

CHAPTER 9

Mission Center Campus Site – Setting, Impacts and Mitigation Measures

9.0 Introduction

This chapter considers the existing conditions and describes the potential impacts of 2014 LRDP activities proposed at the Mission Center campus site. Space program, population at LRDP horizon and proposed LRDP development activities that would occur at the Mission Center campus site were described in detail in Section 3.8.4 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.

9.0.1 Functional Zones

The Mission Center campus site has not been designated with functional zones by UCSF.

9.0.2 Space Program

The LRDP proposes an additional 2.39 million gsf in owned and leased buildings across all of UCSF's sites through 2035. The 100,000 gsf allocation of this growth at the Mission Center campus site at LRDP horizon in 2035 is shown below in **Table 9.0-1**.

**TABLE 9.0-1
MISSION CENTER EXISTING AND LRDP HORIZON GSF**

Type of Space	Existing 2013 Total gsf	LRDP Horizon 2035 Total gsf
Instruction	2,200	2,200
Research	27,800	27,800
Clinical	29,400	29,400
Support		
Academic Support	12,300	27,300
Academic/Campus Admin	192,400	247,400
Campus Community	8,100	23,100
Logistics	<u>18,500</u>	<u>33,500</u>
<i>Support Subtotal</i>	231,300	331,300
Housing	--	--
Vacant/Alteration	--	--
Total	290,700	390,700

9.0.3 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 9.0-2**, below, the projected increase in population at the Mission Center campus site would be approximately 530 in 2035.

**TABLE 9.0-2
MISSION CENTER EXISTING AND PROJECTED POPULATION**

	Existing (2013)	Projected Population at LRDP Horizon (2035)	Change
Students	16	26	10
Faculty and Staff	784	1,274	490
Patients	--	--	--
Visitors	55	89	34
Total	855	1,389	534

9.0.4 Mission Center – 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 proposal at the Mission Center campus site only includes construction of new facilities, as listed below.

Construction Proposals

- Office building and parking facility

9.1 Aesthetics

This section considers the setting and Aesthetics impacts at the Mission Center 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.

9.1.1 Aesthetics Issues Adequately Addressed in the Initial Study

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

- **Scenic vista.** The construction of the proposed office building and parking structure would not result in a potential adverse effect on a scenic vista. Therefore, no additional analysis of this issue is required.
- **Scenic resources.** The construction of the proposed office building and parking structure would not result in an adverse impact to scenic resources within a state scenic highway. Therefore, no additional analysis of this issue is required.

9.1.2 Aesthetics – Mission Center Setting

The three-acre Mission Center campus site is in the northeast portion of San Francisco's mixed use Mission District, located on the southern half of the block bounded by Fourteenth, Harrison, Fifteenth and Folsom streets. It has only one building that is six stories tall (approximately 72 feet). The building fronts on Folsom Street, but the main entrance is adjacent to the 220-space parking lot, which can be accessed from Harrison and Fifteenth streets. A San Francisco MUNI Bus Depot occupies the entire block south of the campus site across Fifteenth Street. Other uses in the vicinity include low-rise light industrial and automotive services, a grocery and some residential properties westward down Fifteenth Street.

9.1.3 Aesthetics – Mission Center Impacts and Mitigation Measures

Impact AES-MC-1: The proposed office/research building and parking structure at the Mission Center 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 has not yet been designed, but for planning purposes the LRDP assumes that it would not exceed the City's height limit of 55 feet, which would allow for a four-story building of up to 100,000 gsf. To help integrate the site into the surrounding fabric of the City, a small amount of retail space or another active use at the ground floor would be considered when this building is programmed. A five-story, approximately 95,000 gsf garage

with up to 294 parking spaces would be built between the existing and new buildings. The proposed garage would be shorter than both the existing and proposed buildings on the campus site. Vehicular access into the garage would be limited to Harrison Street. As discussed further in Section 8.4, *Cultural Resources*, both the proposed building and garage would be constructed toward the secondary façade of the existing Mission Center building, which would not affect views of the primary façade on Folsom Street. Additional open space with a southern exposure would be developed between the existing and proposed office buildings.

Although changes in appearance at the Mission Center campus site would be noticeable, particularly along Fifteenth Street, the new buildings 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. The design guidelines would ensure that the final design of the buildings responds to the form of adjacent buildings (e.g., in terms of massing and height) and the overall urban context of the Mission Center campus site and surrounding neighborhood. Because the new buildings would be visually similar to existing uses on and adjacent to the campus site, the proposed buildings would not substantially degrade the visual character of the campus site and its surroundings. Therefore, effects to visual quality and character are less than significant.

Mitigation: None required.

Impact AES-MC-2: The proposed office building and parking structure at the Mission Center 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 office/research building and parking structure could increase ambient light levels due to light dispersion resulting from new buildings 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 buildings 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 could be reduced to less-than-significant levels.

Mitigation Measure: Implement Mitigation Measure AES-LRDP-1

Significance after Mitigation: Less than Significant

Impact AES-MC-3: Construction of the proposed office building and parking structure at the Mission Center 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-MC-4: The proposed office building and parking structure at the Mission Center campus site could cast shadow on City park property protected by City Planning Code Section 295 or create street-level winds that could be hazardous to pedestrians in the area. (Less than Significant)

The proposed office/research building on the Mission Center campus site would have a height of approximately 55 feet above ground and the proposed parking structure would be shorter than both the existing and proposed building on the campus site. The office/research building could cast shadow that would be, at most, approximately 350 feet long during the daylight hours between one hour after sunrise and one hour before sunset, throughout the year, the times covered by Planning Code Section 295. Since there are no City properties under the control of the Recreation and Park Department within that critical distance from the building site, shadow from the office/research building or parking structure would not affect City park property protected by City Planning Code Section 295. (See also Section 7.1 for more information on Section 295.)

In early morning, shadow from the office/research building would reach across the planned USCF central open space fronting Fifteenth Street, moving off it by mid-day, when both the building and parking structure shadows would reach north into mid-block interior open areas now used for parking and for rear access to other buildings. Afternoon shadow from the office/research building would reach Harrison Street sidewalks north of Fifteenth Street all year, reaching as far north as Alameda Street in fall and winter. Shadow from the office/research building would not reach any open space, except the planned central open space on the Mission Center campus site,

The planned central open space would be mostly shadowed by the office/research building in early-morning, would be mostly in sunlight from mid-morning to mid-afternoon, and then, by late-afternoon, would again be shadowed, but by the existing Mission Center building. The impact with regard to shadows would be less than significant.

As previously discussed under Impact AES-PH-5 in Section 6.1, a building that is 50 feet tall, or less, has very little to no effect on the wind, unless the building is very wide, or it is the only structure standing on an open site. Given that this building and parking structure will be located to the east of the existing Mission Center building and therefore shielded from the predominant west winds, there would be little or no change in pedestrian-level winds in the vicinity of the new building sites due to construction of the new building or garage.

The changes in wind conditions due to construction of the Mission Center building and garage would not result in a new pedestrian-level wind hazard or increase an existing wind hazard on adjacent sidewalks.

The impact with regard to winds would be less than significant.

Mitigation: None required.

9.2 Air Quality

This section considers the setting and air quality impacts at the Mission Center 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.

9.2.1 Air Quality Issues Adequately Addressed in the Initial Study

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

- **Objectionable odors.** The proposed construction of the office building and parking structure would not result in objectionable odors affecting a substantial number of people. Therefore, no additional analysis of this issue is required.

9.2.2 Air Quality – Mission Center Setting

9.2.2.1 Sensitive Receptors

The closest sensitive receptors to Mission Center consist of residential land uses approximately 300 feet west of the development site on Folsom Street and residential land uses approximately 650 feet south of the development site on Sixteenth Street.

9.2.2.2 Existing Stationary Sources of Air Pollution

The BAAQMD inventory of permitted stationary sources of emissions identifies 12 permitted stationary emission sources present within or near the 1,000-foot zone of influence of the Mission Center campus site. These permitted facilities are primarily made up of stationary diesel engines for back-up power generators, auto body shops and gasoline fueling facilities.

The Mission Center campus site also operates fume hoods which emit TACs and has some laboratories that handle bio hazardous material (up to Biosafety Level 3)¹. 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

¹ Biosafety levels are levels of safety precautions proscribed for various activities that involve work with biological materials. Four levels exist: Biosafety levels 1 to 4, with Biosafety Level 4 being the most hazardous. UCSF does not conduct Biosafety Level 4 activities

reduce the volume of chemical use within hoods, which are now inventoried. At present there are approximately seven active fume hoods in operation at the Mission Center campus site.

9.2.2.3 Major Roadways Contributing to Air Pollution

Harrison, Folsom and Sixteenth Streets 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 model². This traffic contributes to elevated concentrations of PM_{2.5}, DPM, and other contaminants emitted from motor vehicles near the street level. Additionally, U.S. 101 is a freeway located approximately 650 feet north of the Mission Center campus site.

9.2.3 Air Quality – Mission Center Impacts and Mitigation Measures

Impact AIR-MC-1: Implementation of the 2014 LRDP at the Mission Center campus site would result in increased emissions of criteria air pollutants during construction activities. (Potentially Significant)

Construction activities under the 2014 LRDP 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.

There is a single proposal for the Mission Center campus site under the LRDP: construct a new office building and parking structure.

Construction-related emissions from these proposals were calculated using the California Emissions Estimator Model (CalEEMod), assuming completion by 2025 and phasing lengths based on CalEEMod default estimates which are based on square footage for office and research building and the parking garages. All model inputs and outputs are provided in Appendix E.

Table 9.2-1 presents the average annual daily construction emissions generated by development under the 2014 LRDP at the Mission Center campus site. As can be seen in Table 9.2-1, estimated average daily construction-related exhaust emissions would not exceed the thresholds for NO_x, ROG or particulate matter.

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

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

**TABLE 9.2-1
 AVERAGE DAILY CONSTRUCTION-RELATED POLLUTANT EMISSIONS
 WITHOUT MITIGATION - MISSION CENTER**

Years	Estimated Emissions (lbs/day)			
	ROG	NO _x	Exhaust PM ₁₀ ^a	Exhaust PM _{2.5} ^a
2020/2021	22.62	28.41	1.73	1.65
<i>BAAQMD Considered Construction Threshold</i>	54	54	82	54
Potential Significant Impact?	No	No	No	No

SOURCE: ESA (Appendix E)

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 Measure AIR-LRDP-1

Although the criteria air pollutant emissions from demolition and construction proposals at the Mission Center campus site would be below BAAQMD significance thresholds, **Impact AIR-LRDP-4** in Section 5.2 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 Mission Center campus site.

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

Significance after Mitigation: Less than Significant

Impact AIR-MC-2: Construction activities at the Mission Center campus site under the 2014 LRDP would increase emissions of toxic air contaminants (TACs) and increase health risks for nearby residents. (Less than Significant)

Construction activities under the 2014 LRDP 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 would result in elevated concentrations of DPM and PM_{2.5} at nearby receptors (both new and existing residences and schools). 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. Detailed assumptions and methodology for the health risk assessment are included in Appendix E.

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 construction under the 2014 LRDP at the Mission Center campus site is presented in **Table 9.2-2**.

**TABLE 9.2-2
 CONSTRUCTION-RELATED HEALTH IMPACTS - MISSION CENTER**

Receptor Type	Cancer Risk (per million persons)	Chronic Index	Acute Index	PM _{2.5} Concentration (µg/m ³)
School Children	0.04	0.01	0.01	0.01
Existing Residence (adult / child)	0.64 / 7.19	0.02	0.21	0.08
<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 9.2-2, the maximum cancer risk for an existing residence-adult and residence-child (located to the west of the project site) would be 0.6 and 7.2 per million persons, respectively. The maximum cancer risk for a school-child receptor (including Marshall Elementary School) would be 0.04 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 0.02 or less at all receptors. The chronic HI would be below the BAAQMD threshold of 1 and the impact of the construction would be less than significant. The acute HI would be 0.2 or less at all receptors. The acute HI would be below the BAAQMD threshold of 1 and the impact of the construction would be less than significant.

The maximum annual PM_{2.5} concentrations would be less than 0.1 µg/m³ for the school-child 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-MC-3: Operations at the Mission Center campus site under the 2014 LRDP would result in increased emissions of criteria air pollutants. (Potentially Significant)

2014 LRDP proposals at the Mission Center 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 traffic due to additional staff and visitors. Traffic volumes used to estimate vehicle-related emissions were derived from the Transportation Demand Analysis prepared for the LRDP (Adavant, 2014). Development at the campus site would generate an estimated 540 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.

Table 9.2-3 presents estimated operational emissions from development under the 2014 LRDP at the Mission Center 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.

Although estimated emissions at the Mission Center 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 Mission Center campus site.

Mitigation Measure: Implement Mitigation Measure AIR-LRDP-4

Significance after Mitigation: Less than Significant

**TABLE 9.2-3
UNMITIGATED OPERATIONAL CRITERIA POLLUTANT EMISSIONS- MISSION CENTER**

Air Pollutant	Estimated Emissions (lbs/day)			
	ROG	NO _x	PM ₁₀	PM _{2.5}
Mobile Sources ^a	1.28	2.39	2.83	0.80
Area Sources ^a	2.43	<0.001	<0.001	<0.001
Natural gas combustion	0.06	0.55	0.04	0.04
Total	3.76	2.94	2.87	0.84
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).

Impact AIR-MC-4: Operations at the Mission Center 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 at the Mission Center campus site would not generate substantial DPM emissions. Development at the campus site would generate an estimated 540 additional daily vehicle trips from staff, students and visitors that would be almost entirely gasoline powered. New operational sources of TACs are not proposed. It is assumed that no additional research uses would occur at the new Mission Center building and therefore no new fume hood emissions would be generated. For planning purposes, the LRDP assumes that a new building would be no greater than the City’s height limit of 55 feet, which is less than the 70-foot threshold for requiring a back-up generator. Consequently, generator emissions would not be a concern for this development. Operations resulting from implementation of the 2014 LRDP at the Mission Center campus site would have a less than significant impact with regard to health risks.

Mitigation: None required.

9.2.4 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.

9.3 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 Mission Center 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.

9.4 Cultural Resources

This section considers the setting and cultural resources impacts of implementation of the 2014 LRDP at the Mission Center 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.

9.4.1 Cultural Resources Issues Adequately Addressed in the Initial Study

The Initial Study concluded that the construction of the proposed office building and parking structure and its potential effects on cultural resources would be evaluated in the EIR.

9.4.2 Cultural Resources – Mission Center Setting

The three-acre Mission Center campus site is in the northeast portion of San Francisco's mixed use Mission District, on the southern half of the block bounded by Fourteenth, Harrison, Fifteenth and Folsom Streets. It has only one building, 1855 Folsom Street, which is six stories tall and contains 291,000 gsf of office space for UCSF employees. Adjacent to the Mission Center building is a 207-space parking lot, which can be accessed from Harrison and Fifteenth Streets.

The Mission Center building site is located in what was historically the Mission Valley, a formerly rural area bisected by the meandering course of Mission Creek. This area was filled in during the late nineteenth century primarily to accommodate the city's growing commercial and industrial needs. Numerous heavy timber and steel-frame brick warehouses and factories were constructed in the area between 1890 and 1930, with the vast majority constructed after the 1906 Earthquake and Fire. It is within this context that the reinforced concrete and brick former industrial Mission Center Building was constructed in 1927 for the Illinois Pacific Glass Company (CCSF, 2011).

Although the interior of the building was altered for office uses in the 1970s, it was recommended as individually eligible for listing in the CRHR as part of the Showplace Square/Northeast Mission Survey, which was completed by the San Francisco Planning Department in 2011. A campus-wide survey commissioned by UCSF by Carey & Co. in 2011 concluded that the building is not individually eligible for the CRHR or the NRHP, but rather, could be a contributor to a potential historic district, the Showplace Square Heavy Timber and Steel-frame Brick Warehouse and Factory District, described below. Whether the property is considered individually eligible, or a contributor to a potential historic district, it is considered a historic resource for CEQA purposes. A review of this building by ESA in 2014 identified no changes since the original evaluation, and as such, its current historic status would remain.

The City's survey identified the discontinuous Showplace Square Heavy Timber and Steel-frame Brick Warehouse and Factory District as a potential historic district. Neither the Mission Center building or adjacent parking lot was identified by the City as being within or adjacent to any of the

three discontinuous areas that comprise the potential historic district; the closest of which is about two blocks to the east. As described above, however, the Mission Center building is considered a potential contributor to this district according to the Carey & Co. survey, and is being treated as such in this analysis. The parking lot adjacent to the Mission Center building is identified as ‘non-historic’ in both the City and Carey & Co. surveys.

9.4.3 Cultural Resources – Mission Center Impacts and Mitigation Measures

Impact CUL-MC-1: Construction of the proposed office building and parking structure at the Mission Center campus site would not result in a substantial adverse change in the significance of a historical resource. (Less than Significant)

The existing building on the Mission Center campus site will remain, and no changes in use are planned. UCSF would construct a new office building and parking structure in the location of the existing parking lot. The new building would be no greater than the City’s height limit of 55 feet, which would allow for a four-story building up to 100,000 gsf. To support this space, a five-story, 95,600 gsf garage with up to 294 parking spaces would be built between the existing and new buildings.

Although the Mission Center building has been identified as individually eligible for listing in the CRHR, and a possible contributor to the potential Showplace Square Heavy Timber and Steel-frame Brick Warehouse and Factory District, and would be considered a historic resource for CEQA purposes, no changes to this building are planned under the 2014 LRDP. As such, no direct impacts to historic resources would occur. New construction adjacent to the Mission Center building would occur on the adjacent parking lot, which was identified as a non-historic site in the City and Carey & Co. surveys. The proposed parking garage to be constructed directly adjacent to the Mission Center building could indirectly affect the setting of this historic resource if completed in a manner that physically competed with, or overwhelmed, this historic brick building. However, the proposed parking garage would be shorter in height, smaller in size, and set back from Fifteenth Street, allowing the Mission Center building to ‘read’ as a separate building on the subject block. The proposed parking garage would be subordinate to the Mission Center building, allowing this building to retain its primacy on the subject block. In addition, both the proposed parking garage and office building would be constructed toward the rear or secondary façade of the Mission Center building, allowing the primary, front façade on Folsom Street to remain unaffected. For these reasons, the proposed office building and parking garage at the Mission Center site would have no significant impacts to the Mission Center building as a historic architectural resource. As the proposed office building and parking garage would be constructed about two blocks west from the other, primary grouping of contributors to the potential Showplace Square Heavy Timber and Steel-frame Brick Warehouse and Factory District, there would be sufficient distance between the new structures and the potential district such that no significant indirect impacts to the district would occur.

As this proposal would undergo additional CEQA review at the project-level, and the design of the project would be further refined at that time, there are future opportunities for UCSF to design

a building which meets their programmatic needs while honoring the industrial materials and massing of the adjacent Mission Center building as well as other industrial buildings in the surrounding area.

Mitigation: None required.

Impact CUL-MC-2: Construction of the proposed office building and parking structure at the Mission Center campus site could cause substantial adverse changes to archaeological resources. (Potentially Significant)

Due to its location within or near a former watercourse, the Mission Center campus site suggests a high sensitivity to contain significant archaeological deposits and/or features from both prehistoric and historic-period use and occupation. In order to minimize impacts resulting from construction of the proposed office building and parking structure to archaeological resources, the following mitigation measures are recommended.

Mitigation Measure CUL-MC-1: Archaeological Testing Program.

Based on a reasonable presumption that archeological resources may be present within the Mission Center campus site, the following measures shall be undertaken to avoid any potentially significant adverse effect from the proposed office building and parking structure on buried archaeological resources. UCSF shall retain the services of an archaeological consultant that meets Secretary of Interior standards for archaeology, and has knowledge of California prehistory and historical archaeology. The archeological consultant shall perform sufficient archival and background research to determine if an archeological testing program is appropriate. The archeological consultant shall prepare an archeological testing plan (ATP). The ATP shall identify the property types of the expected archeological resource(s) that potentially could be adversely affected by the proposed office building and parking structure, the testing method to be used, and the locations recommended for testing. The purpose of the archeological testing program will be to determine to the extent possible the presence or absence of archeological resources and to identify and to evaluate whether any archeological resource encountered on the site constitutes an historical resource under CEQA.

If required, an archeological testing program shall be conducted in accordance with the approved ATP. After the completion of the archeological testing program, the archeological consultant shall submit a written report of the findings. If based on the archeological testing program the archeological consultant finds that significant archeological resources may be present, the archeological consultant shall determine if additional measures are warranted. If feasible, the proposed office building and parking structure shall be re-designed so as to avoid any adverse effect on the significant archeological resource. If avoidance is not feasible, additional measures that may be undertaken include additional archeological testing, archeological monitoring, and/or an archeological data recovery program. These measures would be undertaken to reduce to a less than significant level any potential effects on a significant archeological resource as defined in CEQA Guidelines Section 15064.5 (a)(c).

Mitigation Measure CUL-MC-2: Consultation with Descendant Communities.

On discovery of an archeological site associated with a specific Native American or other descendant group, an appropriate representative of the descendant group shall be contacted

to discuss the potential cultural significance of the archaeological site and assist in developing a plan for the area of the find. Topics for discussion may include archeological field investigations, appropriate archeological treatment of resources, and, if applicable, interpretative treatment of the associated archeological site. A copy of the Final Archaeological Resources Report shall be provided to the representative of the descendant group.

Mitigation Measure CUL-MC-3: Archaeological Monitoring.

The ATP (Mitigation Measure CUL-MC-1) will determine the need for archaeological monitoring. Should it be required before or after archaeological testing and/or data recovery, an archaeologist that meets the Secretary of the Interior’s Standards and Guidelines for professional archaeologists will monitor ground-disturbing activities in areas proposed for ground disturbing activities associated with construction activities at the building sites. The monitor will be empowered to temporarily halt construction in the immediate vicinity of a discovery while it is evaluated for significance. With the archaeologist’s approval, work may continue on other portions of the site. If the discovery proves to be significant, additional measures will be implemented; these may include avoidance, capping beneath a layer of sterile soil, or data recovery through archaeological excavation.

Should an archaeological artifact be discovered at the Mission Center campus site during project construction and excavation, pursuant to CEQA Guidelines 15064.5 (f), “provisions for historical or unique archaeological resources accidentally discovered during construction” shall be instituted. In the event that any prehistoric or historic subsurface cultural resources are discovered during ground disturbing activities, all work within 100 feet of the resources shall be halted and UCSF shall consult with a qualified archaeologist or paleontologist to assess the significance of the find (per Public Resource Code Section 5024.1, Title 14 CCR, Section 4852 and/or Public Resource Code 21083.2 in the event of a unique archaeological find). If any find is determined to be significant and will be adversely affected by the construction of the office building and parking structure, representatives of UCSF and the qualified archaeologist and/or paleontologist shall meet to determine the appropriate avoidance measures or other appropriate mitigation (per CEQA Guidelines 15064.5 (b) and Public Resource Code 21083.2). All significant cultural materials recovered shall be subject to scientific analysis, professional museum curation, and documented by the qualified archaeologist according to current professional standards (Per the Secretary of the Interior's Standards and Guidelines for Archeology and Historic Preservation (48 FR44716)).

Whether or not significant archeological resources are encountered during monitoring, the archeological consultant shall submit a written report of the findings.

Significance after Mitigation: Less than Significant

Impact CUL-MC-3: Construction of the proposed office building and parking structure at the Mission Center 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 no unique paleontological resources or unique geologic features at the Mission Center site, which is underlain by dune sands. In the event that paleontological resources are uncovered during the course of construction, **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-MC-4: Construction of the proposed office building and parking structure at the Mission Center campus site could cause substantial adverse changes to human remains. (Potentially Significant)

As described above, the Mission Center campus site has a heightened sensitivity for the presence of prehistoric and historic period occupation, which also suggests a heightened sensitivity for the presence of human remains. Implementation of **Mitigation Measures CUL-MC-1** and **CUL-MC-2**, in addition to **Mitigation Measure CUL-LRDP-5** would reduce the impact to a less than significant level.

Mitigation Measure: Implement Mitigation Measure CUL-MC-1, CUL-MC-2, and CUL-LRDP-5

Significance after Mitigation: Less than Significant

9.4.4 References

City of San Francisco, *Showplace Square/Northeast Mission Historic Resource Survey*, 2011.

9.5 Geology, Soils and Seismicity

This section considers the setting and geology, soils and seismicity impacts of implementation of the 2014 LRDP at the Mission Center 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 Mission Center campus site are discussed below.

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

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

- **Landslides.** The proposed office building and parking structure would not result in an adverse effect from landslides. Therefore, no additional analysis of this issue is required.
- **Expansive soils.** The proposed office building and parking structure would not be located on expansive soils. Therefore, no additional analysis of this issue is required.
- **Soils and wastewater disposal.** The proposed office building and parking structure would not 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 office building would not result in potential effects regarding exposure to structural hazards in an existing building. Therefore, no additional analysis of this issue is required.

9.5.2 Geology, Soils and Seismicity – Mission Center Setting

The Mission Center campus site is located within an area associated with the historic Mission Creek which has since been filled and built over. The relatively flat site lies at an elevation of approximately 22 feet above sea level. According to the California Geologic Survey (CGS), the Mission Center campus site is located within a Seismic Hazard Zone for liquefaction indicating a high potential for the presence of soils that could be susceptible to the effects of liquefaction during an earthquake (ABAG, 2014).

9.5.3 Geology, Soils and Seismicity – Mission Center Impacts and Mitigation Measures

There is only one development proposal for the Mission Center campus site under the 2014 LRDP, namely to construct an office / research building and parking structure.

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.

The proposed office building and parking structure 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. If not engineered appropriately, new construction could be susceptible to significant damage as a result of strong ground shaking. However, all proposed construction under 2014 LRDP would be required to adhere to the most stringent building code requirements which include measures to minimize potential from anticipated seismic forces. Due to the location of the campus site within the seismic hazard zone for liquefaction, the proposed plans would be required to be in compliance with Special Publication 117A which includes measures on the identification and appropriate mitigation of any identified liquefaction hazards. Adherence to these existing regulatory requirements as well as UC's *Seismic Safety Policy* would ensure that seismic hazards are reduced to less than significant levels.

Construction activities would also include disturbance to underlying soils. If not managed appropriately, these soils could be susceptible to the effects of wind and water erosion. However, all construction 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.

Mitigation: None required.

9.5.4 References

Association of Bay Area Governments (ABAG), *Interactive Map for Liquefaction Hazards*, California Geological Survey, <http://gis.abag.ca.gov/website/LiquefactionCGS/index.html>, accessed February 24, 2014.

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

9.6 Greenhouse Gas Emissions

This section considers the setting and greenhouse gas emissions impacts of implementing the 2014 LRDP at the Mission Center 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.

9.6.1 Greenhouse Gas Emissions Issues Adequately Addressed in the Initial Study

The Initial Study concluded that construction of the proposed office building and parking structure at the Mission Center campus site and its potential effect on greenhouse gas emissions would be evaluated in the EIR.

9.6.2 Greenhouse Gas Emissions – Mission Center Setting

Greenhouse gas (GHG) emissions are generated at the Mission Center 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.

9.6.3 Greenhouse Gas Emissions – Mission Center Impacts and Mitigation Measures

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

Construction emissions from development were estimated using the CalEEMod emissions model assuming the construction of a 100,000 square foot office building and 95,000 square foot parking garage. Construction-related emissions from development under the 2014 LRDP were calculated assuming completion by 2025 and phasing lengths based on CalEEMod default estimates which are based on square footage and number of parking spaces. All model inputs and outputs are provided in Appendix E. Construction-related GHG emissions for the one year anticipated construction period are presented in **Table 9.6-1**. Estimated emissions are 406 metric tons of carbon dioxide equivalent greenhouse gases³ (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.

³ CO₂e in all calculations of project impact include CO₂, CH₄ and N₂O.

**TABLE 9.6-1
 ANNUAL CONSTRUCTION-RELATED GHG EMISSIONS
 WITHOUT MITIGATION - MISSION CENTER**

Emission Source	Emissions (metric tons/year)			
	CO ₂	CH ₄	N ₂ O	Total CO ₂ e
2015	405	<1	<1	406

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 the applicant employs feasible, effective measures to reduce GHG emissions during construction. This mitigation measure would therefore reduce this potential impact to a less than significant level.

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

Operational Emissions

Area, Energy, and Indirect Sources

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 9.6-2**. 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 a 20% energy reduction beyond Title 24 requirements. Energy use (electrical and natural gas) represents approximately 38% of estimated operational GHG emissions.

**TABLE 9.6-2
 ANNUAL OPERATIONAL GHG EMISSIONS
 WITHOUT MITIGATION - MISSION CENTER**

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	345	<1	<1	334
Mobile Sources	345	<1	<1	345
Solid Waste	19	1	<1	42
Water and Wastewater	23	1	<1	40
Total	719	2	<1	762

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

Mobile Emission Sources

One of the sources of operational emissions would be increased vehicle emissions from additional staff, patients, visitors and residents. Traffic volumes used to estimate vehicle-related emissions were derived from the Transportation Demand Analysis prepared for the LRDP (Adavant, 2014). Development under the 2014 LRDP at the Mission Center campus site would generate an estimated 540 additional daily vehicle trips. GHG emissions from motor vehicle sources were calculated using CalEEMod. Table 9.6-2 presents the incremental mobile source GHG emissions associated with development under the 2014 LRDP at the Mission Center campus site, which represent approximately 50% of the total operational GHG emissions.

As shown in Table 9.6-2, the sum of both direct and indirect GHG emissions resulting from operations under the 2014 LRDP at the Mission Center campus site would result in an estimated 762 metric tons per year of CO₂e. Applying a service population of 500 persons associated with development at the Mission Center campus site (490 new faculty and staff and 10 students) results in operational emissions of approximately 1.5 metric tons CO₂e/SP/yr. This is below the service population threshold of 4.6 metric tons CO₂e/SP/yr and operational GHG emissions associated with development under the 2014 LRDP at the Mission Center campus site would therefore be a less than significant impact.

Mitigation: None required.

9.6.4 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.

9.7 Hazards and Hazardous Materials

This section considers the setting and hazards and hazardous materials impacts at the Mission Center 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.

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

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

- **Safety hazards from airport operations.** The construction of the proposed office building and parking structure would not result in safety hazards resulting from proximity to public or private airports. Therefore, no additional analysis of this issue is required.
- **Wildland fires.** The construction of the proposed office building and parking structure would not result in exposure to wildland fires. Therefore, no additional analysis of this issue is required.

9.7.2 Hazards and Hazardous Materials – Mission Center Setting

The Mission Center campus site is in a mixed use area of the City and currently consists of only one six-story building. The building is currently used for a variety of support services including campus police, documents, media and mail, information technology services, the finance services center and the controller's office. The building contains a small amount of research and other administrative functions.

9.7.3 Hazards and Hazardous Materials – Mission Center Impacts and Mitigation Measures

Impact HAZ-MC-1: Implementation of the 2014 LRDP at the Mission Center 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)

The Marshall Elementary School is located approximately 0.2 miles southwest of the Mission Center campus. As discussed above, the new office building would be associated with handling, storage, and disposal of hazardous materials and wastes which would be managed consistent with current regulatory requirements and UCSF policies and plans. In general, existing hazardous materials use for administrative support services or even research laboratory purposes at UCSF

does not involve large enough quantities of hazardous materials or result in emissions that would represent potential health hazards to the Marshall Elementary School. Adherence to current regulatory requirements and UCSF policies and plans would provide sufficient control to reduce impacts from potential exposure to hazardous materials to a less than significant level.

Mitigation: None required.

Impact HAZ-MC-2: 2014 LRDP proposals located at Mission Center campus sites are included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, could create a significant hazard to the public. (Potentially Significant)

The Mission Center campus site is not found on the EnviroStor database maintained by the Department of Toxic Substances Control but does contain three cases (i.e., listed as Alioto's Garage, Commercial Building, and International Disposal) found on the Geotracker database maintained by the State Water Resources Control Board (DTSC, 2014 and SWRCB, 2014). The three case listings are listed as closed indicating that either the identified contamination was minimal or remediated to point such that no further action was warranted (SWRCB, 2014).

However, earthwork activities have the potential to encounter previously unidentified contamination or materials that contain naturally occurring asbestos fibers. As such, there is a potential for encountering that could present exposure hazards to workers or the public. However, with implementation of **Mitigation Measure HAZ-LRDP-1**, potential impacts from exposure to residual contamination or naturally occurring asbestos would be less than significant.

Mitigation Measure: Implement Mitigation Measure HAZ-LRDP-1

Significance after Mitigation: Less than Significant

9.7.4 References

Department of Toxic Substances Control (DTSC), Envirostor Database,
http://www.envirostor.dtsc.ca.gov/public/mapfull.asp?global_id=&x=-119&y=37&zl=18&ms=640,480&mt=m&findaddress=True&city=1800%20Folsom%20Street,%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 18, 2014.

State Water Resources Control Board (SWRCB, Geotracker Database,
http://geotracker.waterboards.ca.gov/profile_report.asp?global_id=T0607591574, accessed February 19, 2014.

9.8 Hydrology and Water Quality

This section considers the setting and hydrology and water quality impacts of implementation of the 2014 LRDP at the Mission Center campus site. The Regional Setting, Regulatory Considerations, Significance Standards and Analysis Methodology for analysis of potential effects of Hydrology and Water Quality 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 Hydrology and Water Quality impacts of all proposed 2014 LRDP activities.

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

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

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

- **Groundwater supplies.** The construction of the proposed office building and parking structure would not 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.** The construction of the proposed office building and parking structure would not place housing or other structures within a flood hazard area. Therefore, no additional analysis of this issue is required.
- **Exposure to flooding.** The construction of the proposed office building and parking structure would not result in exposure to flooding. Therefore, no additional analysis of this issue is required.
- **Inundation by seiche, tsunami or mudflow.** The construction of the proposed office building and parking structure would not result in inundation by seiche, tsunami or mudflow. Therefore, no additional analysis of this issue is required.

9.8.2 Hydrology and Water Quality – Mission Center Setting

The three-acre Mission Center campus site is in the northeast portion of San Francisco's mixed use Mission District, located on the southern half of the block bounded by Fourteenth, Harrison, Fifteenth and Folsom streets. The campus site drains to the City's Combined Sewer System; flows are treated at the Southeast Treatment Plant before being discharged to San Francisco Bay.

9.8.3 Hydrology and Water Quality – Mission Center Impacts and Mitigation Measures

Under the 2014 LRDP, a new office/research building and parking garage is proposed at the Mission Center campus site.

Proposed LRDP development at the Mission Center campus site (including on-site staging) would include 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 Combined Sewer System. 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 to minimize water quality impacts during construction activities on the campus site.

The SWPPP 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, construction of the proposed buildings will need to obtain a water quality certification from the RWQCB for the construction activity, which would also require implementation of BMPs and specific measures for the protection of water quality during construction.

Proposed development at the Mission Center 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 construction activities. These measures, part of the 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.

9.8.4 References

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

9.9 Land Use and Planning

This section considers the setting and land use and planning impacts of implementation of the 2014 LRDP at the Mission Center 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.

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

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

- **Physically divide an established community.** The proposed office building and parking structure would not physically divide an established community. Therefore, no additional analysis of this issue is required.
- **Habitat conservation plan.** The proposed office building and parking structure would not result in a conflict with any applicable habitat conservation plan. Therefore, no additional analysis of this issue is required.

9.9.2 Land Use and Planning – Mission Center Setting

The three-acre Mission Center campus site is in the northeast portion of San Francisco’s mixed use Mission District, located on the southern half of the block bounded by Fourteenth, Harrison, Fifteenth and Folsom Streets. It has only one building that is six stories tall and contains 291,000 gsf. The building fronts on Folsom Street, but the main entrance is adjacent to the 220-space parking lot, which can be accessed from Harrison and Fifteenth streets.

9.9.2.1 UCSF Functional Zones

The Mission Center campus site has not been designated with functional zones by UCSF.

9.9.2.2 City of San Francisco Zoning

The Mission Center campus site is primarily located in a P (Public) Zoning District. P Districts refer to land owned by a governmental agency that is in public use, including open space. The entire campus site is located within the 55-X Height and Bulk District. The “X” designation permits all floors of structures to cover the entire building footprint.

9.9.3 Land Use and Planning – Mission Center Impacts and Mitigation Measures

Impact LU-MC-1: Implementation of the 2014 LRDP at the Mission Center 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 programs and projects 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.

UCSF has not designated the Mission Center campus site with any functional zones. Its existing use, which consists of office and administrative units, would remain unchanged under the 2014 LRDP. The proposed LRDP activities at the Mission Center campus site would not conflict with City plans and policies adopted for the purpose of avoiding or mitigating an environmental effect and the impact would be less than significant.

Mitigation: None required.

Impact LU-MC-2: The proposed new office building at the Mission Center campus site would be compatible with adjacent land uses. (Less than Significant)

UCSF proposes to construct a new office/research building and parking garage on the Mission Center campus site. The proposed building would include up to 100,000 gsf and would not exceed 55 feet in height. A five-story, approximately 95,000 gsf parking garage with up to 294 parking spaces would be built between the existing and new buildings. Additional open space would be developed between the buildings.

The proposed use of the Mission Center campus site for office and administrative functions would remain consistent with the City's Public District designation. Although the proposed office building has not yet been designed, the proposed height would not exceed the City's height limit of 55 feet for this site. Land uses adjacent to the proposed development include a MUNI Bus Depot that occupies the entire block south of the campus site across Fifteenth Street and low-rise light industrial/commercial uses along Harrison Street. Development proposed for the Mission Bay campus site under the 2014 LRDP would be compatible with adjacent land uses and the impact would be less than significant.

Mitigation: None required.

9.10 Noise

This section considers the setting and noise impacts of implementation of the 2014 LRDP at the Mission Center 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.

9.10.1 Noise Issues Adequately Addressed in the Initial Study

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

- **Airport noise.** The proposed office building and parking structure would not be located within the vicinity of a public or private airport. Therefore, no additional analysis of this issue is required.

9.10.2 Noise – Mission Center Setting

9.10.2.1 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 Mission center campus site area is dominated by vehicular traffic on Fourteenth Street, Fifteenth Street, Harrison Street and Folsom Street as from the elevated section of U.S. 101 to the north of campus site.

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 model⁴. 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 maps with the Mission Center campus site area indicate that areas along Folsom Street are generally between 65 and 70 dBA (L_{dn}) while Harrison Street and Fourteenth and Fifteenth Streets are generally between 60 and 65 dBA (L_{dn}).

Ambient Noise Measurements

Ambient short-term (10-minute) noise measurement data were collected in March 2014 to characterize noise conditions in the Mission Center campus site area. To characterize ambient noise in the campus site area, the short-term measurement data were collected at a location where residential land uses exist adjacent to where proposed construction activities could occur. These data are presented in **Table 9.10-1**.

⁴ 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.

**TABLE 9.10-1
 SHORT- TERM AMBIENT NOISE LEVEL DATA IN THE MISSION CENTER CAMPUS AREA**

Measurement Location	Time	Noise Levels in dBA	
		Hourly L _{eq}	L _{max}
MC-ST1: Residences on Folsom Street between 14th Street and 15th Street	5:19 pm	69.8	85.9

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

SOURCE: Environmental Science Associates, 2014.

9.10.3 Noise – Mission Center Impacts and Mitigation Measures

Impact NOI-MC-1: Construction activities proposed under the 2014 LRDP at the Mission Center campus site would result in increases in ambient noise levels over the term of the exterior construction activities. (Potentially Significant)

As noted in the Regional Setting section, the hours that construction activity noise can occur is restricted by Section 2908 of the Police Code. 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.

Construction of the proposed office building and parking structure would require the use of heavy duty off-road construction equipment. Construction activity noise levels at and near the building site would fluctuate depending on the particular type, number, and duration of uses of various pieces of construction equipment. Construction activities would involve excavation, grading, and earth movement and, potentially, pile driving. **Table 9.10-2** shows typical noise levels produced by various types of construction equipment typically involved with large-scale construction projects at a reference level of 50 feet and a distance of 300 feet which is the approximate distance from the new building site to the nearest residences on Folsom Street.

The nearest sensitive residential receptors to the campus site currently experience existing daytime noise levels of 70 dBA. Noise from standard construction equipment would be shielded by an existing building between these receptors and the office building and parking structure sites, resulting in a combined equipment noise level of 61 dBA, L_{eq}, which would not exceed existing noise levels. Nevertheless, **Mitigation Measure NOI-LRDP-1** would be implemented to further reduce noise generated during standard construction activities.

Mitigation Measure: Implement Mitigation Measure NOI-LRDP-1

Significance after Mitigation: Less than Significant

**TABLE 9.10-2
TYPICAL NOISE LEVELS FROM CONSTRUCTION EQUIPMENT**

Construction Equipment	Noise Level (dBA, Leq at 50 Feet)	Noise Level (dBA, Leq at 300 Feet)
Dump truck	76	60
Portable air compressor	78	62
Concrete mixer (truck)	79	63
Crane	81	65
Excavator	81	65
Dozer	82	66
Paver	77	61
Generator	81	65
Backhoe	78	62
Pile driver	101	85
Auger Drill Rig	84	68

SOURCE: FHWA, 2006.

Impact NOI-MC-2: Construction activities proposed under the 2014 LRDP at the Mission Center campus site would result in increases in ambient noise levels during pile-driving activities. (Potentially Significant)

An impact pile driver, if required could result in an increase of up to 15 dBA over existing noise levels, resulting in a significant noise increase over existing conditions. Consequently, mitigation measures to reduce construction noise are identified in **Mitigation Measure NOI-LRDP-2**.

Mitigation Measure: Implement Mitigation Measure NOI-LRDP-2

Significance after Mitigation: Significant and Unavoidable. Mitigation Measure NOI-LRDP-2 would reduce the severity of noise generated by 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, even after mitigation the increase in ambient noise level would likely exceed 10 dBA during pile-driving activities, resulting in a significant and unavoidable impact.

Impact NOI-MC-3: Construction activities proposed under the 2014 LRDP at the Mission Center 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 building and parking structure, pile driving has the potential to result in the highest levels of groundborne 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 structure is approximately 60 feet away from the site of the proposed office building and parking structure, 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. The nearest sensitive receptor are Folsom Street residents approximately 300 feet to the west. Vibration levels from pile driving at this distance would be 0.02 in/sec PPV which would be below the thresholds considered strongly perceptible. Consequently, if restricted to daytime hours, as required by ordinance, the 2014 LRDP proposals at the Mission Center campus site would have a less-than-significant impact with regard to groundborne vibration.

Mitigation: None required.

Impact NOI-MC-4: Operational noise generated by development under the 2014 LRDP at the Mission Center 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 building and parking structure 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 office building. The potential location of such equipment is not at this time but such equipment would be operated in such a manner as to conform to the requirements of the City of San Francisco Noise Ordinance.

Increased traffic would primarily be on the local roadway network, including Fourteenth and Fifteenth Streets, Harrison Street and Folsom Street. A project would be considered to have a significant impact if it resulted in a permanent increase in ambient noise levels greater than 3 dBA 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 9.10-3**, below.

**TABLE 9.10-3
PEAK-HOUR TRAFFIC NOISE LEVELS IN THE VICINITY OF THE MISSION CENTER 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 (2035)	(D-A) Difference between Cumulative Plus Project and Existing
14th Street between Folsom Street and Harrison Street	61.7	61.9	0.2	62.4	0.7
15th Street between Folsom Street and Harrison Street	59.7	59.8	0.1	60.1	0.4
Harrison Street between 14th Street and 15th Street	66.0	66.1	0.1	66.4	0.4
Folsom Street between 14th Street and 15th Street	65.0	65.3	0.3	65.9	0.9

^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 95 percent, medium trucks three percent, and heavy trucks two percent on all streets. Traffic speeds for all vehicle classes were set at 30 mph for all vehicle classes.

SOURCE: ESA, 2014.

As shown in Table 9.10-3, 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 the LRDP at all analyzed roadway segments in the vicinity of the Mission Center campus site would be less than significant.

Mitigation: None required.

9.10.4 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.

9.11 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 an increase in daily population at this campus site of 530 people. 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.

9.12 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 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 Mission Center campus site would be approximately 530 people by 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.

9.13 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 Mission Center campus site would be approximately 530 people by 2035.

After evaluation of the 2014 LRDP activities proposed at the Mission Center 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.

9.14 Transportation and Traffic

This section considers the setting and transportation and traffic impacts of implementation of the 2014 LRDP at the Mission Center 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.

9.14.1 Transportation and Traffic Issues Adequately Addressed in the Initial Study

After evaluation of the 2014 LRDP activities proposed at the Mission Center 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.

9.14.2 Transportation and Traffic – Mission Center Setting

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

9.14.2.1 Roadway Facilities

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

The Mission Center campus site is located in the Mission neighborhood. The primary north-south corridors are Mission Street, Howard Street/South Van Ness Avenue, Folsom Street, Harrison Street, and Bryant Street. Primary east-west routes to the campus are Tenth Street, Thirteenth/Division Street, and Sixteenth Street. The primary vehicular entrances to parking and loading areas for the campus site are located along Harrison Street between Fourteenth and Fifteenth streets and along Fifteenth Street between Harrison and Folsom streets.

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

- **11th Street** runs from Bryant Street to Market Street and is classified as a Secondary Transit street. The 9 San Bruno and 9L San Bruno Limited bus lines operate along the entirety of 11th Street, while the 47 Van Ness bus line operates on 11th Street between Mission and Bryant streets. 11th Street has Class II bicycle lanes along its entire length.
- **14th Street** runs from Harrison Street to Buena Vista Terrace and operates one-way eastbound between Market and Folsom streets. 14th Street is designated as a Class III

bicycle route with shared-lane markings (“sharrows”) between Harrison and Folsom streets.

- **15th Street** runs from Harrison Street to Roosevelt Way and operates one-way westbound between South Van Ness Avenue and Guerrero Street.
- **17th Street** runs from Pennsylvania Street to Stanyan Street. Near the campus site, 17th Street has Class II bicycle lanes in both directions.
- **Florida Street** runs from Division Street to 16th Street.
- **Alabama/Treat/Division Streets** runs from Bryant Street to 16th Street.
- **Shotwell Street** runs between 14th and 16th streets.

Major roadways in the local network are as follows:

- **Mission Street** is a four-lane roadway that extends from The Embarcadero to A Street in Daly City. The City classifies this roadway as a Primary Transit Oriented street. On-street parking is provided on both sides of the street. The 14 Mission and 14L Mission Limited Muni bus lines operate on Mission Street between The Embarcadero and San Jose Avenue; the 49 Mission/Van Ness bus line operates on Mission Street between South Van Ness Avenue and Ocean Avenue; and the 33 Stanyan operates on Mission Street between 16th and 18th streets. SamTrans Routes KX, 292 and 397 also operate along Mission Street between the Temporary Transbay Terminal and 10th Street. Several Golden Gate Transit basic and commute bus routes operate on Mission Street between the Temporary Transbay Terminal and Eighth Street.
- **Howard Street/South Van Ness Avenue** is a two to four-lane roadway that extends from The Embarcadero (as Howard Street) to Cesar Chavez Street (as South Van Ness Avenue), with Howard Street merging into South Van Ness Avenue just north of 13th Street. In addition, Howard Street operates as a southbound one-way street between Fremont Street and 11th Street. The City classifies this roadway as a Major Arterial. On-street parking is provided on both sides of the street. SamTrans Route 397 operates on Howard Street/South Van Ness Avenue between 10th Street and Cesar Chavez Street. Several Golden Gate Transit basic and commute bus routes operate on Howard Street between First and Eighth streets.
- **Folsom Street** is a three to four-lane roadway that extends from The Embarcadero to Ripley Street. In addition, Folsom Street operates as a northbound one-way street north of 11th Street. The City classifies this roadway as a Major Arterial east of 13th Street and a Local Street west of 13th Street. On-street parking is provided on both sides of the street. The 12 Folsom/Pacific bus line operates on Folsom Street between Second and Cesar Chavez streets. Several Golden Gate Transit basic and commute bus routes operate on Folsom Street between Fremont and Seventh streets. Folsom Street is designated as a Class II bike facility between 11th and 19th streets, but only has a northbound bicycle lane between 11th and 14th streets.
- **Harrison Street** is a three to four-lane roadway that extends from The Embarcadero to Cesar Chavez Street. The City classifies this roadway as a Secondary Transit street north of 11th Street (which transitions into a Primary Transit Important street until Fourth Street), a Major Arterial street between 11th and 13th streets, and a Local Street south of 13th Street.

In addition, Harrison Street operates as a southbound one-way street between Third Street and 10th Street. On-street parking is provided on both sides of the street. The 12 Folsom/Pacific, 27 Bryant, and 47 Van Ness bus lines operate on Harrison Street between Fifth and 11th streets. Harrison has Class II bicycle lanes between 11th and 23rd streets, after which the street transitions into a Class III bicycle route.

- **Bryant Street** is a two to four-lane roadway that extends from The Embarcadero to Cesar Chavez Street. In addition, Bryant Street operates as a northbound one-way street between Second and 13th streets. The City classifies this roadway as a Secondary Transit street north of 11th Street (which transitions into a Primary Transit Important street until Third Street), a Major Arterial street between 11th and 13th streets, and a Local Street south of 13th Street. On-street parking is provided on both sides of the street. The 27 Bryant bus line operates on Bryant Street between Fifth and Cesar Chavez streets, while the 47 Van Ness bus line operates between 13th and Fourth streets.
- **10th Street** is a four-lane, one-way eastbound roadway that extends from Division Street to Market Street. The City classifies this roadway as a Major Arterial. On-street parking is provided on both sides of the street. San Mateo transit (SamTrans) operates on 10th Street between Mission and Division streets.
- **13th/Division Street** is a six-lane roadway that extends from Bryant Street to Mission Street underneath the US101 Central Freeway. The City classifies this roadway as a Major Arterial. On-street parking is provided on both sides of the street.
- **16th Street** is a four-lane roadway that extends from Third Street to Castro Street. The City classifies this roadway as a Primary Transit-Oriented street. On-street parking is provided on both sides of the street. The 22 Fillmore bus line operates on 16th Street between Kansas and Church streets, while the 33 Stanyan bus line operates between Potrero Avenue and Mission Street.

9.14.2.2 Intersection Operating Conditions

Intersection operating conditions at 15 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 9.14-1**, 14 of the 15 study intersections operate at an acceptable level of service, which is LOS D or better during the AM peak hour, and all 15 operate at an acceptable LOS during the PM peak hour. The following intersection operates unacceptably during the AM peak hour:

- 13th Street and South Van Ness Avenue (#65) operates at LOS F during the AM peak hour due to the high volume of southbound traffic on South Van Ness Avenue.

9.14.2.3 Transit Network

The Mission Center 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 13% 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 ten bus lines in the vicinity of the Mission Center campus site (see 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 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

**TABLE 9.14-1
EXISTING PEAK-HOUR INTERSECTION LEVEL OF SERVICE (LOS) – MISSION CENTER**

Intersection	Traffic Control ^a	Peak Hour	Delay (seconds) ^b	LOS ^c
61. 13th Street / South Van Ness Avenue	Signal	AM PM	71 30	F C
62. 13th Street / Folsom Street	Signal	AM PM	26 29	C C
63. 13th Street / Harrison Street	Signal	AM PM	16 19	B B
64. Tenth Street / Bryant Street	Signal	AM PM	14 16	B B
65. 14th Street / South Van Ness Avenue	Signal	AM PM	15 16	B B
66. 14th Street / Folsom Street	Signal	AM PM	16 15	B B
67. 14th Street / Harrison Street	AWS	AM PM	11 (12) 20 (24)	B (B) C (C)
68. 15th Street / South Van Ness Avenue	Signal	AM PM	15 18	B B
69. 15th Street / Folsom Street	Signal	AM PM	12 29	B C
70. 15th Street / Harrison Street	AWS	AM PM	10 (12) 14 (15)	B (B) B (C)
71. 16th Street / Mission Street	Signal	AM PM	26 16	C B
72. 16th Street / South Van Ness Avenue	Signal	AM PM	37 20	D B
73. 16th Street / Folsom Street	Signal	AM PM	38 28	D C
74. 16th Street / Harrison Street	Signal	AM PM	21 30	C C
75. 16th Street / Bryant Street	Signal	AM PM	20 35	C D

^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 unsignalized intersection, the highest average delay for an approach is reported.

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

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

SOURCE: Fehr & Peers, 2014.

Service Improvements and portions of the Transit Travel Time Reduction Proposals on March 28, 2014.⁵ 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

⁵ 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.

resource availability.⁶ The changes proposed by the TEP for routes near the Mission Center campus site are described in the TIS (Appendix G).

UCSF Shuttle System

UCSF Shuttles to and from the Mission Center campus site (Lime, Red, and Yellow) stop in the parking lot located adjacent to the Mission Center building on the corner of Harrison and 15th streets. A more-detailed description of the UCSF shuttle system serving the Mission Center campus site area is provided in Appendix G (TIS for the UCSF LRDP).

9.14.2.4 Pedestrian Circulation

Walking to and from the campus site is a relatively small travel mode for many UCSF Mission Center employees and students. Based on the 2013 UCSF Transportation Commute Survey, approximately 3% of those traveling to and from the campus site walk, although those using Muni or BART arrive to the campus site via foot as well. Approximately 50% of all trips made by UCSF Mission Center campus site employees and students to off-campus locations throughout the day are made by foot.

Pedestrian facilities include sidewalks, crosswalks, curb ramps, and pedestrian signals. Within the Mission Center area, sidewalks exist on both sides of the street in most locations, and are generally 11 to 15 feet wide. Standard crosswalks are provided at most intersections surrounding the campus site, however no crosswalks are striped across 14th Street at the t-intersection with Trainor Street, nor across Harrison Street at the t-intersection with Alameda Street. Curb ramps are generally provided at most intersections and pedestrian signals are present at signalized intersections in the campus site vicinity.

9.14.2.5 Bicycle Circulation

The topography at and around the Mission Center campus site is relatively flat, which facilitates easy bicycle travel. Based on the 2013 UCSF Transportation Commute Survey, approximately 6% of UCSF Mission Center employees and students bike to the campus site, which is approximately double the bicycling mode share throughout San Francisco. In addition, approximately 3% of trips made by UCSF Mission Center employees and students to off-site, non-UCSF locations throughout the day are made by bike. The following bicycle facilities are located near the Mission Center campus site:

- 11th Street is part of San Francisco Bike Routes 25 and 30, an east-west bike route that extends from Market Street to 13th Street with Class II bicycle lanes.
- 13th Street/Division is part of Bike Route 36, an east-west bike route that extends from Townsend Street to Bryant Street with Class II physically-separated bicycle lanes between Brannan and Townsend streets.

⁶ 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.

- 14th Street is part of Bike Routes 30 and 36, an east-west bike route that extends from Harrison Street to Market Street with a Class II bicycle lane and Class III sharrows.
- 17th Street is part of Bike Routes 25 and 40, an east-west bike route that extends from Kansas Street to Market Street with Class II bicycle lanes between Kansas and Church streets. Between Church and Market streets, 17th Street is designated as a Class III bicycle route, but does not have shared-lane markings.
- Harrison Street is part of Bike Routes 25, 33, and 36, a north-south bike route that extends from 11th Street to Cesar Chavez Street. From 11th Street to 23rd Street, the route has Class II bicycle lanes. South of 23rd Street to Cesar Chavez, the route is designated as a Class III bicycle facility with no shared-lane markings.
- Folsom Street is part of Bike Route 30, a north-south bike route that extends from 11th Street to 19th Street as a Class II route. However, only the segment of Folsom between 11th Street and 14th Street has a single, northbound bicycle lane.

The SF Bike Plan includes planned short-term improvements to Bicycle Route 25 on Howard Street and Route 40 on 17th Street. Improvements to Howard Street include bicycle lanes from Ninth Street to 11th Street. Improvements to 17th Street include bicycle lanes between Market Street and Corbett Avenue.

The streets surrounding the Mission Center campus site serve as popular bicycle routes, connecting the Mission neighborhood with Downtown San Francisco. Bicycle routes connecting to downtown such as Harrison, Folsom, and 14th streets all see over 200 bicyclists during the AM peak hours. These routes are slightly less traveled in the PM peak hour, but still generally exceed 50 to 100 bicyclists. Other popular streets for bicycling include Division Street and Sixteenth Street, which is not a signed bicycle route, but sees between 20 and 40 bicyclists during the AM and PM peak hours.

Bicycle racks are provided adjacent to the main entrance to the Mission Center Building. In an effort to increase bike parking and respond to feedback received from bicyclists, UCSF has recently redesigned and expanded the bike parking with new user-friendly racks.

9.14.2.6 Loading Conditions

The Mission Center campus site has both service vehicle and passenger loading. There is one off-street service vehicle loading facility serving the existing uses on the campus site. Marked zones for passenger and service vehicles are unavailable on adjacent streets, with most passenger loading occurring within the parking lot, adjacent to the existing building. The Mission Center campus site receives approximately 12 deliveries per day in the designated off-street loading area. Additional parcel deliveries are made at the front of the building on Folsom Street, sometimes blocking the bicycle lane. Existing vehicle loading areas are sufficient for existing demand.

9.14.2.7 Parking Conditions

On-Street Parking

The majority of the on-street parking spaces in the vicinity of the Mission Center campus site are generally unrestricted. On-street parking on South Van Ness Avenue is limited to a one-hour period between the hours of 8:00 AM and 6:00 PM.

Parking occupancies throughout the mid-morning (10:00 AM to 12:00 Noon) and midday (12:00 Noon to 2:00 PM), periods are very similar, at 95% (i.e., at their effective capacity); parking utilization in the evening (6:30 PM to 8:00 PM) period is about 80%. An occupancy above 90% typically represents that the facility has reached its effective capacity.

Off-Street Parking

The Mission Center campus site provides 224 marked parking spaces at an adjacent surface lot on the east side of the building. The vast majority of the spaces are reserved for UCSF permit-holders, with 17 spaces available for general paid parking.

Additional non-UCSF owned public parking is available at nearby facilities, including a surface lot at 3111 17th Street at the northwest corner of 17th and Folsom streets (220 spaces), a surface lot at 24 Florida Street near Treat Street (139 spaces), and a surface lot at 1550 Bryant Street near 15th Street (41 spaces).

Overall off-street parking occupancy is 86% during the mid-morning period and 87% during the midday period, while the overall occupancy in the evening is 38%. The overall peak parking occupancy at the UCSF surface parking lot is lower than at the other facilities. During mid-morning, the peak parking demand period, the parking lot at the Mission Center campus site operates at 86% of its capacity, while the other facilities have a combined utilization of 88%. An occupancy above 90% typically represents that the facility has reached its effective capacity.

9.14.3 Transportation and Traffic – Mission Center Campus Site Impacts and Mitigation Measures

9.14.3.1 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 Mission Center 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, public 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 Mission Center campus site is estimated to generate a total of approximately 1,064 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 Mission Center 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 Mission Center 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 Mission Center 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 Mission Center campus site are expected to use the following travel modes:

- 490 Auto Drive Alone
- 10 Drop-Off/Taxi
- 49 Carpool/Vanpool
- 275 Public Transit

- 135 UCSF Shuttle
- 68 Bicycle/Motorcycle
- 37 Walk

The auto drive alone, drop-off/taxi, carpool/vanpool, and UCSF shuttle person trips would generate about 539 daily vehicle trips.⁷

Approximately 120 new vehicle trips would occur during the AM peak hour, and about 110 new vehicles would occur during the PM peak hour. There would be approximately 105 and 100 new transit riders in the AM and PM peak hour, respectively. A majority of transit users are expected to arrive/depart by SF Muni, BART, or the UCSF bus shuttle service.

The new trips associated with the Mission Center 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 were used in this analysis.

9.14.3.2 Construction Period Impacts

Impact TRAF-MC-1: Implementation of the 2014 LRDP on the Mission Center campus site could cause substantial adverse impacts to traffic flow, circulation and access as well as to transit, pedestrian, and parking conditions during 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 Mission Center 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

9.14.3.3 Operational Impacts

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

⁷ 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).

Table 9.14-2 presents a summary comparison of Existing and Existing plus Plan intersection LOS for the weekday AM and PM peak hours. In general, the addition of 2014 LRDP-generated traffic would result in small changes in the average delay per vehicle at the study intersections, and most study intersections would continue to operate at the same service levels as under Existing conditions. The great majority of the study intersections operate at acceptable levels of service (LOS D or better) under both AM and PM peak hour conditions under Existing conditions, and would continue to operate acceptably under Existing Plus 2014 LRDP conditions.

The following study intersection currently operates at an unacceptable LOS F, and would continue to operate at the same LOS under Existing Plus 2014 LRDP conditions:

61. 13th Street / South Van Ness Avenue (AM peak hour)

The 2014 LRDP would add 14 vehicle trips to the critical southbound through movement (LOS F) during at the 13th Street/South Van Ness Avenue (Intersection #61) signalized intersection, which represents a 1% increase from Existing conditions. That 1% increase would be less than the threshold of significance, and the 2014 LRDP's contribution (and impact) would be considered less-than-significant.

Mitigation: None required.

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

As described in 9.14.3.1 above, approximately 105 and 100 new transit riders in the AM and PM peak hour, respectively. A majority of transit users are expected to arrive/depart by SF Muni, BART, or the UCSF bus shuttle service.

San Francisco Muni

Existing Muni transit stops are located within a half-mile of the campus site, and are accessible by walking. Major stop relocations adjacent to campus are not anticipated at this time. The TEP proposes to reduce headways for the 9L San Bruno Limited, 14/14L Mission Limited, and 22 Fillmore. In addition to increasing peak period headways, the 22 Fillmore will be rerouted to continue along 16th Street, connecting to Mission Bay. The 12 Folsom/Pacific will be discontinued, though a majority of the route will be served by rerouting the 27 Bryant and the new 11 Downtown Connector.

The estimated number of 2014 LRDP-generated Muni trips is a relatively small increase (about 1% to 3%) in ridership traveling to and from the Mission Center campus site, which

**TABLE 9.14-2
 EXISTING AND EXISTING PLUS 2014 LRDP
 PEAK-HOUR INTERSECTION LEVEL OF SERVICE (LOS) – MISSION CENTER**

Intersection	Traffic Control ^a	Peak Hour	Existing		Existing plus 2014 LRDP	
			Delay (sec.) ^b	LOS ^c	Delay (sec.) ^b	LOS ^c
61. 13th Street / South Van Ness Avenue	Signal	AM PM	71 30	F C	73 31	F C
62. 13th Street / Folsom Street	Signal	AM PM	26 29	C C	26 29	C C
63. 13th Street / Harrison Street	Signal	AM PM	16 19	B B	17 19	B B
64. Tenth Street / Bryant Street	Signal	AM PM	14 16	B B	14 17	B B
65. 14th Street / South Van Ness Avenue	Signal	AM PM	15 16	B B	15 16	B B
66. 14th Street / Folsom Street	Signal	AM PM	16 15	B B	16 15	B B
67. 14th Street / Harrison Street	AWS	AM PM	11 (12) 20 (24)	B (B) C (C)	12 (12) 22 (25)	B (B) C (D)
68. 15th Street / South Van Ness Avenue	Signal	AM PM	15 18	B B	16 19	B B
69. 15th Street / Folsom Street	Signal	AM PM	12 29	B C	12 29	B C
70. 15th Street / Harrison Street	AWS	AM PM	10 (12) 14 (15)	B (B) B (C)	11 (13) 15 (16)	B (B) C (C)
71. 16th Street / Mission Street	Signal	AM PM	26 16	C B	28 16	C B
72. 16th Street / South Van Ness Avenue	Signal	AM PM	37 20	D B	39 20	D B
73. 16th Street / Folsom Street	Signal	AM PM	38 28	D C	40 29	D C
74. 16th Street / Harrison Street	Signal	AM PM	21 30	C C	21 37	C D
75. 16th Street / Bryant Street	Signal	AM PM	20 35	C D	20 35	C D

^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 unsignalized intersection, the highest average delay for an approach is reported.
^c For signalized intersections, LOS based on average intersection delay, based on the methodology in the Highway Capacity Manual, 2000. For unsignalized intersection, LOS is based on the worst approach which is indicated in parentheses.
^d **Bold** indicates unacceptable operations per UCSF LOS standards

SOURCE: Fehr & Peers, 2014.

would not require the expansion of transit service or facilities. Additionally, none of the specific proposals of the 2014 LRDP would reconfigure, or reduce access to, transit stops in a way that would degrade transit service to the campus site. Therefore, the 2014 LRDP’s transit impact on Muni service would be considered less than significant.

Regional Transit

UCSF staff, patrons and students are anticipated to continue to use BART, AC Transit, 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, over a half-mile away,

and can be accessed by other transit modes such as SF Muni and the UCSF shuttle, and by walking in the case of the 16th Street BART. Fewer than 40 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

Current UCSF shuttle service operations would continue to serve the Mission Center campus site under the 2014 LRDP, with the shuttle stop and loading area shifted to 15th Street, just east of the vehicle access point. The proposed shuttle loading areas should accommodate two shuttles loading at one time. The new shuttle stop would displace three on-street spaces with parking meters. The LRDP does not propose specific changes to shuttle service headways, although UCSF Transportation Services may change headways based on shifting shuttle demand as LRDP projects are constructed and occupied at the campus site.

An approximately 60% increase in UCSF Shuttle ridership during both peak hours is 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-MC-4: Implementation of the 2014 LRDP on the Mission Center 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 Mission Center campus site. Overall, the 2014 LRDP would not change pedestrian accessibility to the Mission Center campus site and on the campus site frontage.

The 2014 LRDP would add approximately 100 and 90 pedestrian trips (mostly transit-access trips) to the surrounding streets during the AM and PM peak hours, respectively. Pedestrian trips would primarily use 15th Street to access the surrounding street grid network and connect to residential and commercial neighborhoods in Mission and SoMa. The 2014 LRDP-generated transit trips will begin as pedestrian trips traveling along 15th, 16th, Folsom, and Harrison streets to the nearest BART Station at 16th and Mission streets, and Muni bus routes on Mission Street, Folsom Street, 16th Street, or 11th Street.

The 2014 LRDP proposes to relocate the current UCSF shuttle stop from the parking lot to the north side of 15th Street midblock. This relocated shuttle stop, and the UCSF shuttle riders, would not hinder pedestrian mobility on 15th Street because the 15-foot-wide sidewalks would handle the expected pedestrian traffic. Existing pedestrian facilities surrounding the Mission Center campus site adequately accommodate existing pedestrian volumes and overcrowding is not expected to occur due to the 2014 LRDP.

The immediate area surrounding the Mission Center 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 Mission Center campus site would be less than significant.

Mitigation: None required.

Impact TRAF-MC-5: Implementation of the 2014 LRDP on the Mission Center 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 Mission Center campus site has a number of streets with bicycle lanes, and streets designated as bicycle routes, including Folsom Street, Harrison Street, 17th Street, 14th Street, and 11th Street. The Mission Center campus site is within convenient bicycling distance of residential and commercial areas in surrounding neighborhoods. The 2014 LRDP does not propose changes to the bicycle circulation network surrounding the Mission Center campus site. The SF Bike Plan includes planned short-term improvements to add bicycle lanes from Ninth Street to 11th Street for Bicycle Route 25 on Howard Street.

Parcel delivery vehicles occasionally block the bicycle lane on Folsom Street in front of the Mission Center campus site due to the lack of a curbside loading zone. Folsom Street is a popular bicycle route to Downtown San Francisco, and bicyclists currently must pass the loading vehicles in the vehicle travel lane. While this is not considered a significant impact, an Improvement Measure to add a curbside loading zone on Folsom Street has been identified. UCSF would work with the SFMTA to add a 50-foot-long loading zone adjacent to the existing Mission Center building. Such a loading zone would require removing of two parking spaces on Folsom Street, but would improve conditions for bicyclists who currently have their travel path blocked by vehicles loading in the bicycle lane.

The 2014 LRDP is expected to increase bicycle demand in the area by approximately 15 new trips during both the AM and PM peak hours. 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 four new bicycle racks at the Mission Center 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 Mission Center campus site would be less than significant.

Mitigation: None required.

Impact TRAF-MC-6: Implementation of the 2014 LRDP on the Mission Center 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 Mission Center 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 4 spaces on the Mission Center campus site, and the 2014 LRDP horizon year peak hourly demand is estimated to be about 6 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.

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 9.14.3.1 above was applied to the peak AM and PM peak-hour person trips. The peak-hour passenger loading demand is estimated to increase by three or four spaces at the Mission Center 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-MC-7: Implementation of the 2014 LRDP on the Mission Center campus site would increase parking demand. (Less than Significant)

Under the 2014 LRDP, additional parking would be provided on the Mission Center 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 Mission Center campus site would increase by approximately 70 spaces by year 2040. The following list describes the currently proposed changes in parking supply:

- A new UCSF building would be constructed at the existing surface parking lot to the east of the existing Mission Center building, with approximately 294 parking spaces.

As described previously, the available on-street parking is well-occupied at the Mission Center 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 Mission Center campus site would be approximately 100 spaces above the future planned supply. However, as part of the implementation of the 2014 LRDP, UCSF would monitor parking demand at each phase of development and adjust parking supply as demand warrants. Should the demand for parking exceed on-site supply, priority for on-site parking would be given to patients and visitors, and if necessary, UCSF would look to secure off-site parking to satisfy staff demand. That additional parking supply could be on the site, if available, or elsewhere in the vicinity. As the sites develop, UCSF (through its Campus Transportation Services Offices) will make efforts to educate faculty, staff and students about transit options in order to reduce auto usage and parking demand. Thus, the parking impacts under the 2014 LRDP would be less than significant.

Mitigation: None required.

9.15 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 Mission Center campus site.

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