

CHAPTER 2

Project Overview and Summary of Environmental Impacts

UCSF proposes a phased development of a comprehensively planned state-of-the-art medical center adjacent to the existing UCSF Mission Bay campus site, which would total approximately 1,787,000 gsf of Medical Center development, including additional beds, hospital support facilities and parking accommodations. This environmental impact report (EIR) analyzes the environmental impacts that could result from the initial phase of the proposed medical center (*LRDP Phase*) at a project level while analyzing the potential impacts of the full development (*Future Phase*) at a program level.

This document is tiered from the program-level environmental analysis presented in the 2005 LRDP Amendment #2 – Hospital Replacement EIR (*2005 EIR*) and focuses on the proposed project and project-level environmental effects that were not fully considered in the program level analysis [California Environmental Quality Act (CEQA) 15152(d), 15168(c) and (d)].

2.1 Project Overview

2.1.1 Background

All existing hospitals within the state are required to comply with the regulations developed by the California Office of Statewide Health Planning and Development (OSHPD) as mandated by California State Senate Bill 1953 (SB 1953) adopted in February 1994. The emphasis of the bill is that essential hospital facilities should remain operational after an earthquake and be able to provide full acute care medical services. If a facility is to remain a general acute care hospital facility beyond a specified date, it must have a comprehensive seismic evaluation report and compliance plan to attain specified structural and nonstructural performance categories, which must be submitted to OSHPD in accordance with these regulations. Each general acute care hospital facility must be at certain seismic performance category levels for structural and non-structural deficiencies by specified timeframes beginning in 2000 and continuing to 2030. In light of these seismic requirements, the University evaluated all of UCSF's hospital facilities and identified the need to upgrade Mount Zion Hospital by 2013 or to decommission and replace the in-patient beds in new facilities by 2015. UCSF proposes to construct the proposed project to comply with these requirements.

The project was described in the March 2005 Long Range Development Plan (LRDP) Amendment #2 – Hospital Replacement Program and was analyzed at a program level in the

LRDP Amendment #2 – Hospital Replacement Environmental Impact Report (2005 EIR). The 2005 EIR established two planning horizons for the Hospital Replacement Program. Proposed actions to be taken through the academic year 2011/12, the horizon year of the current LRDP, were described as the “LRDP Phase” of the Hospital Replacement Program. Proposed actions taken to meet seismic mandates by 2025/2030 were described as the “Future Phase”. The LRDP Amendment #2 envisioned that within the LRDP Phase, a small hospital of up to 400 beds would be established at one of four sites: Parnassus “East”, Parnassus “West”, the UCSF Mission Bay campus site (“North site”) and Mission Bay “South”. The “Mission Bay South” site scenario evaluated the development of up to 400 beds and associated support facilities during the LRDP Phase and up to 250 additional beds and associated support facilities during the Future Phase. As part of the analysis, the 2005 EIR evaluated a helipad for medical helicopter transports at the Mission Bay South site. The University subsequently identified the “Mission Bay South” site as the preferred site for the UCSF Medical Center at Mission Bay.

2.1.2 Project Location and Site Characteristics

The 14.5-acre project site is located in the eastern portion of the City of San Francisco, approximately one and one half miles south of downtown, and just south of the existing UCSF Mission Bay research campus. The site lies within the 303-acre Mission Bay Redevelopment Plans, and consists of Mission Bay South Plan Parcels 36, 37, 38, 39, and X3. The project site is bordered by 16th Street to the north, 3rd Street to the east, and Mariposa Street to the south. In the future, a new segment of Owens Street will define the western boundary of the project site.

The majority of the 14.5-acre project site is undeveloped vacant land. There are four existing structures on the project site along the eastern border: a 163,000-square-foot, one-story warehouse; an adjacent 20,000-square-foot, two-story office building; and two one-story, wood frame buildings at the northern end of the site. Adjacent to the latter structures is a commercial billboard.

2.1.3 Project Characteristics

The proposed project would be constructed on Parcel X3 and Blocks 36 through 39 in the Mission Bay South Plan. The proposed project would be constructed in two major phases. The LRDP Phase would be completed by 2015.

The LRDP Phase would construct a Medical Center on the east parcel (Blocks 36, 37 and Parcel X3). Structured and surface parking would be built on the west parcel (Blocks 38 and 39). The Medical Center would consist of a series of interrelated buildings, including the Children’s, Women’s and Cancer Hospitals with a total of 289 beds, an Outpatient Building, a Cancer Outpatient Building, and a central utilities plant (“Energy Center”). The Outpatient Building would also contain logistical support and hospital service functions. The LRDP Phase Medical Center would total approximately 993,500 gsf in size.

The Hospital would occupy the majority of the southeastern portion of the project site and would be comprised of four primary building mass elements including a two-story high podium, two six-story high inpatient towers, and a set of terraced floors between the inpatient towers on levels

three through six. In terms of programming, the mid-block tower would serve inpatient adults while the south tower would serve inpatient children.

The proposed Outpatient Building would house radiation oncology and hospital support services on the lower stories, with pediatric medical and surgical clinics as well as women's clinics constituting the four upper stories of this building. The Outpatient Building would be located in the center of the Medical Center, fronting 4th Street.

The Cancer Outpatient Building would accommodate outpatient programs for cancer patients, and would be located at the north end of the site, along 16th Street between 3rd and 4th Streets. The Hospital, Outpatient Building, and Cancer Outpatient Building would each be 105 feet in height with mechanical and screening components adding up to an additional 20 feet to the building heights. At the intersection of 16th Street with 4th Street, the Outpatient Building would feature the tallest portion of the Medical Center, the helipad, which would be situated 140 feet above street level (approximately 35 feet taller than the roof height of other Medical Center towers), with an elevator penthouse that would extend an additional 10 feet over the height of the helipad. The two-story, approximately 40-foot-tall Energy Center would run along 3rd Street between the Cancer Outpatient Building and the mid-block Hospital tower.

In terms of architectural design, the proposed structures would be comprised of contemporary architectural elements, including articulated facades, and varied wall claddings (including glass curtain, metal panel, and precast concrete panel exteriors).

The *Future Phase* of the project is anticipated to provide an additional 793,500 gsf of Medical Center development, including an additional 261 beds, hospital support facilities and parking accommodations. Because specific designs related to the *Future Phase* are not available, this environmental review evaluates the *Future Phase* only at a program level, as noted above. For purposes of this EIR analysis, project completion is planned to occur by 2025.

Upon completion of both phases, the UCSF Medical Center at Mission Bay project would provide a 550-bed hospital, an outpatient facility, cancer outpatient facility, and associated support space and parking, totaling approximately 1,787,000 gsf, excluding parking.

The *LRDP Phase* parking plan would provide vehicle and secured bicycle parking facilities. Bicycle parking would be constructed in excess to the ratio prescribed in the Design for Development of the Mission Bay South project area (1 bicycle space per 20 vehicle parking spaces) and would be designed relative to bicycle demand projections. During the *LRDP Phase*, a total of approximately 1,075 parking spaces for staff and patients/visitors would be provided on the west parcel between 4th Street and the proposed Owens Street extension (Blocks 38 and 39). A parking structure would be built in the *LRDP Phase* to accommodate approximately 600 vehicles on the west blocks of the site. Surface parking for approximately 475 vehicles would be provided on the remainder of Blocks 38 and 39.

2.2 Summary of Project Impacts

2.2.1 Project Impacts

Effects Found Not to Be Significant

The *Initial Study* determined that the project would not cause additional or substantially more severe significant environmental impacts not already analyzed in the 2005 EIR in the following environmental topic areas: Agricultural Resources, Biological Resources, Cultural Resources, Geology and Soils, Hazards and Hazardous Materials (with the exception of Hazards associated with helicopter operations), Hydrology and Water Quality, Mineral Resources, Population and Housing, Public Services and Recreation, and therefore, this EIR does not examine these issues.¹

In this EIR, the environmental effects of the *LRDP* and *Future Phases* are identified and discussed in detail in *Chapter 4*. A number of environmental effects of the project would be less than significant, or less than significant after implementation of the identified mitigation measures. The following topics of analysis in this EIR were found to have either no potentially significant, or less than significant, effects: Helicopter Aeromedical Flight Operations and Public Safety; Aesthetics, Visual Quality, and Light and Glare; and Utilities, Energy and Service Systems.

Potentially Significant Environmental Effects

A number of environmental effects of the project would be potentially significant, or significant and unavoidable. For all environmental effects that would be potentially significant, mitigation measures have been identified to reduce those impacts to a less-than-significant level. Mitigation measures have also been identified for most of the environmental effects that would be significant and unavoidable. These measures, however, would reduce the impact, but not to a less-than-significant level, and therefore would remain unavoidable environmental consequences of the project. The following topics of analysis in this EIR were found to have potentially significant, or significant and unavoidable, effects:

Air Quality

The project would result in an increase in criteria air pollutant emissions from a variety of emissions sources, including stationary sources such as the Energy Center and mobile on-road sources such as automobile and truck trips, and helicopter trips.

Criteria air pollutant emissions generated from the construction and operation of the proposed project would make a cumulatively considerable contribution to a significant cumulative impact on regional air quality. Locally, emissions from project sources would combine with emissions from other sources, primarily area traffic (local streets and freeways) from existing and future development in the greater project area. The operational emissions of ROG, NO_x, PM₁₀ and PM_{2.5} from project-related traffic, energy station, helicopter operations, and other stationary and area

¹ Cultural Resources Section 4.8 was subsequently added.

sources would be greater than the significance criteria of 80 pounds per day. Thus, according to the BAAQMD *CEQA Guidelines*, the cumulative impact would also be considered significant.

Operational emissions from the *Future Phase* would exceed the BAAQMD significance thresholds. 2005 EIR Mitigation Measure 4.2-3, which promotes UCSF shuttle services, ride-sharing, and bicycle programs, would divert trips from single occupancy vehicles and would thus reduce impacts of vehicular trips generated by the project. Even with this mitigation, however, the project's operational impacts in the *Future Phase* would be considered significant. Thus, the proposed *Future Phase* would result in significant and unavoidable impacts to air quality.

Noise

Elevated noise levels associated with the proposed project demolition and construction activities in and around the project site, and particularly at nearby sensitive receptors, would create significant and unavoidable impacts. Noise levels would be greater than 80 dBA at 100 feet from the construction site and would be disruptive to nearby receptors as they would be well above the existing ambient noise levels. Consequently, during the noisiest phases of construction, this impact, though temporary, would be considered significant.

Additionally, operation of the helicopter landing site ("helipad") proposed as part of the project would lead to increased noise levels at nearby sensitive receptors. Operations at any time of day could cause speech interference. Nighttime helicopter operations could cause increased awakening of residents in the immediate vicinity of the helipad at the site. The maximum average number of expected nighttime operations on the most heavily used flight paths would be about 0.70 transports per night, which means that there could be transports approximately two nights out of three, on average over the year.

Transportation

Operation of the UCSF Medical Center at Mission Bay project would increase traffic at intersections on the adjacent roadway network in the *Future Phase*. A potentially significant impact could result from the proposed project in the *Future Phase* if all parking access to the Medical Center is from the minor (stop controlled) approach at the garage access at Owens Street, half way between 16th and Mariposa Streets. The "T" intersection would operate at an unacceptable LOS F. The exact location and configuration of parking structures and the total number of required parking spaces to serve the *Future Phase* development has not been determined. UCSF would conduct project-level CEQA review at the time the *Future Phase* development is considered for approval. In addition, in order to determine the need for LOS improvements on Owens Street, such as a traffic signal, UCSF would participate in the periodic update of the Mission Bay trip triggers survey and UCSF would conduct periodic on site parking surveys to monitor medical center parking access and circulation. Updated information regarding parking needs and potential traffic and circulation impacts would be analyzed further in the next LRDP EIR and in the project-specific environmental review of the *Future Phase* project. If a traffic signal appears to be required to meet LOS standards, the University would be obligated to mitigate the impact. The need for LOS improvements on Owens Street at the Center Garage Access remains speculative pending a project-level design of parking requirements and project-level traffic and circulation impacts in the *Future Phase*.

2.2.2 Tabular Summary of Impacts and Mitigations

TABLE 2-1
SUMMARY OF IMPACTS AND MITIGATION MEASURES FOR THE UCSF MEDICAL CENTER AT MISSION BAY

Environmental Impact	Significance before Mitigation	Mitigation Measures	Significance after Mitigation
Aesthetics, Visual Quality, Wind, and Light and Glare			
MCMB.1-1: The construction and operation of the proposed project has the potential to increase light and glare, which could affect nighttime views at and in the vicinity of the Mission Bay project site.	Less than Significant	None required.	
MCMB.1-2: Construction of the proposed UCSF Medical Center at Mission Bay has the potential to result in flood lighting within the project vicinity, in the event that nighttime construction activities become necessary.	Less than Significant	None required.	
MCMB.1-3: Construction and operation of the proposed medical facilities at the project site could substantially degrade the visual quality of the Mission Bay campus site or its surroundings.	Less than Significant	None required.	
MCMB.1-4: In the Future Phase, installation of pedestrian bridges across 4th Street to connect the east and west block structures of the proposed medical center could have an adverse effect on public views within and surrounding the project site.	Less than Significant	None required.	
MCMB.1-5: Operation of the UCSF Medical Center at Mission Bay project would include a helicopter landing site ("helipad"), which would introduce lighting that would be noticeable after dark.	Significant	<p>MCMB.1-5: UCSF shall develop a helipad design plan to minimize light and glare, including:</p> <ul style="list-style-type: none"> • Lighting: <ul style="list-style-type: none"> – Perimeter Lights: Perimeter lights shall be flush mounted along the edge of the landing pad and shall have green lenses. A minimum of eight lights shall be spaced evenly around a square pad, or around the perimeter of a circular pad. Care shall be exercised in the design to ensure that perimeter lights do not impede movement of gurneys to and from the access ramp. The lighting layout shall be planned so that lights are to the sides of, rather than at the entrance to, the ramp. – Windcone: A windcone (windsock) shall be installed and lighted for nighttime operations. The windcone can also be located atop an elevator penthouse. Lighted windcones are normally equipped with four 150-watt flood lights mounted at the ends of crossbars, and are usually equipped with red obstruction lights at the top of their masts. The floods shine down on the orange cone so that it remains illuminated in all quadrants. The downward-directed lights do not 	Less than Significant

TABLE 2-1 (continued)
SUMMARY OF IMPACTS AND MITIGATION MEASURES FOR THE UCSF MEDICAL CENTER AT MISSION BAY

Environmental Impact	Significance before Mitigation	Mitigation Measures	Significance after Mitigation
		<p>normally cause glare to nearby land uses. As an alternate, an internally lighted windcone shall be used. This system employs two floodlights inside the windcone that rotate with it rather than the four external lights.</p> <ul style="list-style-type: none"> Lighting Activation: <ul style="list-style-type: none"> Activation of perimeter lights would occur only when a helicopter is on approach. Two remote activations are feasible: <ul style="list-style-type: none"> Manually switched from inside the hospital: This would minimize energy usage and lamp replacement costs but would require that staff be available to activate lighting when an aircraft is inbound. Pilot-controlled lighting: This system requires a radio receiver/lighting controller at the hospital. Pilots would tune the helicopter's communications radio to the receiver's frequency and key the microphone to activate the lighting. This would allow the pilot to activate the lighting when inbound, eliminating reliance on hospital staff. The weatherproof receiver/controller enclosure has a short whip antenna and can be located outside of the hospital in a secure location. <p>Lighting deactivation can be set to a timer so that perimeter lighting would not remain on for a significant period following departure of the helicopter.</p>	
MCMB.1-6: The UCSF Medical Center at Mission Bay project could exceed an LRDP standard of significance by increasing pedestrian-level wind speeds above the wind hazard criterion set forth in the San Francisco Planning Code.	Less than Significant	None required.	
MCMB.1-7: Implementation of the proposed project would result in cumulative visual and aesthetic effects.	Less than Significant	None required.	
MCMB.1-8: The UCSF Medical Center at Mission Bay project could result in cumulative wind effects.	Less than Significant	None required.	
Air Quality			
MCMB.2-1: Demolition and construction activities associated with the UCSF Medical Center at Mission Bay project would generate fugitive dust and criteria pollutant emissions that could adversely affect local air quality.	Less than Significant	<p>MCMB.2-1: To further mitigate less-than-significant project-level impacts, additional measures related to the 2007 CARB off-road diesel rule on equipment exhaust emissions from construction equipment shall be required in UCSF construction contracts to comply with the following measures:</p> <ul style="list-style-type: none"> Prohibit the use of conventional cutback asphalt for paving to restrict the maximum VOC content of asphalt emulsion. Diesel 	Less than Significant

**TABLE 2-1 (continued)
SUMMARY OF IMPACTS AND MITIGATION MEASURES FOR THE UCSF MEDICAL CENTER AT MISSION BAY**

Environmental Impact	Significance before Mitigation	Mitigation Measures	Significance after Mitigation
		<p>portable generators less than 50 horsepower shall not be allowed at the construction site, except for those used by welders.</p> <ul style="list-style-type: none"> • All diesel-fueled engines used for on- and offsite construction activities shall be fueled only with ultralow sulfur diesel, which contains no more than 15 ppm sulfur. • All construction diesel engines used for on- and offsite activities that have a rating of 100 hp or more shall meet, at a minimum, the Tier 2 California Emission Standards for Off-Road Compression-Ignition Engines as specified in California Code of Regulations, Title 13, section 2423(b)(1) unless it is certified by the construction contractor that such engine is not available for a particular item of equipment. In the event a Tier 2 engine is not available for any off-road engine larger than 100 hp, that engine shall be a Tier 1 engine. In the event a Tier 1 or Tier 2 engine is not available for any offroad engine larger than 100 hp, that engine shall be equipped with a CARB Level 3-verified diesel emission control device (e.g., catalyzed diesel particulate filter), unless the engine manufacturer or the construction contractor certifies that the use of such devices is not practical for specific engine types. In the event that a CARB Level 3 verified diesel emission control device is not practical for the specific engine type, then the engine shall be equipped with a CARB Level 1- or 2-verified control device (e.g., diesel oxidation catalyst), unless the engine manufacturer or the construction contractor certifies that such devices are not available for the engine in question. For purposes of this condition, the use of such devices is “not practical” if, among other reasons: <ol style="list-style-type: none"> 1. The construction equipment is intended to be onsite for ten (10) days or less. 2. The use of the diesel emission control device is excessively reducing normal availability of the construction equipment due to increased downtime for maintenance, and/or reduced power output due to an excessive increase in backpressure. 3. The diesel emission control device is causing or is reasonably expected to cause significant engine damage. <p>In the event that the use of a diesel emission control device is to be terminated, the construction contractor</p> 	

TABLE 2-1 (continued)
SUMMARY OF IMPACTS AND MITIGATION MEASURES FOR THE UCSF MEDICAL CENTER AT MISSION BAY

Environmental Impact	Significance before Mitigation	Mitigation Measures	Significance after Mitigation
		<p>shall be required to inform the UCSF project manager within 10 days prior to such termination.</p> <ul style="list-style-type: none"> • Construction equipment shall be properly tuned and maintained in accordance with manufacturers' specifications. • Best management construction practices shall be used to avoid (or limit) unnecessary emissions (e.g., trucks and vehicles in loading and unloading queues would turn their engines off when not in use, and to the extent practical, all diesel heavy construction equipment shall not remain running at idle for more than five minutes) • Use alternative fueled equipment when feasible (such as ULSD, CNG, biodiesel, water emulsion fuel, and electric). The construction contracts shall require each contractor and subcontractor to consider this measure and adopt it for their work unless they can demonstrate to UCSF the inapplicability or infeasibility of the measure to their specific work, or can provide mitigation measures with equivalent or better effectiveness. This information shall be reported as part of the Mitigation Monitoring and Reporting Program. • Use on-site power when feasible to reduce reliance on portable generators. The construction contracts shall require each contractor and subcontractor to consider this measure and adopt it for their work unless they can demonstrate to UCSF the inapplicability or infeasibility of the measure to their specific work, or can provide mitigation measures with equivalent or better effectiveness. This information shall be reported as part of the Mitigation Monitoring and Reporting Program. 	
<p>MCMB.2-2: Activities associated with proposed project construction would generate short-term emissions of TACs, including suspended and inhalable particulate matter and equipment exhaust emissions, during the term of construction.</p>	Less than Significant	None required.	
<p>MCMB.2-3a: Operation of the Medical Center facilities in the LRDP Phase would generate vehicular, stationary source, and helicopter-related criteria pollutant emissions that would contribute to regional air pollution.</p>	Less than Significant	None required.	
<p>MCMB.2-3b: Operation of the Medical Center facilities in the Future Phase would generate vehicular, stationary source, and helicopter-related criteria pollutant</p>	Significant	<p>MCMB 2-3b: UCSF shall implement previously adopted measures and new measures identified in this EIR. In addition, prior to approval of the Future Phase project,</p>	Significant and Unavoidable

TABLE 2-1 (continued)
SUMMARY OF IMPACTS AND MITIGATION MEASURES FOR THE UCSF MEDICAL CENTER AT MISSION BAY

Environmental Impact	Significance before Mitigation	Mitigation Measures	Significance after Mitigation
emissions that would contribute to regional air pollution.		UCSF shall conduct additional CEQA review and would consider any new recommendations and methodologies for mitigating criteria pollutants available at the time of Future Phase project approvals.	
MCMB.2-4: Public exposure to toxic air contaminant emissions from the proposed project would result in a less than significant increase in health risks. The increases in health risks would result from exposure to carcinogenic and non-carcinogenic substances emitted during the operation of the proposed project. The cancer risk and non-cancer hazards fall below the significance thresholds.	Less than Significant	None required.	
MCMB.2-5: Combustion emissions of greenhouse gases (CO ₂) would result from operation of heavy equipment, construction machinery, portable auxiliary equipment and also from construction worker automobile trips during construction of the project. Operation of the proposed project would generate greenhouse gases that would contribute to global climate change.	Less than Significant	None required.	
MCMB.2-6: Criteria air pollutant emissions generated from the construction and operation of the proposed project would make a cumulatively considerable contribution to a significant cumulative impact on regional air quality.	Significant	None feasible.	Significant and Unavoidable
MCMB.2-7: Public exposure to toxic air contaminant emissions from the proposed project would result in health risks from exposure to carcinogenic and non-carcinogenic substances emitted during the operation of the proposed project. The project cancer risk and non-cancer hazards fall below the significance thresholds. The health risks from the proposed project, together with the risks from other planned development, other UCSF sites, and San Francisco in general, could lead to a cumulative effect. The contribution of the project to cumulative risk would not be considerable.	Less than Significant	None required.	
MCMB.2-8: Construction and operation of the proposed project would result in greenhouse gas emissions; however, its contribution to the significant cumulative impact associated with greenhouse gas emissions would not be cumulatively considerable.	Less than Significant	None required.	
Aeromedical Helicopter Flight Operations and Public Safety			
MCMB.3-1: The proposed project would result in a negligible risk to human safety from aeromedical helicopter operations in the vicinity of the proposed helipad site.	Less than Significant	None required.	

TABLE 2-1 (continued)
SUMMARY OF IMPACTS AND MITIGATION MEASURES FOR THE UCSF MEDICAL CENTER AT MISSION BAY

Environmental Impact	Significance before Mitigation	Mitigation Measures	Significance after Mitigation
<p>MCMB.3-2: The potential construction of another helipad at the San Francisco General Hospital site (approximately 1.5 miles from the UCSF site) may result in an increased risk related to operation of two helipads in the same general area.</p> <p>Land Use, Plans and Policies</p>	Less than Significant	None required.	
<p>MCMB.4-1: Development of the UCSF Medical Center at Mission Bay project would be consistent with the 1996 LRDP as amended.</p>	Less than Significant	None required.	
<p>MCMB.4-2: The proposed project would not substantially conflict with City and Redevelopment Agency plans and policies, which are applicable to the proposed project site.</p>	Less than Significant	None required.	
<p>MCMB.4-3: MCMB.4-3: The proposed project, when combined with cumulative growth in the vicinity of the Mission Bay area, could increase the intensity of land uses in the area.</p> <p>Noise</p>	Less than Significant	None required.	
<p>MCMB.5-1: Demolition and construction activities associated with the proposed project would elevate noise levels in and around the project site, and particularly at nearby sensitive receptors.</p>	Significant	<p>MCMB.5-1: UCSF shall require construction contractors to minimize unavoidable construction noise impacts by use of proper equipment and work scheduling:</p> <ul style="list-style-type: none"> • Limit construction hours to the following schedule. [not noisy 7 a.m. to 5 p.m. / noisy 8 a.m. to 5 p.m. Monday through Friday] Approve extended hours only with advanced notice from the UCSF project manager. Prohibit high impact noise on Saturdays and Sundays. • Designate a UCSF Community Contact to receive and resolve construction complaints. 	Implementation of previously adopted and new MCMB mitigation measure would not guarantee that construction noise impacts would be reduced to less than significant levels and therefore a temporary but significant and unavoidable impact would result.
<p>MCMB.5-2: The Energy Center and other rooftop equipment of the Medical Center buildings will operate 24 hours a day and may increase the level of noise in the vicinity.</p>	Less than Significant	None required.	
<p>MCMB.5-3: Operation of the helicopter landing site ("helipad") proposed as part of the project would lead to increased noise levels at nearby sensitive receptors. Based on the proposed flight operations, the overall noise level increases in residential areas attributable to the project would be less than 1 dB-CNEL.</p>	Less than Significant	None required.	
<p>MCMB.5-4: Operation of the helicopter landing site ("helipad") proposed as part of the project would lead to increased noise levels at nearby sensitive receptors. Operations at any time of day could cause speech interference. Nighttime helicopter operations could cause increased</p>	Significant	<p>MCMB.5-4: <u>Prior to helicopter operations, UCSF shall implement the following:</u></p> <ul style="list-style-type: none"> • <u>The University shall continue to work with the community to develop a residential sound reduction program and to evaluate feasible noise mitigation measures related</u> 	Significant and Unavoidable

**TABLE 2-1 (continued)
SUMMARY OF IMPACTS AND MITIGATION MEASURES FOR THE UCSF MEDICAL CENTER AT MISSION BAY**

Environmental Impact	Significance before Mitigation	Mitigation Measures	Significance after Mitigation
<p>operations could cause increased awakening of residents in the immediate vicinity of the helipad at the site.</p>		<p><u>to UCSF helicopter operations. Once developed, this program shall undergo additional project-level environmental review prior to the start of helicopter operations at the site. Specific sound reduction measures identified in the program would be implemented after UCSF helicopter operations begin and the actual sound environment at that time is known.</u></p> <p>The Residential Sound Reduction Program shall be implemented to the extent feasible to minimize significant disruption to receptors, and shall include the following elements:</p> <ul style="list-style-type: none"> • Limit types of landings at the site to <u>the most</u> critically ill patients where time is of the essence, <u>when helicopter transport is approved by a physician</u> • Limit activity to incoming interfacility transfers. • Prepare a Helicopter Operations Plan that shall specify the following: <ol style="list-style-type: none"> 1. All helicopter operations shall use the flight paths described in the EIR, unless safety precautions require a diversion from any of the flight paths. 2. The primary approach and departure path is the least disruptive flight path (arrive from east and depart to east) and should be utilized as much as feasible. The alternate and secondary flight paths should be utilized only if the primary approach and departure path is not desirable due to safety considerations. 3. <u>UCSF service contracts with air medical companies shall require that</u> all pilots shall be routinely trained to ensure that optimum arrival and departure flight procedures are followed for each helicopter type that serves UCSF. Pilots would be instructed in the use of the primary east approach and departure path. 4. A log of helicopter activity shall be maintained which shall include a detailed record of the <u>reason for the</u> trip, and date and time of arrival and departure. If a diversion from prescribed flight paths occurred as discussed above, the reason for diversion shall be recorded in the log. • Respond to noise complaints about helicopter overflight. UCSF shall investigate noise complaints and shall work to address the complaint if it is determined that the cause was from helicopter operations at UCSF. The investigation may include consultation with 	

TABLE 2-1 (continued)
SUMMARY OF IMPACTS AND MITIGATION MEASURES FOR THE UCSF MEDICAL CENTER AT MISSION BAY

Environmental Impact	Significance before Mitigation	Mitigation Measures	Significance after Mitigation
		<p>a noise engineer, a site assessment, noise monitoring of the affected property, and other actions as may be necessary. Contact information for registering complaints shall be made publicly available.</p> <ul style="list-style-type: none"> • Establish a UCSF community working group that meets periodically to provide a forum for UCSF and the community to discuss helicopter noise issues. • <u>Include additional mitigation developed as part of the community process.</u> 	
MCMB.5-5: Operation of the helicopter landing site ("helipad") proposed as part of the project could lead to increased vibration effects on nearby properties.	Less than Significant	None required.	
MCMB.5-6: Operation of the helicopter landing site ("helipad") proposed as part of the project could expose persons to increased helicopter noise levels which may lead to adverse health effects.	Less than Significant	None required.	
MCMB.5-7: Operations proposed as part of the proposed project, including the helicopter flights and all other sources of noise, considered together with proposed operations of aeromedical helicopter flights associated with San Francisco General Hospital (SFGH), might occasionally lead to increased noise levels at nearby sensitive receptors within the vicinity of the UCSF helipad site.	Less than Significant	None required.	
Transportation and Traffic			
MCMB.6-1: Building construction, including demolition, excavation, and grading associated with the UCSF Medical Center at Mission Bay (LRDP Phase and Future Phase) could cause substantial adverse impacts to traffic flow, circulation and access as well as to transit, pedestrian, and parking conditions.	Less than Significant	None required.	
MCMB.6-2: Operation of the UCSF Medical Center at Mission Bay project would increase traffic at intersections on the adjacent roadway network in the LRDP Phase.	Less than Significant	None required.	
MCMB.6-3: Operation of the UCSF Medical Center at Mission Bay project would increase traffic at intersections on the adjacent roadway network in the Future Phase.	Significant	<p>MCMB.6-3: Regarding Owens Street at the Center Garage Access, UCSF shall conduct project-level CEQA review at the time the Future Phase development is considered for approval. In addition, UCSF would coordinate with the City of San Francisco in the periodic update of the Mission Bay traffic triggers survey and would monitor on-site parking access and circulation in order to determine the need for LOS improvements on Owens Street between 16th and Mariposa Streets. UCSF would coordinate with the Municipal Transportation Agency (which</p>	<p>As part of the proposed project, implementation of the re-striping of southbound Owens Street at 16th Street would reduce this Future Phase impact to a less than significant level. The need for LOS improvements on Owens Street at the Center Garage Access remains speculative</p>

TABLE 2-1 (continued)
SUMMARY OF IMPACTS AND MITIGATION MEASURES FOR THE UCSF MEDICAL CENTER AT MISSION BAY

Environmental Impact	Significance before Mitigation	Mitigation Measures	Significance after Mitigation
		includes the Department of Parking and Traffic) and the Planning Department to confirm the feasibility and effectiveness of mitigation measures resulting from future analysis or consider equivalent recommendations made by these agencies, and UCSF will pay its fair share of the cost of implementing the selected mitigation.	pending a project-level design of parking requirements and project-level traffic and circulation impacts in the Future Phase.
MCMB.6-4: Operation of the UCSF Medical Center at Mission Bay project would generate parking demand.	Less than Significant	None required.	
Utilities, Energy and Service Systems			
MCMB.7-1: The proposed UCSF Medical Center at Mission Bay would increase UCSF water demand over existing conditions.	Less than Significant	None required.	
MCMB.7-2: The proposed project would result in an increase in wastewater generation.	Less than Significant	None required.	
MCMB.7-3: The proposed project would result in the construction of new electrical or natural gas facilities, including chilled water and steam generation facilities.	Less than Significant	None required.	
MCMB.7-4: The proposed project would not result in the wasteful or inefficient use of energy by UCSF.	Less than Significant	None required.	
MCMB.7-5: Demolition of buildings and construction of new hospital buildings in either the LRDP or Future Phases could result in soil erosion and subsequent sedimentation of stormwater runoff or an increase in stormwater pollutants associated with construction-related hazardous materials or contamination from dewatering activities.	Less than Significant	None required.	
MCMB.7-6: Operation of hospital facilities in either the LRDP or Future Phases could adversely affect regional stormwater quality by increasing pollutant or sediment concentrations in stormwater runoff following the completion of construction activities.	Less than Significant	None required.	
MCMB.7-7: Construction of a new medical center at the project site by the LRDP Phase or Future Phase could result in degradation of water quality at Mission Bay.	Less than Significant	None required.	
MCMB.7-8: The proposed project, when combined with cumulative growth in the vicinity of the project site, could increase the demand for utilities and energy.	Less than Significant	None required.	
MCMB.7-9: The proposed project, when combined with other foreseeable development in the vicinity by the LRDP and Future Phases, would not result in cumulatively considerable impacts on water quality or hydrologic resources.	Less than Significant	None required.	

2.3 Summary of Alternatives and Impacts of Alternatives

As discussed further in *Chapter 6 Alternatives*, four alternatives were previously analyzed under the 2005 EIR. These included (1) No Project / No Action Alternative; (2) No Project / Action Alternative; (3) Offsite Alternative; and (4) Environmentally Superior Alternative. For this UCSF Medical Center at Mission Bay project EIR, three additional alternatives are analyzed, as follows: (1) Off-Site Helipad Alternatives; (2) No Helipad Alternative; and (3) 4th Street Closed to Through Traffic (No 4th Street) Alternative. These alternatives and a discussion of their impacts and how the impacts would differ from those of the proposed project are described briefly below.

2.3.1 Off-Site Helipad Alternatives

Under the Off-Site Helipad Alternatives, the UCSF Medical Center at Mission Bay would be developed as proposed except that the helipad would be developed off-site. A number of off-site helipad locations were considered, but only two off-site locations in close proximity to the project site are included in this analysis:

- Block 25 on the UCSF Mission Bay research campus, currently containing surface parking and temporary offices of the UCSF Police Department directly across 16th Street from the project site; and
- At the western end of 16th Street, either on land, or hypothetically, on a newly-constructed pier.

Under the Off-Site Helipad Alternatives, impacts to air quality and noise would remain significant and unavoidable, as under the proposed project. Other less-than-significant impacts to visual quality, wind, helicopter safety, land use and planning, and utilities would remain less than significant. Impacts to transportation would remain less than significant with mitigation except for potential parking impacts related to the *Future Phase*, for which insufficient information is available to determine significance but for which monitoring of the Owens Street/Center Garage Access intersection has been recommended. It is unclear whether human exposure to close-range air pollutants generated by helicopter operations would present a significant impact and further analysis would be required if off-site alternatives are pursued.

2.3.2 No Helipad Alternative

The No Helipad Alternative would implement the UCSF Medical Center at the Mission Bay as proposed except that the helipad would not be constructed. A building height of 140 feet at the northernmost portion of the Outpatient Building to accommodate the helipad would not be necessary. Instead, the building height at this location would be 105 feet, the same as the rest of the proposed project.

The No Helipad Alternative would still result in Significant and Unavoidable noise impacts due to construction activities and air quality impacts due to operational emissions, even with no helicopter activity on the site. As discussed in *Chapter 4, Environmental Setting, Impacts, and Mitigation Measures*, less-than-significant impacts would remain as such for visual quality, wind, helicopter safety, land use and planning, and utilities. Likewise, transportation impacts would be reduced to less-than-significant levels with mitigation, except for parking under the *Future Phase*, for which insufficient information is available to determine whether impacts would be significant but for which monitoring of the Owens Street/Center Garage Access intersection has been recommended.

2.3.3 4th Street Closed to Through Traffic (No 4th Street) Alternative

As part of the overall Mission Bay South Plan, 4th Street is planned to be extended south of 16th Street to connect with Mariposa Street. This extension of 4th Street would bisect the hospital site and prevent a direct connection between project blocks at the ground level. Under the No 4th Street Alternative, the proposed project would be developed without building 4th Street through the site. Instead of carrying through traffic, the street right of way would be developed with two separate permanent loading/drop-off cul-de-sacs which would not connect to each other or to through traffic. Patient access would be provided from Mariposa Street, via the 4th Street right of way, to the Children's, Women's and Cancer hospitals and from 16th Street, via the 4th Street right of way, to the outpatient buildings. In the *Future Phase* under this alternative, the two pedestrian bridges would not be constructed. Instead, the medical center facilities on the east and west blocks would be connected with a connector building that would span two levels above ground across 4th Street (at levels 2 and 3), while maintaining north/south foot traffic and bicycle traffic at grade.

The impacts of the 4th Street Closed to Through Traffic Alternative would be the same or less than with the proposed project, with the exception that this alternative would result in significant and unavoidable land use impacts, compared to less than significant land use impacts with the proposed project. The No 4th Street Alternative would not be consistent with the plans of the City and County of San Francisco and the California State Lands Commission. Additionally, it would require approvals from the San Francisco Redevelopment Agency, including an amendment to the redevelopment plan. At present such changes to the plans are out of the control of the University.

2.4 Areas of Controversy and Issues to Be Resolved

Following The Regents approval of *LRDP Phase* of the UCSF Medical Center at Mission Bay project, building plans would undergo regulatory review, including from the Office of Statewide Health Planning and Development (OSHPD). Upon approval, construction of the UCSF Medical Center at Mission Bay would proceed. UCSF would also seek approval from the San Francisco Board of Supervisors, Federal Aviation Administration, and California Department of Transportation Aeronautics Division for construction of the proposed helipad.

At the appropriate time, UCSF would continue its planning efforts for the *Future Phase* located on the west side of 4th Street. This would involve continued site planning, capital planning and design development of the *Future Phase* components, which includes inpatient facilities, outpatient clinics, additional parking, and other support services.

2.4.1 Areas of Controversy

In the past year, UCSF has held numerous community meetings to review site plans and building designs as they evolved. The following areas of concern were raised:

- helicopter noise and vibration effects, and potential resultant impacts on health
- traffic impacts associated with the proposed loading dock entrance/exit on 3rd Street
- character of the 3rd Street frontage
- visual impacts associated with the massing of proposed buildings
- visual impacts of proposed bridges (or, in the case of the 4th Street Closed to Through Traffic Alternative, the visual impacts of the connector building)

The above issues are all analyzed in the EIR. UCSF has modified its plans in response to various concerns raised by the community. However, it is anticipated that the potential for impacts associated with the helipad, such as helicopter noise, vibration, and health effects, would continue to be an area of controversy. Impacts related to this aspect of the project are analyzed in *Section 4.5 Noise* in the EIR.