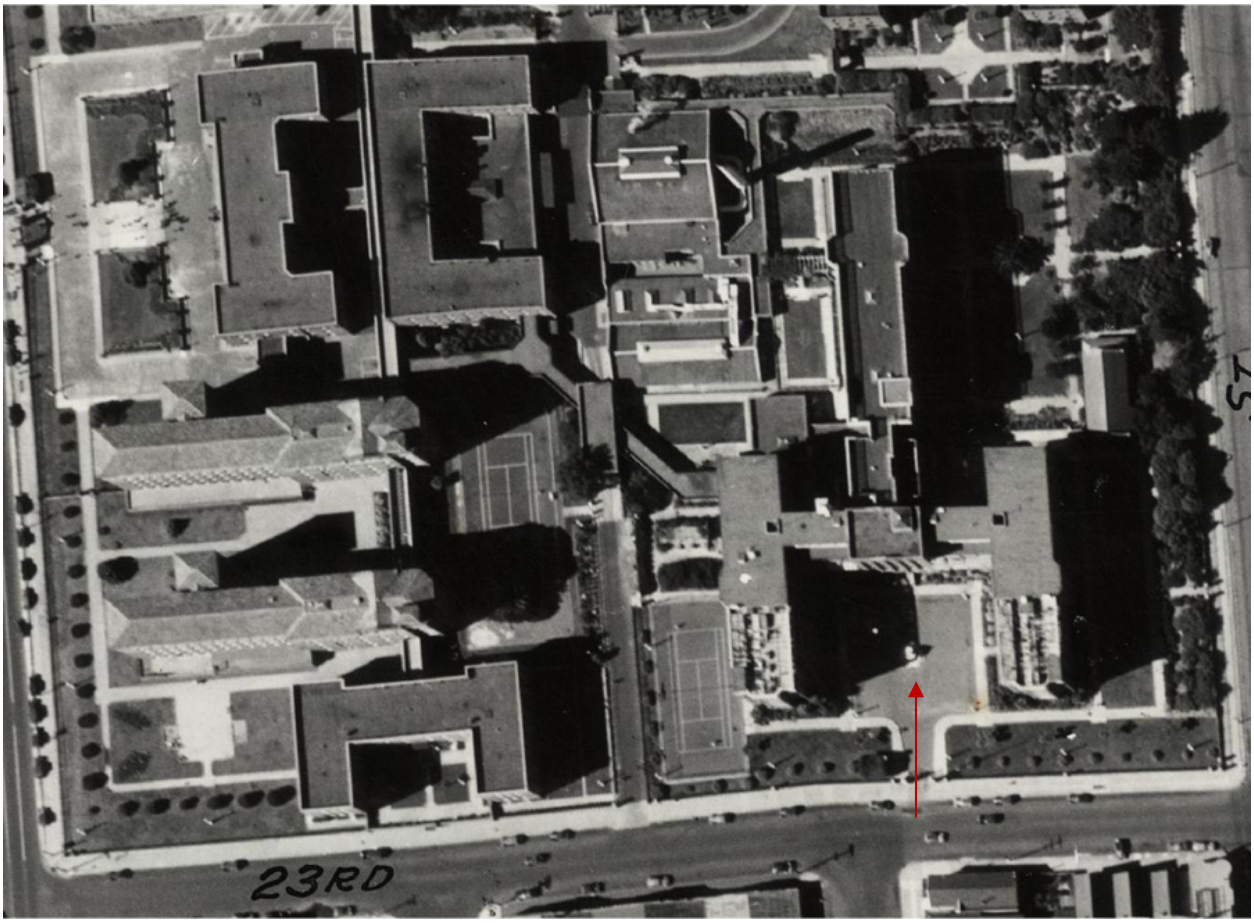


Figure 4. August 1938 aerial photograph showing the southern half of the San Francisco General Hospital campus (source: David Rumsey Map Collection, http://www.davidrumsey.com/). The fountain, which is visible in the center of the Building 50/70 courtyard, appears to be in the same location today, though it is now surrounded by a parking lot.

3.2 B/C Lot

The proposed site for the UCSF Research Facility at ZSFG is the B/C Lot, the surface parking lot at the northwest corner of Vermont and 23rd Streets. The B/C lot is separated from Building 9 (Nurse's Home) to the west by the secondary entrance drive, which extends north from 23rd Street. The B/C Lot is immediately south of the Main Hospital.

Prior to construction of the Main Hospital, this location was occupied by Building 50/70 (the Tubercular Ward), which exhibited a finger ward design similar to Buildings 10/20 and 30/40. Contributing features that are within or immediately adjacent to the B/C Lot include:

- Fountain: the three-tiered water fountain within the B/C Lot that has been converted to use as a planter was formerly located in the center of the Building 50/70 courtyard.[8] The fountain was temporarily relocated during demolition of Building 50/70 and was reinstalled atop a new base in its original location following construction of the present parking lot.

[8] LSA Associates (2008), 48.

- Guardhouse: A brick guardhouse sits at the southwest corner of the B/C Lot. This building features a clay tile-clad gable roof with paired craftsman brackets and exposed rafter tails. The entrance features a bracketed hood clad in clay tiles, and a paneled door flanked by sidelights.

- Gate Pillar: Adjacent to the Guardhouse stands a square brick pillar with concrete base and terra cotta capitol, surmounted by a metal carriage light. This is the east pillar of the two gate pillars that formerly bracketed the south entrance to the campus, which is adjacent to the B/C Lot's southwestern corner. The west pillar is no longer extant.

- Fence: A portion of the brick and steel perimeter fence that surrounds much of the SFGH Historic District extends along the southern edge of the B/C Lot. This fence consists of a low brick wall surmounted by a metal rail set between square brick posts with terra cotta capitals and medallions.

Photographs of these features are included below in Appendix A.

4. Design Criteria for the UCSF Research Facility

4.1 UCSF's Universal Planning & Design Principles

Chapter 2 of the Physical Design Framework that UCSF developed in 2010 consist of a series of "Universal Planning & Design Principles." These principles, which are included below as Appendix D, are applicable to all UCSF development sites, including the research facility proposed for the ZSFG campus. The Physical Design Framework identifies six universal planning and design principles, along with a series of guidelines for each principal:

- Respond to Context while Reinforcing Identity
- Welcome the Community
- Ensure Connectivity to and Within the Campus
- Improve Campus Cohesiveness
- Create Spaces to Promote Collegiality
- Lead Through Conservation and Sustainability

While the discussion under each principle is relevant to the ultimate design of the UCSF Research Facility, the guidelines identified in support of the first principle ("Respond to Context while Reinforcing Identity") are of particular relevance to designing the new building in a manner that does not adversely affect the SFGH Historic District. In light of this relevance, the guidelines in support of this principle are herein quoted in full:

> *Respond to Context while Reinforcing Identity*
> Given the highly varied and urban context of UCSF's sites, campus development should respond to the specific urban character of the city at each location, while still expressing a cohesive campus design vision. Campus development should embrace and contribute to the vitality of the public realm, including the public streets and edges at each location. In doing so, it will strengthen the relationship between UCSF and its surroundings, and benefit from the reality that each campus site is "in and of the city."

Guideline 1
Each campus site should be planned and designed to reflect, and in turn shape, its specific urban context.

a. Design campus development to be sensitive to the surrounding built environment.

b. Acknowledge and respond to the surrounding city regulatory context, including city zoning requirements for building heights, bulk and setbacks as well as neighborhood concerns, whenever possible in the development of new buildings and site improvements.

c. Site buildings to preserve important views.

d. Design improvements to campus streets that are complementary to that of surrounding neighborhoods.

e. Locate active ground floor uses on the street.

f. Ensure that each campus building and open space reinforces a cohesive campus identity.

g. Denote entries to core areas of campus through appropriate gateways.

Guideline 2
Due to the highly urban context of UCSF's sites, attention should be given to the edges where the campus meets the city, including the perimeter of each campus site as a whole, as well as the edges of the public streets that run through or alongside of each site. Because UCSF's sites meet the city in a variety of edge conditions, both active and inactive, and including edges characterized by residential, commercial, light industrial, mixed use and open space uses, campus edges should respond to their specific urban context.

a. Bridge campus development and the surrounding city through a transition of building height, massing and use and public open spaces.

b. Create a positive institutional identity and contribute to the public realm through the use of consistent and memorable signage, artwork, street furniture, paving, and landscaping.

c. Develop appropriate architectural expression at gateways to campus core areas.

d. Locate active interior public uses, amenities and services such as visitor centers, clinics, retail space, food service, fitness facilities, child care and auditoriums at edges to help activate the streets, and to encourage social interaction.

e. Treat major campus crossings of public streets that bisect campus sites to denote their importance as a place for campus interaction and interface with the city.

Guideline 3
The design of campus buildings should respond contextually to both the immediate campus as well as the surrounding city.

a. Relate buildings to their whole context by considering the height, massing, styles, color, and materials of adjacent buildings and/or urban fabric.

b. Design buildings to respond to site conditions, such as topography by terracing buildings up slopes.

c. Consider how buildings will be viewed, especially from off-campus areas in the surrounding city. This includes the roofs of campus buildings when viewed from off-campus areas at higher elevations.

d. Use light tones for predominant exterior building color(s), in keeping with the generally light-colored San Francisco palette, and to minimize the appearance of building bulk and mass.

e. In the case of buildings which serve a special or particularly important campus or community function, building color may be more prominent.

f. Use a pleasing and well-considered pattern of subtractive and additive elements to create interesting and appropriately expressive patterns of architectural expression.

g. Use harmonious horizontal and vertical façade components to reduce the appearance of mass of very large buildings.

h. Integrate rooftop mechanical equipment as part of a building's architecture (e.g., as sculptural rooftop elements), or screen from view behind parapets or other devices.

i. Define the tops of buildings through the use of cornices, overhangs, transitions in color or material, or other deliberate architectural treatment so there is a finite end to the building.

These general guidelines should be considered a fundamental precursor to the more specific design criteria specified in the following section.

4.2 Design Criteria

The proposed site for the UCSF Research Facility is non-contributing surface parking lot at the southeastern corner of the SFGH Historic District. As such, the Research Facility will not affect any of the spatial characteristics that characterize the historic district. The Research Facility will be located east of Building 9 and Building 30/40, and will be separated from the other district contributors by the non-contributing Main Hospital.

The Environmental Impact Report prepared for the SFGH Seismic Compliance Hospital Replacement Program considered a project alternative (referred to as the South Parking Lot Alternative) that entailed new construction on the B/C Lot:

> The South Parking Lot Alternative would…result in a direct impact to the setting of the SFGH District because it would be within the rear viewsheds of Building 30/40 and the adjacent Building 9, the Nurse's Home. However, this impact would be less severe than the west lawn alternative because the South Parking Lot is located immediately south of, and adjacent to, the Main Hospital, a modern building that is not a contributor to the SFGH District. The rear viewsheds of Building 30/40 and 9 have been compromised by the construction of the Main Hospital and the adjacent parking lot. The new construction would not materially impair important spatial relationships that characterize the SFGH District, nor would it affect the essential form and integrity of the SFGH District and its environment if it were to be removed in the future.[9]

In summary, the site selected for the Research Facility is an inherently "low impact" location with respect to historic resources. Even so, to keep impacts to historical resources to less than significant, the design of the Research Facility needs to be accomplished in a manner that accords with the Secretary of the Interior's Rehabilitation Standard 9:

> New additions, exterior alterations, or related new construction shall not destroy historic materials that characterize the property. The new work shall be differentiated from the old and shall be compatible with the massing, size, scale, and architectural features to protect the historic integrity of the property and its environment.[10]

Accordingly, ARG has developed the following design criteria for the UCSF Research Facility, which have been crafted to ensure that the UCSF Research Facility is compatible with the size, scale, material and character of District contributors, especially adjacent contributory buildings. In ARG's professional opinion, a building design that meets these criteria would be compatible with the SFGH Historic District, would maintain the District's character and integrity, and would be in conformance with the *Secretary of the Interior's Standards for Rehabilitation*.

Siting

1. The west elevation of the building should be generally parallel to the north-south entry road that bisects the campus. At the ground level, the setback of the building from this north-south road should be similar in extent to the setbacks from this road exhibited by Building 1/1A/1B/1C, Building 9, Building 10/20, and Building 30/40.

2. In keeping with the site's urban setting, the south elevation of the building should be generally rectilinear and parallel to 23rd Street.

Height, Scale & Massing

1. The height of the building should be kept at or below the 85-foot-height of Buildings 10/20 and 30/40. This height is exclusive of rooftop mechanical equipment, assuming such equipment is sufficiently setback and differentiated in material that is does not "read" as a vertical extension of the façade.

[9] LSA Associates (2008), 49.
[10] See Appendix C for a discussion of the *Standards for Rehabilitation*.

2. The façades of the new building should have a vertical orientation that is underscored by bays at the building corners that project relative to the central portions of the façades.

3. Blank, mirrored, or opaque facades should be avoided.

4. On the south and west façades, architectural elements should be used to divide the façades into intervals similar to those found elsewhere in the District, including Building 9 and the Building 30/40 "finger wards." This could be accomplished through a variety of means, including the use of bays, setbacks, horizontal belt courses, and/or changes in material or ornamentation.

Materials and Cladding

1. Given the prevalence of brick within the SFGH Historic District, the use of masonry (including brick and terra cotta) exclusively or in combination with other compatible exterior cladding materials is encouraged. Masonry should be a prominent material if used in combination with other materials.

2. New construction should use materials in a manner that creates details and textures that draw from the District and that give the building a three-dimensional character. Monolithic wall treatments should be avoided.

Windows

1. Fenestration patterns and proportions, as well as the percent of the façade devoted to fenestration, should be consistent with the District, especially adjacent contributory buildings (Buildings 9 and 30/40). Building 9 features recessed, double-hung, wood sash windows of either round arched or rectangular shape that are arranged singly and in pairs. Building 30/40 exhibits a variety of window types. Most of the building's windows are recessed, double-hung, wood sash windows of round arched or rectangular shape that are arranged either singly or in groups of three. The fifth floor (added in 1931) features wood sash, paired casement windows surmounted by arched transom and separated by terra cotta colennettes. The chamfered, east-facing bays of the building feature rectangular, wood sash, paired casement windows surmounted by rectangular transoms. These windows are arranged singly, in pairs and in groups of four.

   Accordingly, use of recessed, punched windows on at least substantial portions of the building exterior is encouraged. Uninterrupted expanses of full-height glazing should be avoided. That said, arranging windows into bands of two, three or more is encouraged.

2. In keeping with the District contributors, windows should have a vertical orientation. Use of rectangular windows and/or round arched windows is encouraged.

Street Frontage

1. The south façade of the building should incorporate at least one prominent pedestrian entry.

Site Features

1. The brick Guardhouse and Gate Pillar should be retained in their current location. If temporary relocation is necessary to accommodate construction, a Historic Architect satisfying the Secretary of the Interior's Professional Qualifications Standards should be engaged to oversee the temporary relocation and reinstallation of these historic resources.

2. The brick and metal fence along the southern edge of the site should be retained in its current location. If temporary relocation of any portion of the fence is necessary to accommodate construction, a Historic Architect satisfying the Secretary of the Interior's Professional Qualifications Standards should be engaged to oversee the temporary relocation and reinstallation of this historic resource.

3. A conservator well-versed in the assessment of historic fountains and related statuary should be engaged to evaluate the feasibility of relocating the fountain, which exhibits noticeable wear and may be constructed of fairly porous cement.

4. If deemed feasible, the fountain should be moved to a location elsewhere within the SFGH Historic District that reflects the character and prominence of its original location within the grass lawn courtyard of the Tubercular Ward. (The fountain should not be located between parking spots (as shown below in Appendix B).) Accordingly, the fountain should be relocated to one of the shaded areas indicated below, where it can continue its current use as a planter,

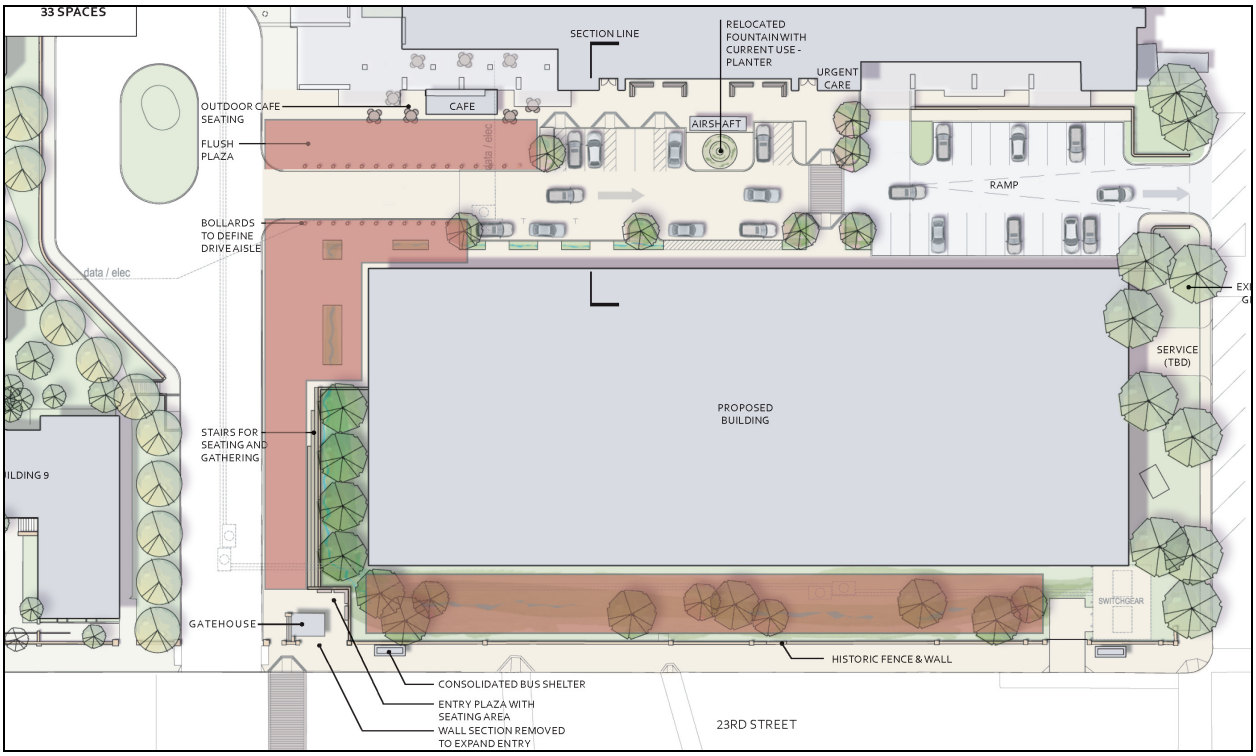


Figure 6. The areas shaded in red indicate appropriate relocation sites for the historic fountain.

Appendix A: Photographs of the Project Site

Figure 1. View looking northwest of B/C Lot (Architectural Resources Group, August 4, 2015).

Figure 2. View of B/C Lot, looking southeast (Architectural Resources Group, August 4, 2015).

Figure 3. View of Building 9 and B/C Lot, looking east (Architectural Resources Group, August 4, 2015).

Figure 4. View of south entrance to SFGH campus, looking north (Architectural Resources Group, August 4, 2015).

Figure 5. View of fountain in B/C Lot, looking northeast (Architectural Resources Group, August 4, 2015).

Figure 6. View of Guardhouse and Gate Pillar near southwest corner of B/C lot, looking southeast (Architectural Resources Group, August 4, 2015).

Figure 7. View of historic fencing that extends along southern edge of B/C lot, looking west (Architectural Resources Group, August 4, 2015).

Appendix B: Plan and Perspective Drawings of the Proposed Project

PARKING COUNT

REGULAR:	27 SPACES
ACCESSIBLE:	6 SPACES
TOTAL:	**33 SPACES**

EXISTING HOSPITAL

SECTION LINE

RELOCATED FOUNTAIN WITH CURRENT USE - PLANTER

URGENT CARE

CAFE

AIRSHAFT

OUTDOOR CAFE SEATING

FLUSH PLAZA

data / elec

RAMP

BOLLARDS TO DEFINE DRIVE AISLE

data / elec

EXISTING GROVE

SERVICE (TBD)

PROPOSED BUILDING

STAIRS FOR SEATING AND GATHERING

BUILDING 9

SWITCHGEAR

VERMONT STREET

GATEHOUSE

HISTORIC FENCE & WALL

CONSOLIDATED BUS SHELTER

ENTRY PLAZA WITH SEATING AREA

WALL SECTION REMOVED TO EXPAND ENTRY

23RD STREET

UTAH STREET

SAN BRUNO AVENUE

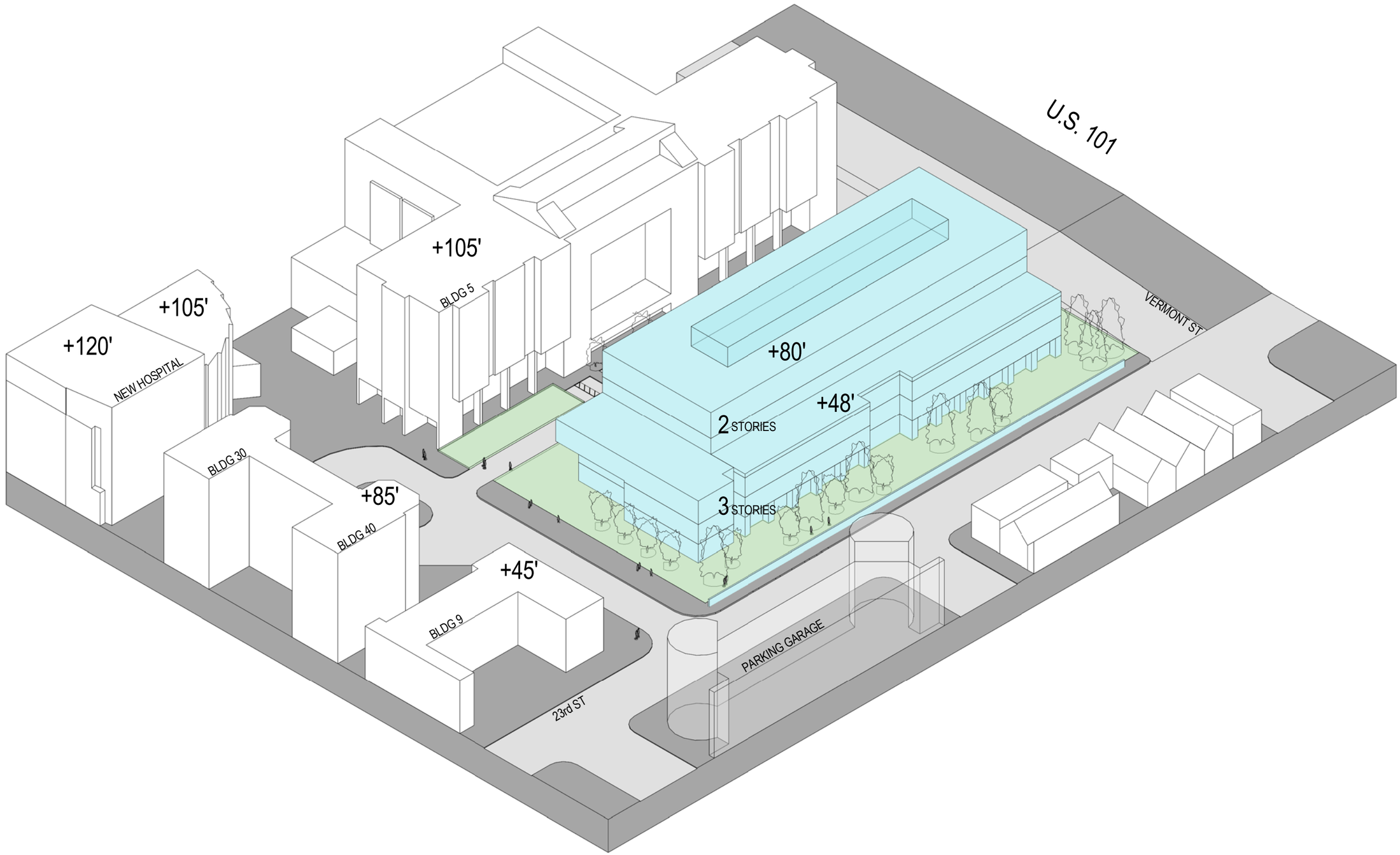
UCSF SFGH LOT B|C

0 20 40'

N

March 28, 2013

BMS



UCSF SFGH LOT B/C

STUDIOS architecture

Appendix C: The Secretary of the Interior's Standards for Rehabilitation

Appendix C. The Secretary of the Interior's Standards for Rehabilitation

The Secretary of the Interior is responsible for establishing standards for all programs under Departmental authority and for advising Federal agencies on the preservation of historic properties listed in or eligible for listing in the National Register of Historic Places. The *Standards for Rehabilitation* (codified in 36 CFR 67 for use in the Federal Historic Preservation Tax Incentives program) address the most prevalent treatment. "Rehabilitation" is defined as "the process of returning a property to a state of utility, through repair or alteration, which makes possible an efficient contemporary use while preserving those portions and features of the property which are significant to its historic, architectural, and cultural values."

Initially developed by the Secretary of the Interior to determine the appropriateness of proposed project work on registered properties within the Historic Preservation Fund grant-in-aid program, the *Standards for Rehabilitation* (the *Standards*) have been widely used over the years—particularly to determine if a rehabilitation qualifies as a Certified Rehabilitation for Federal tax purposes. In addition, the *Standards* have guided Federal agencies in carrying out their historic preservation responsibilities for properties in Federal ownership or control; and State and local officials in reviewing both Federal and nonfederal rehabilitation proposals. They have also been adopted by historic district and planning commissions across the country.

The intent of the *Standards* is to assist the long-term preservation of a property's significance through the preservation of historic materials and features. The *Standards* pertain to historic buildings of all materials, construction types, sizes, and occupancy and encompass the exterior and interior of the buildings. They also encompass related landscape features and the building's site and environment, as well as attached, adjacent, or related new construction. To be certified for Federal tax purposes, a rehabilitation project must be determined by the Secretary of the Interior to be consistent with the historic character of the structure(s), and where applicable, the district in which it is located. The Standards are to be applied to specific rehabilitation projects in a reasonable manner, taking into consideration economic and technical feasibility.

The ten Standards are:

1. A property shall be used for its historic purpose or be placed in a new use that requires minimal change to the defining characteristics of the building and its site and environment.

2. The historic character of a property shall be retained and preserved. The removal of historic materials or alteration of features and spaces that characterize a property shall be avoided.

3. Each property shall be recognized as a physical record of its time, place, and use. Changes that create a false sense of historical development, such as adding conjectural features or architectural elements from other buildings, shall not be undertaken.

4. Most properties change over time; those changes that have acquired historic significance in their own right shall be retained and preserved.

5. Distinctive features, finishes, and construction techniques or examples of craftsmanship that characterize a property shall be preserved.

6. Deteriorated historic features shall be repaired rather than replaced. Where the severity of deterioration requires replacement of a distinctive feature, the new feature shall match the old in design, color, texture, and other visual qualities and, where possible, materials. Replacement of missing features shall be substantiated by documentary, physical, or pictorial evidence.

7. Chemical or physical treatments, such as sandblasting, that cause damage to historic materials shall not be used. The surface cleaning of structures, if appropriate, shall be undertaken using the gentlest means possible.

8. Significant archeological resources affected by a project shall be protected and preserved. If such resources must be disturbed, mitigation measures shall be undertaken.

9. New additions, exterior alterations, or related new construction shall not destroy historic materials that characterize the property. The new work shall be differentiated from the old and shall be compatible with the massing, size, scale, and architectural features to protect the historic integrity of the property and its environment.

10. New additions and adjacent or related new construction shall be undertaken in such a manner that if removed in the future, the essential form and integrity of the historic property and its environment would be unimpaired.

Appendix D: UCSF's Universal Planning & Design Principles

UCSF

University of California
San Francisco

PHYSICAL DESIGN FRAMEWORK

September 2010

TABLE OF CONTENTS

Related Documents

Mission Bay Campus Master Plan and Design Guidelines
http://campusplanning.ucsf.edu/physical/missionbayplan.php

Preliminary Parnassus Heights Design Goals and Guidelines
http://campusplanning.ucsf.edu/pdf/DraftPHtsDesignGoalsGuidelines.pdf

2 | Universal Planning & Design Principles

Despite considerable diversity in the character and context of UCSF's campus sites, six planning principles are universally applicable to UCSF's sites, as they are all urban campuses "in and of the city" with common planning and design objectives.

The six universal planning and design principles have been established to guide physical development at all owned UCSF campus sites. They express key thematic concepts that will be implemented, extended or reinforced as the campus sites are further developed.

Four of the planning and design principles - Context, Connectivity, Cohesiveness and Collegiality - were developed as the Principal Conceptual Goals of the *Mission Bay Campus Master Plan and Design Guidelines* and have long served as fundamental touchstones of UCSF's development there, and are now consciously articulated as being universally applicable to UCSF's other sites. Two additional principles - Community and Conservation - have been added to supplement the original four principals, and are also universally applicable.

The recent design of the Medical Center facilities and Cardiovascular Research Building at Mission Bay have greatly influenced the design guidelines that follow. Both of these buildings have taken the *Mission Bay Campus Master Plan and Design Guidelines* to a higher level of design and are considered by UCSF to be exemplary architectural models.

Planning and Design Principles

- Respond to CONTEXT while Reinforcing Identity
- Welcome the COMMUNITY
- Ensure CONNECTIVITY to and Within the Campus
- Improve Campus COHESIVENESS
- Create Spaces to Promote COLLEGIALITY
- Lead Through CONSERVATION and Sustainability

RESPOND TO CONTEXT WHILE REINFORCING IDENTITY

Given the highly varied and urban context of UCSF's sites, campus development should respond to the specific urban character of the city at each location, while still expressing a cohesive campus design vision. Campus development should embrace and contribute to the vitality of the public realm, including the public streets and edges at each location. In doing so, it will strengthen the relationship between UCSF and its surroundings, and benefit from the reality that each campus site is "in and of the city."

GUIDELINE 1

Each campus site should be planned and designed to **reflect, and in turn shape, its specific urban context**.

a. Design campus development to be sensitive to the surrounding built environment.

b. Acknowledge and respond to the surrounding city regulatory context, including city zoning requirements for building heights, bulk and setbacks as well as neighborhood concerns, whenever possible in the development of new buildings and site improvements.

c. Site buildings to preserve important views.

d. Design improvements to campus streets that are complementary to that of surrounding neighborhoods.

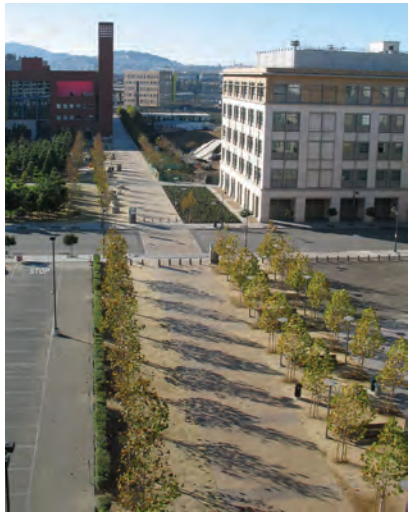
e. Locate active ground floor uses on the street.

f. Ensure that each campus building and open space reinforces a cohesive campus identity.

Public Realm
The public realm is the setting for community activity consisting of streets, sidewalks, parks and plazas.

Guideline 1a: All buildings located along the Mission Bay Commons step down in a uniform manner to allow sunlight to reach the major public open space and to create a defined urban edge to the campus.

Guideline 2a: The library at Parnassus Heights (lower left) is designed to provide a transition in scale between the larger UCSF buildings and the finer texture of the adjacent neighborhood. It also allows sunlight to reach the surrounding homes.



Guideline 2a: Gene Friend Way links Third Street with Koret Quad and the Rutter Center.

Guideline 2b: Signage on Helen Diller Family Cancer Research Building.

Guideline 2d: On a sunny day the steps outside Millberry Union at Parnassus Heights are the most active space on campus.

g. Denote entries to core areas of campus through appropriate gateways.

GUIDELINE 2

Due to the highly urban context of UCSF's sites, attention should be given to the edges where the campus meets the city, including the perimeter of each campus site as a whole, as well as the edges of the public streets that run through or alongside of each site. Because UCSF's sites meet the city in a variety of edge conditions, both active and inactive, and including edges characterized by residential, commercial, light industrial, mixed use and open space uses, **campus edges should respond to their specific urban context**.

a. Bridge campus development and the surrounding city through a transition of building height, massing and use and public open spaces.

b. Create a positive institutional identity and contribute to the public realm through the use of consistent and memorable signage, artwork, street furniture, paving, and landscaping.

c. Develop appropriate architectural expression at gateways to campus core areas.

d. Locate active interior public uses, amenities and services such as visitor centers, clinics, retail space, food service, fitness facilities, child care and auditoriums at edges to help activate the streets, and to encourage social interaction.

e. Treat major campus crossings of public streets that bisect campus sites to denote their importance as a place for campus interaction and interface with the city.

GUIDELINE 3

The design of campus **buildings should respond contextually to both** the immediate **campus** as well as the surrounding **city**.

a. Relate buildings to their whole context by considering the height, massing, styles, color, and materials of adjacent buildings and/or urban fabric.

b. Design buildings to respond to site conditions, such as topography by terracing buildings up slopes.

c. Consider how buildings will be viewed, especially from off-campus areas in the surrounding city. This includes the roofs of campus buildings when viewed from off-campus areas at higher elevations.

d. Use light tones for predominant exterior building color(s), in keeping with the generally light-colored San Francisco palette, and to minimize the appearance of building bulk and mass.

e. In the case of buildings which serve a special or particularly important campus or community function, building color may be more prominent.

f. Use a pleasing and well-considered pattern of subtractive and additive elements to create interesting and appropriately expressive patterns of architectural expression.

g. Use harmonious horizontal and vertical façade components to reduce the appearance of mass of very large buildings.

Guideline 3a: This campus residence at Parnassus Heights relates to the residential architectural vocabulary of the surrounding neighborhood.

Guideline 3b: The Dental Clinics building steps down on its site serving to reduce its apparent mass and bulk.

h. Integrate rooftop mechanical equipment as part of a building's architecture (e.g., as sculptural rooftop elements), or screen from view behind parapets or other devices.

i. Define the tops of buildings through the use of cornices, overhangs, transitions in color or material, or other deliberate architectural treatment so there is a finite end to the building.

Guideline 3c: This photosimulation shows the Medical Center at Mission Bay as viewed from the Potrero Hill neighborhood.

Guideline 3f: The Third Street facade of the Medical Center at Mission Bay illustrates ways to vary the massing of the buildings and activate the street with a public use.

Guideline 3d: The predominantly light tones of buildings at Parnassus Heights are consistent with the San Francisco color palette.

WELCOME THE COMMUNITY

It is UCSF's intent to be inviting and accessible to its "community:" the academic community at each campus site (including students, faculty and staff), the collective UCSF community across all campus sites, the neighbors around each site, and the patients and visitors to UCSF's clinical facilities.

At the interface between campus and the City, UCSF is dedicated to ensuring pedestrian safety, creating more enjoyable places where people want to congregate, treating the periphery of the campus as a "front door," providing clear wayfinding for visitors, and working with the City to promote the San Francisco Better Streets Program.

GUIDELINE 1

Special attention should be given to how buildings meet the ground in order to ensure that buildings successfully relate to pedestrians, are scaled to human activity and provide visual interest.

a. Design buildings, especially at the ground level, with consideration to human scale through building articulation, the use of color and materials, the scale and placement of doors and windows, and the use of building overhangs, arcades or other architectural techniques.

b. Wherever possible, activate the ground level of buildings with uses that engage the public and animate the public realm, especially at the campus-community interface. However, if building programming does not support active public uses,

Guideline 1a/1b: This facade at Mount Zion has a major building entry and active ground level uses.

Guideline 1b: An espresso cart on Parnassus Avenue attracts activity throughout the day.

Guideline 2: A crosswalk on Parnassus Avenue accommodates significant pedestrian traffic throughout the day.

Guideline 2: A major crossing of Fourth Street at Mission Bay has been improved with special paving and bollards.

transparency to interior offices or circulation spaces at the ground level is preferable to blank walls.

c. Design building bases along pedestrian corridors to be welcoming and provide a clear visual path to desired destinations.

d. Clearly articulate building entrances with arcades, canopies, clear glazing, large doors, entry stoops, vestibules or other architectural features.

e. Provide exterior lighting that will create a sense of safety and encourage pedestrian activity while being sensitive to potential visual impacts on surrounding neighborhoods.

f. Locate loading docks and ground level service bays to be minimally visible but accessible by appropriate vehicles, and screen them as much as possible.

GUIDELINE 2

UCSF will continue to collaborate with the City in making streetscape improvements at public street corners, along public sidewalks and across public streets that intersect campus sites, which will ensure pedestrian crosswalk safety, enhance sidewalk aesthetics, amenities and usability, improve way-finding and accommodate UCSF shuttle stops.

ENSURE CONNECTIVITY TO AND WITHIN THE CAMPUS

The intent of this principle is to ensure that both physical and visual connections from the campus outward to the surrounding streets and neighborhoods and throughout the campus sites facilitate movement and are enjoyable, comfortable, accessible, safe, direct, and easy to navigate. Sight lines and vistas should be preserved and enhanced and these should foster a sense of campus unity and provide a clear hierarchy of vehicular, pedestrian and bicycle circulation.

Many of the methods for ensuring connectivity to and within the campus described below also support the universal principle of leading through conservation and sustainability by enhancing the environment for modes of travel other than single-occupancy vehicles, including pedestrians, bicycles, campus shuttles and public transit.

GUIDELINE 1

Campus edges at the public interface should connect the campus to the city in a positive way.

a. Provide neighborhood connectivity to, around and through campus sites where appropriate.

b. Locate building entrances to face public streets as well as interior campus walkways, but not where they will encourage jaywalking across busy streets.

c. Orient buildings and open spaces to reinforce sightlines, highlight focal points and capture distant views of the campus, surrounding city and hills beyond.

Guideline 1a/2f: The public sidewalks at UCSF's campus sites accommodate pedestrian movement as well as transit shelters, bicycle parking and other amenities.

Guideline 1a/1c: Gene Friend Way pedestrian corridor linking public streets to the campus site.

Guideline 1c: A small courtyard at Parnassus Heights provides an overlook to views of the Marin Headlands.

Guideline 2a: The north edge of Saunders Court at Parnassus Heights provides an important east-west connection.

Guideline 2c: Bicycle racks at Mission Bay provide convenient and secure bicycle parking for students, faculty and staff.

GUIDELINE 2

Circulation routes on campus should facilitate efficient, accessible and comfortable access and circulation for all modes.

a. Connect all building entrances as directly as possible with campus walkways while also meeting accessibility standards.

b. Design building entrances to accommodate anticipated levels of foot traffic, with ample seating at strategic locations, lighting, landscaping and other amenities.

c. Install bicycle racks at convenient locations throughout campus sites where they will be the most secure and preferably protected from the weather.

d. Design new roads, parking and loading on UCSF sites to not only accommodate projected campus traffic volumes, but also to minimize their visual impact and conflict as little as possible with pedestrian movements.

e. Given UCSF's location in a dense urban environment with strong public transportation options, promote the use of public transit in campus plans.

f. Coordinate with City transportation agencies to locate and design public transportation elements such as transit stops, bicycle routes, and street crossings to ensure convenient access to alternate modes of transportation for students, faculty, staff and visitors.

IMPROVE CAMPUS COHESIVENESS

Creating a degree of visual consistency and reinforcing the UCSF identity as expressed in the built environment will result in more cohesive and identifiable campus sites. Cohesiveness may be achieved through the use of consistent building materials and colors, similar massing and heights, consistent and coherent vertical organization and horizontal building articulation, thematic landscape design, common site furniture and lighting fixtures, and a comprehensive signage and identity program.

GUIDELINE 1

The siting and design of **campus buildings should contribute to a cohesive vision** for each campus as a whole, **and reflect the relative importance of each building** within each campus site.

a. Frame and support gateways, plazas, courtyards, open spaces and major pedestrian spines by the way that buildings are organized.

b. Architectural expression at each campus site should utilize a common contemporary vernacular expression appropriate to the existing buildings at the site and the urban context. Within this overall consistency of architectural language, appropriate diversity of expression is encouraged.

c. Reflect a hierarchy of importance, with buildings containing active uses of particular public importance being the most prominent.

d. Minimize mechanical equipment, pipes and other utilities on the sides of buildings to avoid a cluttered appearance that can detract from the architecture,

Guideline 1b: Buildings at Mission Bay share common forms, colors and materials, while each has a unique architectural expression.

Guideline 2a: These buildings and courtyard space at Mission Bay illustrate a richness of architectural character and materials.

unless these elements are an integral part of the building design.

e. If design changes need to be made due to value engineering, these changes must also reflect the universal planning and design principles and guidelines.

f. Ensure that temporary and phased buildings have a finished appearance on all sides.

GUIDELINE 2

Materials should be compatible with the palette of surrounding campus buildings **and contribute to a visually coherent campus**.

a. Design buildings with a richness of architectural character and quality of materials that visually reinforce the permanence and stature of UCSF.

b. Use durable building materials that require minimum maintenance and achieve a permanence of character, and consider sustainability in the selection of building materials.

c. Depending on their locations, residential, child care and other less prominent support facilities may use less expensive materials such as stucco. Ultimately the most important factors in materials selection should be context and expression of durability.

d. Plant trees from an appropriate palette of species along each major campus walk and road to create a more uniform and attractive appearance, sight lines and clear direction. Consider the use of drought-tolerant and/or native species in keeping with sustainable practices.

CREATE SPACES TO PROMOTE COLLEGIALITY

To promote collegiality, UCSF supports the continued development of diverse public open spaces on its sites. These spaces are intended to encourage social interaction. among various campus groups and between the campus and surrounding community. They are also intended to provide areas of respite and quiet for patients and visitors. They should provide space for a broad range of activities including outdoor class sessions, special events, recreation and fitness, sharing a meal or conversation and for being alone. Several of the methods described below for promoting collegiality serve to reinforce the pedestrian environment at UCSF's sites, and also support the universal principles described herein of welcoming the community and leading through conservation and sustainability.

GUIDELINE 1

Campus open spaces should be comfortable, active, safe and attractive places that are **extensions of the public realm** of the city.

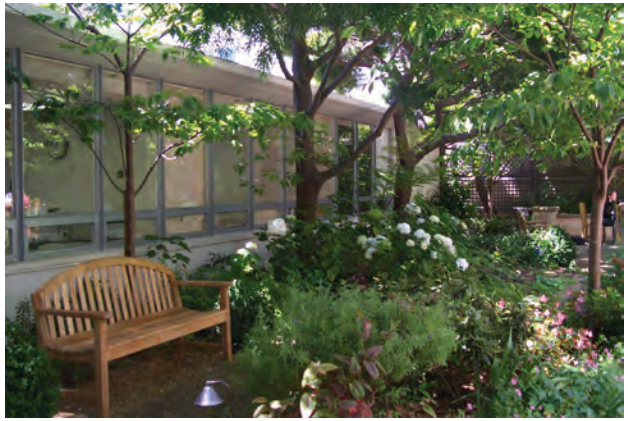
a. Site and mass campus buildings and their entries to shape and activate sunny and welcoming open space areas, and to minimize shade and wind effects on important campus outdoor spaces.

b. Provide a variety of outdoor spaces on each campus site to meet the different needs of the campus population and community at large.

c. Design outdoor spaces to have strong physical and visual relationships to surrounding buildings.

d. Scale open spaces in proportion to surrounding buildings and the level of activity that will populate those spaces.

Guideline 1a: Due to their scarcity, sunny spaces are most highly used at Parnassus Heights.



Guideline 1b: A quiet courtyard provides respite for patients, visitors and the overall campus population.

Guideline 1b: Seating provides opportunities for studying or socializing.

Guideline 1b: The planned hospital rooftop gardens at Mission Bay will be accessible to patients and their visitors while the dining plaza on Third Street will be available to everyone.

Guideline 1e: The plaza space along Gene Friend Way in front of the student housing is designed for large special events.

Guideline 1c: This cafe in Millberry Union provides a sunny spot for outdoor seating.

e. Scale public sidewalks and campus walkways to expected levels of pedestrian activity, surrounding buildings and adjacent open spaces.

f. Use landscape materials to provide visual interest such as seasonal color, to create comfortable spaces for a range of uses, and to enhance the appearance of the campus.

LEAD THROUGH CONSERVATION AND SUSTAINABILITY

UCSF aspires to work toward a sustainable campus that protects and enhances the environment and the health of students, faculty and staff, as well as the overall population of San Francisco. While much has already been done or is being planned, some of which is described below, sustainability guidelines will ensure that continued efforts are made as physical projects are designed and built. In order to ensure compliance with the *UC Policy on Sustainable Practices*, sustainability is considered throughout the capital project planning process. Individual projects are reviewed against relevant *Leadership in Energy and Environmental Design* (LEED) checklists during the design phase, and the approval documentation for each project includes a description of how each project conforms to the UC Policy. Updates on achieving sustainability goals will be addressed annually in the *Capital Financial Plan*. UCSF's Transportation Demand Management (TDM) program is described in Section 4, Campus Systems.

UCSF's Climate Action Plan describes how the University will meet UC's policy targets of reducing emissions to 2000 levels by 2014 and to 1990 levels by 2020. UCSF has undertaken a campus-wide process to prepare a comprehensive 2010 Sustainability Plan incorporating those measures under the guidance of the Chancellor's Advisory Committee on Sustainability, which serves as a coordinating body for sustainability efforts at UCSF.

As of 2010, UCSF had constructed a campus housing project at 145 Irving on the Parnassus Heights campus that was LEED certified equivalent, and constructed two research buildings on the Mission Bay site that were LEED Silver or equivalent, Arthur and Toni Rembe Rock Hall and Helen Diller Family Cancer Research Building.

In addition, UCSF had completed seven major lab and office renovation projects that were LEED Silver or equivalent, including an office building at 654 Minnesota Street near the Mission Bay campus. Future UCSF buildings will meet LEED Silver and strive to meet LEED Gold.

To help achieve sustainability goals, a 250KW solar photovoltaic system was installed on buildings at Mission Bay. While modest, it paves the way for a more ambitious program in the future. Also, since 1990, UCSF has implemented Strategic Energy Plan (SEP) energy efficiency projects that have contributed to a reduction of 35 percent in greenhouse gas emissions.

Guideline 1b: The solar photovoltaic system on Genentech Hall at Mission Bay.

Guideline 3a: The City and UCSF worked together to designate space on Fourth Street for UCSF's shuttle system that carries students, faculty and staff between campus sites.

Future projects are expected to produce savings equal in value to investment costs within seven years. New buildings will be designed to meet or exceed standards of the *UC Policy on Sustainable Practices* and to contribute to attainment of UCSF Climate Action Plan goals.

GUIDELINE 1

In addition to complying with UC Policy on Sustainable Practices and UCSF Climate Action Plan goals, **buildings should be designed according to** the following **sustainability guidelines**.

a. Utilize space in the most efficient manner possible.

b. Design buildings to maximize passive solar performance, and with narrow floor plates where practicable to maximize natural lighting.

c. Minimize building roof runoff by incorporating rooftop gardens and other landscaping, as practical.

d. Prepare shade diagrams, wind studies and noise assessments to ensure the comfort and health of pedestrians and open space users.

e. Respect historically significant buildings by considering adaptive reuse if a building contributes to the overall character of the campus and its preservation is financially feasible and does not impact space program goals or ceilings.

f. If an historic or architecturally significant building is to be demolished, document and make available information on the building's historic or architectural attributes and consider incorporating design features from the demolished building into development of the site.

GUIDELINE 2

Open space areas, including streets and parking lots, **should be designed to be environmentally sustainable**.

a. Use native and drought tolerent plants, plants that benefit wildlife and water conserving plants and planting methods in the landscape.

b. Landscape areas of extensive paving with trees to mitigate extreme solar and thermal conditions.

c. Locate and design open space areas to maximize sun exposure and minimize exposure to prevailing winds.

d. Minimize site runoff by increasing on-site infiltration where appropriate, grade for gravity flow and otherwise design to meet storm water objectives and standards, keeping in mind local stormwater guidelines and best management practices.

e. Install irrigation systems that are efficient and water conserving.

f. Encourage the use of materials that promote environmentally healthy maintenance, durability and longevity.

GUIDELINE 3

Transportation system improvements **should be designed to be environmentally sustainable**.

a. Cooperate with local agencies to improve pedestrian links between UCSF facilities and BART, MUNI and other public transit connections.

b. Evaluate parking ratios and minimize parking to the extent practicable in an effort to continue to strive to meet the City's Transit First policy.

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