

CHAPTER 8

Mount Zion Campus Site – Setting, Impacts and Mitigation Measures

8.0 Introduction

This chapter considers the existing conditions and describes the potential impacts of 2014 LRDP activities proposed at the Mount Zion campus site. Functional zones, space program, population at LRDP horizon and proposed LRDP development activities that would occur at the Mount Zion campus site were described in detail in Section 3.8.3 of Chapter 3, *Project Description*, and are summarized briefly below. The remaining 15 major sections of this chapter present the site settings and impacts for each of the 15 environmental topics.

8.0.1 Functional Zones

Currently, there is no functional zone diagram for the Mount Zion campus site. **Figure 3-13**, in Chapter 3, *Project Description*, illustrates the proposed campus boundary and functional zones. The proposed boundary encompasses only those buildings owned by UCSF. A majority of the site is proposed as Clinical, consistent with the predominance of inpatient and outpatient uses. The cancer research building is designated as Research. Support areas include structured parking controlled by UCSF.

8.0.2 Space Program

The LRDP proposes an additional 2.39 million gsf in owned and leased buildings across all of UCSF's campus sites through 2035. The 172,600 gsf allocation of this growth at the Mount Zion campus site at LRDP horizon in 2035 is shown in **Table 8.0-1**, below.

8.0.3 Population

The total projected UCSF population across all campus sites (including population associated with the Phase 2 Medical Center at Mission Bay) would increase by approximately 17,000 at LRDP horizon. As shown in **Table 8.0-2**, below, the projected increase in population at the Mount Zion campus site would be approximately 1,600 in 2035.

**TABLE 8.0-1
MOUNT ZION EXISTING AND LRDP HORIZON GSF**

Type of Space	Existing 2013 Total gsf	LRDP Horizon 2035 Total gsf
Instruction	63,300	63,300
Research	97,400	139,300
Clinical	450,100	518,200
Support		
Academic Support	20,900	45,800
Academic/Campus Admin	72,900	111,900
Campus Community	17,300	17,300
Logistics	<u>45,100</u>	<u>44,000</u>
<i>Support Subtotal</i>	156,200	219,000
Housing	--	--
Vacant/Alteration	9,200	9,000
Total	776,200	948,800

**TABLE 8.0-2
MOUNT ZION EXISTING AND PROJECTED POPULATION**

	Existing (2013)	Projected Population at LRDP Horizon (2035)	Change
Students	215	277	62
Faculty and Staff	1,835	2,484	649
Patients	1,406	1,962	556
Visitors	1,199	1,547	348
Total	4,655	6,270	1,615

8.0.4 Mount Zion – 2014 LRDP Proposals

As described in Chapter 5, the 2014 LRDP proposals at the four campus sites consist of four general activities: 1) demolition, 2) renovation, 3) construction of new facilities, and 4) circulation, open space, and utilities/infrastructure proposals. The 2014 LRDP proposals at the Mount Zion campus site are listed below:

Demolition Proposals

- Hellman
- Harold Brunn Institute
- Dialysis Center
- 2255 Post¹

Renovation Proposals

- Main Hospital

¹ This building may alternatively be seismically retrofitted.

Construction Proposals²

- Office/Research building

Mount Zion – 2014 LRDP Proposal Construction Time Frames

Activities at the Mount Zion campus site to implement the 2014 LRDP proposals would occur between the year 2015 and 2025. These are presented in **Table 8.0-3**, below.

**TABLE 8.0-3
PROPOSAL CONSTRUCTION TIME FRAMES AT MOUNT ZION**

Proposal Category	Proposal Title	Square Feet / Number of Dwelling Residential Units
2015 - 2019		
Demolition	Hellman, Brunn, and Dialysis Center	85,000 gsf
Renovation	Main Hospital	--
Construction	Office/Research building	257,300 gsf
2020 -2024		
Demolition (or Renovation)	2255 Post Street	7,450 gsf
2025-2030		
None Proposed		
2031 -2035		
None Proposed		

² An additional 78,000 gsf of parking may be developed either underground or off-site.

8.1 Aesthetics

This section considers the setting and aesthetics impacts at the Mount Zion campus site. The Regional Setting, Regulatory Considerations, Significance Standards and Analysis Methodology for analysis of potential Aesthetics effects are contained in Section 4.1 of this EIR. The CEQA Significance Standards presented in Section 4.1.3 are used to evaluate the potential aesthetics impacts of all proposed 2014 LRDP activities.

8.1.1 Aesthetics Issues Adequately Addressed in the Initial Study

After evaluation of the 2014 LRDP activities proposed at the Mount Zion campus site, the Initial Study concluded that:

- **Scenic vista.** No activities would result in an adverse impact to scenic vistas. Therefore, no additional analysis of this issue is required.
- **Scenic resources.** No activities would result in an adverse impact to scenic resources within a state scenic highway. Therefore, no additional analysis of this issue is required.
- **Effects on visual character or quality.** The proposed construction of the Office/Research Building would be the only activity to have potential effects on visual character or quality. No analysis of this issue is required for the other activities.
- **Wind or shadow.** The proposed construction of the Office/Research Building would be the only activity to have potential effects regarding wind or shadow. Accordingly, no analysis of this issue is required for any other activity.

Finally, the Initial Study also concluded that the proposed renovation of the Main Hospital would result in no impact or less-than-significant impacts on aesthetics. Therefore, no additional analysis is required for this renovation activity.

8.1.2 Aesthetics – Mount Zion Setting

The Mount Zion campus site occupies approximately 7.6 acres on six contiguous blocks in San Francisco's Western Addition, an urban neighborhood that consists of commercial, medical, residential and neighborhood commercial uses. The campus site is generally bounded by Bush Street to the north, Scott Street to the east, Post Street to the south and Broderick Street to the west. Unlike the Parnassus Heights campus site, the Mount Zion campus site is visually intertwined with adjacent, non-University uses and the campus buildings are not perceived as a single visual entity.

The Medical Center at Mount Zion is located on the central, or main block, and consists of an eight-story medical center housed in two buildings (Buildings A and B). Building A is on the north side of Post Street, with a 275-foot frontage that creates an unbroken visual plane for about three-quarters of the block. The hospital's long, horizontal bands of inset windows lend to its

visual prominence on the block. Building B is perpendicular to Building A and has a narrow frontage located mid-block on Sutter Street, adjacent to the hospital's loading area.

Other medically-related uses line the perimeter of the main block in dense buildings up to five stories tall. These include the five-story Hellman building on the southeast corner of Post and Scott Streets; the four-story Harold Brunn Institute located mid-block on Scott Street; the single-story Dialysis Center on the corner of Sutter and Scott Streets; and the five-story outpatient Helen Diller Comprehensive Cancer Center on the corner of Divisadero and Sutter Streets. The Cancer Research building and Women's Health Center are located in an eight-story contemporary building across Sutter Street from Building B. To the northeast and southwest of the main block are two UCSF outpatient medical office buildings of four stories each, completed in 1997. UCSF also owns and operates three parking garages and one surface parking lot at the Mount Zion campus site.

Most buildings along Divisadero Street consist of residential and office uses above ground floor retail. Kaiser Medical Center is located on Geary Boulevard, one block to the southwest. Residential uses are widespread north and west and directly across Scott Street to the east of the main block. The area along Post Street south of the main block is predominantly low-rise medical offices, portions of which are leased by UCSF, and surface parking lots. The Hamilton Recreation Center is located southeast of the Hellman building, at the intersection of Post and Scott Streets.

8.1.3 Aesthetics – Mount Zion Impacts and Mitigation Measures

Impact AES-MZ-1: The proposed office/research building at the Mount Zion campus site would not substantially degrade the existing visual character or quality of the campus site and its surroundings. (Less than Significant)

The proposed office/research building would be built on the east side of the main block where the Hellman, Harold Brunn Institute and Dialysis Center buildings are currently located. The proposed building could potentially be one or more buildings, or a phased building. The total program target for the building(s) would be approximately 257,300 gsf. Although this building has not yet been designed, a capacity analysis conducted by UCSF indicated that a building along Scott Street could be built up to 65 feet tall with a 20-foot step back at the 40-foot height level to lower the building scale at the street level. It could be set back from Post Street to align with the existing hospital building. Building space on Sutter Street could be up to 105 feet in height with a 20-foot setback along Sutter and Scott Streets. The proposed building would comply with the City's height limit, but not the bulk limit. Up to 185 parking spaces could be constructed in two levels underground, if not developed off-site. Streetscape improvements would be made along the affected street frontages. Visual simulations showing basic height and bulk of the proposed building from the intersection of Scott Street and Post Street and from the intersection of Scott Street and Sutter Street (viewpoints shown in **Figure 8.1-1**) are depicted in **Figures 8.1-2** and **8.1-3**, respectively.



SOURCE: Environmental Vision



Existing view from Scott Street at Post Street looking northwest (VP 1)



Visual Simulation of Proposed Project

Note: Visual simulation depicts potential building envelope, not proposed design.

SOURCE: Environmental Vision



Existing view from Scott Street at Sutter Street looking southwest (VP 2)



Visual Simulation of Proposed Project

Note: Visual simulation depicts potential building envelope, not proposed design.

As shown in Figure 8.1-2, this portion of the proposed building would be shorter than the existing Hellman building. The building would extend north down Scott Street at this same height in areas currently occupied by the shorter Harold Brunn Institute and Dialysis Center buildings. The 105-foot-tall portion of the proposed building along Sutter Street is visible in the background and also can be seen in Figure 8.1-3.

The new building would be built in accordance with UCSF's *Physical Design Framework* and *Facilities Design Guidelines* and would be consistent with the 2014 LRDP's Community Planning Principles regarding Building and Public Realm Design. It would be sited appropriately in the campus site's Clinical functional zone (newly designated by the 2014 LRDP). The design guidelines would ensure that the final design of the building responds to the form of adjacent buildings (e.g., in terms of massing and height) and the overall urban context of the Mount Zion campus site and surrounding neighborhood. Because the new building would be visually similar to existing uses on and adjacent to the site, the proposed building would not substantially degrade the visual character of the site and its surroundings. Therefore, effects to visual quality and character are less than significant.

Mitigation: None required.

Impact AES-MZ-2: The proposed office/research building at the Mount Zion campus site could create new sources of substantial light or glare which would adversely affect day or nighttime views in the area. (Potentially Significant)

The proposed building could increase ambient light levels due to light dispersion resulting from a larger building at this location. Increases in night lighting could affect nighttime views in this area from the surrounding neighborhood. New light sources could include street lights, illuminated signage, exterior safety lighting and light emitted from building windows. Glare could be generated from reflective building materials. Because specific architectural features and building materials of the new building have yet to be determined, the proposed improvements have the potential to include reflective surfaces, such as metal and glass. The resultant glare could affect nearby residents, pedestrians and passing motorists. **Mitigation Measure AES-LRDP-1** would be implemented to reduce the impact to a less than significant level. By employing appropriate design standards and minimizing the quantity of reflective material used in new construction, light and glare impacts and impacts to views related to lighting would be reduced to less-than-significant levels.

Mitigation Measure: Implement Mitigation Measure AES-LRDP-1

Significance after Mitigation: Less than Significant

Impact AES-MZ-3: Construction of the proposed office/research building at the Mount Zion campus site could result in flood lighting sites during nighttime construction activities. (Potentially Significant)

Although construction operations are generally expected to take place during the day, some activities could be conducted at night to reduce noise, vibration or other effects on daytime office or research uses. To enable construction at night, flood lighting would be required. The use of

night lighting would have the potential to disturb residents in neighborhoods near the construction site, and potentially also affect nighttime views. Night lighting of the construction site would be temporary and would cease upon completion of construction. **Mitigation Measure AES-LRDP-2** would be implemented to reduce the impact of nighttime work lighting to a less than significant level.

Mitigation Measure: Implement Mitigation Measure AES-LRDP-2

Significance after Mitigation: Less than Significant

Impact AES-MZ-4: The proposed office/research building at the Mount Zion campus site would cast shadow on the Hamilton Recreation Center. (Potentially Significant)

Development of an office/research building on the main block at the Mount Zion campus site could cast shadows on City property that is under the control of the Recreation and Park Department. That 3.97-acre property,³ the site of the Hamilton Recreation Center, occupies the block bounded by Post Street, Steiner Street, Geary Boulevard and Scott Street.

Because the Hamilton Recreation Center property is protected by the City of San Francisco’s Sunlight Ordinance, the proposed office/research building potentially could conflict with this established standard of significance for the City of San Francisco.

Shadow from the proposed building could reach into the western portion of the Hamilton Recreation Center property for up to approximately 30 minutes before the last hour before sunset on the summer solstice, when afternoon shadow from the building would reach farthest south and east during the entire year. Shadow from the building would reach the property in the afternoon two months before the solstice, would increase to a maximum on the solstice, and then decrease and disappear two months after the solstice.

Hamilton Recreation Center

The Hamilton Recreation Center includes a recently rebuilt Recreation Center building that contains an auditorium, gym, kitchen and a heated swimming pool with two indoor water slides. The Recreation Center also has a children’s playground, two tennis courts, outdoor basketball court and green field space. The Recreation Center buildings are on the east end of the block, fronting Steiner Street, while the Western Addition Branch Library occupies the west end of the block. The library building, which fronts on Scott Street, is at the corner of Geary Boulevard and Scott Street, while the library’s parking is to the north, at the corner of Scott and Post Streets.

San Francisco Planning Code Section 295

Section 295 of the Planning Code, the Sunlight Ordinance, was adopted through voter approval of Proposition K in 1984 to protect certain public open spaces from shadowing by new structures. Section 295 prohibits the issuance of building permits for structures or additions to structures greater than 40 feet in height that would shade property under the jurisdiction of or designated to be acquired by the Recreation and Park Commission, during the period from one hour after

³ Designated as Lot 2 of Assessor’s Block 0703.

sunrise to one hour before sunset, unless the Planning Commission, following review and comment by the general manager of the Recreation and Park Department in consultation with the Recreation and Park Commission, determines that such shade would have an insignificant impact on the use of such property.

In 1989, the two Commissions adopted shadow criteria for 14 downtown parks, including an Absolute Cumulative Limit⁴ for new shadow for each open space and set forth qualitative criteria for assessing new shadow. For projects that would affect parks for which a quantitative limit was established, shadow impacts have typically been judged less than significant if the project would not exceed the Absolute Cumulative Limit.

In establishing the Absolute Cumulative Limits for the downtown parks, the Commissions generally relied upon the following guidelines: for smaller parks (of less than two acres) on which more than 20% of the potential “Proposition K” sunlight was in shadow under then-existing conditions, no additional shadow was to be permitted. (This standard was applied to nine downtown parks.) For larger parks (of two acres or more) with between 20% and 40% existing shadow, the Absolute Cumulative Limit was to be set at 0.1%; that is, an additional 0.1% more shadow square foot-hours would be permitted beyond existing conditions. For larger parks shadowed less than 20% of the time, an additional 1.0% new shadow was to be permitted. No guideline was provided for parks of less than two acres that have less than 20% existing shadow. These downtown parks guidelines also may be applied to other parks.

Applying these guidelines to Hamilton Recreation Center, as a “larger park” of more than two acres in size, the park would have an Absolute Cumulative Limit of either 0.1% or 1.0%, depending upon the amount of shadow that now falls on the park throughout the year. Either way, the new shadow from any new building could not exceed 1.0% of the theoretical available sunlight hours.

Because the potential shadow of the new building would be slightly less than the existing shadow cast by the Hellman building, the net effect on shadow would be to slightly reduce the shadow that falls on Hamilton Recreation Center property in late afternoons in the two months before and two months after the summer solstice. As a consequence, and with implementation of **Mitigation Measure AES-LRDP-4**, this impact would be considered less than significant.

Demolition of any or all of the Hellman, Brunn, or Dialysis Center buildings could increase sunlight on Hamilton Recreation Center property in late afternoons close to the summer solstice. This would occur until the office/research building is built.

Mitigation Measure: Implement Mitigation Measure AES-LRDP-4

Significance after Mitigation: Less than Significant

⁴ The Absolute Cumulative Limit is a quantitative measure of how much new shadow may be added to a park. The limit can be stated either as a shadow coverage quantity (in square foot-hours or as a percentage of the theoretical available sunlight hours on a park). Although it can be calculated knowing only the area of the park, establishing an appropriate criterion value of the Absolute Cumulative Limit for any park has been based on knowing the park’s existing shadow coverage.

Impact AES-MZ-5: The demolition of the three existing buildings and construction of the office/research building at the Mount Zion campus site would create street-level winds that could be hazardous to pedestrians in the area. (Potentially Significant)

Winds experienced at the Mount Zion campus site have the same directional origins as winds at the Parnassus Heights campus site (see the detailed discussion in Section 5.1, *Aesthetics*). For the purposes of determining comfort or safety issues that might arise, it is only necessary to consider the stronger winds that occur. Based on data from the Bay Area Air Quality Management District's Fort Funston meteorological station, 33% of all winds measured there are SW, WSW or W winds with speeds of 7 mph or faster, while nearly 9% of all winds with speeds of 15 mph or faster come from the following directions – S, SSW, SW, WSW, W, WNW, and NW – each with roughly equal frequencies of occurrence. Strong storm winds can come from any direction, but of the 52 recorded hourly winds greater than 30 mph, only one came from the northeast, while the other 51 were from the SSW through the NNW.

In leaving the coastline and approaching Mount Zion, winds lose speed and become more turbulent. Pedestrian-level winds at Mount Zion, regardless of initial directions, will be shaped by the topography and the buildings that line the street grid. The stronger winds that approach Mount Zion from the SW through the NW directions would be perceived by observers at Mount Zion as being generally winds from the west.

Given the building configurations and street alignment at Mount Zion, these generally westerly winds encounter the existing hospital building first, strike the Divisadero Street façade nearly head-on and then flow around the building and along Sutter and Post Streets. The existing buildings along Sutter and Post Streets channel these flows, but do not strongly interact with them to affect wind conditions at street level. The present gap in the street wall mid-block on Sutter Street likely introduces turbulence into the pedestrian-level winds there.

The proposed office/research building would be up to 105 feet in height on Sutter Street with a 20-foot setback along Sutter and Scott Streets. The Scott Street frontage would be up to 65 feet tall with a 20-foot step back at the 40-foot height level. The building façade would set back from Post Street to align with the existing hospital building. As a result, the building would replace the building mass removed when the three existing buildings are demolished. The proposed office/research building would add new building mass and height mid-block along Sutter Street. Because the proposed office/research building design incorporates set-backs, any adverse wind effects at pedestrian level due to the added height of the new building would be relatively minor, compared to existing wind conditions.

Regardless of the design, the office/research building would be an in-fill building – replacing the Hellman, Harold Brunn Institute, and Dialysis Center buildings, and also filling in an existing gap in the street wall along Sutter Street – a factor that, it itself, typically improves pedestrian wind conditions immediately around the building.

The changes in wind conditions due to demolition of the Hellman, Harold Brunn Institute, and Dialysis Center buildings and the subsequent construction of the proposed office/research building would not result in a new Pedestrian-level wind hazard or increase an existing wind

hazard on adjacent sidewalks. The wind impact would be less than significant and no further mitigation would be required. Although there could be an indefinite amount of time between the demolition of one or more of these buildings and the construction of the office/research building, the wind effects would be a less-than-significant impact.

Should the design shape of the office/research building change, the new design should be evaluated with respect to wind hazard.

Mitigation Measure: Implement Mitigation Measure AES-LRDP-3

Significance after Mitigation: Less than Significant

8.2 Air Quality

This section considers the setting and air quality impacts of implementation of the 2014 LRDP at the Mount Zion campus site. The Regional Setting, Regulatory Considerations, Significance Standards and Analysis Methodology for analysis of potential effects of Air Quality are contained in Section 4.2 of this EIR, while the plan-level Air Quality impacts of the 2014 LRDP are described in Section 5.1.2. The CEQA Significance Standards presented in Section 4.2.3 are used to evaluate the potential Air Quality impacts of all proposed 2014 LRDP activities.

8.2.1 Air Quality Issues Adequately Addressed in the Initial Study

After evaluation of the 2014 LRDP activities proposed at the Mount Zion campus site, the Initial Study concluded that:

- **Objectionable odors.** No activities would result in objectionable odors affecting a substantial number of people. Therefore, no additional analysis of this issue is required.

8.2.2 Air Quality – Mount Zion Setting

8.2.2.1 Sensitive Receptors

The closest sensitive receptors to the Mount Zion campus site consist of residential land uses approximately 100 feet east of the campus site on Scott Street, residential land uses approximately 100 feet north of the campus site on Bush Street and residential land uses south of Geary Boulevard about 400 feet south of the campus site. Additionally, there are recreational receptors (parks) located north west and northeast of the campus site.

8.2.2.2 Existing Stationary Sources of Air Pollution

The BAAQMD's inventory of permitted stationary sources of emissions identifies seven permitted stationary emission sources present within or near the 1,000-foot zone of influence of the campus site. These permitted facilities are inventoried in **Table 8.2-1** and are primarily made up of stationary diesel engines for back-up power generators and dry cleaners.

The Mount Zion campus site also operates fume hoods which emit TACs. These fume hood emissions do not require a permit from BAAQMD based on the operating throughput and therefore have not been assigned an existing risk value in BAAQMD databases like permitted sources. UCSF maintains an inventory of chemical throughput for each campus site and has implemented a series of correctional measures to reduce exposure to fume hood emissions which are expected to minimize health risks from fume hood emissions. The primary measure was to reduce the volume of chemical use within hoods which are now inventoried. At present there are approximately 48 active fume hoods in operation at the Mount Zion campus site.

**TABLE 8.2-1
STATIONARY SOURCES WITHIN THE MOUNT ZION CAMPUS SITE AREA**

Source #	Facility Type	Address
9701	Town Cleaners	2480 California Street
5755	UCSF	1600 Divisadero Street
8462	Sunshine Express Cleaners	1818 Divisadero Street
3829	Lofrano & Sons	1745 Divisadero Street
13887	Kaiser Permanente MOB	2238 Geary Boulevard
13888	Kaiser Permanente Garage	2130 O'Farrell Street
13889	Kaiser Permanente Garage	2190 O'Farrell Street

SOURCE: BAAQMD, 2012c and ESA.

8.2.2.3 Major Roadways Contributing to Air Pollution

Geary Boulevard and Divisadero Street are arterial streets in the existing local roadway system within the 1,000-foot zone of influence that have at least 10,000 vehicles in annual average daily traffic based on the City's SF CHAMP roadway model⁵. This traffic contributes to elevated concentrations of PM_{2.5}, DPM, and other contaminants emitted from motor vehicles near street level.

8.2.3 Air Quality – Mount Zion Impacts and Mitigation Measures

8.2.3.1 Construct Office/Research Building

Impact AIR-MZ-1: Implementation of the 2014 LRDP at the Mount Zion campus site would result in increased emissions of criteria air pollutants during demolition and construction activities. (Potentially Significant)

Construction activities would result in emissions of criteria pollutants from the use of heavy-duty construction equipment, haul truck trips, and vehicle trips generated from construction workers traveling to and from the campus site. In addition, fugitive dust or PM₁₀ emissions would result from excavation, trenching, and other construction activities.

2014 LRDP proposals for the Mount Zion campus site include: demolish the Hellman, Harold Brunn Institute (Brunn), and Dialysis buildings, construct an office/research building; and, renovate the Main Hospital. Construction-related emissions from these proposals were calculated using the California Emissions Estimator Model (CalEEMod), assuming completion by 2020 and

⁵ San Francisco Metropolitan Transportation Agency, Chained Activity Modeling Process version 4.3.0, Average Daily Traffic Volumes, provided to ESA August 2, 2012.

phasing lengths based on CalEEMod default estimates which are based on square footage for office and research buildings. All model inputs and outputs are provided in Appendix E.

Table 8.2-2 presents the average annual daily construction emissions generated by 2014 LRDP proposals at the Mount Zion campus site. As can be seen in Table 8.2-2, estimated average daily construction-related exhaust emissions would not exceed the thresholds for NO_x, or particulate matter, but would marginally exceed the ROG threshold.

**TABLE 8.2-2
 AVERAGE DAILY CONSTRUCTION-RELATED POLLUTANT EMISSIONS
 WITHOUT MITIGATION - MOUNT ZION**

Years	Estimated Emissions (lbs/day)			
	ROG	NO _x	Exhaust PM ₁₀ ^a	Exhaust PM _{2.5} ^a
2015	55.53	21.80	1.14	1.05
<i>BAAQMD Considered Construction Threshold</i>	54	54	82	54
Potential Significant Impact?	Yes	No	No	No

SOURCE: ESA (Appendix E)

The BAAQMD approach to analysis of construction-related particulate impacts (other than exhaust PM) emphasizes implementation of effective and comprehensive dust control measures rather than detailed quantification of emissions. As indicated under Impact AIR-LRDP-4 in Section 5.2 of this EIR, the BAAQMD considers construction-related fugitive dust impacts of projects to be less than significant if a suite of recommended dust-control measures are implemented. Therefore, BAAQMD-identified Best Management Practices for control of fugitive dust are adopted Campus-wide in Section 5.2 as **Mitigation Measure AIR-LRDP-1: Best Management Practices for Controlling Particulate Emissions**. With this measure in place the construction-related fugitive dust impacts would be less than significant.

Mitigation Measure: Implement Mitigation Measures AIR-LRDP-1

Impact AIR-LRDP-4 identifies a significant and unavoidable LRDP construction-related air quality impact resulting from emissions of criteria air pollutants when the combined construction at all campus sites is considered. In response, **Mitigation Measure AIR-LRDP-2: Architectural Coatings** and **Mitigation Measure AIR-LRDP-3: Off-Road Equipment Control Measures** were adopted Campus-wide and therefore would also apply to construction projects at the Mount Zion campus site.

Mitigation Measures: Implement Mitigation Measure AIR-LRDP-2 and AIR-LRDP-3

Significance after Mitigation: Less than Significant

Impact AIR-MZ-2: Demolition and construction activities at the Mount Zion campus site under the 2014 LRDP would increase emissions of toxic air contaminants (TACs) and increase health risks for nearby residents. (Less than Significant)

2014 LRDP construction activities would produce DPM and PM_{2.5} emissions due to combustion equipment such as loaders, backhoes, and cranes, as well as haul truck trips. These emissions result in elevated concentrations of DPM and PM_{2.5} at nearby receptors. These elevated concentrations could lead to an increase in the risk of cancer or other health impacts. Consequently, a health risk assessment was performed to determine the extent of increased cancer risks and hazard indices at the maximally exposed receptors. The health risk assessment was based on recommended methodology of the state Office of Environmental Health Hazard Assessment and adopted by BAAQMD. The cancer risk to residential receptors assumes exposure occurs 24-hours per day for 350 days per year. Cancer risk to residential receptors is based on the exposure duration of the construction period.

Additionally, cancer risk estimates also incorporate age sensitivity factors (ASFs). This approach provides updated calculation procedures that factor in the increased susceptibility of infants and children to carcinogens as compared to adults. For estimating cancer risks for residential receptors over a 70 year lifetime, the incorporation of the ASFs results in a cancer risk adjustment factor of 1.7.

A summary of the health impacts related to 2014 LRDP construction activities at the Mount Zion campus site is presented in **Table 8.2-3**.

**TABLE 8.2-3
CONSTRUCTION-RELATED HEALTH IMPACTS - MOUNT ZION**

Receptor Type	Cancer Risk (per million) persons	Chronic Index	Acute Index	PM2.5 Concentration (µg/m ³)
School Children	0.01	0.01	0.01	0.01
Existing Residence (adult / child)	0.05 / 0.54	0.01	0.01	0.01
<i>BAAQMD Significance Criteria</i>	10	1	1	0.3
Significant Impact?	No	No	No	No

SOURCE: KB Environmental Sciences, Inc., 2014.

As shown in Table 8.2-3, the maximum cancer risk for an existing residence-adult and residence-child (located to the south of Sutter Street and west of Divisadero Street) would be 0.05 per million and 0.5 per million, respectively. The maximum cancer risk for a school-child receptor (Ben Franklin Middle School and Gateway High School) would be 0.01 per million persons. Thus, the cancer risk due to construction activities alone is below the BAAQMD threshold of 10 per million and would be less than significant.

The chronic HI would be 0.01 at all receptors. The chronic HI would be below the BAAQMD threshold of 1 and the impact of the 2014 LRDP construction activities at the Mount Zion campus site would be less than significant. The acute HI would be 0.01 at all receptors including Hamilton

Recreational Center. The acute HI would be below the BAAQMD threshold of 1 and the impact of the 2014 LRDP construction activities at the Mount Zion campus site would be less than significant.

The maximum annual PM_{2.5} concentrations would be less than 0.01 µg/m³ for the schoolchild and the existing residences. The construction-related annual PM_{2.5} concentration is below the BAAQMD threshold of 0.3 µg/m³, and hence is considered less than significant.

Mitigation: None required.

Impact AIR-MZ-3: Operations at the Mount Zion campus site under the 2014 LRDP would result in increased emissions of criteria air pollutants. (Potentially Significant)

Development under the 2014 LRDP at the Mount Zion campus site would result in an increase in criteria air pollutant and precursor emissions, including ROG, NO_x, PM₁₀ and PM_{2.5} from a variety of emissions sources, including onsite area sources (e.g., natural gas combustion for space and water heating, landscape maintenance, use of consumer products such as hairsprays, deodorants, cleaning products, etc.) and mobile on-road sources. Operational emissions of criteria pollutants were estimated using the CalEEMod version 2013.2.2 emissions inventory model. All model inputs and outputs are provided in Appendix E.

One of the sources of operational emissions would be increased vehicle emissions from additional staff, patients, and visitors. Traffic volumes used to estimate vehicle-related emissions were derived from the Transportation Demand Analysis prepared for the 2014 LRDP (Adavant, 2014). Development at the campus site would generate an estimated 1,292 additional daily vehicle trips. In addition to exhaust emissions, vehicles would also generate PM₁₀ and PM_{2.5} from entrained road dust and tire and brake wear.

Emissions would also be generated by on-site natural gas combustion, operation of landscape maintenance equipment, and maintenance application of paint and other architectural coatings.

Demolition of the Hellman, Brunn and Dialysis buildings would not result in operational emissions, but instead could potentially reduce emissions from natural gas demand. It is assumed that program space and clinics now in the three buildings proposed for demolition would be accommodated by the renovated hospital and that current vehicle trips generated by uses to be demolished would remain. Renovation and decommissioning of the hospital would also likely result in a reduction in operational emissions from natural gas demand for which hospital land uses have a much higher demand than the proposed out-patient medical office uses. Consequently, there would be no increase in operational emissions from demolition proposals at the Mount Zion campus site.

Table 8.2-4 presents estimated operational emissions from development under the 2014 LRDP at the Mount Zion campus site. As shown in the table, without mitigation, operational emissions of NO_x and ROG, PM₁₀ and PM_{2.5} would be below threshold levels.

**TABLE 8.2-4
UNMITIGATED OPERATIONAL CRITERIA POLLUTANT EMISSIONS- MOUNT ZION**

Air Pollutant	Estimated Emissions (lbs/day)			
	ROG	NO _x	PM ₁₀	PM _{2.5}
Mobile Sources ^a	3.42	6.23	5.55	1.56
Area Sources ^a	6.24	<0.001	<0.001	<0.001
Natural gas combustion	0.15	1.40	0.11	0.11
Total	9.82	7.64	5.66	1.67
Regional Significance Threshold	54	54	82	54
Significant Impact?	No	No	No	No

^a Mobile sources are motor vehicles and trucks. Area sources include landscape maintenance (equipment used for these activities such as gasoline-powered lawnmowers and blowers), maintenance application of paints and other interior and exterior surface coatings, and increased use of consumer products that result in emissions of ROG. Natural gas combustion is for space and water heating.

SOURCE: ESA, 2014 (see Appendix E).

Although estimated emissions at the Mount Zion campus site would be less than the daily thresholds, **Impact AIR-LRDP-5** in Section 5.2 identifies a significant and unavoidable operational air quality impact resulting from emissions of criteria air pollutants when LRDP operations at all campus sites are considered. In response, **Mitigation Measure AIR-LRDP-4: BAAQMD-Suggested Operational Measures** was adopted Campus-wide and therefore would also apply to operation of projects at the Mount Zion campus site.

Mitigation Measure: Implement Mitigation Measure AIR-LRDP-4

Significance after Mitigation: Less than Significant

Impact AIR-MZ-4: Operations at the Mount Zion campus site under the 2014 LRDP would increase emissions of TACs and increase health risks for nearby residents. (Less than Significant)

Operations under the 2014 LRDP would not generate substantial DPM emissions. Development at the campus site would generate an estimated 1,292 additional daily vehicle trips from staff, students and visitors that would be almost entirely gasoline powered. The new office/research building proposed for the Mount Zion campus site under the 2014 LRDP could include new fume hoods for research or clinical purposes. However, these emissions would be partially offset by the demolition of the Brunn building, which currently has operational fume hoods. The increase in fume hood emissions from the new building would be expected to be less than that currently occurring at Genentech Hall on the Mission Bay campus site, which operates approximately 160 fume hoods. A recent health risk estimate of Genentech Hall identified the cancer risk from fume hoods to be 0.0217 in one million at the nearest off-site receptor to the northwest (UCSF, 2011). The health risk contribution from fume hoods in the new office/research building proposed for the Mount Zion campus site is expected to be less than this nominal contribution from Genentech Hall. No other new operational sources of TACs are proposed.

The proposed office research building could be as high as 105 feet. Buildings greater than 70 feet in height are required by building code to have a back-up emergency generator. Depending on the fuel source this generator may be a source of DPM. Per its Policy and Procedure Manual, the BAAQMD requires implementation of Best Available Control Technology for Toxics and would deny an *Authority to Construct* or a *Permit to Operate* for any new or modified source of TACs that exceeds a cancer risk of 10 in one million or a chronic or acute hazard index of 1.0. The permitting process under BAAQMD Regulation 2 Rule 5 requires a Health Risk Screening Analysis, the results of which are posted on the District's website. These permitting requirements would ensure that the health risks of any required generator would be less than significant.

Operations would have a less-than-significant impact with regard to health risks.

Mitigation: None required.

8.2.4 References

Adavant Consulting, Travel Demand Analysis Four Campus Summary: Existing & 2035, February, 2014.

Bay Area Air Quality Management District (BAAQMD), 2009. Revised Draft Options and Justification Report, CEQA Thresholds of Significance Air Quality Guidelines, October 2009. Available at www.baaqmd.gov.

BAAQMD, 2010. Bay Area 2010 Clean Air Plan, September 15, 2010.

BAAQMD, 2012. CEQA Air Quality Guidelines. Adopted June 2011, updated May 2012. Available at www.baaqmd.gov.

8.3 Biological Resources

The Regional Setting, Regulatory Considerations, Significance Standards and Analysis Methodology for analysis of potential effects of Biological Resources are contained in Section 4.3 of this EIR. The CEQA Significance Standards presented in Section 4.3.3 are used to evaluate the potential impacts to biological resources of all proposed 2014 LRDP activities.

After evaluation of the 2014 LRDP proposals at the Mount Zion campus site, the Initial Study concluded that all activities would result in no impact or less-than-significant impacts regarding biological resources issues. Therefore, no additional analysis is required.

8.4 Cultural Resources

This section considers the setting and cultural resources impacts of implementation of the 2014 LRDP at the Mount Zion campus site. The Regional Setting, Regulatory Considerations, Significance Standards and Analysis Methodology for analysis of potential effects of Cultural Resources are contained in Section 4.4 of this EIR. The CEQA Significance Standards presented in Section 4.4.3 are used to evaluate the potential impacts to cultural resources of all proposed 2014 LRDP activities.

8.4.1 Cultural Resources Issues Adequately Addressed in the Initial Study

After evaluation of the 2014 LRDP activities proposed at the Mount Zion campus site, the Initial Study concluded that:

- **Historical resources.** The proposed renovation of the Main Hospital and the construction of the office/research building would not result in an adverse effect on historical resources. Therefore, no additional analysis of this issue is required for these activities.
- **Archaeological resources.** The proposed demolition of the Hellman, Brunn and Dialysis buildings and renovation of the Main Hospital would not result in an adverse effect on archaeological resources. Therefore, no additional analysis of this issue is required for these activities.
- **Paleontological resources.** The proposed demolition of the Hellman, Brunn and Dialysis buildings and renovation of the Main Hospital would not result in an adverse effect on paleontological resources. Therefore, no additional analysis of this issue is required for these activities.
- **Human remains.** The proposed demolition of the Hellman, Brunn and Dialysis buildings and renovation of the Main Hospital would not result in an adverse effect on human remains. Therefore, no additional analysis of this issue is required for these activities.

8.4.2 Cultural Resources – Mount Zion Setting

The Mount Zion campus site is in a dense urban neighborhood of San Francisco, distributed across six adjoining blocks, within the area bounded by Broderick Street to the west, Scott Street to the east, Bush Street to the north, and Geary Boulevard to the south. Mount Zion Hospital was founded in 1887 by the Mount Zion Association, comprised primarily of members of San Francisco's Jewish community. The first hospital began operation in January 1897 on Sutter Street in downtown San Francisco, and moved to its current location in the Western Addition neighborhood in 1912. The Hellman Building, a T-Shaped neoclassical-style building at the northwest corner of Post and Scott Streets, was built by Isaiah W. Hellman and designed by J.E. Kraftt & Sons Architects. The building was constructed as a hospital and opened in February 1914. It has undergone several alterations, and by 1941, the building was no longer used for patient care but for administrative and office facilities. The building was reinforced with steel straps in 1995.

Hospital expansion occurred regularly throughout the 20th century. Community-based fundraising campaigns enabled the hospital to modernize and expand in the post-war era and again in the 1960s. In 1990, Mount Zion and UCSF entered into an Integration Agreement creating a joint venture in the areas of patient care, education, and research.

8.4.3 Cultural Resources – Mount Zion Impacts and Mitigation Measures

Impact CUL-MZ-1: Demolition of the Hellman building at the Mount Zion campus site would result in a substantial adverse change in the significance of an historical resource. (Potentially Significant)

The 2014 LRDP proposes to demolish the Hellman, Harold Brunn Institute and Dialysis Center buildings. These three buildings are located on the east side of the main block along Scott Street between Sutter and Post Streets. The Hellman building is seismically compromised. UCSF would demolish all three buildings, but not necessarily at the same time, and the occupants and programs would be relocated into the repurposed hospital buildings or located elsewhere. Demolition of the Hellman building would likely occur in 2016-2017. In addition, the seismically-compromised building at 2255 Post Street would be retrofitted or demolished. See also Figure 3-14 in Chapter 3 of this EIR.

Of the four buildings proposed for demolition, only the Hellman building is a historic resource for CEQA purposes (ARG, 2003). The Brunn and Dialysis buildings were determined ineligible for listing in the CRHR and NRHP, and are not considered historic resources (ARG, 2003). The building at 2255 Post Street is not individually significant at the local, state or national level under any of the four California Register criteria of evaluation. A review of these buildings by ESA in 2014 found no changes to these buildings since their original evaluation. As such, their current status would remain.

The Hellman building is eligible for listing in the NRHP/CRHR under criterion A/1 because it is associated with the development of a well-known San Francisco institution founded with a mission to subsidize care for the poor of a specific ethnic and religious group (similar to other 19th century hospitals in San Francisco, such as the French Hospital, German Hospital, and St. Mary's Hospital). The Hellman building is also eligible for listing in the NRHP/CRHR under criterion C/3 because the building is typical of an early 20th century hospital building in San Francisco. Its design was influenced by Mount Sinai Hospital in New York, a contemporary medical facility considered a model of hospital design (ARG, 2003).

As the Brunn, Dialysis and 2255 Post Street buildings are not historic resources, their demolition would not result in a significant impact to historic resources. Proposed demolition of the Hellman building would have a significant impact on historic resources because it would materially affect in an adverse manner the qualities and characteristics which convey its historic significance. Certain mitigation measures such as HABS photography has already been completed for the Hellman building. Additional measures are available to reduce the impact of demolition, as described in **Mitigation Measure CUL-MZ-1**, below. However, both the previously

implemented and future measures would not reduce the impact of demolition to a less-than-significant level. As such, the removal of the Hellman building would remain a significant and unavoidable impact.

Mitigation Measure CUL-MZ-1: Typical mitigation for the demolition of a historic resource includes HABS-level photodocumentation, as well as public interpretation. HABS-level photodocumentation was already completed in 2006.⁶ UCSF shall furnish copies of the report to local depositories of historical information to enhance public understanding and increase the availability of these materials for future research. Such depositories shall include the History Room of the San Francisco Public Library (Main Branch), San Francisco Heritage, and the Northwest Information Center at Sonoma State University.

As part of the design for the proposed new office/research building to be constructed in this location, UCSF shall install interpretive materials at or near the site to enhance public awareness in the form of a historical marker, kiosk, or other display which contains historical photos and text about the Hellman building's historical significance. The contents of the display can be obtained from the HABS documentation effort. Even after implementation of these measures, the impact of the loss of the Hellman building would remain significant and unavoidable.

Significance after Mitigation: Significant and Unavoidable

Impact CUL-MZ-2: Renovation of the Main Hospital at the Mount Zion campus site would not result in a substantial adverse change in the significance of historical resources. (Less than Significant)

The inpatient facilities at the Mount Zion campus site are provided in two interconnected buildings. Neither building will meet SB 1953 seismic requirements through 2030, so both will require decommissioning as inpatient facilities by this date. With the opening of the Medical Center at Mission Bay in 2015, the inpatient uses at the Mount Zion campus site will be relocated to the Mission Bay campus site and the inpatient buildings will subsequently be repurposed for outpatient use.

The Main Hospital at Mount Zion was completed in 1950 and designed by architect Milton Pfleuger, but it has expanded numerous times since, both upward and outward, to accommodate the growth in patient care requirements. As such, the building retains none of its original design, and was determined ineligible for listing in the NRHP/CRHR in 2003, and is not considered a historic resource for CEQA purposes (ARG, 2003). A review of this building by ESA in 2014 found no changes to this building since its original evaluation, and as such, its status would remain unchanged. As the Main Hospital at Mount Zion is not considered a historic resource for CEQA purposes, the proposed renovation project would have no impacts on historic resources.

Mitigation: None required.

⁶ Page & Turnbull, *Historic American Building Survey Documentation, Hellman Building*, October, 2006.

Impact CUL-MZ-3: Construction of the proposed office/research building at the Mount Zion campus site could cause substantial adverse changes to historical resources. (Less than Significant)

As described in Chapter 3, *Project Description*, one or more buildings (or a phased building) would be built on the east side of the main block where the Hellman, Harold Brunn Institute and Dialysis Center buildings are currently located. (See also Figures 3-14 and 3-15). A new building along Scott Street could be built up to 65 feet with a 20-foot step back at 40 feet in height to lower the building scale at the street level. It could be set back from Post Street to align with the existing hospital building for a grander landscaped entrance. Building space on Sutter Street could be up to 105 feet in height with a 20-foot setback along Sutter and Scott Streets. Up to 185 parking spaces could be constructed in two levels underground, if not developed off-site. Streetscape improvements would be made along the affected street frontages.

This proposed new building would necessitate the demolition of the historic Hellman building, and the impacts of this effort are discussed above under Impact CUL-MZ-1. Other than demolition of the Hellman building, construction of a new building in this location would have no direct or indirect impacts to historic resources, as none is located (or will be located) at or near this area of the block once the Hellman building has been removed. There are no other historic resources identified on the subject block or immediate vicinity with the exception of the Jewish Family and Children’s Services Center at 1615 Scott Street, directly across Scott Street from the Hellman building. This Renaissance Revival-style brick building, constructed in 1930, may be eligible for listing in the NRHP/CRHR upon further review. Even if determined to be a historic resource at a later date, the proposed new office/research building to be constructed across the street would be separated from this potentially historic building by the 60-foot width of Scott Street, as well as the proposed 20-foot setback along Scott Street, for a total of an 80-foot separation. This separation would be sufficient to allow the Jewish Family and Children’s Services Center to retain its integrity of setting, and the building would not be indirectly affected by the proposed project. As such, the construction of a new office/research building would have no impact on historic resources.

Mitigation: None required.

Impact CUL-MZ-4: Construction of the proposed office/research building at the Mount Zion campus site could cause substantial adverse changes to archaeological resources. (Potentially Significant)

Previous studies and archival research conducted for the Mount Zion campus site have not identified archaeological resources at the campus site (UCSF, 2005). Archaeological sites are generally located near watercourses or water bodies. Additionally, this campus site has been extensively modified over time, and the likelihood of discovering archaeological resources would be low. In the unlikely event that archaeological artifacts are discovered during construction (including grading, excavation and other earthmoving activities), **Mitigation Measure CUL-LRDP-3** would be implemented to reduce the impact to a less than significant level.

Mitigation Measure: Implement Mitigation Measure CUL-LRDP-3

Significance after Mitigation: Less than Significant

Impact CUL-MZ-5: Construction of the proposed office/research building at the Mount Zion campus site could cause substantial adverse changes to paleontological resources. (Potentially Significant)

Paleontology is a multidisciplinary science that combines elements of geology, biology, chemistry, and physics in an effort to understand the history of life on earth. Paleontological resources, or fossils, are the remains, imprints, or traces of once-living organisms preserved in rocks and sediments. The fossil yielding potential of a particular area is highly dependent on the geologic age and origin of the underlying rocks. In general, older sedimentary rocks (more than 10,000 years old) are considered most likely to yield vertebrate fossils of scientific interest. Review of geological maps and previous analysis suggests that there are no unique paleontological resources or unique geologic features at the Mount Zion campus site, which is underlain by dune sands. In the event that paleontological resources are uncovered during the course of construction, implementation of **Mitigation Measure CUL-LRDP-4** would reduce impacts to a less than significant level.

Mitigation Measure: Implement Mitigation Measure CUL-LRDP-4

Significance after Mitigation: Less than Significant

Impact CUL-MZ-6: Construction of the proposed office/research building at the Mount Zion campus site could cause substantial adverse changes to human remains. (Potentially Significant)

There are no known human remains, including those interred outside of formal cemeteries located at the Mount Zion campus site. However, in the event of an accidental discovery or recognition of human remains during project excavation and construction, **Mitigation Measure CUL-LRDP-5** would be implemented to reduce the impact to a less than significant level.

Mitigation Measure: Implement Mitigation Measure CUL-LRDP-5

Significance after Mitigation: Less than Significant

8.4.4 References

Architectural Resources Group (ARG), *Historical Resources Evaluation UCSF Mount Zion Campus, San Francisco, California*, June, 2003

Carey & Co. *UCSF Historic Resources Survey*, February, 2011.

UCSF, *UCSF LRDP Amendment #2 Draft EIR*, 2005.

8.5 Geology, Soils and Seismicity

This section considers the setting and geology, soils and seismicity impacts of implementation of the 2014 LRDP at the Mount Zion campus site. The Regional Setting, Regulatory Considerations, Significance Standards and Analysis Methodology for analysis of potential effects of Geology, Soils and Seismicity are contained in Section 4.5 of this EIR. The CEQA Significance Standards presented in Section 4.5.3 are used to evaluate the potential Geology, Soils and Seismicity impacts of all proposed 2014 LRDP activities.

Those impacts that are specific to the implementation of the 2014 LRDP at the Mount Zion campus site are discussed below.

8.5.1 Geology, Soils and Seismicity Issues Adequately Addressed in the Initial Study

After evaluation of the 2014 LRDP activities proposed at the Mount Zion campus site, the Initial Study concluded that:

- **Landslides.** No activities would result in an adverse effect from landslides. Therefore, no additional analysis of this issue is required.
- **Erosion.** The proposed renovation of the Main Hospital would not result in substantial soil erosion. Therefore, no additional analysis of this issue is required for this activity.
- **Expansive soils.** No activities would be located on expansive soils. Therefore, no additional analysis of this issue is required.
- **Soils and wastewater disposal.** No activities would result in the installation of septic tanks or alternative wastewater disposal systems. Therefore, no additional analysis of this issue is required.
- **Structural hazards.** The proposed renovation of the Main Hospital would be the only activity to have potential effects regarding exposure to structural hazards in an existing building. Accordingly, no analysis of this issue is required for any other activity.

8.5.2 Geology, Soils and Seismicity – Mount Zion Setting

The Mount Zion campus site is located at an elevation of approximately 120 feet above mean sea level and slopes gently to the southeast. Subsurface materials at the Mount Zion campus site generally consist of recent unconsolidated sand and alluvium. The campus site is not within the City of San Francisco's Special Geologic Study Area for potential ground failure hazards caused by landsliding or liquefaction.

8.5.3 Geology, Soils and Seismicity – Mount Zion Impacts and Mitigation Measures

There are three types of proposals at the Mount Zion campus site under the 2014 LRDP:

- **Demolition:** Hellman, Brunn and Dialysis Buildings (and possibly 2255 Post Street)
- **Renovation:** Main Hospital (and possibly 2255 Post Street)
- **Construction:** Construct Office/Research Building

As discussed in Section 5.5, the general Geology, Soils and Seismicity impacts that could occur as a result of implementing the 2014 LRDP, are:

Impact GEO-LRDP-1: Implementation of the 2014 LRDP could result in adverse effects to people and structures resulting from geologic hazards.

Impact GEO-LRDP-2: Implementation of the 2014 LRDP could result in substantial soil erosion or loss of topsoil.

Demolition activities could include disturbance to improvements that would expose underlying soils. If not managed appropriately, these soils could be subject to the effects of wind and water erosion. However, all construction activities including demolition activities would be required to adhere to best management practices that include erosion control measures. As a result, the potential impacts related to erosion would be reduced to less than significant.

The proposed renovations at the hospital are in response to the facility's inability to meet SB 1953 seismic code requirements for inpatient hospital care facilities. As a result, renovations are proposed to repurpose the facility for outpatient services. Any renovations involving structural changes to the building could require seismic upgrades, if applicable, however in general, renovations would likely be more cosmetic and subject to the same potential geologic and seismic hazards as presently exist.

The campus site is located in a seismically active region that could experience at least one major earthquake (Richter magnitude (M) 6.7 or higher) over the next 30 years. Strong ground shaking at the campus site could occur during a moderate to severe earthquake occurring on one of the active Bay Area faults near to the campus site. New construction of the office/research building would be required to include site preparation and design in accordance with the UC *Seismic Safety Policy* and current and most stringent of either the California Building Code or local building code requirements that would minimize the potential for geologic and seismic hazards to adversely affect the proposed structure and future occupants. Adherence to these regulatory requirements would ensure that seismic hazards are reduced to less than significant levels.

Mitigation: None required.

8.5.4 References

University of California, *Seismic Safety Policy*, available at <http://ucop.edu/real-estate-services/resources/seismic-safety-policy/index.html>.

8.6 Greenhouse Gas Emissions

This section considers the setting and greenhouse gas emissions impacts of implementing the 2014 LRDP at the Mount Zion campus site. The Regional Setting, Regulatory Considerations, Significance Standards and Analysis Methodology for analysis of potential effects of greenhouse gas emissions are contained in Section 4.6 of this EIR. The CEQA Significance Standards presented in Section 4.6.3 are used to evaluate the potential greenhouse gas emissions impacts of all proposed 2014 LRDP activities.

8.6.1 Greenhouse Gas Emissions Issues Adequately Addressed in the Initial Study

The Initial Study concluded that proposed 2014 LRDP activities at the Mount Zion campus site and their potential effects on greenhouse gas emissions would be evaluated in the EIR.

8.6.2 Greenhouse Gas Emissions – Mount Zion Setting

Greenhouse gas (GHG) emissions are generated at the Mount Zion campus site from a variety of sources. These include motor vehicle trips generated by uses on site, electrical and natural gas usage including, water and wastewater transport (the energy used to pump water and wastewater to and from the campus site), and solid waste generation.

8.6.3 Greenhouse Gas Emissions – Mount Zion Impacts and Mitigation Measures

Impact GHG-MZ-1: Development at the Mount Zion campus site under the 2014 LRDP would result in an increase in construction-related GHG emissions. (Potentially Significant)

Construction emissions from development under the 2014 LRDP at the Mount Zion campus site were estimated using the CalEEMod emissions model assuming demolition of 85,000 square feet of existing buildings and the construction of a 257,300 square foot office/research building. Construction-related emissions were calculated assuming completion by 2020 and phasing lengths based on CalEEMod default estimates which are based on square footage. All model inputs and outputs are provided in Appendix E. Construction-related GHG emissions for each year of the anticipated construction period are presented in **Table 8.6-1**. Estimated emissions are 183 metric tons of carbon dioxide equivalents⁷ (CO₂e). As discussed earlier, BAAQMD has not established a quantitative threshold relative to construction-related emissions.

In lieu of any proposed or adopted thresholds relative to construction-related emissions, these emissions are considered significant unless best management practices are implemented to reduce GHG emissions during construction, as feasible. Consequently, **Mitigation Measure GHG-LRDP-1** is identified to ensure implementation of best management practices during construction.

⁷ CO₂e in all calculations of project impact include CO₂, CH₄ and N₂O.

**TABLE 8.6-1
 ANNUAL CONSTRUCTION-RELATED GHG EMISSIONS
 WITHOUT MITIGATION - MOUNT ZION**

Construction Window Source	Emissions (metric tons CO ₂ e / year)			
	CO ₂	CH ₄	N ₂ O	Total CO ₂ e
2015-2020	182	<1	<1	183

NOTE: Project CO₂ emissions estimates were made using CalEEMod v.2013.2.

Mitigation Measure: Implement Mitigation Measure GHG-LRDP-1

Significance after Mitigation: Less than Significant. Implementation of Mitigation Measure GHG-LRDP-1 would ensure that UCSF and its contractors employ feasible, effective measures to reduce GHG emissions during construction activities. This mitigation measure would therefore reduce this potential impact to less than significant.

Impact GHG-MZ-2: Development at the Mount Zion campus site under the 2014 LRDP would result in an increase in operational GHG emissions. (Less than Significant)

Area, Energy, and Indirect Sources

Operational GHG emissions associated with development under the 2014 LRDP at the Mount Zion campus site would result from electrical and natural gas usage, water and wastewater transport (the energy used to pump water and wastewater to and from the campus site), and solid waste generation. GHG emissions from electrical usage are generated when energy consumed on the campus site is generated by the electrical supplier, PG&E. GHG emissions from natural gas are direct emissions resulting from on-site combustion for heating and other purposes. GHG emissions from water and wastewater transport are also indirect emissions resulting from the energy required to transport water from its source, and the energy required to treat wastewater and transport it to its treated discharge point. Solid waste-related emissions are generated when the increased waste generated by new development is disposed in a landfill where it decomposes, producing methane gas.⁸

GHG emissions from electrical usage, natural gas combustion, mobile transportation, water and wastewater conveyance, and solid waste were estimated using the CalEEMod model, and are presented in **Table 8.6-2**. Default GHG emissions factor for PG&E was adjusted to reflect future reductions envisioned by PG&E (PG&E, 2013). Electrical and natural gas emissions also assume compliance with UCSF policy to achieve an energy use 20% lower than Title 24 requirements.

⁸ CH₄ from decomposition of municipal solid waste deposited in landfills is counted as an anthropogenic (human-produced) GHG. (USEPA, 2006).

**TABLE 8.6-2
 ANNUAL OPERATIONAL GHG EMISSIONS
 WITHOUT MITIGATION - MOUNT ZION CAMPUS**

Emission Source	Emissions (metric tons/year)			
	CO ₂	CH ₄	N ₂ O	Total CO ₂ e
Area Sources	<1	<1	<1	<1
Energy Sources	1,190	<1	<1	1,195
Mobile Sources	719	<1	<1	720
Solid Waste	564	33.3	<1	1,264
Water and Wastewater	67.3	1.0	<1	97
Demolition Losses				
Area Sources	<1	<1	<1	<1
Energy Sources	-435	<1	<1	-437
Solid Waste	-186	-11	<1	-418
Water and Wastewater	-22	<1	<1	-32
Net Total	1,897	23	<1	2,389

NOTE: Columns may not total precisely due to rounding. Rows may not total precisely due to differences in global warming potential.

Demolition projects would result in reductions in electrical and natural gas usage, water and wastewater transport (the energy used to pump water and wastewater to and from the campus site), and solid waste generation from the buildings being demolished. While there could be a reduction in energy demand resulting from reuse of the Main Hospital from in-patient to out-patient use, it was conservatively assumed that this reduction would be negligible. GHG emission reductions would be realized from reduction in electrical demand, natural gas use, water and wastewater transport and solid waste generation.

Mobile Emission Sources

One of the sources of operational emissions would be increased vehicle emissions from traffic for additional staff, patients, visitors and residents. Traffic volumes used to estimate vehicle-related emissions were derived from the Transportation Demand Analysis prepared for the 2014 LRDP (Adavant, 2014). New development under the 2014 LRDP at the Mount Zion campus site would generate an estimated 179 additional daily vehicle trips. GHG emissions from motor vehicle sources were calculated using the CalEEMod. Table 8.6-2 presents the incremental mobile source GHG emissions associated with 2014 LRDP development, which represent approximately 22% of the total operational GHG emissions from new development.

As shown in Table 8.6-2, the sum of both direct and indirect GHG emissions resulting from operations under the 2014 LRDP, including operational losses from demolition of older less-efficient buildings would result in an estimated 2,389 metric tons per year of CO₂e. Applying a service population of 711 persons associated with development at the Mount Zion campus site (649 new faculty, staff and 62 students) results in emissions of approximately 3.4 metric tons CO₂e/SP/yr. This is below the service population threshold of 4.6 metric tons per year of CO₂e/SP

and operational GHG emissions associated with development under the 2014 LRDP would therefore be a less-than-significant impact.

Mitigation: None required.

8.6.4 References

Adavant Consulting, Travel Demand Analysis Four Campus Summary: Existing & 2035, February, 2014.

Bay Area Air Quality Management District (BAAQMD), 2009. Revised Draft Options and Justification Report, CEQA Thresholds of Significance Air Quality Guidelines, October 2009. Available at www.baaqmd.gov.

BAAQMD, 2012. CEQA Air Quality Guidelines. Adopted June 2011, updated May 2012. Available at www.baaqmd.gov.

Pacific Gas & Electric Company (PG&E), Greenhouse Gas Emission Factors: Guidance for PG&E Customers, April, 2013.

8.7 Hazards and Hazardous Materials

This section considers the setting and hazards and hazardous materials impacts of implementation of the 2014 LRDP at the Mount Zion campus site. The Regional Setting, Regulatory Considerations, Significance Standards and Analysis Methodology for analysis of potential effects of Hazards and Hazardous Materials are contained in Section 4.7 of this EIR. The CEQA Significance Standards presented in Section 4.7.3 are used to evaluate the potential hazards and hazardous materials impacts of all proposed 2014 LRDP activities.

8.7.1 Hazards and Hazardous Materials Issues Adequately Addressed in the Initial Study

After evaluation of the 2014 LRDP activities proposed at the Mount Zion campus site, the Initial Study concluded that:

- **Safety hazards from airport operations.** No activities would result in safety hazards resulting from proximity to public or private airports. Therefore, no additional analysis of this issue is required.
- **Wildland fires.** No activities would result in exposure to wildland fires. Therefore, no additional analysis of this issue is required.

8.7.2 Hazards and Hazardous Materials – Mount Zion Setting

The Mount Zion campus site uses include the hospital, clinical offices, outpatient programs, and parking lots all located within a mixed-use neighborhood commercial district, which all involve the transport, storage, handling, and disposal of hazardous materials. Proposed 2014 LRDP activities include demolition of existing buildings which could contain hazardous building materials, renovations to existing buildings which could also disturb hazardous building materials, and constructing an office/research building

8.7.3 Hazards and Hazardous Materials – Mount Zion Impacts and Mitigation Measures

Impact HAZ-MZ-1: Implementation of the 2014 LRDP could create a significant hazard to the public or the environment through the routine transport, use or disposal of hazardous materials, or through reasonably foreseeable upset and accident conditions. (Potentially Significant)

The current inpatient facilities at the Mount Zion campus site cannot meet newer seismic code requirements through 2030, so both will require decommissioning as inpatient facilities. Inpatient uses at the Mount Zion campus site will be relocated to the Mission Bay campus site and the inpatient buildings will subsequently be repurposed for outpatient use. The renovation efforts to repurpose these facilities could include disturbing existing building materials which could potentially contain hazardous building materials such as lead-based paint, asbestos containing materials, polychlorinated biphenyls (PCBs), and mercury. If not addressed appropriately,

construction workers and the public could be exposed to adverse effects as a result of exposure to these hazardous building materials, if present. As described in Chapter_5, existing regulations are sufficient to reduce potential exposure health risks to less than significant levels. Once renovations are complete, there could be a potential net increase in the use, storage, and disposal of hazardous materials including biohazardous wastes, however any additional hazardous materials handling activity would be subject to federal, state, local, and existing UCSF policies and plans.

One or more buildings (or a phased building) would be built in place of the Hellman, Harold Brunn Institute and Dialysis Center buildings. Development could also include two levels of underground parking. The level of hazardous materials use, storage and disposal would likely depend on whether the building(s) end up being used as offices or for research purposes. Either way, any expanded or additional use of hazardous materials would require adherence to regulatory requirements that address the storage, use, and disposal of hazardous materials in a manner that limit health risks and upset and accident conditions. Hazardous materials use, storage and disposal also would be offset with the hazardous materials practices that existed with the operations of the Hellman, Brunn and Dialysis Buildings which are proposed for demolition.

San Francisco is among the identified counties where ultramafic bedrock materials are present and have the potential for naturally occurring asbestos fibers. Ground disturbing activities such as excavation for construction of foundations or the underground parking have the potential to encounter bedrock containing naturally occurring asbestos fibers. If not addressed appropriately, disturbance of these fibers could expose workers and the public to adverse health effects. With implementation of **Mitigation Measure HAZ-LRDP-1**, the potential impact would be reduced to less than significant levels.

Mitigation Measure: Implement Mitigation Measure HAZ-LRDP-1

Significance after Mitigation: Less than Significant

Impact HAZ-MZ-2: Implementation of the 2014 LRDP at the Mount Zion campus site could result in hazardous emissions or the handling of hazardous or acutely hazardous materials, substances or waste within one-quarter mile of existing or proposed schools. (Less than Significant)

There are several schools located within a quarter mile of the Mount Zion campus site including Gateway High School and Drew School which are located approximately 0.2 miles from the campus site. While there may be net changes in the amount and type of hazardous materials handled, stored, and disposed of, the 2014 LRDP proposals would overall not represent a substantive change in emissions or handling of hazardous materials and all activities would continue adherence to federal, state, local and UCSF policies and regulatory requirements.

Mitigation: None required.

8.7.4 References

State Water Resources Control Board (SWRCB), *Geotracker database*,
<http://geotracker.waterboards.ca.gov/map/?CMD=runreport&myaddress=San+Francisco%2C+CA>, accessed February 14, 2014.

Department of Toxic Substances Control (DTSC), *Envirostor Database*,
http://www.envirostor.dtsc.ca.gov/public/mapfull.asp?global_id=&x=-119&y=37&z1=18&ms=640,480&mt=m&findaddress=True&city=1600%20Divisadero,%20San%20Francisco%20CA&zip=&county=&federal_superfund=true&state_response=true&voluntary_cleanup=true&school_cleanup=true&ca_site=true&tiered_permit=true&evaluation=true&military_evaluation=true&school_investigation=true&operating=true&post_closure=true&non_operating=true, accessed February 14, 2014.

8.8 Hydrology and Water Quality

This section considers the setting and hydrology and water quality impacts of implementation of the 2014 LRDP at the Mount Zion campus site. The Regional Setting, Regulatory Considerations, Significance Standards and Analysis Methodology for analysis of potential Hydrology and Water Quality effects are contained in Section 4.8 of this EIR. The CEQA Significance Standards presented in Section 4.8.3 are used to evaluate the potential impacts to hydrology and water quality of all proposed 2014 LRDP activities.

Those impacts that are specific to the implementation of the 2014 LRDP at the Mount Zion campus site are discussed below.

8.8.1 Hydrology and Water Quality Issues Adequately Addressed in the Initial Study

After evaluation of the 2014 LRDP activities proposed at the Mount Zion campus site, the Initial Study concluded that:

- **Groundwater supplies.** No activities would result in substantial depletion of groundwater supplies or interfere substantially with groundwater recharge. Therefore, no additional analysis of this issue is required.
- **Housing or other structures within flood hazard areas.** No activities would place housing or other structures within a flood hazard area. Therefore, no additional analysis of this issue is required.
- **Exposure to flooding.** No activities would result in exposure to flooding. Therefore, no additional analysis of this issue is required.
- **Inundation by seiche, tsunami or mudflow.** No activities would result in inundation by seiche, tsunami or mudflow. Therefore, no additional analysis of this issue is required.

Finally, the Initial Study also concluded that the proposed renovation of the Main Hospital would result in no impact or less-than-significant impacts regarding any hydrology or water quality issue. Therefore, no additional analysis is required for this building renovation activity.

8.8.2 Hydrology and Water Quality – Mount Zion Setting

The Mount Zion campus site occupies various portions of a six-block stretch of San Francisco bounded by Bush, Geary, Broderick, and Scott streets. The main campus block is the hospital located on Post and Sutter streets. The area is almost completely covered in impervious surfaces and drains to the Southeast Treatment Plant.

8.8.3 Hydrology and Water Quality – Mount Zion Impacts and Mitigation Measures

There are three types of proposals at the Mount Zion campus site under the 2014 LRDP:

- **Demolition:** Hellman, Brunn and Dialysis Buildings (and possibly 2255 Post Street)
- **Renovation:** Main Hospital (and possibly 2255 Post Street)
- **Construction:** Construct Office/Research Building

Proposed LRDP development at the Mount Zion campus site (including on-site staging) would include demolition, excavation, grading, and construction activities that would require temporary disturbance of surface soils and removal of existing pavement and sub-surface structures (if present). These activities would expose soil to water runoff as well as entrainment of sediment in the runoff. If dewatering would be necessary during construction, the water would likely contain suspended sediments and would require settling before being discharged to the CSS. Sediment in runoff and deposits of soil and related debris from haul truck tires on local streets could increase the amount of sediment entering the storm drains, which could potentially clog drain inlets and reduce the flow capacity of the storm drains. The accumulation of this material could potentially result in increased localized ponding or flooding, particularly after large storm events.

The use of construction equipment as well as the delivery, handling, and storage of construction materials and waste could contaminate stormwater that could negatively impact water quality. Potential contaminants include, but are not limited to (CSW/Stuber-Stroeh, 2011):

- Petroleum hydrocarbons and metals from stockpiled soils excavated from the site
- Fuel from storage drums
- Diesel from refueling trucks
- Oils and grease from miscellaneous heavy equipment
- Sewage from portable sanitary facilities
- Sediment from construction generated waste—piles of concrete, rock and debris
- Sediment from rock crushing activities
- Hazardous materials storage-hydraulic oil, motor oil, and lubricating fluid
- Spills and releases of hydrocarbons and related pollutants from routine light maintenance activities such as fluid topping off, and welding and repairing belts and gears of heavy equipment

Polluted stormwater runoff could violate water quality standards and/or waste discharge requirements established in the NPDES General Permit for Construction and the NPDES discharge permits for the Southeast Treatment Plant.

In accordance with the Construction General Stormwater Permit, UCSF would be required to prepare and implement a SWPPP for each LRDP construction project to minimize water quality impacts during construction activities on the campus site. The SWPPPs will be consistent with previous SWPPPs that have been developed for past development of the Mount Zion campus site (e.g. construction of the Mount Zion Parking Garage).

The SWPPPs will identify pollutant sources within the construction area and recommend site-specific BMPs regarding control of sediments in runoff and storage and use of hazardous materials to prevent discharge of pollutants into stormwater. Likely BMPs are listed in Section 5.1.8.

In addition, each 2014 LRDP construction project will need to obtain a water quality certification from the RWQCB for the construction activities, which would also require implementation of BMPs and specific measures for the protection of water quality during construction.

Proposed development and redevelopment at the Mount Zion campus site would not significantly change the volumes of site stormwater runoff, nor how this runoff is directed or routed through the campus site to the CSS. The proportion of impermeable surfaces at the campus site will not significantly change as a result of 2014 LRDP activities. Measures to prevent and minimize erosion and its potential effects on storm drain siltation and water quality would be included in the SWPPP.

Implementation of SWPPPs and associated BMPs would reduce erosion and water quality impacts during demolition and construction activities to less than significant. These regulatory requirements, discussed in Sections 4.8 and 5.8, limit the potential adverse effects of these impacts to less than significant.

Mitigation: None required.

8.8.4 References

CSW/Stuber-Stroeh Engineering Group, Inc., *Storm Water Pollution Prevention Plan*, UCSF Medical Center at Mission Bay, San Francisco, California, August, 2011.

8.9 Land Use and Planning

This section considers the setting and land use and planning impacts of implementation of the 2014 LRDP at the Mount Zion campus site. The Regional Setting, Regulatory Considerations, Significance Standards and Analysis Methodology for analysis of potential effects of Land Use are contained in Section 4.9 of this EIR. The CEQA Significance Standards presented in Section 4.9.3 are used to evaluate the potential land use impacts of all proposed 2014 LRDP activities.

8.9.1 Land Use and Planning Issues Adequately Addressed in the Initial Study

After evaluation of the 2014 LRDP activities proposed at the Mount Zion campus site, the Initial Study concluded that:

- **Physically divide an established community.** No activities would physically divide an established community. Therefore, no additional analysis of this issue is required.
- **Habitat conservation plan.** No activities would result in a conflict with any applicable habitat conservation plan. Therefore, no additional analysis of this issue is required.
- **Compatibility with local land uses or zoning.** The proposed demolition of Hellman, Brunn and Dialysis buildings would not conflict with local land uses or zoning. Therefore, no additional analysis of this issue is required for these activities.

8.9.2 Land Use and Planning – Mount Zion Setting

The Mount Zion campus site consists of approximately 7.6 acres on six contiguous city blocks in the Western Addition neighborhood of San Francisco. The campus site is generally bounded by Bush Street to the north, Scott Street to the east, Post Street to the south and Broderick Street to the west. The Mount Zion campus site has 776,200 gsf of owned space and 45,300 gsf of leased space within a quarter-mile, for a total of 821,500 gsf. The Medical Center at Mount Zion is located on the main block, with the entrance on Divisadero Street between Post and Sutter Streets. Additional Mount Zion facilities are located on and distributed across five adjoining blocks, within the area bounded by Broderick Street to the west, Scott Street to the east, Bush Street to the north and Geary Boulevard to the south. The Mount Zion campus site has not been designated with functional zones by UCSF prior to the adoption of the 2014 LRDP.

The campus site is located in a mixed-use neighborhood commercial district and is fully integrated with the city street grid. Most buildings along Divisadero Street consist of residential and office uses above ground floor retail. In the vicinity of the campus site there are several private medical office buildings that are not affiliated with UCSF. Kaiser Medical Center is located on Geary Boulevard, one block to the southwest. Residential uses are widespread north and west and directly across Scott Street to the east of the main block.

8.9.2.1 City of San Francisco Zoning

The campus site is zoned as Neighborhood Commercial (NC-3) by the City, with the exception of one parcel at 2375 Post Street that is zoned Residential Mixed Use (RM-1). NC-3 Districts are intended in most cases to offer a wide variety of comparison and specialty goods and services to a population greater than the immediate neighborhood. NC-3 Districts are linear districts located along heavily trafficked thoroughfares that also serve as major transit routes. Height and Bulk Districts within the campus site boundaries include the following: 40-X, 65-A and 105-E. The locations with an “X” designation permit all floors of structures to cover the entire building footprint. The “A” designation limits building floor plans above 40 feet to a maximum plan length of 110 feet and a maximum diagonal plan dimension of 125 feet. The “E” designation limits floor plans above 65 feet to a maximum plan length of 110 feet and a maximum diagonal plan dimension of 140 feet.

8.9.3 Land Use and Planning – Mount Zion Impacts and Mitigation Measures

Impact LU-MZ-1: Implementation of the 2014 LRDP at the Mount Zion campus site would be consistent with applicable land use plans, policies and regulations adopted for the purpose of avoiding or mitigating an environmental effect. (Less than Significant)

Upon adoption by the Regents, the proposed 2014 LRDP will replace the 1996 LRDP, as amended, and become the applicable campus land use plan for UCSF. Pursuant to the University of California’s constitutional autonomy, development and uses on property owned or leased by the University that are in furtherance of the University’s educational purposes are not subject to local land use regulation. The University is the only agency with land use jurisdiction over activities proposed at UCSF campus sites by the 2014 LRDP. Therefore, all proposed activities that would be in general conformance with the 2014 LRDP would have no significant land use impacts.

However, UCSF considers the land use policies and zoning regulations of the City when analyzing potential land use impacts under CEQA. The 2014 LRDP is not expected to conflict with City plans and policies adopted for the purpose of avoiding or mitigating an environmental effect. Consistency with the City’s height and bulk districts is discussed below under Impacts LU-MZ-2 and LU-MZ-3.

The Mount Zion campus site would be newly designated with functional zones under the 2014 LRDP (see Figure 3-13 in Chapter 3, *Project Description*). The majority of the campus site is proposed as Clinical, consistent with the predominance of inpatient and outpatient uses. The cancer research building is designated as Research. Other areas include structured parking controlled by UCSF. The functional zone classifications proposed by UCSF do not present land use conflicts with adjacent existing land uses on the campus site or in the surrounding neighborhood. The renovation of the Main Hospital and construction of the proposed office/research building would be consistent with the existing uses on the campus site. Therefore, implementation of the 2014 LRDP would have a less-than-significant impact regarding consistency with land use plans and policies adopted for the purpose of avoiding or mitigating an environmental effect.

Mitigation: None required.

Impact LU-MZ-2: Renovation of the Main Hospital at the Mount Zion campus site would be compatible with existing land uses, density, and height and bulk restrictions. (Less than Significant)

With the opening of the Medical Center at Mission Bay in 2015, the inpatient uses at the Mount Zion campus site currently located in the Main Hospital will be relocated to the Mission Bay campus site. The Main Hospital would be repurposed as an ambulatory care center with ambulatory surgery. Vacated space would be backfilled with growth of the cancer program, expansion of outpatient services and support space. The decommissioned hospital may also accommodate program space and clinics now located in the Hellman, Harold Brunn Institute and Dialysis Center buildings proposed for demolition, as well as nearby leased space if and when leases are not renewed. Proposed renovations would be limited to the interior and no conflicts would result with local zoning regulations. This would therefore be a less than significant impact.

Mitigation: None required.

Impact LU-MZ-3: The proposed office/research building at the Mount Zion campus site would be compatible with adjacent land uses. (Less than Significant)

UCSF proposes to construct one or more buildings (or a phased building) totaling approximately 257,000 gsf on the east side of the main block where the Hellman, Harold Brunn Institute and Dialysis Center buildings are currently located. UCSF conducted a capacity study to evaluate options and to determine how much space could be developed on this portion of the block, given the program space target, the need for a central open space area, parking and loading requirements and the City's height and bulk limits. The study determined that the full program could be met, but only if the City's bulk limits were exceeded and parking was located underground or off the block. A new building along Scott Street could be built up to 65 feet tall with a 20-foot step back at the 40-foot height level to lower the building scale at the street level. The building could be set back from Post Street to align with the existing hospital building. Building space on Sutter Street could be up to 105 feet in height with a 20-foot setback along Sutter and Scott Streets. The proposed building would comply with the City's height limit, but not the bulk limit.

As noted above, the University is exempt from local zoning. However, UCSF strives to adhere to City zoning codes to the extent practicable in accordance with 2014 LRDP Objective 1: Respond to the City and Community Context. The 2014 LRDP also includes an objective (Objective 3) to ensure that its facilities are seismically safe. To the extent feasible, UCSF would design the new office/research building to avoid or minimize the effects of this conflict with the City's Planning Code. While the proposed new office/research building would exceed the bulk restrictions of the Planning Code, the proposed building would be designed to align with the existing Main Hospital building and is located in a setting already built out with other UCSF facilities. Accordingly, although it would technically exceed the local bulk restrictions, it would be compatible with adjacent land uses and would not therefore create a significant land use impact.

Mitigation: None required.

8.10 Noise

This section considers the setting and noise impacts of implementation of the 2014 LRDP at the Mount Zion campus site. The Regional Setting, Regulatory Considerations, Significance Standards and Analysis Methodology for analysis of potential effects of Noise are contained in Section 4.10 of this EIR. The CEQA Significance Standards presented in Section 4.10.3 are used to evaluate the potential noise impacts of all proposed 2014 LRDP activities.

8.10.1 Noise Issues Adequately Addressed in the Initial Study

After evaluation of the 2014 LRDP activities proposed at the Mount Zion campus site, the Initial Study concluded that:

- **Permanent ambient noise.** The demolition of the Hellman, Brunn and Dialysis buildings would not result in a substantial permanent increase in ambient noise levels. Therefore, no additional analysis of this issue is required for these activities.
- **Airport noise.** No activities would be located within the vicinity of a public or private airport. Therefore, no additional analysis of this issue is required.
- **Average daily noise levels.** The demolition of the Hellman, Brunn and Dialysis buildings would not contribute to increases in average daily noise levels. Therefore, no additional analysis of this issue is required for these activities.

8.10.2 Noise – Mount Zion Setting

8.10.2.1 Existing Noise Environment

Long-term environmental noise in urbanized areas is primarily dependent on vehicle traffic volumes and the mix of vehicle types. The existing ambient noise environment within the Mount Zion campus site area is dominated by vehicular traffic on Divisadero Street, Bush Street and Sutter Street.

The San Francisco Department of Public Health (DPH) has mapped transportation noise throughout the City and County of San Francisco, based on modeled baseline traffic volumes derived from the San Francisco County Transportation Authority travel demand model⁹. DPH maps indicate the areas subject to noise levels over 60 dBA (L_{dn}) and the range of L_{dn} noise levels that occur on every street in San Francisco. The portions of these maps that cover the campus site area indicate that areas along Divisadero Street, Bush Street and Sutter Street are generally between 65 and 70 dBA (L_{dn}).

Ambient Noise Measurements

Ambient short-term (10-minute) noise measurement data was collected in March of 2014 to characterize noise conditions in the campus site area. To characterize ambient noise in the

⁹ San Francisco Department of Public Health (DPH), San Francisco City-wide Noise Map, August 2006, Available online at <http://www.sfdph.org/dph/files/EHSdocs/ehsPublsdocs/Noise/noisemap2.pdf> Accessed April 30, 2013.

campus site area, the short-term measurement data were collected at a location where residential land uses exist adjacent to where proposed demolition and construction activities could occur. These data are presented in **Table 8.10-1**.

**TABLE 8.10-1
SHORT- TERM AMBIENT NOISE LEVEL DATA IN THE MOUNT ZION CAMPUS AREA**

Measurement Location	Time	Noise Levels in dBA	
		Hourly L _{eq}	L _{max}
MZ-ST1: Residences on Scott Street between Sutter Street and Post Street	4:25	66.4	78.1

NOTE: L_{eq} represents the constant sound level; L_{max} is the maximum noise level.

SOURCE: Environmental Science Associates, 2014.

8.10.3 Noise – Mount Zion Impacts and Mitigation Measures

Impact NOI-MZ-1: Demolition activities proposed under the 2014 LRDP at the Mount Zion campus site would result in a temporary increase in ambient noise levels. (Potentially Significant)

As noted in the Regional Setting section, the hours that construction activity noise can occur is described in Section 2908 of the Police Code, known as the San Francisco Noise Ordinance. Although UCSF is not subject to the noise ordinance, it strives to be consistent with it. Section 2908 prohibits any person, between the hours of 8:00 p.m. of any day and 7:00 a.m. of the following day, from erecting, constructing, demolishing, excavating for, altering, or repairing any building or structure if the noise level created is in excess of the ambient noise level by 5 dBA at the nearest property line.

Demolition of the three buildings proposed to be removed would require the use of heavy duty off-road construction equipment as well as haul trucks to remove debris. Construction activity noise levels at and near the demolition sites would fluctuate depending on the particular type, number, and duration of uses of various pieces of construction equipment. **Table 8.10-2** shows typical noise levels produced by various types of construction equipment. Equipment typically involved with large-scale demolition would include excavators, dozers, loaders and trucks for off-hauling demolition debris. Additionally, a hoe-ram (a back-hoe fitted with a ramming bit) may be used to break up large concrete structures.

The demolition of the three buildings would occur within 60 feet of an occupied residential building across Scott Street to the east. The estimated noise level of demolition activities, assuming simultaneous operation of an excavator, a loader and a bulldozer as calculated using the Roadway Construction Noise Model of the FHWA, would be 84.1 dBA, L_{eq}. The nearest sensitive residential receptor currently experiences existing daytime noise levels of 66 dBA. Noise from standard construction equipment could exceed these existing noise levels by as much as 18 dBA.

**TABLE 8.10-2
 TYPICAL NOISE LEVELS FROM CONSTRUCTION EQUIPMENT**

Construction Equipment	Noise Level (dBA, Leq at 50 Feet)	Noise Level (dBA, Leq at 60 Feet)
Dump truck	76	74
Portable air compressor	78	76
Concrete mixer (truck)	79	77
Crane	81	79
Excavator	81	79
Dozer	82	80
Paver	77	75
Generator	81	79
Backhoe	78	76
Pile driver	101	99
Auger Drill Rig	84	92

SOURCE: FHWA, 2006.

Trucks off-hauling demolition debris would also generate noise. The number of daily truck trips would depend on the pace of demolition. The CalEEMod air quality model estimates that based on the square feet of demolition involved at for the removal of the three buildings up to 39 daily truck trips could occur per day (20 truck loads per day). Different truck routes would be use for these two proposals each of which would add about two additional truck trips per hour to local roadways. The Traffic Noise Prediction Model of the FHWA indicates that addition of two trucks per hour along Scott Street would increase the existing hourly noise level by 1.5 dBA which would not be a significant contribution to existing roadside noise levels.

Noise levels from proposed demolition would exceed 10 dBA over existing levels (a perceived doubling of loudness) during peak demolition activities. Receptors near these buildings would also experience noise levels approaching or exceeding a speech-interference threshold of 70 dBA and result in a temporary but significant construction noise impact from demolition activities.

Implementation of **Mitigation Measure NOI-LRDP-1** will reduce noise levels associated with demolition activities by 5 to 10 dBA. However, it is likely that intermittent hoe-ram operations to break up concrete structures could result in noise levels at sensitive receptors in excess of 70 dBA, even after mitigation. Consequently, this impact, although temporary, would be significant and unavoidable.

Mitigation Measure: Implement Mitigation Measure NOI-LRDP-1

Significance after Mitigation: Significant and Unavoidable

Impact NOI-MZ-2: Construction activities proposed under the 2014 LRDP at the Mount Zion campus site would result in increases in ambient noise levels over the term of the exterior construction activities. (Potentially Significant)

Construction of the new office/research building would require the use of heavy duty off-road construction equipment. Construction activity noise levels at and near the office/research building site would fluctuate depending on the particular type, number, and duration of uses of various pieces of construction equipment, which could involve excavation, grading, and earth movement and, potentially, pile driving.

The nearest sensitive residential receptors to the office/research building site currently experience existing daytime noise levels of 66 dBA. Noise from standard construction equipment could exceed these existing noise levels by as much as 14 dBA. An impact pile driver, if required could result in an increase of up to 33 dBA over existing noise levels, resulting in a significant noise increase over existing conditions. Consequently mitigation measures to reduce construction noise are identified.

Renovation of the Main Hospital is expected to be largely conducted within the existing shell of the building and not require the use of heavy-duty construction equipment and therefore, not result in significant construction noise impact.

Mitigation Measure: Implement Mitigation Measures NOI-LRDP-1 and NOI-LRDP-2

Significance after Mitigation: Significant and Unavoidable. Mitigation Measures NOI-LRDP-1 and 2 would reduce the severity of noise generated by construction and pile-driving activities and reduce to the extent feasible the potential annoyance to nearby residents and others who could be disturbed by pile-driving. If piles can be installed through drilling and cast in place measures then these mitigation measures would result in a less than significant impact.

However, if geotechnical conditions exist such that impact or vibratory pile-driving is required, then construction noise would be significant. Although pile-driving noise would be intermittent and would occur over a short duration (up to about six weeks in total), even after mitigation the noise level would likely exceed 20 dBA during pile-driving activities, resulting in a significant and unavoidable impact.

Impact NOI-MZ-3: Demolition and construction activities proposed under the 2014 LRDP at the Mount Zion campus site could generate ground-borne vibration. (Less than Significant)

The types of construction activities associated with propagation of ground-borne vibration include pile driving, use of hoe-rams for demolishing large concrete structures and caisson drilling. It is possible that pile driving and drilling could occur during building construction. Pile driving, if required could take one or more months, and would occur during daytime hours, consistent with the City's Police Code.

Of the construction equipment likely to be used for construction of the office/research building, pile driving has the potential to result in the highest levels of ground-borne vibration. Pile driving

can result in peak particle velocities (PPV) of up to 1.5 inches per second (in/sec) at a distance of 25 feet (FTA, 2006), but typically results in an average of about 0.644 PPV at that distance. The Caltrans measure of the threshold of architectural damage for conventional sensitive structures is 0.5 in/sec PPV for new residential structures and modern commercial buildings and 0.25 in/sec PPV for historic and older buildings.

The nearest existing off-campus structure is approximately 60 feet away from the site of the proposed building, where pile driving may occur. At this distance, vibration from pile driving would be expected to be reduced to 0.17 inches per second. Therefore, vibration from pile driving would not exceed the criterion published by Caltrans of 0.25 in/sec for the protection of fragile older buildings. Vibration levels could be strongly perceptible at the nearest residential receptors but would be below the thresholds considered severe, 0.4 in/sec PPV. Consequently, if restricted to daytime hours, as required by ordinance, the proposals would have a less-than-significant impact with regard to ground-borne vibration. If piles can be installed through drilling and cast in place measures then vibrations levels would not be perceptible at the nearest residences.

Mitigation: None required.

Impact NOI-MZ-4: Operational noise generated by development under the 2014 LRDP at the Mount Zion campus site could cause a long-term increase in ambient noise levels in the campus vicinity. (Less than Significant)

Long-term noise sources associated with operation of the new office/research building and repurposed Main Hospital would primarily consist of marginal increases in roadway traffic resulting from new and repurposed land use. There will likely be some new mechanical equipment (e.g. heating ventilation and air conditioning) associated with operation of the new building. The potential location of such equipment is not known, but such equipment would be operated in such a manner as to conform to the requirements of the City of San Francisco Noise Ordinance. Additionally new mechanical equipment would effectively replace older and potentially noisier HVAC equipment currently existing at the Dialysis Center building that would be demolished.

Increased traffic would primarily be on the local roadway network, including Divisadero Street, Bush Street, Sutter Street and Scott Street. A project would be considered to generate a significant impact if it resulted in a permanent increase in ambient noise levels greater than 3 dBA in the project vicinity above levels existing without the project for areas already impacted by noise.

Noise levels were determined for this analysis using the Federal Highway Administration (FHWA) Traffic Noise Prediction Model and the turning movements in the traffic section for Existing (2014), Existing Plus LRDP, and Cumulative Plus LRDP conditions. Peak hour intersection turning data from the traffic study were analyzed to evaluate increases and resulting traffic-generated noise increases on roadway links most affected by LRDP -related traffic. The roadway segments analyzed and the results of the noise increases resulting from modeling are shown in **Table 8.10-3**, below.

**TABLE 8.10-3
PEAK-HOUR TRAFFIC NOISE LEVELS IN THE VICINITY OF THE MOUNT ZION CAMPUS**

Roadway Segment ^{a,b}	(A) Existing	(B) Existing Plus Project	(B-A) Difference between Existing Plus Project and Existing ^c	(D) Cumulative Plus Project (2040)	(D-A) Difference between Cumulative Plus Project and Existing
Divisadero Street between Post Street and Sutter Street	66.6	66.9	0.3	67.2	0.6
Divisadero Street between Sutter Street and Bush Street	66.3	66.7	0.4	67.0	0.7
Scott Street between Post Street and Sutter Street	60.2	60.4	0.2	61.4	1.2
Scott Street between Sutter Street and Bush Street	59.9	60.0	0.1	61.3	1.4
Bush Street between Divisadero Street and Scott Street	69.0	69.1	0.1	69.9	0.9
Sutter Street between Divisadero Street and Scott Street	59.3	59.5	0.2	59.8	0.5

^a Road center to receptor distance is 15 meters (approximately 50 feet) for all roadway segments. Noise levels were determined using the Federal Highway Administration (FHWA) Traffic Noise Prediction Model.

^b The analysis considered the vehicle mix based on – cars 91 percent, medium trucks eight percent, and heavy trucks one percent on all streets based on observed city and para-transit bus activity. Traffic speeds for all vehicle classes were set at 25 mph for all vehicle classes, except on Divisadero Street and Bush Street where speeds were assumed to be 30 mph.

SOURCE: ESA, 2014.

As shown in Table 8.10-3, the increase in traffic noise from the Existing Plus LRDP scenario compared to the Existing scenario would increase peak hour noise levels by less than 3 dBA at all roadway segments. Overall, traffic noise impacts associated with implementation of the 2014 LRDP at all analyzed roadway segments in the vicinity of the Mount Zion campus site would be less than significant.

Mitigation: None required.

8.10.4 References

California Department of Transportation (Caltrans), 2013. *Transportation- and Construction-Vibration Guidance Manual*, September 2013.

Caltrans, *Technical Noise Supplement to the Traffic Noise Analysis Protocol*, September 2013.

City and County of San Francisco (CCSF), *San Francisco General Plan*, adopted on June 27, 1996, http://www.sf-planning.org/ftp/General_Plan/index.htm, accessed February 20, 2014.

Federal Highway Administration (FHWA) Roadway Noise Construction Model, 2006.

Federal Transit Administration, *Transit Noise and Vibration Impact Assessment*, 2006.

United States Environmental Protection Agency, Information on Levels of Environmental Noise Requisite to Protect Public Health and Welfare with an Adequate Margin of Safety, March 1974, http://www.fican.org/pdf/EPA_Noise_Levels_Safety_1974.pdf, accessed February 20, 2014.

8.11 Population and Housing

The Regional Setting, Regulatory Considerations, Significance Standards and Analysis Methodology for analysis of potential effects of Population and Housing are contained in Section 4.11 of this EIR. The CEQA Significance Standards presented in Section 4.11.3 are used to evaluate the potential population and housing impacts of all proposed 2014 LRDP activities.

The 2014 LRDP would result in population growth in San Francisco or the wider Bay Area through increased employment and student enrollment. The 2014 LRDP would accommodate an increase in employment and students at all campus sites from the current approximately 30,840 to approximately 42,270 by 2035. This anticipated population increase could result in an increased demand for housing in the Bay Area. This overall increase and its potential effect on housing were evaluated in Chapter 5, *2014 LRDP – Impacts and Mitigation Measures*.

The 2014 LRDP development proposals would result in changes in daily population at this campus site. The direct and indirect physical environmental effects that result from those changes are fully considered in each of the appropriate topical sections of this chapter.

8.12 Public Services

The Regional Setting, Regulatory Considerations, Significance Standards and Analysis Methodology for analysis of potential effects of Public Services are contained in Section 4.12 of this EIR. The CEQA Significance Standards presented in Section 4.12.3 are used to evaluate the potential public services impacts of all proposed 2014 LRDP activities.

In 2013, the estimated daily UCSF population across all sites, including patients and visitors, was approximately 39,420. At 2014 LRDP horizon in 2035, total population is projected to reach approximately 56,420, an increase of about 17,000, the majority of which would be associated with growth proposed by the 2014 LRDP. The projected increase in population at the Mount Zion campus site would be approximately 1,600 in 2035.

This anticipated population increase could result in an increased demand for public services in San Francisco, including fire protection, law enforcement, and public education. This overall increase and its potential effect on public services were evaluated in Chapter 5, *2014 LRDP – Impacts and Mitigation Measures*. The anticipated small increase in population at this campus site under the LRDP would not cause substantial increased demand for public services specific to this campus site, and all impacts are found to be less than significant.

8.13 Recreation

The Regional Setting, Regulatory Considerations, Significance Standards and Analysis Methodology for analysis of potential effects of Recreation are contained in Section 4.13 of this EIR. The CEQA Significance Standards presented in Section 4.13.3 are used to evaluate the potential recreation impacts of all proposed 2014 LRDP activities.

In 2013, the estimated daily UCSF population across all sites, including patients and visitors, was approximately 39,420. At 2014 LRDP horizon in 2035, total population is projected to reach approximately 56,420, an increase of about 17,000, the majority of which would be associated with growth proposed by the 2014 LRDP. The projected increase in population at the Mount Zion campus site would be approximately 1,600 in 2035.

After evaluation of the 2014 LRDP activities proposed at the Mount Zion campus site, the Initial Study concluded that the anticipated small increase in population at this campus site under the LRDP would not cause substantial increased demand for recreation facilities specific to this campus site. All activities would result in no impact or less than significant impacts regarding recreation; therefore, no additional analysis is required.

8.14 Transportation and Traffic

This section considers the setting and transportation and traffic impacts of implementation of the 2014 LRDP at the Mount Zion campus site. The Regional Setting, Regulatory Considerations, Significance Standards and Analysis Methodology for analysis of potential effects of Transportation and Traffic are contained in Section 4.14 of this EIR. The CEQA Significance Standards presented in Section 4.14.3 are used to evaluate the potential transportation and traffic impacts of all proposed 2014 LRDP activities.

8.14.1 Transportation and Traffic Issues Adequately Addressed in the Initial Study

After evaluation of the 2014 LRDP activities proposed at the Mount Zion campus site, the Initial Study concluded that:

- **Air traffic patterns.** No activities would result in a change in air traffic patterns. Therefore, no additional analysis of this issue is required.

8.14.2 Transportation and Traffic – Mount Zion Setting

A more-detailed description of current transportation and traffic characteristics in the Mount Zion campus site area is provided in Appendix G, Transportation Impact Study (TIS) for the UCSF LRDP.

8.14.2.1 Roadway Facilities

The network of regional roadways that serve the Mount Zion campus site is described in Section 4.14.

The Mount Zion campus site is located at the crossroads of San Francisco between the more modestly-scaled neighborhoods of the Richmond District to the west and more downtown-scaled areas to the east. As such, the roadways serving the campus site are primarily east-west corridors – Geary Boulevard, Pine Street, and Bush Street. Primary north-south access to the campus site is provided via Divisadero Street. The primary vehicular entrances to parking and loading areas for the campus site are located along Sutter Street and Post Street between Broderick Street and Divisadero Street, along Geary Boulevard between Divisadero Street and Scott Street, and along Scott Street between Geary Boulevard and Post Street. Local access to the Mount Zion campus site is provided by an urban street grid network. Key local roadways through the campus site are discussed below.

The local road network serving the Mount Zion campus site consists of several two-lane roadways with on-street parking provided on both sides of the streets in most areas, as follows:

- **Sutter Street** runs from Market Street to Presidio Avenue and is classified by the City as a Transit Conflict street. The 2 Clement bus line travels westbound, except within the campus site where it operates in both directions.

- **Post Street** runs from Market Street to Presidio Avenue and has Class II bicycle lanes in both directions between Presidio Avenue and Steiner Street, west of which turns into a Class III bicycle route.
- **Pierce Street** runs from Clay Street to Post Street.
- **Scott Street** runs from Marina Boulevard to Duboce Avenue and is designated as a Class III bicycle route within the study area from Post Street to Geary Boulevard.
- **Broderick Street** runs between Marina Boulevard and Waller Street and is designated a Class III bicycle route between Clay and Post streets.

Other roadways in the local network are as follows:

- **Geary Boulevard** is a six-lane east-west arterial that extends from Gough Street to 48th Avenue. The City classifies this arterial as a Primary Transit Important roadway. From Steiner Street to Baker Street (within the campus site area) the roadway has a center median with foliage. On-street parking is provided on both sides of the street within the vicinity of the campus site. The 38 Geary, 38L Geary Limited, and Golden Gate Transit bus lines operate in both directions along Geary Boulevard, while the NX Judah Express operates only in the westbound direction during weekday peak hours.
- **Pine Street** is a three-lane, one-way westbound roadway that extends from Market Street to Presidio Avenue. The City classifies this roadway as a Major Arterial. Pine Street is the westbound component of the Pine/Bush Street one-way couplet. On-street parking is provided on both sides of the street. The 1AX California A Express, 31AX Balboa A Express, 31BX Balboa B Express, 38AX Geary A Express, and 38BX Geary B Express bus lines utilize Pine Street to travel from Market Street to northwestern San Francisco neighborhoods.
- **Bush Street** is a three-lane, one-way eastbound roadway that extends from Market Street to Presidio Avenue. The City classifies this roadway as a Major Arterial. Bush Street is the eastbound component of the Pine/Bush Street one-way couplet. On-street parking is provided on both sides of the street. The 1AX California A Express, 31AX Balboa A Express, 31BX Balboa B Express, 38AX Geary A Express, 38BX Geary B Express, and NX Judah Express bus lines utilize Bush Street to travel from northwestern San Francisco neighborhoods to Market Street.
- **Divisadero Street** is a four-lane north-south roadway that extends from Marina Boulevard to 14th Street. The City classifies this roadway as a Secondary Transit arterial. On-street parking is provided on both sides of the street. The 24 Divisadero bus line operates in both directions along Divisadero Street between Jackson and Waller streets, providing transit service between Pacific Heights and Bayview neighborhoods.

8.14.2.2 Intersection Operating Conditions

Intersection operating conditions at 16 intersections were evaluated during the weekday peak hours of the AM (7:00-9:00 AM) and PM (4:00-6:00 PM) peak periods. Intersections usually form the critical capacity constraints on roadways. Therefore, most transportation analyses examine intersection operations as a measure of overall roadway conditions.

The operating characteristics of intersections are evaluated using the concept of Level of Service (“LOS”). LOS is a qualitative description of driver comfort and convenience. Intersection levels of service range from LOS A, which indicates free flow or excellent vehicle flow conditions with short delays, to LOS F, which indicates congested or overloaded vehicle flow conditions with extremely long delays. In San Francisco, LOS A through D is considered acceptable, and LOS E and LOS F are considered unsatisfactory service levels. The intersections were evaluated using the 2000 Highway Capacity Manual (HCM) methodology. Tables summarizing the relationship between average delay per vehicle and LOS for signalized and unsignalized intersections according to the 2000 HCM method can be found in the appendices of the TIS for the UCSF Long Range Development Plan (Appendix G).

For signalized intersections, this methodology determines the capacity for each lane group approaching the intersection. The LOS is based on average delay (in seconds per vehicle) for the various movements within the intersection. A combined weighted average delay and LOS is presented for the intersection. For unsignalized intersections, operations are defined by the average control delay per vehicle (in seconds per vehicle) for each stop-controlled movement or movement that must yield the right-of-way, and the LOS is determined by the worst (highest average delay) approach. Generally, the delay ranges for each LOS are lower than for signalized intersections because drivers expect less delay at unsignalized intersections.

As shown in **Table 8.14-1**, all 16 of the study intersections operate at an acceptable level of service, which is LOS D or better, during the AM and PM peak hour.

8.14.2.3 Transit Network

The Mount Zion campus site is well-served by public transit, both local and regional. Local service is provided by the Muni bus lines. Regional service is provided by BART, AC Transit, Golden Gate Transit, SamTrans, and Caltrain. UCSF supplements Muni transit service with its own shuttle system that provides direct connections to UCSF-operated facilities throughout San Francisco. In many cases, these shuttles provide a direct transit alternative between two campus sites that would otherwise require a transfer between two or more Muni routes. Based on the 2013 UCSF Transportation Commute Survey, approximately 25% of those traveling to and from the campus site use public transit, while another 8% rely on UCSF shuttles to get to and from the campus site.

Local Transit

San Francisco Muni. San Francisco Municipal Railway (Muni) provides transit service within the City and County of San Francisco, including bus (both diesel and electric trolley), light rail (Muni Metro), cable car and electric streetcar lines. Muni operates five bus lines in the vicinity of the Mount Zion campus site (see the TIS in Appendix G for details about these transit lines).

The Transit Effectiveness Project (TEP) serves as both a thorough review of and repositioning of San Francisco’s public transit system, initiated by SFMTA in collaboration with the City Controller’s Office. The TEP is aimed at improving reliability, reducing travel times, providing

**TABLE 8.14-1
EXISTING PEAK-HOUR INTERSECTION LEVEL OF SERVICE (LOS) – MOUNT ZION**

Intersection	Traffic Control ^a	Peak Hour	Delay (seconds) ^b	LOS ^c
45. Pine Street / Divisadero Street	Signal	AM PM	14 32	B C
46. Bush Street / Broderick Street	Signal	AM PM	17 11	B B
47. Bush Street / Divisadero Street	Signal	AM PM	48 18	D B
48. Bush Street / Scott Street	Signal	AM PM	30 17	C B
49. Bush Street / Pierce Street	Signal	AM PM	30 15	C B
50. Sutter Street / Broderick Street	AWS	AM PM	<10 (<10) <10 (<10)	A (A) A (A)
51. Sutter Street / Divisadero Street	Signal	AM PM	12 12	B B
52. Sutter Street / Scott Street	AWS	AM PM	10 (11) 11 (12)	B (B) B (B)
53. Sutter Street / Pierce Street	AWS	AM PM	<10 (<10) <10 (<10)	A (A) A (A)
54. Post Street / Broderick Street	Signal	AM PM	14 12	B B
55. Post Street / Divisadero Street	Signal	AM PM	17 14	B B
56. Post Street / Scott Street	Signal	AM PM	17 15	B B
57. Post Street / Pierce Street	SSS	AM PM	12 11	B B
58. Geary Boulevard / Broderick Street	SSS	AM PM	15 17	B C
59. Geary Boulevard / Divisadero Street	Signal	AM PM	34 30	C C
60. Geary Boulevard / Scott Street	Signal	AM PM	21 20	C B

^a AWS = All-way stop controlled; SSS = Side Street stop controlled; Signal = Signal controlled

^b Delay reported as seconds per vehicle. For signalized intersections, a combined weighted average delay for the various movements within the intersection is reported. For SSS intersections, the highest average delay for an approach is reported. For AWS intersections, the combined weighted average delay of the intersection is reported, followed by the highest average delay for an approach (indicated in parentheses).

^c For signalized intersections, LOS based on average intersection delay, based on the methodology in the Highway Capacity Manual, 2000. For unsignalized intersections, LOS is based on the worst approach, which for AWS is indicated in parentheses.

^d **Bold** indicates unacceptable operations per UCSF LOS standards

SOURCE: Fehr & Peers, 2014.

more frequent service and updating Muni bus routes and rail lines to better match current travel patterns. TEP recommendations include new routes and route realignments, more service on busy routes, and elimination or consolidation of certain routes or route segments with low ridership. The TEP recommendations were unanimously endorsed by the SFMTA Board of Directors in October 2008, for environmental impact review. The initial TEP recommendations were revised based on public feedback on the draft TEP environmental impact report (TEP EIR). The TEP EIR was certified on March 27, 2014, and the SFMTA Board of Directors approved most of the

Service Improvements and portions of the Transit Travel Time Reduction Proposals on March 28, 2014.¹⁰ The TEP project will be implemented based on funding and resource availability. The TEP Implementation Strategy anticipates that many of the improvements will be implemented sometime between Fiscal Year 2014 and Fiscal Year 2019, subject to funding sources and resource availability.¹¹ The changes proposed by the TEP for routes near the Mount Zion campus site, plus the non-TEP changes proposed to the 38 Geary/38L Geary Limited, are described in the TIS (Appendix G).

UCSF Shuttle System

UCSF Shuttles to and from the Mount Zion campus site (Gold, Blue, Black, Tan, and Purple) stop at a designated shuttle loading zone located midblock on Sutter Street between Divisadero Street and Scott Street. A more-detailed description of the UCSF shuttle system serving the Mount Zion campus site area is provided in Appendix G (TIS for the UCSF LRDP).

8.14.2.4 Pedestrian Circulation

Based on the 2013 UCSF Transportation Commute Survey, approximately 6% of those traveling to and from the campus site walk. About 54% of all trips made by UCSF Mount Zion campus site employees and students to off-campus locations throughout the day are made by foot.

Pedestrian activity is high around the Mount Zion campus site, particularly along Divisadero Street between Geary Boulevard and Bush Street. Beyond the campus site itself, many ground level shops, restaurants, and services in the area attract foot traffic.

Pedestrian facilities include sidewalks, crosswalks, curb ramps, and pedestrian signals. Within the campus site area, sidewalks generally exist on both sides of the street in most locations, and are generally 11 to 15 feet wide. Continental crosswalks are provided at the intersections of Divisadero / Bush and Divisadero / Sutter, while standard crosswalks are provided at other intersections surrounding the campus site. Curb ramps are generally provided at all intersections in the vicinity of the campus site. Pedestrian signals are present at signalized intersections surrounding the campus site with the exception of the signalized intersection of Divisadero Street / Sutter Street.

8.14.2.5 Bicycle Circulation

Based on the 2013 UCSF Transportation Commute Survey, approximately 3% of those traveling to and from the Mount Zion campus site use a bicycle. This is consistent with the bicycling mode share throughout San Francisco. Bicycle counts indicate the most popular bicycling route through

¹⁰ San Francisco Planning Department. 2014. TEP Final EIR, March 27, 2014, Available online at <http://tepeir.sfplanning.org>. Accessed April 3, 2014. Case No. 2011.0558E. The document and supporting information may also be viewed at the Planning Department, 1650 Mission Street, Suite 400, San Francisco, CA in case file 2011.0558E.

¹¹ San Francisco Municipal Transportation Agency. 2014. TEP Implementation Workbook, March 5, 2014, Available online at: http://www.sfmta.com/sites/default/files/projects/TEP%20Implementation%20Plan%20-%20Section%201%20%282%29_1.pdf. Accessed June 27, 2014.

the campus site is Post Street, where between 40 and 70 bicyclists were counted during the AM and PM peak hours. Fewer than 10 bicyclists were counted during the AM and PM peak hours on most other streets in the study area.

The following bicycle facilities are located within or near the Mount Zion campus site:

- **Post Street** is part of San Francisco Bike Route 16, an east-west bike route extending from Van Ness Avenue to Presidio Avenue. Between Van Ness Avenue and Steiner Street, Post Street is designated as a Class III bicycle route with sharrows. From Steiner Street to Presidio Avenue, Post Street has Class II bicycle lanes in both directions.
- **Clay Street** is part of San Francisco Bike Route 10, an east-west bike route that extends from the Embarcadero to Cherry Street via Broadway Street, Pacific Avenue, Webster Street, and Clay Street. Between the Embarcadero and Columbus Avenue, Bike Route 10 is a Class III bicycle route with sharrows, while the rest of the route is Class III, but with no sharrows.

The SF Bike Plan does not include any short- or long-term improvements in the Mount Zion campus site area.

Bicycle counts indicate the most popular bicycling route through the campus site is Post Street, where between 40 and 70 bicyclists were counted during the AM and PM peak hours. Fewer than 10 bicyclists were counted on most other streets during the AM and PM peak hours in the study area.

Short-term bicycle parking is provided in “u-racks” in front of UCSF buildings on Sutter, Divisadero, and Post streets, and within the 2230 Post Street garage. Secure bicycle parking is provided in a bicycle cage in the 2325 Post Street and 2420 Sutter Street garages. Bicycle parking was observed to be less than half full at most short-term and secure bicycle parking locations.

8.14.2.6 Loading Conditions

The Mount Zion campus site has both service vehicle and passenger loading. There are three off-street service vehicle loading facilities serving the existing uses on the campus site. Passenger and service vehicles may also load on-street in marked zones on Sutter Street, Post Street, and Scott Street.

The off-street loading dock at the building on Sutter Street between Divisadero and Scott streets receives approximately 20 deliveries a day, not including additional deliveries made by catering, food services, waste management and other contractors. Passenger loading fronting the Scott Street facility appears to currently be at capacity, as multiple passenger vehicles were seen occupying metered parking spots. Existing vehicle and most passenger loading areas provide sufficient amount of space for existing demand.

8.14.2.7 Parking Conditions

On-Street Parking

The majority of the streets in the vicinity of Mount Zion campus site are subject to Residential Parking Permit (Zone “G”) restrictions (two-hour parking, except for residents, Mondays through Friday from 8:00 AM to 6:00 PM). Metered parking with 30-minute and one-hour time limits is provided along Divisadero Street and on portions of Post and Sutter streets on one to two blocks to the east and west of Divisadero Street.

Parking occupancies throughout the mid-morning, midday, and evening periods are very similar, close to 90% (i.e., very close to their effectively capacity). Most of the available parking during the peak parking demand periods is at non-metered spaces subject to residential permit parking restrictions, or at spaces subject to daytime passenger loading/unloading regulations. Overall, on-street metered parking is typically at capacity.

Off-Street Parking

There are three UCSF-managed and six public parking facilities in the vicinity of the Mount Zion campus site that provide a combined total of about 1,160 parking spaces. In addition, there are several private customer-only parking facilities that serve other medical office building in the area. The public parking facilities typically close in the late evening (e.g., at about 9:00 PM) and are not generally available for residential parking. The UCSF-managed parking facilities include:

- 1701 Divisadero Street garage, located at the northwest corner of Divisadero and Sutter streets, provides 156 marked spaces for parking by UCSF permit holders only.
- 2420 Sutter Street garage, located between Divisadero and Broderick streets, provides 172 public parking spaces and 56 UCSF permit-holders only spaces, and also connects underground to the 1701 Divisadero Street garage. If needed, attendant parking can increase the capacity of the garage by approximately 20 vehicles.
- 2325 Post Street garage, located between Divisadero and Broderick streets, provides 20 parking spaces (ground level), accessed off Post Street, and 29 spaces (upper level), accessed off Garden Street.
- Bush Street surface lot, located at the southwest corner of Bush and Scott streets, provides 20 UCSF permit holders only spaces.

The general public parking facilities include:

- 1635 Divisadero Street garage, located between Divisadero and Broderick streets, has approximately 430 marked spaces; attendant parking on the upper levels can increase the total capacity of the garage by approximately 50 vehicles.
- 2355 Post Street surface lot, located on the south side of the street between Divisadero and Broderick streets, has about 30 marked spaces, and can provide 37 additional spaces with attendant parking.

- 2186 Geary Boulevard surface lot, located on the north side of Geary Boulevard between Divisadero and Scott streets, It has 70 marked spaces and can provide 25 additional spaces with attendant parking.
- 2120 Geary Boulevard surface lot, located on the north side of Geary Boulevard between Divisadero and Scott streets, provides 30 marked spaces and can provide 16 additional spaces with attendant parking.
- 1515 Scott Street surface lot, located at the northwest corner of Geary Boulevard and Scott Street, provides 35 marked spaces and can provide 10 additional spaces with attendant parking.
- 2300 Sutter Street garage, located on the west side of the street, between Bush and Sutter streets, provides 23 public parking spaces.

Overall off-street parking occupancy is 88% during the mid-morning period (10:00 AM – 12 Noon) and 83% during the midday period (12 Noon – 2:00 PM), while the overall occupancy in the evening (6:00 PM – 8:00 PM) is 23%. The overall parking occupancy at the UCSF-managed parking facilities is generally lower than at the other facilities. During mid-morning, the peak parking demand period, the UCSF parking facilities near the Mount Zion site operate at about 84% of their capacity, while the other facilities operate at 91%. An occupancy above 90% typically represents that the facility has reached its effective capacity.

8.14.3 Transportation and Traffic – Mount Zion Campus Site Impacts and Mitigation Measures

8.14.3.1 Impact Methodology

Analysis Approach

The transportation analysis in this EIR considers operations-related issues related to vehicular traffic, transit facilities, pedestrians, bicyclists, and parking, as well as construction-related impacts, associated with the 2014 LRDP at the Mount Zion campus site. To determine potential impacts on the transportation system, it was first necessary to establish the background transportation conditions for the horizon years. Future year background conditions for this project are based on the countywide travel demand model developed and maintained by the San Francisco County Transportation Authority (SFCTA).

Vehicle, pedestrian, bicycle, and transit travel demand associated with the 2014 LRDP was estimated based on factors developed from extensive surveys conducted at existing UCSF facilities over the past few years, and through the use of a four-step process: trip generation, mode split, trip distribution, and trip assignment. In the first step, the number of person trips generated by the 2014 LRDP was estimated on a daily, AM and PM peak hour basis. Next, the person trips were assigned to different modes of travel (automobile, transit, UCSF shuttle, bicycles, etc.). Then, the geographic distribution of the trip origins and destinations was predicted, and finally, project trips for each mode were assigned to specific streets, UCSF shuttle routes and transit lines along the transportation network.

Travel Demand Estimates

The 2014 LRDP proposes various levels of growth at each campus site through the plan horizon year of 2035. Some known projects, such as Phase 2 of the Medical Center in Mission Bay, are currently projected to occur between 2035 and 2040, after the 2014 LRDP horizon year, but have been incorporated into the travel demand estimates presented in this document. As such, the transportation analysis represents a conservative approach as it includes development five years past the 2015 LRDP horizon, to the year 2040. Each campus site is expected to increase in population through the 2014 LRDP horizon year, with the highest growth expected at the Mission Bay site.

The Mount Zion campus site is estimated to generate a total of approximately 3,223 new daily person trips by 2040. That number of trips reflects the total number of additional person trips that would be generated by the increased campus site population. As described in Sections 6.14 and 7.14, some trips generated by campus site activity are internal trips that occur within the campus site. However, given its relatively small size, and to provide a conservative estimate of travel demand, no internal person trips were assumed to occur within the Mount Zion campus site.

“Mode choice” is the designation of trips to the various means that people use to travel, such as automobile, transit, walking, bicycling, taxi, or other mode of transportation. The determination of the mode of transportation used in trips to and from the Mount Zion campus site would depend on many characteristics of the trip (e.g., the population group that is, faculty, staff, vendor, patient, visitor), the type of trip (work, visit), and the specific site. Travel mode split and average vehicle occupancy assumptions were based on information collected by UCSF and its consultants, with the estimates of the future modal share based on the current modal splits for each campus site by population type, which take into account the transit accessibility, UCSF shuttle service, parking availability, and TDM measures being provided at each campus site; this approach is consistent with the travel demand methodologies established by the SF Planning Department. The majority of Mount Zion campus site trips arrive/depart the campus site by driving alone, followed by travel by public transit. The above-cited external daily person trips generated by the Mount Zion campus site are expected to use the following travel modes:

1,246	Auto Drive Alone
182	Drop-Off/Taxi
516	Carpool/Vanpool
810	Public Transit
165	UCSF Shuttle
100	Bicycle/Motorcycle
203	Walk

The auto drive alone, drop-off/taxi, carpool/vanpool, and UCSF shuttle person trips would generate about 1,292 daily vehicle trips.¹²

¹² Vehicle trips are calculated based on the following formula: Drive Alone trips + (Drop-off trips x 2) + (Carpool trips / 2) + (Vanpool trips / 10) + (UCSF Shuttle / 15).

Approximately 290 new vehicle trips would occur during the AM peak hour, and about 150 new vehicles would occur during the PM peak hour. There would be approximately 260 and 160 new transit riders in the AM and PM peak hour, respectively. A majority of transit users are expected to arrive/depart by SF Muni.

The new trips associated with the Mount Zion campus site were assigned to San Francisco and regional origins/destinations, including the four San Francisco Superdistricts (northeast, northwest, southeast, and southwest quadrants of the City), the East Bay, the North Bay, and the South Bay, as well as areas outside the Bay Area region. Information collected by UCSF as part of their ongoing surveys of employees, patients, visitors and residents was used in this analysis.

8.14.3.2 Construction Period Impacts

Impact TRAF-MZ-1: Implementation of the 2014 LRDP on the Mount Zion campus site could cause substantial adverse impacts to traffic flow, circulation and access as well as to transit, pedestrian, and parking conditions during demolition and construction activities. (Potentially Significant)

Impacts associated with demolition and construction activities that would occur as the 2014 LRDP is implemented are addressed in Chapter 5 (**Impact TRAF-LRDP-1**). That 2014 LRDP Plan-Level analysis determined that although construction activities would be temporary, construction impacts would be considered potentially significant given the magnitude of LRDP development over the course of many years and need for on-going coordination and monitoring. The potentially significant determination would apply to the LRDP elements of the Mount Zion campus site. The implementation of LRDP **Mitigation Measure TRAF-LRDP-1: Construction Coordination and Monitoring Measures** would reduce construction-period impacts to less-than-significant levels.

Mitigation Measure: Implement **Mitigation Measure TRAF-LRDP-1**

Significance after Mitigation: Less than Significant

8.14.3.3 Operational Impacts

Impact TRAF-MZ-2: Implementation of the 2014 LRDP on the Mount Zion campus site would increase traffic at intersections on the adjacent roadway network. (Less than Significant)

Table 8.14-2 presents a summary comparison of Existing and Existing plus Plan intersection LOS for the weekday AM and PM peak hours. The addition of 2014 LRDP-generated traffic would result in small changes in the average delay per vehicle at the study intersections, and all study intersections would continue to operate at the same acceptable service levels (LOS D or better) as under Existing conditions. Therefore, the 2014 LRDP's traffic impact would be considered less than significant.

Mitigation: None required.

**TABLE 8.14-2
 EXISTING AND EXISTING PLUS 2014 LRDP
 PEAK-HOUR INTERSECTION LEVEL OF SERVICE (LOS) – MOUNT ZION**

Intersection	Traffic Control ^a	Peak Hour	Existing		Existing plus 2014 LRDP	
			Delay (sec.) ^b	LOS ^c	Delay (sec.) ^b	LOS ^c
45. Pine Street / Divisadero Street	Signal	AM	14	B	14	B
		PM	32	C	32	C
46. Bush Street / Broderick Street	Signal	AM	17	B	17	B
		PM	11	B	11	B
47. Bush Street / Divisadero Street	Signal	AM	48	D	48	D
		PM	18	B	20	B
48. Bush Street / Scott Street	Signal	AM	30	C	32	C
		PM	17	B	17	B
49. Bush Street / Pierce Street	Signal	AM	30	C	32	C
		PM	15	B	15	B
50. Sutter Street / Broderick Street	AWS	AM	<10 (<10)	A (A)	<10 (<10)	A (A)
		PM	<10 (<10)	A (A)	<10 (<10)	A (A)
51. Sutter Street / Divisadero Street	Signal	AM	12	B	13	B
		PM	12	B	13	B
52. Sutter Street / Scott Street	AWS	AM	10 (11)	B (B)	10 (11)	B (B)
		PM	11 (12)	B (B)	11 (12)	B (B)
53. Sutter Street / Pierce Street	AWS	AM	<10 (<10)	A (A)	<10 (<10)	A (A)
		PM	<10 (<10)	A (A)	<10 (<10)	A (A)
54. Post Street / Broderick Street	Signal	AM	14	B	14	B
		PM	12	B	12	B
55. Post Street / Divisadero Street	Signal	AM	17	B	19	B
		PM	14	B	16	B
56. Post Street / Scott Street	Signal	AM	17	B	18	B
		PM	15	B	15	B
57. Post Street / Pierce Street	SSS	AM	12	B	12	B
		PM	11	B	11	B
58. Geary Boulevard / Broderick Street	SSS	AM	15	B	15	B
		PM	17	C	18	C
59. Geary Boulevard / Divisadero Street	Signal	AM	34	C	36	D
		PM	30	C	31	C
60. Geary Boulevard / Scott Street	Signal	AM	21	C	21	C
		PM	20	B	20	B

- ^a AWS = All-way stop controlled; SSS = Side Street stop controlled; Signal = Signal controlled
^b Delay reported as seconds per vehicle. For signalized intersections, a combined weighted average delay for the various movements within the intersection is reported. For SSS intersections, the highest average delay for an approach is reported. For AWS intersections, the combined weighted average delay of the intersection is reported, followed by the highest average delay for an approach (indicated in parentheses).
^c For signalized intersections, LOS based on average intersection delay, based on the methodology in the Highway Capacity Manual, 2000. For unsignalized intersections, LOS is based on the worst approach, which for AWS is indicated in parentheses.
^d **Bold** indicates unacceptable operations per UCSF LOS standards

SOURCE: Fehr & Peers, 2014.

Impact TRAF-MZ-3: Implementation of the 2014 LRDP on the Mount Zion campus site would increase transit ridership demand. (Less than Significant)

As described in 8.14.3.1 above, approximately 260 and 160 new transit trips are expected during the AM and PM peak hour, respectively. About 60% of transit users would use SF Muni and 20% would use BART to commute to and from the campus site, while the remaining 20% of transit users would use the UCSF shuttle, Caltrain, SamTrans or Golden Gate Transit.

San Francisco Muni

Existing Muni transit stops are located within a half-mile of the campus site, and are accessible by walking, and no stop relocations are anticipated at this time. The TEP proposes several changes on routes traversing adjacent to and within the Mount Zion campus site. The 1 California, 2 Clement, and 24 Divisadero will reduce peak period headways, and a supplemental trolley coach service will be added to the 2 Clement. In addition, Muni proposes to convert the 38 Geary/38L Geary Limited to Bus Rapid Transit (BRT), with high service frequencies (proposed to begin service by 2020).

The estimated number of 2014 LRDP-generated Muni trips is about a 35% increase in ridership traveling to and from the Mount Zion campus site, which would not require the expansion of transit service or facilities. The 2014 LRDP-generated transit trips for the 38 Geary corridor were assumed to split evenly between the 38 Geary and the 38L Geary Limited Outbound during the PM peak hour, resulting in the 38 Geary Limited outbound operating above Muni's crowding standard (85% capacity utilization). It should be noted that transit riders could choose to travel on either bus line, thus if one bus line (e.g., 38L Geary Limited) were crowded, then riders have the option of traveling on the less-crowded 38 Geary, which serves the same stops and destinations. The 2014 LRDP's transit impact on SF Muni transit service would be considered less than significant.

Regional Transit

UCSF staff, patrons and students are anticipated to continue to use BART, Caltrain, SamTrans, and Golden Gate Transit for regional transit service through the 2014 LRDP horizon year. Regional service stations are likely to remain at existing locations, accessed by SF Muni and UCSF shuttles, and Golden Gate Transit riders can walk to the nearest stop, located on Geary Boulevard and Divisadero Street. Fewer than 70 new regional transit trips are expected during each AM and PM peak hours, and that increase would not require the expansion of regional transit service or facilities. Therefore, the 2014 LRDP's transit impact on regional transit service would be considered less than significant.

UCSF Shuttle

The 2014 LRDP does not propose specific changes to shuttle service headways, although UCSF Transportation Services may change headways based on shifting shuttle demand as 2014 LRDP projects are constructed and occupied at the campus site.

An additional estimated 30 AM and PM peak hour shuttle person trips, an approximately 40% increase during both peak hours are anticipated through the 2014 LRDP horizon year, and that increase would not require the expansion of UCSF shuttle service or facilities. Therefore, the 2014 LRDP's transit impact on UCSF Shuttle service would be considered less than significant.

Mitigation: None required.

Impact TRAF-MZ-4: Implementation of the 2014 LRDP on the Mount Zion campus site would not cause a substantial conflict with pedestrian facilities, or otherwise decrease the performance or safety of such facilities. (Less than Significant)

The 2014 LRDP does not propose changes to pedestrian amenities or introduce new conflicts to the pedestrian network surrounding the Mount Zion campus site. Overall, the 2014 LRDP would not change pedestrian accessibility to the Mount Zion campus site and on the campus site frontage. Further, the LRDP would not conflict with proposed changes to Geary Boulevard to accommodate BRT service.

The 2014 LRDP would add approximately 250 and 140 pedestrian trips (mostly transit-access trips) to the surrounding streets during the AM and PM peak hours, respectively. Pedestrian trips would primarily use Divisadero Street to access nearby commercial uses and would disperse across the surrounding street grid to access the residential neighborhoods in Pacific Heights and the Western Addition. The 2014 LRDP-generated transit trips begin and end as pedestrian trips, and those pedestrian trips would be along Divisadero Street to transit stops on Divisadero Street, Sutter Street, Geary Boulevard, or California Street. UCSF shuttle riders will walk to the stop located within the center of the campus site on Sutter Street between Divisadero and Scott streets. Existing pedestrian facilities adequately accommodate existing pedestrian volumes and overcrowding is not expected to occur due to the 2014 LRDP.

The immediate area surrounding the Mount Zion campus site includes robust pedestrian facilities that provide access to nearby neighborhoods, commercial uses, and transit stops, and that would accommodate the new pedestrian trips generated by the 2014 LRDP. The 2014 LRDP would not create substantial conflicts between pedestrians and autos, bicyclists, or transit vehicles. Therefore, the 2014 LRDP's impact to pedestrian circulation and facilities at the Mount Zion campus site would be less than significant.

Mitigation: None required.

Impact TRAF-MZ-5: Implementation of the 2014 LRDP on the Mount Zion campus site would not cause a substantial conflict with bicycle facilities, or otherwise decrease the performance or safety of such facilities. (Less than Significant)

The area around the Mount Zion campus site has a number of streets with bicycle lanes, and streets designated as bicycle routes, including Post Street and Clay Street. The Mount Zion campus site is within convenient bicycling distance of residential and commercial areas in surrounding neighborhoods. The LRDP does not propose changes to the bicycle circulation network surrounding the Mount Zion campus site. The SF Bike Plan does not include any short- or long-term improvements in the study area.

The 2014 LRDP is expected to increase bicycle demand in the area by approximately 20 and 10 new trips during both the AM and PM peak hours, respectively. These trips would primarily occur on designated bicycle facilities, which connect to surrounding neighborhoods through the San Francisco Bike Route network. The increased bicycle demand would be accommodated at the

campus site through additional bicycle parking provided as a part of UCSF's TDM program. In the near-term, UCSF plans to add eight additional bicycle racks at the Mount Zion campus site, which would increase bicycle parking capacity and generally improve bicycle conditions on the campus site.

The expected increase in bicycle traffic would not represent a level that would adversely affect bicycle facilities on the campus site, nor would the 2014 LRDP create substantial conflicts between bicyclists and pedestrians, autos, or transit vehicles. Therefore, the 2014 LRDP's impact to bicycle circulation and facilities at the Mount Zion campus site would be less than significant.

Mitigation: None required.

Impact TRAF-MZ-6: Implementation of the 2014 LRDP on the Mount Zion campus site would increase loading demand. (Less than Significant)

The San Francisco Planning Code requires that land uses, such as medical offices and hospitals, provide off-street loading spaces according to a prescribed schedule. The required loading supply was estimated based on that Code schedule, and the existing and proposed loading supply exceeds the Code requirement at the Mount Zion campus site.

The demand for loading spaces through the 2014 LRDP horizon year was calculated based on surveys from the Parnassus Heights campus site and methods described in the City's *Transportation Impact Analysis Guidelines for Environmental Review*. The existing peak hourly demand is estimated to be about 13 spaces on the Mount Zion campus site, and the 2014 LRDP horizon year peak hourly demand is estimated to be about 16 spaces.

It is expected that the estimated 2014 LRDP loading supply should be adequate for the estimated demand, but as mentioned above, the campus sites are unique and should be monitored over time. This is considered a less-than-significant impact if UCSF continues to monitor loading operations and provide appropriate supply with guidance from the SF Planning Code and existing operations. As noted in Section 8.14.2.6, the loading area fronting the Scott Street facility appears to currently be at capacity, as multiple passenger vehicles were seen occupying metered parking spots. While this is not considered a significant impact, an Improvement Measure to add a curbside passenger loading zone on Scott Street has been identified. UCSF could work with the SFMTA to add a curbside passenger loading zone on Scott Street. An additional 50-foot-long zone would require the removal of approximately two metered parking spaces on Scott Street. This loading zone will reduce overflow for passenger loading on Scott Street.

In addition to freight loading, there is a demand for passenger loading spaces, and in order to estimate passenger loading demand, the drop-off/taxi service mode split and a portion of the carpool mode split percentages presented in 8.14.3.1 above was applied to the peak AM and PM peak-hour person trips. The peak-hour passenger loading demand is estimated to increase by approximately 35% at the Mount Zion campus site.

The existing passenger loading supply is sufficient for the estimated 2014 LRDP loading needs during both the AM and PM peak hour. Therefore, the 2014 LRDP's impact to passenger loading is considered less than significant.

Mitigation: None required.

Impact TRAF-MZ-7: Implementation of the 2014 LRDP on the Mount Zion campus site would increase parking demand. (Less than Significant)

Under the 2014 LRDP, additional parking would be provided on the Mount Zion campus site, as warranted by the proposed development (i.e., the number of any new parking spaces would be determined as projects are proposed). It is estimated that the number of parking spaces owned by UCSF at the Mount Zion campus site would increase by approximately 185 spaces by year 2040. The following list describes the currently proposed changes in parking supply:

- A 185-space garage would be constructed as part of a new clinical and/or office/research building to be located on Scott Street, on the east side of the main block. The parking could be provided in the building, underground, or off-site.

As described previously, the available on-street parking is well-occupied at the Mount Zion campus site, and has therefore not been considered as a resource for the future parking utilization analysis, which has focused instead on the availability of off-street parking. Assessment of the growth of peak parking demand under the 2014 LRDP shows that the future parking utilization at the Mount Zion campus site would be at its effective capacity. Because there would not be a shortfall in parking supply, the 2014 LRDP's impact to parking is considered less than significant.

Mitigation: None required.

8.15 Utilities and Service Systems

The Regional Setting, Regulatory Considerations, Significance Standards and Analysis Methodology for analysis of potential effects of Utilities and Service Systems are contained in Section 4.15 of this EIR. The CEQA Significance Standards presented in Section 4.15.3 are used to evaluate the potential utilities and service systems impacts of all proposed 2014 LRDP activities.

The overall effects on water supply, wastewater treatment, storm drainage facilities, solid waste disposal and energy demand resulting from implementation of the 2014 LRDP were evaluated in Chapter 5, *2014 LRDP – Impacts and Mitigation Measures*. No expansion of water, wastewater or storm drainage facilities beyond the standard service connections of future buildings to the City's existing infrastructure is anticipated at the Mount Zion campus site.

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