



Historic Resources Board

Staff Report

Agenda Date: July 7, 2010

From: Steven Turner, Advance Planning Manager

Department: Planning and Community Environment

Subject: **Stanford University Medical Center Facilities Renewal and Replacement Project Draft Environmental Impact Report** – Comment on the Draft Environmental Impact Report Cultural Resources Chapter.

RECOMMENDATION

Staff recommends that the Historic Resources Board (HRB) provide comments on the Draft Environmental Impact Report (Draft EIR) Cultural Resources Chapter for the Stanford University Medical Center Facility Renewal and Replacement Project and forward comments to the Planning and Transportation Commission (P&TC) and City Council.

BACKGROUND

The Stanford University Medical Center (SUMC) comprises the general area between Sand Hill Road, Vineyard Lane, Quarry Road, Pasteur Drive, and including Welch Road and Blake Wilbur Drive. The area is zoned Medical Office and Medical Research (MOR) and Public Facilities (PF). The applicant is proposing the demolition of the existing Stanford Hospital and Clinics (SHC), construction of new hospital buildings, renovation and expansion of the Lucile Packard Children's Hospital (LPCH), reconstruction of the School of Medicine (SoM) facilities, and construction of a new medical office building near Hoover Pavilion to meet State mandated seismic safety standards (SB 1953) and to address capacity issues, changing patient needs and modernization requirements. The renovation and expansion project, which would be constructed over a 20-year horizon, would result in a net increase of approximately 1.3 million square feet of hospital, clinic, and office space.

The Draft EIR for the SUMC Project was published on May 20, 2010, commencing a public review period through July 27, 2010. Comments on the Draft EIR may be submitted in writing or orally at any of scheduled Planning and Transportation Commission (P&TC) hearings, City Council hearings, an Architectural Review Board (ARB) meeting on July 1, 2010, and this HRB meeting. Additionally, comments can be submitted in writing at any time during the public review period to Steven Turner, Advance Planning Manager, City of Palo Alto Planning and Community Environment Department and via electronic mail at Stanford.Project@cityofpaloalto.org by 5:00 p.m. on July 27, 2010.

ENVIRONMENTAL REVIEW

The comments on this chapter should be focused on whether the information presented in the Draft EIR adequately covers the environmental impacts that could result from the proposed SUMC Project. The meeting is not meant to provide a forum for dialogue about the project merits, but to be

opportunities to collect comments on the Draft EIR to ensure that it adequately describes the environmental impacts of the Project.

Cultural Resources

Cultural Resource impacts are addressed primarily in Section 3.8 of the Draft EIR. This section of the EIR is based primarily on the report titled *Cultural Resources and the Stanford University Medical Center Facilities Renewal and Replacement Project* (Attachment B), prepared by Stanford University and a peer review of that report prepared by Architectural Resources Group, Inc. (ARG)(Attachment C).

Significance Thresholds

Based on significance thresholds determined by the City of Palo Alto, the SUMC Project would result in a significant cultural resource impact if it would:

- Cause a substantial adverse effect (as defined in CEQA Guidelines section 15064.5(b)) on an historical resource listed or eligible for listing on the National and/or California Register, or listed on the City's Historic Inventory;
- Eliminate important examples of major periods of California history or prehistory;
- Cause damage to an historic or unique archaeological resource as defined in Section 15064.5 of the CEQA Guidelines;
- Disturb Native American human remains, including those interred outside of formal cemeteries;
- Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature; or
- Directly or indirectly destroy a local cultural resource that is recognized by City Council resolution.

Key Impacts and Mitigations

The following impacts have been identified as significant (S); however these impacts can be eliminated through mitigation. The mitigation measures developed for each of the impacts are identified below.

- CR-2: Impacts on prehistoric or archaeological resources (S).
- CR-6: Impacts on prehistoric and/or archaeological resources and human remains (S).

Mitigation Measure-

- CR-2.1: Construction staff training and consultation.
- CR-3: Impacts on human remains (S).

Mitigation Measure-

- CR-3.1: Conduct protocol and procedures for encountering human remains.
- CR-4: Impacts on Paleontological resources (S).

Mitigation Measure-

- CR-4.1: Conduct protocol and procedures for encountering paleontological resources.

- CR-6: Cumulative impacts on prehistoric and/or archaeological resources and human remains (S).

Mitigation Measures-

- CR-2.1: Construction staff training and consultation;
 - CR-3.1: Conduct protocol and procedures for encountering human remains.
- CR-7: Cumulative impacts on Paleontological resources (S).

Mitigation Measure-

- CR-4.1: Conduct protocol and procedures for encountering paleontological resources.

Significant and Unavoidable Impacts

The following impacts have been identified as significant and unavoidable (SU) even after implementation of mitigation measures:

- CR-1: Impacts on historical resources (SU).
- CR-5: Cumulative impacts on historical resources (SU).

Mitigation Measures-

- CR-1.1: Manually demolish structures at the Hoover Pavilion site;
 - CR-1.2: Prepare HABS documentation for the Stone Building complex;
 - CR-1.3: Distribute written and photographic documentation to agencies;
 - CR-1.4: Prepare permanent interpretive displays/signage/plaques;
 - CR-1.5: Implement protection documents for the Hoover Pavilion.

Note: The Significant and Unavoidable Impacts section above treats historical resources (the Stone Building complex and Hoover Pavilion) collectively as a single entity consistent with the historical resources discussion format in Section 3.8 of the Draft EIR; therefore, the section above states that historical resources will be impacted by the Project in a manner that is significant and unavoidable (SU) even after implementation of the five cited mitigation measures. However, when the Stone Building complex and Hoover Pavilion are considered separately, as they are on page S-56 of Table S-4 "SUMC Project Summary of Impacts and Mitigation Measures" included in the Summary chapter of the Draft EIR, then only the Project impacts on the Stone complex, namely the proposed demolition of the building, should be described as both significant and unavoidable because mitigation measures CR-1.2, 1.3, and 1.4 would not reduce the impacts of demolition to a less than significant level (SU). In contrast, while the potential impacts on Hoover Pavilion from adjacent construction activities would be significant without mitigation (S), these impacts would not be unavoidable because, as stated on page S-56 of Table S-4, mitigation measures CR-1.1 and 1.5, when implemented, would reduce adjacent construction impacts to a less than significant level (LTS).

DISCUSSION

Seven potential historic resources within the SUMC Sites were evaluated in the assessments prepared by Stanford University in 2007 and ARG in 2009: Governor's Avenue, Hoover Pavilion, Nurse's Cottage at Hoover Pavilion, 701 Welch Road, 703 Welch Road, 1101 Welch Road, and the Stone Building complex (including the East, West, Core, Boswell, Grant, Alway, Lane, and Edwards buildings).

The Cultural Resources chapter of the Draft EIR is being reviewed by the HRB at the request of the City Council. It will be helpful for the City Council and Planning and Transportation Commission to hear from the HRB, especially regarding the conclusions and mitigation measures for the Hoover Pavilion and Stone building.

Hoover Pavilion

Both studies found that the Hoover Pavilion meets condition of criterion 3 as exemplifying the distinctive characteristics of a pre-World War II hospital and appears to maintain sufficient integrity for listing on the California Register of Historic Resources (CRHR). The Hoover Pavilion is considered to be an historical resource for purposes of the City's CEQA analysis. None of the buildings in the SUMC Sites, including the Hoover Pavilion are listed on the City of Palo Alto Master List of Structures on the Historic Inventory.

SHC plans to renovate the existing Hoover Pavilion structure for use as a medical office and clinic building while preserving and enhancing the historic art deco character of the building exterior. The Draft EIR concludes that no significant interior spaces remain intact from the period of significance.

Exterior demolition will consist of the removal of additions made after the main building was completed in 1939 and alterations to support ADA access and life safety as required by code. The historic character of the building's exterior will be enhanced by removal of air conditioning units that were installed in window and door openings, and consolidation of rooftop mechanical equipment that is currently placed piecemeal on the building's rooftop terraces. New mechanical equipment will require placement on the rooftop in the location of the demolished additions. These enclosures are minimized in height and recessed from the parapet edge of the building, so as not to be visible from most ground-level vantage points. The design intent is to feature a simple, neutral colored screening material to allow the mechanical enclosure to blend in with the surroundings.

The exterior northeast stair located within the two-story open recessed stairwell above the historic entry will be removed and the stairwell will be enclosed with the addition of storefront glazing where none currently exists. The prominent second-floor Art Deco railing at the stair landing between the third and fourth floors will be moved behind the new storefront glazing. The newly enclosed former stairwell space would become occupiable interior floor space for the 3rd and 4th floors. The northeast stair is not required for exiting and currently does not comply with ADA access. The new exterior storefront glazing treatment at the face of the building above the historic entry will be similar in scale to the historic multi-story obscure glass wall enclosing the original elevator shaft on the northwest elevation of the central tower element (facing Quarry Road). The intent is to create a simple modern multi-story glazed storefront that will be clearly differentiated from the Art Deco character of the historic entry. The terra cotta surrounds and distinctive concrete relief panel as well as the historic entry will be preserved.

The "bump" at the end of the northwest elevation that faces Quarry Road (originally the porte-cochere) will be retained. The fire escape above the "bump" is not a contributing element to the historic fabric of the building; however, it is necessary for exiting. It will be reconstructed to support ADA and life safety as required by building code. The design intent is to provide a code-compliant,

minimally detailed exterior stair that will visually recede from the existing facade.

The original Art Deco entry canopy on the northwest elevation facing Quarry Road will remain and be repaired to address seismic safety compliance with OSHPD3 requirements. The historic windows throughout Hoover Pavilion will be retained or replaced to match the existing historic windows in style and appearance, consistent with the Secretary of the Interior's Standards for Rehabilitation of Historic Buildings. A survey of the condition of all historic windows is in progress and the conclusions of the survey will be reviewed by the City. The existing modern metal windows at the ground floor of the northwest elevation will be replaced with compatible wood windows.

It is staff's opinion that the Hoover Pavilion renovation project described above would require review by a qualified historic preservation consultant under the Secretary of the Interior's Standards for Rehabilitation of Historic Buildings and approval by the City of Palo Alto. The historic preservation consultant will evaluate the conclusions on page 3.8-20 of the Cultural Resources chapter of the Draft EIR that the exterior modifications of Hoover Pavilion would retain significant character-defining features and eliminate non-historic elements; therefore, would have a less-than-significant impact on the historic integrity of the building. The Hoover renovation component of the SUMC Project will be reviewed by the HRB under a separate cover.

Construction Mitigation

Mitigation measures CR-1.1 and CR-1.5 would reduce potential vibration and construction-related impacts to the Hoover Pavilion resulting from demolition of adjacent sheds and storage facilities, impacts from falling construction debris, and impacts from movement of heavy equipment to a less-than-significant level. Mitigation measure CR-1.5 requires implementation of the Stanford Hoover Pavilion Protection Documents prepared by ARG (Attachment D) that provide specifications for the treatment and protection of the Hoover Pavilion during SUMC Project construction activities that could damage the historic fabric of the building including the installation of protective covering of certain exterior surfaces and the removal, cataloging, and storage of selective historic elements.

In addition to the proposed renovations to the Hoover Pavilion, a new 60-foot, 60,000 square foot medical office/clinic building would be constructed on the northwest side of the Hoover Pavilion and a new 60-foot, 1,085 space parking garage would be constructed on the southwest side of the Hoover Pavilion. These structures would be shorter than the Hoover Pavilion, which is 65-feet tall without rooftop appurtenances and 110 feet tall to the highest point of the rooftop appurtenance. The medical office building would be sited between Quarry Road and the Hoover Pavilion and would partially obstruct views of the Hoover Pavilion from Quarry Road.

The Draft EIR concludes on pages 3.8-20 to 3.8-21 that "the proposed Medical Office Building and parking structure would be in close proximity to the Hoover Pavilion; however, significant views would be retained and many non-historic buildings are in the surrounding area. And therefore, the changes to the surrounding setting resulting from these two new buildings would not result in an adverse, material alteration of significant characteristics and would result in a less-than-significant impact."

ATTACHMENTS

- Attachment A: Cultural Resources Chapter from the Stanford University Medical Center Facilities Renewal and Replacement Project Draft EIR.
- Attachment B: *Cultural Resources and the Stanford University Medical Center Facilities Renewal and Replacement Project*, Jones, 2007
- Attachment C: *Stanford University Medical Center Historic Resource Evaluation and Peer Review*, ARG, 2008
- Attachment D: Stanford Hoover Pavilion Protection Documents, ARG, 2009

COURTESY COPIES

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The Late Archaic was a time of great change throughout California, with prehistoric groups expanding their range of exploited environments and resources. In the San Francisco Bay region, the evidence gathered at sites along San Francisquito Creek, and other areas, point to a widespread but sparse population.⁸ Important technological innovations during the Archaic period in general, and the Late Archaic in particular, include the mortar and pestle (used for pounding nuts, acorns, and the carcasses of small animals), the milling stone and mano (primarily used for grinding hard seeds), and, very late during the Archaic, mortars and milling surfaces placed on bedrock (BRMs). Hunting and fishing was also very important as evidenced by the presence of pronged spears, nets, hooks, and traps. A variety of knives, projectile points (spear and dart points), and scrapers were also made. Most of these were made from local materials, but some were made from very distant source materials, likely evidence of long distance trade. Basketry was one of the most important innovations during the Archaic period, and California Indians are counted among the most skilled basket makers in the world. A few uses of baskets include cooking, serving, storing, and transport; some baskets were made so well they could hold water.⁹

The ensuing period was a time of increasing use of varied resources and ecological niches. Throughout California, prehistoric groups were becoming more diverse as they increasingly adapted to their particular environments. In the San Francisco Bay region, it has been suggested that Ohlone peoples from eastern Contra Costa County settled the region during this time, replacing the previous group by 1500 B.C.¹⁰ The Ohlone would remain in place until historic times.

By 300 A.D., this group would adopt the bow and arrow, and develop other traits such as tubular tobacco pipes, cremation of the dead, intensive acorn utilization, and complicated exchange systems. It was this pattern that was destroyed by the Spanish Mission system.¹¹

Ethnographic Setting. At the time of European contact, the SUMC Sites and surrounding areas were occupied by a group of Native Americans referred to as the Costanoan or Ohlone. The Ohlone are a linguistically defined group composed of several autonomous tribes speaking eight different but related languages. The Ohlone languages, together with Miwok, comprise the Utian language family of the Penutian stock. The territory of the Ohlone people extended along the coast from San Francisco Bay in the north to just beyond Carmel in the south, and as much as 60 miles inland. This territory encompasses a lengthy coastline as well as several inland valleys. The Ohlone were hunter-gatherers and relied heavily on plants and seafood, as well as various seeds, buckeye, berries, roots, land and sea mammals, waterfowl, and shellfish.

⁸ EIP Associates, 1993, Existing Conditions Report: Stanford West Senior Housing, Sand Hill Road, Stanford Shopping Center. Report prepared for City of Palo Alto, p. 3.11-1.

⁹ Chertkoff, J.L. and K.K. Chertkoff, 2004, *The Archaeology of California*, Stanford University Press, Stanford, California.

¹⁰ Moratto, J., 2004, *California Archaeology*. Coyote Press, Salinas, California. Originally published 1984 Academic Press, Orlando, Florida.

¹¹ Chertkoff, J.L. and K.K. Chertkoff, 2004, *The Archaeology of California*. Stanford University Press, Stanford, California.

Ohlone technology that aided in the procurement and processing of foodstuffs included tule balsas for watercraft, bow and arrow, cordage, bone tools, and twined basketry.

The Ohlone were politically organized by tribes, with each tribe having a designated territory. A tribe consisted of one or more villages and camps within a territory designated by physiographic features. The position of tribe chief was inherited patrilineally and could be occupied by a man or a woman. Duties of the chief included hosting visitors, directing ceremonial activities, and directing fishing, hunting, gathering, and warfare expeditions. The chief served as the leader of a council of elders, which functioned primarily in an advisory capacity to the community.

Seven Spanish missions were founded within the Ohlone territory between 1790 and 1797. While living within the mission system, the Ohlone commingled with other groups, including Esselen, Yokuts, Miwok, and Patwin. Mission life was detrimental to the Ohlone population. It has been estimated that in 1770, at the time the first mission was established in Ohlone territory, the population numbered around 10,000 individuals. The population declined to less than 2,000 by 1832 as a result of violence, starvation, slavery, disease, and reduced birth rates. After the secularization of the missions, Indian inhabitants of the missions gradually left, and many went to work as manual laborers on ranchos. There was a partial return to aboriginal religious practices and subsistence strategies, but Ohlone culture was dramatically transformed after European settlement in the region.¹²

History. Beginning in the mid-sixteenth century, Spanish explorers conducted a series of sea expeditions along the coast of California. It was not until 1769, however, that Europeans became aware of the existence of the San Francisco Bay. In 1769, Juan Manuel de Ayla, the first European to enter the San Francisco Bay, established a settlement along its shores. In 1776, Juan Bautista de Anza led the first overland expedition into San Francisco, where he founded the Presidio of San Francisco and Mission San Francisco de Asís.

The Spanish colonization of California was achieved through a program of military-civilian-religious conquest. Under this system, soldiers secured areas for settlement by suppressing Indian and foreign resistance and established fortified structures (presidios) from which the colony would be governed. Civilians established towns (pueblos) and stock-grazing operations (ranchos) that supported the settlement and provided products for export. The missionary component of the colonization strategy was led by Spanish priests, who were charged with converting Indians to Catholicism, introducing them to the benefits of Spanish culture, and disciplining them into a productive labor force. Ultimately, four presidios and 21 missions were established in Spanish California between 1769 and 1821. The mission trail became known as the El Camino Real, or King's Highway, which today runs through Palo Alto and is just north of the Hoover Pavilion Site.

¹² Levy, R. 1978. Costanoan. Pages 485-495 in R.L. Heizer (ed.), Handbook of North American Indians, Volume 8, California. Washington, D.C.: Smithsonian Institution.

In 1822, after more than a decade of revolutionary struggle, Mexico achieved independence from Spain, and California became a distant outpost of the Mexican Republic. Under a law adopted by the Mexican congress in 1833, the mission lands were to be subdivided into land grants, or ranchos, to be sold to trustworthy citizens. The rancho economy was based primarily on stock raising for the hide and tallow trade. Cattle were driven to coastal locations where they were slaughtered and skinned; the hides and tallow (a product made from animal fat and used to make soap and candles) were then processed for transport to awaiting trade ships.

The absence of effective governmental authority in Mexican California invited infiltration by outsiders. As early as the 1820s, British and American mountain men, fur traders, and entrepreneurs were venturing into California in search of fortune. The Mexican government was unable to halt the incursion and granted citizenship to foreigners who pledged to adhere to Mexican law. Many of the foreigners received generous land grants on which they established grazing and commercial operations. Beginning in the early 1840s, Mexico's hold on California was further threatened by the steady overland migration of American settlers into the region. The increased American presence in California was a product of the expansionist impulse that had come to dominate the American imagination and which contributed to a deterioration of relations between Mexico and the United States. War between the U.S. and Mexico broke out in May 1846, but the U.S. eventually prevailed, and the American victory over Mexico was formalized in February 1848 with the Treaty of Guadalupe Hidalgo.

In January 1848, just a few days before the treaty was signed, James Marshall, an employee of John Sutter, discovered gold on the American River. Marshall's discovery triggered the gold rush, a massive influx of fortune-seekers into California. The sudden and enormous growth of California's population brought about by the gold rush resulted in a movement for statehood that culminated in the state constitutional convention at Monterey in 1849 and the establishment of California as a state in 1850.¹³

Though no significant gold mining activity took place in Santa Clara County, the gold rush led to an exodus of much the adult male population to the gold fields of the central Sierra mountain range. By 1852, the most accessible gold diggings had been exhausted, and most of the immigrants that had come to California in search of instant riches began to redirect their energies to agricultural and commercial development. During the two decades that followed the gold rush, California's urban and agricultural infrastructure grew steadily as migration into the state continued. The City of Palo Alto in Santa Clara County was founded in 1892 and lies on the historic land grants *Rancho Rincón de la San Francisquito*, *Rancho de la Arroyo de San Francisquito*, and *Rancho San Francisquito*.

The SUMC Sites lie in a plain that was once oak woodland and grassland. The area is situated between the marshes of the San Francisco Bay and the foothills of the coastal range. The early landowners of the SUMC Sites and surrounding area were George and Elizabeth Gordon. Their home was located along the San Francisquito Creek. The family planted vineyards in the general vicinity of the Stanford

¹³ Rice, R. B., William A. Bullough, and Richard J. Orsi, *The Elusive Eden: A New History of California*, 2nd ed, McGraw-Hill, New York, 1996.

Shopping Center. In 1876, Leland and Jane Stanford purchased 650 acres of the *Rancho San Francisquito* (the Gordon Estate), where Stanford built a country home and began developing his famous Palo Alto Stock Farm for trotting horses. In the 1880s, the vineyard was expanded and a winery was constructed. He later acquired several thousand more acres of property, on which he built Stanford University.¹⁴

Located near the edge of the Stanford University campus, the SUMC Sites continued to be used for agricultural until the 1950s, when Stanford University decided to move its medical school from San Francisco to the Palo Alto campus. The new medical complex opened in 1959. A comprehensive history of the SUMC Sites and surrounding areas is provided in *Cultural Resources and the Stanford University Medical Center Facilities Renewal and Replacement Project*, which is available upon request from the City.

Site Investigations. The following investigations were conducted to assess occurrence of cultural resources within the SUMC Sites and surrounding areas.

NWIC Records Search. A records search was conducted by the Northwest Information Center (NWIC) of the California Historical Resources Information System (CHRIS). The records search included a review of NWIC data maps, historic-period maps, and literature for Santa Clara County on file at the NWIC. The records searches for the SUMC Project were conducted on October 4, 2007 and January 10, 2008, at the NWIC. The records search failed to identify any recorded Native American or historic-period archaeological resources within the SUMC Sites.^{15,16} The NWIC has no record of any archaeological studies within the SUMC Sites; however, the Main SUMC Site is about 0.25 miles south of San Francisquito Creek, an area known to contain Native American cultural resources.

There were multiple studies associated with the Sand Hill Road Corridor Projects that included Quarry Road. The Draft EIR for the Stanford Sand Hill Road Corridor Projects analyzed projects that were located near the northern boundary of the City of Palo Alto, on the campus of Stanford University adjacent to San Francisquito Creek and the City of Menlo Park. Thirteen known prehistoric archaeological sites were identified within the projects' boundaries. A reconnaissance-level survey was conducted by William Self Associates of the Stanford West Apartments Project, the Stanford West Senior Housing Project, and the Sand Hill Road Project. At the Stanford West Apartments, sparse artifacts, both prehistoric and historic, were observed throughout the area. At the Stanford West Senior Housing project, no prehistoric cultural resources were encountered during the reconnaissance survey; however, records indicate that three archaeological sites were recorded within or immediately adjacent to Stanford West Senior Housing along San Francisquito Creek. In addition, an historic stone

¹⁴ Hoover, M. B., H. E. Rensch, E. G. Rensch, and W. N. Abeloe, *Historic Spots in California*, 4th ed., Revised by Douglas E. Kyle, Stanford University Press, Stanford, 1990.

¹⁵ Jillian E. Guldenbrein, Researcher, Northwest Information Center, Sonoma State University, letter to PBS&J, re: Rapid Response Records Search Results for the proposed Simon-Properties Stanford Shopping Center Expansion project (File No: 07-511A), October 4, 2007.

¹⁶ Jillian E. Guldenbrein, Researcher, Northwest Information Center, Sonoma State University, letter to PBS&J, re: Rapid Response Records Search Results for the proposed Stanford University Medical Center Facilities Renewal and Replacement project (File No: 07-511B), October 4, 2007.

monument and an historic landscape feature were recorded. Although three archaeological sites were identified within or in the Sand Hill Road Project Area no cultural resources were encountered during their survey of related roadways or of the Sand Hill Road Project. Given the proximity of San Francisquito Creek to the project, it was concluded that construction related to the Sand Hill Road Extension, Vineyard Lane, Stock Farm Road extension, Pasteur Drive realignment, and Stanford Golf Course modifications could encounter archaeological resources. It was determined that this would be a potentially significant impact. In addition, an archaeological deposit is known to exist in and near the Sand Hill Road bridge. It was determined that the proposed widening of the bridge would disturb these archaeological deposits, which was determined to be a significant impact.

The 1984 Willow Road Extension Draft Environmental Impact Report identified CA-SMa-33 as located on the southeast bank of San Francisquito Creek. The search also identified one previous survey along Willow Road. A reconnaissance-level survey was conducted; however, no cultural resources were encountered. Due to the presence of nearby buried archaeological resources, it was decided to perform subsurface testing, which consisted of 11 mechanically excavated trenches along the proposed Willow Road alignment. A single trench showed probable evidence of archaeological resources, yielding eight pieces of fire-cracked rock, baked clay, and charcoal.

The Willow Road Improvement Project Draft Environmental Impact Report analyzed the widening of Willow Road from the Sand Hill-Santa Cruz intersection to Arboretum Road and the extension of Willow Road from Arboretum Road to El Camino Real. Archaeologists examined areas outside and to the west of the current SUMC Sites. Dirt from rodent holes were examined at the Stanford golf course, and the area north of the golf course was surveyed. In addition, soil cores were taken from the golf course. A complete Monterey chert projectile point, two obsidian projectile point fragments, and disarticulated human remains were recovered. All of the soil cores contained varying amounts of cultural material, including waste flakes, shellfish, crab, and fire-affected rock.

Project Specific Investigations/Reports. Cultural resource reports prepared for the EIR included *Cultural Resources and the Stanford University Medical Center Facilities Renewal and Replacement Project* prepared by Stanford University in 2007 and *Stanford University Medical Center Historic Resource Evaluation and Peer Review* prepared by Architectural Resources Group, Inc. in 2008 (see Appendix D). The report prepared by Stanford University provides the history, setting, and evaluations of all potential historical resources within the SUMC Sites. This report was prepared by Laura Jones, Director of Heritage Services and University Archaeologist at Stanford University. The report prepared by ARG includes a peer review of the report prepared by Stanford University's Director of Heritage Services and University Archaeologist Cultural Resource Specialist. A further discussion of historical resources within the SUMC Sites is provided later in this section.

Native American Consultation. The Native American Heritage Commission (NAHC) in Sacramento was contacted by PBS&J on October 9, 2007 by letter with a description of the SUMC Project and a request for a listing of local, interested Native American representatives and information on traditional or sacred lands within the SUMC Sites and surrounding area. The search performed by the NAHC of

the sacred land file did not identify the presence of recorded Native American sacred sites in the SUMC Sites.¹⁷ The NAHC also provided a list of Native American individuals/organizations that may have knowledge of cultural resources in the SUMC Sites. Letters that included a brief description of the SUMC Project and a project location map were sent to each individual/organization identified on the NAHC list, who are listed in Table 3.8-1. The NAHC requests that follow-up phone calls be made to these Native American individuals/organizations if they do not respond to the letters. Follow-up telephone calls were made by PBS&J on December 27, 2007. As shown in Table 3.8-1, Michelle Zimmer, Irene Zwierlein, and Ann Marie Sayers recommended that an archaeologist and Native American monitor earth-disturbing activities; the other Native American individuals/organizations could not be reached.

**Table 3.8-1
Native Americans Contacted**

Name and Affiliation	Method of Consultation	Date of Consultation	Response
Jakki Kehl Ohlone/Costanoan	Letter Telephone	November 15, 2007 December 27, 2007	None
Michelle Zimmer, CR Coordinator Amah/Mutsun Tribal Band	Letter Telephone	November 15, 2007 December 27, 2007	Recommends an archaeologist and Native American monitor earth-disturbing activities.
Irene Zwierlein, Chairperson Amah/Mutsun Tribal Band	Letter Telephone	November 15, 2007 December 27, 2007	Recommends an archaeologist and Native American monitor earth-disturbing activities.
Ann Marie Sayers, Chairperson Indian Canyon Mutsun Band	Letter Telephone	November 15, 2007 December 27, 2007	Recommends an archaeologist and Native American monitor earth-moving activities.
Rosemary Cambra, Chairperson Muwekma Ohlone Indian Tribe of the SF Bay Area	Letter Telephone	November 15, 2007 December 27, 2007	None
Andrew Galvan Ohlone Indian Tribe	Letter Telephone	November 15, 2007 December 27, 2007	None
Ramona Garibay, Representative Trina Marine Ruano Family	Letter Telephone	November 15, 2007 December 27, 2007	None

Source: PBS&J, 2008.

Cultural Resource Sensitivity. The NWIC records search revealed no recorded prehistoric or historic-period sites or features in the SUMC Sites. The NWIC concluded that there is a moderate to high likelihood that Native American cultural resources exist on a portion of the areas surrounding the SUMC Sites due to environmental conditions that may have been favorable to Native Americans. The search of the NAHC sacred lands database and Native American correspondence failed to indicate the presence of Native American resources in the immediate SUMC Sites. The NAHC indicated that the

¹⁷ Debbie Pilas-Treadway, Environmental Specialist III, Native American Heritage Commission, letter to PBS&J, re: Proposed Stanford University Medical Center Facilities Renewal and Replacement project, October 9, 2007.

absence of specific site information in the sacred lands database or through correspondence with tribal representatives does not indicate the absence of cultural resources on the SUMC Sites.

Research has revealed that several important archaeological resources have been discovered along and in the banks of San Francisquito Creek, about 0.25 miles north of the Main SUMC Site. Many of these resources were discovered several feet below the surface. Surveys of the SUMC Sites and surrounding areas by Stanford University archaeologists have discovered several archaeological sites immediately adjacent to San Francisquito Creek. All of the documented prehistoric archaeological resources are restricted to the creek vicinity and a 300-foot area that extends away from the creek. In these areas there are dense archaeological remains, including village sites and burials.¹⁸ Outside of this zone, prehistoric cultural resources have not been encountered. The SUMC Sites are entirely outside of this archaeological zone.

Paleontological Resources. Although a review of the Geologic Map of California suggests that there is no fossil potential for the SUMC Sites,¹⁹ the Bay Area in general is rich in paleontological resources. A buried Pleistocene stream bed is under the Main SUMC Site. The stream bed has been encountered in at least three locations: the Lucas Center, the Neiman Marcus store, and the storm drain at Quarry Road near El Camino; however, the precise location of the stream bed is unknown. As previous construction activities have shown that this creek bed contains paleontological resources, the excavation of trenches that are at least 100 feet in length²⁰ and 15 feet in depth could expose the buried Pleistocene-era stream channel and intact skeletons of extinct species. Other important finds recovered in the vicinity of the SUMC Sites include mastodon tusk, fragments of petrified mastodon and/or dinosaur bone, isolated fragments of bones from late Pleistocene mammals, and marine fossils. In addition, one of the best-preserved and complete specimens of a *Paleoparadoxia* ("sea cow") outside of China was discovered near the SLAC National Laboratory to the west of the SUMC Sites. Given the presence of the buried Pleistocene stream in the vicinity of the SUMC Sites and the discovery of important finds recovered in or near the SUMC Sites, it is possible that paleontological resources would be encountered.²¹

In summary, the findings indicate a high sensitivity for paleontological and historic archaeological cultural resources within the vicinity of the SUMC Sites, with a low sensitivity for archaeological cultural resources throughout most of the vicinity of the SUMC Sites.

¹⁸ Laura Jones, Director, Heritage Services and University Archaeologist, personal communication, January 3, 2008.

¹⁹ Jennings, C. W., 1977, Geologic Map of California, 1:750,000, California Division of Mines and Geology, Sacramento.

²⁰ One hundred feet or a sufficient length to support detailed hydrological study that could identify the Pleistocene-era stream channel

²¹ Jones, L. Director, Heritage Services and University Archaeologist, personal communication, January 3, 2008.

SUMC Sites

The following descriptions and significance assessments were taken from the historical resources reports prepared by Stanford University in 2007 and Architectural Resources Group, Inc. in 2009 (see Appendix I). Seven potential resources within the SUMC Sites were evaluated: Governor's Avenue, Hoover Pavilion, Nurse's Cottage at Hoover Pavilion, 701 Welch Road, 703 Welch Road, 1101 Welch Road, and the Stone Building complex (including the East, West, Core, Boswell, Grant, Alway, Lane, and Edwards buildings). Each of the buildings that are within the SUMC Sites is described briefly below. Each resource was evaluated using the standards for eligibility for listing on the California Register of Historical Resources (CRHR) and the National Register of Historic Places (NRHP). Part of the evaluation process includes determining if the resource maintains integrity. The seven elements of integrity identified by the National Park Service include location, design, setting, materials, workmanship, feeling, and association.²²

Governor's Avenue. Governor's Avenue (or Governor's Lane) was a tree-lined drive originally planted by Governor Leland Stanford, Sr. between 1876 and 1878. The drive started at his carriage house, continued along San Francisquito Creek, and ended at the Palo Alto Stock Farm. The drive originally was lined with more than 700 Tasmanian blue gum eucalyptus trees. Intact portions of Governor's Avenue are considered to be a significant historical resource. Within the boundary of the SUMC Sites, however, most of Governor's Avenue is absent.

In evaluating Governor's Avenue, Stanford University's Director of Heritage Services and University Archaeologist considered if the resource is eligible for listing on the CRHR, under criteria 1, 2, or 3 (see Applicable Plans and Regulations later in this section for the CRHR criteria). Stanford University's Director of Heritage Services and University Archaeologist concluded that the resource does not appear eligible for listing under criterion 1 for association with events at the Palo Alto Stock Farm. In addition, while the resource is associated with Leland Stanford, the resource is not representative of his many achievements as governor, railroad magnate, and philanthropist. Finally, Stanford University's Director of Heritage Services and University Archaeologist evaluated the resource as a fine example of a type of designed landscape. It was determined that the resource exhibits most of the characteristic features of 19th century avenues: evenly spaced trees of similar size and type, a consistent roadway width, and strong straight lines. It was also determined the intact portions of the avenue retain integrity, and Governor's Avenue appears to be eligible for listing on the CRHR under criterion 3.²³

Two segments of Governor's Avenue run within the Main SUMC Site, west of Pasteur Drive and adjacent to Welch Road. ARG agreed that some segments of Governor's Avenue may have historic significance; however, ARG found that the segments in the Main SUMC Site does not retain sufficient integrity to be a contributing part of this resource. While the integrity of location has been retained,

²² National Park Service How to Apply the National Register Criteria for Evaluation. National Register Bulletin 15. National Park Service, Washington, D.C. 1991.

²³ Jones, L., Cultural Resources and the Stanford University Medical Facilities Renewal and Replacement Project, 2007.

other original aspects of the Avenue, including the design, setting, materials, workmanship, and feeling of the resource, have been lost. ARG concluded that the segments of Governor's Avenue within the Main SUMC Site would not be eligible for listing in the CRHR or NRHP.²⁴

In reviewing Stanford University's and ARG's evaluations, the City of Palo Alto's Historic Preservation Planner concurred with the finding that Governor's Avenue does not meet the criteria for listing on the CRHR.²⁵ Therefore, within the SUMC Sites, the Governor's Avenue resource is not considered to be an historical resource for purposes of the City's CEQA analysis.

Hoover Pavilion. The Hoover Pavilion, along Quarry Road near El Camino Real, was constructed in 1930 to house the Palo Alto Hospital. Additions to the hospital were completed in 1939. The building is L-shaped in plan with a five-story central block, six-story tower, and four-story wings. It is Art Deco in style, which is represented in the ziggurat form, vertical emphasis of window bays, and stylized floral and geometric terra cotta panels and fixtures.

Stanford University's Director of Heritage Services and University Archaeologist evaluated the Hoover Pavilion for listing on the CRHR. It was concluded that the Hoover Pavilion is not associated with significant events or persons, and therefore is not recommended eligible for the CRHR under criteria 1 or 2. However, it was concluded that the building is recommended eligible for listing under criterion 3 as an important example of pre-World War II hospital design. The building was considered a high-rise at the time of its construction. Its ziggurat roofline is strongly associated with art deco. The Hoover Pavilion may be the only ziggurat profile building in Palo Alto, and is one of a few examples of art deco structures in the City. In regards to the resource's integrity, the Stanford University report stated that although decades of interior remodeling have compromised the feeling of being inside an historic hospital, the exterior art deco features and original building materials are intact, and convey a fairly high level of integrity. The Hoover Pavilion meets the condition of criterion 3 as exemplifying the distinctive characteristics of a pre-World War II hospital and appears to maintain sufficient integrity for listing on the CRHR.²⁶

ARG concurred with Stanford's conclusion that the Hoover Pavilion appears eligible for listing on the CRHR under criterion 3. ARG also stated that an evaluation of the Hoover Pavilion conducted by Dames and Moore found the resource to be eligible for the NRHP under criteria A and C.²⁷

The City of Palo Alto's Historic Preservation Planner concurs with Stanford University's and ARG's evaluations of the Hoover Pavilion. In addition, although the art deco fountain near the main Hoover

²⁴ Architectural Resources Group, Inc., Stanford University Medical Center Historic Resource Evaluation and Peer Review, 2009.

²⁵ Dennis Backlund, Historic Preservation Planner, City of Palo Alto, Staff Comments on the Stanford Shopping Center and University Medical Center: Historic Resource Evaluation and Peer Review, prepared by Architectural Resources Group, Inc., memorandum to Julie Caporgno, Chief Planning and Transportation Official, and Steven Turner, Advance Planning Manager, May 15, 2008.

²⁶ Jones, L., Cultural Resources and the Stanford University Medical Facilities Renewal and Replacement Project, 2007.

²⁷ Architectural Resources Group, Inc., Stanford University Medical Center Historic Resource Evaluation and Peer Review, 2009.

Pavilion entry does not appear in photographs or plans from the 1930 or 1939 construction, the City of Palo Alto's Historic Preservation Planner finds the fountain, which can be seen in an aerial photograph of 1947, to be a significant related landscape feature.²⁸ Therefore, the Hoover Pavilion is considered to be an historical resource for purposes of the City's CEQA analysis.

Nurses' Cottage at the Hoover Pavilion. The Nurses' Cottage is a multiple-level building with an irregular footprint. Palo Alto architects Birge Clark and David Clark designed the building in 1941. Birge Clark and Walter Stromquist designed the 1948 addition to the building.

The Stanford University report concluded that the Nurses' Cottage is not associated with any significant historic events, and that none of the former occupants achieved notoriety. Lucie Stern, a well-known local philanthropist financed the construction of the cottage. Mrs. Stern contributed to the construction of other, better known properties in Palo Alto. The Nurses' Cottage does not have a strong association with Mrs. Stern, nor is it one of her major contributions to Palo Alto and Stanford. Therefore, it does not appear to be eligible for the CRHR under criteria 1 or 2. The Nurses' Cottage was designed by Palo Alto architects Birge Clark and David Clark in 1941. The property is a modest building, and is not an example of Clark's well-known Spanish colonial revival style that characterizes many of his other projects in Palo Alto. Therefore, the Nurses' Cottage does not appear eligible for the CRHR under criterion 3, and does not appear to be a significant historical resource. The Stanford University report did not evaluate the integrity of the Nurses' Cottage, since the building is not considered eligible for the CRHR.²⁹ Based on the information presented in the Stanford University report, ARG concurred with Stanford University's findings and recommendation.³⁰

The City of Palo Alto's Historic Preservation Planner concurs with Stanford's and ARG's evaluations, stating that the general style of the building appears too understated to meet the eligibility criteria for listing on the CRHR.³¹ Therefore, it is not considered to be an historical resource for purposes of CEQA analysis.

701 Welch Road, Whelan Building. This complex consists of five buildings – four of which were built between 1957 through 1961. An elevator tower was built in this complex in 1998. The four original buildings were designed by architect Don Knorr and range from one to three stories and form a "U" shape around a sunken central courtyard. The buildings' architectural elements are typical of

²⁸ Dennis Backlund, Historic Preservation Planner, City of Palo Alto, Staff Comments on the Stanford Shopping Center and University Medical Center: Historic Resource Evaluation and Peer Review, prepared by Architectural Resources Group, Inc., memorandum to Julie Caporgno, Chief Planning and Transportation Official, and Steven Turner, Advance Planning Manager, May 15, 2008.

²⁹ Jones, L., *Cultural Resources and the Stanford University Medical Facilities Renewal and Replacement Project*, 2007.

³⁰ Architectural Resources Group, Inc., Stanford University Medical Center Historic Resource Evaluation and Peer Review, 2009.

³¹ Dennis Backlund, Historic Preservation Planner, City of Palo Alto, Staff Comments on the Stanford Shopping Center and University Medical Center: Historic Resource Evaluation and Peer Review, prepared by Architectural Resources Group, Inc., memorandum to Julie Caporgno, Chief Planning and Transportation Official, and Steven Turner, Advance Planning Manager, May 15, 2008.

the International Style and consist of the flat roof, use of glass and steel, skeleton-frame construction, and lack of nonessential decoration.

Stanford University's Director of Heritage Services and University Archaeologist concluded that there are no historical events associated with the buildings that would make the structures eligible for listing on the CRHR under criterion 1. Four of the buildings were designed by San Francisco Bay Area modernist architect, Don Knorr. The buildings are neither among his best known examples, nor are they good examples of Modern-era style. In addition, there have been major modifications to the buildings since their completion in 1961. It was concluded that the buildings do not appear to meet any of the criteria for listing on the CRHR. Substantial alterations to the buildings have compromised their integrity.³² Based on a site inspection, and information and photographs provided by Stanford, ARG concurred that the property does not appear eligible for listing on the CRHR.³³ The City of Palo Alto's Historic Preservation Planner concurs with Stanford University's and ARG's evaluations, and believes that the structures do not merit listing on the CRHR.³⁴ Therefore, it is not considered to be an historical resource for purposes of CEQA analysis.

703 Welch Road, Welch Road Professional Center. The Welch Road Professional Center is a two-story, H-shaped building with one-story connecting elements at the north and south ends. Developer J.P. Aced completed the buildings first phase in 1958. The second story was an addition in 1963. The 1963 addition was designed by architect Bill Davies and landscape designer Doug Baylis. The original design has been compromised by the 1963 addition as well as by subsequent alterations.

Stanford University's Director of Heritage Services and University Archaeologist concluded that none of the tenants at the Welch Road Professional Center could be considered important to the local history, and that no significant events occurred at the property. Therefore, the property is not recommended eligible for listing on the CRHR under criteria 1 or 2. The building features a modern design, but is not an excellent example of the Modern-era style. Portions of the building have been redesigned and altered, and doors and windows have been replaced, compromising the building's integrity. It was concluded that the building at 703 Welch Road does not appear to be eligible for listing on the CRHR.³⁵

ARG conducted a site inspection and reviewed information derived from the Stanford report. ARG concurred with the Stanford report's findings, stating that the Welch Road Professional Center lacks historic integrity and that it does not meet any of the CRHR criteria for listing; therefore it is not

³² Jones, L., *Cultural Resources and the Stanford University Medical Facilities Renewal and Replacement Project*, 2007.

³³ Architectural Resources Group, Inc., Stanford University Medical Center Historic Resource Evaluation and Peer Review, 2009.

³⁴ Dennis Backlund, Historic Preservation Planner, City of Palo Alto, Staff Comments on the Stanford Shopping Center and University Medical Center: Historic Resource Evaluation and Peer Review, prepared by Architectural Resources Group, Inc., memorandum to Julie Caporgno, Chief Planning and Transportation Official, and Steven Turner, Advance Planning Manager, May 15, 2008.

³⁵ Jones, L., *Cultural Resources and the Stanford University Medical Facilities Renewal and Replacement Project*, 2007.

considered to be an historical resource under CEQA.³⁶ The City of Palo Alto's Historic Preservation Planner agrees with Stanford University's and ARG's findings.³⁷

1101 Welch Road, Medical Plaza. The Medical Plaza consists of three one-story buildings surrounded by parking lots, screening fences, and landscaping. There is a small courtyard between two of the buildings. The buildings were designed by William Wurster, and the grounds by landscape architect Lawrence Halprin.

The Stanford University report states that the medical offices and pharmacy on the property are not identified with any notable historic events or notable people. While the buildings were designed by a prominent architect, the buildings are a relatively late design. The buildings are common suburban professional office buildings. At the time of construction, giant eucalyptus trees along Governor's Avenue crossed the property, but have since been removed. It was concluded that the buildings' exteriors have retained integrity; however, the interiors have been updated and the landscaping has lost its integrity and therefore 1101 Welch Road does not appear eligible for listing on the CRHR.³⁸

Based on a site inspection and a review of information provided in the Stanford report, ARG concurred with Stanford University's findings. ARG stated that the property is not associated with significant events or persons, is not a notable example of William Wurster's or Lawrence Halprin's work, and does not appear to be eligible for the CRHR.³⁹ The City of Palo Alto's Historic Preservation Planner concurs with Stanford University's and ARG's conclusions that the buildings do not appear eligible for the CRHR.⁴⁰ Therefore, it is not considered to be an historical resource for purposes of CEQA analysis.

Stone Building Complex. The Stone Building complex (also referred to as the 1959 Hospital Building complex) (including the East, West, Core, Boswell, Grant, Alway, Lane, and Edwards buildings), constructed in 1959 and 1963, is a large three-story building with two wings projecting from the main block to form a forecourt with a central fountain. Interior courtyards are located throughout the building complex. Originally the joint Palo Alto-Stanford Hospital and Stanford University Medical School, the building complex was designed by Edward Durell Stone and the landscaping was designed by Thomas Church.

³⁶ Jones, L., *Cultural Resources and the Stanford University Medical Facilities Renewal and Replacement Project*, 2007.

³⁷ Dennis Backlund, Historic Preservation Planner, City of Palo Alto, Staff Comments on the Stanford Shopping Center and University Medical Center: Historic Resource Evaluation and Peer Review, prepared by Architectural Resources Group, Inc., memorandum to Julie Caporgno, Chief Planning and Transportation Official, and Steven Turner, Advance Planning Manager, May 15, 2008.

³⁸ Jones, L., *Cultural Resources and the Stanford University Medical Facilities Renewal and Replacement Project*, 2007.

³⁹ Architectural Resources Group, Inc., Stanford University Medical Center Historic Resource Evaluation and Peer Review, 2009.

⁴⁰ Dennis Backlund, Historic Preservation Planner, City of Palo Alto, Staff Comments on the Stanford Shopping Center and University Medical Center: Historic Resource Evaluation and Peer Review, prepared by Architectural Resources Group, Inc., memorandum to Julie Caporgno, Chief Planning and Transportation Official, and Steven Turner, Advance Planning Manager, May 15, 2008.

Stanford University's Director of Heritage Services and University Archaeologist evaluated the Stone Building complex in 2007 as part of the SUMC Project Application. The evaluation concluded that the complex is not one of Stone's major achievements and is probably not eligible for listing on the CRHR.⁴¹ In 2008, ARG, a firm that meets the Secretary of the Interior's Standards for Architectural History, performed, on behalf of the City of Palo Alto, an evaluation of the Stone Building complex which included a peer review of Stanford University's evaluation. ARG evaluated the Stone Building complex in relation to the eligibility criteria of the CRHR and the seven aspects of integrity defined in National Register Bulletin 15. ARG noted that Stone designed the Stanford University Medical Center/Palo Alto Hospital during a pivotal and innovative phase of his career; that it remains in its original location with its essential physical features intact; that although the setting has been altered, it is not significantly diminished; that the character-defining materials and workmanship are largely intact; and that the original feeling of the building is intact. In addition, both Stanford University and ARG noted that the complex is associated with an important historic event: the first heart transplant in the U.S. As a result, ARG concluded that the Stone Building complex appears eligible for listing on the CRHR and should be considered an historical resource for purposes of the City's CEQA review (see Appendix I).⁴²

The City of Palo Alto's Historic Preservation Planner reviewed the evaluations of ARG and Dr. Jones of Stanford University. The City's Historic Preservation Planner concurred with ARG that although there have been some alterations to the complex's courtyards and the surrounding setting; the complex as a whole is largely intact and conveys the original design intent. In addition, the main entry facades and several architectural elements retain a high degree of integrity and convey an expression of Stone's work during an important phase of his career. The City's Historic Preservation Planner also agrees that enough time has passed to understand the significance of the heart transplant that occurred at the hospital, and that the building retains sufficient integrity for association with that time period. Therefore, the City's Historic Preservation Planner concurred with ARG that the Stone Building complex appears eligible for listing on the CRHR and therefore is an historical resource pursuant to CEQA.⁴³

Applicable Plans and Regulations

Federal Regulations

The National Historic Preservation Act of 1966 (NHPA), as amended, established the NRHP, which contains an inventory of the nation's significant prehistoric and historic properties. Under 36 CFR 60,

⁴¹ Jones, L., *Cultural Resources and the Stanford University Medical Facilities Renewal and Replacement Project*, 2007.

⁴² Architectural Resources Group, Inc., *Stanford University Medical Center Historic Resource Evaluation and Peer Review*, 2009.

⁴³ Dennis Backlund, Historic Preservation Planner, City of Palo Alto, *Staff Comments on the Stanford Shopping Center and University Medical Center: Historic Resource Evaluation and Peer Review*, prepared by Architectural Resources Group, Inc., memorandum to Julie Caporgno, Chief Planning and Transportation Official, and Steven Turner, Advance Planning Manager, May 15, 2008.

properties are recommended for possible inclusion on the NRHP if the property is at least 50 years old,⁴⁴ has integrity, and meets one of the following criteria:

- A. Is associated with significant events in history, or broad patterns of events;
- B. Is associated with significant people in the past;
- C. Embodies the distinctive characteristics of an architectural type, period, or method of construction, or is the work of a master, or possesses high artistic value, or that represents a significant and distinguishable entity whose components may lack individual distinction; and/or
- D. Has yielded, or may yield, information important in history or prehistory.

Certain types of resources are usually excluded from consideration for listing in the NRHP, but can be considered if they meet special requirements in addition to meeting one of the above criteria. Such resources include religious sites, relocated structures, graves and cemeteries, reconstructed structures, commemorative structures, and structures that have achieved significance within the past fifty years. A resource that meets the NRHP criteria is typically considered a historical resource for purposes of CEQA evaluations. However, a resource that does not meet the NRHP standards may still be considered a historical resource if: it meets the state criteria for listing; it is included on a local register of historical resources; or it has been identified as significant in an historical resource survey meeting statutorily defined requirements.

State Regulations

As defined by Section 15064.5(a)(1) of the State CEQA Guidelines, a resource shall be considered historically significant if it has been listed on the CRHR, or if the State Historical Resources Commission has determined that the resource meets the criteria for listing. However, a resource need not be listed on any register to be found historically significant for CEQA purposes (Public Resources Code Section 21084.1). Guidelines Section 15064.5(a)(3) explains that a resource may be determined by the lead agency to be an historical resource if the agency's determination is supported by substantial evidence: "Generally a resource shall be considered by the lead agency to be 'historically significant' if the resource meets the criteria for listing on the California Register of Historical Resources..." Therefore, for purposes of this analysis, the City has applied the CRHR criteria to evaluate whether buildings, structures, or landscape features within the SUMC Sites are historically significant.

Given that the CRHR was modeled after the NRHP, its eligibility criteria are very similar to the eligibility criteria of the NRHP except that the CRHR criteria also contain references to resources that reflect the history of California. Another consideration for eligibility for the CRHR is that sufficient time must have passed to obtain a scholarly perspective on the events or individuals associated with the resource. A resource less than fifty (50) years old or older may be considered for listing in the California Register if it can be demonstrated that sufficient time has passed to understand its historical importance.⁴⁵ Generally, to be eligible for listing on the CRHR (and therefore considered a historical

⁴⁴ Criteria for inclusion under the California Register of Historic Resources are essentially the same as for the NRHP, except buildings 45 years old or older may qualify as historic resources.

⁴⁵ California Code of Regulations Section 4852(d)(2).

resource under CEQA), a resource must possess integrity and demonstrate eligibility under at least one of the following criteria:

- A. Is associated with events that have made a significant contribution to the broad patterns of California's history and cultural heritage;
- B. Is associated with the lives of persons important in our past;
- C. 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
- D. Has yielded, or has the potential to yield, information important to the prehistory or history of the local area, California or the nation.

Section 15064.5(c) of the State CEQA Guidelines applies to the analysis of effects on archaeological sites. When a project would affect an archaeological site, a lead agency must determine whether the site is an historical resource, and therefore subject to the CRHR criteria listed above (particularly Criterion 4), or whether the site is a *unique archaeological resource*, as defined in Section 21083.2 of CEQA, and whether the provisions of that section for mitigation apply. If a lead agency determines that an archaeological site is neither historic nor unique, the resource requires no further consideration, other than recordation of its existence if the lead agency so elects.

The State Historical Resources Commission (SHRC) is responsible for reviewing, commenting, and approving nominations to the NRHP, CRHR, California Historical Landmarks, and California Points of Historical Interest. As California's review board, the SHRC responsibilities include reviewing NRHP nominations and deciding if a nomination meets the eligibility criteria prior to its submission to the Keeper of the Register at the National Park Service. Approval by the SHRC is a recommendation to the State Historic Preservation Officer to forward the nomination for final approval by the Keeper of the Register. According to federal regulations, a property cannot be listed on the NRHP if the owner objects to the listing. If the owner objects, a property can, however, be determined eligible for listing by the Keeper of the Register. Those resources that the Keeper of the Register approves for listing or determines eligible for listing are automatically listed on the CRHR. Properties recommended and approved for listing by the SHRC as California State Historical Landmarks and California State Points of Historical Interest are also automatically listed on the CRHR.

Local Regulations

The City of Palo Alto's Historic Preservation Ordinance was adopted in 1980 and expanded to its current form in 1986. According to Section 16.49.010 of the Municipal Code, the purpose of the ordinance is to provide "recognition, protection, enhancement, and use of historically significant resources located within the City that are of great cultural, aesthetic, and economic benefit to the community." The ordinance covers over 450 historic properties that are listed on the Palo Alto Historic Inventory or are also on the NRHP. None of the buildings in the SUMC Sites are listed on the City of Palo Alto Master List of Structures on the Historic Inventory.⁴⁶

⁴⁶ City of Palo Alto, *City of Palo Alto Master List of Historic Structures on the Historic Inventory*, revised June 14, 2006, http://www.cityofpaloalto.org/depts/pln/historic_preservation.asp.

Impacts and Mitigation Measures

Standards of Significance

Based on significance thresholds determined by the City of Palo Alto, the SUMC Project would result in a significant cultural resource impact if it would:

- Cause a substantial adverse effect (as defined in CEQA Guidelines section 15064.5(b)) on an historical resource listed or eligible for listing on the National and/or California Register, or listed on the City's Historic Inventory;
- Eliminate important examples of major periods of California history or prehistory;
- Cause damage to an historic or unique archaeological resource as defined in Section 15064.5 of the CEQA Guidelines;
- Disturb Native American human remains, including those interred outside of formal cemeteries;
- Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature; or
- Directly or indirectly destroy a local cultural resource that is recognized by City Council resolution.

Environmental Analysis

CR-1. Impacts on Historical Resources. The SUMC Project would have a significant impact on historical resources. (S)

Demolition and Construction Impacts. The SUMC Project would involve the demolition of several buildings at both the Main SUMC Site and the Hoover Pavilion Site (see Figure 2-5 in Section 2 of this document). Buildings to be demolished include the sheds and storage buildings that are located at the Hoover Pavilion Site, just south of Hoover Pavilion; the SHC portion of the Stone Building complex (the East, West, Core, and Boswell Buildings); the 1973 Core Expansion Building; Parking Structure 3; the buildings at 1101 Welch Road, 703 Welch Road, 701 Welch Road; and the SHC portion of the Stone Building complex (the Grant, Alway, Lane, and Edwards Buildings). The Stone Building complex is the only structure to be demolished that appears eligible for listing on the CRHR (as described under Existing Conditions in this section) and is, therefore, considered by the City's Historic Preservation Planner, in concurrence with ARG, to be a significant historic resource. The demolition of the Stone Building complex would result in a significant impact on an historical resource.

Construction activities at the Hoover Pavilion Site include demolition, excavation, trenching, soil compaction, site grading, renovation of the existing Hoover Pavilion, and the addition of new structures. Vibration from construction activities in the vicinity of Hoover Pavilion, and accidents to the building from construction debris or equipment associated with nearby

construction would have the potential to cause damage to sensitive architectural features on the Hoover Pavilion, which is an historical resource. The structures to be demolished include small sheds and storage facilities (including the Nurse's Cottage described under Existing Conditions in this section) that are roughly as close as 20 feet from the Hoover Pavilion. Demolition work also would include a second-floor walkway that extends from the Hoover Pavilion building to the Nurse's Cottage, and a loading dock attached to the Hoover Pavilion. The medical office building would be located as close as 50 feet from the Hoover Pavilion. The project application indicates that heavy-duty equipment such as excavators, drill rig, concrete mixers, and pump trucks would be used during the demolition of existing sheds, foundations, and below grade work.⁴⁷ The geotechnical reports for the Hoover Pavilion Site did not recommend pile driving, since the underlying geologic units can safely support shallow foundations. As such, no vibration from pile-driving is expected.

Without mitigation, vibrations caused by construction activities can result in various levels of damage to historic buildings ranging from cosmetic to structural.⁴⁸ Most demolition of on-site structures would occur at roughly 20 feet from the Hoover Pavilion, and construction of the medical office structures would occur at roughly 50 feet from the Hoover Pavilion. At 25 feet, heavy-duty construction equipment such as a large bulldozer would produce vibration levels of approximately 0.089 peak particle velocity (PPV) inches/second. The standard threshold for a building such as the historic Hoover Pavilion is 0.12 PPV;⁴⁹ this level would be reached at approximately 20 feet. Therefore, vibration from most of the construction at the Hoover Pavilion Site is below the threshold and no damage to the historic Hoover Pavilion is expected. However, the demolition of the small sheds and storage facilities (including the bridge to the Nurse's Cottage and the loading dock attached to the building) would occur within 20 feet of the historic Hoover Pavilion and could cause significant damage to architectural features. These activities would not cause structural damage to the Hoover Pavilion.

The architectural features that could be adversely affected include the terracotta panels located over windows on the portions of the Hoover Pavilion that would be within 20 feet of the area in which buildings would be demolished or heavy equipment movement would occur. In addition, the stucco sides of the building within 20 feet of such areas could be damaged by falling debris or accidents associated with construction equipment movement.

Impacts from Interior and Exterior Renovation of the Hoover Pavilion. In addition to the proposed demolition and construction, SHC plans to renovate the existing five-story concrete Hoover Pavilion structure for use as a medical office and clinic building while preserving and

⁴⁷ Stanford University Medical Center, Stanford University Medical Center Facilities Renewal and Replacement Project Application, August 2007, as amended; Tab 8.

⁴⁸ California Department of Transportation Division of Environmental Analysis, Office of Noise, Air Quality, and Hazardous Waste Management, Sacramento, CA, *Transportation Related Earthborne Vibrations (Caltrans Experiences) Technical Advisory, Vibration TAV-02-01-R9601*, <http://www.dot.ca.gov/hq/env/noise/pub/TRANSPORTATION%20RELATED%20EARTHBORNE%20VIBRATIONS.pdf> > Page 10, (February 20, 2002).

⁴⁹ Federal Transit Administration, *Transit Noise and Vibration Impact Assessment*, Table 12-2, May 2006.

enhancing the historic art deco character of the building exterior. The building is currently used for clinics and would continue to be used for this purpose. Medical offices would be an additional use after renovation. The fourth floor of the Hoover Pavilion (approximately 6,000 square feet) would be dedicated to utilities and mechanical equipment. SHC anticipates that approximately one-half of the remaining space would be used and occupied by community practitioners, and one-half would be used and occupied by SHC. Presently, SHC uses Hoover Pavilion for some of its primary care clinic services. SHC anticipates continuing this use, and relocating its other primary care clinics from the Blake-Wilbur clinic building to the Hoover Pavilion.

The interior of the Hoover Pavilion building has been repeatedly remodeled since its original construction in the 1930s; there are no significant interior spaces that remain intact from that period, and there are only a few remnants of interior historic materials and finishes left. The renovation would require substantial interior demolition and reconstruction to meet building code requirements and support modern medical office and clinic use. As part of the SUMC Project, an inventory of the few surviving historic elements in the interior, such as light fixtures and ventilation grilles, and some stair railings, would be prepared. These elements would be reused where allowed by building codes and where compatible with the new uses of the building.

The SUMC Project's preservation focus for the Hoover Pavilion is to restore the exterior of the building so that its unique art deco character can be enhanced and appreciated. Exterior demolition would be limited to removal of additions made after the main building was completed in 1939, including the second-floor walkway to the Nurse's Cottage and loading dock, and alterations to support Americans with Disabilities Act (ADA) access and life safety as required by code (with reference to the accessibility provisions of the 2007 California Historical Building Code). The historic character of the building's exterior would be enhanced by removal of air conditioning units in window and door openings, and consolidation of rooftop mechanical equipment. The distinctive art deco terracotta panels and screens, bronze panels, and light fixtures would also be preserved and restored by the SUMC Project. The building's historic character-defining windows would be retained and restored. A proposal to replace existing historic windows would require review under the Secretary of the Interior's Standards for Rehabilitation of Historic Properties and approval by the City of Palo Alto.⁵⁰

Because no significant interior spaces remain intact from the period of significance, interior renovations to Hoover Pavilion would have a less-than-significant impact on the historic integrity of the Hoover Pavilion. Exterior modifications would retain significant character-defining features (e.g. retaining and restoring historic windows) and eliminate non-historic elements (e.g. removal of window air conditioning units); therefore, would have a less-than-significant impact on the historic integrity of the Hoover Pavilion. The proposed Medical Office Building and parking structure would be in close proximity to the Hoover Pavilion;

⁵⁰ Catherine Palter, Associate Director, Land Use and Environmental Planning, Stanford University.

however, significant view would be retained and many non-historic buildings are in the surrounding area. And therefore, the changes to the surrounding setting resulting from these two new buildings would not result in an adverse, material alteration of significant characteristics and would result in a less-than-significant impact.

MITIGATION MEASURES. Implementation of the Mitigation Measures CR-1.1 and CR-1.5 would reduce potential vibration and construction-related impacts to the Hoover Pavilion resulting from demolition of adjacent sheds and storage facilities, impacts from falling construction debris, and impacts from movement of heavy equipment to a less-than-significant level. Implementation of Mitigation Measures CR-1.2 through CR-1.4 would reduce impacts due to the loss of the Stone Building complex; however, the impact would remain significant and unavoidable. Mitigation Measure CR-1.5 requires implementation of the Stanford Hoover Pavilion Protection Documents (Documents) prepared by ARG and dated September 21, 2009 (see Appendix J). These Documents provide specifications for the treatment and protection of the Hoover Pavilion during SUMC Project construction activities that could damage the historic fabric of the building including the installation of protective covering of certain exterior surfaces and the removal, cataloging, and storage of selective historic elements. The Documents are based on National Park Service and National Fire Protection Agency protection guidelines and include details on materials and methods of installation for the protective coverings to prevent damage from nearby demolition. Proper installation, as required in the Documents would prevent the protective covering itself from damage the building. The removal of historic elements would ensure their protection of some of the more fragile elements from construction activities and property cataloging and storage of such elements would ensure their proper care and reinstallation. The Documents include such details as specifying under what weather conditions it is acceptable to perform the various tasks that could be negatively impacted by different weather conditions. Any variations on the specifications of the Documents would not be allowed without prior consultation with ARG, or a qualified preservation architect. Refer to Appendix J, Stanford Hoover Pavilion Protection Documents, for a complete list of specifications for the Hoover Pavilion.⁵¹ (SU)

CR-1.1 *Manually Demolish Structures at the Hoover Pavilion Site.* Where feasible, the project sponsors shall establish a perimeter of construction fencing around the Hoover Pavilion at a minimum of 25 feet to establish a protective buffer around the building. The demolition of these sheds and storage facilities shall be accomplished manually without the use of vibration causing equipment. Additional protective fencing at a height sufficient to prevent any debris from hitting the building shall also be installed between the Hoover Pavilion and demolition activities occurring within the 25 foot buffer.

CR-1.2 *Prepare HABS Documentation for the Stone Building Complex.* The SUMC Project sponsors shall prepare HABS-like documentation using the National Park

⁵¹ Architectural Resources Group, Inc., "Stanford Hoover Pavilion Protection Documents," memo to PBS&J, September 21, 2009.

Services' Historic American Building Surveys Level III guidelines for each of the buildings in the Stone Building complex prior to demolition of each building that comprises this historic resource (East, West, Core, Boswell, Edwards, Lane, Alway, and Grant). HABS-like recordation shall not be required until each of the individual buildings is vacated and prepared for demolition. The documentation shall include written and photographic documentation of each of the historic structures within the Stone Building complex. The documentation shall be prepared by a qualified professional meeting the Secretary of the Interior's Professional Qualifications Standards for Architectural History or History.

The documentation shall be prepared based on the National Park Services' HABS standards and include, at a minimum, the following:

- Site-specific history and appropriate contextual information regarding the Stone Building complex. This history shall focus on the reasons for the buildings' significance; heart transplantation program and the role of E.D. Stone in the design of the complex.
- Accurate mapping of all buildings that are included in the Stone Building complex, scaled to indicate size and proportion of the buildings to surrounding buildings; if existing plans accurately reflect these relationships these may be reformatted for submittal per HABS guidelines for CAD submittals.
- Architectural descriptions of the major exterior features and public rooms within the Stone Building complex as well as descriptions of typical patient, office, laboratory, and operating rooms.
- Photographic documentation of the interior and exterior of the Stone Building complex and Thomas Church-designed landscape features. Either HABS standard large format or digital photography may be used. If digital photography is used, the ink and paper combinations for printing photographs must be in compliance with National Register-National Historic Landmark photo expansion policy and have a permanency rating of approximately 115 years. Digital photographs will be taken as uncompressed .TIF file format. The size of each image shall be 1600x1200 pixels at 300 ppi (pixels per inch) or larger, color format, and printed in black and white. The file name for each electronic image shall correspond with the Index to Photographs and photograph label.

CR-1.3 Distribute Written and Photographic Documentation to Agencies. The written and photographic documentation of historic resources shall be disseminated on archival-quality paper to Stanford University, the Northwest Information Center, and other local repositories identified by the City of Palo Alto.

CR-1.4 Prepare Permanent Interpretive Displays/Signage/Plaques. The SUMC Project sponsors shall install interpretive displays within the SUMC Sites that provide

information to visitors and residents regarding the history of the Stone Building complex. These displays shall be installed in highly visible public areas such as the property's open space or in public areas on the interiors of buildings. The displays shall include historical data and photographs as well as physical remnants of architectural elements. Interpretive displays and the signage/plaques installed on the property shall be sufficiently durable to withstand typical Palo Alto weather conditions for at least five years. Displays and signage/plaques shall be lighted, installed at pedestrian-friendly locations, and be of adequate size to attract the interested pedestrian. Maintenance of displays and signage/plaques shall be included in the maintenance program on the property. Location and materials for the interpretative displays shall be subject to review by the Palo Alto Architectural Review Board and approval by the Planning Director.

CR-1.5 Implement Protection Documents for the Hoover Pavilion. The SUMC Project sponsors shall ensure the implementation of the Stanford Hoover Pavilion Protection Documents (Documents) prepared by ARG and dated September 21, 2009. The SUMC Project sponsors shall comply with the specifications for the treatment and protection of the Hoover Pavilion during SUMC Project construction activities that could damage the historic fabric of the building as provided in the Documents.

CR-2. Impacts on Prehistoric or Archaeological Resources. The SUMC Project could potentially encounter archaeological resources and result in a significant impact. (S)

All documented prehistoric archaeological resources are restricted to the creek vicinity and a 300-foot area that extends away from San Francisquito Creek. In these areas, there are dense archaeological remains, including village sites and burials.⁵² Outside of this zone, prehistoric cultural resources have not been encountered. The SUMC Project would involve ground-disturbing activities. Although the SUMC Project is not likely to affect Native American or historic-period archaeological resources since the SUMC Sites are entirely outside of this archaeological zone, there is the possibility that archaeological resources could be encountered outside of the archaeological zone. This could be a significant impact. The SUMC Project sponsors would be required to implement Mitigation Measure CR-2.1 in the event unknown archaeological resources are discovered during construction.

MITIGATION MEASURE. Mitigation Measure CR-2.1 provides discovery and evaluation procedures for any previously unknown archaeological resources on the SUMC Sites and requires that a professional archaeologist employ preservation in place, data recovery, or other methods that meet the Secretary of the Interior's Standards for Archaeological Documentation to reduce impacts on unique archaeological resources. Therefore, implementation of the following mitigation measure would ensure the impact remains less than significant. (LTS)

⁵² Laura Jones, Director, Heritage Services and University Archaeologist, personal communication, January 3, 2008.

CR-2.1 Construction Staff Training and Consultation. Prior to any construction or earth-disturbing activities, a qualified archaeologist shall inform construction supervisors of the potential to encounter cultural resources. All construction personnel shall be instructed to be observant for prehistoric and historic-era artifacts, subsurface archaeological features or deposits, including accumulations of dark, friable soil ("midden"), stone artifacts, animal bone, and shell. In the event that any prehistoric or historic subsurface archaeological features or cultural deposits are discovered during construction-related earth-moving activities, all ground-disturbing activity within 100 feet of the resources shall be halted and the City shall be notified. The City shall consult with the Stanford University Archeologist to assess the significance of the find. If the find is determined to be an historical resource or a unique archaeological resource as defined by CEQA, then representatives of the City and the Stanford University Archaeologist shall meet to determine the appropriate course of action. All significant cultural materials recovered shall be subject to scientific analysis, professional museum curation, and a report shall be prepared by the qualified archaeologist according to current professional standards.

CR-3. Impacts on Human Remains. The SUMC Project could potentially encounter human remains and result in a significant impact. (S)

No human remains have been encountered within the boundaries of the SUMC Sites. Native American burials, however, are commonly found in the vicinity of the SUMC Sites along San Francisquito Creek. The Main SUMC Site is located about 0.25 miles south of the creek and the Hoover Pavilion Site is about 1,500 feet south of the creek. It is unlikely but possible that human remains could be encountered during ground-disturbing activities. This impact could be significant. Human burials apart from being potential archaeological resources have specific provisions for treatment in Section 5097 of the California PRC and Sections 7050.5, 7051, and 7054 of the California Health and Safety Code. If unanticipated human remains were discovered during construction, the SUMC Project sponsors would be required to comply with those regulations.

MITIGATION MEASURE. Mitigation Measure CR-3.1 summarizes the procedures to be taken in the event that any previously unknown human remains are discovered on the SUMC Sites. Therefore, implementation of the following mitigation measure would ensure that the potential impact remains less than significant. (LTS)

CR-3.1 Conduct Protocol and Procedures for Encountering Human Remains. If human remains (including disarticulated or cremated remains) are discovered at any SUMC Project construction site during any phase of construction, all ground-disturbing activity within 100 feet of the human remains should be halted and the Stanford University Archaeologist, City of Palo Alto, and the County coroner notified immediately, according to Section 5097.98 of the State Public Resources Code and Section 7050.5 of California's Health and Safety Code. If the remains

are determined by the County coroner to be Native American, the Native American Heritage Commission (NAHC) shall be notified within 24 hours, and the guidelines of the NAHC adhered to in the treatment and disposition of the remains. The SUMC Project sponsors shall retain a professional archaeologist with Native American burial experience to conduct a field investigation of the specific site and consult with the Most Likely Descendant, if any, identified by the NAHC. As necessary, the archaeologist may provide professional assistance to the City of Palo Alto, including the excavation and removal of the human remains. If the human remains cannot be avoided, and the Most Likely Descendant requests that the human remains be removed from its location, the SUMC Project sponsors shall implement removal of the human remains by a professional archaeologist. The City of Palo Alto shall verify that the mitigation is complete before the resumption of ground-disturbing activities within 100 feet of where the remains were discovered.

CR-4. Impacts on Paleontological Resources. The SUMC Project could have a significant impact on unique paleontological resources or unique geologic resources. (S)

The entire Bay Area region is considered to be rich in paleontological resources, and there have been significant finds in the immediate vicinity. Paleontological resources found include a large mastodon tusk in the bank of San Francisquito Creek, the upper limb of a giant bison, and individual skeletal elements. In addition, one of the best-preserved and complete specimens of a *Paleoparadoxia* ("sea cow") outside of China was discovered near the SLAC Linear National Laboratory to the west of the SUMC Sites. Although a review of the Geologic Map of California suggests that there is no fossil potential for the SUMC Sites, a Pleistocene-age creek bed occurs 15 to 25 feet below the surface of the SUMC Sites. The stream bed has been encountered under the Lucas Center and below the storm drain at Quarry Road near El Camino Real; however the precise location of the stream bed is unknown. The excavation of trenches that are at least 100 feet in length (or a sufficient length to support detailed hydrological study) or 15 feet in depth could expose the buried Pleistocene-era stream channel and intact skeletons of extinct species as previous construction activities have shown that this creek bed contains paleontological resources. Sensitivity to paleontological resources is therefore considered high throughout the vicinity of the SUMC Sites, including the SUMC Sites. Disturbance of any paleontological resource is a significant impact.

MITIGATION MEASURE. Mitigation Measure CR-4.1 provides protocol for encountering paleontological resources and would reduce the potential impacts resulting from disruption to unique paleontological resources to a less-than-significant level. (LTS)

CR-4.1 Conduct Protocol and Procedures for Encountering Paleontological Resources. Should paleontological resources be identified during SUMC Project ground-disturbing activities, the SUMC Project sponsors shall notify the City and the Stanford University Archaeologist and cease operations in the vicinity of the

potential resource until a qualified professional paleontologist can complete the following actions when appropriate:

- Identify and evaluate paleontological resources by intense field survey where impacts are considered high;
- Assess effects on identified resources; and
- Consult with the City of Palo Alto and the Stanford University Archaeologist.

Before operations in the vicinity of the potential resource resume, the SUMC Project sponsors shall comply with the paleontologist's recommendations to address any significant adverse effects where determined by the City of Palo Alto to be feasible. In considering any suggested mitigation proposed by the consulting paleontologist, the SUMC Project sponsors shall consult with the Stanford University Archaeologist and the City to determine whether avoidance is necessary and feasible in light of factors such as the nature of the find, project design, cost policies and land use assumptions, and other considerations. If avoidance is infeasible, other appropriate measures (e.g. data recovery) shall be instituted to avoid a significant impact. Work may proceed in other parts of the SUMC Sites while mitigation for paleontological resources is completed.

Cumulative Analysis

The cumulative analysis for impacts on cultural and paleontological resources considers a broad cultural and regional system of which the resources are a part. The cumulative context for historical resources includes past projects, current projects, and probable future projects that affect historic properties/resources within the City, especially any that could affect similar resources such as other E.D. Stone-designed buildings. The cumulative context for archaeological resources includes past projects, current projects, and probable future projects that occur within the 300-foot archaeologically sensitive zone along San Francisquito Creek because resources in this sensitive area comprise a geographically distinct cluster of resources. The cumulative context for paleontological resources includes areas where the Pleistocene-age creek bed may occur below the surface. Since the exact location of the underground streambed is unknown, it is assumed that the creek runs through the SUMC Sites and adjacent areas.

CR-5. Cumulative Impacts on Historic Resources. The SUMC Project, in combination with other past, current, and probable future development in the City, would cause a substantial change in the significance of the City's historic resources and thus have a significant cumulative impact. The SUMC Project's contribution to the cumulative impact would be cumulatively considerable.
(S)

As provided by the City for this analysis, four other projects in the City could result in potential impacts on historical resources. These projects include the preservation and rehabilitation of the historic French Laundry building and the African Methodist Episcopal

Zion Church at 260 Homer Avenue, the historic rehabilitation of 317-323 University Avenue, the rehabilitation of an existing colonial revival residence at 564 University Avenue, and the California HST project. The first three projects have been approved by the City of Palo Alto as complying with the Secretary of the Interior's Standards for Rehabilitation, and all three historic buildings will be preserved under those projects. The environmental review process for the HST project is not complete; therefore impacts of the HST project historical resources are unknown at this time. However, the more appropriate context to evaluate cumulative impacts would be to examine other E.D. Stone buildings. The following provides the current condition of other E.D. Stone buildings in Palo Alto in order to determine the project's cumulative contribution to potential impacts on Stone's work.

The SUMC Project would result in a significant impact on historical resources, including the demolition of the Stone Building complex. In addition to the Stone complex, E.D. Stone built three other buildings in Palo Alto; the Palo Alto Civic Center, Palo Alto Main Library, and Mitchell Park Library. The Palo Alto Civic Center and the Mitchell Park Library have both been evaluated by ARG. It was determined that both lacked sufficient integrity to qualify as historical resources. However, the Palo Alto Main Library has been determined eligible for the NRHP. Currently, plans call for renovation and expansion of the Main Library and the relocation of the City Police Department and Emergency Operations facilities from their current location within Palo Alto Civic Center to the proposed Public Safety Building. It is uncertain at this time whether or not the HST project would impact other works of E.D. Stone.

In combination with the SUMC Project, cumulative development above would have cumulatively significant impacts on historic resources in the City because these would together result in adverse impacts (loss) of at least one historically significant structure. Only one other E.D. Stone building in Palo Alto, the Palo Alto Main Library retains sufficient integrity to be eligible for listing. The demolition of the Stone Building complex would comprise a considerable loss of an historical resource that is a unique and non-renewable member of a finite class. The demolition of the Stone Building complex would have a cumulatively considerable impact due to the small body of E.D. Stone's work present in the City that retains sufficient integrity to be eligible as historical resources.

MITIGATION MEASURES. Due to the demolition of the Stone Building complex, the SUMC Project's contribution would remain cumulatively considerable as this impact cannot be avoided. Implementation of Mitigation Measures CR-1.2 through CR-1.4 would reduce the SUMC Project's contribution to the cumulative impact, but not to a less than cumulatively considerable level. (SU)

- CR-6. *Cumulative Impacts on Prehistoric and/or Archaeological Resources and Human Remains. The SUMC Project, in combination with other reasonably foreseeable probable future development, could cause a substantial change in the significance of prehistoric and/or archaeological resources or human remains and thus contribute to a significant cumulative impact. The SUMC Project is conservatively assumed to have a considerable contribution. (S)*

The cumulative context for archaeological resources is defined as the 300-foot archaeological zone along San Francisquito Creek that runs within Palo Alto as well as Menlo Park, East Palo Alto, and Stanford University lands in unincorporated Santa Clara County. Based on the Cumulative Projects list within the City (see Section 3.1, Introduction to Analysis and Appendix B), two residential projects are planned along San Francisquito Creek as well as a portion of the HST project. The HST project includes a segment proposed along the existing Caltrain right-of-way between San Jose and San Francisco, which would cross the San Francisquito Creek in Palo Alto. Both of the residential projects were found to have no archaeological impacts and the environmental review process for the HST project is not complete, although the HST project could impact prehistoric resources within the 300-foot zone. All other probable future projects are outside of the archaeologically sensitive zone along San Francisquito Creek. The Emergency Reservoir project approved by the City of Palo Alto would be constructed at El Camino Park, near San Francisquito Creek. No archaeological sites were identified during the archival search or the survey; however one well site is located in along the bank of San Francisquito Creek and a second is located within 1,000 feet of the creek. The project was determined to have no significant impacts to archaeological resources with implementation of mitigation measures. The SUMC Project would involve ground-disturbing activities; however, the SUMC Sites are entirely outside of the 300-foot archaeologically sensitive zone along San Francisquito Creek and therefore the SUMC Project is not likely to affect Native American or historic-period archaeological resources. As such the SUMC project's contribution would be less than cumulatively considerable. In the unlikely event that cultural resources are discovered during construction the disturbance of intact archaeological resources could contribute to a significant cumulative impact. Nonetheless, due to the potential for impact, this analysis conservatively concludes that the SUMC Project could have considerable impacts on prehistoric and/or archaeological resources and human remains.

MITIGATION MEASURES. Compliance with Mitigation Measures CR-2.1 and CR-3.1 would reduce the SUMC Project's contribution to the cumulative impact to a less than cumulatively considerable level. (LTS)

- CR-7. *Cumulative Impacts on Paleontological Resources. The SUMC Project, in combination with other reasonably foreseeable probable future development where the Pleistocene-age creek bed may occur, could have a significant cumulative impact. Such an impact would occur if the buried Pleistocene-age creek bed is exposed in lengths greater than approximately 100 feet (or a sufficient length to support detailed hydrological study) and if such deposits contain substantially intact skeletons of extinct species. These conditions would represent a major find for regional paleontology. In the case that significant paleontological finds—such as stretches*

of buried Pleistocene-age creek bed greater than 100 feet in length and containing intact skeletons of extinct species—are made on the SUMC Site, then the SUMC Project's contribution to the cumulative impact on paleontological resources could be cumulatively considerable. (S)

As stated above, the cumulative context for paleontological resources includes areas where the Pleistocene-age creek bed may occur below the surface. Reasonably foreseeable probable future development in the SUMC Sites and adjacent areas includes (1) approved but unconstructed development under the Stanford University Community Plan and General Use Permit (CP/GUP), which would include additional academic facilities, housing units, parking, and associated utilities, roadways and bikeways in the adjacent Stanford University property; and (2) demolition of existing structures and construction of a three-story medical office building at 777 Welch Road. The HST project could be constructed in an area that may contain the Pleistocene-age creek bed. The location, extent, and depth of the underground streambed resource that underlies the SUMC Sites is not sufficiently well defined to establish whether the disruption caused by each of these projects would or would not be significant. Because the exact location of the resource is unknown, it is assumed that the underground streambed underlies the SUMC Sites and adjacent areas. Consequently, reasonably foreseeable probable future development projects to cumulative effects on the paleontological resources that could occur in the streambed could be significant.

The potential contribution of the SUMC Project to the cumulative impact would be cumulatively considerable as disturbance under the SUMC Project would comprise a major portion of ground disturbance (and potential disturbance of the Pleistocene-age creek bed).

MITIGATION MEASURE. Compliance with Mitigation Measure CR-4.1 would reduce the SUMC Project's contribution to the cumulative impact to a less than cumulatively considerable level. (LTS)

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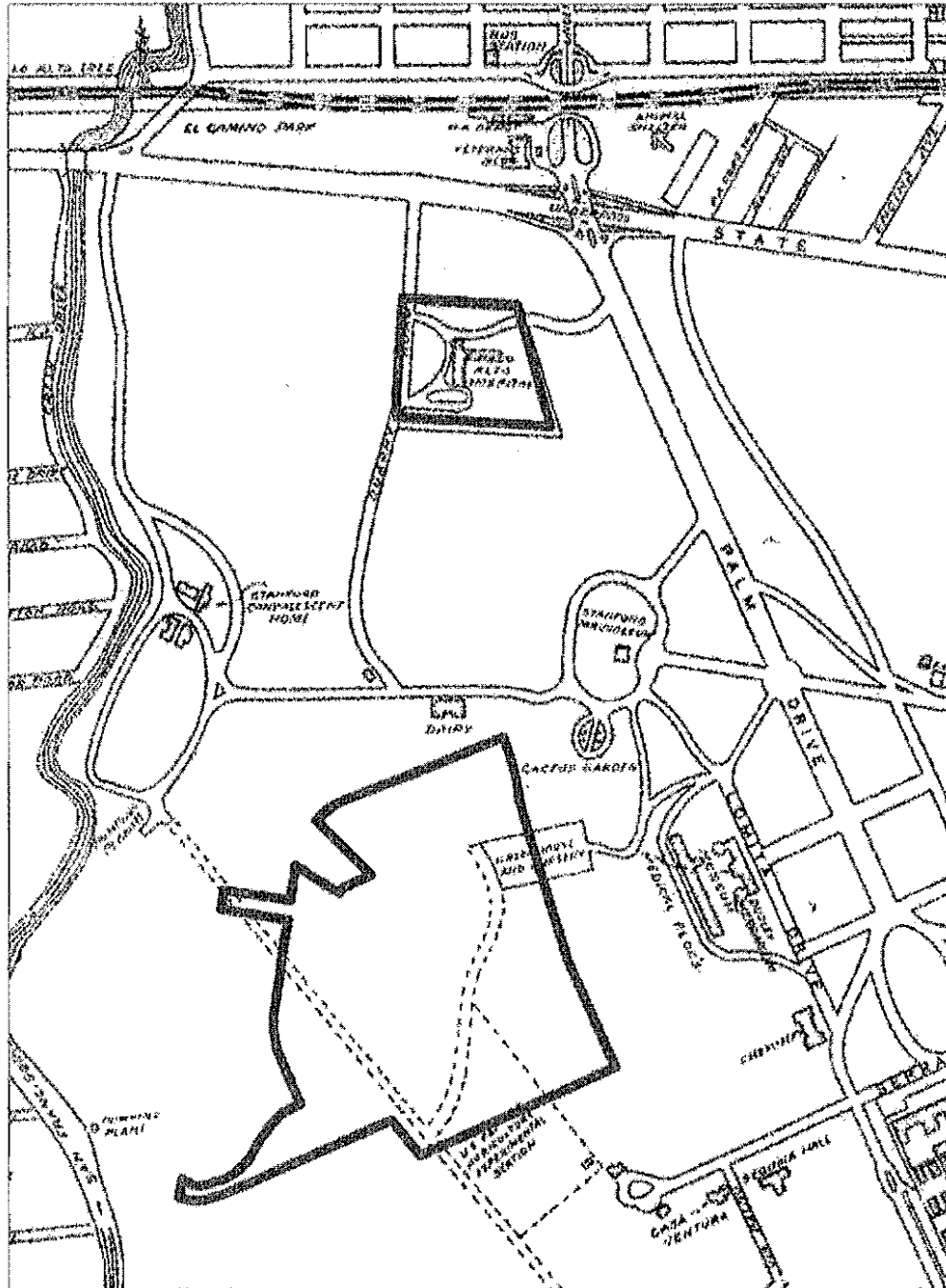


Figure 10-2: Detail from Map of Stanford and Vicinity, 1941
(Approximate project boundary overlaid in red)

More intensive development of the area began in the mid 1950s, with the construction of the Stanford Shopping Center (1956) between Quarry and Sand Hill Roads along El Camino Real. Stanford University decided to move its medical school

from San Francisco to the campus, and planning for a new joint City of Palo Alto – Stanford University hospital began as well. When the new complex opened in 1959, it was surrounded by wheat fields and the trees from the old plant nursery site (*Figure 10-3*). Since 1960, the remaining agricultural lands to the west of the Arboretum have been developed as the Shopping Center expanded and housing was added along Sand Hill Road. Today the landscape setting shows few remnants of its agricultural past (*Figure 10-4*).

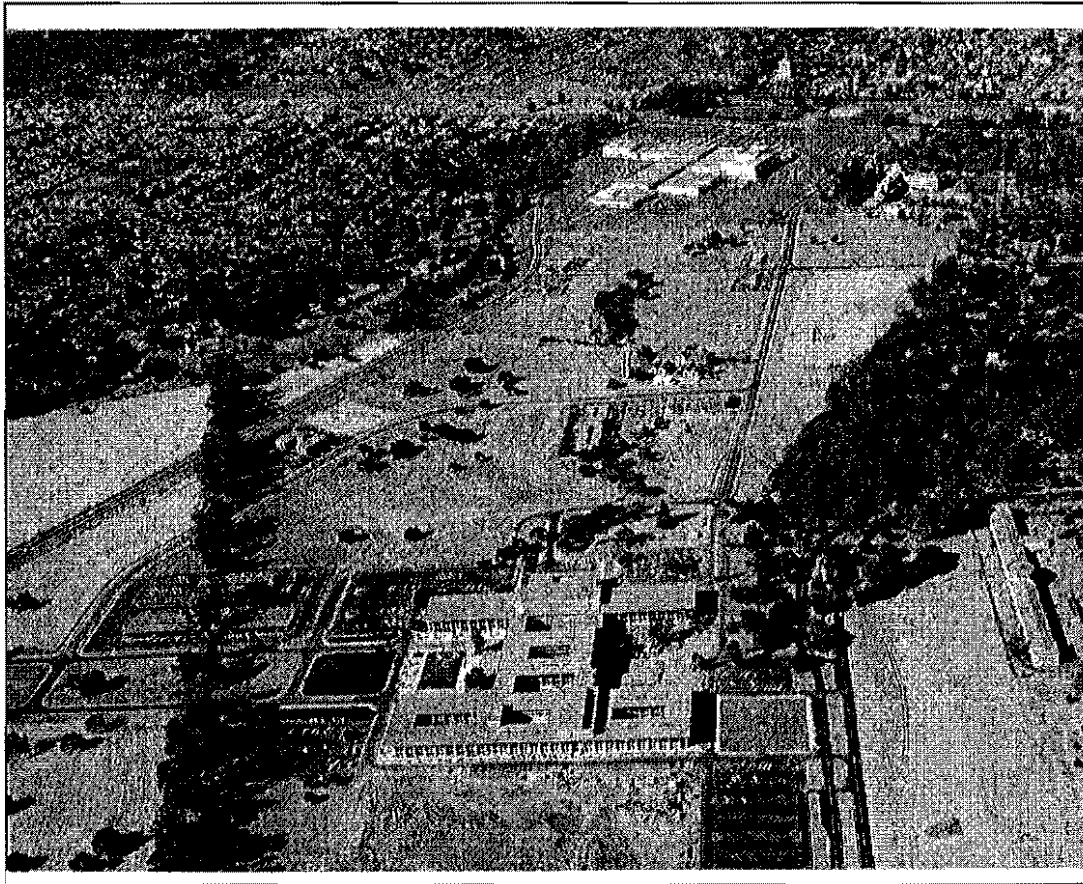


Figure 10-3: Aerial photo looking towards El Camino Real and showing the new hospital and shopping center, 1959



Figure 10-4: Aerial photograph, 2005

Archaeological Resources in the Project Area

Stanford University conducted an intensive archaeological survey of its lands in San Mateo and Santa Clara County in 1986-87; more than 60 prehistoric archaeological sites were recorded as a result of the survey. The Sand Hill Road Corridor Projects immediately to the north and west involved more than 20 years of archaeological testing and environmental review.¹ The area is well-studied. The results of the prior studies show that the prehistoric ancestors of the Ohlone Indians lived along San Francisquito Creek for more than 5000 years. Their village sites are located to the west of Sand Hill

Road, well outside of the project boundaries. There is little likelihood of prehistoric cultural deposits in the project area.

The agricultural uses of the late 19th and early 20th century largely have been erased by subsequent development at the medical center and shopping center area. The only structures in the project area from this period were those associated with the plant nursery. The site of the plant nursery is under a parking lot along Campus Drive West. It is unlikely that significant archaeological deposits from this historic period have survived in the project area.

The ancient creek bed gravels that underlie the medical center and shopping center have yielded fossils of extinct animals, including the upper limb of a giant bison recovered from the construction site for the Lucas Building in 1988. No intact fossil remains have been reported, only individual skeletal elements lodged in the gravels of the stream bed. The ancient stream bed has been seen in at least three locations: the Lucas Center, the Neiman Marcus store, and the storm drain along Quarry Road near El Camino. The proposed projects are sited in previously developed areas, however, given the depth of the ancient stream channel (more than 15 feet below current ground level); there is the possibility of additional fossil finds during project construction. There are no feasible techniques for investigating this stream channel prior to construction as it is deeply buried under roads and buildings; a qualified archaeologist or paleontologist should record and recover fossils from the site during construction, should the stream bed (whose precise location is unknown) be encountered.

Potential Historic Resources within the Project Boundary

The project retains the oldest building in the area, the Hoover Pavilion, while replacing secondary structures on its site. The proposed project involves demolition of a number of other buildings, most of which are less than 50 years old but some of which will reach that threshold during the lifetime of the project (*Figure 10-5*). The features that may be affected by the project are (in chronological order):

- | | |
|--------------------------------|------------------|
| 1. Governor's Avenue | 1876-1878 |
| 2. Hoover Pavilion | 1931, 1939 |
| 3. Nurses' Cottage | 1941, 1948 |
| 4. 701 Welch Road | 1957, 1961, 1998 |
| 5. 703 Welch Road | 1958, 1963 |
| 6. 1101 Welch Road | 1958 |
| 7. Main Medical Center Complex | 1959, 1963 |

None of these features or properties is listed on a local, state or national inventory of historical resources, determined to be eligible by the State Historical Resources Commission for listing in the California Register of Historical Resources, or included in a

historical resources survey meeting the requirements of section 5024.1(g) of the Public Resources Code. Therefore these buildings and properties are not presumed to be historically or culturally significant under CEQA Guidelines 15064.5(a)(1) and (a)(2).

Under CEQA Guideline section 15064.5(a)(3), the lead agency may determine a building or property to be historically significant, provided its determination is supported by substantial evidence in light of the whole record. Generally, for properties that have not been listed or determined to be eligible for listing, the CEQA review process requires review against the California Register criteria.² The criteria are:

1. *Associated with events that have made a significant contribution to the broad patterns of local or regional history or the cultural heritage of California or the United States.*
2. *Associated with the lives of persons important to local, California or national history.*
3. *Embodies the distinctive characteristics of a type, period, region or method of construction or represents the work of a master or possesses high artistic values.*
4. *Has yielded, or has the potential to yield, information important to the prehistory or history of the local area, California or the nation.*³

In order to be considered eligible for listing on the California Register, the property must meet at least one of the four criteria and display sufficient integrity to convey the reasons for its significance. In addition, for resources that have achieved significance within the past 50 years, "sufficient time must have passed to obtain a scholarly perspective on the events or individuals associated with the resource".⁴ The majority of the standing structures in the project area are medical facilities or support medical uses. A historical context for the development of medical facilities in the 20th century forms the basis of the evaluations of significance of the structures that follows. First, however, the single surviving historic landscape feature from the 19th century agricultural period – Governor's Avenue – is evaluated separately.

Governor's Avenue

Governor's Avenue was planted by Governor Leland Stanford, Sr. between 1876 and 1878 as a tree-lined drive from the carriage house at his home along San Francisquito Creek to the reservoir at Lagunita (skirting the edge of his race track) and thence turning sharply to lead to the Palo Alto Stock Farm barns where he stabled and trained his trotting horses.

A road or avenue such as Governor's Avenue can be a type of historic designed landscape if it meets the criteria for listing in the California Register. The City of Palo Alto treated the Governor's Avenue as a potential historical resource in the Sand Hill Road Projects EIR⁵, however, the avenue does not appear on the Palo Alto Historical Inventory, the California Register of Historic Places or the National Register of Historic Places and no evaluation of its significance was provided by the Sand Hill Road EIR. To be treated as a significant historical resource, the avenue would need to meet one of the four criteria for listing, and retain sufficient integrity to be recognizable as historic. The National Register of Historic Places also offers more detailed guidance on historic

landscapes in its bulletin *How to Evaluate and Nominate Historic Designed Landscapes*⁶. Where the state instructions are lacking in detail, National Register publications provide additional guidance commonly used to clarify the more general instructions given by the state. The state criteria, however, guide the evaluation.

To be eligible for listing as a significant historic resource under criteria 1 (events) or 2 (persons), the avenue would need to be strongly associated with an important event (or pattern of events) in local, state or national history or with a person of historical importance. Here the Governor's Avenue is associated with Leland Stanford, Sr. and the horse breeding and training activities of the Palo Alto Stock Farm. However, to be listed for association the property should clearly represent the historical events or the specific achievements for which a person is recognized. Further, comparison with other properties associated with these events and persons should be conducted to identify whether the Governor's Avenue is strongly associated with significant events at the Palo Alto Stock Farm or in the life of Leland Stanford, Sr.⁷

The Palo Alto Stock Farm was composed of two breeding and training centers: the Trotting Farm on the western side of the Stanford property (near San Francisquito Creek and the current location of the Red Barn and Stanford Golf Course) and the Running Farm at the former Peter Coutts farm site to the east (the present location of Escondido Village, Rains Housing and the Escondido Elementary School). Each operation had its own stables, paddocks, race track and support facilities. The Palo Alto Stock Farm also included extensive agricultural areas: orchards, row crops, and a vineyard. The Palo Alto Stock Farm operated as a major horse breeding and training center – for trotters and thoroughbred race horses, from circa 1880 (the farms were purchased by Stanford piecemeal between 1876 and 1882) to 1903.⁸ The farm was once recognized as "the greatest nursery for trotters in the world".⁹

The Red Barn at the Trotting Farm is listed on the National Register of Historic Places (as the Palo Alto Stock Farm Barn) both for its architecture and association with events during the last quarter of the 19th century. The neighboring Brick Stable has been determined to be eligible for listing on the California Register by the County of Santa Clara. Along Campus Drive West there is also a California Historical Landmark marker for the early development of motion picture technology to mark the site of the famous series of Eadweard Muybridge photographs of a trotting horse taken at the track of the Trotting Farm in 1878. During the period of significance of the Palo Alto Stock Farm (1875-1900), Governor's Avenue was one of a number of farm roads that crossed the more than 6000-acre farm, many of which were planted as avenues. No specific event is recorded for the avenue: the horses were trained and raced on the race track, not the avenue. There are several listed properties with closer association to the Stock Farm's operations still standing. Governor's Avenue does not appear eligible for listing under criterion 1 for association with events at the Palo Alto Stock Farm.

Similarly, Leland Stanford, Sr. is an important person in American history. Stanford was Governor of California during the Civil War (1862-63), U.S. Senator (1885-1893); co-founder of the Central Pacific and Southern Pacific Railroads, the Occidental and Oriental Steamship Company and of Leland Stanford Junior University, as well as owner of a number of large properties across the U.S.¹⁰ To be eligible for listing under criterion 2 for association with Leland Stanford, the avenue must be strongly linked to the activities for which Stanford is remembered and should be compared to

other properties related to Stanford's life and career.¹¹ As noted above, Stanford's achievements in horse breeding and racing are more closely associated with the surviving barns at the Palo Alto Stock Farm. His achievements as Governor of California are associated with the Governor's Mansion (Stanford-Lathrop House) in Sacramento. There are many railroad properties preserved throughout the west and in particular the Governor Stanford steam engine at the State Railway Museum in Sacramento symbolizes this element of his career for many thousands of visitors each year. Stanford University stands as a monument to his educational philanthropy. The Governor's Avenue is a minor feature compared to these landmark properties. It does not appear that Governor's Avenue meets the test of eligibility under criteria 2 for association with Leland Stanford, Sr.

A tree-lined avenue can also be important under criterion 3 as a fine example of a type of designed landscape, if it exhibits the characteristic features of the type. The characteristic features of a 19th century avenue are: regular spacing of a single or at most two species of trees, trees of the same size (often exotic species), roadway (intended to be traveled by carriage or on horseback) of a consistent width (often but not always a straight road), and in the case of estate avenues the destinations are often on axis and thus "framed" by the avenue. The practice of shading a drive with lines of trees, regularly spaced and of a single species, dates to the 17th century in Europe, is widespread in the United States by the second half of the 19th century, and became ubiquitous in the 20th century as the practice of planting city streets with trees became common¹².

In its original configuration, Governor's Avenue was a good example of the type, displaying many of the characteristic features of a late 19th century avenue. The avenue was planted with more than 700 Tasmanian blue gum eucalyptus (*Eucalyptus globulus*) trees, originally planted twenty feet apart on both sides of the roadway (Figure 10-6). Early maps also show pines mixed with the eucalyptus. The two "arms" of the road were perfectly straight and consistent in width along the length (the long arm was more than a mile long).



Figure 10-6: Governor's Avenue near the Trotting Farm, circa 1890

The destinations, however, were not framed by the avenue: the Governor's Avenue terminus at the Stanford's home site was the yard of the stables and carriage houses (none of which was on axis with the avenue), similarly the avenue did not offer a view of the reservoir or an axial view of any of the large barns of the trotting farm complex (the avenue ended at a small shed). It appears to simply be the shortest route from the Stanford's house stable to the Trotting Farm, with the angled corner designed to avoid the race track (*Figure 10-7*). The more formal campus avenues, however, were clearly intended to frame major buildings: Palm Drive ends at the center of the Main Quad (before 1906 it ended at the massive Memorial Arch), and Pine Avenue neatly framed the Stanford family mausoleum. (Pine Avenue was planted after the Stanfords acquired the Coutts farm in 1882 and was a straight line between the proposed site for their new home and the Running Farm. The proposed home site was changed to the mausoleum site as plans for the university developed in the late 1880s.)

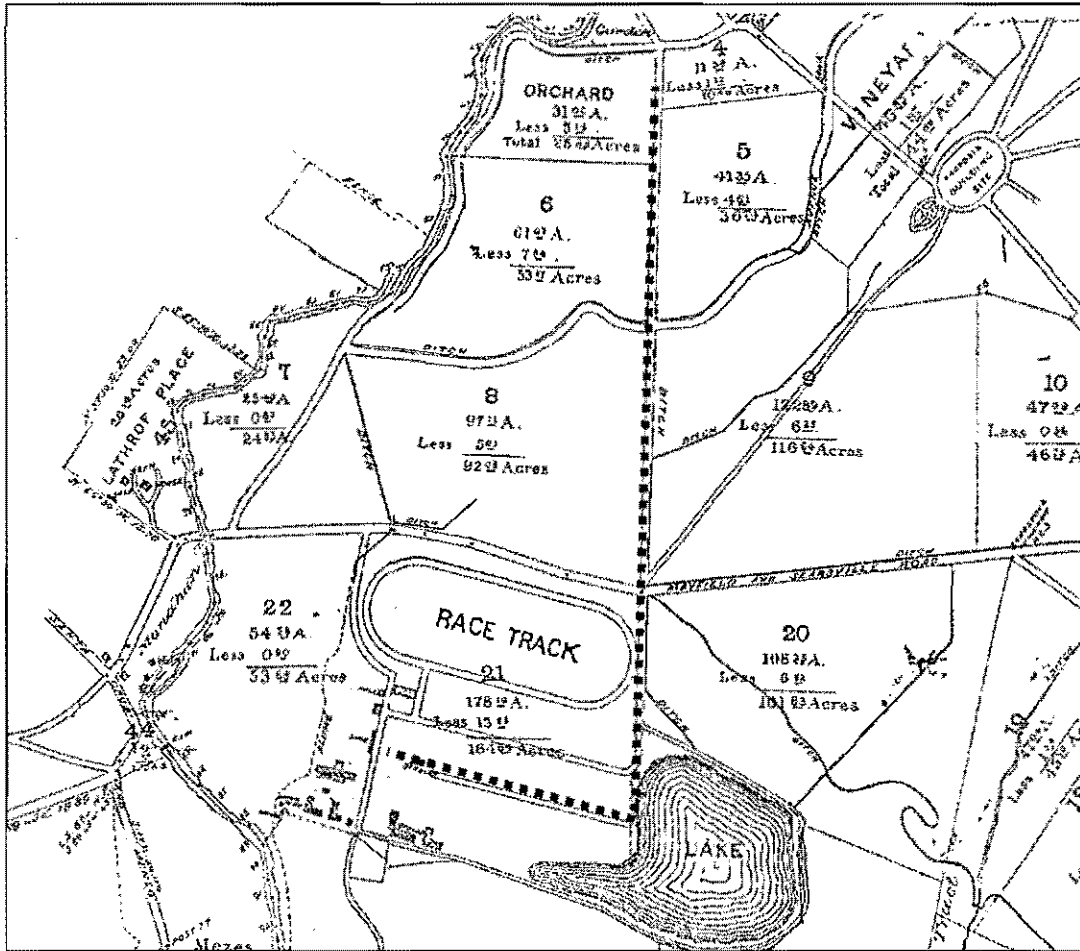


Figure 10-7: 1883 Survey Map, Governor's Avenue Highlighted in Red

As with the early avenues of the great European estates these early Stanford avenues "could be seen as a symbol of control over the landscape and its inhabitants; an expression of ownership and power".¹³ The Palm Drive and Pine Avenues are stronger formally, as they frame monumental architecture (Figures 10-8, 10-9). However, the Governor's Avenue exhibits most of the characteristic features of 19th century avenues: evenly spaced trees of matched size and type and a consistent roadway width. It is also remarkable for its strong straight lines. The avenue dominated the farm landscape of the vicinity for nearly a century and was certainly a powerful expression of Stanford's ownership and power. Governor's Avenue appears to be eligible for listing on the California Register under criterion 3 as embodying the distinctive characteristics of a 19th century tree-lined avenue. To be eligible for listing, the avenue must also continue to display its characteristic features, described by the California Register as the seven aspects of integrity: location, design, workmanship, materials, setting, feeling and association.



Figure 10 -8: Palm Drive



Figure 10- 9: Pine Avenue (Stanford Family Mausoleum at terminus)

Integrity of location for an avenue or other linear feature calls for its continued visible presence along a substantial amount of its historic route.¹⁴ The Governor's Avenue has not functioned as a road for nearly a half century: it was interrupted by construction of the Stanford Golf Course in 1930, the medical center in the 1950s, and Governor's Corner (named for the turning in the avenue) student housing complex in the mid 1980s. Some segments continue to function as true roads: a segment known as Governor's Avenue running between Santa Teresa and Panama Streets, then through the Governor's Corner housing complex and around the corner to Campus Drive West. Three segments exist as bicycle/pedestrian paths: at the Stanford West Village Green west of Sand Hill Road, in the Stanford Medical Center between Pasteur Drive and Campus Drive West, and alongside Panama Street. The alignment is absent in two sections: within the project area boundary from Sand Hill Road across Welch Road to Pasteur Drive through the medical center and at the Stanford Golf Course the alignment has been erased by construction of the golf course, buildings and parking lots (*Figure 10-5*). The missing segments represent approximately 1/3 of the original length of the avenue (approximately 2500 feet of a 7500 foot original length).

The integrity of the avenue's design, workmanship and materials depends in large part upon the trees with which it is planted. Their size, species and spacing are important characteristics. The avenue was planted with more than 700 Tasmanian blue gum eucalyptus (*Eucalyptus globulus*) trees, and an unknown number of pines, originally planted twenty feet apart on both sides of the roadway. In 1972, more than 600 of these trees were still standing (Bracewell 2005:121) but drought, frost and pests weakened the large trees (some had reached more than 100 feet in height and nearly 8 feet in diameter) and only 58 of the original trees have survived. Advice from the National Register of Historic Places on evaluating landscapes includes the following observation regarding original plant materials:

A designed historic landscape need not exist today exactly as it was originally designed or first executed if integrity of location and visual effect have been preserved. Originality of plant materials can increase integrity but absence of original materials does not automatically disqualify a designed landscape. The absence of original vegetation may not diminish integrity, for example, if the same or similar species of appropriate size have been replanted to replace dead, diseased, or mature specimens. A boulevard that has lost its original trees but where appropriate new street trees have been planted may retain integrity¹⁵.

Governor's Avenue has been replanted along parts of its route with consistently sized and spaced trees. As the original eucalyptus become diseased or die they are replaced with the California Sycamore, a tree of similar shape and growth habits. (London plane trees were mistakenly used on one segment and oaks on another.) Unfortunately, this treatment is not entirely consistent along the replanted segments. However, the look and feel of the avenue, and the characteristic features of tree spacing and linearity are present within each of the intact segments and along the majority of its length (*Figures 10-10, 10-11, 10-12, 10-13, 10-14*).



Figure 10-10: Governor's Avenue south of Pasteur Drive (2007)



Figure 10 -11: Governor's Avenue north of Sand Hill Road (2007)



Figure 10-12: Governor's Avenue south of Campus Drive West (along Panama Street)

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Figure 10-13: Governor's Avenue south of Santa Teresa Street

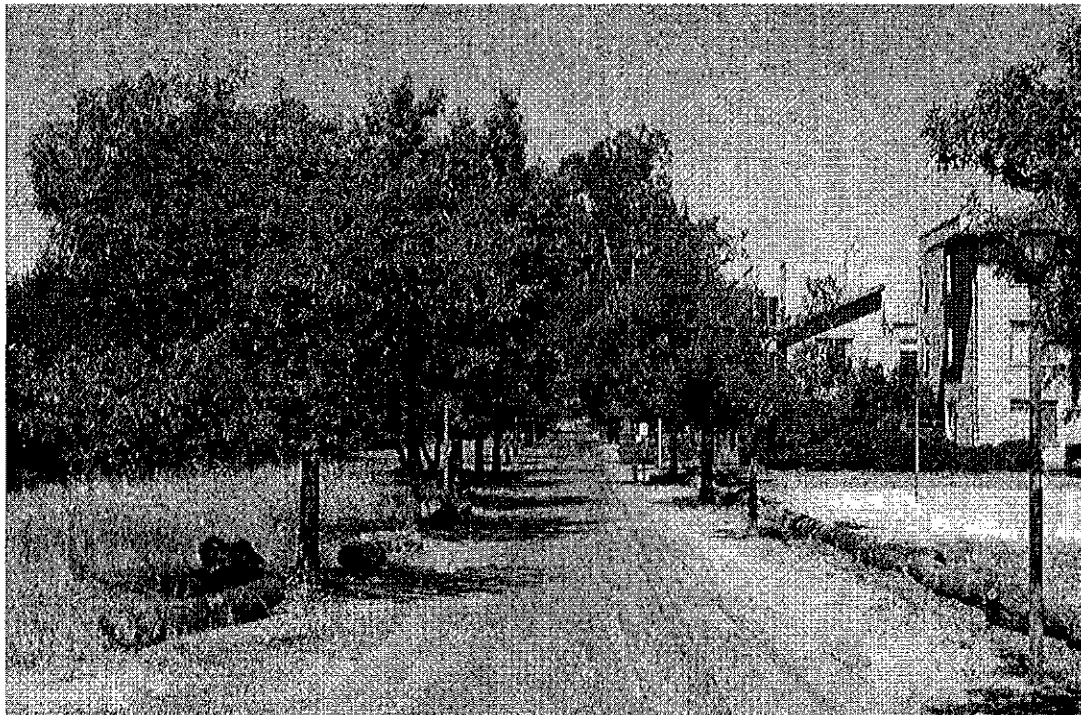


Figure 10-14: Governor's Avenue from Corner towards Campus Drive West

The intact portions of Governor's Avenue are a significant historic resource, potentially eligible for listing for its importance to the local community as an early example of a tree-lined avenue in Palo Alto. Within the project boundary, however, most of the alignment is absent. A very short fragment remains between the sidewalk and a parking lot at the rear of the 900 Blake Wilbur Drive, and another fragment has been retained across the Pasteur Drive median, ending in a parking lot on Campus Drive West (Figure 10-5).

Historical Context for Medical Building Evaluation: The Evolution of Modern Medical Facility Design in the Twentieth Century

Following the instructions for evaluating historic resources, these properties should be placed in a larger social context.¹⁶ The six properties under study are all related to developments in medical care in the 20th century, and the expression of these developments in the San Francisco Bay region. The historical context that follows briefly describes major trends in medical treatment facilities during three periods of the 20th century: Pre-World War II (1900-1940), World War II (1941-1945), and Post-World War II (1946-1999). The subsequent section presents evaluations of the six properties in the project area using these larger themes to assist in determining historical significance.

Specialized facilities for the treatment of the sick have been documented since the development of urbanism in the early empires of the Mediterranean (including Egypt, Greece, Mesopotamia, and Rome). The first hospital structures emerged associated with Catholic convents and monasteries in the early middle ages. Developments in the science and technology of medicine, and a new scale of suffering brought about by modern techniques of warfare, transformed the structure of hospital facilities in the second half of the 19th century. The emergence of new theories of disease, medical specializations, and rising use of technological equipment created an almost constant demand for renovation and replacement of health facilities in the 20th century. Surprisingly, some features have survived from the classical and medieval periods: for example, the therapeutic value of gardens, landscapes and tranquil settings continues to be recognized while the underlying theory of disease has been transformed.

The properties under study in the Stanford University Medical Center include several property types in the area of medical facilities: two hospitals, a medical school, medical research laboratories, and freestanding outpatient clinic buildings. These properties represent two periods of construction: the Palo Alto Hospital/Hoover Pavilion complex dates to the pre-World War II period, the Stanford Hospital, Medical School and Welch Road clinics and laboratories are post-World War II. These buildings will be evaluated in the context of medical facilities design in the 20th century. The properties will be evaluated to determine the extent to which they reflected innovations in design or medical treatment philosophies compared to similar facilities constructed in their respective periods.

Pre-World War II Medical Facilities

Pavilion Hospitals

Epidemics were a major impetus to hospital development at the turn of the century in growing population areas.¹⁷ Fear of infection and contagious disease determined their design. The use of pavilion ward plans was widespread, developed first for use in military hospitals and popularized by Florence Nightingale in her influential publications *Notes on Hospitals* (1858) and *Notes on Nursing* (1859).¹⁸ Pavilion wards were designed to break up large hospitals into smaller, standard-sized (20-30 bed) wards.¹⁹ Each ward was designed as an independent "pavilion" with support facilities located at the ends of the building (to minimize traffic flow – and potential sources of contagion -- through the wards) (*Figure 10-15*). Elaborate ventilation systems, and careful placement of each bed next to an operable window, were required to insure that stale air left the building and fresh air entered it – reflecting a widespread belief that disease was transmitted through bad air.²⁰ These pavilions were one or two-story buildings spread out across the site, separated by courtyards or gardens to insure adequate natural light and air for each building. (Sunlight was believed to have a beneficial effect as well as fresh air.) The principles were reflected in huge Civil War hospitals with dozens of tent or barracks-style wards and the success of the model in limiting the spread of infection led to its widespread adoption in large U.S. hospitals, including one of the largest American hospitals, Johns Hopkins (designed 1876, completed 1885) (*Figure 10-16*).

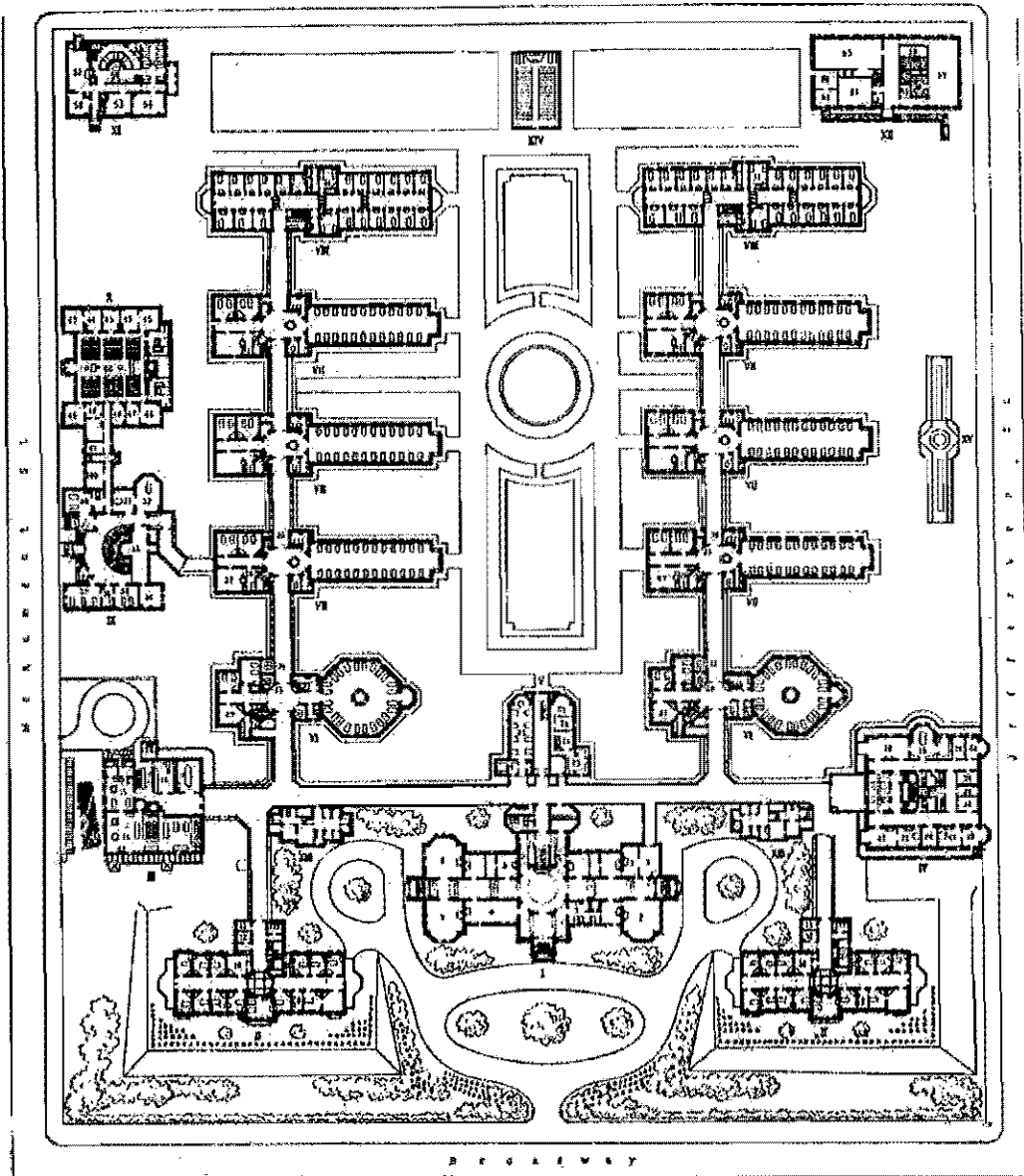


Fig. 183. Final plan for Johns Hopkins Hospital (John S. Billings's second plan) 1876.

Figure 10-16: Pavilion plan at Johns Hopkins.

Medical advances in the 19th century included the development of anesthesia (morphine and ether) and methods of sterilization (carbolic acid and steam), and the development a new theory of infectious disease: germ theory, with the isolation of specific causative agents for a long list of diseases during the 1880s and 1890s (anthrax, rabies, tuberculosis, diphtheria, tetanus, pneumonia, and many more). Cleanliness and the isolation of infectious patients continued to be critical in the hospital setting but it was no longer necessary to isolate non-infectious patients and the medical necessity of fresh

air and sunshine came into question. Laboratories began to appear in hospitals as a result of these discoveries as well²¹.

Classic pavilion hospitals were inefficient in land use, energy and building materials, and took more staff to supervise, clean and care for patients. Developments in construction technology in the 19th century – elevators, electricity, efficient water pumps, use of steel-reinforced concrete in construction – made multi-story buildings safer and less expensive to build, leading to the emergence of high-rise buildings in land-scarce urban areas by the turn of the century. By 1905, hospital administrators were studying the efficiency of multi-story designs to maximize land efficiency. Studies developed by Chicago surgeon Dr. Albert Ochsner were particularly influential in the shift from single story pavilions to high rise hospitals (*Figure 10-17*).

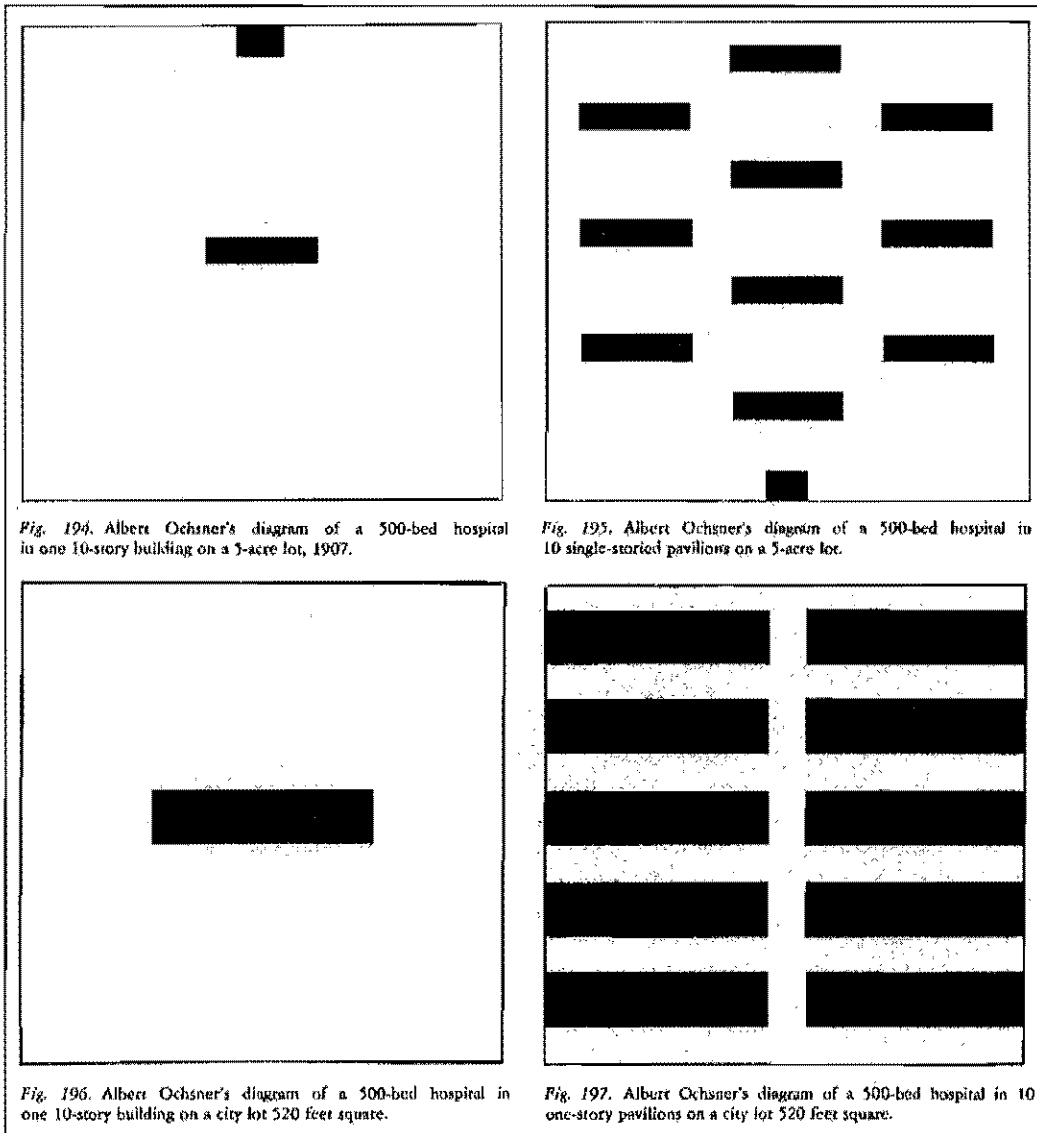


Figure 10-17: Ochsner's diagrams.

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High-rise hospitals

After the turn of the century, architects began to experiment with new vertical forms for hospitals: essentially stacking pavilion-style wards on top of service floors. Fresh air, sunshine and garden settings continued to be popular features and new architectural forms emerged to maximize land use efficiency without sacrificing these features: circular wards and diagonal cross-plan blocks for example.²² The efficiency of vertically integrated plumbing systems allowed architects to move sinks and toilets into patient rooms rather than at the ends of the wards. The new high-rise hospitals emerged as symbols of civic pride and economic vitality and in the U.S. began to resemble hotels – competing for patients by offering a range of room types (and costs), high staffing ratios, and furnishings that were more homelike in character.²³ Qualified nurses to provide this level of care were scarce, particularly during World War I, and many hospitals added housing for nurses and nursing schools – to recruit and train nurses -- to their facilities as well.²⁴

While economy and efficiency drove the move towards taller structures, civic pride and competition led to highly ornamental architectural treatments (particularly on the exterior): beaux arts in the pre-World War I era, art deco emerging with great popularity worldwide in hospitals of the 1920s and 30s. Some design features carried forward through centuries of hospital design into the modern era: the notion of the hospital as a self-contained institution providing for itself the services of cooking, laundry and staff housing which emerged in monastery and convent hospitals of the medieval period; landscaped courtyards and grand entry plazas popular from the Renaissance “palace” style hospitals; verandas, sunrooms and solariums from Victorian period pavilion designs. These features were medically obsolete by the early 20th century but persisted as they met other human and institutional needs.

Pre-War Medical Facility Properties in the Palo Alto Area

The trend in emergence of public hospitals in U.S. cities is closely followed by developments in Palo Alto and its vicinity. In 1900, Palo Alto had no public medical facilities. There were a handful of private physicians in town, operating out of their homes.²⁵ Following an outbreak of typhoid fever in 1903 that claimed twelve lives (including eight Stanford students) a small hospital was established by the Students’ Guild to serve the health needs of Stanford students and local residents (it had 20 beds). By 1910, a second private hospital containing about 40 beds was completed: the Peninsula Hospital, on the corner of Embarcadero Road and Cowper Street (*Figure 10-18*). The City of Palo Alto purchased the building in 1921 and entered into an agreement with Stanford to manage the hospital, which was renamed Palo Alto Hospital. The Palo Alto Hospital was expanded to 48 beds but by 1927 a committee had formed to investigate building a new, larger hospital building.²⁶

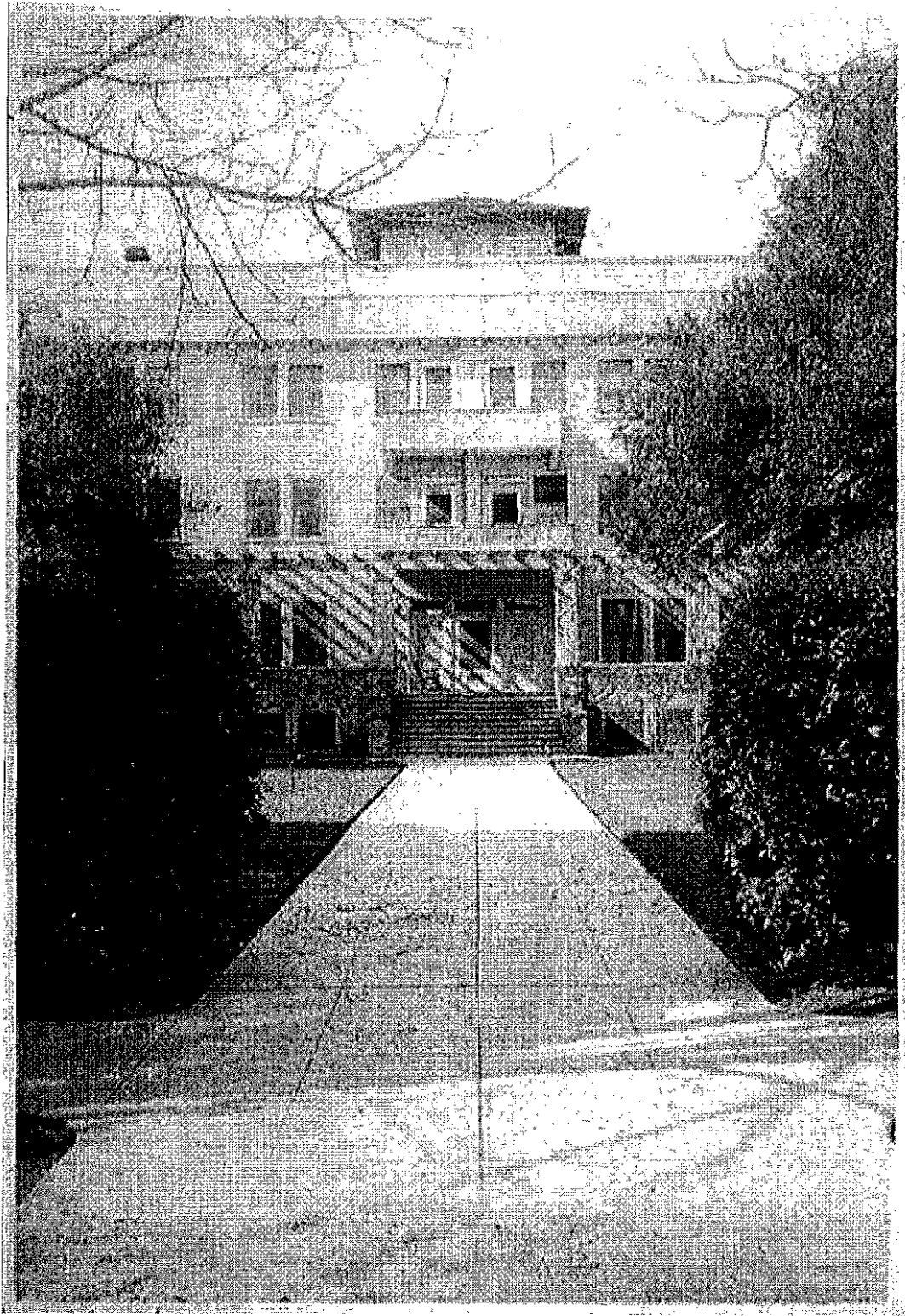


Figure 10-18: Peninsula Hospital (demolished)

Medical facilities to serve army personnel based at Camp Fremont during the First World War were located in Menlo Park, at the site of the current Veteran's Administration facility on Willow Road.²⁷ Camp Fremont was quarantined during the 1918 Spanish influenza epidemic (there were 30 flu deaths at the camp hospital in Menlo Park). The Stanford Students' Guild operated its own isolation hospital on Alpine Road in 1915 (who by law could not be transported across the town boundary to the Peninsula Hospital) (*Figure 10-19*). In fact, the Stanford isolations hospital (and a separate ward for women on the main campus) treated more influenza patients (145) than the Peninsula Hospital (93) during the 1918 epidemic. Six students died in the epidemic.²⁸ The Students' Guild facilities were sold in 1921 when Stanford and Palo Alto agreed to jointly operate the Palo Alto Hospital at the Peninsula Hospital building on Embarcadero Road.



Figure 10-19: Student's Guild Isolation Hospital (currently a private residence)

In 1919 the Stanford Convalescent Home for Children was founded at the site of the Stanford family home on San Francisquito Creek. During the 1920s the "Con Home" built a series of one story pavilion wards in a simple Spanish Revival style alongside the Italianate Stanford house. Each ward had a sun porch alongside and the young patients were moved outside on sunny days to enjoy the fresh air and sunshine (*Figure 10-20*).²⁹

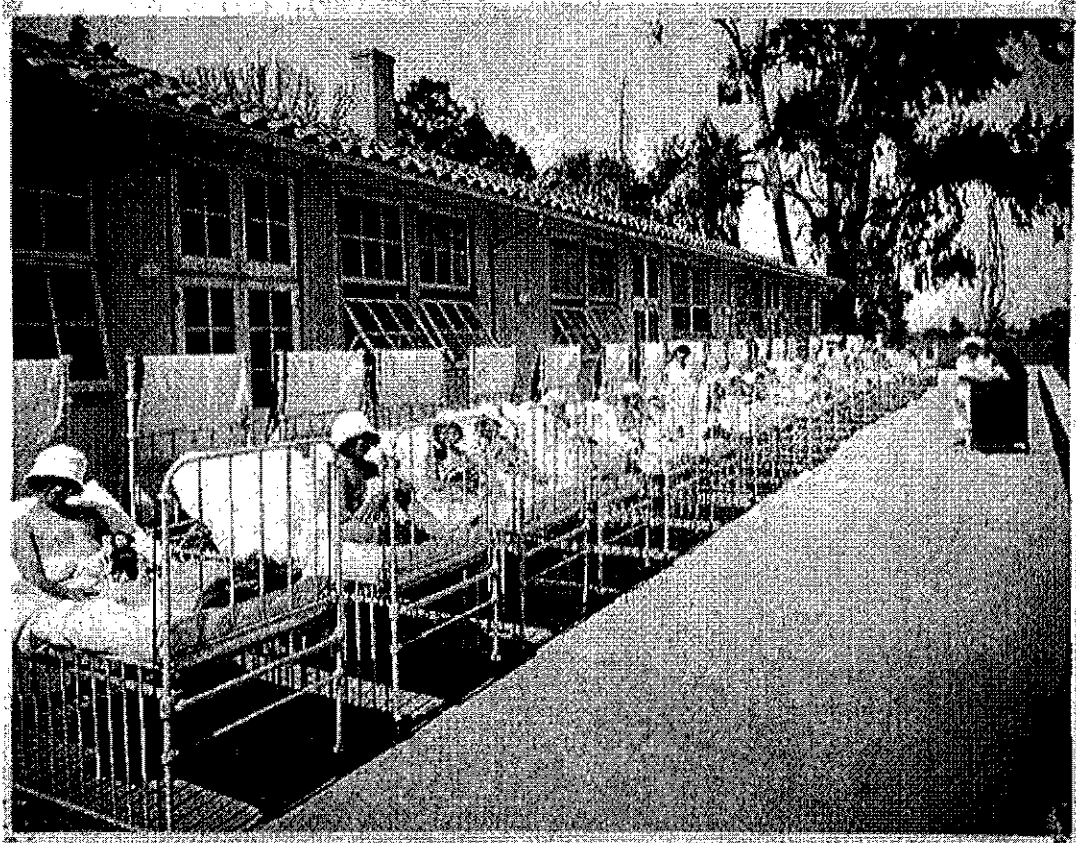


Figure 10-20: Con Home (McLaughlin Unit) sun porch circa 1927(demolished)

Also during the 1920s, a group of local physicians formed the Palo Alto Medical Clinic working out of offices at Hamilton and Bryant Streets in downtown Palo Alto. In 1931, the partners moved into a new building designed by Palo Alto architect Birge Clark -- the Roth Building -- on the corner of Homer Avenue and Bryant Street (*Figure 10-21*). The Roth Building is a two-story Spanish Revival building with a well-known series of murals by muralist Victor Arnautoff showing medical scenes.³⁰ A number of other doctors and dentists established offices in Palo Alto during the 1920s, including a group at the Medico-Dental Building, also designed by Birge Clark, at 267 Hamilton Street (which currently houses University Art on its ground floor) (*Figure 10-22*).



Figure 10-21: Roth Building (future home of the Palo Alto History Museum)

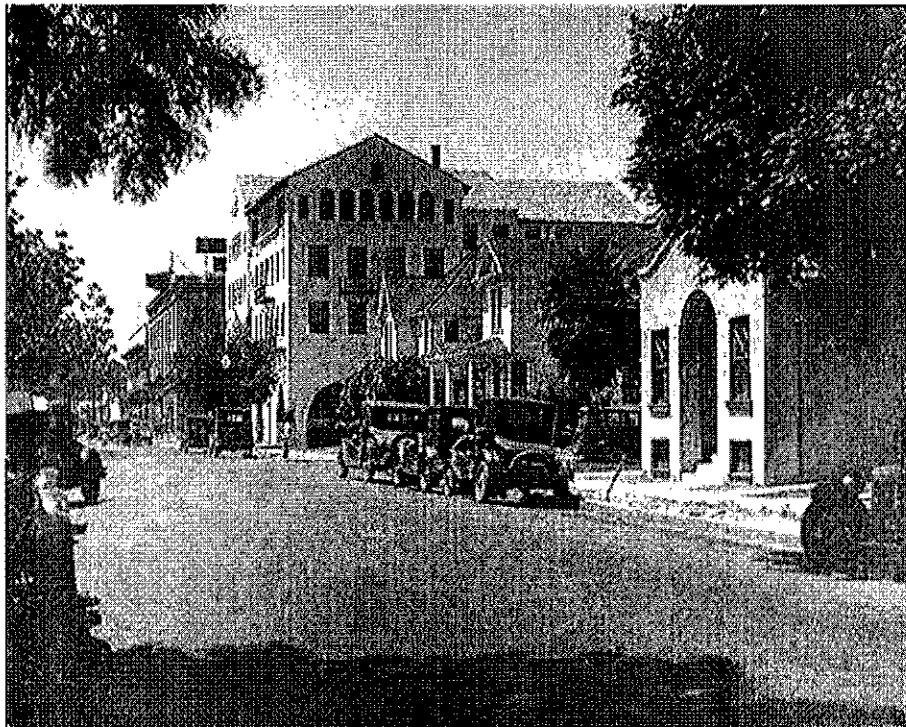


Figure 10-22: Hamilton Avenue with Medico-Dental Building in the center

By the end of the 1920s, the need for a new hospital had become clear. The City of Palo Alto leased a ten-acre site on El Camino Real from Stanford University (Stanford would operate the hospital under an agreement with the City). The site was chosen because of its proximity to downtown Palo Alto and the Stanford Convalescent Home for Children.³¹ The City of Palo Alto selected an Oakland architecture firm, Reed and Corlett, to design the hospital and raised \$480,000 for its construction from a combination of gifts and municipal bonds. Reed and Corlett had recently completed another high-rise hospital: the Peralta Hospital in Oakland in 1928, and were chosen for their experience with medical architecture.³² The new 80 bed Palo Alto Hospital opened in May, 1931 (*Figure 10-23*).

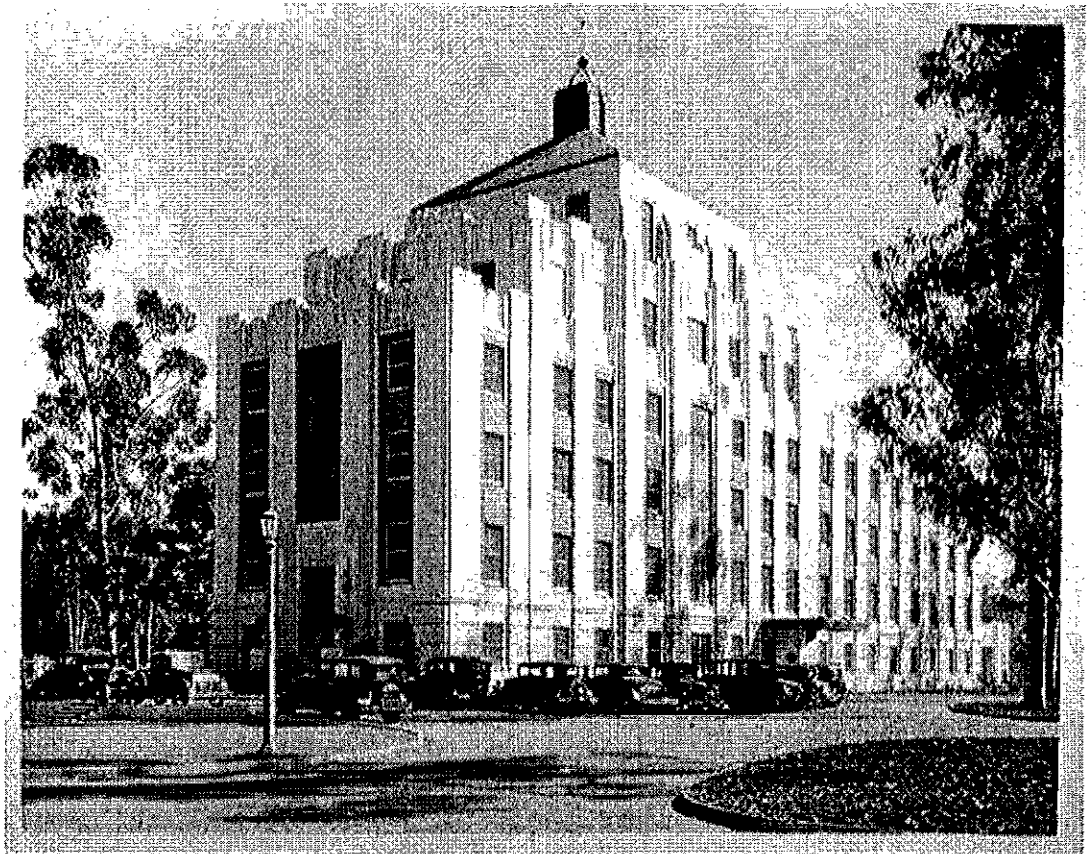


Figure 10-23: Palo Alto Hospital circa 1931

The Palo Alto Hospital had a standard floor plan for hospitals of the period: service functions (laundry, commissary, kitchen, staff rooms) on the ground floor, offices and lobby on the second floor, patient wards on floors three and four and operating rooms on the fifth floor. The floor plans were traditional pavilion style: services clustered near the entry (elevator and stairway) and patient beds arranged along the exterior walls (*Figure 10-24*). Unlike the classic open Nightingale wards, there was a mix of room types: one bed, two beds, four beds and an eight bed “industrial” ward – designed to

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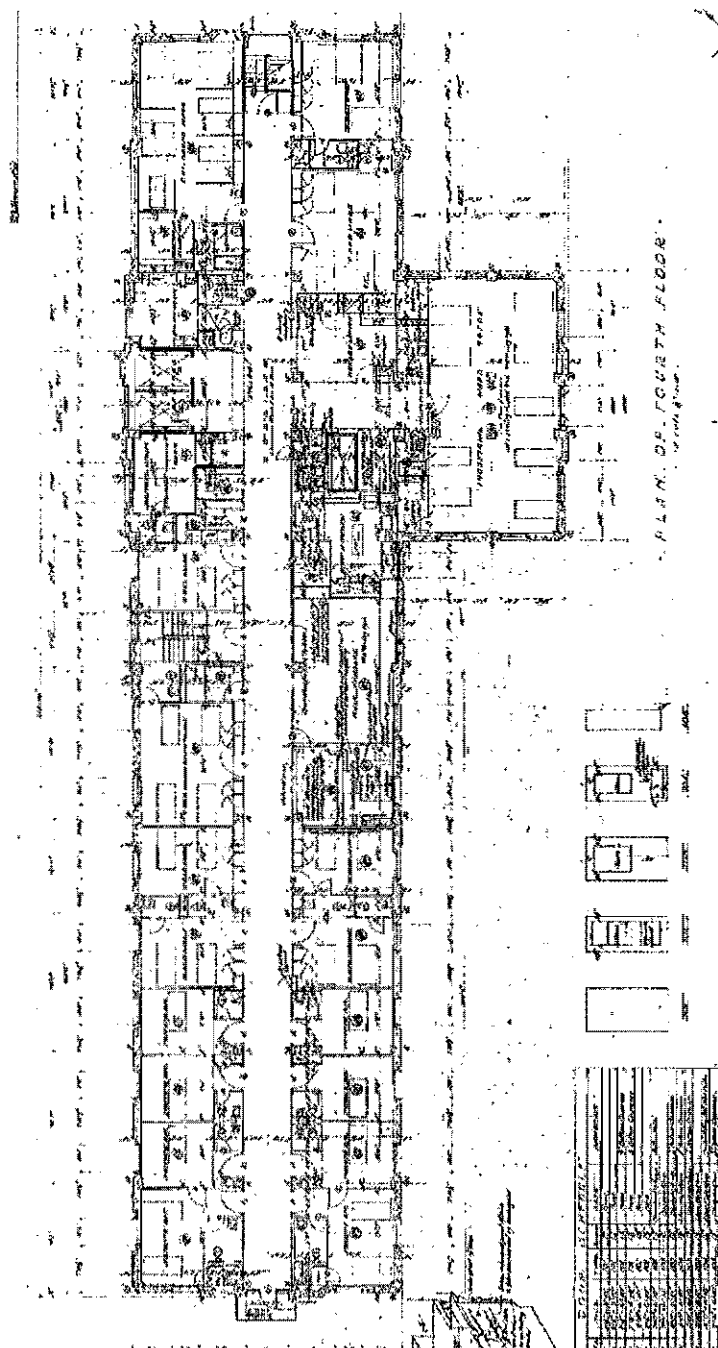


Figure 10-24: Palo Alto Hospital floor plan showing patient rooms with 1, 2, 4 or 9 beds

Architect Will Corlett highlighted the improved fire and earthquake safety features of the new building's steel-reinforced concrete construction, modern equipment, and homelike accommodations. He notes that "the serious work of the hospital is masked as much as possible. Bodies, soiled linen, rubbish, etc. are not transported through the departmental corridors." As in earlier pavilion hospitals, natural light and fresh air were provided: "the building is oriented so that a line due south bisects the angle between the two main wings which permits the sun's rays to reach all walls and the adjacent ground at some time every day."³⁴ Corlett was concerned to emphasize the "dignified and simple," "conservative and modernistic" design: "Adornment of the exterior...was not considered as justified." The tension between "unnecessary" ornament and suitably attractive civic architecture was a common theme in hospital design.³⁵ Nonetheless, Reed and Corlett's art deco design for the Palo Alto Hospital has many ornamental flourishes: a stepped "ziggurat" roof profile, terracotta friezes, and ornamental metalwork at the entry and roof cupola. A complete evaluation of the property is provided below. The art deco, high-rise exterior and basic interior floor plans are good examples of pre-World War II hospital design.

The Palo Alto Hospital in its 1931 and 1939 plans incorporated service functions inside the building, including the laundry and a few small rooms on the second floor to provide sleeping accommodations to nurses (5 beds) and interns (2 beds). The national trend was towards providing separate residential accommodations for staff – to recruit, train and retain nursing staff was a priority and accommodations within the high-rise hospital were not popular among the staff. In 1940, the Palo Alto Hospital constructed a small cottage to the rear of the hospital for nurses, which was expanded in 1949. Other support functions were also gradually moved out of the main buildings, creating a cluster of small utilitarian structures on the southeast corner of the site. The Nurses' Cottage is also evaluated below. Generally, the outbuildings on the Palo Alto Hospital site are vernacular in style, and plain in finishes and construction in comparison to the main hospital building.

World War II Era Medical Facilities

Beginning with the U.S. entry into the war in 1941, the nation's labor and building material resources were focused on supporting the war effort: military installations and industrial facilities producing military equipment and support products. This included construction of a number of hospitals for treatment of war casualties, in Europe and the Pacific and at bases in the United States. Many of these sites were constructed in the same basic styles as field hospitals of the Civil War and World War I: a series of small open ward structures (tents or barrack-style buildings) organized along the lines of Nightingale wards of the last half of the 19th century (*Figure 10-25*).³⁶ Makeshift hospitals were also created in converted barracks, schools and factories. The system of field hospitals in Europe and the Pacific was supported by hospital ships and evacuation aircraft to transport the wounded back to the U.S. base hospitals for additional treatment and rehabilitation.



Figure 10-25: US Army 8th Evacuation Hospital, Pietra, Italy (Winter 1944-45)

Major military installations were constructed or expanded in the San Francisco Bay Area and Monterey. The Letterman General Hospital at the Presidio in San Francisco was expanded during the war and at its peak treated more than 70,000 wounded in a single year (1945).³⁷ Medical facilities to serve workers in the war industries were also important. The Kaiser Richmond Field Hospital – ancestor of the Kaiser Permanente HMO – was founded in Richmond in 1942 to provide care to workers at the Richmond Shipyards (*Figure 10-26*).³⁸



Figure 10-26: Kaiser Richmond Field Hospital

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World War II Medical Properties in the Palo Alto Area

The only major medical facilities constructed locally during the Second World War were those at Dibble Army Base in Menlo Park, which had a hospital and nurses' quarters. The Dibble General Hospital treated soldiers injured in the Pacific, specializing in plastic surgery and eye surgery, and at its peak contained 2400 beds (*Figure 10-27*). Nisei veterans wounded in Europe were transferred to Dibble General Hospital where they participated in publicity efforts to smooth resettlement of Japanese-Americans in Santa Clara and San Mateo counties after the end of the war (*Figure 10-28*). The base was decommissioned after the war and the land area redeveloped (to house the Stanford Research Institute in 1947, Menlo Park Civic Center and United State Geological Survey Western Region Headquarters in 1954). The nurses' quarters are still standing on the SRI campus, but the hospital buildings – a series of pavilion wards spread out across the site – have been demolished.

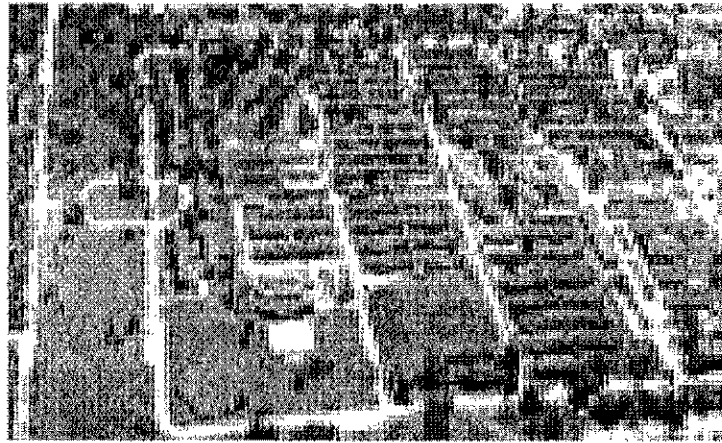


Figure 10-27: Dibble General Hospital in Menlo Park



Figure 10-28: Nisei veterans at Dibble General Hospital
*Photo from Bancroft Library, University of California, Berkeley.*³⁹

Very little building development unrelated to the war effort was possible due to shortages of labor and materials. Dibble General Hospital was the major medical property for this period in the local area. Many local physicians and nurses served at military hospitals in the U.S. and abroad, and these staff shortages further limited the possibilities for expansion of civilian medical facilities during this period. A number of physicians and residents of the Stanford Medical School (then located in San Francisco) served in Europe in the 59th Army Evacuation Hospital organized by the San Francisco General Hospital.⁴⁰

There are no World War II era properties in the Stanford University Medical Center.

Post World War II Medical Facilities

Megahospitals

In spite of the huge economic and human cost of the war, the peace brought unprecedented growth in both population and the economy: creating demand for housing for veterans, new forms of industry, and an optimistic outlook on the future. A large population of wounded veterans sparked the transition from sprawling pavilion-style military hospitals to more efficient "minimalist megahospitals" in urban areas⁴¹. New development in the suburbs led to an expansion of the community hospital system as well. Planning for a national network of health facilities was supported by the passage of the Hospital Construction Act of 1946, known as the Hill-Burton Act.

*"The Hill-Burton legislation resulted in a series of overlapping rings laid out across the nation, with a large, typically urban teaching institution at the center of each ring and a network of support or satellite clinics and specialty hospitals...arrayed in outlying zones. The intent of the Hill-Burton Standards, which consisted of preset floor plans, room arrangements, bed capacities, and minimum standards for diagnostic and treatment departments, was to assist communities, health planners and architects to ensure minimum quality and content."*⁴²

Thousands of new hospitals were built in the period beginning with the passage of Hill-Burton in 1946 and ending with the shift in federal funding priorities (away from construction and towards programs) caused by the passage of Medicare and Medicaid in 1965.⁴³ The dominant style for these post-war hospitals was modern, particularly in the "International Style," which favored flat roofs, minimal ornamentation and a "platform" or "podium" design with patient beds above below-grade service areas, a large ground floor housing administrative and public functions, and a monolithic high-rise concrete, steel and glass patient tower on top.⁴⁴ Narrow pavilion wards gave way to round, square, hexagonal, and triangular designs all focused on centralizing nurses' stations and support rooms in a windowless "core" with patient rooms surrounding this core, to maximize the efficiency of building systems and staffing.⁴⁵ A proliferation of specialty departments filled adjacent auxiliary structures, or occupied a multi-story podium base.

Outpatient Care Facilities

Many new community physicians' offices in the post World War II period followed the modernist style. The trend towards group practices continued, and helped support the construction of modern medical office buildings and the demand for expanded use of on-site diagnostic equipment.

Post World War II Medical Properties in the Palo Alto Area

As local population expanded rapidly after the war, prominent local physician Dr. Russell Lee (co-founder of the Palo Alto Medical Foundation and one of the driving forces behind the 1930 Palo Alto Hospital project) proposed in 1947 a project to triple the size of the Palo Alto Hospital from 160 to 500-600 beds. His plan apparently was to raise the national profile of the Palo Alto Medical Foundation to rival the Mayo Clinics. The project would have required the expansion of the land area leased from Stanford University as well as approval by the University Trustees. Stanford's President, Donald Tressider, rejected the proposal, finding that the expansion did not serve the interests of the university.⁴⁶ Tressider was an alumnus of the Stanford Medical School and supported moving the medical campus from San Francisco onto the main campus. This plan was discussed by the University Trustees several times in the late 1940s, but stalled due to resistance from the medical faculty (many of whom had private practices in San Francisco).⁴⁷ Instead, plans were made to expand the school in San Francisco which stalled after Tressider's unexpected death in 1948 and an unsuccessful fundraising campaign for the new facilities.

In 1953, Stanford President J.E. Wallace Sterling and the Board of Trustees announced the decision to establish a medical school on the Stanford campus. Palo Alto had raised \$4 million for hospital expansion. A deal was struck in 1955 for a combined Stanford Medical School, Stanford teaching hospital and Palo Alto Hospital project on a 56-acre site near the center of campus. The two owners were represented by David Packard, as Chairman of the Stanford Board of Trustees and Palo Alto Mayor Noel Porter who appointed a Hospital Governing Board, led by William Hewlett and consisting of representatives of the medical school and local physicians. A complex set of business and building arrangements were negotiated and architect Edward Durrell Stone was hired in 1956 to begin design for the new Palo Alto-Stanford Hospital and Stanford Medical School (*Figure 10-29*).

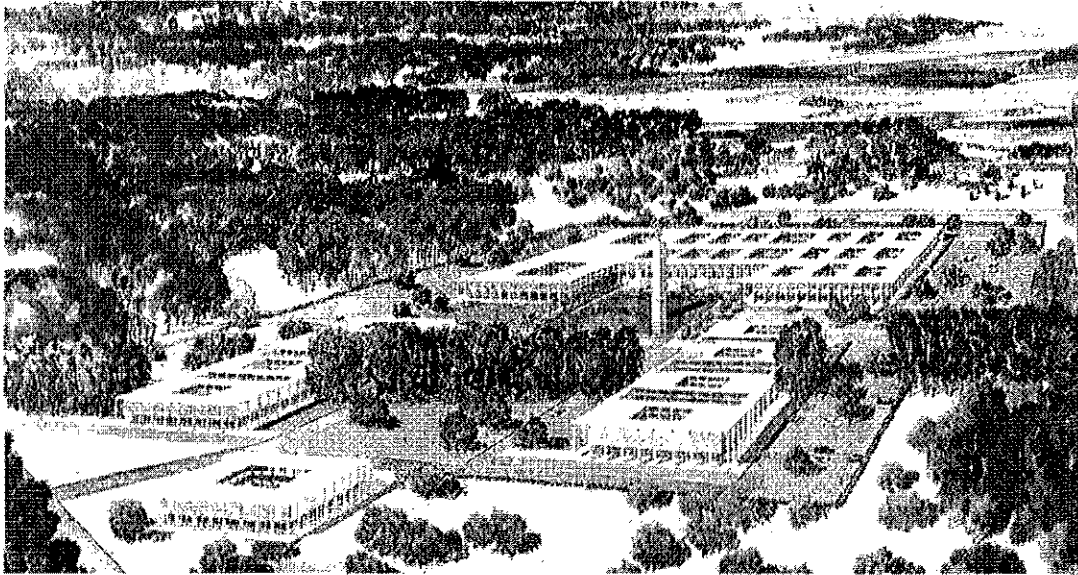


Figure 10-29: Stone's master plan

The project was a “megahospital” by the standards of the period: a first phase of 475 beds (with a plan to expand to 1000) with two separate patient hospitals for Stanford and Palo Alto, shared laboratory and operating rooms, and teaching/research facilities for the Medical School. However, the requirement to separate the Palo Alto and Stanford hospitals and a city-wide height limit forced a horizontal plan, rather than the more popular podium-and-nursing tower arrangement. A sprawling complex of 3-story buildings in Stone's characteristic formalist modern style was completed in 1959 (*Figure 10-30*).

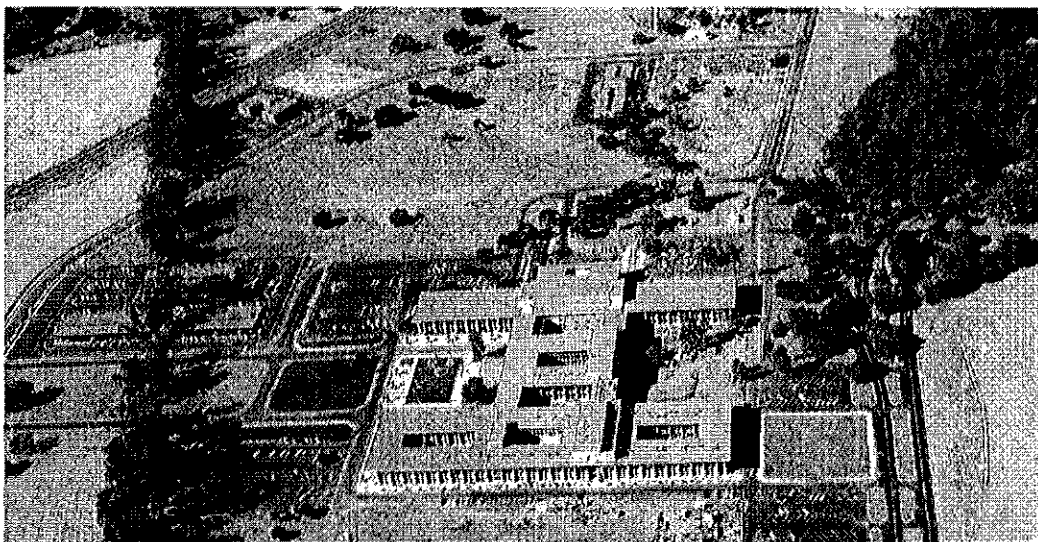
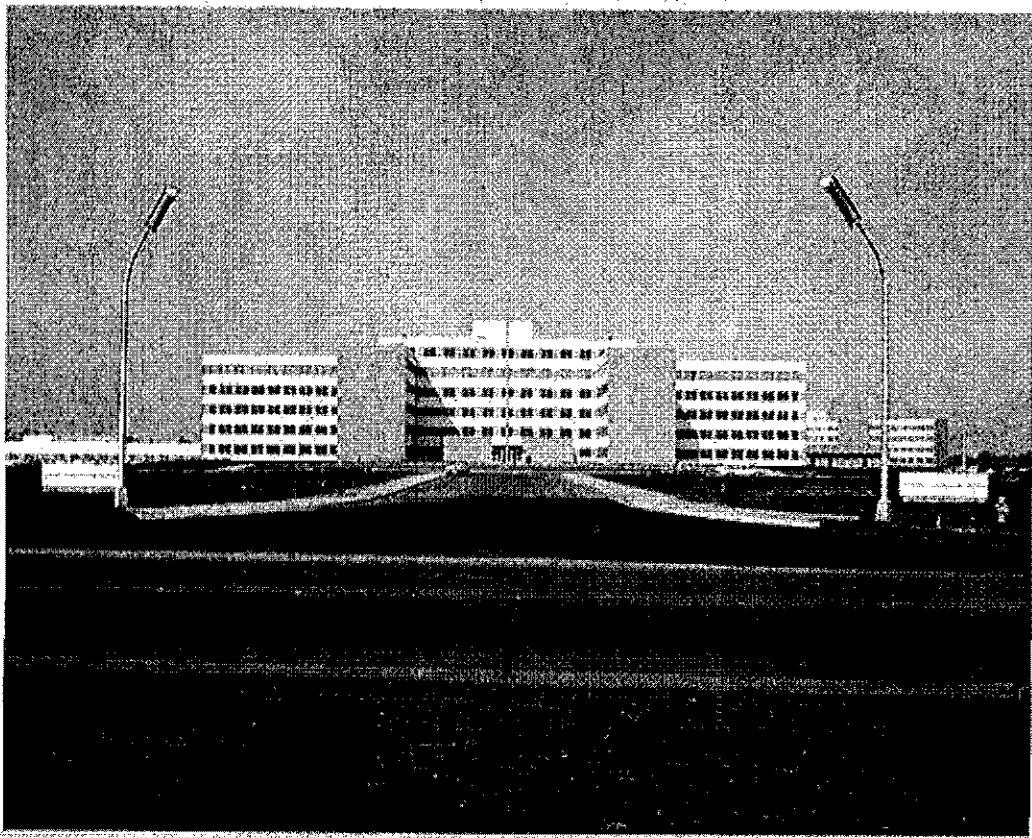


Figure 10-30: The first phase of Palo Alto-Stanford Hospital and Stanford Medical School near completion in 1959

The older Palo Alto Hospital facility was renovated and reopened in 1965 as the Hoover Pavilion, managed by the City of Palo Alto as a portion of its hospital facilities. New hospitals were also built nearby: the Sequoia Hospital opened in Redwood City in 1950, the Palo Alto Veterans' Administration Hospital on Foothill Boulevard was completed in 1960 (*Figure 10-31*).⁴⁸ El Camino Hospital also opened in 1960 in Mountain View.



*Figure 10-31: Palo Alto Veterans' Administration Hospital, 1960 (demolished)*⁴⁹

The Palo Alto Medical Clinic also expanded in the post World War II period, acquiring offices in several locations in Palo Alto and building research facilities on Bryant Street in Palo Alto and a new clinic building (named for Russell Lee) adjacent to the Roth Building in 1961 (*Figure 10-32*). These facilities were demolished and the sites redeveloped for housing after the Palo Alto Medical Foundation moved to its current location in 1996.

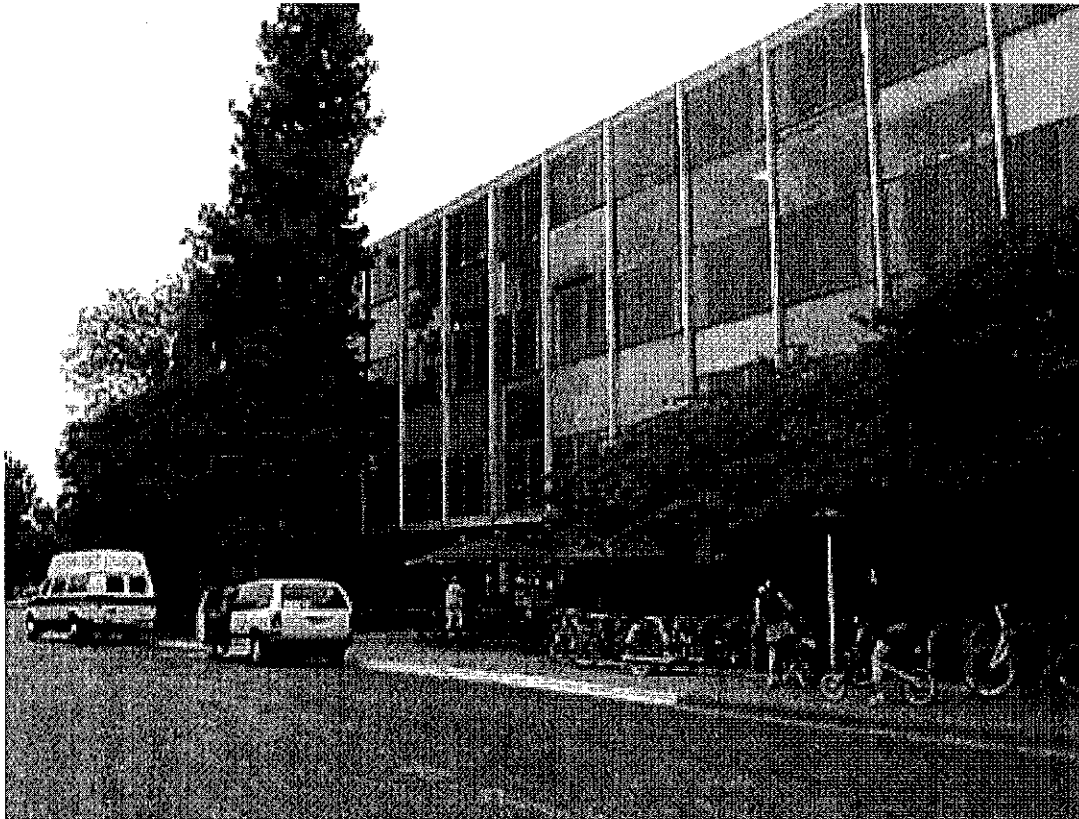


Figure 10-32: Palo Alto Medical Foundation, Lee Building (demolished)

Many private medical practice offices opened during this period in Palo Alto and Menlo Park. Three professional office buildings built in this period are within the project boundaries and are proposed to be demolished: 701 Welch Road, 703 Welch Road and 1101 Welch Road. These properties are discussed in detail in a later section.

Evaluation of Pre World War II Medical Facilities in the Project Area

Hoover Pavilion/Palo Alto Hospital

The Hoover Pavilion facility was constructed in 1930 to house the Palo Alto Hospital. The facility replaced the Peninsula Hospital, which was operated by Stanford from 1921-1931 under an agreement with the City of Palo Alto.⁵⁰ In 1927 the Palo Alto Medical Association formed a committee to study the requirements for a new hospital and in 1928; Stanford University President Ray Lyman Wilbur offered a 99-year lease for 10 acres of land on the Stanford campus for the new hospital, as well as an agreement for the university to manage the hospital.⁵¹ The City of Palo Alto raised more than \$400,000 in construction costs from a combination of bond funding and donations. Construction of

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the central tower and original 80-bed hospital was completed in 1931; an attached 80-bed addition (the "east wing") was completed in 1939.

Criteria 1, 2: Association with Significant Events or Persons

The Palo Alto Hospital was a community hospital that treated thousands of patients over the more than four decades of its operation. It was not a medical research facility and no major events in the history of medicine are associated with the building. President Herbert Hoover, for whom the property was named in 1965 (Hoover died in 1964), had no documented relationship to the Palo Alto Hospital. A sometime resident of the Stanford campus, he may have contributed to the fundraising campaign and may have visited the facility but as he was President during its design and construction, it is unlikely he played any role in the project itself.⁵² While many dedicated physicians, nurses and staff worked in the building over the years, history has not identified a particularly significant person among them.⁵³ The Hoover Pavilion/Palo Alto Hospital does not appear to be eligible for listing on the California Register for association with significant events or persons.

Criterion 3: Design

Within the historical context outlined above, the building may be potentially eligible for listing under criterion 3 as an important example of pre World War II hospital design, if it "embodies the distinctive characteristics" of hospitals of the period. As noted above, the trend during the early 20th century was towards construction of high rise hospitals, in contrast to the low spreading pavilion plans of the past. Furthermore, hospitals became civic institutions during this period – built by cities and counties to support growing populations and attract businesses to their communities. Generally, beaux arts style hospital buildings were popular before World War I, with art deco styles gaining between the wars.

In the era before medical insurance, hospitals provided a variety of room types for a range of fees; floor plans reflected this with a more complex set of ward layouts than in earlier hospitals. Despite this, the floors of high rise hospitals continued to follow pavilion principles: fresh air and sunlight were highly valued, visitor movement through the building highly controlled, and nursing stations and sanitary facilities concentrated in one area on each floor. Hospitals of the 19th century had laundries and kitchens, hospitals of the twentieth century added flower rooms, and a focus on staff comfort (staff locker rooms, bedrooms, dining rooms) to assist recruitment and retention in a period of short supply for quality medical personnel. Typically the building's vertical organization went from service in the basement or ground floor, to public spaces (reception and admitting, gift shop, waiting lounges, offices) on lower floors, several floors of nursing wards, and finally the surgical rooms at the top (minimizing traffic flow into these areas).

The Palo Alto Hospital closely followed these trends. The building is a high-rise structure (at six stories it was one of the tallest buildings in the city at that time). The tower has a "ziggurat" roofline: stepping back in a series of flat terraces with a pyramidal hipped roof originally surmounted by an elaborate copper lighting rod cap (*Figure 10-*

33). The ziggurat form is strongly art deco, perhaps the best known example being the Empire State Building (1931) in New York (*Figure 10-34*).

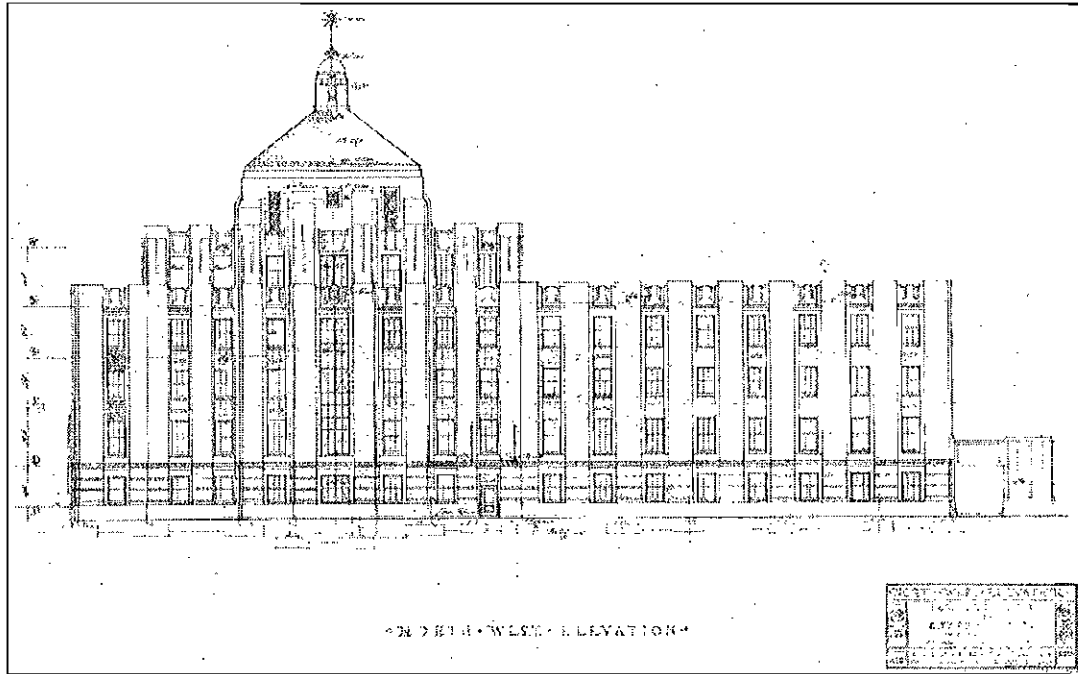


Figure 10-33: Palo Alto Hospital, 1930, northwest elevation

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Figure 10-34: Empire State Building, New York, circa 1930s⁵⁴

The Hoover Pavilion/Palo Alto Hospital may be the only ziggurat profile building in Palo Alto, which has only a handful of art deco structures. Interestingly, there are two Stanford buildings with small ziggurat decorative elements, both associated with Herbert Hoover: the Hoover Tower (1940) has small ziggurats on the corners of the observation deck level (*Figure 10-35*), and the Lou Henry Hoover House (1919-20) has a number of stepped decorative elements (*Figure 10-36*). While there is room for debate on whether Hoover Tower and Lou Henry Hoover House are art deco buildings, the use of exotic architectural forms – Greek, Assyrian, Egyptian, Mayan, Aztec, Native American Pueblo – is a feature of the art deco movement.⁵⁵ Ziggurats are associated with the ancient civilizations of the near east, in the present nations of Iraq and Iran (*Figure 10-37*).

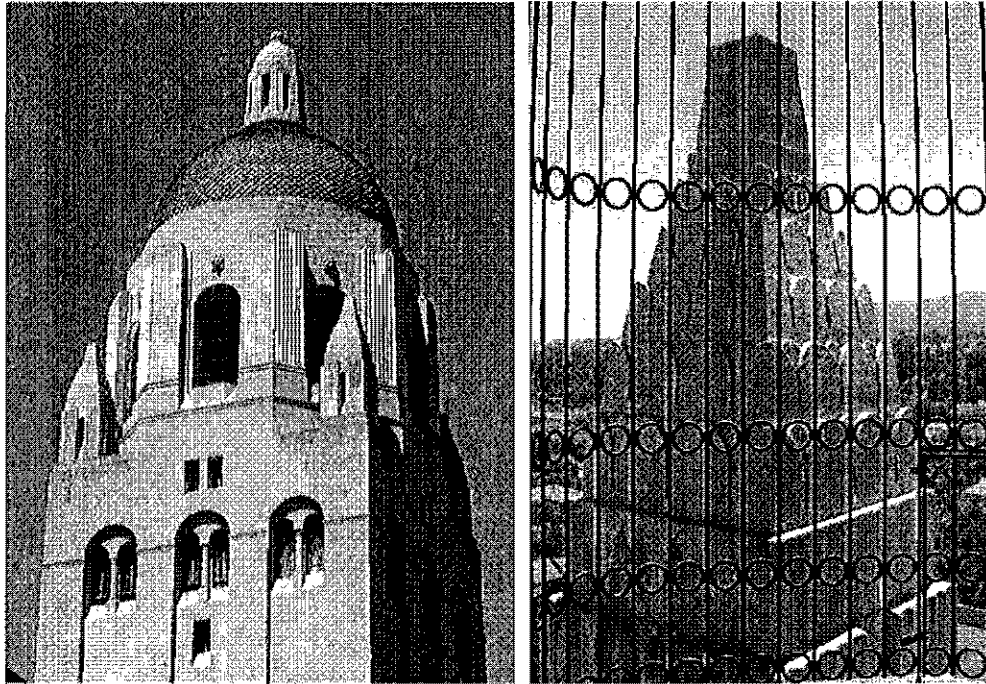


Figure 10-35: Hoover Tower (1941), detail of ziggurat



Figure 10-36: Lou Henry Hoover House (1920)

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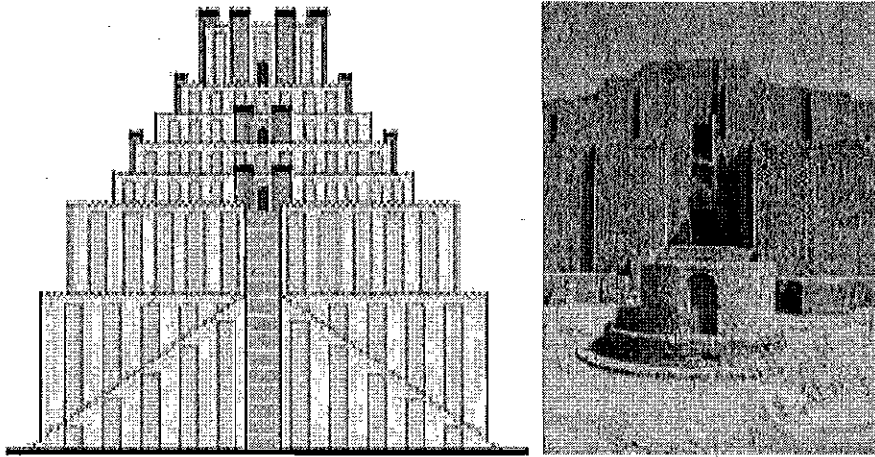
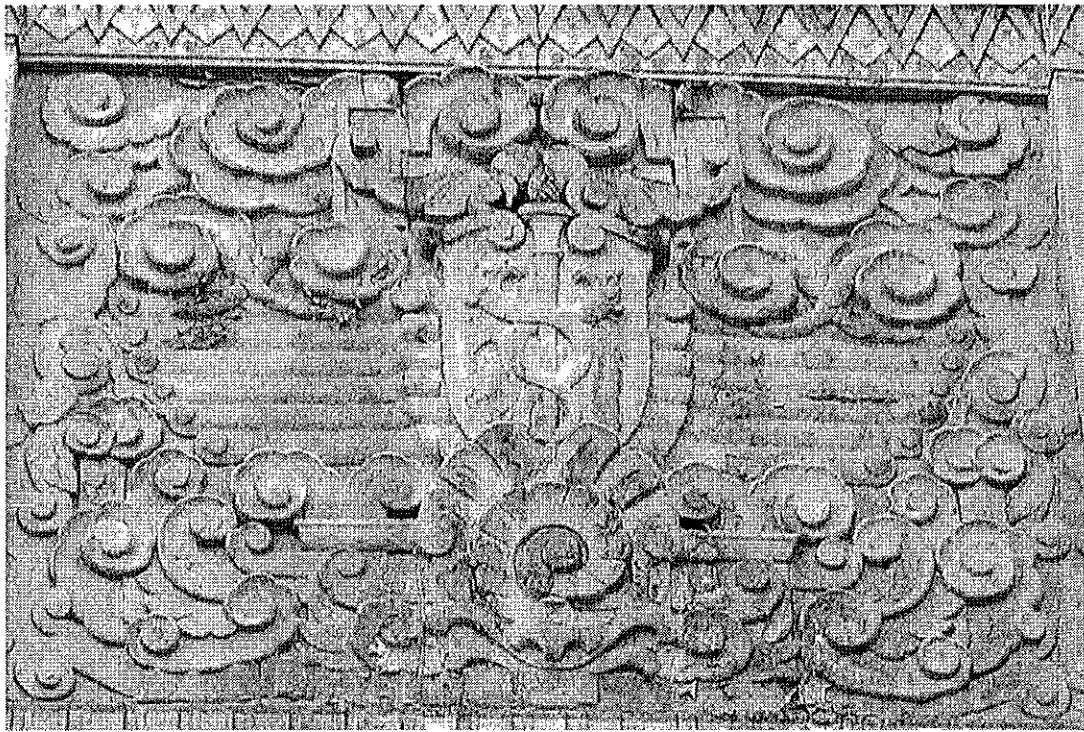


Figure 10-37: Mesopotamian ziggurats⁵⁶

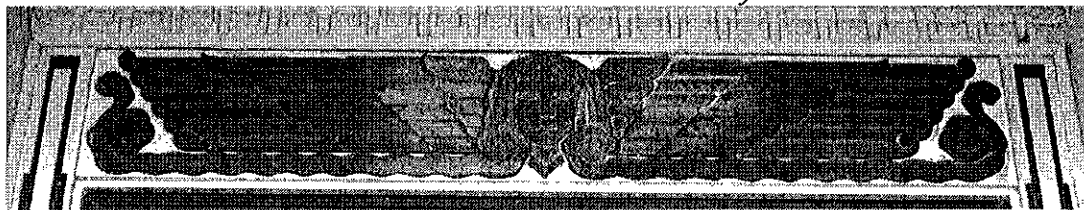
Art deco has a number of variants, but the Hoover Pavilion/Palo Alto Hospital displays the characteristic features of its most common form:

*"The most distinctive form of art deco architecture was what is now referred to as 'zigzag moderne' – the exotically dynamic style of such skyscrapers as the Chrysler and Empire State buildings. The description 'zigzag' refers to the geometric and repetitive stylized ornament of zigzags, angular patterns, abstract animal and plant motifs, sunbursts, astrological symbolism, frozen fountains and related motifs that were applied richly in metalwork, mosaic, etched glass, sculptural relief, and mural form to the exterior and interior of the buildings, many of which were ziggurat-shaped."*⁵⁷

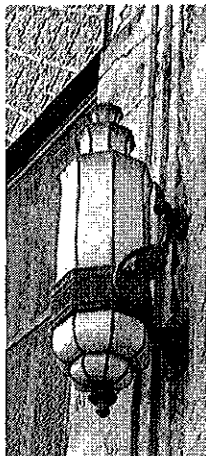
Will Corlett, one of the principal architects for the Palo Alto Hospital, insisted that the design was simple and unadorned; the two bands of terracotta window spandrels, elaborate screen work on the roof level and elaborately detailed parapet belie this statement. These details are consistent with art deco design of the period, and in the San Francisco Bay region.⁵⁸ The main entry on Palo Road is particularly ornate ((Figure 10-38). The entrance has a custom cast concrete friezes with a stylized caduceus (a short rod entwined by two snakes flanked by a pair of wings; associated with the Greek god Hermes and the healing arts). The entry portico is surmounted by an art deco bronze angel, almost certainly also a reference to the function of the building. The main entry has other art deco decorative elements, including lighting fixtures and screens. The awning over the original ambulance entrance on Quarry Road is also detailed in typical art deco fashion (Figure 10-39).



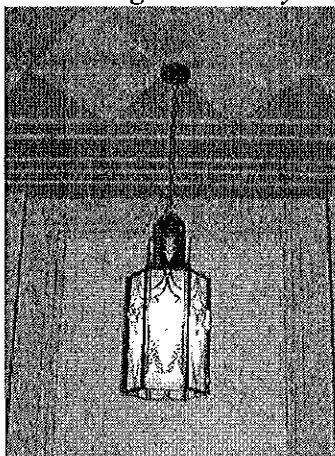
Cast concrete caduceus over main entry door



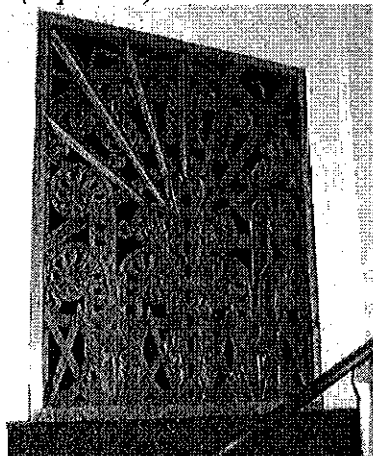
Bronze angel over entry door (in portico)



Lantern at entry



Pendant in foyer



Mechanical screen in foyer

Figure 10-38: Art Deco ornament on the Hoover Pavilion, Palo Road entry



Figure 10-39: Art Deco awning on Quarry Road façade, terracotta spandrels above

The interior plan of the building closely follows the period as well: the ground floor of the 1930 wing housed the emergency room and service functions: staff locker rooms, laundry, sewing room, mattress storage, commissary storage the morgue (the ground floor of the 1939 addition contained patient rooms). The second floor of the 1930 wing, the main entry on the northwest façade, led to the lobby, cashier, administrative offices, laboratories, kitchen, staff dining room, doctor's coat room, and bedrooms for nurses, interns and the hospital superintendent (the 1939 wing is also patient rooms). The fourth floor housed patient rooms and the nursery (two additional labor and delivery suites were added in the 1939 addition on this floor) and the fifth floor had three operating rooms, labor delivery rooms, an anesthesia room and staff preparation spaces. The sixth floor or "penthouse" contained only mechanical rooms. This reflects a typical vertical organizational arrangement, reflecting social distinctions of the period and functional concerns.⁵⁹ This relatively small hospital had few spaces for families and visitors – the cafeterias, gift shops and large waiting areas are a later phenomenon. The interior plan is a good example of a hospital of the pre World War II period.

The Hoover Pavilion/Palo Alto Hospital is less elaborate in its art deco ornament than the most outstanding examples of the style, such as the Los Angeles County Hospital. However, the form and detail of the exterior are good examples of the art deco zigzag moderne style and compare favorably with many large art deco hospitals of the time. The building appears to meet the condition of the criterion 3 as exemplifying the distinctive characteristics of a Pre World War II hospital, including the use of the art deco style and the functional design of the property.

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Criterion 4: Information Potential

The Hoover Pavilion does not appear to have the potential to yield important information in history or prehistory. This criterion is typically applied to archaeological sites or examples of unusual construction methods for buildings or structures. The Hoover Pavilion is not eligible for listing under criterion 4.

Integrity

As the Hoover Pavilion appears to meet criterion 3, the further step of evaluating the physical integrity of the character-defining features is necessary to make a determination of historical significance. Integrity is the ability of the property to convey the reasons for its significance. The Hoover Pavilion has a fairly high level of integrity for its exterior art deco features and original building materials. The interior floor plan is substantially similar and the windows, stairwells and main entry have retained historic finishes. However, decades of interior remodeling have altered the interior finishes to such an extent that the sense of being inside a historic hospital is compromised in many of the spaces: patient rooms have been converted to offices, and the remaining medical treatment areas are thoroughly modern in character. The high level of integrity and strong character of the exterior features including the ziggurat roof profile, ornamental concrete and tile, and largely intact windows and entry give a strong sense of historical style and period to the exterior. The integrity of the characteristic zigzag moderne features of the exterior is adequate to convey the feeling of the period and its architectural interest.

The integrity of the setting is also mixed. The setting was chosen for its proximity to the town and for its beauty: "One can walk from the entrance of Palm Drive to the hospital site in about six minutes and it can be reached from University Avenue by car in about five minutes. The site is secluded from all undesirable sights and noises. The physical surroundings are beautiful and there are no neighbors to object to its presence."⁶⁰ The original landscape plan was extremely simple: road access, parking lots and existing trees. There are no plans showing the Fountain Plaza at the main entry, however, a plaza appears indistinctly in aerial photographs from the 1940s and may have been added with the 1939 addition. While the construction date for the fountain feature is not known, it is art deco in style: a low stepped concrete basin surrounding four vertically stepped columns supporting a shallow copper basin. Its surfaces, however, lack the rich ornamentation of the building façade – no cast ornament or decorative tile – which may indicate a later construction date than the building. (*Figure 10-40*).

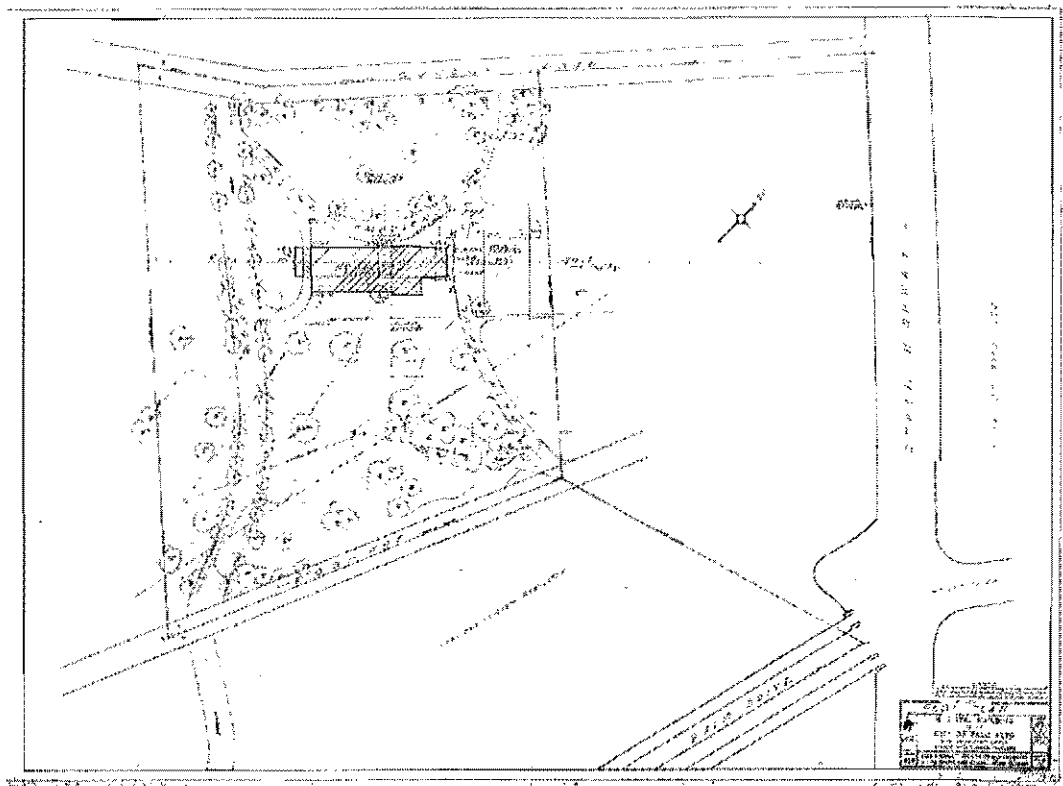


Figure 10-40: Site Plan for Palo Alto Hospital, 1930

The site was planted with ornamental trees immediately adjacent to the building in the early 1960s: formally arranged in the rear courtyard, and against each of the building's pilasters. Lawn was added during this period, much of which was later removed (*Figure 10-41*). The rear, southeast side of the site has been used for support functions and a number of vernacular service buildings have been added and removed over time. Much of the setting is utilitarian and institutional in character: paved surfaces, unirrigated expanses of bare ground, overgrown vegetation and simple outbuildings. There is no designed landscape of note other than the fountain plaza. In terms of integrity, the entry plaza is intact and the overall setting which has always been lightly wooded continues to display this character.

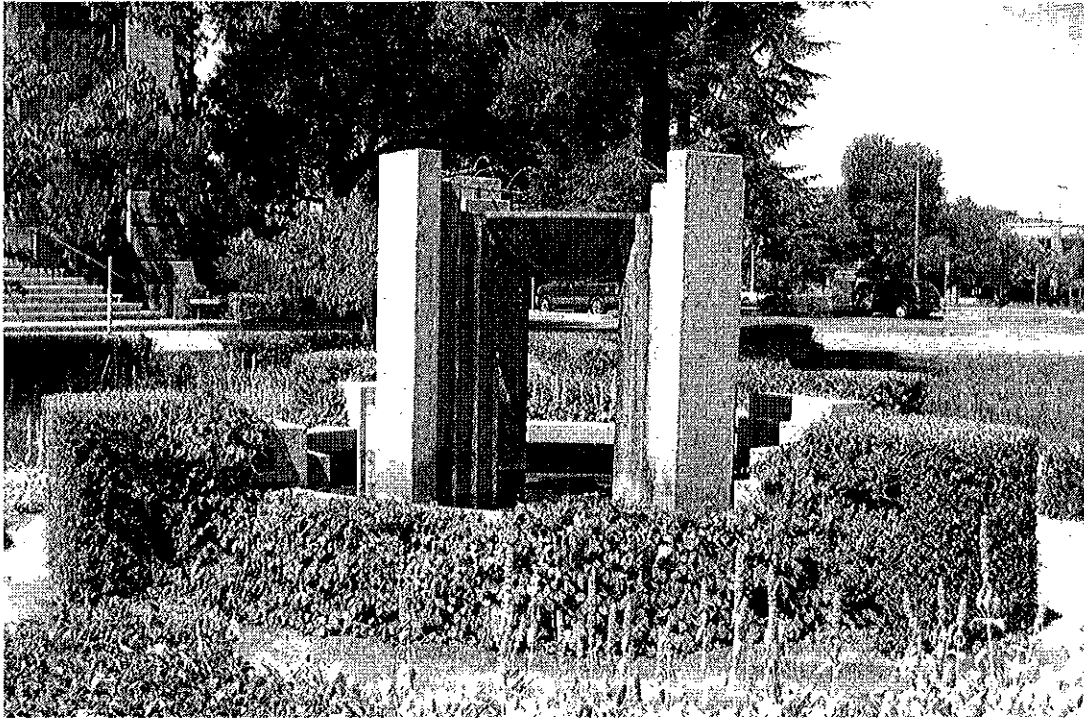


Figure 10-41: Art Deco fountain plaza on Palo Road



Figure 10-42: Northwest façade, 1977

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The Hoover Pavilion/Palo Alto Hospital appears to be historically significant, displays substantial integrity of its defining zigzag moderne exterior features and may be eligible for listing on the California Register under Criterion 3.

Nurses' Cottage

The Palo Alto Hospital operated under continual pressure to expand. Stanford's President Ray Lyman Wilbur reported in 1941 that "A comparison of the five-year period from 1932 to 1936 with the five-year period from 1937-1941 (inclusive), shows 12,829 units of service in the first period and 26,099 units in the second period, or an increase of approximately 100 per cent."⁶¹ The hospital doubled its number of patient beds with the opening of the addition in 1939, but pressure to increase lab and x-ray facilities and administrative offices for the larger hospital led to the construction of a new facility for bedrooms and locker rooms for nurses to free up space in the main hospital building. Like the Palo Alto Hospital, the Nurses' Cottage will also be evaluated using the criteria for listing on the California Register of Historic Places, in the context of developments in medical facilities during the pre World War II period (the facility was planned and the first wing constructed before the war; completion was delayed by material and labor shortages during the war).

Criteria 1, 2: Association with Significant Events or Persons

The Nurses' Cottage was not the scene of any significant historical events, nor has any of the occupants achieved notoriety. In fact, despite a substantial historical literature on the contribution of women to the history of medicine, largely through careers in nursing, there is little historical record of the lives of the nurses who worked at the Palo Alto Hospital. The donor who paid for the construction of the cottage was a well known local philanthropist: Lucie Stern. Lucie Stern inherited a considerable portion of the Levi Strauss fortune from her husband, Louis Stern, and was "Palo Alto's fairy godmother" during the depression years.⁶²

Lucie Stern made major gifts to Stanford University, including a dormitory (Stern Hall) and a number of endowed professorships. She is perhaps best remembered for her gift of the Community Center and Theater on Middlefield Road that bear her name (they were completed in 1933). These structures, and an annex given by her daughter Ruth Stern, were also designed by Birge Clark and continue to play a vital role in the cultural life of the community (*Figure 10-43*). The gates to Mrs. Stern's Atherton Home, Byde-A-Whyte, have been listed in the town's Historical Landscape Artifact Inventory.⁶³ Mrs. Stern and her daughter Ruth also had homes in Palo Alto, designed by Birge Clark and listed on the Palo Alto Historical Inventory. Another Lucie Stern gift to the community (in 1941) that has sparked preservation interest is the art deco "streamline moderne" Sea Scouts Building on San Francisco Bay, planned for restoration by the Environmental Volunteers.

When a person is associated with a number of surviving properties, their relationship to the properties must be reviewed to determine which best represent their contributions to history:

Each property associated with an important individual should be compared to other associated properties to identify those that best represent the person's historic contributions...Length of association is an important factor when assessing several properties with similar associations.⁶⁴

Lucie Stern's association with the Community Center, Theater, Children's Theater and Children's Library on Middlefield Road was long-lasting and is well-remembered in Palo Alto. The Nurses' Cottage, while a generous gift, does not carry the strength of association -- in scale, length of time, or public memory -- of Mrs. Stern's major contributions to Palo Alto and Stanford. The Nurses' Cottage therefore does not appear to be eligible for listing on the California Register under criteria 1 or 2.

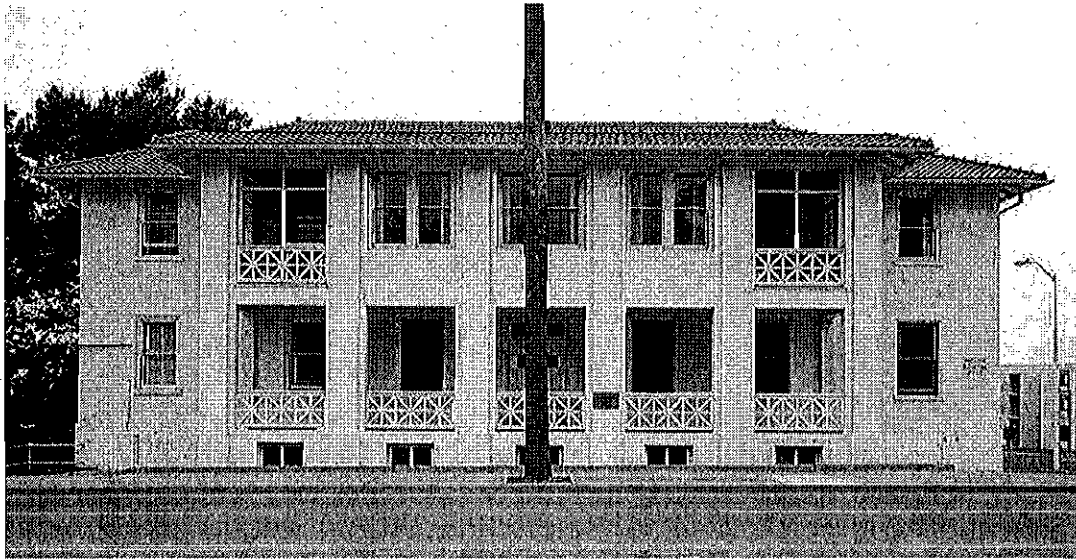


Figure 10-43: Lucie Stern Community Center⁶⁵

Criterion 3: Design

As mentioned above, housing for nurses was a common feature of pre World War II hospitals. Most nurses were unmarried young women, working long hours and hospital administrators of the period believed they needed supervision and security. Housing was also a recruitment tool for nurses in an era of chronic nursing shortages. The San Francisco Hospital Nurses Home was described as "a three story brick structure with every modern convenience to make home life of the student nurses comfortable. The

grounds surrounding are attractive with lawns and gardens.”⁶⁶ The Nurses’ Quarters at Letterman General Hospital in San Francisco are typical: there are reception areas, sitting rooms, and dining rooms as well as sleeping facilities (*Figure 10-44*). The Nurses Home at Agnews State Hospital in Santa Clara was similar in style and plan to the Letterman Nurses’ Quarters: graceful Mediterranean revival architecture with domestic scale common rooms on the ground floor (*Figure 10-45*). Early 20th century nurses’ homes display a variety of residential architectural styles, however, the focus on providing the comforts of home in a pleasant setting are key defining characteristics.



*Figure 10-44: Nurses’ Quarters, Letterman Hospital, San Francisco (1932)*⁶⁷



*Figure 10-45: Nurses’ Home, Agnews State Hospital, Santa Clara (demolished)*⁶⁸

The Palo Alto Hospital Nurses Cottage was designed by Palo Alto architects Birge Clark and David Clark in 1941. Birge Clark and Walter Stromquist designed a 1948 addition to the building as well (*Figures 10-46, 10-47*). The building's stripped-down modern style is a departure from Clark's well-known Spanish colonial revival style that characterizes many of his projects in Palo Alto, including the Palo Alto Medical Foundation's Roth Building, the Cardinal Hotel, the Lucie Stern Community Center and the Hamilton Avenue United States Post Office as well as dozens of private homes (*Figure 10-48*).

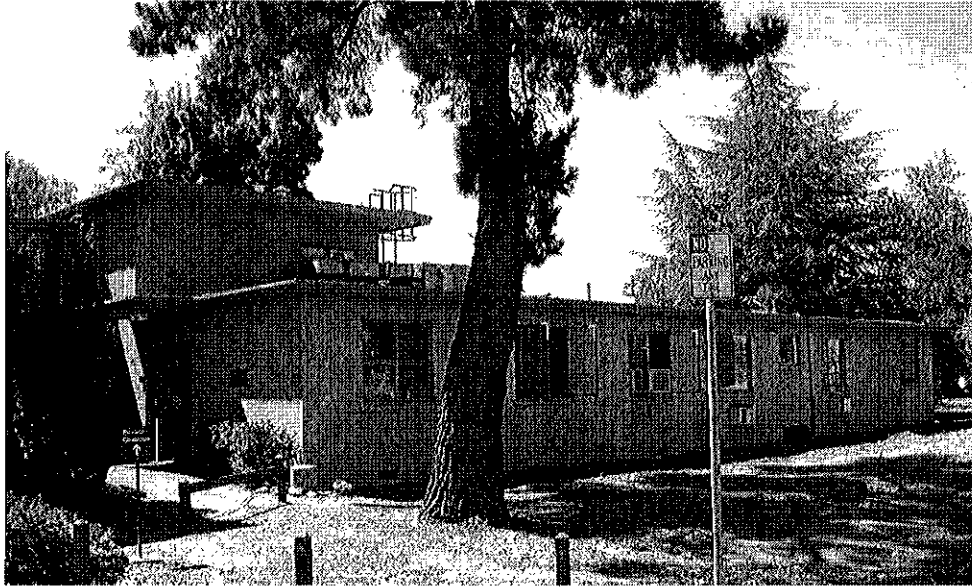


Figure 10-46: Palo Alto Hospital Nurses Cottage, Quarry Road façade

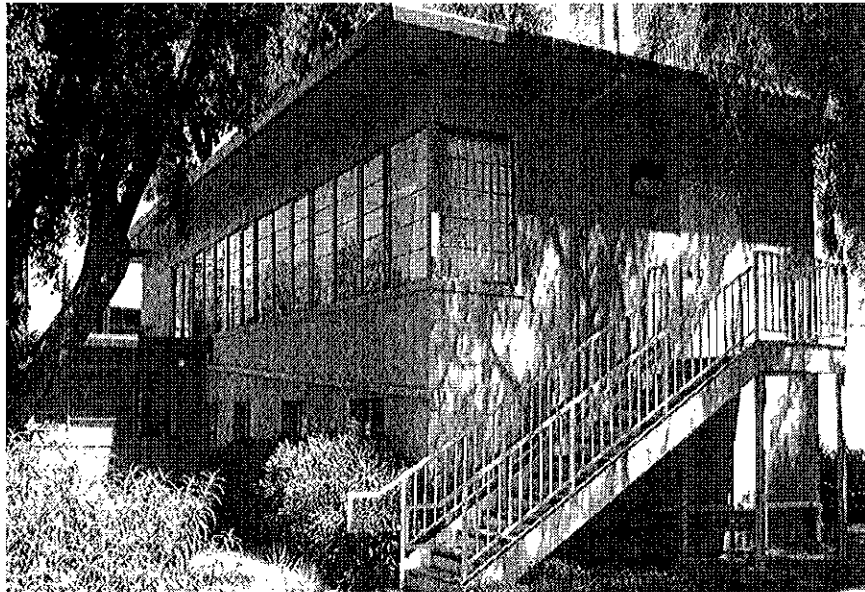


Figure 10-47: Palo Alto Hospital Nurses Cottage

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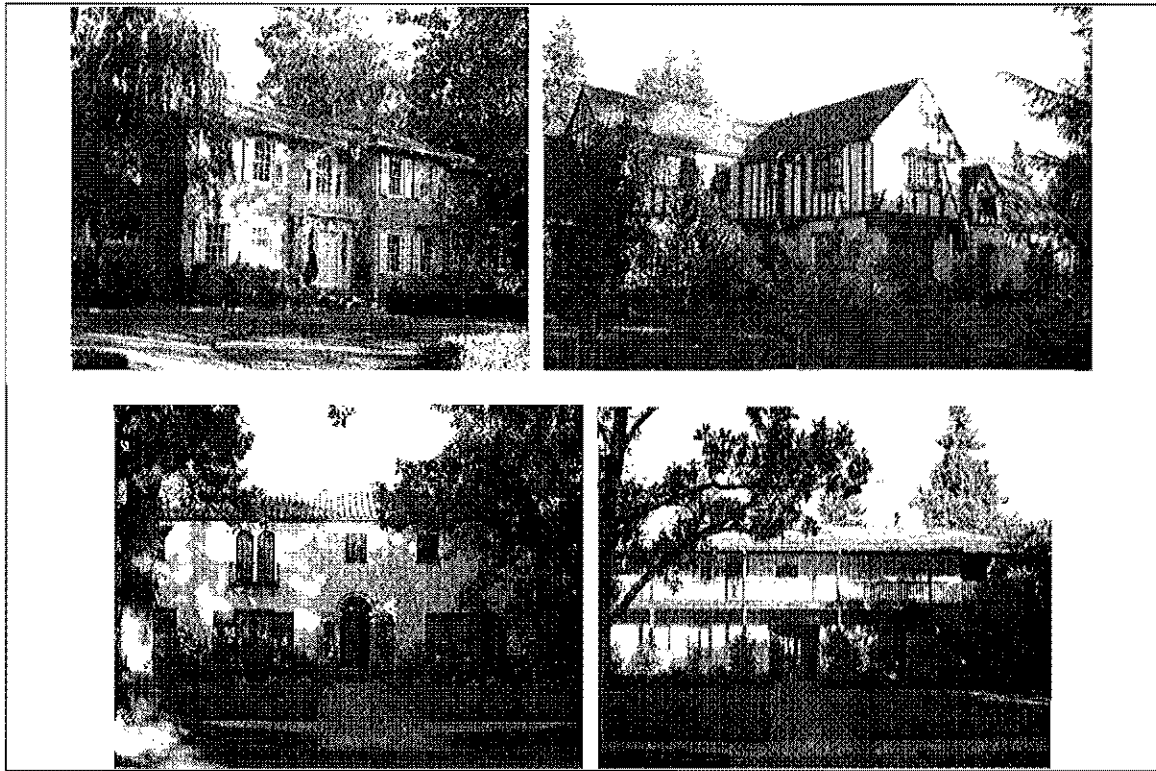


Figure 10-48: Birge Clark Houses in Palo Alto

Clark and Stromquist designed other modern buildings in the 1940s all modest horizontal structures accented by modernist bands of windows: the Palo Alto Red Cross building at 400 Mitchell Lane (1947), a number of public school buildings and a commercial building at 900 High Street (*Figure 10-49*). There are apparently also some modern style private homes by Birge Clark, though these are less well known.⁶⁹ The building at 900 High Street is listed in the Palo Alto Inventory; however a recent survey found the Palo Alto Red Cross building ineligible for listing on the California Register.⁷⁰ The Nurses' Cottage at the Hoover Pavilion/Palo Alto Hospital is a modest building, both in the context of nurse housing and in the career of Birge Clark. It does not appear to be eligible for listing on the California Register of Historic Places under criterion 3.



Figure 10-49: Peninsula Creamery Building at 900 High Street (Birge Clark)

Criterion 4: Information Potential

The Nurses' Cottage does not appear to have the potential to yield important information in history or prehistory. This criterion is typically applied to archaeological sites or examples of unusual construction methods for buildings or structures. The Nurses' Cottage is not eligible for listing under criterion 4.

As the Nurses' Cottage does not meet any of the four criteria for listing on the California Register, it does not appear to be a significant historical resource.

Evaluation of Post World War II Medical Facilities in the Project Area

Historical Significance and the Recent Past

Many of the post World War II properties affected by the proposed project were constructed in the past fifty years. In order to achieve historical significance in this short time frame, it is interesting to note that the National Register of Historic Places guidelines suggest that a property less than 50 years old should be of exceptional importance. The higher level of significance "guards against the listing of properties of passing contemporary interest and ensures that the National Register is a list of truly

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historic places.”⁷¹ The California Register allows listing of properties less than fifty years old where “sufficient time must have passed to obtain a scholarly perspective on the events or individuals associated with the resource.”⁷² The California Register criteria are applied in this analysis.

With regard to modern architecture, there is a growing body of scholarly work documenting post World War II buildings. In 2000 the U.S. General Services Administration, Advisory Council on Historic Preservation, the American Architectural Foundation, the National Trust for Historic Preservation and the Yale School of Architecture held a symposium with more than 75 leading architects and preservation experts at Yale University on “Architecture of the Great Society,” resulting in a report titled “Growth, Efficiency and Modernism: GSA Buildings of the 1950s, 60s and 70s,” which contains a framework for assessing the eligibility of modern buildings for historical listing.⁷³ This framework, used within the context of medical facilities design, will guide the evaluation of the post World War II medical facility properties affected by the proposed project.

701 Welch Road, Whelan Buildings

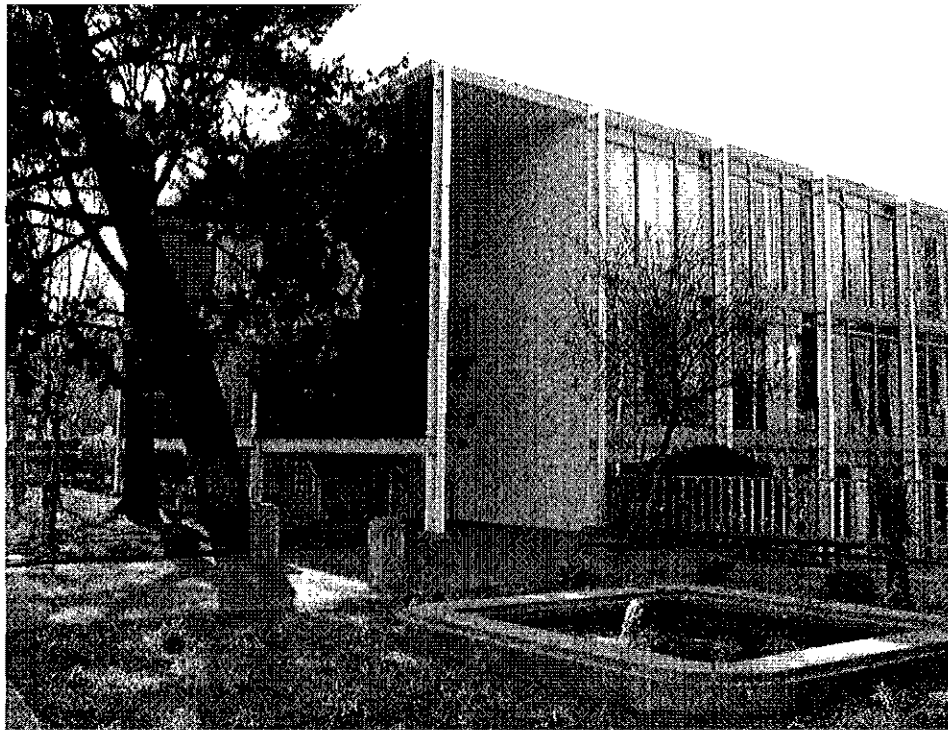


Figure 10 -50: 701 Welch Road, Building A

There are five structures currently located at 701 Welch Road: four structures dating from the 1957-61 original development of the property (701A, 701B, 701C, 701D), and a

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recent added elevator tower (*Figures 10-50, 10-51*). The property was developed as a professional office building complex by John Whelan, who received a lease from Stanford University for 1.4 acres in 1957. His brother Joseph Whelan owned the construction company that built Buildings A, B, C, and D. The buildings were described as "professional office" buildings and upon completion of the complex in 1961 housed a variety of tenants, including physicians, psychologists and dentists as well as lawyers, engineers and accountants.⁷⁴

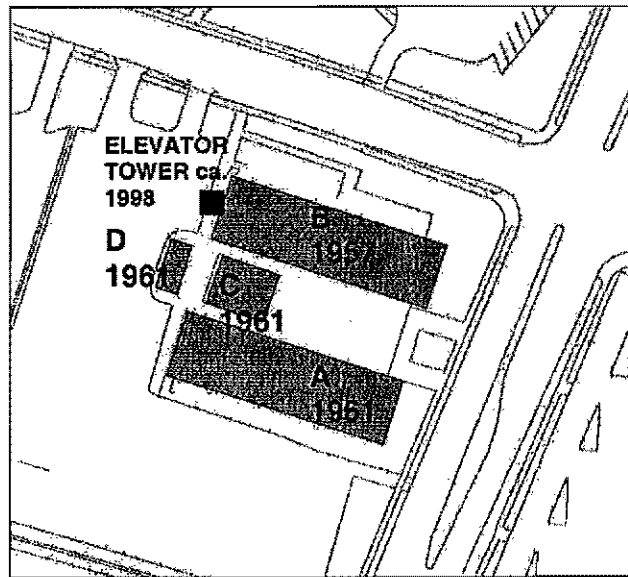


Figure 10 -51: Site development sequence at 701 Welch Road

The buildings sit at the corner of Welch and Quarry Roads, across Welch Road from the Stanford Shopping Center Barn. Buildings A and B are three stories in height, with a half story below grade (they were built under a 35 foot height limit), Building C is two stories and D is a single story. There is a sunken courtyard between Buildings A, B, and C.

Criteria 1, 2: Association with Significant Events or Persons

The only newsworthy event in the record for the property was the establishment of the Addiction Research Foundation by Dr. Avram Goldstein in 1974. His neighboring tenants complained vociferously about the odors from his laboratory and the appearance and behavior of his patients and within a few years Dr. Goldstein relocated his foundation.⁷⁵ The activities of the Foundation attracted only minor public notice and occurred relatively recently, and thus cannot be said to achieve historical significance. The buildings housed a variety of professional tenants. There are no historical events associated with the buildings that merit consideration under criterion 1.

The list of tenants from the early 1960s was reviewed against newspaper clippings and local historical sources.⁷⁶ For example, among the tenants of a law office in 1961

were Richard Blois and Marsden Blois. Richard Blois is a Stanford alumnus who together with his wife Susan have been active in campus and civic affairs. Marsden Blois was a lawyer and an instructor at the Stanford University School of Law. The Whelan brothers, developer John Whelan and contractor Joe Whelan, had their offices in the buildings as well. The activities of these citizens leave traces in local newspapers, but none of the tenants of the buildings from the early 1960s appears to have achieved wider fame or notoriety. Dr. Goldstein has enjoyed an impressive career; however, the strength of his association with this property is weak: he was only a tenant for a few years of his long career, and his tenancy occurred within the last 35 years. The buildings at 701 Welch Road do not appear to be eligible for listing on the California Register under criterion 2.

Criterion 3: Design

Buildings A, B, C, and D were designed by architect Don Knorr (1923-2003), a modernist architect who practiced in the San Francisco Bay Area from 1949 to his retirement. In the early years of his career, Knorr worked for the father-son architecture firm of Eliel and Eero Saarinen in Michigan and later joined the San Francisco firm of Skidmore, Owens and Merrill before launching his own practice, Knorr Elliott Associates, in 1951.⁷⁷ Knorr's work received some notice during his career: he won a MoMA furniture competition in 1950 (for a metal chair he designed – *Figure 10-52*) and one of his house designs was chosen by the prestigious Case Study Houses project in 1957 (though never built).⁷⁸ Knorr did several projects with builder/developer Joe Whelan, including houses for Whelan in Atherton and the Portola Valley Ranch development.⁷⁹ Knorr is best known for his minimalist modern furniture designs from the early 1950s, and for minimalist modern houses of glass, steel, wood and adobe built for affluent clients in Atherton, Woodside, Portola Valley and other northern California suburbs.⁸⁰



Figure 10-52: Chair by Don Knorr for the Knoll Company (1948)⁸¹

Knorr's design for the office buildings at 701 Welch Road uses some of the ideas from his Case Study House proposal: tall blank redwood walls at stark right angles to walls of steel and glass, and a sunken garden (*Figures 10-53, 10-54*).

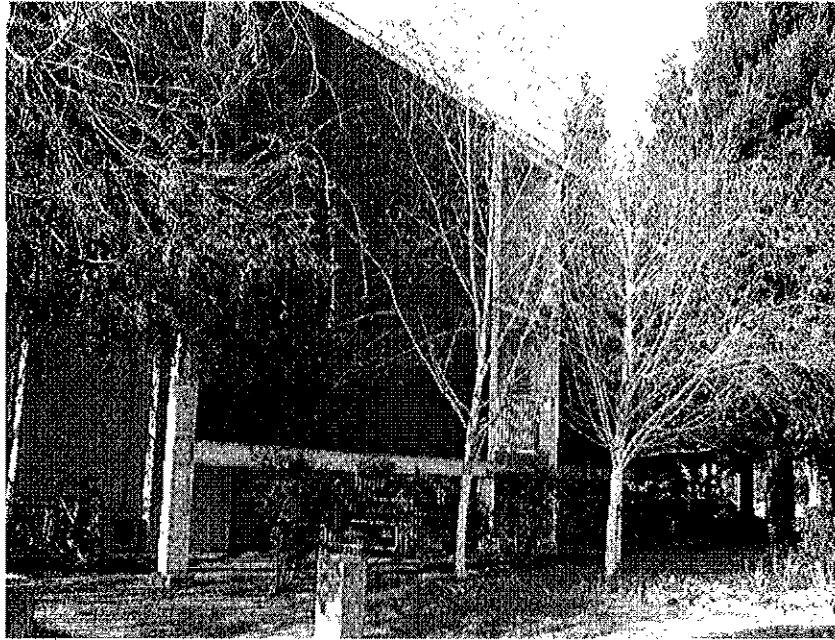


Figure 10 -53: 701 Welch Road, Building B, West facade



Figure 10 -54: 701 Welch Road, Building B, South facade

The original landscape designer for the project was Lawrence Halprin, but the final plans approved in 1961 were by Sasaki, Walker and Associates. These plans included a small water feature, a putting green in the sunken garden, and trees planted to screen the window walls.

As the buildings are for the most part less than 50 years old (Building B, the first to be completed, was occupied in 1957, the others followed in Phase 2, completed in 1961), a scholarly perspective is important in reviewing their significance. As noted above, recent scholarship has recognized Don Knorr as an important modernist designer. To evaluate this particular project, a scholarly perspective is provided by the national report *Growth, Efficiency and Modernism* which summarized the findings of a panel of eminent scholars and architects regarding architecture of the post war period. The questions below are taken from the assessment tool included in this report.⁸²

Is it a formative design in the portfolio of a prominent architect whose work had an important influence on a community, region, state, or country?

Based on its resemblance to the Case Study House #19, submitted the year Building B was completed in a similar style, it appears to be a formative design in Knorr's portfolio. Knorr himself mentions that it was one his first experiments with steel construction.⁸³ However, Knorr's practice was small and his projects far flung across the San Francisco Bay Area which limited his influence on the region.

Is it a highly influential or outstanding work or is it a lesser work in the portfolio of a master architect?

Knorr's most influential projects were residential, not commercial, and his influence on the region was limited by the small size of his practice.

Is it a successful example of a Modern-era style such as Expressionism, Formalism, or Brutalism?

No. It was, however, with its strongly horizontal form, clean lines, and common construction materials a good example of a regional style described variously as "Northern California Modern" or Soft Modern."

Does it exemplify the Modernist design philosophy, making effective use of modern materials, components, public artwork, noteworthy landscaping or site design?

Knorr's best known projects included unusual combinations of materials, such as adobe and steel or colored glass and ceramic panels by his artist wife, Anne. Here, the landscaping is not remarkable. The buildings make effective use of steel, concrete block, redwood and glass, but fail to make a strong visual statement.

Are interior and exterior significant spaces fully intact as designed, with original materials and features?

No, there have been major modifications to the buildings since their completion in 1961, described below in the discussion of integrity.

The buildings at 701 Welch Road are interesting modern buildings by an obscure but talented architect. However, they are conventional, severely plain, rectangular office buildings with little to draw public notice or interest in their design. They do not appear to achieve the level of importance required for listing on the California Register under criterion 3.

Criterion 4: Information Potential

The Whelan Building does not appear to have the potential to yield important information in history or prehistory. This criterion is typically applied to archaeological sites or examples of unusual construction methods for buildings or structures. The Whelan Building is not eligible for listing under criterion 4.

Integrity

The clean design of the building complex, and the strong mirror symmetry of its main two buildings (A and B) was permanently compromised by a series of alterations beginning in 1969 when the glass curtain walls on Building A were moved outward to the edge of the roof eaves, and a covered porch at Building C was enclosed to create additional interior space. Stanford's Director of Planning, Harry Sanders, strongly disapproved of this change, writing that

I find it difficult to accept the random filling in of such covered outdoor spaces, particularly in these small intimate courtyards. And this court as pavilion depends very much on having this covered porch area. Bringing the glass wall out to the overhang would, in my opinion, be unfortunate...I guess the reason I feel so strongly is that I think the Whelan Buildings are among our best, and I'd hate to see them head downwards.⁸⁴

Despite this warning, the alterations were approved, disrupting the symmetry of the buildings (*Figures 10-55, 10-56*). Five years later another controversy erupted when the Whelans complained about alterations to Building A (at this point they had transferred the leases on some of the buildings to another developer). Gail Whelan wrote the university president, Richard Lyman, stating that the alterations were "extensive, tasteless and dangerous...The outstanding appearance of these twin buildings, standard-bearers on Welch Road is also, in my opinion, being thoroughly ruined."⁸⁵



Figure 10-55: 701 Welch Road, Original window configuration, Building B



Figure 10-56: 701 Welch Road, Windows extended to eaves, Building A

840

Again in 1979, when a proposal emerged to add a new doorway on the south east façade of Building D, the Whelans complained. John Whelan described it in a letter to the university's Manager of Real Estate as a "violent alteration to the architectural expression of these buildings."⁸⁶ The addition of a round elevator tower in 2001, and the re-glazing of many windows in tinted glass, further compromised the overall composition.

Due to this series of changes that disrupted the unity of Knorr's original plan, the buildings at 701 Welch Road do not appear to retain integrity of design. As the buildings at 701 Welch Road do not meet any of the four criteria for listing on the California Register, and have lost integrity of design, they do not appear to be a significant historical resource.

703 Welch Road, Welch Road Professional Center



Figure 10-57: 703 Welch Road

The building at 703 Welch Road is next door to 701 Welch Road. This building is a complex created by two long narrow buildings joined at each end and in the center by connective elements, creating two lines of professional offices that opened onto a narrow inner courtyard (*Figure 10-57*). The building steps from one to two stories in height (the second story was a later addition). The first phase of the building was completed in 1958 by Welch Road Properties, led by developer J.P. Aced. The second phase, addition of the second story, was completed in 1963. The architect was Bill Davies and landscape designer Doug Baylis.

Criteria 1, 2: Association with Significant Events or Persons

In 1961, tenants included a number of dentists, a psychologist, an optician and an employment agency.⁸⁷ None of these have attracted the notice of history (beyond the occasional real estate transaction, charitable donation, wedding or obituary notice), nor have any historical events of note taken place at this site. 703 Welch Road does not appear to be eligible for listing under criteria 1 or 2.

Criterion 3: Design

The building is modern in design: concrete with decorative pierced concrete screens at the entries and stairways, and a mansard roof screen suspended above the one story sections and tying into the eaves of the second story additions. The building is very long and narrow, an effect that architect Davies attempted to redress in a later remodel project (1970) by painting the ornamental screens and other accents a dark, contrasting color. The outward facing walls are pierced by small, high, horizontal windows (*Figure 10-58*). Facing the interior court, these windows are supplemented by vertical glass panels in some areas (*Figure 10-59*). The fenestration is inconsistent in the interior facades, suggesting later alterations by tenants.



Figure 10-58: 703 Welch Road, West facade

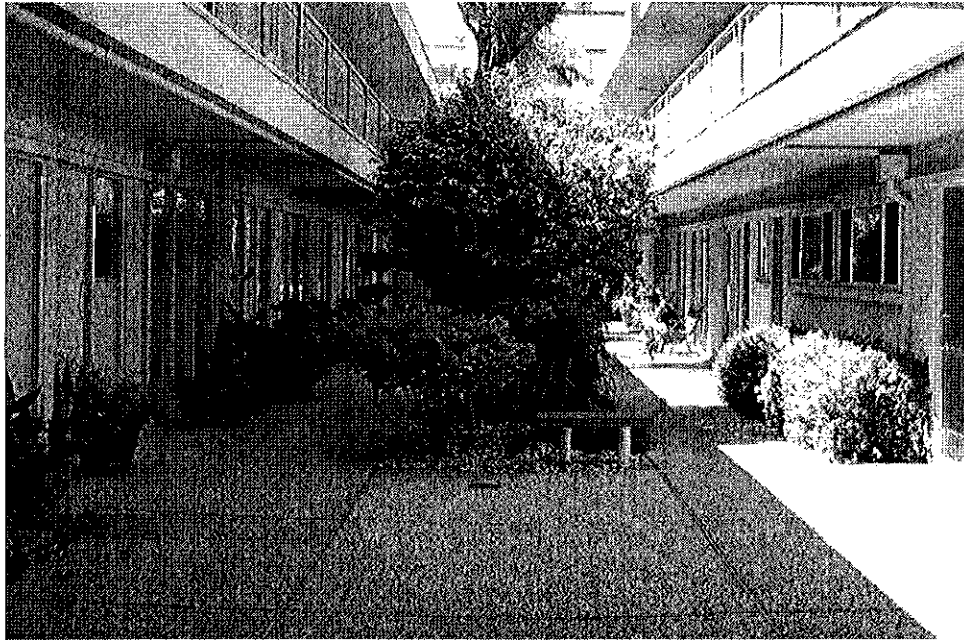


Figure 10-59: Welch Road, Courtyard

The landscape treatment was the subject of prolonged discussion between Stanford and the Welch Road Properties company. The building developers needed more parking spaces and successfully resisted adding planting strips along the long sides of the building and along the property lines. Tiny islands of hardy yucca and juniper dot the sides of the building. The only major landscape area is in the setback from Welch Road, which was originally planted in 1958 in a mass of juniper shrubs until Stanford insisted that the shrubs be replaced with lawn and trees in “clumps of three” in 1960.⁸⁸

The assessment questions suggested by the GSA report, Growth Efficiency and Modernism are useful in the case of this building as well:⁸⁹

Is it a formative design in the portfolio of a prominent architect whose work had an important influence on a community, region, state, or country?

No. Architect Bill Davies and his partner E.A. Wadsworth have attracted little if any critical attention for their designs, either at 703 Welch Road or elsewhere. They cannot be described as prominent or influential. Landscape designer Doug Baylis has received more attention. A protégé of Thomas Church, he enjoyed a successful practice in partnership with his wife Maggie Baylis. Baylis is widely recognized as a leading figure in California modernist landscape design, of whom Church once remarked that “he would be known as the guy for whom Douglas Baylis had once worked.”⁹⁰ Baylis appears to have abandoned the commission at 703 Welch Road after reporting that “the owner seems inclined to dispute the recommendations.”⁹¹

Is it a highly influential or outstanding work or is it a lesser work in the portfolio of a master architect?

No. It is not the work of a master architect nor is it highly influential or outstanding.

Is it a successful example of a Modern-era style such as Expressionism, Formalism, or Brutalism?

No. The building is an awkward example of California modernism, and an unfortunate lost opportunity to improve its character was missed when the developer chose to maximize parking spaces rather than adopt a landscape plan by Doug Baylis. It is unclear however, if Baylis could have rescued the design from the unfortunate extremes of its long, tight form.

Does it exemplify the Modernist design philosophy, making effective use of modern materials, components, public artwork, noteworthy landscaping or site design?

No.

Are interior and exterior significant spaces fully intact as designed, with original materials and features?

No. The main entry area was redesigned in 1970 and the windows and doorways in the courtyard facing walls have been repeatedly changed.

The building at 703 Welch Road does not appear eligible for listing under criterion 3.

Criterion 4: Information Potential

The building at 703 Welch Road does not appear to have the potential to yield important information in history or prehistory. This criterion is typically applied to archaeological sites or examples of unusual construction methods for buildings or structures. The 703 Welch Road building is not eligible for listing under criterion 4.

Integrity

The building has undergone a series of alterations since its original design in 1958: the addition of the second story in 1963, redesign of the main entry in 1970, and the addition of a deck on the roof of the single story section in 1981. While the fenestration and ornamental details of the two long facades are substantially intact, the courtyard facades have been repeatedly altered. The building at 703 Welch Road cannot be said to display integrity of design.

As the 703 Welch Road building does not meet any of the four criteria for listing on the California Register, and has lost its integrity of design, it does not appear to be a significant historical resource.

1101 Welch Road, Medical Plaza

Three long, low, one-story wooden buildings were developed at 1101 Welch Road by a consortium of thirty-eight private physicians, opening as the Medical Plaza in 1958. By 1961 there were nearly fifty physicians occupying the buildings, along with a pharmacy. It remains largely medical offices to this day.

The buildings are low profile, surrounded by parking lots, screening fences and landscaping (*Figure 10-60*). There is a small plaza with a water feature in between two of the buildings (*Figure 10-61*). Rarely noticed, they are however the work of a well-known California architect, William Wurster, and landscape architect Lawrence Halprin.

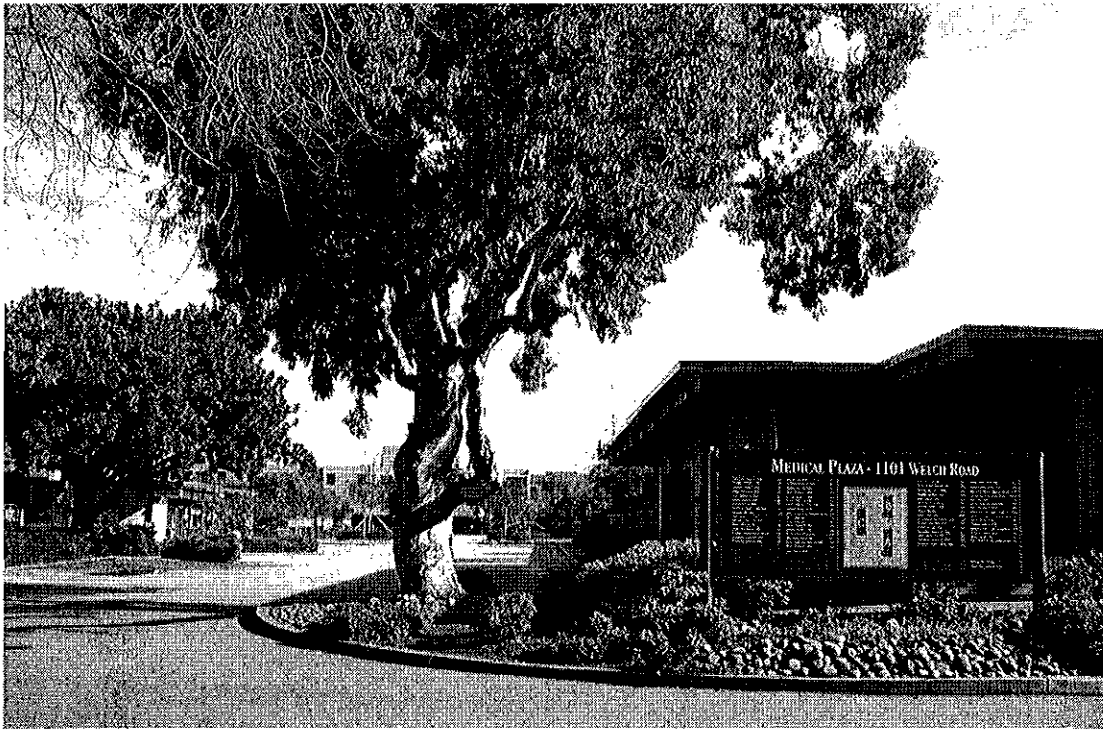


Figure 10-60: 1101 Welch Road



Figure 10-61: Fountain plaza at 1101 Welch Road

Criteria 1, 2: Association with Significant Events or Persons

The medical offices and pharmacy at 1101 Welch Road have not been identified as the location of any notable historical events, other than a brief series of articles regarding laboratory safety in the late 1990s.⁹² These were the offices of practicing family doctors: primarily pediatricians, obstetricians, and gynecologists.

There are many prominent citizens among the physicians who practiced in the Medical Plaza, however:

A property is not eligible if its only justification for significance is that it was owned or used by a person who is a member of an identifiable profession, class, or social or ethnic group. It must be shown that the person gained importance within his or her profession or group.⁹³

None of the physicians associated with the buildings in the early 1960s have left a notable impact on the history of medicine. The buildings at 1101 Welch Road do not appear eligible for listing on the California Register under criteria 1 or 2.

Criterion 3: Design

The three buildings at 1101 Welch Road are similar in scale and type to many suburban professional office buildings of the late 1950s and early 1960s: one story, modern in style, owned by the professionals who practiced within them. There are a number of medical and dental offices in Palo Alto of this age and type. Several located along Middlefield Road display similar style (*Figures 10-62, 10-63*). The stylistic features including wide, overhanging eaves, large glass panels, and enclosed patios of 1101 Welch Road are also quite widespread in the local area, particularly in the large housing subdivisions constructed by the Eichler Homes, Inc. firm.

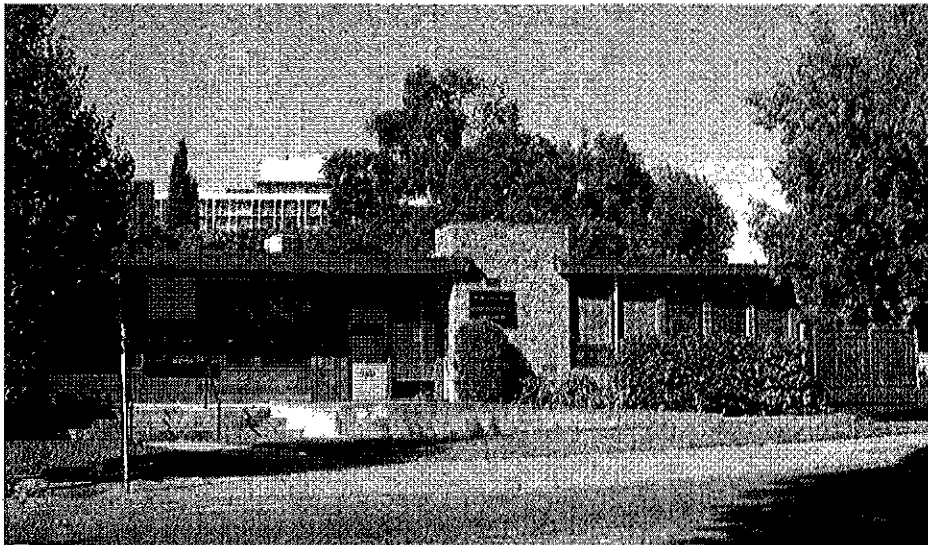


Figure 10-62: Medical office building on Middlefield Road, constructed circa 1959



Figure 10-63: Detail showing eaves, clerestory and windows on medical office building on Middlefield Road, constructed circa 1959.

There are many medical and dental office buildings in the local area of this period. There is little to distinguish the buildings at 1101 Welch Road from these: they are all more residential than institutional in character, modern in style, and modest in materials and ornament. As the buildings are less than 50 years old, a scholarly perspective is important in reviewing their significance.

The architect, William Wurster, and landscape architect, Lawrence Halprin, are prominent figures in the development of California modernism. William Wurster (1895-1973) was a California native, born in Stockton. He had a long and varied career including a tour in the merchant marines, architectural practice in New York and California, and nearly twenty years as an educational administrator: first as Dean of the School of Architecture at MIT (1944-1949), then at the University of California at Berkeley as Dean of the School of Architecture (1950-1959) and later as the Dean of the newly formed College of Environmental Design at Berkeley (1959-1963).⁹⁴ Lawrence Halprin (1916-) worked for Thomas Church in San Francisco in 1944, after service in the Navy during World War II. He opened his own practice in 1949.⁹⁵ He has enjoyed a remarkably long and successful career, whose highlights include design of a number of major public plazas in San Francisco, parks in Portland and Seattle, and work for National Park Service at Yosemite, the Presidio in San Francisco, and the Franklin Delano Roosevelt Memorial in Washington, D.C.

Wurster had designed two projects at Stanford before this commission: Phase I of the Graduate Student Housing project (1957, with Thomas Church), and the Center for Advanced Study in the Behavioral Sciences (1954). Wurster had also designed a number of private homes in Palo Alto and the vicinity in the 1930s, 40s and 50s. In 1958, when Wurster was selected as architect for the Medical Plaza, he had recently completed a

vacation home for the physician leading the project (James Newell) at the Sugar Bowl ski area (Wurster had designed the ski lodge and a number of homes at Sugar Bowl).⁹⁶

The assessment questions suggested by the Growth, Efficiency and Modernism report provide a scholarly framework for evaluating these buildings.⁹⁷

Is it a formative design in the portfolio of a prominent architect whose work had an important influence on a community, region, state, or country?

No. It is a relatively late design by a prominent architect whose career had shifted to emphasize his educational and planning interests. Scholars recognize Wurster's important influence in California design in the 1930s and 40s, but suggest that his firm was "no longer at the forefront of architectural development" after his return from the east coast in 1950.⁹⁸

Wurster's use of vernacular styles and materials was revolutionary and controversial in the 1930s. He was a leader in the development of a distinctly northern Californian style of modern architecture and is most noted for his residential projects of the 30s and 40s. In 1927, his simple, rustic design for the Gregory Farm House in Scott's Valley was recognized as redefining good taste for the upper middle classes in California (Figure 10-64), and influenced the emergence of the "ranch house" as a popular suburban architectural form (it was on the cover of *Sunset* magazine in July 1930).⁹⁹ By 1959, a low, slightly rustic, one-story modern office complex was no longer innovative.

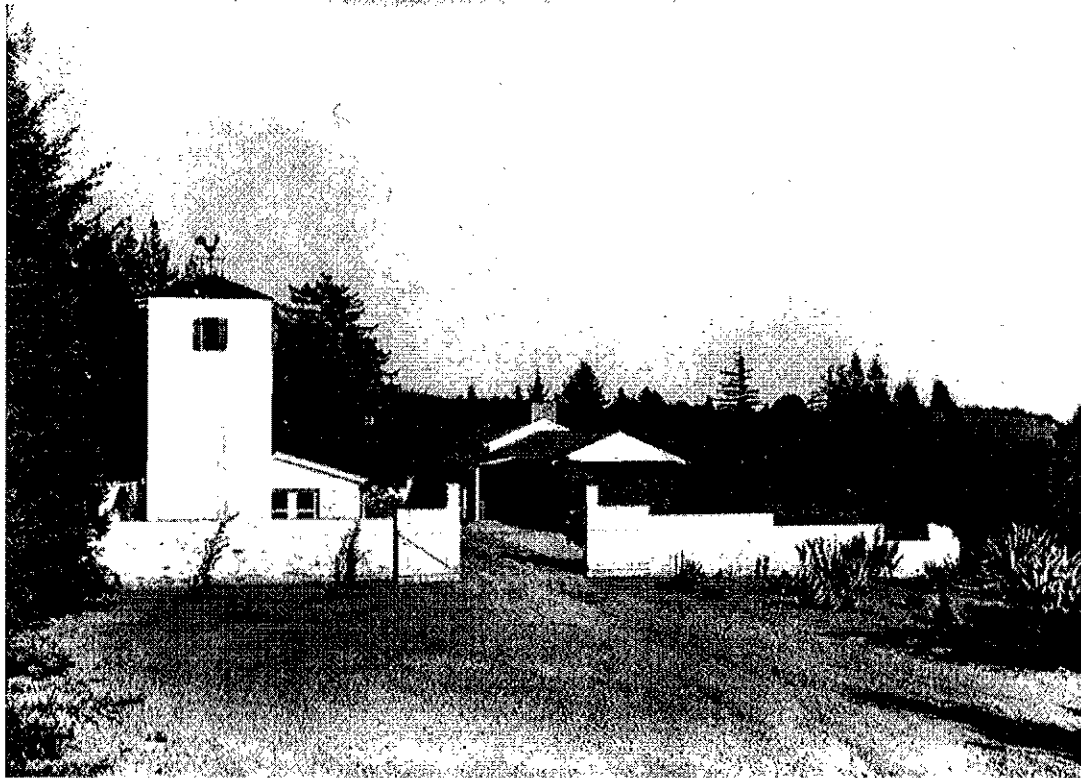


Figure 10-64: Gregory farmhouse, 1928¹⁰⁰

In the late 1950s Wurster, Bernardi and Emmons had a large practice in northern California. Their largest commercial client in this period was Safeway: they designed more than eighty Safeways, including the Palo Alto store (1958). By 1958 when the Medical Plaza was designed, they were highly respected but no longer cutting-edge.

Lawrence Halprin was at an earlier stage in his career in 1958. However, the narrow planting strips and tiny plaza at 1101 Welch Road cannot be considered formative in his career. Halprin struggled with the project. His first planting proposal had to be radically altered as he had proposed plants better suited to the foggy summers and mild winters of San Francisco than to the searing heat of the Palo Alto summer (and the occasional frost in the winter).¹⁰¹ The site is definitely not suited to rhododendrons and ferns. A magazine clipping in the project file notes that "...despite the handsome screens and the detailing of the stucco wall panels... the well-planted charm of the complex gives way to the predominance of the automobile."¹⁰²

Is it a highly influential or outstanding work or is it a lesser work in the portfolio of a master architect?

It is a lesser work in the portfolios of Wurster, Bernardi and Emmons and of Lawrence Halprin.

Is it a successful example of a Modern-era style such as Expressionism, Formalism, or Brutalism?

When it opened in 1958, some local physicians derided the project as a "little Petaluma," because of the similarity of its form to the vernacular architecture of poultry houses. The Dean of Stanford's School of Medicine complained that it was an "unfortunate blemish" on the area.¹⁰³ However, the project's clients were satisfied. Dr. James Newell wrote ten years after the project was completed that "there is nothing so fresh and attractive as the grounds and buildings today."¹⁰⁴ The university's business manager remarked diplomatically with regards to the disagreement: "Architecture is an uncertain science appealing to the individual emotions, and apparently all of us have different points of view."¹⁰⁵

The design certainly cannot be called Expressionism, Formalism or Brutalism. These are styles associated with modernism in its larger international context. The "Bay Area Regional" style is distinctly and deliberately apart from these styles. The Medical Plaza at 1101 Welch Road is a typical but not outstanding example of Bay Area Regional modernism.

Does it exemplify the Modernist design philosophy, making effective use of modern materials, components, public artwork, noteworthy landscaping or site design?

The unusual redwood patio fences designed by Halprin are interesting however the overall site design and landscaping are not noteworthy. The use of stucco and redwood is effective but not distinctive. The placing of these rustic, residential style offices in a sea of parking lots at a major medical center was not as successful as the application of this romantic approach in the wooded suburbs of Palo Alto or Woodside.

Are interior and exterior significant spaces fully intact as designed, with original materials and features?

The exteriors of the buildings are well-preserved; there are no significant interior spaces. The overall composition however, has lost integrity due to the removal of a major element: at the time of its design and construction, the giant eucalyptus trees of Governor's Avenue crossed the property, softening the more than an acre of paving and giving a vertical dimension to the horizontal composition of the one-story buildings and wide parking lots. One of the buildings was built across the avenue's alignment, but Wurster and Halprin specified that the large trees should be retained where possible.¹⁰⁶ The trees have declined over time and all but one has been removed. Without the strong presence of these massive trees, the long low buildings have an altered sense of scale.

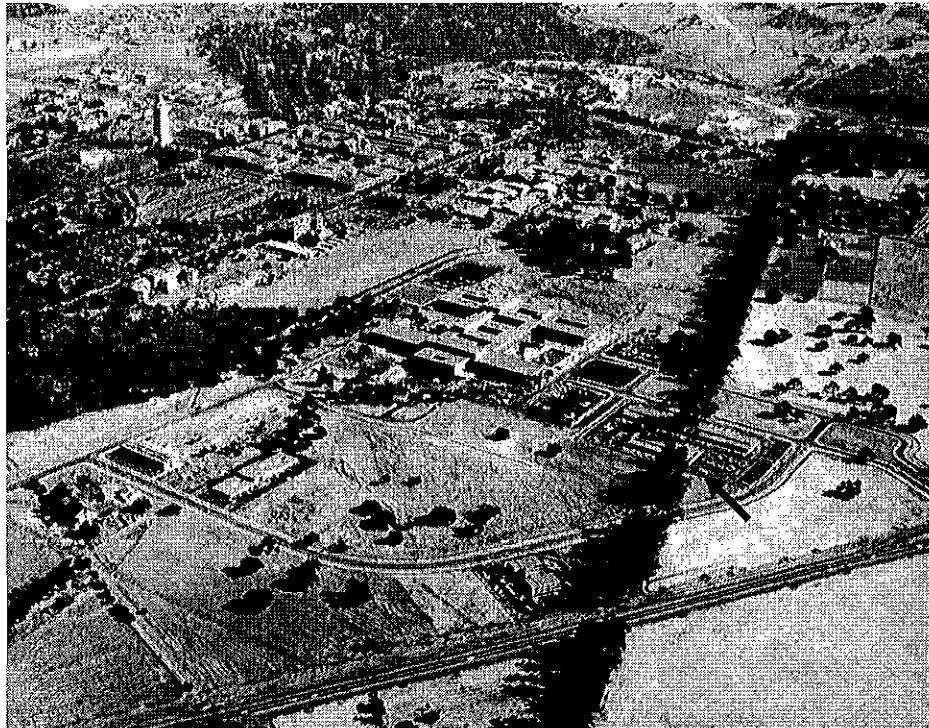
The Medical Plaza buildings at 1101 Welch Road are minor works by well regarded designers. Wurster, Bernardi and Emmons and Lawrence Halprin have created many more important designs that survive to commemorate their legacy to California style. The 1101 Welch Road buildings do not appear to be eligible for listing on the California Register of Historic Places under criterion 3.

Criterion 4: Information Potential

The Medical Plaza at 1101 Welch Road does not appear to have the potential to yield important information in history or prehistory. This criterion is typically applied to archaeological sites or examples of unusual construction methods for buildings or structures. The Medical Plaza is not eligible for listing under criterion 4.

Integrity

One major change to the property as noted above, is the absence of the Governor's Avenue alignment and trees (*Figures 10-65, 10-66*).



*Figure 10-65: Governor's Avenue crossing 1101 Welch Road, 1960
(red arrow points to site)*



*Figure 10-66: 1101 Welch Road, Governor's Avenue (2006) trees and alignment absent
(surviving fragments of alignment shown in red)*

Overall, the property has retained integrity of materials and workmanship on the exterior; the interiors of the individual doctor's offices have been updated over time. However as noted with regards to the loss of the giant tress, the overall design and setting has lost integrity. The relationship between the landscape and the rustic forms of the buildings was crucial to California modernism, the transformation of the landscape at 1001 Welch Road from rural hay fields and eucalyptus to parking lots and island planting beds diminished the quality of this design.

The Medical Plaza at 1101 Welch Road does not achieve the level of design distinction or of historical association to merit listing on the California Register of Historic Places.

Main Medical Center Complex

The Main Medical Center Complex (1959, 1963) is a sprawling series of three-story buildings originally constructed to house the joint Palo Alto – Stanford Hospital and Stanford University Medical School (*Figure 10-67*). In 1967 Stanford University purchased the portion previously owned by the City of Palo Alto and the facility was renamed the Stanford University Hospital and Medical Center. The Stanford University Medical Hospital and Medical Center and Stanford University School of Medicine continue to use the Main Medical Center Complex, as well as a number of more recent buildings in its vicinity.



Figure 10-67: Main Medical Center Complex, Pasteur Drive entrance

Criterion 1: Association with Significant Events

The Stanford University Medical Center is a research center as well as a regional hospital. Significant innovations in medical treatment that originated in the buildings might meet the test of significance, if the locations of these innovations within the building retain authentic historic character from the period of the discoveries.¹⁰⁷

The Stanford medical faculty are engaged in continuous cycles of research and application of new knowledge to medical treatment. All such discoveries made in the Main Medical Center Complex have taken place within the past 50 years (since the first phase of the building opened in 1959) and in order to judge their significance, they must be documented by a "scholarly perspective." In the case of medicine, the scholarly perspective can be provided by major prizes, such as the Nobel Prize for Medicine. Four Stanford medical researchers have won the Nobel Prize: Joshua Lederberg (1958), Arthur Kornberg (1959) and Andrew Fire (2006) in Medicine and Paul Berg (1980) in Chemistry. (Lederberg's prize was awarded for work performed at the University of Wisconsin, he was at Stanford from 1958 to 1978; Kornberg's prize was for discoveries made at Washington University in St. Louis.) All four of these distinguished scholars are still living and professionally active. The National Register of Historic Places cautions strongly against listing properties for association with the achievements of living persons:

*"Properties associated with living persons are usually not eligible for inclusion in the National Register. Sufficient time must have elapsed to assess both the person's field of endeavor and his/her contribution to that field. Generally, the person's active participation in the endeavor must be finished for this historic perspective to emerge."*¹⁰⁸

Several milestone events in the development of organ transplantation also occurred at the Stanford Hospital and Clinics: the first heart transplant in the United States was performed in 1968 by Dr. Norman Shumway and the first successful heart-lung transplant was made by a team led by Shumway and Dr. Bruce Reitz in 1981. Dr. Reitz is still an active member of the faculty at Stanford. Dr. Shumway died in 2006. The development of organ transplantation has prolonged life and eased suffering for many (more than 60,000 heart recipients) and the drive for organ donations has become an important social movement in the U.S.

In order for the Main Medical Center Complex to be eligible for listing due to association with the 1968 transplant operation, the essential physical features associated with the event should retain integrity.¹⁰⁹ In the case of the heart transplant operation, this would be the operating room where the surgery was performed. This location within the Main Medical Center Complex should continue to display the physical features – floor plan, surface finish materials and equipment -- that were in the room in 1968. In addition, its setting within the building should remain substantially similar in character to its condition in 1968. While the operating room where the transplant took place continues to serve surgical procedures, neither the operating room nor its surrounding facilities have retained "authenticity" to the 1968 period having been remodeled many times. They are now contemporary in character and equipment. So while the association with the 1968 heart transplant event is significant, its location within the Main Medical

Center Complex fails to retain sufficient integrity to merit listing on the California Register of Historic Places under criterion 1.

Criterion 2: Association with Significant Persons

The Stanford medical school faculty and hospital physicians have always been a respected and accomplished group; however the identification of the building with a profession or a group of distinguished citizens is not sufficient to meet this criterion. Specific named individuals must be identified, the building must be associated with the productive period of their lives, no other property should be more closely associated with their accomplishments, and the location should retain integrity to represent the period of their significant accomplishments. The persons, with rare exceptions, should be deceased.¹¹⁰

Dr. Shumway was an important pioneer in the development of organ transplantation in the 1960s and 1970s. The Department of Cardiothoracic Surgery that he led from 1974 to 1993 is closely associated with Dr. Shumway. While Dr. Shumway did work within the Main Medical Center Complex, the department he led, the Department of Cardiothoracic Surgery moved to a new location in the nearby Falk Cardiovascular Research Center in 1984. Dr. Shumway's office in the Main Medical Center Complex was reassigned and remodeled after his move to the Falk Center.

As with criterion 1, since the essential physical features and setting of the Department of Cardiothoracic Surgery at the Stanford Hospital associated with the work of Dr. Norman Shumway in the 1960s and 1970s are absent, the Main Medical Center Complex does not have sufficient integrity to meet criterion 2.

Criterion 3: Design

Framework for Evaluation. The Main Medical Center Complex is an example of a post World War II medical facility, designed by a major architect and a major landscape architect of the period. However, association with a famous designer is not by itself adequate to demonstrate significance. As the buildings are less than 50 years old, the California Register directs that a "scholarly perspective" be applied to assess the significance of the building. In the case of post World War II public buildings, this scholarly perspective is provided by the national report Growth, Efficiency and Modernism which summarized the findings of a panel of eminent scholars and architects regarding architecture of the post war period. This report asks the following questions as guidance for determining significance:

Is it a formative design in the portfolio of a prominent architect whose work had an important influence on a community, region, state, or country?

Is it a highly influential or outstanding work or is it a lesser work in the portfolio of a master architect?

Is it a successful example of a Modern-era style such as Expressionism, Formalism, or Brutalism?

Does it exemplify the Modernist design philosophy, making effective use of modern materials, components, public artwork, noteworthy landscaping or site design?

*Are interior and exterior significant spaces fully intact as designed, with original materials and features?*¹¹¹

To address these questions, it is important to understand the relationship between the design intent and the quality of its execution, as well as the function of the buildings as medical facilities and the success of the design in meeting those needs. An outstanding, successful modernist building will be highly functional and true to its design intent.¹¹² In addition, its significant elements will be well preserved in its current condition.

The Designers. First, the building should be placed in the context of the careers of its designers: Edward Durrell Stone, architect, and Thomas Church, landscape architect. Edward Durrell Stone (1902 – 1978) was an internationally known architect, whose portfolio included more than 600 projects. He began his practice in 1933 and continued to work until his retirement in 1974 (he died in 1978 at the age of 76). His style evolved over the 40 years of his career: from clean, simple International Style buildings in the 1930s and 40s to a more ornamental Formalism in the 1950s and 60s.¹¹³

E.D. Stone was a celebrity architect in the 1950s and 60s, profiled in Time Magazine, the New Yorker and other popular publications.¹¹⁴ His lush, romantic style was considering a refreshing change from the cold steel and glass modernism of many of his contemporaries. He was more popular however with the public than with his fellow architects and architectural critics:

*To the glass-and-metal men, the “machine-for-living” enthusiasts, and the faithful followers of the International Style, still influenced by Walter Gropius, he is merely a rather engaging contemporary romantic – a latter-day exponent of the Beaux-Arts tradition, which held sway at the beginning of the century.*¹¹⁵

Recent scholarship continues to reflect this view. None of Stone’s buildings are included in the recent *Icons of Architecture* book, profiling the highlights of 20th century architecture, including some decidedly romantic buildings by Stone’s contemporaries.¹¹⁶ Another recent review, *Makers of Modern Architecture*, mentions Stone only in passing (in the chapter on Philip Johnson):

*When corporate clients in the late 1950s briefly responded to the decorative Neoclassical Modernism of such fleetingly fashionable architects as Edward Durrell Stone and Minoru Yamaskai, Johnson, who had long harbored Romantic tendencies, pirouetted into what was called his “Ballet School Period” ...*¹¹⁷

A number of Stone’s buildings have been dismissed by local historic preservation commissions, including his controversial art museum building at 2 Columbus Circle in New York. A proposal by the Museum of Art and Design to alter the façade sparked a heated debate about the merits of the building. Critics, including the curator of architecture at the Museum of Modern Art, described the long vacant building as a failed

design, a nearly windowless wall of white marble: a "mausoleum."¹¹⁸ Equally distinguished supporters rallied to defend the building. Yale's Vincent Scully wrote in favor of preservation: "something rather wonderful has occurred, by which the building, never anyone's favorite in the past, is looking better every day."¹¹⁹

The California Register requires that "sufficient time must have passed to obtain a scholarly perspective" on the significance of a building.¹²⁰ Unfortunately, there is as yet no scholarly consensus on the contributions of Edward Durrell Stone to the history of architecture. The National Register cautions that the mere fact of being designed a well-known architect -- "the work of a master"-- is not sufficient to merit listing.¹²¹ A careful examination of the building's design quality is required to determine its relative importance compared to other building of its type, and by the same designer.

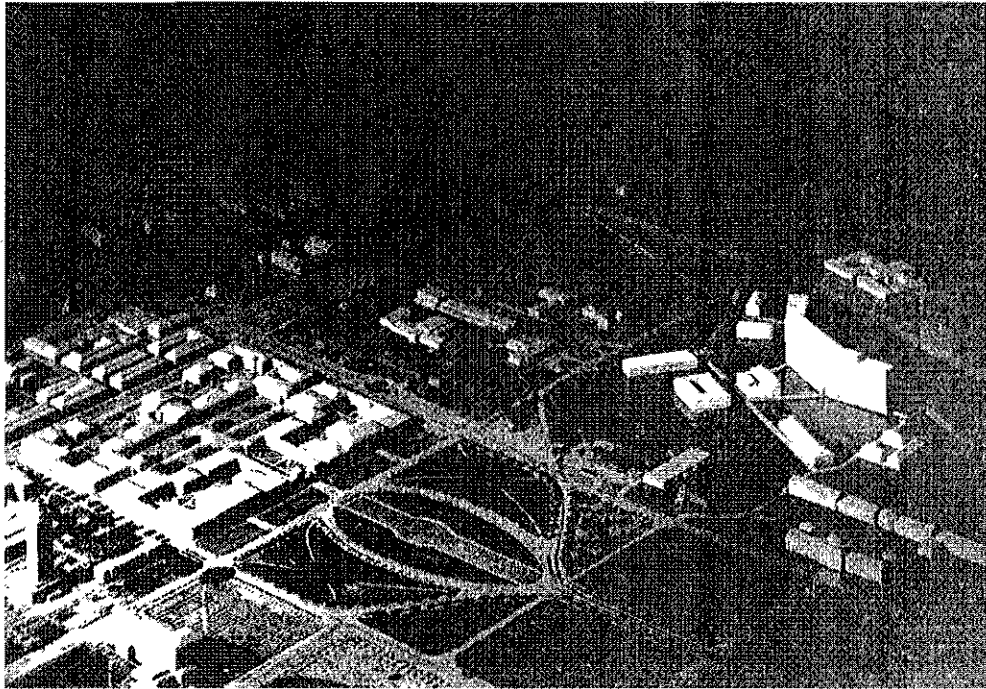
In 1956, when he received the commission for the Palo Alto – Stanford Hospital and Stanford Medical Center (as it was then known), E.D. Stone was an established, mid-career international architect. He made the transition from International Style to Formalism in the late 1940s. By the mid 1950s he was working in a lush, romantic Formalist style, typified by the United States Embassy in New Delhi, India (1954), the Stone Town House in Manhattan (1956), and the Brussels Pavilion (1957).

He had also recently completed a project with Thomas Church, the Stuart Pharmaceutical Company in Pasadena (1955). Stone and Church had first worked together at the El Panama Hotel in Panama City in 1946.¹²²

Thomas Church (1902 – 1978) is best known for his residential projects in northern California. Church was a prolific writer, urban planner and landscape designer whose style progressed over time from "relaxed formality of style found in his early works from the 1930s, through the high modernism of the 1940s and early 1950s, and ultimately to the classical idiom he used in many later projects".¹²³ He designed a number of projects at Stanford before collaborating with Stone on the Palo Alto-Stanford Hospital and Stanford Medical Center, including the Stanford Linear Accelerator Center campus (1948). Church continued to work at Stanford until 1970, designing a number of landscapes and serving on the campus Architectural Advisory Committee.

The Design Challenge. The Palo Alto-Stanford Hospital and Stanford Medical Center was a large and complicated commission for the two firms, requiring the construction of two separate hospitals and a medical school. The project had two major clients (Stanford University and the City of Palo Alto), each of which had a number of interest groups: politicians, planners, local physicians, university trustees, medical school faculty, business leaders, donors, and the local public (who had passed a \$4 million bond measure to support construction). Each client had multiple committees and commissions that reviewed the project (the Palo Alto City Council Hospital Committee, the Stanford University Medical Facilities Planning Committee, the Stanford University Planning Committee for Basic Medical Sciences, the Joint Palo Alto – Stanford Steering Committee and various city commissions). In addition, the university had a team of special consultants – directors of major university medical centers across the U.S. The project was ultimately approved by the City of Palo Alto and the Board of Trustees of Stanford University. From the beginning, the project required that the Palo Alto Hospital area be annexed into the city, while the Stanford medical school and hospital remain in unincorporated Santa Clara County.

Early studies show that the site and massing for the project shifted several times before the building complex took its final shape and the challenge of linking the two clients across a city limit line could be resolved. The initial proposal was for a complex of buildings surrounding a high-rise tower hospital for Stanford's medical center, with an (undesigned) adjacent Palo Alto hospital (*Figures 10-68, 10-69*).



*Figure 10-68: Model showing preliminary proposal (1955): Nine buildings on the right.*¹²⁴

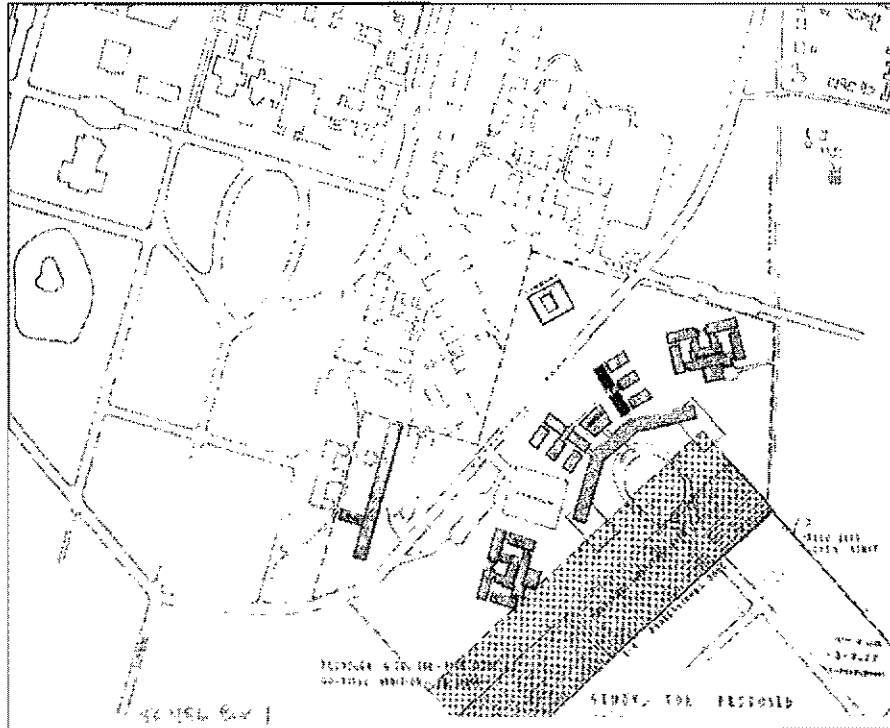


Figure 10-69: Study for proposed project (1955): Note that the dotted area is the site for a separate Palo Alto Hospital¹²⁵

Hospital consultants Isadore and Zachary Rosenfield – Rex Whitaker Allen produced a study for a horizontal scheme in 1955, linking the Palo Alto and Stanford sections at a shared lobby space (with the city limit line running through the lobby) (Figure 10-70).

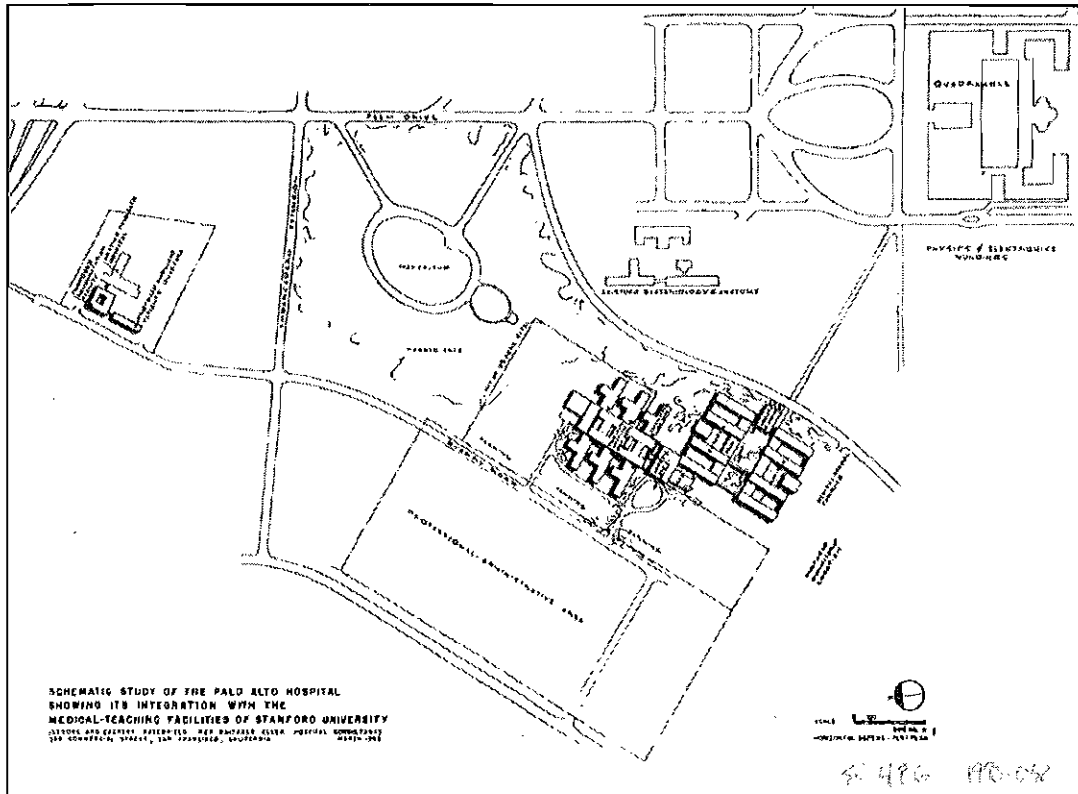


Figure 10-70: Isadore and Zachary Rosenfield – Rex Whitaker Allen Study (1955)¹²⁶

The Design Approach. E.D. Stone designed more than two dozen medical facilities, including more than a dozen hospitals, over the course of his career. Some, like the Central Hospital in Lima, Peru (1950), were classic examples of high-rise post World War II hospitals as discussed above (Figure 10-71).

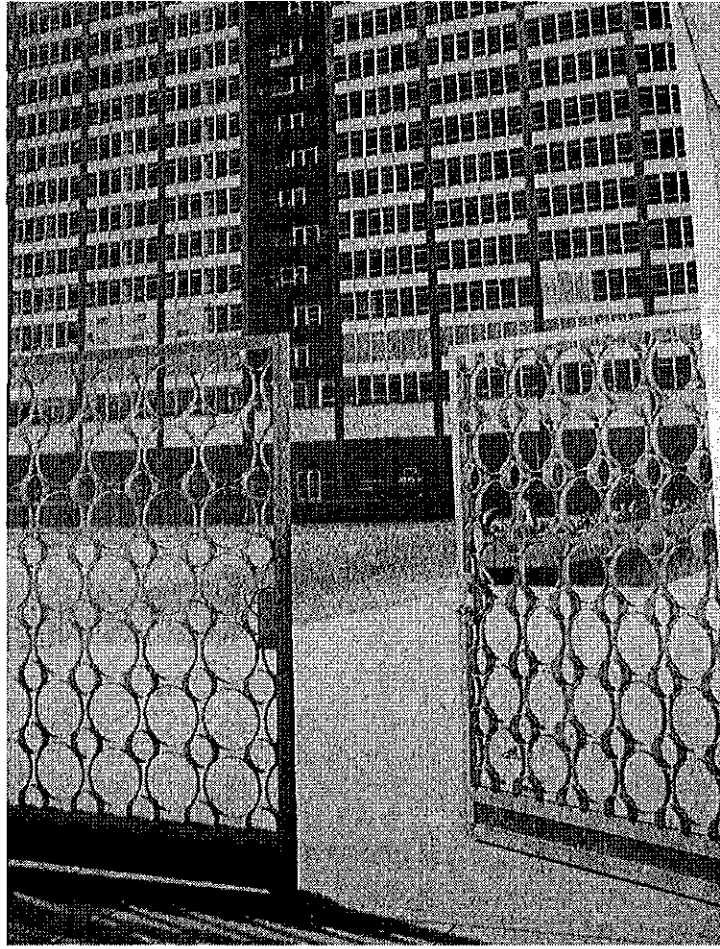


Figure 10-71: Detail General Hospital, Lima¹²⁷

In the case of the Palo Alto-Stanford commission, he appeared on the scene as the “horizontal scheme” was gaining favor. A 1959 letter from John Hill, manager of Stone’s Palo Alto office, to the editor of Architectural Forum (Miss Mary Jane Lightbown) summarized the decision-making process (from Stone’s point of view):

“The planning office gave him (E.D. Stone) the Mumford critique, which we all read, disagreeing with only one part. Mumford felt that all of the universities future needs could be taken care of with a system of two storey buildings. In practice, this is too extravagant, burning up space like mad, and for a medical center, unworkable – too horizontal. The stricture on ‘storey’ is unrealistic anyway when you are thinking of scale, as he was. The corners of the quad are only two storeys high, but that is 46 feet in this case, plus a podium of 8 feet, plus a great tile-peaked roof, the ridge of the law school is almost 90 feet high, 2 stories, 3 stories? Mr. Stone became infatuated with the quadrangle, the Mumford critique was useful, surveys had been made by experts showing the plausibility of a ‘horizontal’ hospital, the Dean at the time Winsor Cutting kept urging the architect to push the medical center closer and closer to the quad, that after all

was his purpose in moving from San Francisco, to have the Medical School as part of the university campus. The balance of the faculty objected to the close proximity of a teaching hospital, a city hospital and an outpatient clinic – it would bring in the philistines, and as we all know hospitals are tall slabs of white or red brick and that would completely ruin the horizon the scale, the atmosphere. It was in this situation that the medical center was designed.”¹²⁸

The decision for a horizontal scheme (3 stories, 38 feet tall) seems to have come from Stanford, which was paying for nearly 65% of the \$22 million project. Stone’s sketches for a later expansion reverted to the vertical – presenting four and five story buildings. Stone’s design for the Palo Alto Civic Center, completed in 1969, is also a classic high-rise modern design (*Figure 10-72*).

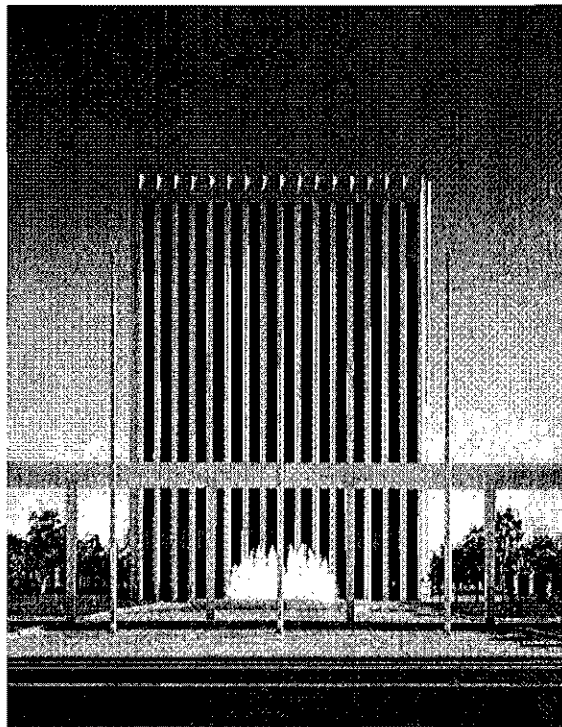


Figure 10-72: Palo Alto Civic Center (1969), Photo courtesy Special Collections of the University of Arkansas Libraries

Ultimately, Stone’s design for the project followed the 1955 Isadore and Zachary Rosenfield – Rex Whitaker Allen Study approach of separate Palo Alto and Stanford hospitals, linked by a “core” of shared facilities. Stone’s design inspirations for the project were said to have revolved around three themes: Stanford’s sandstone Main Quad (the textured concrete façade was apparently a reference to the rusticated sandstone blocks of the Quad), the notion of the hospital as “palace,” and the healing qualities of a “garden hospital.” These themes were reflected in the massive building complex he designed, arranged around a series of courtyards (*Figure 10-73*). It resembled the

European palace hospitals of the eighteenth century more than the modern high rise towers of the second half of the 20th century (*Figure 10-74*).

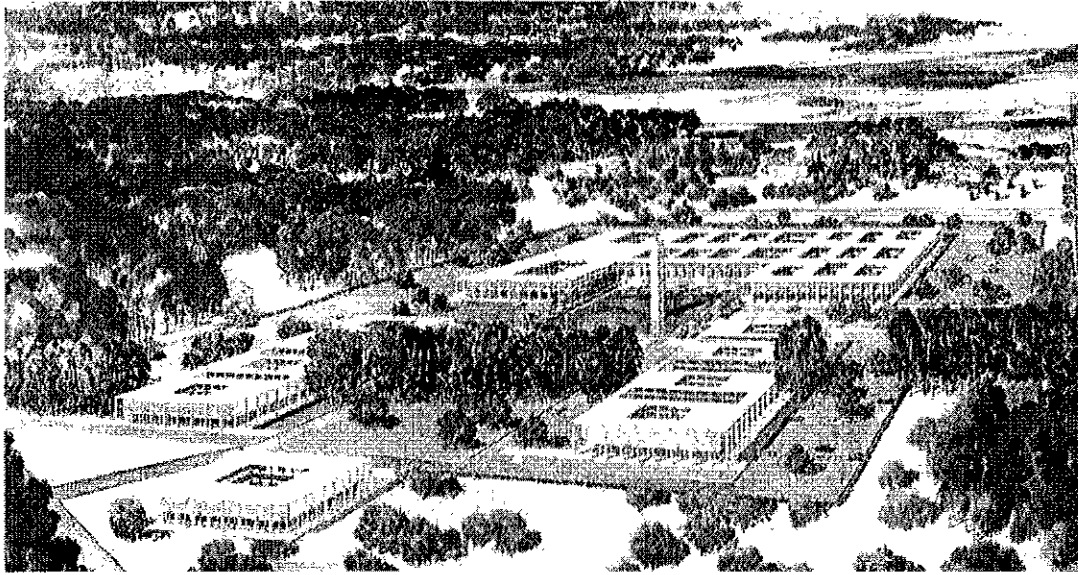


Figure 10-73: An early rendering for the project showing Stone's grand master plan

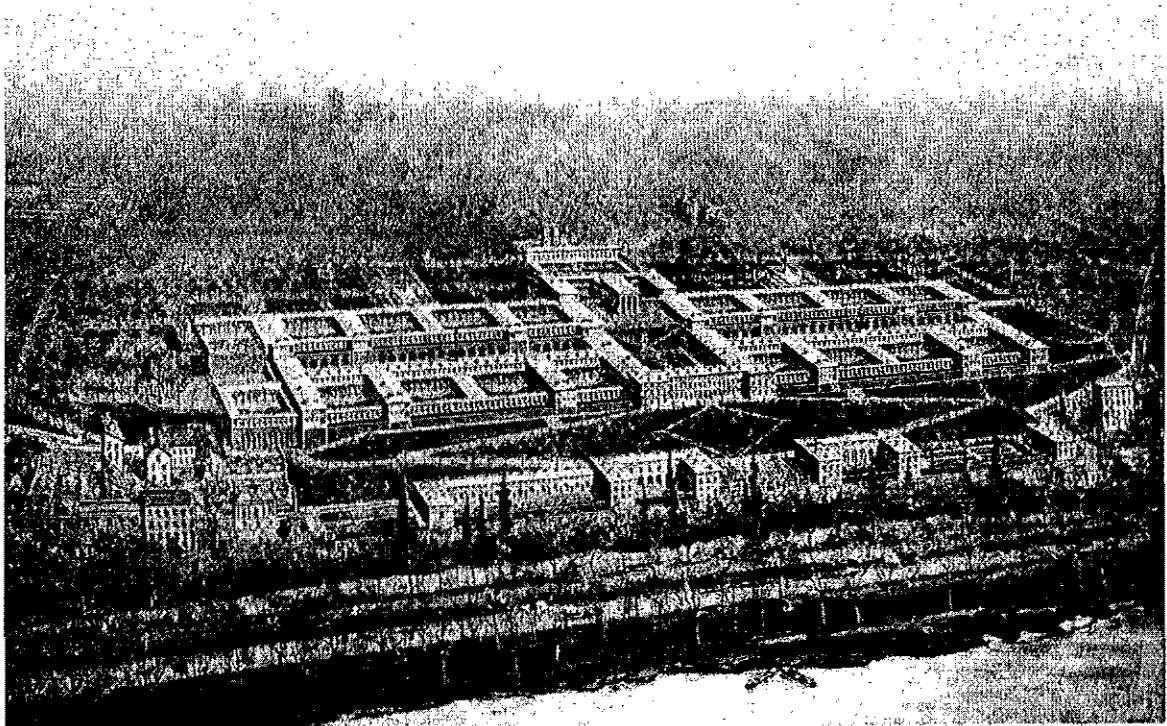


Figure 10-74: Maison Nationale de Charenton, Paris, 1838-1885¹²⁹

Stone's publicity for the project evoked images of the Taj Mahal, Versailles, Mayan palaces and even a "maple sugar palace" rendered in modern materials and

luxurious interior finishes (the project interior included travertine walls, teak screens and furniture by Herman Miller). Architectural Forum announced it as “Medicine’s New Taj Mahal: In Stanford’s new Medical Center a notable hospital plan becomes a veritable palace for healing” (1959). John Hill in his letter to Architectural Forum describes it as a “little Versailles for the sick” (1959). The interior public spaces designed by Maurice Sands for the Main Medical Center Complex had touches of elegance: travertine walls, teak screens, furniture by Knoll and Herman Miller. These are long gone, save for a short section of travertine wall. The character of the interior today bears no resemblance to its appearance as designed.

The Hospital as Palace theme (like the Hospital as Hotel theme of the pre World War II period) is out of sync with the evolution of medical facilities design during the period, which emphasized efficiency and function in a Modernist style.¹³⁰ While some critics appreciate the “sumptuous” character of Stone’s highly ornamental formalism, the palace theme was not a successful model for a hospital in its context at a university, in a small city. The emphasis on luxury in a building whose function was healing the sick was not universally popular: when the hospital opened in 1959 some of the staff physicians referred to it as the “Stanford Hilton.”¹³¹ (Stone designed many hotels for Hilton in his long career.) In a similar vein, Stone’s specifications for the ornamental screen at the Palo Alto Main Library called for the screen to be painted in gold leaf – as were accents at his New York Town House, the New Delhi Embassy, the Stuart Pharmaceutical Building and the Brussels Pavilion. Palo Alto councilwoman Mildred Corcoran objected to the unseemly extravagance and the design was modified to call for white paint.¹³² The screen wall is currently painted dark brown. The gold leaf accents he called for in the courtyards in the Main Medical Center Complex are absent as well.

In addition to the luxurious interior finishes, another key feature of the “Hospital as Palace” theme was the setting. In its original setting, the Main Medical Center Complex was a monumental structure set in an open grassy plain, relieved by huge heritage oaks and eucalyptus trees. The setting -- like that of the Kennedy Center in Washington on the Potomac River or the Eisenhower Medical Center in Palm Springs with the splendid mountain backdrop -- framed these imposing buildings in grand landscapes (*Figures 10-75, 10-76*). The Palm Springs Hospital, Peninsula Hospital and Scripps Clinic offered patients access to glorious views of the surrounding natural landscape. The Main Medical Center Complex has lost the grandeur of its original setting and never offered its occupants an outward view unobstructed by the ornamental screens of its façade, or the towering façade of a nearby wall (*Figure 10-77*). It is less successful as an example of palatial building forms than many of Stone’s other projects.

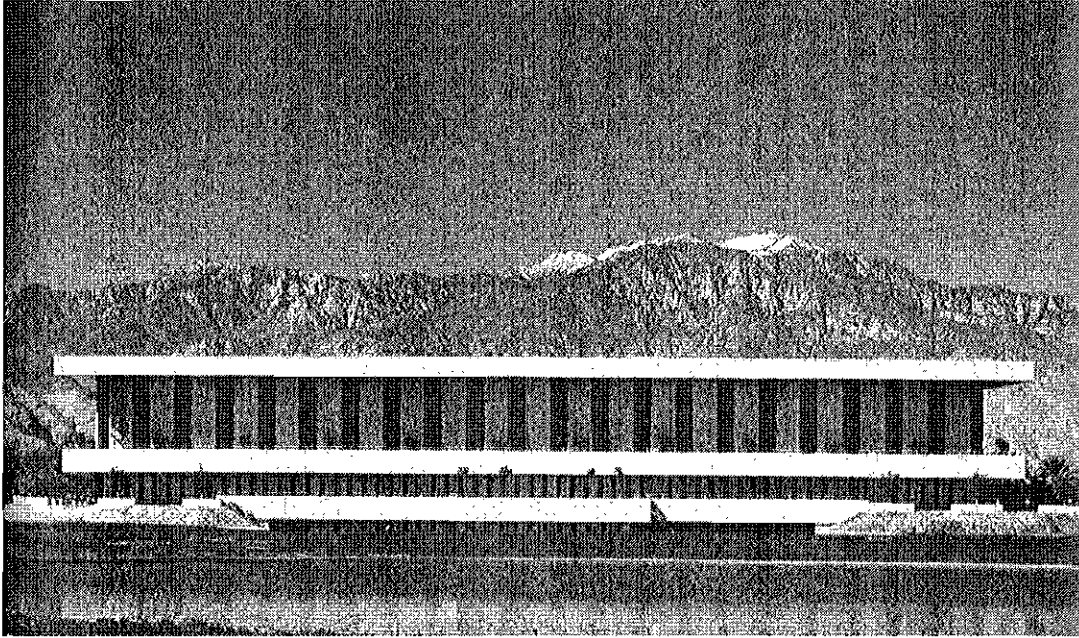


Figure 10-75: Eisenhower Medical Center, Palm Springs¹³³



Figure 10-76: View of mountains and "oasis garden" from patient room, Eisenhower Medical Center

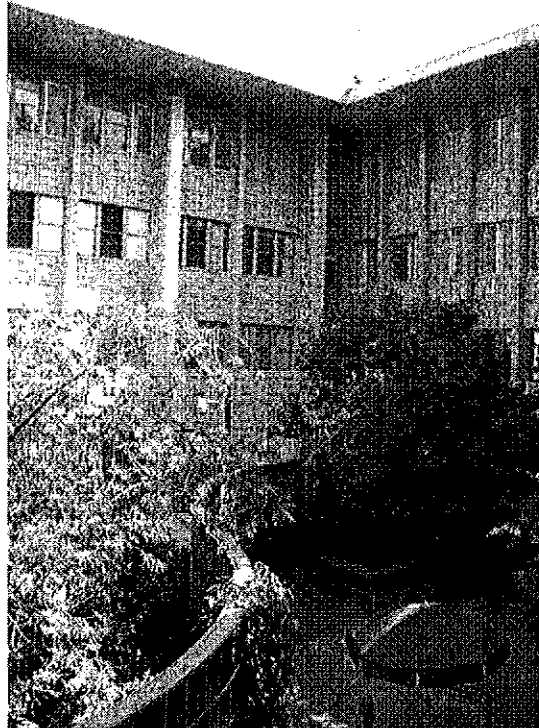


Figure 10-77: View from second floor, Main Medical Center Complex Grant Building

Stone also intended to design the Main Medical Center Complex as a “Garden Hospital.” Bringing forward a theme in healing that has persisted for centuries, the notion was to provide access to the gardens for patients as well as for visitors and staff to “get outside and enjoy the sunshine.”¹³⁴ Stone realized a number of successful examples of the Garden Hospital, including the Community Hospital of the Peninsula in Monterey (1962), the Scripps Clinic in La Jolla (1964), and his “oasis in the desert” Eisenhower Medical Center in Palm Springs (1971). With landscape architect Thomas Church at his side, the author of “Gardens are for People,” Stone’s design called for an elaborate arrangement of courtyards and a grand entry to the complex (*Figure 10-78*).

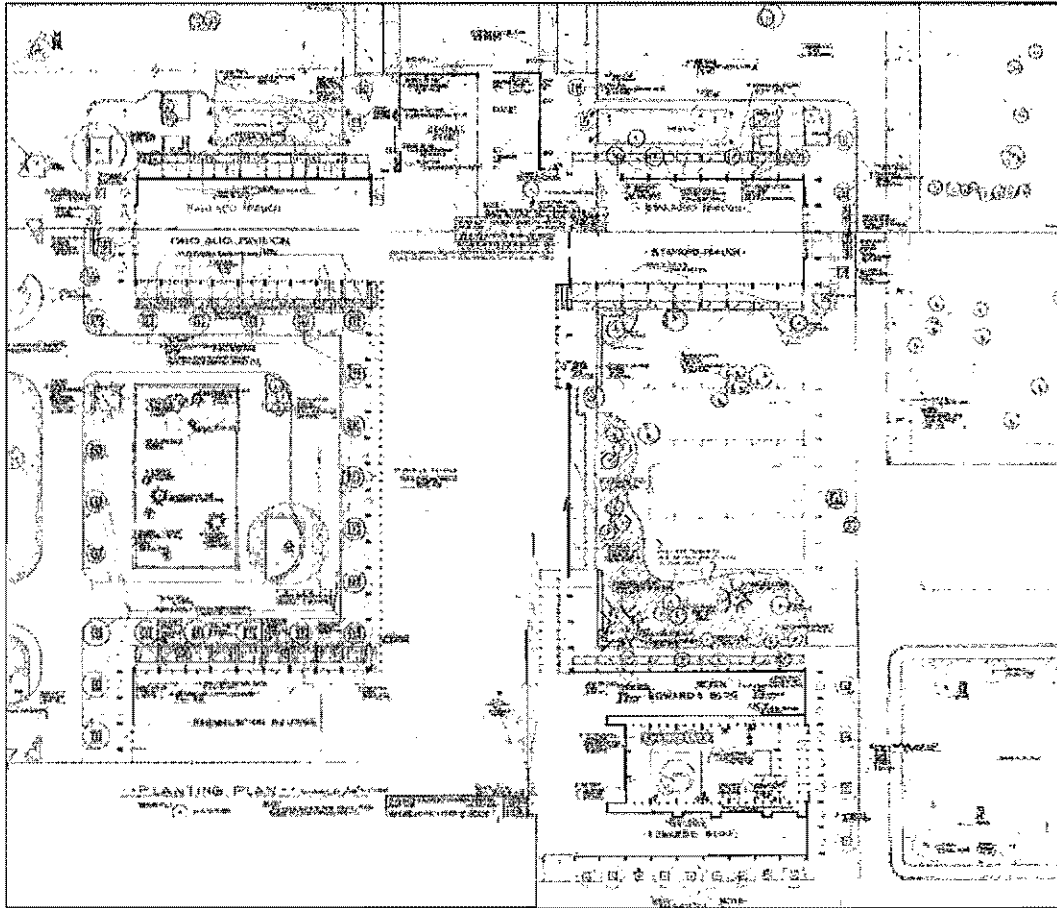


Figure 10-78: Planting Plan, Thomas Church and Associates (1958)

The courtyards included many of Thomas Church's signature elements: curved lawns and paved areas, rectangular parterres, and two water features. The large garden on the eastern side was divided into two courtyards when the Grant Building was added in 1963 (Figures 10-92, 10-80).



Figure 10-79: Courtyard with Church parterres

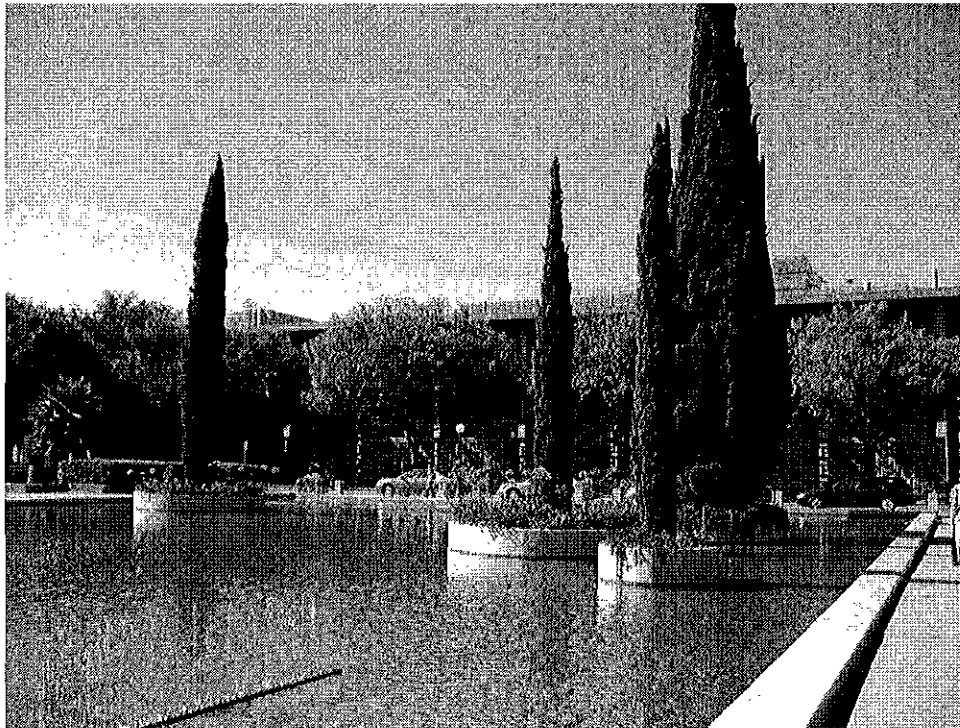


Figure 10-80: Fountain at entry on Pasteur Drive

In spite of these features, the design failed to meet its intent: patients did not (and to this day do not) use these garden spaces. Basic design errors – such as the width of doorways not allowing for passage of hospital beds from the Palo Alto pavilion into the patios overlooking the entry, and the placement of the Stanford nursing wards on the second and third floors far from the first floor entry into the adjacent courtyard – prevented most patients from receiving the potential therapeutic benefit of these spaces (*Figure 10-81*). The narrow courtyards surrounded by three story buildings function mainly as light wells (although most of the adjacent windows are covered with shades or blocked by air conditioning units) and are only lightly used to this day (occupants complain that they are cold, dark and claustrophobic – the street side arcade is the most heavily used outdoor space). The sunny picture of the patients taking fresh air in the garden was never realized in this design.

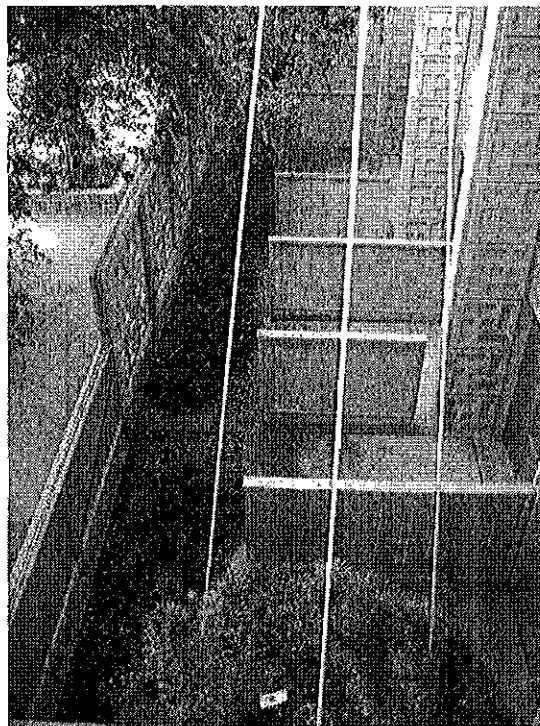


Figure 10-81: Unused patios at original Palo Alto Hospital Nursing Pavilion

By contrast, the interior fountain court of the Community Hospital of the Peninsula surrounded by the information desk, gift shop, and café is crowded with patients and visitors, because it functions “like a hotel lobby, furnishing a place to meet, receive information, find something to eat, relax or enjoy quiet entertainment.”¹³⁵ In contrast to the Main Medical Center Complex with its narrow courtyards, the patient rooms in Monterey look out into the forest, and the interior gardens are wide and open to the sky (*Figure 10-82*). The Main Medical Center Complex is not a fine example of a garden hospital, and certainly not the best attempt by E.D. Stone to achieve this end. Thomas

Church is best remembered for the more intimate residential gardens that redefined suburban style in California in the 1950s.¹³⁶

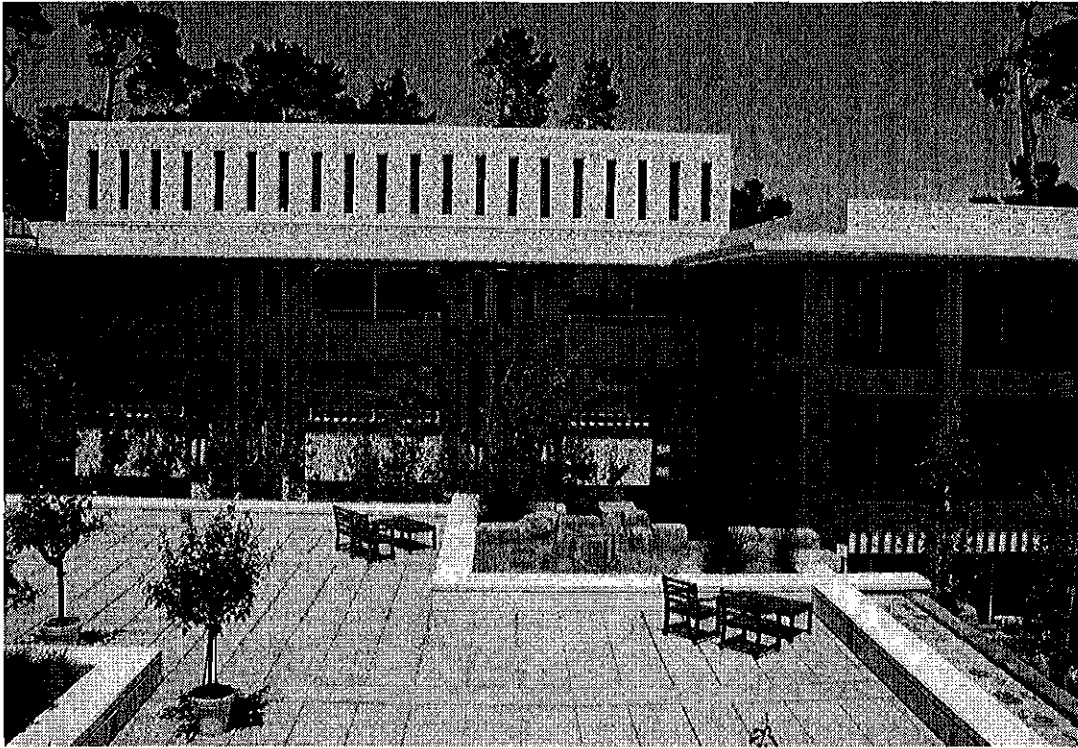


Figure 10-82: Courtyard at Community Hospital of the Peninsula, Monterey

Finally, Stone emphasized his design intent for the massive concrete screen wall to echo the rustic sandstone blocks of the Main Quad. Stone photographed the Main Quad during his early visits to the campus (Figure 10-83) and clearly found the texture and scale of the walls inspiring (Figure 10-84). His original plan for the concrete screen wall at the hospital/medical school project was to use integrally colored concrete with a stone-like surface texture. Three samples were cast (Figure 10-85). Worried about the project cost, Stone eventually settled on covering the concrete surface with latex paint (Figure 10-86):

"In general for this building, in California, and still today, poured-in-place concrete is absolutely the most economical method of construction. It is a brutal process and the results usually are too, unless millions are spent on tricky veneers or molds. Mr. Stone wanted a concrete surface that would have some of the qualities of light and shade, much the way the rusticated sandstone of the old quad responded to the strong backlighting, or is it underlighting, reflected from other surfaces in the bright sun. So it was decided to pattern the concrete for surface interest, this was the first time he had done this at all, and I believe only once since in the Carmel Hospital we are now designing in Palo Alto. A test column was poured in late December 1956. Integral color was used, then it was sand-blasted. It looked lovely, but in practice there would be complications in controlling the pours; colors for spandrels and columns only, not for slabs, also

*sandblasting on such a scale would take us far off the path towards a cheap building, and it had to be cheap. Washes and stains were tried, finally a stucco paint with latex was selected. It has been sprayed on the building and looks wonderful despite many misgivings before hand."*¹³⁷



*Figure 10-83: Photograph of Stanford's Main Quad, by E.D. Stone*¹³⁸

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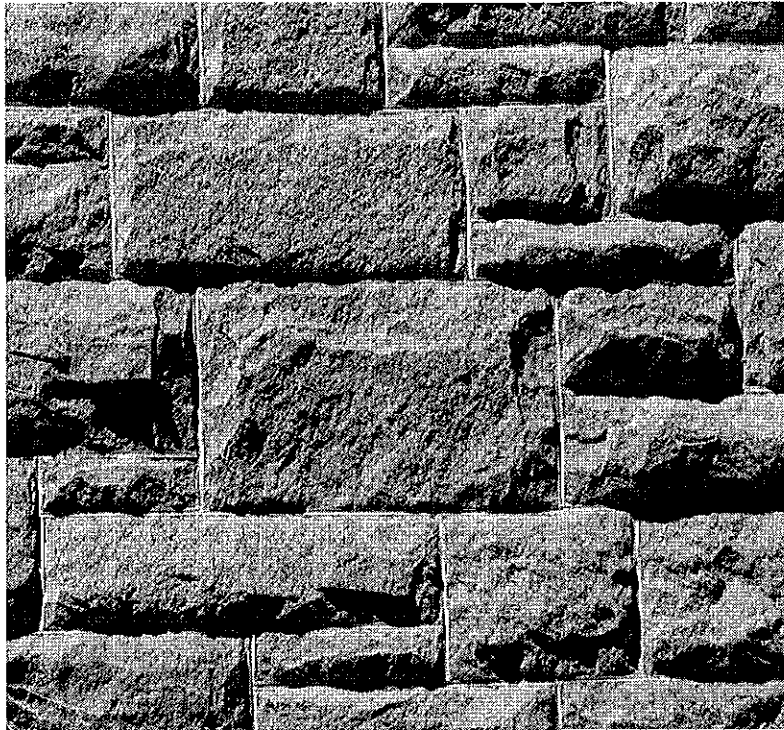


Figure 10-84: Detail of sandstone at Main Quad

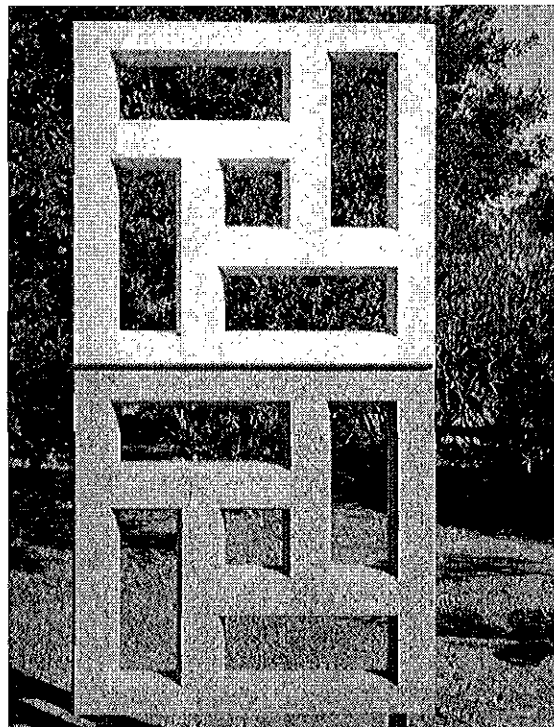


Figure 10 -85: Test pours for concrete surfaces with exposed aggregate¹³⁹

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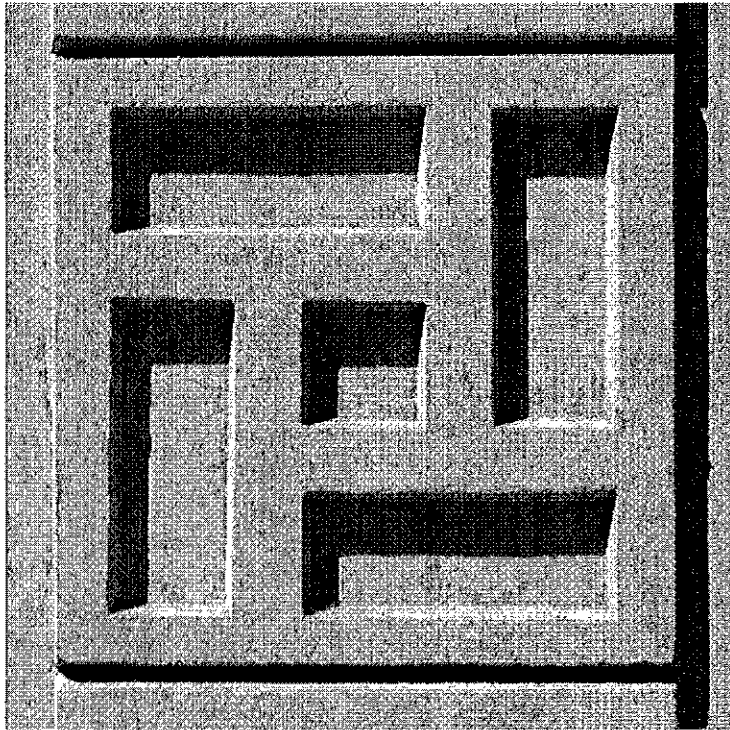


Figure 10-86: Detail of painted concrete at eye level (2007)

The patterned concrete screens are a signature of Stone's work during this period. Stone remarked that

I have come to the belief that the device of the grille is warranted in most parts of the U.S. I think it serves not only to satisfy a wistful yearning on the part of everyone for pattern, warmth and interest, but also serves the desperately utilitarian purpose of keeping the sun off glass and giving privacy.¹⁴⁰

However, he admitted that on occasion the device didn't succeed. The screen he designed for a dormitory he designed for the University of South Carolina was acknowledged, even by E.D. Stone, to display an "overpowering monotony."¹⁴¹ The use of the screen, then, is not in itself enough to make the Main Medical Center Complex significant as meeting the test of criterion 3: "*Embodies the distinctive characteristics of a type, period, region or method of construction or represents the work of a master or possesses high artistic values.*" The design must be successful in its own right and by comparison to other examples of the style.¹⁴²

Stone's decision to substitute a latex paint finish for his preferred exposed marble aggregate concrete for cost reasons resulted in a serious compromise to his intent. The painted surfaces require a permanent staff of painters to maintain, and have not aged well over the forty-eight years since construction. They are no longer "wonderful." From a distance, the pattern of light and shadow is of interest, but there are few views remaining unobstructed by trees and later buildings (Figure 10-87). The patterning is relentless and visually noisy in the interior courtyards, in contrast to the quiet, lighter relief of the

Community Hospital of the Peninsula with its pattern embossed in white concrete (*Figure 10-88*). Stone chose white for his tile grille at the United States Embassy in New Delhi (*Figure 10-89*), for the Palo Alto Civic Center, the Kennedy Center, Scripps Clinic in La Jolla, and the grill of the front of his New York town house. Stone's favorite combination was white (preferably marble or marble aggregate mixed into the concrete to give shine and sparkle) accented with gold, as he described his work during this period: "I had gone through the 'hair shirt period' of solid lumber, rough brickwork and stone. Maria's fine Italian hand began to show in my attire and my work: both began to move towards elegance. More marble floors, gold accents, fountains, lagoons and courtyards crept into my designs."¹⁴³ There are a number of surviving examples of this period in Stone's career that display these features. The Main Medical Center Complex's dull sand colored walls and screens do not meet the test of "embodying" Stone's use of this device, or of "possessing high artistic values" as required for listing on the California Register of Historic Places.



Figure 10-87: Main Medical Center Complex, Pasteur Drive Entrance

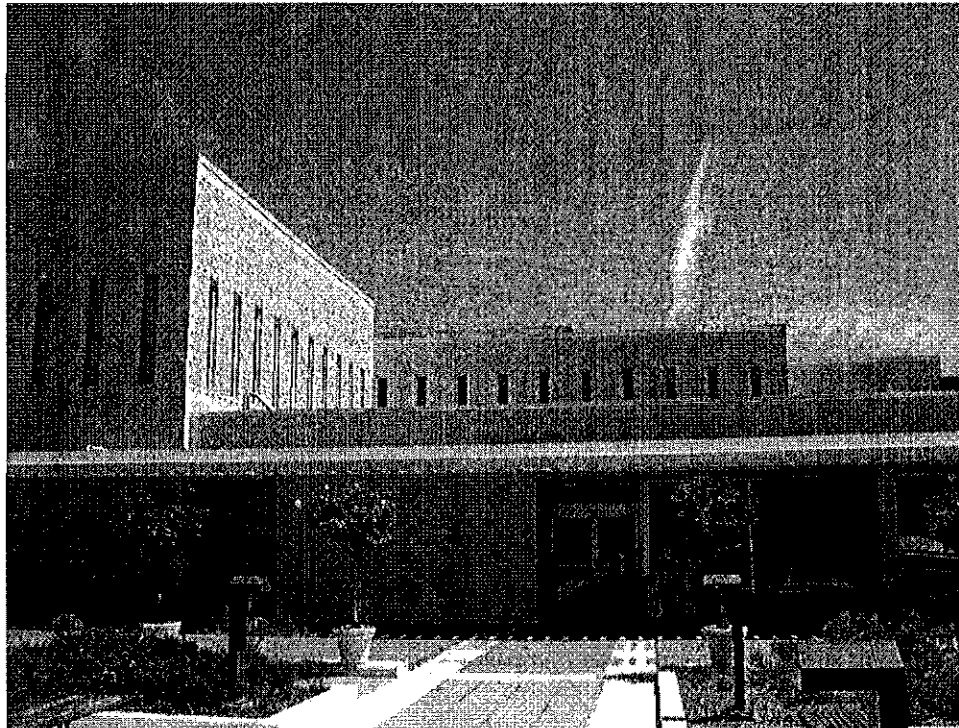


Figure 10-88: Monterey Community Hospital

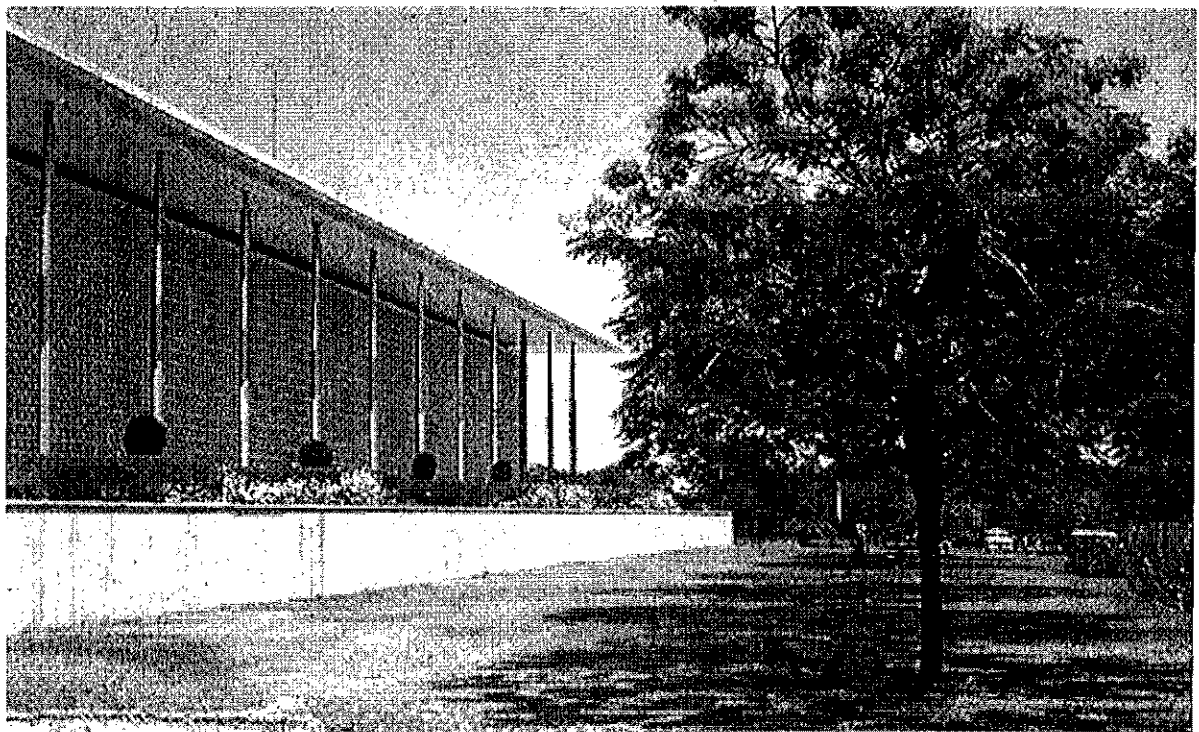


Figure 10-89: US Embassy, New Delhi

Integrity of design. To be historically significant, a property must retain integrity of design, displaying the character-defining features of its style and period. An analysis of the Main Medical Center Complex shows substantial loss of integrity of plan since the completion of the buildings designed by E.D. Stone in 1963 with the addition of a series of attached buildings to the north, and the infill of courtyards (*Figure 10 -90*).

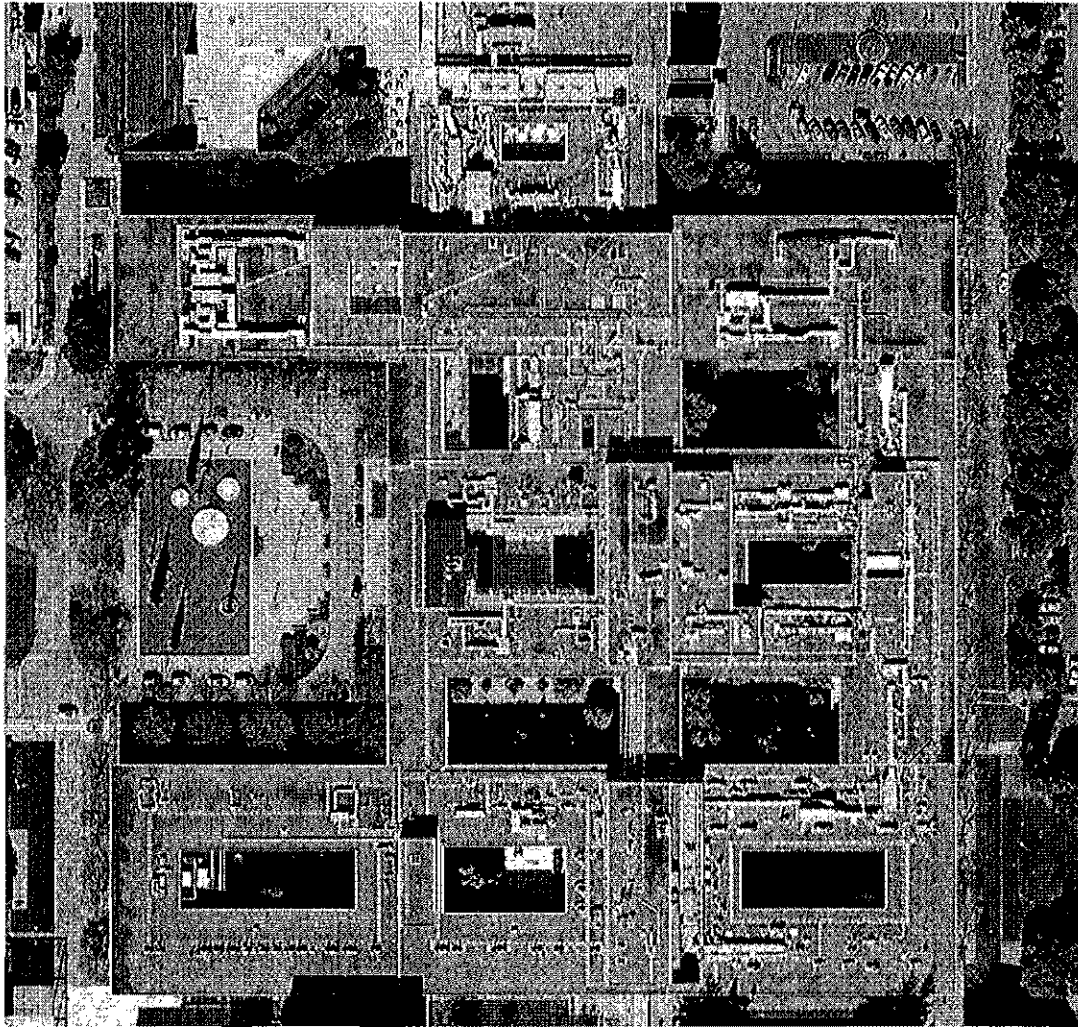


Figure 10-90: Infill and Additions

The setting has been radically transformed – the original design was a monolithic form surrounded by open parking lots and agricultural fields accented by heritage oaks and eucalyptus trees. The current setting is crowded, urban and eclectic in character (*Figure 10 -91*).

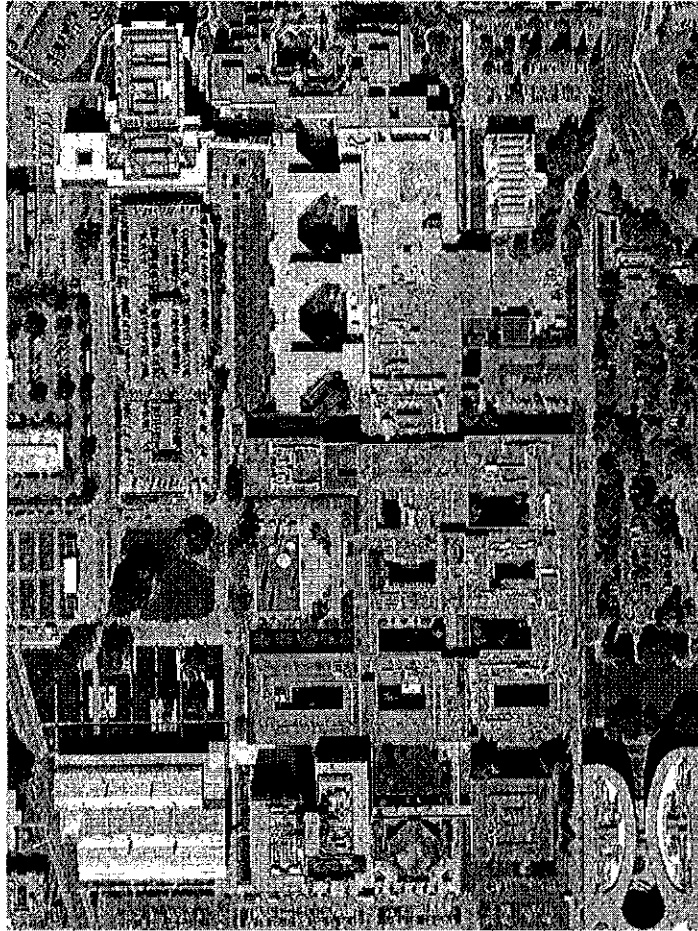


Figure 10-91: Current Setting

The interior spaces of the Main Medical Center Complex have also lost integrity: the original interior design by Maurice Sands is completely replaced by contemporary furnishings and finishes (*Figures 10-92, 10-93*).

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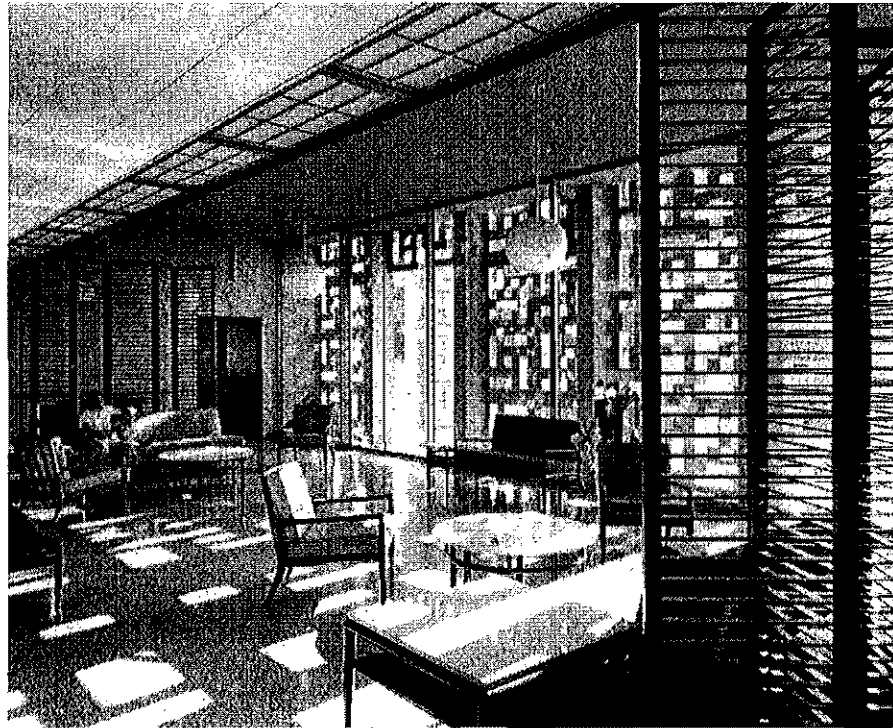


Figure 10-92: Solarium, 1959

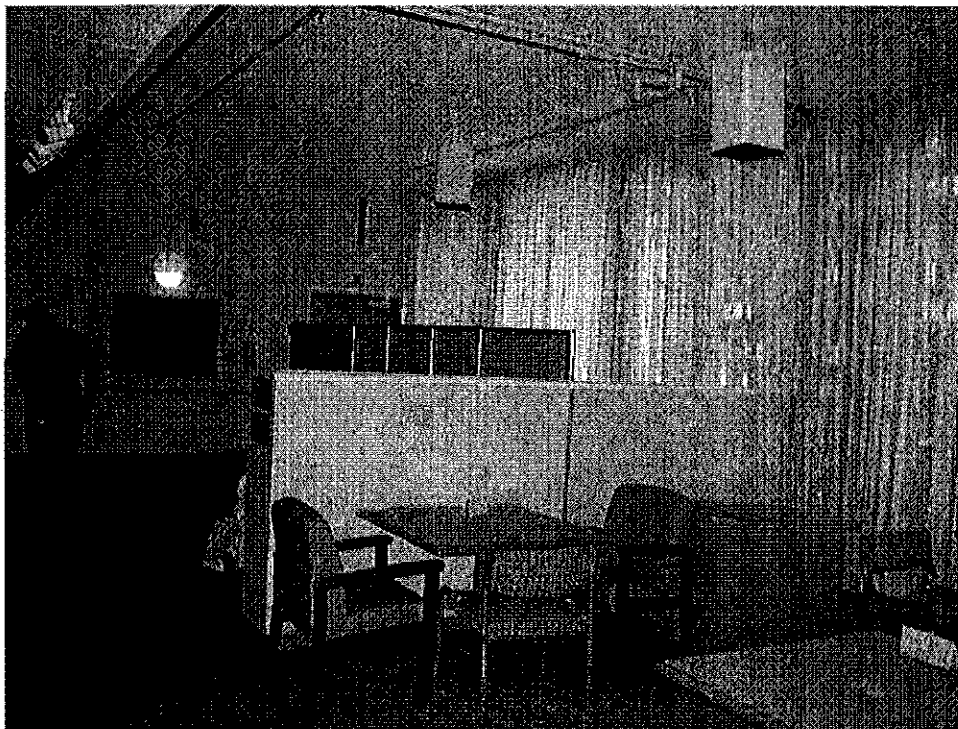


Figure 10 -93: Solarium, 2007

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Many of the courtyards and gardens have also lost integrity over the years. As noted above for the Governor's Avenue trees, plants can be replaced as they age without necessarily destroying the integrity of a landscape design.¹⁴⁴ Church's style relied on form to produce beauty, not on flowering plants and he preferred hardy evergreen vegetation.¹⁴⁵ His original planting plan for the Main Medical Center Complex made heavy use of evergreen trees and shrubs. While many of these remain in place, they have been obscured by more recent ornamental plantings of roses and annuals (Figures 10-94), altering the feeling of the gardens. The infill of courtyards has further diminished the integrity of the design (Figures 10-95, 10-96).



Figure 10-94: Replanting of ornamental flower beds in courtyard



Figures 10-95, 10-96 Courtyard Infill

Due to changes in setting, interior materials and workmanship, overall plan and feeling, the Main Medical Center Complex does not display integrity of design.

Summary. The Main Medical Center Complex is an interesting building, but not a great achievement in architecture. To return to the questions posed by the scholars of architectural modernism presented above:

Is it a formative design in the portfolio of a prominent architect whose work had an important influence on a community, region, state, or country?

No. Edward Durrell Stone had already completed several “formative” major buildings in this romantic formalist style prior to completing the project, including the Brussels Pavilion, the U.S. Embassy in New Delhi, and the El Panama Hotel. There is little new in the landscape design from Thomas Church, who had been working with fountains and parterres since the 1930s.¹⁴⁶

Is it a highly influential or outstanding work or is it a lesser work in the portfolio of a master architect?

It is a lesser work in the long and impressive careers of Stone and Church.

Is it a successful example of a Modern-era style such as Expressionism, Formalism, or Brutalism?

The design – architecture and landscape -- fail to successfully realize the intention of creating a Garden Hospital, and the attempt to recall a Palace Hospital is out of keeping with the Modern period – both in architectural history and in the history of medical facilities design – and was out of place in this suburban setting. Its serious

functional design flaws outweigh the limited appeal of its Formalist ornamental concrete façade.

Does it exemplify the Modernist design philosophy, making effective use of modern materials, components, public artwork, noteworthy landscaping or site design?

No. The visual appeal of some individual elements of the structure and landscaping is minor weighed against the more serious flaws in design.

Are interior and exterior significant spaces fully intact as designed, with original materials and features?

No. A detailed survey of the design integrity of the Main Medical Center Complex was conducted. Elements of the exterior façade and the landscaping of the entry and some of the interior courtyards are largely intact. Only small fragments of the interior finishes (the original escalators, for example) remain, and the setting has almost entirely lost its scale due to infill and new development in the Medical Center.

Examined in depth and in comparison to similar properties, the Main Medical Center Complex does not meet the level of quality in its design to merit listing on the California Register of Historic Places under criterion 3. The flawed design may have resulted in part from a chaotic planning process. The Palo Alto Times remarked that after receiving the commission

There must have been times in the next two years when Stone, one of the country's best known architects, wished he had never heard of Stanford or Palo Alto. As soon as design was underway, a series of complicated feuds developed between Stanford and the city, Stanford and local doctors, "contract doctors" who supplied specialized service to the hospital and the city, and between individual Stanford doctors and individual Palo Alto doctors in the same specialties. All this ill feeling periodically erupted into the open, both at city council meetings and at staff meetings of Stanford men. Stone was caught in the middle because the hospital's design depended in many ways upon the way in which the local and Stanford doctors were to share the joint hospital. These problems have all been resolved now but there is a residue of ill feeling that observers agree can only be healed by the passage of time.¹⁴⁷

Complaints about design flaws in the building, and new disputes among its users surfaced within a year of its opening.¹⁴⁸

The Main Medical Center Complex is a large structure designed by a well-known architect and landscape architect. At a superficial level, the property exhibits motifs common to both firms: Stone's screen wall and soaring columns, Church's geometric landscape forms. At the more basic level of function, however, the design failed to satisfy its clients, fell short of its inspiring vision of a palatial garden for healing, and has not retained the initial grandeur of its setting. Several other California hospitals by Stone are more successful examples of his work in this area. The groundbreaking work in organ transplantation conducted by Dr. Norman Shumway and other major medical discoveries is significant; however, the places where the events took place have been completely transformed since the 1960s.

Criterion 4: Information Potential

The Main Medical Center Complex does not appear to have the potential to yield important information in history or prehistory. This criterion is typically applied to archaeological sites or examples of unusual construction methods for buildings or structures. The Main Medical Center Complex is not eligible for listing under criterion 4.

A careful review of the criteria, particularly the admonition to reserve listing of recent properties to those of "exceptional" merit suggests that the Main Medical Center Complex is not eligible for listing on the California Register of Historic Places.

Summary of Potential Cultural Resources in the Project Area

Archaeological Resources

There is little risk of encountering buried cultural deposits in the project area; previous human use of the area has been light and construction of the current medical center buildings has erased any near-surface deposits that may have been present. A deeply buried ancient stream channel has yielded fossils of extinct mammals; there is some possibility that paleontological finds may be made during deep excavations during construction of the proposed projects.

Historical Resources

Seven properties have been reviewed for historical significance. The Governor's Avenue historic landscape feature and the Hoover Pavilion appear to meet the criteria for listing on the California Register of Historic Places. The remaining properties failed to meet the criteria.

The Governor's Avenue alignment is compromised within the project area by gaps and inconsistent treatment of replacement sections; however, improvements to reinforce the historic alignment could be made during design of new facilities. No project component is proposed to be located on the section of the historic alignment that remains in place today.

New buildings are proposed to be located adjacent to the Hoover Pavilion. If the City agrees that the Hoover Pavilion is an historical resource then a substantial adverse change to the resource could result in a significant affect on the environment. In this context, CEQA Guideline 15064.5(b) defines a substantial adverse change in the significance of an historical resource as "alteration of the resource or its immediate surroundings such that the significance of a resource would be materially impaired." The significance of an historical resource is materially impaired when a project alters those physical characteristics that convey its historical significance and that justify its inclusion in the California Register of Historic Places, as determined by the lead agency. For Hoover Pavilion, these features should include the distinctive ziggurat roofline, Art Deco exterior ornamental details, and the entry fountain plaza. Careful attention to these historic features should reduce the potential for impact to the historic character of the property.

Notes and References

- ¹ Elena Reese, John Holson and Kevin Bartoy. *Historical Archaeological Investigations at the Stanford Mansion, Leland Stanford Jr. Mausoleum, and CA-SCL-623/H*. Berkeley: Pacific Legacy, Inc. 2007.
- ² PRC Section 21084.1, 14 CCR Section 15064.5(3).
- ³ Office of Historic Preservation, State of California. Available at http://ohp.parks.ca.gov/default.asp?page_id=21238.
- ⁴ Office of Historic Preservation, State of California. *Instructions for Preparing Documentation for Nominating Historical Resources to the California Register of Historical Resources*. August 1997. Page 11. Available at <http://ohp.parks.ca.gov/pages/1069/files/07%20cal%20reg%20how%20to%20nominate.pdf>.
- ⁵ EIP Associates. *Draft Environmental Impact Report: Stanford Sand Hill Road Corridor Projects*. Volume 2, Page 4.3-8. 18 June 1996.
- ⁶ J. Timothy Keller, ASLA, and Genevieve P. Keller Land and Community Associates. *How to Evaluate and Nominate Historic Designed Landscapes*. National Register Bulletin 18. Available at <http://www.nps.gov/history/nr/publications/bulletins/nrb18/>.
- ⁷ Office of Historic Preservation, State of California. *Instructions for Preparing Documentation for Nominating Historical Resources to the California Register of Historical Resources*. August 1997. Page 11. Available at <http://ohp.parks.ca.gov/pages/1069/files/07%20cal%20reg%20how%20to%20nominate.pdf>.
- ⁸ Norman E. Tuturow. *The Governor: The Life and Legacy of Leland Stanford, A California Colossus*. Volume 2. Spokane: Arthur H. Clark. 2004. Page 965.
- ⁹ Barry Whitehead. *Horse Racing in Sacramento: A Brief History*. Stanford University Libraries. 1994. Page 13.
- ¹⁰ Norman E. Tuturow. *The Governor: The Life and Legacy of Leland Stanford, A California Colossus*. Volume 2. Spokane: Arthur H. Clark. 2004.
- ¹¹ There are a number of listed properties associated with Leland Stanford, Sr. including the Governor's Mansion (listed on the National Register in 1933 as the Stanford-Lathrop House) in Sacramento, the Palo Alto Stock Farm properties described above, the Main Quad at Stanford University, and a series of railroad properties across the west. These properties are more closely associated with Stanford's career as a business leader, public servant and philanthropist than the avenue that joined two of his stable yards.
- The National Register also acknowledges the potential importance of "commemorative properties" and cautions that: "A commemorative property cannot qualify for association with the event or person it memorializes." The naming of the avenue for the Governor appears to have taken place after his death at his Palo Alto home in 1893. Unnamed on earlier maps, it first appears as "Governor's or Gum Tree Avenue" on a 1908 survey map. No formal action was taken by Mrs. Stanford or the university to dedicate the avenue to the Governor, it appears to be an informal naming arising from the well-known fact that Leland Stanford used the avenue (which he had posted as a "Private Road") to travel between his home and his famous horse farm.
- ¹² Tom Turner. *Garden History: Philosophy and Design 2000 BC – 2000 AD*. London: Spon Press. Pages 166-167.
- ¹³ Sarah M. Couch. The Practice of Avenue Planting in the Seventeenth and Eighteenth Centuries. *Garden History* 20(2):12. Autumn 1992.
- ¹⁴ Office of Historic Preservation, State of California. *Instructions for Preparing Documentation for Nominating Historical Resources to the California Register of Historical Resources*. August 1997. Page 21. Available at <http://ohp.parks.ca.gov/pages/1069/files/07%20cal%20reg%20how%20to%20nominate.pdf>.
- ¹⁵ J. Timothy Keller, ASLA, and Genevieve P. Keller Land and Community Associates. *How to Evaluate and Nominate Historic Designed Landscapes*. National Register Bulletin 18. Available at <http://www.nps.gov/history/nr/publications/bulletins/nrb18/>.
- ¹⁶ Office of Historic Preservation, State of California. *Instructions for Preparing Documentation for Nominating Historical Resources to the California Register of Historical Resources*. August 1997. Page 9. Available at <http://ohp.parks.ca.gov/pages/1069/files/07%20cal%20reg%20how%20to%20nominate.pdf>.
- ¹⁷ Guenter B. Risse. *Mending Bodies, Saving Souls: A History of Hospitals* (Oxford University Press, 1999).
- ¹⁷ Jeremy Taylor. *The Architect and the Pavilion Hospital, Dialogue and Design Creativity in England 1850-1914*. London and New York: Leicester University Press. 1997. Page 468.

¹⁸ See *The Hospital: A Social and Architectural History*, by John D. Thompson and Grace Goldin (Yale University Press, 1975) for an extensive discussion of "Nightingale Wards."

¹⁹ Some European hospitals in the 17th and 18th centuries for example had single wards serving more than 400 patients (often 4-6 lying in the same bed).

²⁰ Nightingale was a crusader for hygiene in hospitals, based on the "miasma" theory of disease: "Florence Nightingale was a thorough-going miasmatist for whom germs did not exist. She believed that the human body even in health is constantly exhaling from the lungs and skin, awake or asleep, watery vapor and organic matter 'ready to enter into the putrefactive condition.' These morbid exhalations must be instantly and perpetually carried off by ventilation." (Thompson and Goldin, page 159.)

²¹ Thompson and Goldin report the first "real hospital laboratory" appeared in Paris in 1893. John D. Thompson and Grace Goldin. *The Hospital: A Social and Architectural History*. Yale University Press, 1975. Page 189.

²² See Jeremy Taylor, *The Architect and the Pavilion Hospital: Dialogue and Design Creativity in England 1850-1914* for a detailed discussion of the explosion in architectural creativity during the period of transition from pavilion plans to skyscrapers (London: Leicester University Press, 1997).

²³ Guenter B. Risse provides a cutting analysis of the business aspects of new hospital construction in *Mending Bodies, Saving Souls: A History of Hospitals* (Oxford University Press, 1999).

²⁴ Jeremy Taylor. *The Architect and the Pavilion Hospital, Dialogue and Design Creativity in England 1850-1914*. London and New York: Leicester University Press. 1997. Page 28.

²⁵ A well-preserved example of a doctor's home and office from this period can be seen at the Museum of American Heritage on Homer Street in Palo Alto. The Museum occupies a house built by Dr. Thomas Williams in 1907 and occupied by his family until 1989. The Williams House sits directly across Homer Avenue from the Roth Building, an early home of the Palo Alto Medical Foundation.

²⁶ See Ward Winslow, *Palo Alto: A Centennial History*. Palo Alto Historical Association, 1993.

²⁷ Camp Fremont sprawled across more than 7000 acres of Menlo Park and adjacent Stanford lands. The base had more than 1000 structures, which were sold at auction in 1918. (California State Military Museum.) One notable surviving Camp Fremont building is the former USO Hostess House. The Hostess House, designed by Julia Morgan, is listed on the National Register and is currently occupied by the MacArthur park restaurant adjacent to the Palo Alto Train Station on University Avenue.

²⁸ Report of the President, Academic Year 1918-1919. Stanford University Board of Trustees. Pages 130-131. The Alpine Isolation Hospital building is still standing on Stanford lands near Interstate 280; the building is currently under lease as a private residence.

²⁹ The Con Home later became the Children's Hospital at Stanford and the low pavilion wards and Stanford house were demolished in 1965 for construction of a modern hospital. The Children's Hospital was moved to the Lucille Packard Children's Hospital in 1989 and the site was redeveloped as the Classic Residences by Hyatt senior housing community in 2005.

³⁰ The Palo Alto Medical Foundation expanded onto adjacent properties along Homer Avenue until moving to a large new complex on El Camino Real in 1999. Most of the PAMF facilities were demolished; the Roth Building has been preserved and is planned for rehabilitation to house the Palo Alto History Museum. Local historians have prepared a nomination to the National Register of Historic Places for the Roth Building.

³¹ Stanford President Ray Lyman Wilbur's report to the University Trustees, September 15, 1928.

³² One city council member argued that a Palo Alto firm should be used; however the City Council directed the selection of "an architect of wide experience in hospital construction." Reed and Corlett and the San Francisco firm Bakewell and Brown competed for the project, with Reed and Corlett winning the contract (Palo Alto City Council Minutes, July 22, 1929).

³³ See Guenter B. Risse *Mending Bodies, Saving Souls: A History of Hospitals* (Oxford University Press, 1999) for an account of how hospitals handled patient billing -- and room amenities -- in the era before medical insurance.

³⁴ Will Corlett, *Local Hospital Excels*. Daily Palo Alto Times. The medical theory behind the use of sunlight and "open air treatment" is summarized in Jeremy Taylor's *The Architect and the Pavilion Hospital, Dialogue and Design Creativity in England 1850-1914*. London and New York: Leicester University Press. 1997.

³⁵ Jeremy Taylor's *The Architect and the Pavilion Hospital, Dialogue and Design Creativity in England 1850-1914*. London and New York: Leicester University Press. 1997. Also Guenter B. Risse *Mending Bodies, Saving Souls: A History of Hospitals*. Oxford University Press. 1999

³⁶ See Melissa Connor and James Schneck's overview on "Hospitals in the United States Military" prepared for their report on Fort Carson, Colorado. National Park Service, 1997. They report that specifications for military hospitals shifted several times during World War II but generally reflected a higher priority on speed than on quality of construction. The pavilion style plan dominated: "In general, a 1,000-bed general hospital would have 62 buildings: 33 wards, administration, surgical, receiving and forwarding, and bath buildings, messes and personnel buildings" (Page 12).

³⁷ National Park Service. See also California State Military Museum website <http://www.militarymuseum.org/LettermanAMC.html>

³⁸ This Kaiser Richmond Hospital served mainly women, employed in shipbuilding during the war. See the Rosie the Riveter Trust website for additional information. <http://www.rosietheriveter.org/kaiserfieldhosp.html>

³⁹ Photo caption: "Shown here are a group of wounded Nisei veterans of the 100th Battalion and 442nd Infantry Combat Team, being hospitalized at Dibble General Hospital, Menlo Park, Palo Alto, California. The boys were caught by the camera man in the Public Relations office. Left to right, front row, they are: PFC Walter Heirakuji, Box 20, Hawi, Hawaii, member of the 442nd Combat Infantry Team, wounded at St. Luciano, Italy, on July 17, 1944; Pvt. Masao Hayashida, member of the 442nd Infantry Combat Team, 160 Horualea, Hawaii, wounded at Leghorn, Italy, on July, 1944; and Corp. Minoru Yoshida, 1325 16th Avenue, Honolulu, Hawaii, member of the 100th Infantry Battalion, wounded at Cecina, Italy on July 2, 1944. Left to right, back row, they are: S/Sgt. Jack Kawamoto, Hawaii, member of the 442nd Combat Team, wounded at Leghorn, Italy, July 10, 1944; PFC Kiyotaka Uchimura, Kealakekua, Hawaii, member of the 100th Infantry Battalion, wounded at Bellefontaine, France, in October, 1944; Corp. Steve Shimizu, 2320 Young Street, Honolulu, Hawaii, member of the 442nd Combat Infantry Team, wounded at Vosges Mountains, France, on November 2, 1944; PFC Roy T. Tsutsui, 480 West Second South Street, Salt Lake City, Utah, 442nd Infantry Combat Team, wounded at Lespezia, Italy, on April 15, 1945. -- Photographer: Iwasaki, Hikaru -- Palo Alto, California. 7/14/45."

⁴⁰ The 59th Evacuation Hospital established a 750-bed hospital in Normandy about two weeks after D-Day in 1944 (Frank B. Berry, MD, no date, Office of the Surgeon General of the Army).

⁴¹ Stephen Verderer and David J. Fine. *Healthcare Architecture in an Era of Radical Transformation*. New Haven: Yale University Press. 2000. Page 13.

⁴² Stephen Verderer and David J. Fine. *Healthcare Architecture in an Era of Radical Transformation*. New Haven: Yale University Press. 2000. Page 23.

⁴³ Stephen Verderer and David J. Fine. *Healthcare Architecture in an Era of Radical Transformation*. New Haven: Yale University Press. 2000. Page 23.

⁴⁴ Stephen Verderer and David J. Fine. *Healthcare Architecture in an Era of Radical Transformation*. New Haven: Yale University Press. 2000. Page 217.

⁴⁵ John D. Thompson and Grace Goldin. *The Hospital: A Social and Architectural History*. Yale University Press, 1975. Page 201.

⁴⁶ For a more detailed account of the debate, see Edwin Kicster, Jr.'s biography of Tressider: *Donald B. Tressider, Stanford's Overlooked Treasure*. Stanford Historical Society 1992.

⁴⁷ John L. Wilson, Stanford University's School of Medicine and the Predecessor Schools: An Historical Perspective. Lane Library, Stanford School of Medicine.

⁴⁸ The Palo Alto VA Hospital was damaged in the 1989 Loma Prieta earthquake and was replaced by new hospital buildings. The 1960 building was demolished.

⁴⁹ Photograph courtesy of the Palo Alto Historical Association.

⁵⁰ Palo Alto's first hospital, the Student's Guild, was established on Lytton Avenue (at Cowper Street) during the typhoid epidemic of 1903. The Peninsula Hospital opened at Embarcadero Road (at Cowper Street) in 1910.

⁵¹ Palo Alto City Council Minutes, October 16, 1928.

⁵² Hoover's career in public service is honored with many commemorative sites including dozens of schools, Hoover Dam, and the Hoover Institution on War, Revolution and Peace founded by Herbert Hoover on the Stanford campus in 1919 (as the Hoover War Library; the signature tower was completed in

1941). There are a number of National Register properties associated with Hoover, including the Herbert Hoover National Historic Site at his boyhood home in West Branch, Iowa, the Hoover Dam, and the Lou Henry Hoover House on the Stanford campus as well as the various federal buildings in which he served in Washington D.C. first as Secretary of Commerce and then as President (1929-1933).

The National Register's instructions on commemorative properties apply to this association between Herbert Hoover and the Hoover Pavilion: "A commemorative property cannot qualify for association with the event or person it memorializes. A commemorative property may, however, acquire significance after the time of its creation through *age, tradition, or symbolic value*" (NRB 15). The further instruction to compare similar properties suggests that there is not enough to distinguish this commemoration of Hoover from the literally dozens of others, including three in the local vicinity (Hoover House, Hoover Tower, and Herbert Hoover Elementary School in Palo Alto).

⁵³ Ward Winslow. *Palo Alto, A Centennial History*. Palo Alto Historical Association. 1993. Pages 170-172.

⁵⁴ "Empire State Building." Online Photograph. Encyclopedia Britannica Online. 23 July 2007

<http://www.britannica.com/eb/art-58321>.

⁵⁵ Weber, Eva. *American Art Deco*. North Dighton, MA: JG Press.

⁵⁶ Jona Lendering for Livius.Org, 2004. Revision: 1 April 2006

⁵⁷ Weber, Eva. *American Art Deco*. North Dighton, MA: JG Press. Page 8.

⁵⁸ Michael F. Crowe. *Deco by the Bay: Art Deco Architecture in the San Francisco Bay Region*. New York: Viking Studio Books 1995.

⁵⁹ The ground floor had three locker rooms: staff, nurses, and "Filipinos." Doctors and surgeons had "coat rooms" upstairs.

⁶⁰ *Daily Palo Alto*, 4 June 1929. The article concludes with: VOTE FOR THE HOSPITAL BONDS.

⁶¹ *Report of the President*. Stanford University Bulletin. December 1941. Page 345. He also reported that the cost per patient day was \$7.74.

⁶² Ward Winslow. *Palo Alto, A Centennial History*. Palo Alto Historical Association. 1993. Pages 75-77.

⁶³ Julie Cain and Laura Jones for the Town of Atherton. *Historical Artifact Inventory*. January 2006.

⁶⁴ *National Register of Historic Places Bulletin* 15.

⁶⁵ Photo courtesy Palo Alto Historical Association. Available online at <http://images.pahistory.org/cgi-bin/viewer.exe?CISOROOT=/PAHA&CISOPTR=1879&CISOMODE=grid>.

⁶⁶ *The Cap and Seal, The Annual of the San Francisco Hospital School of Nursing*, 1928, San Francisco Hospital, San Francisco. Viewed at <http://www.sfgenealogy.com/sf/history/hgsfn.htm>.

⁶⁷ Letterman General Hospital, Nurses' Quarters, Girard Road & Lincoln Boulevard, Presidio of San Francisco, San Francisco, San Francisco County, CA. Library of Congress, Prints and Photographs Division, Historic American Buildings Survey or Historic American Engineering Record, Reproduction Number CAL, 38-SANFRA, 169-2.

⁶⁸ Agnews State Hospital, Female Nurses' Home, South Circle Drive between Fourth & Mesa Lanes, Santa Clara, Santa Clara County, CA. Library of Congress, Prints and Photographs Division, Historic American Buildings Survey or Historic American Engineering Record, Reproduction Number CAL 2710 - AO-1.

⁶⁹ Dave Weinstein. *Signature Architects of the San Francisco Bay Area*. Layton, Utah: Gibbs Smith. Pages 70-77.

⁷⁰ *Palo Alto Intermodal Transit Center Project Palo Alto, California Draft Historic Resource Evaluation Report*. Carey & Co, Inc. Architecture. 11 September 2006. Page 12.

⁷¹ *National Register of Historic Places Bulletin* 15.

⁷² Office of Historic Preservation, State of California. *Instructions for Preparing Documentation for Nominating Historical Resources to the California Register of Historical Resources*. August 1997. Page 12. Available at <http://ohp.parks.ca.gov/pages/1069/files/07%20cal%20reg%20how%20to%20nominate.pdf>.

⁷³ The report is available online at

http://www.gsa.gov/gsa/cm_attachments/GSA_DOCUMENT/GEMbook_R2-v01-t_0Z5RDZ-i34K-pR.pdf

⁷⁴ *Polk's Palo Alto City Directory* 1961.

⁷⁵ Property file, 701 Welch Road. Stanford Real Estate Office.

⁷⁶ Including the archives of the Palo Alto Weekly, Country Almanac, and Stanford Report.

⁷⁷ Pierluigi Serraino. *Icons of Northern California Modernism*. San Francisco: Chronicle Books. 2006. Pages 140-149.

- ⁷⁸ See *Arts and Architecture* magazine, sponsors of the Case Study House competition for more information. Knorr's submission for Case Study House #19 can be viewed at <http://www.artsandarchitecturemag.com/case.houses/pdf/19.pdf>.
- ⁷⁹ Wally Fields. Remembering Bay Area Case Study House Architect Don Knorr. *Eichlerholic Musings*. Available at http://www.eichlernetwork.com/ENzone_12.html.
- ⁸⁰ Pierluigi Serraino. *Icons of Northern California Modernism*. San Francisco: Chronicle Books. 2006. Pages 140-149.
- ⁸¹ Pierluigi Serraino. *Icons of Northern California Modernism*. San Francisco: Chronicle Books. 2006. Page 142. Photographer unknown.
- ⁸² Rolando Rivas-Camp, editor. *Growth, Efficiency and Modernism: GSA Buildings of the 1950s, 60s and 70s*. United States Government Services Administration. 2003. Available at http://www.gsa.gov/gsa/cm_attachments/GSA_DOCUMENT/Modern_R2-v01-t_0Z5RDZ-i34K-pR.pdf. The questions are taken from the GSA Eligibility Assessment Tool included in the report.
- ⁸³ Pierluigi Serraino. *Icons of Northern California Modernism*. San Francisco: Chronicle Books. 2006. Page 140.
- ⁸⁴ Office Memorandum, Harry Sanders to Boyd Smith. 29 May 1969.
- ⁸⁵ Letter, Gail Whelan to Richard Lyman. 25 July 1974.
- ⁸⁶ Letter, John Whelan to Allan Lee. 23 August 1979.
- ⁸⁷ *Polk's Palo Alto City Directory*. 1961.
- ⁸⁸ Property file, 703 Welch Road. Stanford Real Estate Office.
- ⁸⁹ Rolando Rivas-Camp, editor. *Growth, Efficiency and Modernism: GSA Buildings of the 1950s, 60s and 70s*. United States Government Services Administration. 2003. Available at http://www.gsa.gov/gsa/cm_attachments/GSA_DOCUMENT/Modern_R2-v01-t_0Z5RDZ-i34K-pR.pdf. The questions are taken from the GSA Eligibility Assessment Tool included in the report.
- ⁹⁰ Marc Treib. *Thomas Church, Landscape Architect: Designing a Modern Landscape*. San Francisco: William Stout. 2003. Page 256.
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- ⁹³ National Register Bulletin 15: How to Apply the National Register Criteria for Evaluation.
- ⁹⁴ Marc Treib. *An Everyday Modernism: The Houses of William Wurster*. San Francisco Museum of Modern Art and University of California Press. 1995.
- ⁹⁵ Marc Treib. *Thomas Church, Landscape Architect: Designing a Modern California Landscape*. San Francisco: William Stout. 2003.
- ⁹⁶ He designed a home for Dr. Newell in Palo Alto as well. Wurster, Bernardi and Emmons papers. College of Environmental Design Archives, University of California Berkeley.
- ⁹⁷ Rolando Rivas-Camp, editor. *Growth, Efficiency and Modernism: GSA Buildings of the 1950s, 60s and 70s*. United States Government Services Administration. 2003. Available at http://www.gsa.gov/gsa/cm_attachments/GSA_DOCUMENT/Modern_R2-v01-t_0Z5RDZ-i34K-pR.pdf. The questions are taken from the GSA Eligibility Assessment Tool included in the report.
- ⁹⁸ Marc Treib. *An Everyday Modernism: The Houses of William Wurster*. San Francisco Museum of Modern Art and University of California Press. 1995. Page 60.
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- ¹⁰⁰ Photograph by Roger Sturtevant. Roger Sturtevant Collection. Oakland Museum.
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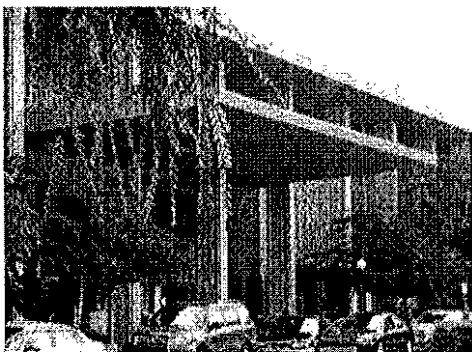
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Revised 9/07

California Department of Parks and Recreation historical resource recording forms for Hoover Pavilion/Palo Alto Hospital and Governor's Avenue were submitted under separate cover in September 2007.

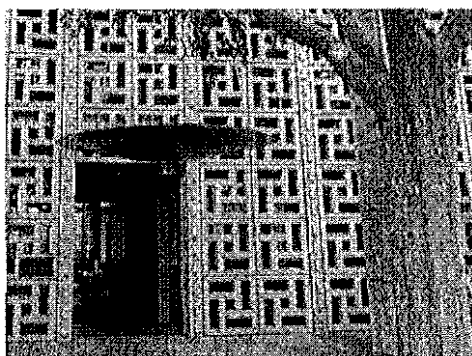
Appendix I

ARG Peer Review



Stanford

University Medical Center Historic Resource Evaluation and Peer Review



prepared for
PBS&J
San Francisco, CA

prepared by
Architectural Resources Group, Inc.
Architects, Planners & Conservators
San Francisco, CA

1 September 2009

12/1

**Historic Resource Evaluation and Peer Review
Stanford University Medical Center Project
1 September 2009**

I. INTRODUCTION

At the request of PBS&J, Architectural Resources Group (ARG) has prepared a historic resource evaluation of the Stanford University Medical Center Facilities Replacement and Renewal Project (SUMC Project). The following report is a peer review of the "Cultural Resources and Stanford University Medical Center Facilities Renewal and Replacement Project" report prepared by Stanford University Medical Center (SUMC) staff. The Council of the American Historical Association defines peer reviews for historical research.

Peer review means that a manuscript or research proposal will be read and evaluated by other scholars with expertise in the time period, subject matter, languages, and documents with which the author deals. As peers of the author in a specialized field, these reviewers provide analysis to the review boards of agencies on the scholarly significance of the article: Does the author display knowledge of existing work in the field? Does the research design, processes and methodologies, for example, conform with professional standards? Does the author advance an original argument and provide valid evidence to support the work? If particular areas are weak or absent in the presentation, the peer reviewers suggest revisions that will strengthen the project . . .

The project is subject to the California Environmental Quality Act (CEQA) because it is discretionary and may impact potential historic resources located within the campus boundaries. CEQA Section 21084.1 states "a project that may cause a substantial adverse change in the significance of an historical resource is a project that may have a significant effect on the environment." CEQA defines substantial adverse change in the significance of a resource as the physical demolition, destruction, relocation, or alteration of the resource or its immediate surroundings such that the significance of the resource is materially impaired (CEQA Guidelines 15064.5). The significance of a historic resource is considered to be materially impaired when a project demolishes or materially alters in an adverse manner those characteristics that convey its historical significance and/or account for its inclusion on a historic resource list.

A "historical resource" is defined as one that is listed in, or determined eligible for listing in, the California Register of Historical Resources (California Register). Properties listed on the National Register of Historical Resources (National Register) are, by default, listed on the California Register. A resource that is officially designated or recognized as significant in a local register of historical resources

**Historic Resource Evaluation and Peer Review
Stanford University Medical Center Project**

1 September 2009

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or one that is identified as significant in a historical resources survey meeting the requirements of Public Resources Code Section 5024.1(g) is presumed to be significant under CEQA "unless the preponderance of the evidence demonstrates that the resource is not historically or culturally significant."

The Stanford University Medical Center (SUMC) proposes demolition of the existing Main Stanford Hospital and construction of a new hospital building; renovation and expansion of Lucile Packard Children's Hospital; reconstruction of the medical school; and expansion of medical office space associated with Stanford Hospital Center and Lucille Packard Children's Hospital. The Medical Center Project also involves renovation of the historic Hoover Pavilion and construction of new medical office buildings and a parking structure on the site surrounding the historic building. The SUMC Project will be constructed in phases over a roughly fifteen-year period.

II. CRITERIA OF EVALUATION

National Register of Historic Places Eligibility

The National Register of Historic Places is the Nation's master inventory of known historic resources and includes listings of buildings, structures, sites, objects and districts that possess historic, architectural, engineering, archaeological or cultural significance at the national, state or local level. Four criteria provide the basis under which a structure, site, building, district, or object can be considered significant for listing on the National Register. A potential resource needs to meet only one of the following four criteria to be deemed a significant historic resource.

- (A) That are associated with events that have made a significant contribution to the broad patterns of history (such as a Civil War battlefield or a Naval Ship building Center); or
- (B) That are associated with the lives of persons significant in our past (such as Thomas Jefferson's Monticello or the Susan B. Anthony birthplace); or
- (C) That 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 (such as Frank Lloyd Wright's Taliesin or the Midwestern Native American Indian Mounds); or,
- (D) That have yielded or may be likely to yield information important in prehistory or history (such as prehistoric ruins in Arizona or the archaeological sites of the first European settlements in St. Augustine, Florida or at the Presidio of San Francisco).

**Historic Resource Evaluation and Peer Review
Stanford University Medical Center Project**

1 September 2009

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Once a potential resource is determined to have met one of the four criteria, its significance should be evaluated within its historic context or historical pattern relevant to a particular geographic area.

Historic contexts may be found at the local, state or national level. The geographic scale selected may relate to a pattern of historical development, a political division, or a cultural area.¹

California Register of Historical Resources

The California Register is the State's authoritative guide to significant California historical and archeological resources. The State Historical Resources Commission (SHRC) has designed this program for use by state and local agencies, private groups and citizens to identify, evaluate, register and protect California's historic resources. The California Register program encourages public recognition and protection of resources of architectural, historical, archeological and cultural significance, identifies historic resources for state and local planning purposes, determines eligibility for state historic preservation grant funding, and affords certain protections under the California Environmental Quality Act. To be eligible for the California Register, properties must have either reached fifty years of age or sufficient time must have passed to obtain a scholarly perspective on the events or individuals associated with the resource.

Types of resources eligible for nomination for listing in the California Register are buildings, sites, structures, objects, or historic districts. All resources listed in or formally determined eligible for the National Register are eligible for the California Register. A historical resource must be significant at the local, state, or national level under one or more of the following criteria that are defined in the California Code of Regulations Title 14, Chapter 11.5, Section 4850.

1. It is associated with events or patterns of events that have made a significant contribution to the broad patterns of local or regional history, or the cultural heritage of California or the United States; or
2. It is associated with the lives of persons important to local, California, or national history; or
3. It embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of a master, or possesses high artistic values; or
4. It has yielded, or has the potential to yield, information important to the prehistory or history of the local area, California or the nation.

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The California Register criteria are similar to National Register criteria. All resources listed in or formally determined eligible for the National Register are eligible for the California Register.

Local Criteria

The Dames and Moore "Final Survey Report Palo Alto Historical Survey Update" prepared February 2001 evaluated the Hoover Pavilion and found it to be eligible for the National Register under criteria A and C. The Dames and Moore report evaluated properties constructed up to 1947, and, as result, the Medical Center was not included.

Stanford University does not have an official register of local resources. However, it is noteworthy that the Stanford Medical Center is included as "Stanford Landmarks" on the Stanford University History website.²

According to the Palo Alto Municipal Code 16.69.040 the criteria for designation to the historic inventory are:

- (1) The structure or site is identified with the lives of historic people or with important events in the city, state or nation.
- (2) The structure or site is particularly representative of an architectural style or way of life important to the city, state or nation.
- (3) The structure or site is an example of a type of building which was once common, but is now rare.
- (4) The structure or site is connected with business or use which was once common but is now rare.
- (5) The architect or building was important.
- (6) The structure or site contains elements demonstrating outstanding attention to architectural design, detail, materials or craftsmanship.

Any resource that meets the eligibility criteria under the National Register, California Register, or Palo Alto Historic Preservation standards is considered a historical resource under CEQA.

Integrity

In order to be eligible for the California Register, the property must retain sufficient integrity. Integrity is defined as the authenticity of a historic resource's physical identity evidenced by the survival of

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characteristics that existed during the resource's period of significance. Historical resources eligible for listing in the California Register must meet one of the criteria of significance described above and retain enough of their historic character or appearance to be recognizable as historical resources and to convey the reasons for their significance. Historical resources that have been rehabilitated or restored may be evaluated for listing.

III. OVERVIEW AND METHODOLOGY

For this peer review, the methodology was as follows. Prior to visiting the site, ARG reviewed the historic resource evaluation, "Cultural Resources and the Stanford University Medical Center Facilities Renewal and Replacement Project" prepared by Stanford University Medical Center staff in 2007. ARG staff conducted a site visit on 9 October 2007 to view the buildings and fully understand the condition, setting, and context. An archaeological assessment was outside the scope of this peer review. The SUMC Cultural Resources report evaluated seven potential resources on the Stanford Campus: Governor's Avenue, Hoover Pavilion, Nurse's Cottage, 701 Welch Road, 703 Welch Road, 1101 Welch Road, and the Main Medical Center Complex.

In addition to reviewing findings, an important element of peer reviews is the assessment of the clarity of presentation and adequacy of the research on which the report was based. ARG found the SUMC report to be clear and well researched in general but determined that additional information was needed in several areas to better understand the significance of the Main Medical Center Complex. SUMC provided additional research material, primarily on the work of Edward Durell Stone and Thomas Church, on 22 February 2008. ARG supplemented the information on Stone and Church from our in-house library. Using San Francisco Public Library and University of California San Francisco Parnassus Library resources, ARG conducted research on the history of heart transplantation and Dr. Norman Shumway in April 2008. ARG assumed that SUMC staff viewed research materials at Stanford University libraries, and ARG did not conduct additional research at Stanford.

IV. RESOURCE DESCRIPTIONS

Governor's Avenue

Description

Governor's Avenue was a tree-lined drive originally planted with more than 700 Tasmanian blue gum eucalyptus trees by Governor Leland Stanford, Sr. between 1876 and 1878. The lane of trees references nineteenth century street planting approaches in that the Avenue is bordered by rows of evenly spaced trees. The two short surviving portions of Governor's Avenue in the project area are located (1) south of Pasteur Drive, and (2) adjacent to the south side of Welch Road. Pages 8-18 of the SUMC report describe the history of Governor's Avenue, the extant resources, and develop a context of tree-lined drives and the applicability of the California Register criteria. Historical and current photographs and maps illustrate the development of the avenue and the explanation of type.

Integrity

The various remaining segments of Governor's Avenue have varying degrees of integrity. The SUMC evaluation notes, "The intact portions of Governor's Avenue are a significant historic resource, potentially eligible for listing for its important [sic] to the local community as an early example of a tree-lined avenue in Palo Alto. Within the project boundary, however, most of the alignment is absent. A very short fragment remains between the sidewalk and a parking lot at the rear of the 900 Blake Wilbur Drive, and another fragment has been retained across the Pasteur Drive median, ending in a parking lot on Campus Drive West."³ The SUMC report does not explicitly conclude whether or not the segment within the project boundaries has sufficient integrity to be eligible as contributing portion of a significant historic linear resource.

Significance

The SUMC report finds that "Governor's Avenue appears⁴ to be eligible for listing on the California Register under Criterion 3 as embodying the distinctive characteristic of a 19th century tree-lined avenue."⁵

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SUMC Report Conclusion

The SUMC report finds that the "intact portions of Governor's Avenue are a significant historic resource, potentially eligible for listing for its importance to the local community as an early example of a tree-lined avenue in Palo Alto."⁶

ARG Findings

ARG agrees that other segments of Governor's Avenue may have historic significance; however, it is ARG's finding that the segment within the project area (project segment) does not have sufficient integrity to be a contributing part of this resource. The SUMC report also states that "the Governor's Avenue alignment is compromised within the project area by gaps and inconsistent treatment of replacement sections; however, improvements to reinforce the historic alignment could be made during design of new facilities."⁷ ARG notes that an integrity analysis cannot be based on future actions.

The seven aspects of integrity used to evaluate the integrity of a cultural landscape are tailored to landscape resources (see "Guidelines for Evaluating and Documenting Rural Historic Landscapes").

Location

Location is the place where the significant activities that shaped a property took place.

The project segment retains integrity of location.

Design

Design is the composition of natural and cultural elements comprising the form, plan, and spatial organization of a property.

The composition of the Governor's Avenue project segment has been significantly altered. Historically, Governor's Avenue was one of a number of farm roads that crossed the more than 6000-acre Palo Alto Stock Farm. The segment is now closely bordered by the buildings of the Stanford hospital, which is a significant change in the adjacent built environment that impacts the original design. In addition, the trees once lined a dirt road, which is now paved with asphalt and serves as a pedestrian walkway stretching between a roadway and a parking lot. Wood fencing, dating to least 1890 and visible in historic photographs, lined portions of both sides of Governor's Avenue and was erected as an integral and functional feature of the road. This fencing is no longer extant. The rows of trees are interrupted in several locations by bisecting pathways and roadways. The project segment does not retain integrity of design.

Setting

Setting is the physical environment within and surrounding a property.

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The setting of the Governor's Avenue project segment has significantly changed. Once cutting through open farmlands, the segment is now bordered by Pasteur Drive, a two lane paved road, a parking lot, and five multi-story buildings. The project segment does not retain integrity of setting.

Materials

Within a rural property include the construction materials of buildings, outbuildings, roadways, fences, and other structures. Original plant materials may enhance integrity, but their loss does not necessary destroy it.

A historic photograph of the Avenue included on page 11 of the SUMC report indicates that close to the Trotting Farm, the avenue consisted of a dirt road bordered by evenly spaced eucalyptus and paddocks surrounded by a wooden fence. The Governor's Avenue project segment is currently comprised of an asphalt walking path bordered by young, evenly spaced sycamores, lawn, and buildings. All materials have changed, and the wooden fence is no longer extant. As the bulletin states, original plant materials are not necessary for intact integrity, and similar species are acceptable. However, the trees of the project segment are all young, indicating wholesale replacement. Because of the changes in trees and species, path material, nearby ground cover, and lack of fencing the project segment does not retain integrity of materials.

Workmanship

Workmanship is exhibited in the ways people have fashioned their environment for functional and decorative purposes.

Functionally, the trees shaded and ornamented a roadway. The roadbed is extant but the original function has changed. Because all materials have been changed, the workmanship is not evident. The project segment does not retain integrity of workmanship.

Feeling

Although intangible, feeling is evoked by the presence of physical characteristics that reflect the historic scene.

The current scene of the Governor's Avenue project segment, a segment of asphalt walkway bordered by rows of trees, surrounded by lawn and medical buildings, parking lots, and roadways, is urban in character. It does not evoke the same historic feeling of a rural, long, continuous, dirt roadway bordered by rows of trees, pastureland, and paddock fences. The project segment does not retain integrity of feeling.

Association

Association is the direct link between an important event and persons that shaped it.

Because the SUMC report finds that "Governor's Avenue appears to be eligible for listing on the California Register under Criterion 3" rather than Criterion 2, association with a significant person, this aspect does not appear to be applicable.

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Overall, ARG finds that the project segment of Governor's Avenue does not have sufficient integrity to contribute to the overall significance of the resource. Of the National Register's seven aspects of integrity, the Governor's Avenue project segment retains integrity of location but not of design, setting, materials, workmanship, or feeling. Association does not appear to be applicable. It is possible that historic resources that do not retain sufficient integrity for listing in the National Register may still be eligible for listing in the California Register. A resource that has lost its historic character or appearance may still have sufficient integrity for the California Register if it maintains the potential to yield significant scientific or historical information or specific data. Because the Governor's Avenue project segment has been so extensively altered, ARG finds that it does not appear to retain sufficient integrity to yield significant historical information or specific data, and therefore does not appear to be eligible for the California Register and is not a historic resource for the purposes of CEQA. City of Palo Alto Historic Preservation staff visited the site in January 2008 and concluded that the surviving portions of Governor's Avenue within the project area, "do not convey the historic character of a rural farm road even when certain design elements of the original Avenue have been referenced (bordering trees south of Pasteur Drive)."

Hoover Pavilion

Description

The Hoover Pavilion was constructed in 1930-1939 as the Palo Alto Hospital. The building is T-shaped in plan with a five-story central block six-story tower and four-story wings. The zigurat form, vertical emphasis of window bays, and stylized floral and geometric terra cotta panels and fixtures represent the Art Deco movement. Pages 37-48 of the SUMC report describe the history of the Hoover Pavilion, the extant resources. This section also develops a design context and evaluates the applicability of the California Register criteria. Historical and current photographs and architectural drawings illustrate the development of the hospital building. Photographs of other Art Deco-influenced structures help illustrate the context of the Art Deco style in the Palo Alto area.

Integrity

The SUMC report concludes that, "The Hoover Pavilion has a fairly high level of integrity for its exterior art deco features and original building materials. The interior floor plan is substantially similar and the

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windows, stairwells and main entry have retained historic finishes. However, decades of interior remodeling have altered the interior finished to such an extent that the sense of being inside a historic hospital is compromised in many of the spaces: patient rooms have been converted to offices, and the remaining medical treatment areas are thoroughly modern in character. The high level of integrity and strong character of the exterior features including the ziggurat roof profile, ornamental concrete and tile, and largely intact windows and entry give a strong sense of historical style and period to the exterior. The integrity of the characteristic zigzag modern features of the exterior is adequate to convey the feeling of the period and its architectural interest."⁸

Significance

The SUMC report concludes that the Hoover Pavilion appears to meet the parameters of the California Register Criterion 3 as exemplifying the distinctive characteristics of pre World War II hospital, including the use of the Art Deco style and the functional design of the property.

Conclusion

The SUMC report concludes that the Hoover Pavilion/Palo Alto Hospital appears to be historically significant, displays substantial integrity of its defining Zigzag Moderne exterior features and appears to be eligible for listing on the California Register under Criterion 3.

ARG Findings

ARG concurs with the SUMC report's conclusion that the property has integrity and appears to be historically significant for its representation of pre-World War II hospitals and Art Deco buildings in Palo Alto. In addition, the Dames and Moore "Final Survey Report Palo Alto Historical Survey Update" prepared February 2001 evaluated the Hoover Pavilion and found it to be eligible for the National Register under criteria A and C.⁹ The property appears to be eligible for the California Register under California Register Criterion 3 and is a significant historic resource for the purposes of CEQA. City of Palo Alto Historic Preservation staff visited the site and also concluded that the Hoover Pavilion appears to be a significant historic resource in relation to the California Register and National Register. Staff also identified the Art Deco fountain near the main pavilion entry as a significant related landscape feature.

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Nurses' Cottage

Description

The Nurses' Cottage, located southwest of the Hoover Pavilion, is a multi-level building (some sections are one story and other sections are one story plus a raised basement) with an irregular footprint. The building was designed by Palo Alto architects Birge Clark and David Clark in 1941. Birge Clark and Walter Stromquist designed a 1948 addition to the building. Pages 48-53 of the SUMC report describe the history of the Nurses' Cottage and the applicability of the California Register criteria.

Integrity

The SUMC report did not evaluate integrity of the Nurse's Cottage, ostensibly because the report did not find the building significant under any of the four California Register criteria.

Significance/Conclusion

The SUMC report finds that the Nurse's Cottage does not appear to be eligible for the California Register under any of the four criteria.

ARG Findings

Based on the information presented in the SUMC report, ARG concurs with the report findings that the property does not appear to be eligible for the California Register under Criteria 1, 2, or 3. Criterion 4 is typically associated with archaeological resources, which is outside ARG's expertise or scope of work. The building therefore does not appear to be eligible for the California Register and is not a historic resource for the purposes of CEQA. ARG did not conduct an integrity analysis since this property does not appear to be significant. City of Palo Alto Historic Preservation staff visited the site and also concluded that the Nurses' Cottage does not appear to be eligible for the California Register.

701 Welch Road, Whelan Building

Description

The buildings sit at the corner of Welch and Quarry Roads, across from the Stanford Barn. The complex at 701 Welch Road consists of five structures: four date from the 1957-61, the original development of the property (701A, 701B, 701C, 701D), and an elevator tower dates from 1998. The buildings range from one to three stories and form a "U" shape surrounding a sunken central courtyard. The building's flat roof,

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use of glass and steel, skeleton-frame construction, and lack of nonessential decoration are all typical of the International style. The original buildings were designed by architect Don Knorr. Pages 54-62 of the SUMC report describe the history of the buildings and the applicability of the California Register criteria. Current and historic photographs chronicle alterations to the building.

Integrity

The SUMC report found that due to a series of changes that disrupted the unity of Knorr's original plan, the buildings at 701 Welch Road do not appear to retain integrity of design.

Significance/Conclusion

The SUMC report found that the buildings at 701 Welch Road do not meet any of the four California Register criteria and have lost integrity of design. As a result, they do not appear to be a significant historical resource.

ARG Findings

Based on ARG's site inspection, and background information and photographs provided in the SUMC report, ARG concurs that the property does not appear to be eligible for the California Register because it has been significantly modified and no longer retains integrity. According to the State of California Office of Historic Preservation, *California Office of Historic Preservation Technical Assistance Series #6*, "It is possible that historical resources may not retain sufficient integrity to meet the criteria for listing in the National Register, but they may still be eligible for listing in the California Register. A resource that has lost its historic character or appearance may still have sufficient integrity for the California Register if it maintains the potential to yield significant scientific or historical information or specific data." In a series of alterations commencing in 1969, the curtain walls were moved outward to roof eaves, the enclosing of the porch at Building C, adding a new doorway and re-glazing with tinted glass, and the addition of an elevator tower in 2001, have significantly compromised the property. The buildings no longer retain enough of their historic character or appearance to be recognizable as historical resources and to convey the reasons for their significance. Using the seven aspects of integrity, although the location and setting of the buildings are intact, the design, materials, workmanship, and feeling are compromised. Association does not appear to be relevant for this property. The building therefore does not appear to be eligible for the California Register and is not a historic resource for the purposes of

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CEQA. City of Palo Alto Historic Preservation staff visited the site and also concluded that 701 Welch Road does not appear to be eligible for the California Register.

703 Welch Road, Welch Road Professional Center

Description

The building at 703 Welch Road sits west of 701 Welch Road. The building is a two-story structure with an "H"-shaped plan with one-story connecting elements at the north and south ends. The gaps in the "H" form a narrow inner courtyard. The building steps from one to two stories in height; the second story was a later addition. Welch Road Properties, led by developer J.P. Aced, completed the building's first phase in 1958. The addition of the second story was completed in 1963. The architect for the 1963 addition was Bill Davies and landscape designer Doug Baylis. Pages 62-65 of the SUMC report describe the history of the buildings and the applicability of the California Register criteria.

Integrity

The SUMC report concludes that the building's original design has been compromised since its original construction in 1958. The alterations have been as follows: the addition of the second story in 1963, redesign of the main entry in 1970, and the addition of a deck on the roof of the single story section in 1981. The fenestration and ornamentation of the exterior elevations are substantially intact, but the courtyard facades have been repeatedly altered. The report found that 703 Welch Road does not retain integrity.

Significance/Conclusion

The SUMC report found that 703 Welch Road does not meet any of the four California Register criteria and has lost integrity of design. As a result, it does not appear to be a significant historic resource.

ARG Findings

Based on a site inspection and information from the SUMC report, ARG concurs that the property does not appear to be eligible for the California Register because it does not meet any of the California Register criteria and has been significantly modified. As explained above, a historic resource that does not retain sufficient integrity to meet the criteria for listing in the National Register, but they may still be eligible for listing in the California Register. A resource that has lost its historic character or appearance may still

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have sufficient integrity for the California Register if it maintains the potential to yield significant scientific or historical information or specific data." In this case, the building has undergone numerous alterations including: the addition of a second story in 1963, alteration of the main entry in 1970, addition of the roof deck at the rear of the building in 1981, and alteration of courtyard facades. Using the seven aspects of integrity, although the location and setting of the building are intact, the design, materials, workmanship, and feeling are compromised. Association does not appear to be relevant for this property. The building therefore does not appear to be eligible for the California Register and is not a historic resource for the purposes of CEQA. City of Palo Alto Historic Preservation staff visited the site and also concluded that 703 Welch Road does not appear to be eligible for the California Register.

1101 Welch Road, Medical Plaza

Description

The Medical Plaza at 1101 Welch Road consists of three one-story buildings surrounded by parking lots, screening fences and landscaping. There is a small courtyard between two of the buildings. The buildings were designed by William Wurster, and the grounds were designed by landscape architect Lawrence Halprin. Pages 66-74 of the SUMC report describe the complex and the applicability of the California Register criteria.

Integrity

The SUMC report finds that overall the Medical Plaza retains integrity of materials and workmanship on the exterior but does not retain integrity of design and setting because of the loss of large trees.

Significance/Conclusion

The SUMC report finds the buildings at 1101 Welch Road do not meet any of the four criteria for listing on the California Register, have lost integrity of design, and do not appear to be significant historic resources.

ARG Findings

Based on a site inspection and information provided in the SUMC report, ARG concurs that the property does not appear to be eligible for the California Register because it does not meet any of the California Register Criteria. The buildings do not appear to be associated with significant events or persons

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(California Register Criteria 1 and 2). The architect, William Wurster, was a noted architect, but the buildings at 1101 Welch Road are modest and many additional examples of his work that possess a higher significance and design aesthetic remain in the Bay Area. Similarly, the landscaping is not a well-developed representation of the designs of landscape architect Lawrence Halprin. The central courtyard exhibits modern elements such as geometric planting beds and some landscaping fronts the roadway. However, most of the site is dedicated to parking lots and the gardens are isolated. The property therefore does not appear to be eligible for the California Register and is not a historic resource for the purposes of CEQA. City of Palo Alto Historic Preservation staff visited the site and also concluded that 1101 Welch Road does not appear to be eligible for the California Register.

Main Medical Center Complex

Description

For the purposes of this report the Main Medical Center Complex refers only to the buildings designed by Edward Durell Stone constructed in 1959 and 1963, not the Stanford Hospital building to the north. The Main Medical Center Complex, a large three-story building, was roughly "I" shaped when built in 1959. Designed by architect Edward Durell Stone, the building originally housed the joint Palo Alto – Stanford Hospital and Stanford University Medical School. Landscaping was designed by Thomas Church. The western two wings projected from the main block of the building to form a forecourt with central fountain (still extant). The eastern wings were infilled in 1963 according to Stone's designs to create a grid-like plan surrounding interior courtyards.¹⁰ Pages 74-102 of the SUMC report describe the complex and the applicability of the California Register criteria.

Integrity

The SUMC report concludes that the Main Medical Center Complex shows substantial loss of integrity of plan because of the addition of an attached building to the north, and the infill of some courtyards. The report finds that the setting has been significantly altered; Stone's design was originally surrounded by parking lots and agricultural fields. Additionally, the report concludes that the setting has been compromised by the construction of nearby buildings and is now much more urban in character. Many interior spaces have lost integrity compromising the original interior design by Maurice Sands. With more specific emphasis on the interior, the report discusses in detail the integrity of the operating room,

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the site of the first heart transplant in the United States. The report acknowledges both that the operating room has a significant association with the 1968 heart transplant event and that the room continues to serve operating procedures. However, the SUMC report concludes that the Main Medical Center Complex does not merit designation as a historic resource because the operating room itself fails to retain sufficient integrity.¹¹

Significance/Conclusion

The SUMC report concludes that the property does not meet any of the four California Register significance criteria.

Criterion 1

The report concludes that the building could be considered significant under Criterion 1 as the location of the first heart transplant in the United States in 1968, but it is not significant because the "floor, plan surface finish materials and equipment" of the operating room where the transplant occurred do not retain integrity and, therefore, the property cannot be eligible for this association.

Criterion 2

The report concludes that the building does not appear to be eligible under Criterion 2 because the important persons who worked there are still alive, and insufficient time has passed to gain a scholarly perspective of the important event. The identification of the building with a profession or group of distinguished citizens is not sufficient to meet this criterion.¹²

Criterion 3

The report concludes that the Main Medical Center Complex was designed by a notable architect and landscape architect but that the hospital is not a significant example of their work. It also concludes that the Main Medical Center Complex, "is not a fine example of a garden hospital." The report continues, the "Main Medical Center Complex's dull sand colored walls and screens do not meet the test of 'embodying' Stone's use of this device, or of 'possessing high artistic values' as required for listing on the California Register of Historic Places." The report uses an eligibility assessment tool from *Growth, Efficiency and Modernism: GSA Buildings in the 1950s, 60s and 70s* (refer to page 26 for further explanation).

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Criterion 4

The report concludes that the Main Medical Center Complex does not appear to have the potential to yield information important to the history or prehistory of the area or nation.

ARG Findings

ARG disagrees with the conclusions of the SUMC report that the Main Medical Center Complex does not retain sufficient integrity or significance to be eligible for listing under Criterion 1, 2, or 3 (Criterion 4 is primarily used for archaeological resources and is not applicable).

Criterion 1

Under Criterion 1 a resource is considered significant if it is associated with events or patterns of events that have made a significant contribution to the broad patterns of local or regional history, or the cultural heritage of California or the United States. As mentioned above, the SUMC report found the Main Medical Center Complex could not be significant as the site of the first heart transplant in the United States in 1968 because the interior finishes that characterized the operating room in 1968 are no longer intact. ARG views the association with that significant event differently. The important research and experimentation necessary for the development of the heart transplant procedure would not have been limited to a single operating room. They would have occurred in offices, labs, conference rooms, etc. ARG believes that the evaluation should include the entire building, not a single room, and that the building must be evaluated as a whole. According to National Register Bulletin 15, "A property that is significant for its historic association is eligible if it retains the essential physical features that made up its character of appearance during the period of its association with the important event, historical pattern, or person(s)." Additionally, the Bulletin states that "A basic integrity test for a property associated with an important event or person is whether a historical contemporary would recognize the property as it exists today." Although Dr. Norman Shumway, head of the transplant team, may not recognize the contemporary finishes or modern equipment found in the operating room, it is very likely he would recognize the Main Medical Center Complex.

The SUMC report indicates that the operating room where the 1968 heart transplant event took place continues to serve operating procedures. Highly technical, scientific, or medical institutions such as the

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Stanford University Medical Center are continually evolving and responding to new scientific and experimental trends.¹³ It would be expected that the ongoing operational needs of medical institutions would preclude the retention of outmoded equipment or facilities. An integrity analysis cannot be based solely on changes that have occurred in response to technical necessities.

To be eligible for the California Register, properties must have either reached fifty years of age or sufficient time must have passed to obtain a scholarly perspective on the events or individuals associated with the resource. The first heart transplant in the United States occurred in Main Medical Center Complex in 1968. Although only forty years have passed since the first heart transplant was performed at the Main Medical Center Complex, because of its groundbreaking nature and because of its lasting and widespread influence, ARG believes that enough time has passed to gain a scholarly perspective. The heart transplant performed at the Main Medical Center Complex in 1968 is included in numerous histories of medicine, and JAMA: the Journal of the American Medical Association has included retrospective articles on this event. ARG conducted additional research on heart transplantation in order to understand the historic context of the first heart transplant in the United States. The following background information is the result of that research.

The sixth of January 1968 was a milestone day in the history of medicine; at Stanford University Medical Center Dr. Norman Shumway performed the first human heart transplant in the United States. That event marked the culmination of decades of research in organ transplantation and cardiac care.

The heart was not the first organ to be transplanted. Over a decade before, on 23 December 1954, Joseph Murray and J. Hartwell Harrison performed the first successful kidney transplant.¹⁴ Transplantation of the kidney was achieved sooner for several reasons; it was easily tissue-typed; donors could survive with a single kidney; and dialysis offered a back up should the procedure fail.¹⁵ However, the heart, because of its cultural and emotional associations and indispensable nature was seen by surgeons as the most prestigious and significant organ to transplant.¹⁶ In addition to rejection, which was a threat to all organ transplants, heart transplantation was blocked by several significant hurdles. The heart deteriorates quickly, within minutes of death, and had to be transplanted speedily necessitating both donor and recipient be at the same hospital. In addition, suspending the heart's activity for the length of time needed for an operation was not possible at the time. In 1953 a heart-lung machine was first used successfully, allowing the machine to take over heart functions and providing sufficient time for

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operations.¹⁷ In June 1963 the first human lung was transplanted.¹⁸ Then in 1960 the first effective immuno-suppressant drugs were introduced.¹⁹

With several hurdles for cardiac transplantation surmounted, the race for the first human heart transplant was underway. Dr. Norman Shumway announced his intentions to operate in October 1967, but the combination of good recipient and donor candidates was illusive.²⁰ On 3 December 1967 at the Groote Schuur Hospital in Cape Town Dr. Christiaan Barnard performed the first human-to-human heart transplant in the world. Finally, finding the right combination of recipient and donor, on 6 January 1968 at Stanford's Main Medical Center Complex, Dr. Norman Shumway performed the first successful heart transplant in the United States.²¹

With the precedence set and the technique proven, in the year that followed Shumway's groundbreaking surgery, more than one hundred transplants were performed around the world, in eighteen different countries. Although the operations were successful, long-term usefulness was questioned because many patients died within three months frequently due to organ rejection.²² Questions were raised about the efficacy of the procedure, and the number of transplants greatly diminished in the early 1970s. However, with improved immunosuppressant drugs such as cyclosporine in 1970s, heart transplantation was more viable.²³

The legacy of these early transplants, such as Shumway's, is dramatic; by the mid 1980s in the U.S. alone, there were twenty-nine cardiac transplantation centers. By the 1980s, 2,000 heart transplants were conducted each year in the U.S.²⁴ Several decades later, in 2006, in the U.S. alone 160 hospitals had cardiac transplant units. By this time ninety percent of heart transplant recipients survived more than one year, and seventy-five percent lived for more than five years.²⁵ Worldwide between 1982 and 2006, 75,000 human heart transplants were performed at more than 250 transplant units.²⁶

Based on the information presented in the SUMC report as well as additional research conducted by ARG staff for this report, ARG concludes that the Main Medical Center Complex appears to be eligible for the California Register under Criterion 1 as the location where a groundbreaking event, the first heart transplant in the United States, was performed. City of Palo Alto Historic Preservation staff visited the site and also concluded that the Main Medical Center Complex appears to be eligible to the California Register under Criterion 1.

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Criterion 2

Under Criterion 2 a resource is considered significant if it is associated with the lives of persons important to local, California, or national history. The SUMC report specifically names Dr. Norman Shumway, the Head of the Department of Cardiothoracic Surgery, who conducted pioneering work in the development of organ transplantation in the late 1950s, 1960s, and 70s. Although Dr. Shumway is deceased, the SUMC report concludes that the building is not potentially eligible under Criterion 2 because the important persons who worked there are still alive, insufficient time has passed to gain a scholarly perspective, and the identification of the building with a profession or group of distinguished citizens is not sufficient to meet this criterion.²⁷ However, ARG finds that sufficient time has elapsed to gain a scholarly perspective on the work of Dr. Norman Shumway for several reasons. First, Shumway died in 2006, and his contributions to the field of medicine are complete. Second, Shumway's work up to and including the first heart transplant in the United States occurred forty years ago or more, providing some time to gain a scholarly perspective. Third, Shumway's contributions are already documented and evaluated in numerous histories of medicine, and in several articles in JAMA: the Journal of the American Medical Association.

In order to understand Dr. Shumway's contributions to the field of medicine and to assess the potential eligibility of the Main Medical Center Complex for its association with Shumway, ARG conducted additional research on Shumway in order to understand the historic context of his contributions to medicine. The following background information is the result of that research.

Shumway's association with Stanford University began early in his career. In 1957 he was hired by Stanford to operate the kidney machine at the Stanford-Lane Hospital in San Francisco.²⁸ In 1958 he was tasked with establishing a program for cardiovascular research.²⁹ While at the Stanford-Lane Hospital, Shumway began collaborating with Dr. Richard Lower on canine heart transplantation.

In 1959 Stanford opened its new hospital on the University's campus in Palo Alto. Shumway and Lower moved their labs to the new facility. Building on their past experimentation in San Francisco, Lower and Shumway worked on further developing heart transplantation techniques.³⁰ In December 1959 the pair undertook a dog-to-dog heart transplant. The animal lived more than a week, making it the first successful heart transplant in the world.³¹

For eight more years Shumway continued researching transplantation in dogs. His knowledge from these years combined with the introduction of the first immunosuppressive drugs around 1960, made Shumway confident the time was right for the first human-to-human transplant. In October 1967 Dr. Norman Shumway announced his intentions to apply his procedure to humans. The combination of good recipient and donor candidates was illusive until 6 January 1968 when Shumway performed the first successful heart transplant in the United States.³² The delay had cost Shumway the distinction of becoming the first in the world; on 3 December 1967 at the Groote Schuur Hospital in Cape Town Dr. Christiaan Barnard had performed the first human-to-human heart transplant.

Many had expected Shumway to be first to conduct the procedure, "My disappointment is enormous, though not so much for myself personally." Stated James Hardy, a fellow transplant surgeon. "I know that Norman Shumway's group at Stanford have done the most extensive and the best work in this field."³³ In fact, Barnard had learned Lower and Shumway's technique while spending several months in Lower's lab in Richmond, Virginia.³⁴

In the following year more than one hundred transplants were performed around the world in eighteen countries. Long-term efficacy was questioned because of the poor long-term survival rate of patients. Worldwide there were calls to ban the procedure, and cardiac transplant units worldwide closed.³⁵ In 1971 only nine heart transplants were performed in the world.³⁶ Shumway was one of very few who continued to champion cardiac transplantation due to what he termed his "radical perseverance."³⁷ Shumway directed his efforts to understanding the cause and effect of rejection. As a measure of his dedication and the institutions commitment, SUMC was one of the only centers performing the procedure for nearly a decade.³⁸ His continued research on techniques, combined with the improved immunosuppressive drug cyclosporine in the 1970s increased patient longevity significantly and made organ replacement a standard procedure.³⁹

Shumway continued to be at the forefront of transplantation surgery. In 1981 Shumway and Dr. Bruce Reitz performed the first combined heart-lung transplant in the world. Before he retired from surgery in 1993, Shumway oversaw over 800 heart transplants.⁴⁰ In addition, his research into the procedure heavily influenced how the procedure was practiced by other doctors. According to Donald McRae, author of *Every Second Counts: the Race to Transplant the First Human Heart*,

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Norman Shumway's reputation in medicine, as the 'father of cardiac transplantation,' was unsurpassed. Shumway and his Stanford team had proven that immunology and physiology were the cornerstones on which a successful heart transplant needed to be built. In his quest for scientific knowledge to underpin his clinical ventures, Shumway had transformed cardiac surgery.⁴¹

As a result of his perseverance, more than 4000 successful heart transplants were performed around the world in 2006.⁴² Shumway died at the age of 83 in 2006. Philip Pizzo, MD, dean of the Stanford School of Medicine, eulogized Shumway as "one of the 20th century's true pioneers in cardiac surgery."⁴³

Shumway's association with the Main Medical Center Complex is very strong. Most of his professional life has been centered at the hospital where he worked from its opening in 1959 to his retirement from surgery in 1993. It was there that he performed the first successful heart transplant, using dogs; conducted the first human heart transplant in the United States; and continued to further develop and champion the procedure during the early 1970s when many cardiac transplant units closed. Heart transplantation is now a successful medical procedure considered a valid and accepted form of advanced treatment for end-stage heart disease.

Based on the information presented in the SUMC report as well as additional research conducted by ARG staff for this evaluation, ARG concludes that the Main Medical Center Complex appears to be eligible for the California Register under Criterion 2 for its association with pioneering cardiac surgeon Dr. Norman Shumway. City of Palo Alto Historic Preservation staff visited the site and also concluded that the Main Medical Center Complex appears to be eligible to the California Register under Criterion 2.

Criterion 3

Under Criterion 3 a resource is considered significant if it embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of a master, or possesses high artistic values. The SUMC report states that the Main Medical Center Complex "is a lesser work in the long and impressive careers of Stone and Church." The SUMC report concludes that Edward Durell Stone and Thomas Dolliver Church are accepted as masters in their respective fields, architecture and landscape architecture, and ARG concurs. Edward Durell Stone and Thomas Church were internationally renowned during their careers and continue to be so today. A recent perspective on Stone's standing as an architect was provided by the respected organization Documentation and Conservation of the Modern Movement, Northern California Chapter (DOCOMOMO NOCA) which

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stated, "Although many might argue that the beauty and quality of his individual buildings were surpassed by some of his contemporaries, it would be difficult to deny the overall significance of Stone's work and his role as one of the most influential American architects of the twentieth century."⁴⁴

In evaluating eligibility, the SUMC report also concludes that the complex is not a good example of a garden hospital. This would be important if the property was significant as a property type. For the work of a master, the position of the property with the context of the architect's work is more relevant.

The SUMC report specifically argues that the concrete screens do not embody Stone's use of that design element primarily because of the condition of the stucco latex paint and the compromised design intent regarding its coating. ARG disagrees and finds the grills highly representative of Stone's work. By nature, exterior coatings need to be reapplied routinely; the need for reapplication does not affect the overall design or integrity. Aside from needing recoating in some areas, the screens are in good condition. Although Stone originally had grander plans for the grill coating, design modifications due to budget constraints are a part of most architectural projects, and the resulting changes are a significant part of the design process. Although not his original conception, Stone state that he found the stucco latex paint "wonderful."⁴⁵

Finally, the SUMC report uses an eligibility assessment tool from *Growth, Efficiency and Modernism: GSA Buildings in the 1950s, 60s and 70s*. While this book asks interesting questions about midcentury properties, it is not associated with the California Register and should not be the final test for determining a property's eligibility for the register. The book is geared toward federally owned properties, not private institutions like SUMC. The California Office of Historic Preservation, the agency that administers the National Register within California and the California Register, has its own Modern and Cultural Resources Committee. The Office of Historic Preservation (OHP) website on the committee's findings directs viewers to various documents and articles useful for understanding and evaluating mid-century properties. *Growth, Efficiency and Modernism: GSA Buildings in the 1950s, 60s and 70s* is not included.⁴⁶ The National Register, the basis of the California Register, provides guidance for assessing the significance of a Work of a Master and is the appropriate tool for assessment:

A master is a figure of generally recognized greatness in a field, a known craftsman of consummate skill, or an anonymous craftsman whose work is distinguished from others by its characteristic style and quality. The property must express a particular phase in

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the development of the master's career, an aspect of his or her work, or a particular idea or theme in his or her craft.

A property is not eligible as the work of a master, however, simply because it was designed by a prominent architect. For example, not every building designed by Frank Lloyd Wright is eligible under this portion of Criterion C, although it might meet other portions of the Criterion, for instance as a representative of the Prairie style.⁴⁷

The SUMC report states, "A careful review of the criteria, particularly the admonition to reserve listing of recent properties to those of 'exceptional' merit suggests that the Main Medical Center Complex is not eligible for listing on the California Register of Historic Places."⁴⁸ It is ARG's experience that researching and understanding Midcentury Modern resources is increasingly encouraged by register administrators and the field of architectural history. In fact, the OHP's Modern Resources Committee website acknowledges the importance of understanding Modern resources, particularly the work of Stone: "The demolition in recent years of buildings by master architects Edward Durell Stone, Richard Neutra, and Rudolf Schindler, to name a few, has heightened the sense of urgency for the need to study and better understand the cultural resources of the Modern Age."⁴⁹

To be eligible for the California Register, properties must have either reached fifty years of age or sufficient time must have passed to obtain a scholarly perspective on the events or individuals associated with the resource. The Main Medical Center Complex is forty-nine years of age and will likely reach fifty years of the age during the course of the proposed project and may reach it during the environmental review process. Since the SUMC report was issued, SUMC staffs have provided ARG additional research material on Edward Durell Stone's body of work and his collaboration with Thomas Church. ARG supplemented these documents with information from our in-house library. This research informed the following summary and analysis of Stone's work and an evaluation of the eligibility of the Main Medical Center Complex under Criterion 3.

The work of architect Edward Durell Stone can be divided into three main phases. The first began in the 1930s and was characterized by Stone's use of International style principles and materials. Although trained at Harvard and the Massachusetts Institute of Technology in the Beaux-Arts tradition, Stone's work in the 1930s employed modernist theories. Stone was not alone in his adoption of the International style. A groundbreaking exhibition on the International style at the Museum of Modern Art exhibit in New York City in 1932 was a strong influence on architecture in the United States. Five years after the

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exhibit in 1937, Stone teamed with architect Philip S. Goodwin, to design the Museum of Modern Art in New York. The building featured concrete with steel frame, curtain-wall construction, clean lines, and ribbon windows. Other Stone projects from this first phase include the Hospital in Lima, Peru (1950), and the Fine Arts Center for the University of Arkansas (1951).

Stone's status as an American Modernist architect was only matched by Philip Johnson, making Stone's rather abrupt switch to Formalism in the 1950s particularly significant.⁵⁰ In contrast to the universal spaces of the International style, Stone wanted to create a new architecture of "richness," "warmth," and "delicacy."⁵¹ In order to achieve this, he returned to the classic principals of his Beaux-Arts training and use of ornamentation.

Stone's work from this second phase has been called both Formalism and New Romanticism. One of his first works to achieve acclaim in his new idiom was the American Embassy in New Delhi, India (1954). The central concept was a garden surrounded by offices. It featured grillework across the façade, overhanging roofs, colonnades, and a reflecting pool.⁵² The Embassy's design was recognized 'a modern classic' and received the AIA's highest honor.⁵³ After its use on the embassy chancery, grillework quickly became Stone's trademark.⁵⁴ Stone would become the architect most responsible for popularizing concrete grillework, or screen block, throughout the United States.⁵⁵

The Embassy project was followed by the conversion of Stone's own house in New York City in 1956. The design also featured his signature grillework covering the entire façade of the former brownstone. Stone's American Pavilion at the Exposition Universelle et Internationale Bruxelles in 1958 was another high profile project Stone completed in a Formalist vocabulary. That same year Stone began work on the Huntington Hartford Gallery of Modern Art, Columbus Circle, New York City, a building which received both acclaim and criticism from contemporaries.⁵⁶ This building would later become the subject of a national preservation battle in the 2004. Also completed in 1958, the Stuart Pharmaceutical Company in Pasadena was later listed on the National Register as,

an example of the New Formalist style, which is distinguished by simplified historical forms reinterpreted in modern materials and shapes, an decorated with applied ornament. It openly disputed the tenets of the International Style that rejected applied ornament and historic forms, but was differentiated from the distinctive motifs of the Late Modern styles. Stone was the premier New Formalist architect, and the Stuart building was his first use of the style in California."⁵⁷

A master of publicity, Stone appeared on the cover of *Time* magazine, on television shows and numerous magazine articles promoting his work. This publicity popularized his designs with the general public at an unprecedented level. "His eminently likeable architecture (feature in *Life*, *Horizon*, and other such magazines) quickly became part and parcel of American popular culture in the same way that the contemporary architecture of Skidmore, Owings and Merrill and Emery Roth and Sons became part and parcel of American corporate culture."⁵⁸ Stone reached the apex of his career and in the late 1950s and early 1960s.⁵⁹

In addition to popular acclaim, Stone received professional awards during this period. In 1958 Stone was elected to the National Institute of Arts and Letters, the highest ranking honor society of the arts in the United States. Membership to this exclusive organization was limited to 250 native or naturalized citizens. In March of that year he was named fellow of the AIA for "his achievement in design." In May he received one of five AIA Honor Awards out of four hundred entries for his Stuart Pharmaceutical Company building. Stone also received an Award of Merit for the United States Pavilion at the Brussels Exposition.⁶⁰ Building on his success, Stone operated at a national scale with offices in New York, Palo Alto, Los Angeles, and Chicago.⁶¹

Stone designed Stanford University Medical Center/Palo Alto Hospital during this pivotal and innovative phase of his career. The center was completed in 1959, designed after the Embassy and, concurrently, or close to the time he designed the United States Pavilion at the Brussels Exposition and the Stuart Pharmaceutical Company building. Like his other work during this period, it marks his departure from the International style for a Formalistic approach. The design for the hospital shared many of the character-defining features Stone used on buildings from this period including: concrete grillework, (roughly) symmetrical façade, massive overhanging eaves, loggias with tall slender columns, reflecting pools, and incorporated landscape elements such as gardens and courtyards. Stanford University Medical Center, along with the Palo Alto Libraries, were his first projects out of his Northern California office in Palo Alto and exemplified this phase of his design philosophy.

In the third and final phase of Stone's career, from the mid 1960s to his death in 1978, Stone built on his past success and continued to use romantic ornamentation such as grillwork and planters. However, these designs were often seen as uninventive repetitions of his former work commercialized for big business.⁶² This last phase of his career was increasingly criticized.

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Edward Durell Stone is considered by some to be one of the most outstanding midcentury architects, and is disparaged by others for his abandonment of modernist principles for a more romantic, formal, and popular architecture.⁶³ For better or for worse, Stone influence on architects is inestimable.⁶⁴ He influenced numerous architects, and grillework became popular nationwide principally because of his work.⁶⁵ In addition, Stone's work addressed two of the central issues facing post-war architecture, the representation of human scale in large buildings and the role of ornament formerly cast aside by modernists.⁶⁶

The Main Medical Center Complex appears to be eligible for the California Register, as an example of pivotal work of Edward Durell Stone in Northern California, the location of one of his satellite offices. The hospital, and other buildings from this period, such as the much-acclaimed American Embassy in New Delhi, United States Pavilion at the Brussels Exposition, and the Stuart Pharmaceutical Company in Pasadena mark Stone's transition from the International style to a Formalist approach that eschewed the tenets of Modernism for Beaux Arts principles with romantic ornamentation. The hospital exemplifies his work and features architectural elements characteristic of Stone's Formalist designs from this period including, grillwork, attenuated columns, large circular planters, massive overhanging eaves, symmetrical façade, and integrated forecourt and interior courtyards. City of Palo Alto Historic Preservation staff visited the site and also concluded that the Main Medical Center Complex appears to be eligible to the California Register under Criterion 3.

Landscape architect Thomas Church collaborated with Stone on a number of projects: Panama Hotel in Panama City (1946); Stuart Pharmaceutical Company, Pasadena CA (1958), Stanford Medical Center, Palo Alto, CA (1959), and Harvey Mudd College, Claremont, CA (1960-1964). Because more intact examples of Thomas Church's work at Stanford remain, and because the collaboration between the two did not appear to be particularly acclaimed or influential,⁶⁷ ARG finds that the property is not significant as an example of the work of Thomas Church.

Local Criteria

The SUMC report did not evaluate the Main Medical Center Complex under Palo Alto criteria. ARG finds that the building appears to be eligible for the Palo Alto historic inventory as a Category 2 building, a "major building" of "major regional importance, meritorious works of the best architects." A major building may have some exterior modifications, but the original character is retained. The building

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appears to qualify under Criterion 1 as a structure identified with an important national event, the site of the first heart transplantation in the United States and Criterion 2 because it is the work of an important architect, Edward Durell Stone.

ARG Integrity Analysis

Based on a site inspection and information provided in the SUMC report, ARG does not concur with the SUMC report's conclusions that the Stanford Medical Center is not eligible for the California Register of Historical Resources. Focusing on interior features and setting, the SUMC report concludes there was a substantial loss of integrity. "At a superficial level, the property exhibits motifs common to both firms: Stone's screen wall and soaring columns, Church's geometric landscape forms. At the more basic level of function, however the design failed to satisfy clients, fell short of its inspiring vision of a palatial garden for healing, and has not retained the grandeur of its setting."⁶⁸ The document delineates the building's design flaws and chronicles complaints about the building, but how the building functioned originally is not considered as part of a formal analysis of integrity because it does not contribute to an understanding of the degree to which historic building fabric and character-defining features have been retained.

In order to evaluate integrity, ARG examined the Stanford Medical Center Complex using the seven aspects of integrity defined in National Register Bulletin 15. The California Register is based on the National Register, and this bulletin is the industry standard for evaluating integrity. It should be noted that the California Register has lower threshold for integrity than the National Register: "A historic resource may not retain sufficient integrity to meet the criteria for listing in the National Register, but they may still be eligible for listing in the California Register."⁶⁹

Location

Location is the place where the historic property was constructed or the place where the historic event occurred.

The Stanford Medical Center Complex remains in its 1959/1963 footprint. It has not been moved from its original location. This aspect of integrity has been retained.

Design

Design is the combination of elements that create the form, plan, space, structure, and style of a property.

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The form of the Stanford Medical Center Complex is largely intact. It remains a three-story building with flat roof and blocky massing. In plan, the building's original design is clear. It is based on a grid with projecting front wings. Although there is an addition at the north elevation, the connection is narrower than the Medical Center Complex and is well setback from the front elevation of the north wing and the east elevation. The addition to the north is materially differentiated from the historic resource and is compatible in materials and details. The buildings clearly read as two structures.

Changes to the interior courtyards were one reason the SUMC report determined the complex does not have integrity. Based on site visit and comparison of aerials with the original plan, ARG concludes that of the ten courtyards original to the 1959, 1963 building, nine continue to function as courtyards. Only one has been completely infilled by a building addition. Another is partially infilled. In one courtyard a fence has been inserted, and in others plantings have been changed from the grasses and other non-blooming plants favored by Thomas Church to flowering plants and bushes. Despite the loss of plantings, in most cases, Church's hardscaping—geometric paving, geometric planting beds, and circular water features—are intact. The most important landscaping feature, the forecourt in front of the building, has a high degree of integrity. Although the courtyards may no longer be the most intact examples of Thomas Church's work, the majority continue to function as garden spaces set within the building and do not compromise an understanding of Stone's design.

In 1996, in order to meet American with Disabilities Act (ADA) requirements, a new lobby with canopy was built at the center of the front façade. The addition was a two-story, glazed, curtain-wall structure with cantilevered canopy inserted.⁷⁰ Because of the transparent nature of the glazing, and because the addition respects the pattern of bays and its glazed walls sit behind the colonnade, the addition did not significantly compromise the building's integrity design.

The interior of the building is the most compromised element. The lobby has been infilled, and the historic form is no longer evident. ARG concurs with the SUMC report that the interior designed by Maurice Sands have been compromised.

Despite the changes to the interior and the partial or complete infill of two courtyards, the overall design intent of the building is very clear. For buildings significant under Criterion C, the National Register Bulletin 15 states, "A property that has lost some historic materials or details can be eligible if it retains the majority of the features that illustrate its style in terms of the massing, spatial relationship, proportion, pattern of windows and doors, texture of materials and ornamentation." ARG concludes that these essential physical features are intact. The New Formalist style of the building is clearly communicated—the massing, proportion, fenestration pattern, overhangs, colossal posts, formal court, geometric courtyards, columnar supports, exterior materials, and iconic concrete screens are all intact. This aspect of integrity has been retained.

Setting

Setting is the physical environment of a historic property.

When first built, the Stanford Medical Center was surrounded by surface parking and agricultural fields with oak and eucalyptus trees. The hospital has developed considerably, and now has a campus-like feel. While the setting has changed, the surrounding buildings are of similar height and scale, and do not overwhelm the large, formal Stanford Medical Center Complex. In addition, figure 10-73 of the SUMC shows an early project rendering by Stone for the master plan. Additional building fabric (compatible in style and massing) surrounds the central court

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indicating that Stone anticipated the construction of other structures in the immediate area. This aspect of integrity has been altered but not significantly diminished.

Materials

Materials are the physical elements that were combined or deposited during a particular period of time and in a particular pattern or configuration to form a historic property.

The character-defining materials, features and finishes of the exterior of the Stanford Medical Center building are largely intact. The perforated concrete block, stamped concrete panels, colossal posts, concrete overhangs, fenestration pattern,, and massive concrete planters are all intact. The interior finishes of the main public areas, such as the lobby, have been lost. Although several of the Thomas Church-designed courtyards have been at least partially infilled, most hardscaping appears to be intact. As expected, some plant replacement has occurred; many original trees of the Church planting plan remain, though obscured by newer ornamental plantings. The formal forecourt with fountain and plantings is intact. This aspect of integrity has been retained.

Workmanship

Workmanship is the physical evidence of the crafts of a particular culture or people during any given period in history or prehistory.

The workmanship and modern construction methods of the period of construction are intact at the exterior of the building, and the workmanship is clearly communicated. Courtyard plantings have been altered but the workmanship of the courtyards is evident in the hardscape elements, which continue to convey the basic form of Church's design.

Feeling

Feeling is a property's expression of the aesthetic or historic sense of a particular period of time.

Although the setting of the Stanford Medical Center has changed, overall, the building conveys the feeling of the original hospital building, a 1959-1963 New Formalist-style hospital.

Association

Association is the direct link between an important historic event or person and a historic property. According to the National Register guidelines, a property retains association if it is the place where the event or activity occurred and is sufficiently intact to convey that relationship to an observer.

The Main Medical Center remains strongly associated with the ground-breaking medical advances that occurred in this building. Staff from the 1960s would very likely recognize the building. The alterations do not obscure the property's many character-defining features as set forth in the Integrity of Design section above: The structure of the building is intact. The Formalist Modern style of the building is clearly communicated—the overhangs, colossal posts, concrete screens, formal court, geometric courtyards, columnar supports, and iconic concrete screens are all intact. The additions are materially differentiated from the historic resource and are compatible in materials and details. This aspect of integrity has been retained.

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ARG's concludes that the Main Medical Center Complex retains sufficient integrity of location, design, setting, materials, workmanship, feeling, and association to be eligible for the California Register.

V. REPORT CONCLUSION

ARG conducted a peer review of the "Cultural Resources and the Stanford University Medical Center Facilities Renewal and Replacement Project" prepared by Stanford University Medical Center staff in 2007. ARG concurs with the SUMC conclusion that the Hoover Pavilion/Palo Alto Hospital appears to be eligible for the California Register. ARG also concurs with the SUMC conclusion that the Nurse's Cottage, 701 Welch Road (Whelan Building), 703 Welch Road (Welch Road Professional Center), and 1101 Welch Road (Medical Plaza) do not appear to be eligible for the California Register. Because of insufficient integrity, ARG disagrees with SUMC's conclusion that Governor's Avenue (within the project area) appears to be eligible for the California Register. City of Palo Alto Historic Preservation staff visited the site in January 2008 and concurred with ARG's evaluation. Finally, ARG disagrees with the SUMC report's conclusion that Stanford's Main Medical Center Complex does not appear to have sufficient significance or retain sufficient integrity to be eligible for the California Register. ARG concludes that Stanford's Main Medical Center Complex appears to be eligible for the California Register under Criterion 1, 2, and 3.

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(Provided by Stanford University).

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Appendix J
ARG Hoover Pavilion
Specifications Memorandum

ARCHITECTURAL RESOURCES GROUP, INC.
Architects, Planners & Conservators



TRANSMITTAL

To: Kirsten Jardine
PBS&J
353 Sacramento Street, Suite 1000
San Francisco, CA 94111

Pier 9, The Embarcadero
San Francisco
California
94111

415.421.1680

fax 415.421.0127

Project: Stanford Hospital and Shopping Center EIR -
Hoover Pavilion Protection

Project No: 07030 BG006

www.argsf.com

Date: September 21, 2009

Phone: 415-362-1500

Fax:

Via: Messenger

Remarks:

Kirsten,

Please find enclosed four (4) full-size and four (4) half-size protection drawing sheets as well as one (1) protection specification section for Stanford Hoover Pavilion. Please do not hesitate to call or email with questions or discussion.

Regards,

Jason K. Wright

By: Jason K. Wright

E-mail: jason@argsf.com

CC: file

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**STANFORD HOOVER PAVILION
PROTECTION DOCUMENTS**

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SECTION 02100

PROTECTION

PART 1 - GENERAL

1.01 RELATED DOCUMENTS

- A. Drawings and general provisions of Contract, including General and Supplementary Conditions and Division-1 Specification Sections, apply to the Work of this Section.

1.02 SUMMARY

- A. This Section includes special procedures for historic treatment on the Project including, but not limited to, the following:
1. Installation of protection at exterior surfaces to prevent damage to all historic elements due to construction activities.
 2. Removal, cataloging, and storage of selective historic elements as required during construction.
 3. Installation of protection done in a matter that does not damage adjacent surfaces or finishes.

1.03 REFERENCES

- A. Preservation Tech Note. Temporary Protection Number 2, "Specifying Temporary Protection of Historic Interiors During Construction and Repair", National Park Service, Preservation Assistance Division, P.O. Box 37127, Washington DC 20013.
<http://www.cr.nps.gov/hps/tps/technotes/PTN38/introduction.htm>
- B. NFPA 241. Safeguarding Building Construction and Demolition Operations, National Fire Protection Agency, Quincy, MA. (800) 344-3555.

1.04 DEFINITIONS

- A. "Historic Elements" are defined as those materials, finishes, components and areas identified as historic elements on the Contract Documents and as recognized by landmark agencies having jurisdiction on this project.
1. Historic elements include, but are not limited to, all original historic materials and finishes including but not limited to terra cotta, molded concrete, and window frames and sash.
- B. "Salvage Elements" are defined as any Historic Element to be removed from the existing construction and to be retained, mothballed, repaired and/or modified for reinstallation and potential reuse.

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- C. "Off-Site Facility" is defined as the storage facility to be provided by the Contractor or subcontractor for storage of salvage and mothballed elements.
- D. "Artifact Log" is defined as the log form supplied by the contractor and used to catalog historic elements that are removed from the building.
- E. "Renovation": To make possible a compatible use for a property through repair, alterations, and additions while preserving those portions or features that convey its historical, cultural, or architectural values.
- F. "Preservation": To apply measures necessary to sustain the existing form, integrity, and materials of a historic property. Work may include preliminary measures to protect and stabilize the property.
- G. "Rehabilitation": To make possible a compatible use for a property through repair, alterations, and additions while preserving those portions or features that convey its historical, cultural, or architectural values.
- H. "Restoration": To accurately depict the form, features, and character of a property as it appeared at a particular period of time by means of the removal of features from other periods in its history and the reconstruction of missing features from the restoration period.
- I. "Reconstruction": To reproduce in the exact form and detail a building, structure, or artifact as it appeared at a specific period in time.
- J. "Stabilize": To apply measures designed to reestablish a weather-resistant enclosure and the structural reinforcement of an item or portion of the building while maintaining the essential form as it exists at present.
- K. "Protect and Maintain": To remove deteriorating corrosion, reapply protective coatings, and install protective measures such as temporary guards; to provide the least degree of intervention.
- L. "Repair": To stabilize, consolidate, or conserve; to retain existing materials and features while employing as little new material as possible. Repair includes patching, piecing-in, splicing, consolidating, or otherwise reinforcing or upgrading materials. Within restoration, repair also includes limited replacement in kind, rehabilitation, and reconstruction, with compatible substitute materials for deteriorated or missing parts of features when there are surviving prototypes.
- M. "Replace": To duplicate and replace entire features with new material in kind. Replacement includes the following conditions:
 - 1. Duplication: Includes replacing elements damaged beyond repair or missing. Original material is indicated as the pattern for creating new duplicated elements.
 - 2. Replacement with New Materials: Includes replacement with new material when original material is not available as patterns for creating new duplicated elements.
 - 3. Replacement with Substitute Materials: Includes replacement with compatible substitute materials. Substitute materials are not allowed, unless otherwise indicated.

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- N. "Remove": To detach items from existing construction and legally dispose of them off-site unless indicated to be removed and salvaged or removed and reinstalled.
- O. "Remove and Salvage": To detach items from existing construction and deliver them to Owner.
- P. "Remove and Reinstall": To detach items from existing construction, repair and clean them for reuse, and reinstall them where indicated.
- Q. "Existing to Remain" or "Retain": Existing items of construction that are not to be removed and that are not otherwise indicated to be removed and salvaged, or removed and reinstalled.
- R. "Material in Kind": Material that matches existing materials, as much as possible, in species, cut, color, grain, and finish.

1.05 SUBMITTALS

- A. Submit Contractor Qualifications as listed in Quality Assurance section below.
- B. Work Description. Submit work description detailing proposed methods and operations for removal of elements, cataloging, and transportation of items to off-site storage, protection of elements in storage, and protection of elements to remain on site.
- C. Off-site Storage Facilities. Submit detailed description of building and/or other areas proposed for storage of removed historic elements. Include location, size, physical attributes, security techniques and procedures and other pertinent information relating to the storage of salvaged elements.
- D. Shop Drawings. Submit shop drawings of proposed methods and operations of protection procedures for review prior to the commencement of work.
- E. Mock-up: Prepare on-site mock-up of proposed protection at the following areas for review by the Preservation Architect prior to the commencement of work:
 - 1. Protection at interior wall and floor surfaces.
 - 2. Protection at existing window and door openings following removal of windows and doors.
 - 3. Protective barrier between work area and non-work area.
- F. Alternative Methods and Materials: If alternative methods and materials to those indicated are proposed for any phase of work, provide a written description including evidence of successful use on other, comparable projects, and program of testing to demonstrate effectiveness for use on this Project.
- G. Photographs: Document the condition of all existing historic elements and the adjoining construction and site improvements, including finish surfaces, which might be misconstrued as damage caused by historic treatment operations. All photographs to be taken with 35mm SLR camera and submitted before work begins.

1.06 QUALITY ASSURANCE

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- A. Contractor Qualifications: All work shall be performed by skilled contractors having not less than five (5) years satisfactory experience in comparable protection, salvage and removal operations including work on at least two (2) projects similar in scope and scale to this project.
- B. Contractor is hereby directed to recognize the value and significance of the building and exercise special care during the work to ensure that the existing building, its details, materials and finishes which are to remain are not damaged by the work being performed.
- C. Contractor shall be responsible for protection of all existing materials and components to remain in place throughout the duration of construction. Extent of protection is to cover all historic elements to remain that are in the vicinity of construction activities, or may be harmed by the movement of materials through the building and project site, whether specifically called out on the drawings, or not. It is the Contractor's responsibility to provide any additional protection required to prevent soiling and damage to existing finishes and elements to remain. All questionable protection requirements should be identified for Preservation Architect's review. In the event of damage, such items shall be repaired or replaced by the contractor at his expense, to the satisfaction of the Architect and Owner.
- D. Protection is to be secured adequately so as to maintain a safe environment for workers throughout the duration of the project.

1.07 PROJECT-SITE CONDITIONS

- A. Exterior Cleaning and Repairing:
 - 1. Proceed with the work only when forecasted weather conditions are favorable.
 - a. Wet Weather: Do not attempt repairs during rainy or foggy weather. Do not apply primer, paint, putty, or epoxy when the relative humidity is above 80 percent. Do not remove exterior elements of structures when rain is forecast or in progress.
 - b. Do not perform exterior wet work when the air temperature is below 40 deg F.
 - c. Do not begin cleaning, patching, or repairing when there is any likelihood of frost or freezing.
 - d. Do not begin cleaning when either the air or the surface temperature is below 45 deg F unless approved means are provided for maintaining a 45 deg F temperature of the air and materials during, and for 48 hours subsequent to, cleaning.
 - 2. Perform cleaning and rinsing of the exterior only during daylight hours.
- B. Owner will occupy portions of building immediately adjacent to historic treatment area. Conduct historic treatment so Owner's operations will not be disrupted. Provide not less than 72 hours' notice to Owner of activities that will affect Owner's operations.
- C. Coordinate the performance of work of this section with related or adjacent work. Removal and protection of items shall be completed prior to commencement of demolition or new

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construction activities in each area. At a minimum, install protection in its entirety for a given area prior to commencement of any demolition activities in that given area.

- D. At the end of each working day, or during inclement weather, cover work exposed to weather with waterproof coverings, securely anchored.
- E. Protection of historic elements shall remain in place for the duration of the entire project.
 - 1. Do not store construction materials on or inside of protection.
- F. Ensure safe passage of persons around areas of protection. Conduct operations to prevent injury to adjacent buildings, structures, other facilities and persons.

PART 2 - PRODUCTS

2.01 PROTECTION MATERIALS

- A. Polyethylene sheets: 4 mil.
- B. Lumber: Species to be selected by contractor, sizes to fit field conditions. All lumber to be fire retardant.
- C. Plywood: ½ inch, ¾ inch or 1-inch fire retardant, as required.
- D. Soft Fiberboard: Homasote Company, Box 7240, West Trenton, NJ 08628. (800) 320-5532.
 - 1. ½ inch homasote 440.
 - 2. ½ inch homasote NCFR for applications requiring fire ratings.
- E. Neoprene: ¼ inch or ½ inch strips, stock lengths.
- F. Ethafoam: ½ inch thickness with a density of 2.3 to 3.3 pounds/cubic foot
- G. Semi-rigid polyurethane foam sheets: 2-inch and 4-inch thick, as required.
- H. Brown paper: Kraft paper
- I. Non-abrasive glassine paper
- J. Preservation tape: 3M Scotch brand, number 4811.
- K. Sealant: Removable acrylic sealant.
- L. Accessories: Galvanized or stainless steel (type 304 or 316) fasteners, nails, screws, bolts, anchors or other devices required to complete installation, sizes as required.

PART 3 - EXECUTION

3.01 GENERAL

- A. Historic Elements to remain in-situ:

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1. Install protection in its entirety before commencement of demolition or other work that may harm historic elements.
2. Protect all building elements to remain in place during construction that may be damaged by construction activities. In the event of new damage, Contractor is to notify the Preservation Architect and Owner's Representative immediately as to the nature and extent of damage and the proposed method for repair. Contractor shall be responsible for repairs and replacement of newly damaged items by qualified specialists to the satisfaction of the Preservation Architect and the Owner's Representative, at no additional cost to the Owner. Be aware that the inherent value of an historic original element is higher than the value of a modern replication of that element.
3. Do not attach protection materials directly to building elements.
4. Secure protection adequately so as to maintain a safe environment for workers and other individuals using the building throughout the duration of the project.

B. Elements to be removed for salvage:

1. Disassemble, label, catalog, handle, transport and store building elements which have been identified for salvage. Contractor is responsible for handling, transporting and storage of the items in the storage facility.
2. Catalog all salvage elements that have been removed on an artifact log. At a minimum, document element type, unique number, size, configuration, quantity, condition, original location, disposition and location in storage.
3. Store all salvage elements in a neat, orderly fashion to allow for access and retrieval. Store like type elements together in groups. Store particularly fragile elements in a manner to prevent damage while in storage.

3.02 PREPARATION

- A. Remove all debris and impediments to allow for full access as required to perform protection of historic elements, and for demolition and construction. Protect all historic elements from damage during the removal procedures as specified.
- B. Verify condition of the off-site facility to ensure that there is adequate capacity and access to store and retrieve salvage elements.
- C. Transport items to the off-site facility as often as necessary to avoid stockpiling items on site.

3.03 INSTALLATION OF PROTECTION

A. General:

1. Alternative methods to specified protection may be acceptable if equal or greater protection is provided. Submit alternate methods to the Architect for review. Do not proceed with alternate methods until approvals are secured.

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2. Protection is to be constructed primarily of wood 2 x 4 framing members to box out elements to be protected, or to construct barriers in front of elements to be protected.
 3. Protection may be required to remain in place for the duration of the project. Protection may have to be removed during the project for access to protected elements, etc. If protection is temporarily removed, reinstall after work is complete and maintain protection throughout the duration of the project.
 4. Extent of protection covers all historic elements that will remain during construction, whether specifically called out on the drawings or not. Temporary protection may be required in areas to perform specific work activities. All questionable protection requirements should be identified for the Preservation Architect's review.
 5. All protection assemblies shall be self-supporting and self-bracing. Do not attach protection directly to historic elements.
- B. Floors, all materials in primary path of construction travel. Defined as those areas that will experience a high level of traffic with finish materials that require a high level of protection care.
1. Vacuum floor surface of all loose dust and debris. Cover entire pathway surface with Kraft paper, then with 1/2 inch fiberboard covered by 1 sheet of polyethylene and 1/2 inch plywood. Fasten edges to prevent slippage. Tape all polyethylene edges to create a watertight seal. Stagger edges of materials with joints below to provide a uniform flush surface.
- C. Protection at window and door openings.
1. Construct and install a weatherproof barrier at all window and door openings immediately following removal of existing window or door. At each opening, leave protection in place and maintain weatherproof seal until installation of new window or door. Barrier shall be constructed of plywood and lumber and shall not be fastened directly to building.
- D. Plaster wall and horizontal surfaces. Defined as those areas that will experience a high level of traffic with finish materials that require a high level of protection care.
1. Cover with 1/2" homasote and plywood screwed to shoring braces. Provide neoprene pads glued to braces that are in contact with historic elements. Locate braces out of the path of travel and out of construction areas to the greatest extent possible.
- E. Interior and exterior masonry.
1. Cover concrete and terra cotta with 1/2-inch sheet of ethafoam to absorb impact, 2" thick semi-rigid polyethylene, then 1/2-inch fiberboard or plywood to protect against impact damage. Fasten edges to prevent slippage.
- 3.04 CLEAN-UP
- A. All residue and debris from protection work is to be removed from existing construction leaving the premises clean and neat.

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END OF SECTION