2201 DWIGHT WAY PROJECT
INITIAL STUDY

Submitted to:
City of Berkeley
Planning and Development Department
Land Use Planning Division
2120 Milvia Street
Berkeley, California 94704

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The following is an Initial Study/Environmental Checklist for the 2201 Dwight Way Project. This checklist will be used to identify areas to be further discussed in an Environmental Impact Report (EIR). Copies of all materials referenced in this report are available for review in the project file during regular business hours at the City of Berkeley Planning and Development Department, Land Use Planning Division.

1. **PROJECT TITLE**
   2201 Dwight Way

2. **LEAD AGENCY**
   City of Berkeley
   2120 Milvia Street
   Berkeley, CA 94704

3. **CONTACT PERSON**
   Aaron Sage, AICP, Senior Planner
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   Land Use Planning Division
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4. **PROJECT SPONSOR**
   2201 Dwight Way, LLC/Randall Miller
   2201 Dwight Way
   Berkeley, CA 94704

5. **GENERAL PLAN DESIGNATION**
   High Density Residential

6. **ZONING**
   Residential Southside District (R-S)
7. PROJECT LOCATION

The approximately 0.62-acre rectangular project site is situated at the northeast corner of the intersection of Dwight Way and Fulton Street, at 2201 Dwight Way in the Southside area of the City of Berkeley. The site is bounded primarily by two- and three-story multi-family residential buildings on Haste Street and Dwight Way to the north and east, respectively; one- to three-story multi-family and commercial buildings across Dwight Way to the south; and two-story multi-family residences across Fulton Street to the west.

The site is located approximately four blocks south of the University of California Berkeley campus and about six blocks southeast of the Downtown Berkeley BART station. Figure 1 depicts the site’s regional and local context and Figure 2 provides an aerial view of the site.

Assessor’s Parcel Number (APN): 055-1889-014

8. PROJECT DESCRIPTION

The existing site conditions and the proposed project are described below.

a. Existing Conditions. As shown in Figure 2, the generally level project site is currently developed with a 20,500-square-foot commercial office building and a 25-stall surface parking lot. The building is one story with a mezzanine and is 20 feet tall. The existing structure was constructed in the late 1940’s and, in 1983, the building was converted from an automobile showroom and service center to its present use as office space. The building is currently fully occupied by 2201 Dwight Way, LLC, Dogwood Leasing, and Odin Wave. A masonry retaining wall is located along the northern property line and a portion of the eastern property line, where its maximum height reaches about 6 feet. Approximately 400 square feet of landscaping is included on the site and there are five street trees that border the site on Dwight Way and Fulton Street.

b. Proposed Project. This section provides a description of the proposed project as identified in the applicant’s Zoning Project Re-Submittal package. The proposed project would involve demolition of the existing building and surface parking lot and construction of 81 student-oriented rental apartment units in a five-story building over a 49-stall sub-surface parking garage. The building would be divided into 18 distinct volumes intended to resemble separate buildings. Total gross building area including the subterranean garage would be about 101,070 square feet. The proposed project is envisioned as a modern, urban, mixed-income apartment community.

The proposed project site plan is depicted in Figure 3 and the sub-surface garage plan is depicted in Figure 4. Figure 5 shows proposed building elevations on the east and south. The proposed project is described in more detail below.

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PROJECT LOCATION

Project Vicinity and Regional Location

FIGURE 1

SOURCES: GOOGLE MAPS; LSA ASSOCIATES, INC., 2012.

2201 Dwight Way Project Initial Study
Project Vicinity and Regional Location
FIGURE 4

2201 Dwight Way Project Initial Study
Proposed Sub-Surface Parking Plan

SOURCE: STANLEY SAILOWITZ/NATOMA ARCHITECTS, INC., 3/12/12.
I:\CBE1205 2201 Dwight Way\figures\Fig_4.ai (9/18/12)
(1) **Building Program.** The proposed project would redevelop the project site with a five-story building divided into 18 distinct but connected volumes, ranging from three to five stories in height (a maximum of 50 feet tall). Each volume would be oriented towards one of three internal pathways and would be connected by outdoor walkways, stairwells, and internal courtyards. Five-story volumes would be located at the site perimeter and three- to four-story volumes would be located within the interior. The building would be set back 10 feet from the northern and eastern property boundaries. There would be no setback from Fulton Street or Dwight Way.

The project would include a total of 70,410 square feet of gross residential floor area and a total of 81 residential units. In accordance with the City’s procedures for projects requesting a density bonus under State law (Govt. Code Section 65915), the “base project” has been determined to be 60 units. Of these 60 units, 8 (13.3 percent) would be affordable to very-low-income (VLI) households, which would qualify the project for a density bonus of 21 units (35 percent of the base project) and two “incentives or concessions.”

The proposed apartment units would be designed to appeal primarily to University of California (UC) Berkeley students and would include full kitchens and common living space. A total of approximately 29 (3 of which would be below market-rate) two-bedroom, 660-square-foot units and 52 (5 of which would be below-market rate) four-bedroom, 960-square-foot units would be distributed throughout the building. Double occupancy of the bedrooms would not be permitted; therefore, the project is expected to generate a population of 266 residents on the site.

An indoor common area of approximately 1,500 square feet would be located on the ground floor adjacent to Dwight Way. The main building entrance would also be on Dwight Way. Among other things, the common area could include space for an exercise room, game room, community room, and/or study lounge. An on-site leasing office may also be located in this space.

(2) **Green Building Features.** The project applicant proposed to incorporate a number of active and passive green building features into the design of the proposed project. The building would be constructed off-site using modular construction methods which, when compared to traditional construction methods, typically include centralized materials handling, fewer trips to and from the project site, and less overall material waste. In addition, excavation and subterranean concrete work would occur at the same time that the modules are constructed, lessening the overall construction period. Materials with high recycled content, such as metal studs and MDF-core trim and doors would be used throughout. Low-impact materials such as engineered flooring and solid surface counter tops would be used in place of slow-growth oak and natural stone.

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2 Under the City’s density bonus procedures, the base project is the number of units (based on the proposed average unit size) that could be built without any additional Use Permits for additional height, reduced setbacks, reduced parking, etc. This base project is the “otherwise maximum allowable residential density” under Government Code Section 65915(f).

3 VLI households are those earning 50 percent or less of area median income.
Pervious surface coverage on the site would increase from 400 square feet to 2,000 square feet on grade, providing for increased water infiltration. All roof surfaces would be of a high-albedo membrane to reduce heat island effects. Landscaping would consist of local and low-water demanding species, many of which would be planted in above-grade pots with drip irrigation. No open grass or above-ground irrigation would be installed. The latest water and energy-saving fixtures would be utilized in all bathrooms and kitchens, including Energy Star appliance packages.

Floor-to-ceiling windows, open floor plans and uncovered grill-work “catwalks” would increase the amount of natural light, thus reducing the amount of artificial light needed. Apartments would not have air conditioning and would be heated using high-efficiency wall-mounted convection plate heaters with individual room-by-room control. Natural ventilation through the large low-E windows would increase air circulation and further reduce the need for conditioned air, to the extent feasible. Rather than a central plant with a heating hot water boiler, individual tankless hot water heaters would be installed for each unit thereby reducing energy loss from hot water distribution and circulation.

(3) Open Space. The proposed project would provide approximately 8,714 square feet of common open space on-site. Approximately 4,214 square feet of separate common courtyards would be provided on the ground level and common roof decks would consist of 1,920 square feet of space on the third level and 2,580 square feet of space on the fourth level. These five roof decks would be located at the interior of the site. All outdoor areas would be ADA-compliant and landscaping would comprise approximately 40 percent of the site development. The five existing street trees at the perimeter of the site would be removed and replaced with as many new trees as space permits. Minimum tree replacement would occur at a 1:1 ratio and would consist of a minimum 24-inch box size.

(4) Access, Circulation and Parking. Pedestrian access to the proposed apartments and common areas would be provided by a secured entrance on Fulton Street and the main entrance on Dwight Way. Internal pathways would provide access to building entrances and external stairwells for each building volume. An elevator would provide access from the sub-surface garage level and all levels of the building.

A 20,000 square-foot sub-surface parking garage would be located beneath the ground level building deck. Access to the garage would be via a one-way driveway ramp at the site’s southeast corner at Dwight Way and egress would be via a one-way driveway ramp at the site’s northwest corner at Fulton Street. An internal stairwell and elevator would provide access from the garage to the ground floor. The garage would include 49 vehicle stalls (two of which would be ADA-compliant spaces), 4 motorcycle/moped stalls, and 27 bicycle stalls. An additional 28 bicycle stalls would be provided at ground level for a total of 55 on-site bicycle stalls.

(5) Utilities and Infrastructure. The proposed project would be required to install the following utility connections to the satisfaction of the applicable utility providers: water; wastewater; stormwater drainage; power; and telecommunications services. These utilities would generally connect to existing infrastructure in the vicinity of the site.
Development of the project would result in approximately 11,900 square feet of new permeable surfaces, including open space, paving, and landscaping. However, only approximately 2,000 square feet of new permeable surfaces would occur on grade, providing for water infiltration; areas over the sub-surface parking garage (approximately 9,900 square feet) would have limited stormwater detention and infiltration capacity. Excess runoff would be treated in accordance with the Alameda County Clean Water Program (ACCWP) before flowing to the City’s storm drain system. The proposed project would also be required to comply with current C.3 requirements regulating storm water discharges.

The applicant is also proposing that all above-ground utility poles that serve the project site be relocated underground.

The building would be equipped with an automatic sprinkler system.

(6) Demolition and Construction. The proposed project would demolish the existing building and surface parking lot on the site. Construction debris, such as old foundations, pavements, utilities, and structures, would be collected and off-hauled. It is estimated that approximately 250 tons of demolition waste and 400 cubic yards of construction waste would be generated by the project. Approximately 7,400 cubic yards of soil would also be off-hauled as part of site excavation for the sub-surface parking garage and grading.

The construction period would include approximately 3 months of excavation for the sub-surface parking garage and construction of the podium deck on which the modular housing units would be assembled. Excavation of the sub-surface parking garage would occur at a maximum depth of 12 feet (16 feet at elevator pit). The modular units would be constructed off-site and installation would occur over a 6-month period. The demolition and construction period is expected to begin in October 2013 and would occur over a 9-month period. Occupancy of the units could occur as early as July 2014.

(7) Discretionary Actions. Per the Berkeley Municipal Code and State Density Bonus Law, it is anticipated that the proposed project would require the following discretionary approvals:

Berkeley Municipal Code (BMC):

- Use Permit for establishment of multi-family dwelling units in the R-S District (BMC Section 23D.48.030);
- Use Permit for demolition of the existing commercial building (BMC Section 23C.08.050.A);
- Administrative Use Permit for installation of elevator mechanical equipment reaching 54 feet in height and protruding beyond the height of the roofline (BMC Section 23D.04.020.C); and
- Encroachment Permit to allow window shades to project into public right-of-way (BMC Chapter 16.18).
Waivers/Modifications Under State Density Bonus Law (Govt. Code Section 65915(e)):

- Increase in maximum building height from three stories (35 feet) to four stories (45 feet) (BMC Section 23D.48.070.C.2);
- Reduction of front setback requirement from 10 feet to 0 feet (BMC Section 23D.48.070.E);
- Reduction of street side setback requirement from 6, 8, or 10 feet (depending on story) to 0 feet (not otherwise allowed under BMC); and
- Reduction of rear yard setback requirement from 10 or 17 feet (depending on story) to 10 feet (not otherwise allowed under BMC).

As previously described, the proposed project is also eligible for two concessions based on the number of proposed VLI units.

The first concession requested by the applicant would allow two dwelling units that would otherwise be located on the ground floor of the base project to be located on the fifth floor, thereby expanding the building envelope by approximately 1,500 square feet. The purpose of this concession is to allow the 1,500-square-foot indoor common area on the first floor of the building without reducing the number of dwelling units in the project. The second concession requested would allow a reduction in vehicle parking requirements from 70 spaces to 49 spaces, primarily to avoid the need for additional excavation and construction of a second below-grade garage level.

9. SURROUNDING LAND USES AND SETTING

As previously discussed, the project site is located within the Southside area of the City of Berkeley and is primarily surrounded by multi-family residential uses, as depicted in Figure 2 and further described below. It should also be noted that there are a number of residential and commercial structures within the vicinity of the site which are designated as City of Berkeley Landmark structures, also described below. Figure 6 depicts City of Berkeley Landmark structures and tall buildings (four stories or more) in the project vicinity.

- **North.** The project site is bordered immediately to the north by two three-story, 12-unit apartment buildings (2425 Fulton and 2206 Haste Streets) and a two-story former single-family dwelling converted to five apartment units (2210 Haste Street). Similar land uses are located on the north side of Haste Street and on Fulton Street north of Haste Street. The UC Berkeley campus is located four blocks to the north. Downtown Berkeley and the Downtown Berkeley Bay Area Rapid Transit (BART) station are located about six blocks to the north.

- **East.** The project site is bordered immediately to the northeast by a three-story former single-family dwelling converted to nine apartment units (2214 Haste Street) and to the southeast by a two-story former single-family dwelling converted to four apartment units (2213-2215 Dwight Way) and a rear duplex (2209-2211 Dwight Way). The area to the east primarily contains other two- and three-story multi-unit buildings (many converted dwellings), in addition to several four-story apartment buildings (2230 Dwight Way, 2230 Haste and 2431 Ellsworth Streets), and one six-story apartment building (2491 Ellsworth Street). Telegraph Avenue, a major
transportation and commercial corridor, is located approximately three blocks to the east.

- **South.** The project site is bordered immediately to the south by Dwight Way, a two-lane, one-way arterial street which travels east. The following buildings are located directly across Dwight Way (starting at Fulton Street and moving east): a three-story, 14-unit apartment building (2200 Dwight Way/2511 Fulton Street), a two-story duplex converted from a single-family dwelling (2204 Dwight Way), two three-story, five-unit apartment buildings (2206-2208 Dwight Way), and a four-story, 30-unit apartment building (2216 Dwight Way). South of the site and west of Fulton Street, land uses on Dwight Way consist primarily of one- and two-story commercial and mixed-use buildings. Multi- and single-family residential neighborhoods are located farther south.

- **West.** The project site is bordered immediately to the west by Fulton Street, a two-lane one-way arterial street. The following buildings are located immediately across Fulton Street (starting at Haste Street and moving south): a two-story triplex converted from a single-family dwelling (2424 Fulton Street/2140 Haste Street), a two-story, five-unit apartment building converted from a single-family dwelling (2426 Fulton Street), a three-story duplex converted from a single-family dwelling (2430-2432 Fulton Street), a three-story duplex located behind 2430 Fulton Street (2434-2436 Fulton Street), and a two-story four-unit apartment building (2185 Dwight Way). The three buildings fronting on Fulton Street are designated as City of Berkeley Landmarks. On Dwight Way to the west, multi-unit residential buildings are located on the north side, and commercial and mixed-use buildings are located on the south side. The Shattuck Avenue commercial/transportation corridor, located one block west of the site is developed with a mixture of commercial and residential uses, including a five-story mixed-use building at the southeast corner of Shattuck Avenue and Haste Street (2451 Shattuck Avenue). In addition, a six-story mixed-use building has been proposed at the northeast corner of Shattuck Avenue and Dwight Way (2107 Dwight Way).

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4 Fulton Street continues as a two-way local street south of Dwight Way; a traffic diverter at Dwight Way and Fulton Street requires southbound vehicles to turn left (east) onto Dwight Way.
Environmental Factors Potentially Affected:

The environmental factors checked below would be potentially affected by this project, involving at least one impact that is a “Potentially Significant Impact” as indicated by the checklist on the following pages.

- ☑ Aesthetics
- □ Biological Resources
- □ Greenhouse Gas Emissions
- □ Land Use/Planning
- □ Population/Housing
- □ Transportation/Traffic
- □ Agricultural and Forestry Resources
- ☑ Cultural Resources
- □ Hazards & Hazardous Materials
- □ Mineral Resources
- □ Public Services
- □ Utilities/Service Systems
- □ Air Quality
- □ Geology/Soils
- □ Hydrology/Water Quality
- □ Noise
- □ Recreation
- □ Mandatory Findings of Significance

Determination:

On the basis of this initial evaluation:

- □ I find that the proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.
- □ I find that although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because revisions in the project have been made by or agreed to by the project proponent. A MITIGATED NEGATIVE DECLARATION will be prepared.
- ☑ I find that the proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.
- □ I find that the proposed project MAY have a “potentially significant impact” or “potentially significant unless mitigated” impact on the environment, but at least one effect 1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and 2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.
- □ I find that although the proposed project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier EIR or NEGATIVE DECLARATION pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier EIR or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required.

Aaron Sage, AICP, Senior Planner
City of Berkeley
October 17, 2012
Date
CHECKLIST

I. AESTHETICS. Would the project:

a) Have a substantial adverse effect on a scenic vista? ☒ ☐ ☐ ☐ ☐

b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a State scenic highway? ☐ ☐ ☐ ☒ ☐

c) Substantially degrade the existing visual character or quality of the site and its surroundings? ☒ ☐ ☐ ☐ ☐

d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area? ☐ ☐ ☒ ☐ ☐

a) Have a substantial adverse effect on a scenic vista? (Potentially Significant Impact)

Policy UD-31 of the City’s General Plan states that, “Construction should avoid blocking significant views, especially ones towards the Bay, the hills, and significant landmarks…” The City’s Zoning Ordinance defines a view corridor as one that provides “a significant view of the Berkeley Hills, San Francisco Bay, Mt. Tamalpais, or a significant landmark such as the Campanile, Golden Gate Bridge, and Alcatraz Island or any other significant vista that substantially enhances the value and enjoyment of real property.”

The proposed project is located in an urbanized area and the site is currently developed with a one-story (20-foot-tall) commercial building and surface parking lot. The proposed project would introduce a structure onto the site ranging from three to five stories in height (a maximum of 50 feet tall) and would be visible from numerous locations. Land uses within the immediate vicinity of the site include multi-family residential and commercial uses and building heights generally range from one- to three-stories. However, building heights within a few blocks of the site reach up to six stories. The proposed project could reduce existing scenic views within the vicinity of the site, including views of the Berkeley Hills looking east and views looking west towards the San Francisco Bay. The EIR will evaluate visual and aesthetic issues, including project visibility from key public viewpoints and scenic vistas. Visual simulations that depict the project from key public vantage points will be used in the EIR analysis.

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b) **Substantially damage scenic resources, including, but not limited to, trees, rock outcappings, and historic buildings within a State scenic highway? (No Impact)**

In Alameda County, segments of Interstate 580 (I-580) are designated by the State Department of Transportation (Caltrans) as California Scenic Highways. There are no State scenic highways within the vicinity of the project site. The project site is located approximately 3 miles from I-580, and is not visible from this highway. In addition, scenic roadways are not designated in the City of Berkeley’s General Plan. Therefore, the proposed project would have no impact on scenic resources associated with a State scenic highway.

c) **Substantially degrade the existing visual character or quality of the site and its surroundings? (Potentially Significant Impact)**

The generally level project site gently slopes to the southwest and is visually characterized by a one-story commercial building and associated surface parking lot at the northeast corner of Dwight Way and Fulton Street. Landscaping on the site is minimal. The building was constructed in the late 1940’s as an auto showroom and service center and was converted to office use in 1983. The 20,500 square-foot rectangular building includes minimal architectural detail, large windows, and a flat roofline.

The visual character within the vicinity of the site consists primarily of two- and three-story multi-unit residential buildings (many of which were originally constructed as single-family homes), in addition to several four-story apartment buildings, one six-story apartment building, and commercial buildings located directly southwest of the site along Dwight Way. Buildings in the area range in age from the late 19th century to new construction completed within the past few years. The visual character of the Southside area of Berkeley in general also contains similar uses and building types. Roadways in the area are organized on a grid system and are paralleled by sidewalks and street trees.

The proposed project would demolish the existing commercial building and surface parking lot on the site and redevelop the site with a single structure divided into 18 distinct but connected volumes, ranging from three to five stories in height (a maximum of 50 feet tall).

Five-story building components would be located at the site perimeter and three- to four-story components would be located within the interior. The proposed building would be set back 10 feet from the northern and eastern property boundaries. There would be no setback from Fulton Street or Dwight Way. The site’s existing appearance would be substantially altered by demolition of the existing building and construction of the proposed project. The EIR will evaluate the project’s compatibility with the existing scale and architectural character of the surrounding vicinity, and consistency with public plans and policies regarding visual/urban design quality.

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d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area? (Less-Than-Significant Impact)

**Light and Glare.** The project site is currently characterized by a one-story building and exterior lighting in the area consists primarily of street lighting. The proposed project would introduce new sources of light and glare to the area which may affect adjacent residential uses and motorists traveling on surrounding roadways. The proposed project would be subject to standard conditions of approval which require light sources to be shielded and directed away from adjacent properties (per General Plan Policy EM-42). Therefore, residential areas surrounding the project site would not be adversely affected by new light sources at the project site. New sources of lighting associated with the proposed project would not be substantial in the context of existing light sources. In addition, daytime glare would not be substantial because the proposed windows would have low-reflectivity glass and none of the proposed building materials would consist of highly reflective materials. As such, the proposed project would result in less-than-significant light and glare impacts.

**Solar Access.** There are no public open spaces located within the vicinity of the site; therefore, new shade or shadows cast by the proposed project would not affect solar access within any public open spaces. This potential impact would be less than significant.

Policy UD-32 of the City’s General Plan encourages new buildings to be designed to minimize impacts on solar access and minimize detrimental shadows. Shadows cast onto private properties are not considered to be significant impacts under CEQA and this issue will be addressed during the discretionary approval process with the City’s Zoning Adjustments Board.
II. AGRICULTURAL AND FORESTRY RESOURCES. In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Dept. of Conservation as an optional model to use in assessing impacts on agriculture and farmland. In determining whether impacts to forest resources, including timberland, are significant environmental effects, lead agencies may refer to information compiled by the California Department of Forestry and Fire Protection regarding the state’s inventory of forest land, including the Forest and Range Assessment Project and the Forest Legacy Assessment Project; and forest carbon measurement methodology provided in Forest Protocols adopted by the California Air Resources Board. Would the project:

a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to a non-agricultural use?  
   [ ] Potentially Significant Impact  [ ] Potentially Significant Unless Mitigation Incorporated  [ ] Less Than Significant Impact  [X] No Impact

b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?  
   [ ] Potentially Significant Impact  [ ] Potentially Significant Unless Mitigation Incorporated  [ ] Less Than Significant Impact  [X] No Impact

c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?  
   [ ] Potentially Significant Impact  [ ] Potentially Significant Unless Mitigation Incorporated  [ ] Less Than Significant Impact  [X] No Impact

d) Result in the loss of forest land or conversion of forest land to non-forest use?  
   [ ] Potentially Significant Impact  [ ] Potentially Significant Unless Mitigation Incorporated  [ ] Less Than Significant Impact  [X] No Impact

e) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland to non-agricultural use or conversion of forest land to non-forest use?  
   [ ] Potentially Significant Impact  [ ] Potentially Significant Unless Mitigation Incorporated  [ ] Less Than Significant Impact  [X] No Impact
a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to a non-agricultural use? (No Impact)

The project site and vicinity are located within an urban area in the City of Berkeley. There are no agricultural resources located on or near the project site. The site is classified as “Urban and Built-Up Land” by the State Department of Conservation. Therefore, development of the proposed project would not convert agricultural land to non-agricultural uses. The proposed project would not result in the conversion of Prime Farmland, Unique Farmland, or Farmland of Statewide Importance to a nonagricultural use.

b) Conflict with existing zoning for agricultural use, or a Williamson Act contract? (No Impact)

The project site is zoned as Residential Southside District (R-S) on the City’s Zoning Map and is not subject to a Williamson Act Contract or the California Conservation Act of 1965, which provides a reduction in property taxes in return for agreeing to protect open space or agricultural values. Therefore, the proposed project would not conflict with existing zoning for agricultural use, or a Williamson Act contract.

c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))? (No Impact)

The developed project site is located within an urban area in the City of Berkeley and is within the R-S zoning district. The proposed project would not conflict with existing zoning for, or cause rezoning of, forest land or timberland, nor result in the loss of forest land or conversion of forest land to non-forest uses.

d) Result in the loss of forest land or conversion of forest land to non-forest use? (No Impact)

Please refer to Section II.c.

e) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland to non-agricultural use or conversion of forest land to non-forest use? (No Impact)

---


The proposed project would introduce new residential uses onto the project site, which is currently developed with commercial uses and located in an urban area. The Environmental Management Element of the City’s General Plan states that, “Agriculture in Berkeley is limited to personal and community gardens.” No existing or proposed community gardens are located within the vicinity of the site. Therefore, the proposed project would not result in: the extension of infrastructure into an undeveloped area, the development of urban uses on a greenfield site, or other physical changes that would result in the conversion of farmland to non-agricultural uses or conversion of forest land to non-forest use.

### III. AIR QUALITY

Where available, the significance criteria established by the applicable air quality management or air pollution control district may be relied upon to make the following determinations. Would the project:

- **a)** Conflict with or obstruct implementation of the applicable air quality plan?
- **b)** Violate any air quality standard or contribute substantially to an existing or projected air quality violation?
- **c)** Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or State ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)?
- **d)** Expose sensitive receptors to substantial pollutant concentrations?
- **e)** Create objectionable odors affecting a substantial number of people?

**Potential Significantly Impact** | **Potentially Significant Unless Mitigation Incorporated** | **Less Than Significant Impact** | **No Impact**
--- | --- | --- | ---
☐ | ☐ | ☒ | ☐
☐ | ☐ | ☒ | ☐
☐ | ☐ | ☒ | ☐
☐ | ☐ | ☒ | ☐
☐ | ☐ | ☒ | ☐

**a) Conflict with or obstruct implementation of the applicable air quality plan? (Less-Than-Significant Impact)**

The applicable air quality plan is the Bay Area Air Quality Management District’s (BAAQMD) 2010 Clean Air Plan, which was adopted on September 15, 2010. The Clean Air Plan is a comprehensive plan to improve Bay Area air quality and protect public health. The Clean Air Plan defines control strategies to reduce emissions and ambient concentrations of air pollutants; safeguard public health by reducing exposure to air pollutants that pose the
greatest health risk, with an emphasis on protecting the communities most heavily affected by air pollution; and reduce greenhouse gas emissions to protect the climate. Consistency with the Clean Air Plan can be determined if the project does the following: 1) supports the goals of the Clean Air Plan; 2) includes applicable control measures from the Clean Air Plan; and 3) would not disrupt or hinder implementation of any control measures from the Clean Air Plan.

1) Does the project support the goals of the Clean Air Plan?

The primary goals of the 2010 Bay Area Clean Air Plan are: to attain air quality standards; reduce population exposure to air pollutants and protect public health in the Bay Area; and reduce greenhouse gas emissions and protect the climate. As indicated in the analysis that follows below and in Section VII, the proposed project would not exceed the BAAQMD’s significance criteria for air pollutants or greenhouse gas emissions. The proposed project would not hinder the region from attainment of the goals outlined in the 2010 Clean Air Plan.

2) Does the project include applicable control measures from the Clean Air Plan?

**Transportation and Mobile Source Control Measures.** The BAAQMD identifies control measures as part of the Clean Air Plan to reduce ozone precursor emissions from stationary, area, mobile, and transportation sources. The transportation control measures are designed to reduce emissions from motor vehicles by reducing vehicle trips and vehicle miles traveled (VMT) in addition to vehicle idling and traffic congestion. The proposed project would not conflict with the identified transportation and mobile source control measures of the Clean Air Plan. Moreover, the proposed project is an in-fill project that will locate residences within walking or biking distance of employment and educational facilities, reducing the demand for travel by single occupancy vehicles. With amenities, like crosswalks and sidewalks in a developed pedestrian system, future site users could access destinations on foot, thus reducing VMT.

Additionally, the future users of the site would be located adjacent to public transportation options. The Bay Area Rapid Transit District (BART) maintains three stations in Berkeley with the closest, the Downtown station, being only six blocks from the proposed project. AC Transit maintains multiple bus stops near the proposed project with the closest approximately one block away at the corner of Shattuck Avenue and Dwight Way.

**Land Use and Local Impact Measures.** The BAAQMD’s 2010 Clean Air Plan includes Land Use and Local Impacts Measures (LUMs) that aim to achieve the following: promote mixed-use, compact development to reduce motor vehicle travel and emissions; and ensure that planned growth is focused in a way that protects people from exposure to air pollution from stationary and mobile sources of emissions. The LUMs identified by the BAAQMD are not specifically applicable to the proposed project as they relate to actions the BAAQMD will take to reduce impacts from goods movement and health risks in affected communities. However, the project is consistent with the goal of the LUMs as the project is in-fill and consistent with the vision established in the CAP. Thus, the project would not conflict with the LUMs of the Bay Area 2010 Clean Air Plan.
**Energy Measures.** The BAAQMD’s 2010 Clean Air Plan also includes Energy and Climate Control Measures (ECM), which are designed to reduce ambient concentrations of criteria pollutants and reduce emissions of CO₂. Implementation of these measures is intended to promote energy conservation and efficiency in buildings throughout the community, promote renewable forms of energy production, reduce the “urban heat island” effect by increasing reflectivity of roofs and parking lots, and promote the planting of (low-VOC-emitting) trees to reduce biogenic emissions, lower air temperatures, provide shade, and absorb air pollutants. The energy measures of the Clean Air Plan are not specifically applicable to the proposed project.

The project would utilize the latest water and energy-saving fixtures in all bathrooms and kitchens, including Energy Star appliance packages which would reduce energy usage and subsequent carbon dioxide (CO) emissions. Additionally, floor-to-ceiling windows, open floor plans and uncovered grill-work “catwalks” (instead of enclosed corridors) would increase the amount of natural light, thus reducing the amount of artificial light needed. Apartments would be heated using high-efficiency wall-mounted convection plate heaters with individual room-by-room control. Natural ventilation through the large low-E windows would increase air circulation and further reduce the need for conditioned air, to the extent feasible. Rather than a central plant with a heating hot water boiler, individual tankless hot water heaters would be installed for each unit thereby reducing energy loss from hot water distribution and circulation. For all of these reasons, the proposed project would be consistent with the Clean Air Plan’s energy measures.

3) **Would the project disrupt or hinder implementation of any control measures from the Clean Air Plan?**

The project would develop residential uses on an in-fill site which is consistent with the vision of the CAP. Control measures included in the plan include stationary source measures, transportation control measures, mobile source measures, land use and local impact measures, and energy and climate measures. The stationary source measures are not applicable to the proposed project as the measures relate to activities such as metal-melting facilities, open burning, livestock waste, and refineries which are not included as part of the project. Therefore, the project would not hinder implementation of these measures. As discussed above, the project would implement the applicable transportation, mobile source, land use and local impact, and energy control measures and would not hinder implementation of these measures. Therefore, the proposed project would not hinder or disrupt implementation of any control measures from the Clean Air Plan.

b) **Violate any air quality standard or contribute substantially to an existing or projected air quality violation? (Less-Than-Significant Impact)**

Both State and federal governments have established health-based Ambient Air Quality Standards for six criteria air pollutants: carbon monoxide (CO), ozone (O₃), nitrogen dioxide (NO₂), sulfur dioxide (SO₂), lead (Pb), and suspended particulate matter (PM). These standards are designed to protect the health and welfare of the populace with a reasonable margin of safety.
According to the BAAQMD’s CEQA Guidelines, to meet air quality standards for operational-related criteria air pollutant and air precursor impacts, the project must not:

- Generate construction emissions of ROG, NOx or PM_{2.5} greater than 54 pounds per day or PM_{10} exhaust emissions greater than 82 pounds per day;
- Contribute to CO concentrations exceeding the State ambient air quality standards; or
- Generate operation emissions of ROG, NOx or PM_{2.5} of greater than 10 tons per year or 54 pounds per day or PM_{10} emissions greater than 15 tons per year or 82 pounds per day.

**Construction Emissions.** During construction, short-term degradation of air quality may occur due to the release of particulate emissions generated by excavation, grading, hauling, and other activities. Emissions from construction equipment are also anticipated and would include CO, NOx, ROG, directly-emitted particulate matter (PM_{2.5} and PM_{10}), and toxic air contaminants (TACs) such as diesel exhaust particulate matter.

Site preparation and project construction would involve demolition of the existing structure on the project site, clearing, excavation, grading, and building activities. Construction-related effects on air quality from the proposed project would be greatest during the site preparation phase because most engine emissions are associated with the excavation, handling, and transport of soils on the site. If not properly controlled, these activities would temporarily generate PM_{10}, PM_{2.5}, and small amounts of CO, SO_{2}, and NOx. Sources of fugitive dust would include disturbed soils at the construction site and trucks carrying uncovered loads of soils. Unless properly controlled, vehicles leaving the site would deposit dirt and mud on local streets, which could be an additional source of airborne dust after it dries and is stirred-up by passing vehicles. PM_{10} emissions would vary from day to day, depending on the nature and magnitude of construction activity and local weather conditions. PM_{10} emissions would depend on soil moisture, silt content of soil, wind speed, and the amount of operating equipment. Larger dust particles would settle near the source, while fine particles would be dispersed over greater distances from the construction site. These emissions would be temporary and limited to the immediate area surrounding the construction site.

The proposed construction schedule for all improvements would be approximately 9 months. It should be noted that the proposed modular building would be constructed off-site, which would result in reduced emissions in the immediate project vicinity. Construction emissions were estimated for the project using the California Emissions Estimator Model (CalEEMod) as approved by the BAAQMD. Construction-related emissions are presented in Table 1.
The effects of construction activities would be increased dustfall and locally elevated levels of PM₁₀ downwind of construction activity. Construction dust would be generated at levels that could create an annoyance to occupants of nearby properties. Although ROG, NOₓ and exhaust emissions would not exceed the established thresholds as identified in Table 1, the BAAQMD requires the implementation of Best Management Practices to ensure construction impacts are reduced to a less-than-significant level. Implementation of the following mitigation measure would require implementation of the BAAQMD’s Best Management Practices and would reduce diesel PM exhaust emissions as well as construction dust PM₁₀ and PM₂.₅ impacts to a less-than-significant level.

Mitigation Measure AIR 1: Consistent with the Best Management Practices required by the BAAQMD, the following actions shall be incorporated into construction contracts and specifications for the project:

- All exposed surfaces (e.g., parking areas, staging areas, soil piles, graded areas, and unpaved access roads) shall be watered two times per day.
- All haul trucks transporting soil, sand, or other loose material off-site shall be covered.
- All visible mud or dirt tracked-out onto adjacent public roads shall be removed using wet power vacuum street sweepers at least once per day. The use of dry power sweeping is prohibited.
- All vehicle speeds on unpaved roads shall be limited to 15 mph.
- All roadways, driveways, and sidewalks to be paved shall be completed as soon as possible.
- Building pads shall be laid as soon as possible after grading unless seeding or soil binders are used.
- Idling times shall be minimized either by shutting equipment off when not in use or reducing the maximum idling time to 5 minutes (as required by the California airborne toxics control measure Title 13, Section 2485 of California Code of Regulations [CCR]). Clear signage shall be provided for construction workers at all access points.
• All construction equipment shall be maintained and properly tuned in accordance with manufacturer’s specifications. All equipment shall be checked by a certified mechanic and determined to be running in proper condition prior to operation.

• A publicly visible sign shall be posted with the telephone number and contact information for the designated on-site construction manager available to receive and respond to dust complaints. This person shall report all complaints to the City of Berkeley and take immediate corrective action as soon as practical but not more than 48 hours after the complaint is received. The BAAQMD’s phone number shall also be visible to ensure compliance with applicable regulations.

Localized CO Impacts. The BAAQMD has established a screening methodology that provides a conservative indication of whether the implementation of a proposed project would result in significant CO emissions. According to the BAAQMD’s CEQA Air Quality Guidelines, a proposed project would result in a less-than-significant impact to localized CO concentrations if the following screening criteria are met:

• The project is consistent with an applicable congestion management program established by the county congestion management agency for designated roads or highways, and the regional transportation plan and local congestion management agency plans.

• Project traffic would not increase traffic volumes at affected intersections to more than 44,000 vehicles per hour.

• The project would not increase traffic volumes at affected intersections to more than 24,000 vehicles per hour where vertical and/or horizontal mixing is substantially limited (e.g., tunnel, parking garage, bridge underpass, natural or urban street canyon, or below-grade roadway).

The proposed project would not conflict with the Alameda Transportation Commission’s congestion management program for designated roads or highways, a regional transportation plan, or other agency plans. The project site is not located in an area where vertical or horizontal mixing of air is substantially limited. In addition, traffic volumes on roadways in the vicinity of the project site are less than 44,000 vehicles per hour. Therefore, the proposed project would not result in localized CO concentrations that exceed State or federal standards.

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Note that in July 2010 the Alameda County Congestion Management Agency and the Alameda County Transportation Improvement Authority merged into one organization.

Operational Emissions – Regional Emissions Analysis. In addition to short-term construction emissions, the project would generate long-term operational air emissions. These long-term emissions are primarily mobile source emissions that would result from vehicle trips associated with the proposed project. According to the Traffic Impact and Parking Study (which has been prepared for the proposed project), the proposed project is expected to generate approximately 540 trips,\(^\text{11}\) which does not account for reductions associated with trips generated by existing on-site users. Area sources, such as natural gas heaters, landscape equipment, and use of consumer products, would also result in pollutant emissions.

CalEEMod was used to calculate long-term mobile and area source emissions. CalEEMod output sheets are available for review at the City of Berkeley.

The primary emissions associated with the project are regional in nature, meaning that air pollutants are rapidly dispersed on emission or, in the case of vehicle emissions associated with the project, emissions are released in other areas of the Air Basin. The daily emissions associated with project operational trip generation and area sources are identified in Table 2 for ROG, NO\(_x\), PM\(_{10}\), and PM\(_{2.5}\). The results indicate that project emissions would be well below the significance thresholds for all four regional emissions types; therefore the proposed project would not have a significant effect on regional air quality.

Table 2: Project Regional Emissions

<table>
<thead>
<tr>
<th>Emissions in Pounds Per Day</th>
<th>Reactive Organic Gases</th>
<th>Nitrogen Oxides</th>
<th>PM(_{10})</th>
<th>PM(_{2.5})</th>
</tr>
</thead>
<tbody>
<tr>
<td>Area Source Emissions</td>
<td>21.95</td>
<td>0.71</td>
<td>6.91</td>
<td>6.91</td>
</tr>
<tr>
<td>Energy Source</td>
<td>0.03</td>
<td>0.22</td>
<td>0.02</td>
<td>0.02</td>
</tr>
<tr>
<td>Mobile Source Emissions</td>
<td>2.98</td>
<td>5.58</td>
<td>4.47</td>
<td>0.24</td>
</tr>
<tr>
<td>Total Emissions</td>
<td>24.96</td>
<td>6.51</td>
<td>11.40</td>
<td>7.17</td>
</tr>
<tr>
<td>BAAQMD Significance Threshold</td>
<td>54.0</td>
<td>54.0</td>
<td>82.0</td>
<td>54.0</td>
</tr>
<tr>
<td>Exceed?</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Emissions in Tons Per Year</th>
<th>Area Source Emissions</th>
<th>Energy Source</th>
<th>Mobile Source Emissions</th>
<th>Total Emissions</th>
<th>BAAQMD Significance Threshold</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>0.95</td>
<td>0.00</td>
<td>0.46</td>
<td>1.41</td>
<td>10.0</td>
</tr>
<tr>
<td>Exceed?</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
</tbody>
</table>


\(^{11}\) Ibid.
c) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or State ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)? \textbf{(Less-Than-Significant Impact)}

CEQA defines a cumulative impact as two or more individual effects, which when considered together, are considerable or which compound or increase other environmental impacts. According to the BAAQMD, air pollution is largely a cumulative impact and no single project is sufficient in size to itself result in nonattainment of ambient air quality standards. In developing the thresholds of significance for air pollutants used in the analysis above, BAAQMD considered the emission levels for which a project’s individual emissions would be cumulatively considerable. The BAAQMD CEQA Air Quality Guidelines indicate that if a project exceeds the identified significance thresholds, it’s emissions would be cumulatively considerable, resulting in significant adverse air quality impacts to the region’s existing air quality conditions. If daily average or annual emissions of operational-related criteria air pollutants exceed any applicable threshold established by the BAAQMD, the proposed project would result in a cumulatively significant impact.

As shown in Table 1 and Table 2, above, implementation of the proposed project, with implementation of Mitigation Measure AIR-1, would generate less-than-significant regional emissions. Additionally, other proposed projects within the Air Basin would also be required to implement the BAAQMD’s Best Management Construction Practices as outlined in Mitigation Measure AIR-1. Therefore, the project would not make a cumulatively considerable contribution to regional air quality impacts.

d) Expose sensitive receptors to substantial pollutant concentrations? \textbf{(Less-Than-Significant Impact)}

According to the BAAQMD, a project would result in a significant impact if it would: individually expose sensitive receptors to toxic air contaminants resulting in an increased cancer risk greater than 10.0 in one million, increased non-cancer risk of greater than 1.0 on the non-hazard index (chronic or acute), or an annual average ambient PM$_{2.5}$ increase greater than 0.3 µg/m$^3$. A significant cumulative impact would occur if the project in combination with other projects located within a 1,000-foot radius of the project site would expose sensitive receptors to toxic air contaminants resulting in an increased cancer risk greater than 100.0 in one million, an increased non-cancer risk of greater than 10.0 on the non-hazard index (chronic or acute), or an ambient PM$_{2.5}$ increase greater than 0.8 µg/m$^3$ on an average annual basis. This section describes the potential impact on sensitive receptors from construction and operation of the proposed project.

\textbf{Project Construction – Toxic Air Contaminants.} During construction, various diesel-powered vehicles and equipment would be in use. In 1998, the ARB identified particulate matter from diesel-fueled engines as a toxic air contaminant (TAC). The California Air Resources Board (ARB) has completed a risk management process that identifies potential
cancer risks for a range of activities using diesel-fueled engines.\textsuperscript{12} High volume freeways, stationary diesel engines and facilities attracting heavy and constant diesel vehicle traffic (e.g., distribution centers and truck stops) were identified as having the highest associated risk.

Health risks from TACs are a function of both concentration and duration of exposure. Unlike the above types of sources, construction diesel emissions are temporary, affecting an area for a period of days or perhaps weeks. Additionally, construction-related sources are mobile and transient in nature, and the emissions occur within the project site. The BAAQMD provides a screening approach to evaluate the potential health risk from exposure to TACs, including diesel particulate matter, and PM$_{2.5}$ from construction activities.\textsuperscript{13} The screening tables use conservative assumptions including a 2-year construction duration and that all equipment would operate at the fence line, when actual equipment will rotate in different areas of the site farther away from sensitive receptors. According to the screening tables, a project of this size would need to be located at a minimum of 575 feet from the closest sensitive receptor or further analysis would be required to identify potentially significant health risks.

The closest sensitive receptors to the project site are the residences located 13 feet north of the nearest portion of the proposed building. Additionally, residents are located 25 feet east of the building and approximately 75 feet west of the portion of the building that would front Fulton Street. Due to the close proximity of these receptors, the project would not pass the screening size for construction health risk. Therefore, screening level health risk assessment was performed to determine a conservative health risk level for the closest receptor location. Results of the screening analysis are conservative in that the screening methodology assumes all equipment would operate at the border of the project site closest to the receptor and that all emissions would be directly blown by the wind onto the receptor site. This provides a worst case analysis because, in reality, equipment would be operating at various locations within the site and the wind would disperse emissions in different directions.

Additional details related to the screening health risk assessment are available for review at the City of Berkeley. As shown in Table 3, results of the analysis indicate that health risk levels and PM$_{2.5}$ concentrations would be below the significance level identified by the BAAQMD.


\textsuperscript{13} Bay Area Air Quality Management District, 2010. \textit{Screening Tables for Air Toxics Evaluation During Construction}. May.
Table 3: Health Risks from Construction Emissions

<table>
<thead>
<tr>
<th>Location</th>
<th>Carcinogenic Inhalation Health Risk with CRAF</th>
<th>Chronic Inhalation Health Index</th>
<th>PM$_{2.5}$ Concentration (µg/m$^3$)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Maximum Exposed Individual</td>
<td>3.6</td>
<td>0.12</td>
<td>0.23</td>
</tr>
<tr>
<td>Threshold</td>
<td>10 in a million</td>
<td>1.00</td>
<td>0.30</td>
</tr>
</tbody>
</table>

CRAF = Cancer Risk Adjustment Factor

As shown in Table 3, the results of the SCREEEN3 analysis indicated that a significant health risk impact is not anticipated with construction of the proposed project. Additionally, with implementation of Mitigation Measure AIR-1, which is consistent with BAAQMD guidelines, health risks from construction emissions of diesel particulate would be less than significant.

Stationary Sources. The BAAQMD issues permits to businesses whose operation includes the release of toxic air contaminants. These operations are known as stationary air pollution sources and should be considered for their exposure when locating sensitive receptors in a new location. In order to identify stationary sources for a particular location, the BAAQMD provides KML (Google Earth) files for each county within the BAAQMD jurisdiction. Using the KML file for Alameda County and a 1,000-foot buffer zone, the three stationary sources shown in Table 4 were identified.

Results of the stationary source analysis indicate that risk levels from all sources in the project vicinity would be below the established significance criteria at the individual and cumulative level, therefore the project would not expose future residents of the project site to substantial pollutant concentrations. Cumulative impacts to off-site receptors from construction and stationary sources would also be well below the cumulative threshold.
Table 4: Stationary Sources within 1,000 feet of the Project Site

<table>
<thead>
<tr>
<th>Plant ID</th>
<th>Stationary Source (address &amp; name)</th>
<th>Distance to Project Site (feet)</th>
<th>Risk (in one million)</th>
<th>PM$_{2.5}$ Concentration ($\mu$g/m$^3$)</th>
<th>Hazard</th>
</tr>
</thead>
<tbody>
<tr>
<td>652</td>
<td>Campus Mini-Mart (2200 Durant Avenue)</td>
<td>608</td>
<td>0.124$^a$</td>
<td>Not Applicable$^b$</td>
<td>0.000$^a$</td>
</tr>
<tr>
<td>559</td>
<td>Alta Bates-Herrick Hospital (2001 Dwight Way)</td>
<td>870</td>
<td>2.742$^c$</td>
<td>0.005$^c$</td>
<td>0.001$^c$</td>
</tr>
<tr>
<td>573</td>
<td>Taylor Co. (2036 Blake Street)</td>
<td>983</td>
<td>0.000</td>
<td>0.000</td>
<td>0.000</td>
</tr>
</tbody>
</table>

BAAQMD Single Source Threshold

Exceed (Yes/No) No No No
Cumulative Stationary Source Totals 2.866 0.3 1.0
BAAQMD Single Cumulative Threshold 100.0 0.8 10.0
Exceed (Yes/No) No No No

$^a$ Per BAAQMD guidance, risk levels were adjusted using the BAAQMD’s Cancer Risk and Chronic Hazard Index Distance Adjustment Multiplier for Gasoline Dispensing Facilities to account for the dispersion of pollutants from the source to the project site.

$^b$ This source does not emit PM$_{2.5}$ emissions.

$^c$ Per BAAQMD guidance, risk levels were adjusted using the BAAQMD’s Cancer Risk and Chronic Hazard Index Distance Adjustment Multiplier for Diesel IC Engines to account for the dispersion of pollutants from the source to the project site.


e) Create objectionable odors affecting a substantial number of people? (No Impact)

The project does not include any activities or operations that would generate objectionable odors. The project is not located in an area with multiple confirmed odor complaints and once operational, the project would not be a source of odors. Therefore, the project would not create objectionable odors affecting a substantial number of people.

IV. BIOLOGICAL RESOURCES. Would the project:

a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service? ☐ ☐ ☐ ☒
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?

<table>
<thead>
<tr>
<th>Potentially Significant Impact</th>
<th>Potentially Significant Unless Mitigation Incorporated</th>
<th>Less Than Significant Impact</th>
<th>No Impact</th>
</tr>
</thead>
<tbody>
<tr>
<td>No Impact</td>
<td></td>
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</table>

c) Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) Through direct removal, filling, hydrological interruption, or other means?

<table>
<thead>
<tr>
<th>Potentially Significant Impact</th>
<th>Potentially Significant Unless Mitigation Incorporated</th>
<th>Less Than Significant Impact</th>
<th>No Impact</th>
</tr>
</thead>
<tbody>
<tr>
<td>No Impact</td>
<td></td>
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</table>

d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?

<table>
<thead>
<tr>
<th>Potentially Significant Impact</th>
<th>Potentially Significant Unless Mitigation Incorporated</th>
<th>Less Than Significant Impact</th>
<th>No Impact</th>
</tr>
</thead>
<tbody>
<tr>
<td>No Impact</td>
<td></td>
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</table>

e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?

<table>
<thead>
<tr>
<th>Potentially Significant Impact</th>
<th>Potentially Significant Unless Mitigation Incorporated</th>
<th>Less Than Significant Impact</th>
<th>No Impact</th>
</tr>
</thead>
<tbody>
<tr>
<td>No Impact</td>
<td></td>
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</tbody>
</table>

f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan or other approved local, regional, or State habitat conservation plan?

<table>
<thead>
<tr>
<th>Potentially Significant Impact</th>
<th>Potentially Significant Unless Mitigation Incorporated</th>
<th>Less Than Significant Impact</th>
<th>No Impact</th>
</tr>
</thead>
<tbody>
<tr>
<td>No Impact</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

a) **Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service? (No Impact)**

The proposed project is located in an urbanized area and the site is currently developed with a one-story commercial building and associated surface parking lot. Existing vegetation on the site consists of five street trees and on-site landscaping shrubs. Due to the urban location and limited amount of landscaping on the site, these trees and shrubs are unlikely to provide suitable habitat for special-status bird species. Common wildlife species that are adapted to urban environments would continue to use the site after redevelopment. The site is not occupied by, or suited for, any special status species. Therefore, the proposed project would not result in direct or indirect adverse effects on special-status plant or wildlife species.
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Game or U.S. Fish and Wildlife Service? (No Impact)

The project site is located in a developed area in the Southside area of Berkeley and does not support any riparian habitats or other sensitive natural communities. Furthermore, the project site is not located within 30 feet of a creek as identified on the Berkeley General Plan Creeks Map. Therefore, no impact to these habitats or communities would occur as a result of the proposed project.

c) Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means? (No Impact)

The project site does not support any federally protected wetlands. Therefore, no impact to federally protected wetlands would occur as a result of the proposed project.

d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites? (Less-Than-Significant Impact)

The project site is not located within a migratory wildlife movement corridor. Furthermore, most of the species that likely use the site are "generalists" that are adept at moving through urban landscapes. There are five street trees that border the site on Dwight Way and Fulton Street, which would be removed with development of the proposed project. A few small shrubs are also located at the building entrance adjacent to the surface parking lot and these would also be removed as part of the project. Trees and other landscape vegetation generally have the potential to support nests of common native bird species. All native birds and their nests, regardless of their regulatory status, are protected under the federal Migratory Bird Treaty Act and California Fish and Game Code. However, because the site is located in a busy urban area and only a few street trees and small shrubs would be removed from the project site, potential impacts to nesting birds would be less than significant.

e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance? (Less-Than-Significant Impact)

According to Policy EM-31 of the City’s General Plan, new development should contribute to the urban forest through preservation of existing on-site trees, wherever feasible; replacement of trees on-site; and the addition of new trees in the public right-of-way. No trees are currently located on the project site; however, five existing street trees border the

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site on Dwight Way and Fulton Street and these would be removed and replaced with as many new street trees as possible. New street trees would be replaced at a minimum 1:1 ratio and would be a minimum of 24-inch box in size. Approximately 50 new small (15 gallon or 24-inch box) trees would also be planted on-site as part of the open space and landscaping design.

The City of Berkeley’s Coast Live Oak Tree Ordinance regulates removal and pruning of this particular tree species. However, the project site does not contain any Coast Live Oaks. There are no other biological resources on the site. As such, the proposed project would not conflict with any local policies or ordinances protecting biological resources.

f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan or other approved local, regional, or State habitat conservation plan? (No Impact)

The project site is not located within the boundaries of an adopted conservation plan. Therefore, the proposed project would not conflict with the provisions of a habitat conservation plan, natural community plan or other approved local, regional, or State habitat conservation plan.

<table>
<thead>
<tr>
<th>Potentially Significant Impact</th>
<th>Potentially Significant Unless Mitigation Incorporated</th>
<th>Less Than Significant Impact</th>
<th>No Impact</th>
</tr>
</thead>
</table>

V. CULTURAL RESOURCES. Would the project:

a) Cause a substantial adverse change in the significance of a historical resource as defined in §15064.5? ☒ ☐ ☐ ☐

b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5? ☐ ☒ ☐ ☐

c) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature? ☐ ☒ ☐ ☐

d) Disturb any human remains, including those interred outside of formal cemeteries? ☐ ☒ ☐ ☐

a) Cause a substantial adverse change in the significance of a historical resource as defined in §15064.5? (Potentially Significant Impact)

The project site contains a late 1940s single-story Moderne-style commercial building. The building is not a registered City Landmark or Structure of Merit. However, since the building
is over 50 years old, it could be determined to be eligible for the California Register of Historical Resources (California Register) if the other required criteria are met. Buildings that are eligible for the California Register are considered historical resources under CEQA, and the demolition of a historical resource would be a significant impact. Whether or not this building is eligible for the California Register, and whether or not its demolition would be a significant impact, it will be further evaluated in the EIR. Eligibility for City Landmark status will also be evaluated, as structures designated under local ordinances must also be considered historic resources under CEQA.

In addition, three historical resources located at 2424, 2426, and 2430 Fulton Street are within the immediate vicinity of the project site. These three residences were constructed in 1884 (2424 and 2426 Fulton Street) and 1891 (2430 Fulton Street) and were designated as City Landmarks in 2003 by the Landmarks Preservation Commission. Although the project would not directly affect these three resources, potential indirect impacts from the project will be addressed in the EIR. Additional City Landmarks within the immediate vicinity of the site will also be identified and addressed in the EIR.

Potential impacts to archaeological sites, which can qualify as “historical resources” under CEQA (California Code of Regulations Section 15064.5(c)), are discussed below.

b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5? (Potentially Significant Unless Mitigation Incorporated)

A records search was completed at the Northwest Information Center (NWIC) at Sonoma State University to identify recorded archaeological resources in or adjacent to the project site. The records search indicates that no recorded archaeological sites are in or adjacent to the project site. However, prehistoric archaeological sites, including those containing Native American skeletal remains, have been identified in downtown Berkeley, indicating that the general area is sensitive for buried prehistoric archaeological resources.

In addition, a review of Sanborn Fire Insurance Maps was completed to determine previous land uses on the project site and the potential for sub-surface historic-period archaeological resources. This review indicates a dwelling was on the project site in 1894, which appears to have been converted to the Berkeley Preparatory School by 1911. Therefore, sub-surface historic-period archaeological deposits predating the project site’s development as an automobile sales and service facility in the late 1940’s could be present.

Due to the general sensitivity of the area for prehistoric archaeological sites and historic-period deposits, the potential for encountering sub-surface prehistoric artifacts and historic-period artifacts and features cannot be discounted. Project demolition and construction activities, including excavation for the removal or construction of foundations and a sub-surface parking garage, could cause a substantial adverse change in the significance of

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16 The Northwest Information Center is the official State repository for cultural resource records and reports for Alameda County.
previously unidentified archaeological resources. Implementation of the following mitigation measure would reduce this impact to a less-than-significant level.

Mitigation Measure CULT-1: The project applicant shall inform the construction contractor(s) of the appropriate procedures to follow in the event that archaeological deposits are identified by including the following directive in the project building plans:

If any deposit(s) of apparent prehistoric or historical archaeological materials are encountered during project activities, all work within 25 feet of the discovery shall be halted and a qualified archaeologist shall be contacted to assess the situation, consult with agencies as appropriate, and make recommendations for the treatment of the materials. Project personnel shall not collect or move any archaeological materials. Prehistoric archaeological materials include, but are not limited to, flaked-stone tools (e.g., projectile points, knives, and choppers) or obsidian, chert, basalt, or quartzite toolmaking debris; bone tools; culturally darkened soil (i.e., midden soil often containing heat-affected rock, ash and charcoal, shellfish remains, bones, and other cultural materials); and stone-milling equipment (e.g., mortars, pestles, and handstones). Historical archaeological materials include, but are not limited to, wood, stone, concrete, or adobe footings, walls, and other structural remains; debris-filled wells or privies; and deposits of wood, glass, ceramics, metal, and other refuse.

The City shall verify that the above language has been included in the building plans prior to issuance of a grading permit or other permitted project action that includes ground-disturbing activities on the project site.

If the materials are not eligible for the California Register of Historical Resources, a determination shall be made as to whether they qualify as a “unique archaeological resource” under CEQA. If the materials are neither a historical nor a unique archaeological resource, avoidance is not necessary. If the materials are eligible for the California Register, or are a unique archaeological resource, adverse effects to the materials shall be avoided or mitigated through the implementation of a treatment plan developed by a qualified archaeologist in consultation with the City of Berkeley Planning and Development Department. Mitigation may consist of, but is not necessarily limited to, systematic recovery and analysis of archaeological materials; recording the resource; preparation of a report of findings; and accessioning recovered archaeological materials at an appropriate curation facility. The report shall be submitted to the Planning and Development Department and the Northwest Information Center.

c) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature? (Potentially Significant Unless Mitigation Incorporated)

There are no known paleontological resources (fossils) in the project site. However, a fossil locality search done at the University of California Museum of Paleontology (UCMP) for the Southside Plan EIR—the study area for which included the current project site—identified a
recorded sloth fossil (UCMP locality #V-67194) near the project site.\textsuperscript{17} This fossil was identified in a similar geological formation (i.e., Late Pleistocene alluvium) that underlies the current project site at an unknown depth. Therefore, demolition, site preparation, and construction activities associated with the proposed project could adversely affect previously unidentified fossils. Implementation of the following mitigation measure would reduce this impact to a less-than-significant level.

Mitigation Measure CULT-2: Should any apparent fossil be encountered during project sub-surface construction, all ground-disturbing activities within 25 feet shall be halted, and a qualified paleontologist contacted to assess the situation, consult with agencies as appropriate, and make recommendations for the treatment of the fossil. If the fossil is found to be significant, and project activities cannot avoid the fossils, adverse effects to the fossil shall be mitigated. Mitigation may include, but shall not be limited to, monitoring, recording the fossil locality, data recovery and analysis, a final report, and submitting the fossil material and technical report to a paleontological repository. Public educational outreach may also be appropriate. Upon completion of the assessment, a report documenting methods, findings, and recommendations shall be prepared and submitted to the Planning and Development Department for review and, if significant paleontological materials are recovered, a paleontological repository, such as the University of California Museum of Paleontology.

Prior to any groundbreaking activities, the project applicant shall inform the construction contractor(s) of the sensitivity of the project site for fossils and include the following directive in the appropriate contract documents.

\textit{The sub-surface of the construction site may be sensitive for paleontological resources (fossils). If fossils are encountered during project sub-surface construction and a paleontologist is not on site, all ground-disturbing activities within 25 feet shall be halted and a qualified paleontologist shall be contacted to assess the situation, consult with agencies as appropriate, and make recommendations for the treatment of the fossil. Project personnel shall not collect or move any fossil.}

Paleontological resources include fossil plants and animals, and such trace fossil evidence of past life as tracks. Ancient marine sediments may contain invertebrate fossils such as snails, clam and oyster shells, sponges, and protozoa; and vertebrate fossils such as fish, whale, and sea lion bones. Vertebrate land mammals may include bones of mammoth, camel, saber tooth cat, horse, and bison. Paleontological resources also include plant imprints, petrified wood, and animal tracks.

The City shall verify that the language has been included in the building plans prior to issuance of a grading permit or other permitted project action that includes ground-disturbing activities on the project site.

d) **Disturb any human remains, including those interred outside of formal cemeteries? (Potentially Significant Unless Mitigation Incorporated)**

Native American human remains have been unearthed at some locations in downtown Berkeley. Although no such remains have been reported at the project site, the potential to encounter such remains cannot be discounted. Implementation of Mitigation Measure CULT-3 would ensure that this impact is reduced to a less-than-significant level.

**Mitigation Measure CULT-3:** Any human remains encountered during project ground-disturbing activities shall be treated in accordance with California Health and Safety Code Section 7050.5. The project applicant shall inform all contractor(s) performing excavation of the sensitivity of the project site for human remains and include the following directive in the appropriate contract documents:

*If human remains are uncovered, all work within 25 feet of the discovery shall be halted and the County Coroner notified immediately. At the same time, an archaeologist shall be contacted to assess the situation and consult with agencies as appropriate. Project personnel shall not collect or move any human remains or associated materials. If the human remains are of Native American origin, the Coroner must notify the Native American Heritage Commission (NAHC) within 24 hours of this identification. The Native American Heritage Commission will identify a Native American Most Likely Descendant to inspect the site and provide recommendations for the proper treatment of the remains and associated grave goods. Such recommendations shall be carried out to the satisfaction of the NAHC prior to work resuming within 25 feet of the discovered remains.*

The City shall verify that the language has been included in the building plans prior to issuance of a grading permit or other permitted project action that includes ground-disturbing activities on the project site.
VI. GEOLOGY AND SOILS. Would the project:

  a) Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:

    i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42. ☐ ☐ ☒ ☐

    ii) Strong seismic ground shaking? ☐ ☐ ☒ ☐

    iii) Seismic-related ground failure, including liquefaction? ☐ ☐ ☒ ☐

    iv) Landslides? ☐ ☐ ☐ ☒

  b) Result in substantial soil erosion or the loss of topsoil? ☐ ☐ ☒ ☐

  c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse? ☐ ☐ ☒ ☐

  d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property? ☐ ☐ ☒ ☐

  e) Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water? ☐ ☐ ☒ ☐

Responses in this section rely on information and findings provided in the preliminary Geotechnical Investigation18 prepared for the project site, unless otherwise noted. This report is available for review at the City of Berkeley, Planning and Development Department.

a) Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving: i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42; ii) Strong seismic ground shaking; iii) Seismic-related ground failure, including liquefaction; iv) Landslides? (Less-Than-Significant Impact)

Fault Rupture. No portion of the project site is within the established Alquist-Priolo Earthquake Fault Zone (A-PEFZ), and no active faults are known to pass directly beneath the site. Fault rupture of the surface typically occurs along existing faults that have ruptured the surface in the past. Since faults with known surface rupture have been mapped in California, and none are known to occur at the project site, the potential for impacts to the proposed project associated with fault rupture are low and would be less than significant.

Ground Shaking. The project site is located in the San Francisco Bay Area, a region of intense seismic activity. Ground shaking is likely to occur within the life of the project as a result of future earthquakes. The closest known active fault to the project site is the northern segment of the Hayward Fault, which is slightly less than 1 mile from the site. Other active faults within a little over 15 miles of the project site include the Calaveras, Concord-Green Valley, and Rodgers Creek Faults. The Working Group on California Earthquake Probabilities report and the USGS predicted there is a 31 percent probability of a 6.7 magnitude or greater earthquake on the Hayward/Rodgers Creek fault system between 2007 and 2037. The Association of Bay Area Governments (ABAG) has classified the Modified Mercalli Intensity Shaking Severity Level of ground shaking in the proposed project vicinity due to an earthquake on the North Hayward segment of the Hayward-Rodgers Creek Fault System as “IX-Violent.” Violent shaking would result in collapse or serious damage to masonry buildings; shifting of unbolted wood structures off their foundations; and underground pipe breakage.

As required by the City’s standard conditions of approval, project design and construction would be required to be in conformance with, or exceed, current best standards for earthquake resistant construction in accordance with the California Building Code (Title 24, Seismic Zone 4), the City of Berkeley’s Building Code (BMC Chapter 19.28), and with the generally accepted standards of geotechnical practice for seismic design in Northern California. In addition, project design would be required to follow the recommendations of a site-specific design level geotechnical investigation report to be prepared by a Certified Engineering Geologist or Geotechnical Engineer. The City Engineer would approve all final design and engineering plans prior to issuance of a grading permit.

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Because the severity of future earthquakes cannot be predicted with complete certainty, it is acknowledged that seismic hazards cannot be completely eliminated, even with implementation of site-specific geotechnical methods and advanced building practices. However, the seismic design standards of the California Building Code are intended to prevent catastrophic building failure in the most severe earthquakes currently anticipated. Therefore, compliance with these standards would reduce potential seismic hazards to a less-than-significant level.

**Ground Failure and Liquefaction.** The project site is underlain by Holocene-aged alluvial fan deposits consisting of silty to sandy clay, sandy silt, and silty to clayey sand. Gravel was frequently encountered in soil borings performed at the site. The alluvial materials on the site are primarily moist to wet with consistencies ranging from medium stiff to hard (fine-grained materials) and relative densities ranging from medium dense to very dense (granular materials). Alluvium was encountered at the maximum soil boring depth of 60 feet below the ground surface (bgs). Groundwater was initially encountered as depths ranging from approximately 12 to 15 feet bgs.

Liquefaction of soils can occur when ground shaking causes saturated soils to lose strength due to an increase in pore pressure. ABAG has identified the liquefaction hazard within this area of Berkeley as generally “low” and the site is not located within a State of California Seismic Hazard Zone for liquefaction. The preliminary geotechnical report concludes that, based on available mapping and due to the clayey or dense nature of the alluvial materials that underlie the site, the overall risk of significant liquefaction occurring at the site is low.

Lateral spreading is a phenomenon in which soils move laterally during seismic shaking and is often associated with liquefaction. The amount of movement depends on soil strength, duration and intensity of seismic shaking, topography, and free face geometry. Due to the low potential for liquefaction and relatively flat site topography, the likelihood for lateral spreading to occur at the site is low.

Therefore, persons or structures at the project site would not be adversely affected by ground failure or liquefaction occurring during a seismic event and this impact would be less than significant.

**Landslides.** Slope stability issues can result in either slow slumping earth movements or rapid landslide events. The proposed project site is nearly level, and there are no hills adjacent to the site. There are no known landslides near the site, nor is the site in the path of any known or potential landslides. Improvements proposed as part of the project do not include substantial mounding of earth or other substantive changes to grade that would create slope instability hazards. Therefore, persons or structures would not be adversely affected by landslides at the project site.
b) **Result in substantial soil erosion or the loss of topsoil? (No Impact)**

The project site is located in an urban area and is completely covered by existing development. The proposed project does not propose any changes to site conditions that would cause soil erosion or the loss of topsoil.

c) **Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse? (Less-Than-Significant Impact)**

As discussed in Section VI.a, the potential for lateral spreading, liquefaction, or landslides to occur at the site is low. Subsidence or collapse can result from the removal of sub-surface water resulting in either catastrophic or gradual depression of the surface elevation of the project site. The proposed project would connect to the City of Berkeley’s water utilities and would not utilize groundwater resources; therefore, subsidence or collapse of site soils is not likely.

However, excavation of the one-level sub-surface garage would occur at a maximum depth of 12 feet bgs (16 feet at the elevator pit), which is below the depth of groundwater encountered at the site (12 to 15 feet bgs). Although the project can be supported by a mat-slab foundation, waterproofing of subterranean walls and slabs is recommended in the Geotechnical Investigation prepared for the site. Groundwater should also be controlled through dewatering to allow for a stabilized subgrade prior to mat foundation construction. Due to the clayey nature of soils anticipated at subgrade elevations for the garage, consideration should be given to initiating dewatering measures well in advance of mat foundation construction.

The project applicant would be required to comply with the City’s standard conditions of approval which require the project applicant to incorporate all recommendations of a final site-specific design-level geotechnical investigation as prepared by a licensed Geotechnical Engineer and approved by the City of Berkeley into all development plans submitted for the project, including recommendations for grading, foundation support, placement and compaction of fill materials, treatment of unstable and expansive soils, and avoidance. Therefore, potential impacts associated with unstable soils at the site would be less than significant.

d) **Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property? (Less-Than-Significant Impact)**

Expansive soils can undergo significant volume changes with changes in moisture content and are known to shrink and harden when dried and expand and soften when wetted. The alluvial soils encountered on the site are considered to be expansive. Site grading may require the import of fill material, which could result in newly introduced engineered fill adjacent to expansive soils and/or areas where fills of different thickness underlie structures, utilities, and flatwork (such as sidewalks and roadways).
Where new structures and surface loads are introduced and overlie engineered fills, undocumented fills and/or adjoining native soils, soil expansion, settlement or differential settlement can result in substantial cosmetic and structural damage to buildings and flatwork. The project applicant would be required to comply with the City’s standard conditions of approval which require the project applicant to incorporate all recommendations of a final site-specific design-level geotechnical investigation as prepared by a licensed Geotechnical Engineer and approved by the City of Berkeley into all development plans submitted for the project, including recommendations for grading, foundation support, placement and compaction of fill materials, pretreatment of expansive soils, and avoidance. Therefore, potential impacts associated with expansive soils would be less than significant.

e) Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water? (No Impact)

Wastewater conveyance and treatment for the proposed project would be provided by the City of Berkeley. Development of the project would not involve the use of septic tanks or alternative wastewater disposal systems.

VII. GREENHOUSE GAS EMISSIONS. Would the project:

a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment? ☐ ☐ ☒ ☐

b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases? ☐ ☐ ☒ ☐

a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment? (Less-Than-Significant Impact)

Greenhouse Gas Emissions (GHGs) are present in the atmosphere naturally, are released by natural sources, or are formed from secondary reactions taking place in the atmosphere. The gases that are widely seen as the principal contributors to human-induced global climate change are:

- Carbon dioxide (CO₂);
- Methane (CH₄);
- Nitrous oxide (N₂O);
- Hydrofluorocarbons (HFCs);
• Perfluorocarbons (PFCs); and
• Sulfur Hexafluoride (SF₆).

Over the last 200 years, humans have caused substantial quantities of GHGs to be released into the atmosphere. These extra emissions are increasing GHG concentrations in the atmosphere and enhancing the natural greenhouse effect, which is believed to be causing global warming. While manmade GHGs include naturally-occurring GHGs such as CO₂, methane, and N₂O, some gases, like HFCs, PFCs, and SF₆ are completely new to the atmosphere.

Certain gases, such as water vapor, are short-lived in the atmosphere. Others remain in the atmosphere for significant periods of time, contributing to climate change in the long term. Water vapor is excluded from the list of GHGs above because it is short-lived in the atmosphere and its atmospheric concentrations are largely determined by natural processes, such as oceanic evaporation.

These gases vary considerably in terms of Global Warming Potential (GWP), which is a concept developed to compare the ability of each GHG to trap heat in the atmosphere relative to another gas. The GWP is based on several factors, including the relative effectiveness of a gas to absorb infrared radiation and length of time that the gas remains in the atmosphere (“atmospheric lifetime”). The GWP of each gas is measured relative to CO₂, the most abundant GHG; the definition of GWP for a particular GHG is the ratio of heat trapped by one unit mass of the GHG to the ratio of heat trapped by one unit mass of CO₂ over a specified time period. GHG emissions are typically measured in terms of pounds or tons of “CO₂ equivalents” (CO₂e).

The following section describes the proposed project’s construction and operational related GHG emissions and contribution to global climate change. While, as stated above, the BAAQMD has not addressed emission thresholds for construction, the District encourages quantification and disclosure. Thus, construction emissions are discussed in this section.

**Construction Activities.** Construction activities, such as site preparation, site grading, on-site heavy-duty construction vehicles, equipment hauling materials to and from the site, and motor vehicles transporting the construction crew would produce combustion emissions from various sources. During construction of the project, GHGs would be emitted through the operation of construction equipment and from worker and builder supply vendor vehicles, each of which typically uses fossil-based fuels to operate. The combustion of fossil-based fuels creates GHGs such as CO₂, CH₄, and N₂O. Furthermore, CH₄ is emitted during the fueling of heavy equipment. Exhaust emissions from on-site construction activities would vary daily as construction activity levels change.

Due to the modular construction methods proposed for the project, much of the construction activity would occur off-site, as the modules that form the proposed building (one module per apartment unit) would arrive at the site fully assembled and would be joined together at the site. This process would eliminate much of the on-site activity, vehicle trips and waste typically involved in traditional construction methods. It is therefore anticipated that the project would generate less construction emissions than a project using traditional...
construction methods. However, it should be noted that manufacturing emissions are not quantifiable at this level and are not included in the estimate of construction emissions generated by the project.

Using CalEEMod, it is estimated that the project would generate approximately 482 metric tons of CO$_2$e during construction of the project. The BAAQMD does not have a threshold for construction emissions. However, implementation of Mitigation Measure AIR-1 would reduce construction GHG emissions by limiting construction idling emissions. Construction emissions would not be considered significant.

**Operational Emissions.** Long-term operation of the proposed project would generate GHG emissions from area and mobile sources, and indirect emissions from sources associated with energy consumption. Mobile-source emitters of GHGs would include project-generated vehicle trips associated with residential trips to the project site. Area-source emissions would be associated with activities such as landscaping and maintenance on the project site, and other sources.

The project applicant has proposed to incorporate a number of active and passive green building features into the design of the proposed project that would contribute to an overall reduction in GHG emissions. Materials with high recycled content, such as metal studs and MDF-core trim and doors would be used throughout. Low-impact materials such as engineered flooring and solid surface counter tops would be used in place of slow-growth oak and natural stone.

All roof surfaces would be of a high-albedo membrane to reduce heat island effects. Landscaping would consist of local and low-water demanding species, many of which would be planted in above-grade pots with drip irrigation. No open grass or above-ground irrigation would be installed. The latest water and energy-saving fixtures would be utilized in all bathrooms and kitchens, including Energy Star appliance packages.

Floor-to-ceiling windows, open floor plans and uncovered grill-work “catwalks” (rather than enclosed or covered corridors) would increase the amount of natural light, thus reducing the amount of artificial light needed. Apartments would not have air conditioning and would be heated using high-efficiency wall-mounted convection plate heaters with individual room-by-room control. Natural ventilation through the large low-E windows would increase air circulation and further reduce the need for conditioned air, to the extent feasible. Rather than a central plant with a heating hot water boiler, individual tankless hot water heaters would be installed for each unit thereby reducing energy loss from hot water distribution and circulation.

Following guidance from the BAAQMD, GHG emissions were estimated using CalEEMod. Table 5 shows the calculated GHG emissions for the proposed project. Motor vehicle emissions are the largest source of GHG emissions for the project at approximately 75 percent of the total. Combined energy use is the next largest category at nearly 18 percent of CO$_2$e emissions. Solid waste and water use are about 5 percent of the total emissions. Additional calculation details are available for review at the City of Berkeley. Other area
sources, including landscape equipment, are the remaining source of GHG emissions and would comprise approximately 2 percent of the total emissions for the project.

### Table 5: Project GHG Emissions in Metric Tons Per Year

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<th>Emissions Source</th>
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<td><strong>0.65</strong></td>
<td><strong>0.00</strong></td>
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Notes:
- Column totals may vary slightly due to independent rounding of input data.

Model results indicate the project would generate approximately 736.78 metric tons per year CO₂e. The GHG emissions would not exceed the BAAQMD significance criteria of 1,100 metric tons CO₂e per year. Therefore, the project would not generate greenhouse gas emissions that would have a significant effect on the environment.

b) **Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases? (Less-Than-Significant Impact)**

The California Climate Action Team and the California Air Resources Board (ARB) have developed several reports to achieve the State’s GHG targets that rely on voluntary actions of California businesses, local government and community groups, and State incentive and regulatory programs. These include the CAT’s 2006 “Report to Governor Schwarzenegger and the Legislature,” ARB’s 2007 “Expanded List of Early Action Measures to Reduce Greenhouse Gas Emissions in California,” and ARB’s “Climate Change Scoping Plan: a Framework for Change.” The reports identify strategies to reduce California’s emissions to the levels proposed in Executive Order S-3-05 and AB 32.

The adopted Scoping Plan includes proposed GHG reductions from direct regulations, alternative compliance mechanisms, monetary and non-monetary incentives, voluntary actions, and market-based mechanisms such as cap-and-trade systems.

In addition to reducing GHG emissions to 1990 levels by 2020, AB 32 directed ARB to identify a list of “discrete early action GHG reduction measures” that can be adopted and made enforceable by January 1, 2010. In June 2007, ARB approved a list of 37 early action measures, including three discrete early action measures (Low Carbon Fuel Standard, Restrictions on High Global Warming Potential Refrigerants, and Landfill Methane Capture). Discrete early action measures are measures that are required to be adopted as regulations and made effective no later than January 1, 2010, the date established by Health and Safety Code (HSC) Section 38560.5. The ARB adopted additional early action measures in October 2007 that tripled the number of discrete early action measures.
ARB’s focus in identifying the 44 early action items was to recommend measures that ARB staff concluded were “expected to yield significant GHG emission reductions, are likely to be cost-effective and technologically feasible.” The combination of early action measures is estimated to reduce Statewide GHG emissions by nearly 16 million metric tons (MMT). Accordingly, the 44 early action items focus on industrial production processes, agriculture, and transportation sectors. Early action items associated with industrial production and agriculture do not apply to the proposed project. The transportation sector early action items such as truck efficiency, low carbon fuel standard, proper tire inflation, truck stop electrification and strengthening light duty vehicle standards are either not specifically applicable to the proposed project or would result in a reduction of GHG emissions associated with the project. State measures include emission reductions assumed as part of the Scoping Plan, including light-duty vehicle GHG standards (“Pavley standards”), low carbon fuel standard, and energy efficiency measures. Both the AB 32 Scoping Plan and the City of Berkeley’s Climate Action Plan (CAP) relate to actions that the State and City will take, like proposing new regulations, or actions that the State and City will encourage on a voluntary basis. Thus, the AB 32 Scoping Plan and CAP are not directly applicable to the proposed project and the proposed project would not conflict in any way. Moreover, the project is consistent with and would further the goals of reducing GHG emissions.

The project is an urban in-fill redevelopment project that would replace an office building and develop a new high density residential building. The project is located within walking distance of a variety of uses. For example, The University of California, Berkeley campus, several grocery stores, numerous restaurants, a farmers’ market and other business are located less than one mile from the project site. The project would be required to incorporate green building features consistent with the applicable “Build It Green” checklist features that are anticipated to result in additional reductions in GHG emissions. Additionally, the future residents and site users would have easy access to public transportation. The Bay Area Rapid Transit District (BART) maintains three stations in Berkeley with the closest, the Downtown station, located only six blocks from the proposed project. AC Transit maintains multiple bus stops near the project site with the closest being just one block away. The project would be subject to all applicable permit and planning requirements in place or adopted by the City. Therefore, the proposed project would not conflict with the City of Berkeley CAP.

Additionally, in developing the threshold of significance for GHG emissions, the BAAQMD identified the emissions level for which a project would conflict with existing California legislation adopted to reduce Statewide GHG emissions. As indicated in the analysis presented above, the proposed project would not exceed the project level significance criteria established by the BAAQMD and, therefore, the proposed project would not conflict with plans adopted for the purpose of reducing GHG emissions.
VIII. HAZARDS AND HAZARDOUS MATERIALS. Would the project:

a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?

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b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?

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c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?

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d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?

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e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area?

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f) For a project located within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area?

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g) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?

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h) Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?

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a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials? (Less-Than-Significant Impact)

Development of the project site with residential uses would not involve the routine transport, use, or disposal of significant quantities of hazardous materials. The project would routinely handle and use small quantities of commercially-available hazardous materials, such as household cleaning and landscaping supplies. However, these materials would not be expected to be used in sufficient quantities or contrary to normal use to pose a threat to human health or the environment. Redevelopment of the project site would therefore result in a less-than-significant impact on the public and the environment related to the routine transport, use, and handling of hazardous materials.

b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment? (Potentially Significant Impact)

The existing commercial building on the site currently consists of office space and hazardous materials are not presently used at the site. However, the building was constructed in the late 1940’s and was previously used as an auto showroom and service center prior to the conversion to office uses in approximately 1983 (a subsequent remodel was completed in approximately 2001). It is not known if any of the renovations or conversions occurring since the building’s original construction included the removal of potential asbestos- or lead-containing materials. These hazardous building materials could be present at the site and demolition activities could release these materials into the environment, potentially affecting construction workers or the general public.

In addition, the project site is listed on State hazardous material site lists due to releases of petroleum from two former underground storage tanks (USTs) at the site. The USTs were installed in 1947 and consisted of one 1,000 gallon gasoline tank and a 500-gallon waste oil tank. The USTs were removed in 1984 without any soil or water testing to determine if they had leaked during service.

In 2003, a subsurface investigation21 was conducted to determine whether releases may have occurred from former USTs at the site. Five soil samples and two grab groundwater samples were collected from three locations near the former USTs and fill pipes (B1, B2, and B3). Groundwater concentrations of total petroleum hydrocarbons (TPH) as gasoline (TPH-g) and as diesel (TPH-d) at boring B1 and as motor oil (TPH-mo) at boring B3 were greater than current Regional Water Board environmental screening levels (ESLs) as well as those which were applicable in 2003. No volatile organic compounds (VOCs) were identified above ESLs in the groundwater samples, except for ethylbenzene.22 None of the 5 soil samples contained TPH or VOCs above applicable ESLs.

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22 Current groundwater ESLs for TPH-g, TPH-d, and TPH-mo are 100 µg/L for sites where groundwater is a potential drinking water source, and 210 µg/L for sites where groundwater is not a potential drinking water
Although the groundwater results suggested that contamination was present related to the former USTs, a letter dated October 14, 2003, to the City of Berkeley from Malcolm Pirnie, Inc., requested no further action be required at the site. Part of the rationale for case closure was that the project site and hydraulically downgradient properties to the west-southwest would likely continue to be commercial. The City of Berkeley, in their letter of March 8, 2004, agreed that releases identified in the 2003 subsurface investigation presented low risks to human health and the environment and required no further action at the site. However, the letter indicated that site development or changes in zoning designation could invalidate these findings and trigger additional regulatory oversight.

In 2012, two soil samples and three groundwater samples collected during a geotechnical investigation were analyzed for TPH; benzene, toluene, ethylbenzene, and xylenes (BTEX); and MTBE. The soil samples were also analyzed for total metals. The two soil samples (from depths of 4.5 feet and 9.5 feet below ground surface (bgs) at B4 - near location B1 for the 2003 investigation) did not contain TPH, BTEX, or MTBE above laboratory reporting limits, and metals did not exceed ESLs with the exception of arsenic and vanadium, which were reported to be consistent with concentrations naturally-occurring in Bay Area soils.

Groundwater samples from locations B5, B6, and B7 did not contain TPH, BTEX, or MTBE above laboratory reporting limits. These locations are located north and east of the groundwater sampling locations in the 2003 subsurface investigation. As the 2003 Martin Pirnie letter indicates that groundwater flow is to the west-southwest, these locations would be considered hydraulically upgradient from the former USTs and fill ports and may not be representative of groundwater at and downgradient of the former USTs.

As the proposed project would involve excavation of soil and potential dewatering of groundwater containing contaminants from the vicinity of the former USTs, construction workers would come into direct contact with those soils and groundwater, and the nearby public could be affected by contaminants entrained in water runoff or fugitive dust during construction. Future residents could include sensitive receptors (populations more susceptible to the effects of hazardous materials) who could be affected by residual contamination during the operation of the project. Therefore, this issue will be further evaluated in the EIR.

source. The 2003 ESLs were higher (500, 640, and 640 µg/L, respectively), for sites where groundwater is not a potential drinking water source. Current ESLs for ethylbenzene are 30 µg/L for a potential drinking water source and 40 µg/L for a non-drinking water source. The 2003 ethylbenzene ESLs were higher (300 µg/L) for a non-drinking water source. Therefore, the ethylbenzene result from B1 (100 µg/L) and TPH-mo result from B2 (280 µg/L) did not exceed the 2003 ESL for sites where groundwater is not a potential drinking water source, but do exceed current ESLs.

c) **Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school? (Less-Than-Significant Impact)**

UC Berkeley’s Child Study Center is located less than ¼ mile northeast of the site, at 2425 Atherton Street. The center includes preschool classrooms. As discussed in Section VIII.c, the EIR will evaluate the potential for accidental releases of hazardous materials to occur at the project site. However, the proposed residential project would not routinely emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste. Therefore, potential impacts associated with the proximity of an existing school would be less than significant.

d) **Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment? (Potentially Significant Impact)**

The provisions of Government Code Section 65962.5 require the Department of Toxic Substances Control (DTSC), the State Water Resources Control Board, the California Department of Health Services, and the California Integrated Waste Management Board to submit information pertaining to sites associated with solid waste disposal, hazardous waste disposal, and/or hazardous materials releases to the Secretary of Cal/EPA. Based on a review of regulatory databases, including listed hazardous materials release sites compiled pursuant to Government Code Section 65962.5, the project site is listed as a hazardous materials site due to releases from the former underground storage tanks at the site, discussed above in section VIII.b. Potential impacts related to these releases will be further evaluated in the EIR.

e) **For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area? (No Impact)**

The project site is located approximately 11 miles north of the Oakland International Airport. The project site does not lie within any restrictive area in the Oakland International Master Plan. Therefore, the proposed project would not result a safety hazard to people working or residing in the area due to the proximity of an airport.

f) **For a project located within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area? (No Impact)**

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The proposed project is not within the vicinity of a private airstrip. Therefore, the proposed project would not result in a safety hazard to people working or residing in the area due to the proximity of a private airstrip.  

**g) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan? (No Impact)**

Dwight Way, as well as many of the surface streets surrounding and intersecting this roadway, is a designated Emergency Access and Evacuation Route on the City’s General Plan Hazardous Hill Area, Fire Station Locations, and Evacuation Routes Map (Figure 14). However, the proposed project would not alter the roadway in any way; therefore, it is not expected that the proposed project would impair the ability of Dwight Way to function as an emergency evacuation route. The proposed project would also be consistent with the policies outlined in the General Plan’s Disaster Preparedness and Safety Element and would not obstruct any emergency evacuation routes. Therefore, the proposed project would not impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan.

**h) Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands? (No Impact)**

The project site is in an urban area and is not within or adjacent to a wildland fire hazard area. Therefore, the proposed project would not expose people or structures to a significant loss, injury or death involving wildland fires.

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**IX. HYDROLOGY AND WATER QUALITY.** Would the project:

a) Violate any water quality standards or waste discharge requirements?

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<td>b) Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?</td>
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<td>c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on- or off-site?</td>
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<td>d) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site?</td>
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<td>e) Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?</td>
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<td>f) Otherwise substantially degrade water quality?</td>
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<td>g) Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?</td>
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<td>h) Place within a 100-year flood hazard area structures which would impede or redirect flood flows?</td>
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<td>i) Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding of as a result of the failure of a levee or dam?</td>
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<td>j) Inundation by seiche, tsunami, or mudflow?</td>
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a) Violate any water quality standards or waste discharge requirements? (Potentially Significant Unless Mitigation Incorporated)

The State Water Resources Control Board and nine Regional Water Quality Control Boards regulate water quality of surface water and groundwater bodies throughout California. In the Bay Area, including the project site, the San Francisco Bay Regional Water Quality Control Board (Water Board) is responsible for implementing the Water Quality Control Plan (Basin Plan). The Basin Plan establishes beneficial water uses for waterways and water bodies within the region.

Runoff water quality is regulated by the National Pollutant Discharge Elimination System (NPDES) Program (established through the federal Clean Water Act). The NPDES program objective is to control and reduce pollutant discharges to surface water bodies. Compliance with NPDES permits is mandated by State and federal statutes and regulations. Locally, the NPDES Program is administered by the Water Board. According to the water quality control plans of the Water Board, any construction activities, including grading, that would result in the disturbance of one acre or more would require compliance with the General Permit for Storm Water Discharges Associated with Construction and Land Disturbance Activity (Construction General Permit). The project site is 0.62-acre (27,000 square feet) in size and is therefore not subject to these requirements. However, the Water Board may, at its discretion, require compliance with the Construction General Permit for projects disturbing less than one acre that may potentially adversely affect sensitive surface water bodies.

Operation of the project would be subject to the Water Board’s Municipal Regional Permit (MRP), implemented in October 2009 by Order R2-2009-0074. Provision C.3 of the MRP addresses new development and redevelopment projects. As project construction would replace more than 10,000 square feet and more than 50 percent of the existing impervious surface at the site, the entire project site, consisting of all existing, new, and/or replaced impervious surfaces, must be included in the treatment system design (i.e., stormwater treatment systems must be designed and sized to treat stormwater runoff from the entire redevelopment project). A Stormwater Control Plan (SCP) must be prepared and submitted for the project site detailing design elements and implementation measures to meet MRP requirements. The project will be required to include Low Impact Development (LID) design measures and a Stormwater Facility Operation and Maintenance Plan must be prepared to ensure that stormwater control measures are inspected, maintained, and funded for the life of the project.

In Berkeley, the Alameda Countywide Clean Water Program (ACCWP), a consortium of local municipalities and County agencies, facilitates local compliance with federal, State, and Water Board requirements.

Development of the project would increase pervious surfaces on the site. The project site is currently almost completely covered with impervious surfaces (roofs, paving and sidewalks) with the exception of approximately 400 square feet of permeable landscaped areas. Development of the project would result in approximately 11,900 square feet of open space areas which would include permeable paving and landscaping. However, the majority of open space (approximately 9,900 square feet) would be located over the sub-surface
parking garage and would therefore have limited stormwater detention and infiltration capacity. Still, the amount of permeable landscaping on the project site would increase from 400 to 2,000 square feet. As with the current conditions, any excess runoff would be treated in accordance with the ACCWP before flowing to the City's storm drain system.

The existing surface parking lot at the project site would be removed and on-site parking would be provided in the sub-surface garage. Operation and parking of vehicles have the potential to introduce motor oil, metals, and sediment to stormwater runoff. New landscaping in the courtyard and other areas of the project site would generally be expected to improve runoff quality, as long as that landscaping is maintained properly and eroded soils and horticultural chemicals are not allowed to become entrained in the stormwater.

Construction activities associated with the proposed project would cause disturbance of soil during excavation work, which could adversely impact water quality. Contaminants from construction vehicles and equipment and sediment from soil erosion could increase the pollutant load in runoff being transported to receiving waters during development. Although surface runoff from the site would likely decrease with the proposed project (due to the proposed decrease in impervious cover), runoff from the proposed landscaped areas may contain residual pesticides and nutrients (associated with landscaping) and sediment and trace metals (associated with atmospheric deposition) during operation of the project. Operation of the proposed project could incrementally contribute to the long-term degradation of runoff water quality and as a result, adversely affect water quality in the receiving waters and San Francisco Bay. The proposed project would be considered a "regulated project" under the MRP, indicating that the State Water Resources Control Board has determined the size and nature of the project has the potential to discharge a significant pollutant load to stormwater runoff and receiving waters. Therefore, the potential discharges associated with the proposed project are considered to be a potentially significant impact.

In addition, the sub-surface parking garage is expected to be excavated to a maximum depth of 12 feet bgs (16 feet at the elevator pit). The depth of groundwater at the site is between 12 and 15 feet bgs. According to the Geotechnical Investigation prepared for the project, some dewatering may be required during the construction period. Dewatering is a common practice in which water is pumped to the surface and then discharged. The project applicant would be required to obtain the necessary permits from the City of Berkeley and the Water Board for discharge of groundwater generated by construction dewatering into the storm drain system and from EBMUD for discharge into the sewer system. Water extracted during dewatering may contain contaminants or may become sediment-laden from construction activities. If water containing sediment or contaminants is discharged directly to the storm or sanitary sewer systems, it could ultimately contribute to the degradation of surface waters.

Implementation of the following two mitigation measures would ensure that the proposed project complies with the Water Board's water quality standards by reducing the potential construction- and operation-period impacts to water quality. Therefore, this impact would be less than significant.
Mitigation Measure HYD-1: Prior to construction, the project applicant shall prepare and implement a SWPPP, meeting Construction General Permit requirements (State Water Resources Control Board Order No. 2009-000—DWQ, as amended) designed to reduce potential adverse impacts to surface water quality through the project construction period. The SWPPP shall be submitted to the City for review and approval prior to the issuance of any permits for ground disturbing activities.

The SWPPP shall be prepared by a Qualified SWPPP Developer in accordance with the requirements of the Construction General Permit. These include: BMPs for erosion and sediment control, site management/housekeeping/waste management, management of non-stormwater discharges, run-on and runoff controls, and BMP inspection/maintenance/repair activities. BMP implementation shall be consistent with the BMP requirements in the most recent version of the California Stormwater Quality Association Stormwater Best Management Handbook-Construction.

The SWPPP shall include a construction site monitoring program that identifies requirements for dry weather visual observations of pollutants at all discharge locations, and as appropriate (depending on the Risk Level), sampling of the site effluent and receiving waters. A Qualified SWPPP Practitioner shall be responsible for implementing the BMPs at the site and performing all required monitoring and inspection/maintenance/repair activities.

Mitigation Measure HYD-2: The project applicant shall fully comply with the Water Board stormwater permit requirements, including Provision C.3 of the MRP. The project applicant shall prepare and implement a SCP for the project. The SCP shall be submitted to the city for review and approval prior to the issuance of any permits for ground disturbing activities. The SCP would act as the overall program document designed to provide measures to mitigate potential water quality impacts associated with the operation of the proposed project. At a minimum, the SCP for the project shall include:

1. An inventory and accounting of existing and proposed impervious areas.
2. Low Impact Development (LID) design details incorporated into the project. Specific LID design may include, but is not limited to: using pervious pavements and green roofs, dispersing runoff to landscaped areas, and/or routing runoff to rain gardens, cisterns, swales, and other small-scale facilities distributed throughout the site.
3. Measures to address potential stormwater contaminants. These may include measures to cover or control potential sources of stormwater pollutants at the project site.
4. A Draft Stormwater Facility Operation and Maintenance Plan for the project site, which will include periodic inspection and maintenance of the storm drainage system. Persons responsible for performing and funding the requirements of this plan shall be identified. This plan must be finalized prior to issuance of building permits for the project.
b) Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?  (Less-Than-Significant Impact)

The proposed project would connect to the East Bay Municipal Utility District (EBMUD) water system and would not use groundwater at the site. Although no use of groundwater is proposed for the proposed project, some dewatering may be required during construction activities. Any dewatering activity would be expected to be temporary and affect only the uppermost water-bearing zone, not the deeper regional aquifer. Therefore, the proposed project would not deplete groundwater supplies or interfere substantially with groundwater recharge. The proposed project includes the creation of new green spaces and permeable pavements as part of the proposed landscaping plan, which would contribute to an increase in groundwater recharge at the site.

c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on- or off-site?  (Less-Than-Significant Impact)

The proposed project would not alter the course of a stream or a river. The project site is in an urban area and redevelopment of the site would result in only minor alterations to the drainage pattern. Furthermore, compliance with construction- and operation-phase stormwater requirements (Mitigation Measures HYD-1 and HYD-2) would further ensure that development of the project would not result in substantial erosion or siltation on- or off-site.

d) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site?  (Less-Than-Significant Impact)

The proposed project is currently developed with an existing structure and paved areas. No alteration of a stream or river is proposed. The proposed project would result in a decrease in the extent of impervious surfaces (see discussion under Section IX.a, above) and would therefore not be expected to substantially alter the rate or amount of surface runoff on the site such that on- or off-site flooding would occur. Implementation of Mitigation Measure HYD-2 would further reduce the rate and amount of surface runoff.

e) Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?  (Potentially Significant Unless Mitigation Incorporated)

The proposed project would decrease impervious surfaces on the site due to the creation of landscaped areas and permeable pavements, which should reduce stormwater volume but could change localized drainage flows. Runoff quality during construction and from landscaped areas during the operational phase of the project could contain pollutants (see discussion above under Section IX.a). As previously described, the State Water Resources
Control Board has determined the size and nature of the project has the potential to discharge a significant pollutant load to stormwater runoff and receiving waters. Therefore, the potential discharges associated with the proposed project are considered to be a potentially significant impact. However, implementation of a required SWPPP (Mitigation Measure HYD-1) and an SCP (Mitigation Measure HYD-2) would reduce potential pollutants and result in lower flows to the stormwater sewer system than under current conditions. No additional mitigation measures are required.

f) Otherwise substantially degrade water quality? **(Less-Than-Significant Impact)**

Operation of the proposed project would not result in any substantial changes to on-site water quality, with the exception of potential impacts associated with stormwater runoff described above. Implementation of Mitigation Measures HYD-1 and HYD-2 would reduce potential impacts to water quality to a less-than-significant level.

g) Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map? **(No Impact)**

The project site is not located within a 100-year flood hazard area as mapped by the Federal Emergency Management Agency (FEMA). Therefore, no housing would be placed within a 100-year flood zone.

h) Place within a 100-year flood hazard area structures which would impede or redirect flood flows? **(No Impact)**

Please refer to Section IX.g. The project site is not located within the 100-year flood zone and redevelopment of the site would not impede or redirect potential flood flows.

i) Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding of as a result of the failure of a levee or dam? **(Less-Than-Significant Impact)**

Please refer to Section IX.g. In addition, the project site is not located within the potential inundation zones for the Summit or Bergman Reservoirs, the nearest bodies of water likely to inundate areas of the City of Berkeley in the event of the failure of a levee or dam. Therefore, the proposed project would not pose a significant risk to people or structures as a result of levee or dam failure.

j) Inundation by seiche, tsunami, or mudflow? **(No Impact)**

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28 Berkeley, City of, 2002, op. cit. Figure 16: Reservoir Inundation Hazards.
The project site is not located within a tsunami prone area. The project site and nearby properties are relatively level in elevation and not located near slopes that would be subject to mudflows. As no lakes or other surface water bodies are located in the project site vicinity, there is no potential for impacts from a seismically-induced seiche. Therefore, the proposed project would not be subject to inundation due to seiche, tsunami, or mudflows.

X. LAND USE AND PLANNING. Would the project:

a) Physically divide an established community?  

b) Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?

b) Conflict with any applicable habitat conservation plan or natural community conservation plan?

a) Physically divide an established community? (Less-Than-Significant Impact)

The physical division of an established community typically refers to the construction of a physical feature (such as an interstate highway or railroad tracks) or removal of a means of access (such as a local road or bridge) that would impair mobility within an existing community, or between a community and outlying areas. For instance, the construction of an interstate highway through an existing community may constrain travel from one side of the community to another; similarly, such construction may also impair travel to areas outside of the community.

The project site is located in the Southside area of the City of Berkeley, occupying the southwest corner of a block surrounded by Haste Street on the north, Ellsworth Street on the east, Dwight Way on the south, and Fulton Street on the west. The site is immediately bordered to the north by three-story multi-family and two-story single-family residential buildings oriented towards Haste Street and to the east by two- and three-story multi-family residential buildings oriented towards Dwight Way. Dwight Way and Fulton Street immediately border the site to the south and west, respectively.

29 Berkeley, City of, 2002, op. cit. Figure 15: Flood and Tsunami Prone Areas.

30 A seiche is a standing wave observed in an enclosed or partially enclosed water body.
The existing commercial building and associated surface parking lot on the site would be removed and replaced with an 81 student-oriented rental apartment units in a five-story building over a 49-stall sub-surface parking garage. The building would be divided into 18 distinct volumes intended to resemble separate buildings. Approximately 4,214 square feet of separate common courtyards would be provided on the ground level and common roof decks would consist of 1,920 square feet of space on the third level and 2,580 square feet of space on the fourth level. These five roof decks would be located within the interior of the site. Pedestrian access to the proposed apartments and common areas would be provided by a secured entrance on Fulton Street and the main entrance on Dwight Way. Internal pathways would provide access to building entrances and external stairwells for each building volume. An elevator would provide access from the sub-surface garage level to all levels of the building.

Redevelopment of the project site would represent a general continuation of multi-family residential uses within the project vicinity and would be consistent with the residential zoning and General Plan designations for the site (see more detailed discussion in Section X.b, below). The addition of 81 residential units would be consistent with the type and intensity of other residential development in the area, particularly the taller four- to six-story apartment buildings located in the immediate vicinity. In addition, the configuration of the existing city block that the site occupies would not be altered. Ingress and egress to the site would be via existing surrounding roadways and sidewalks which already provide access to the site. Internal pedestrian circulation would be via several pathways and stairwells, which would connect each of the distinct building volumes and common areas. Therefore, the proposed project would not result in the physical division of an established community or adversely affect the continuity of land uses in the vicinity.

b) Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect? (Less-Than-Significant Impact)

The project site is designated High Density Residential in the City’s General Plan Land Use Diagram and is within the Residential High Density Subarea of the Southside Plan’s Land Use Planning Area. The site is within the Residential Southside District (R-S) District of the City’s Zoning Ordinance.

Following is an evaluation of the project’s consistency with applicable goals and policies of the City’s General Plan, Southside Plan and Zoning Ordinance. Where applicable, objectives are listed first in bold, followed by the applicable policies in italics. An evaluation of the project’s general consistency with each policy is then provided. It should however be noted that, according to CEQA, policy conflicts do not, in and of themselves, constitute a significant environmental impact. Policy conflicts are considered to be environmental impacts only when they would result in direct physical impacts or where those conflicts relate to avoiding or mitigating environmental impacts. Any such associated physical environmental impacts are discussed in this Initial Study under specific topical sections or will be discussed in the appropriate sections of the EIR.
The proposed project would generally be consistent with the goals and policies of the General Plan, Southside Plan, and the City's Zoning Ordinance, as described below.

**General Plan.** The Berkeley General Plan is a comprehensive, long-range, and internally consistent statement of policies for the development and preservation of Berkeley. The General Plan identifies seven major goals: 1) Preserve Berkeley’s unique character and quality of life; 2) Ensure that Berkeley has an adequate supply of decent housing, living-wage jobs, and businesses providing basic goods and services; 3) Protect local and regional environmental quality; 4) Maximize and improve citizen participation in municipal decision-making; 5) Create a sustainable Berkeley; 6) Make Berkeley a disaster-resistant community that can survive, recover from, and thrive after a disaster; and 8) Maintain Berkeley’s infrastructure, including streets, sidewalks, buildings, and facilities; storm drains and sanitary sewers; and open space, parks, pathways, and recreation facilities. The Plan’s goals are implemented through decisions and actions consistent with the objectives, policies, and actions of each of the nine Elements.

The project site is designated High Density Residential in the General Plan Land Use Diagram. In Berkeley, these areas are generally characterized by large, multi-family structures conveniently located near transit, the Downtown, the University campus, or BART. Appropriate uses for these areas include: residential, community service, schools, institutional, recreational uses, open space, and in some cases where allowed by zoning, ground-floor commercial and office. According to the General Plan Land Use Element, building intensity in the High Density Residential area will generally range from 40 to 100 dwelling units per net acre, and the population density will generally range from 88 to 220 persons per net acre.

The project site consists of an approximately 0.62-acre site and would be developed with 81 new dwelling units, with a residential population of 266. The proposed density of 266 persons for the 0.62-acre site (429 persons per acre if applied solely to the project site) would not exceed the applicable density standard of 220 persons per acre, because the General Plan states that its density standards are for general planning purposes and are intended to be applied over a larger area, not parcel-by-parcel. Within the areas designated High Density Residential and bounded by Durant Avenue on the north, Telegraph Avenue on the east, Dwight Way on the south, and Shattuck Avenue on the west, the project would increase the number of dwellings per acre from about 42 to 47, and the number of persons per acre from about 93 to 109. Therefore, the project would be consistent with the applicable General Plan density standard.

Applicable policies of the General Plan are listed below, in addition to description of the project’s relationship to each policy.

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31 Although the proposed density of 266 persons for the 0.62-acre site (429 persons per acre) slightly exceeds the applicable General Plan density standard of 220 persons per acre if this standard were applied on a parcel-by-parcel basis, the General Plan states that its density standards are for general planning purposes and are intended to be applied over a larger area, not parcel-by-parcel.
**Policy LU-1 Community Character.** Maintain the character of Berkeley as a special, diverse, unique place to live and work.

**Policy LU-2 Preservation.** Protect Berkeley’s character by identifying, restoring, and preserving historic buildings.

**Policy LU-3 Infill Development.** Encourage infill development that is architecturally and environmentally sensitive, embodies principles of sustainable planning and construction, and is compatible with neighboring land uses and architectural design and scale.

**Policy UD-3 Regulation of Neighborhood Character.** Use regulations to protect the character of neighborhoods and districts, and respect the particular conditions of each area.

**Policy UD-16 Context.** The design and scale of new or remodeled buildings should respect the built environment in the area, particularly where the character of the built environment is largely defined by an aggregation of historically and architecturally significant buildings.

**Policy UD-22 Regulating New Construction and Alterations.** Regulate new construction and alterations to ensure that they are individually well-designed and that they are so designed and located as to duly respect and where possible enhance the existing built environment.

**Policy UD-23 Design Review.** Ensure that the design review process ensures excellence in design and that new construction and alterations to existing buildings are compatible with the best elements of the character of the area.

**Policy UD-24 Area Character.** Regulate new construction and alterations to ensure that they are truly compatible with and, where feasible, reinforce the desirable design characteristics of the particular area they are in.

The proposed project would redevelop an existing commercial infill site with residential uses. The architecture and design of the proposed project and potential for the project to adversely affect nearby historic resources will be evaluated in the EIR, to the extent that physical environmental impacts could result if the project does not comply with applicable policies. However, overall, the proposed project would be developed using sustainable construction techniques and would be consistent with the density and intensity of existing multi-family uses that surround the site and the overall character of the City and the Southside area. Therefore, the proposed project is not anticipated to be substantially inconsistent with General Plan Policies LU-1, LU-2, LU-3, UD-3, UD-16, UD-22, UD-23, and UD-24.

**Policy LU-23 Transit-Oriented Development.** Encourage and maintain zoning that allows greater commercial and residential density and reduced residential parking requirements in areas with above-average transit service such as Downtown Berkeley.

**Policy LU-25 Affordable Housing Development.** Encourage development of affordable housing in the Downtown Plan area, the Southside Plan area, and other transit-oriented locations.

**Policy LU-37 University Housing.** Encourage the University to maximize the supply of housing for students, faculty, and staff to minimize the impacts of the University on the citywide supply of housing.
Policy H-1 Extremely Low, Very Low, Low and Moderate Income Housing. Increase the number of housing units affordable to Berkeley residents with lower income levels.

Policy H-4 Economic Diversity. Encourage inclusion of households with a range of incomes in housing developments through both regulatory requirements and incentives.

Policy H-12 Transit-Oriented New Construction. Encourage construction of new medium- and high-density housing on major transit corridors and in proximity to transit stations consistent with zoning, applicable area plans, design review guidelines, and the Climate Action Plan.

The proposed project would consist of 73 market-rate units and 8 very-low income units within the Southside Plan area. These units would be marketed primarily to UC Berkeley students and, due to the site’s location near the campus and design of residential floor plans, are most likely to be occupied primarily by students. Therefore, the project would provide additional student housing within the City, thereby reducing demands on the citywide supply of housing.32

Additionally, the future residents and site users would have easy access to public transportation. The Bay Area Rapid Transit District (BART) maintains three stations in Berkeley with the closest, the Downtown station, located about six blocks from the proposed project. AC Transit maintains multiple bus stops near the project site with the closest being one block away. Major commercial shopping corridors along Shattuck Avenue and Telegraph Avenue are located within walking distance. The proposed project would also provide fewer vehicle parking spaces than typically required for multi-family developments and will provide 55 bicycle parking spaces, thereby encouraging use of alternative transportation options. Therefore, the proposed project supports General Plan Policies LU-23, LU-25, LU-37, H-1, H-4, and H-12.

Policy UD-26 Pedestrian-Friendly Design. Architecture and site design should give special emphasis to enjoyment by, and convenience and safety for, pedestrians.

Policy UD-27 Relation to Sidewalk. Projects generally should be designed to orient the main entrance toward the public sidewalk, not a parking lot, and avoid confronting the sidewalk with a large windowless wall or tall solid fence.

The proposed project would redevelop the existing one-story commercial building and surface parking lot with a new high density residential building. Pedestrian access to and through the site would be provided via secured access on Dwight Way and Fulton Street and internal circulation would be facilitated by pedestrian pathways and interconnected stairwells. The main building entrance would be oriented towards the sidewalk on Dwight Way and would not be obstructed by any fencing. Surface parking serving the site would be relocated underground. Therefore, the proposed project would support General Plan Policies UD-26 and UD-27.

32 Very-low income (VLI) units must be occupied by qualifying households earning incomes less than 50 percent of area median income. Students, particularly undergraduates, generally do not meet these requirements as they have not established financial independence. The project applicant is aware of this and intends to rent the VLI units to qualifying households, whether students or not.
Policy UD-30 Planting. Ensure that, where feasible, new developments respect and contribute to the urban landscape by retaining existing on-site trees and/or, if appropriate, planting suitable new ones on-site or in the street right-of-way.

There are no existing trees on the project site, and the proposed project would replace all of the five existing street trees that surround the site. In addition, approximately 50 new trees would be planted on-site. Therefore, the proposed project would support General Plan Policy UD-30.


Policy UD-33 Sustainable Design. Promote environmentally sensitive and sustainable design in new buildings.

As described in Section VII, the proposed project includes several sustainable design elements including: modular construction, use of recycled and low-impact building materials, and implementation of water and energy conservation measures. In addition, the project site is located in an area with close proximity to goods and services and transit. Therefore, the proposed project would support General Plan Policies EM-5 and UD-33.

Policy UD-32 Shadows. New buildings should be designed to minimize impacts on solar access and minimize detrimental shadows.

As described in detail in Section I.d, although the project would cast new shadows onto adjacent structures and sidewalks, the project has been designed to incorporate opportunities for access to on-site solar access while also limiting the overall bulk and mass of the new building. The project has been designed to limit impacts on solar access and limit detrimental shadows, to the extent feasible. Therefore, the proposed project would not be substantially inconsistent with the intent of General Plan Policy UD-32.

Southside Plan. The Southside Plan seeks to accomplish the goals of the City’s General Plan by providing a more detailed policy framework for the Southside area of Berkeley. The Southside Plan is intended to guide the development of the Southside area of Berkeley until at least the year 2020. It sets forth the City’s key land use, housing, transportation, economic development, community character, and public safety policies for managing change in the Southside.

The Southside planning area is generally defined as the area bounded by Dwight Way on the south, Bancroft Way on the north, Prospect Street on the east, and Fulton Street on the west. The project site is located near the southwest edge of the planning area and is located within the Plan’s Residential High Density Subarea. This subarea is located close to the UC Berkeley campus and Telegraph Avenue and is generally characterized by existing higher density housing and dormitories. A major purpose of the Residential High Density Subarea is to encourage the development of new housing that serves a variety of housing needs, is compatible with the height and bulk of existing buildings, and complements the existing architectural character of this subarea.
Applicable objectives and policies of the Southside Plan are listed below, in addition to description of the project’s relationship to each policy. Each applicable objective is listed first in bold, followed by the applicable policies in italics.

**Objective LU-A:** Increase the amount of housing and housing types in the Southside for UC students, faculty and staff, year-round residents, and employees of Southside businesses, by encouraging new housing, encouraging preservation and maintenance of existing housing, and discouraging loss of existing housing to non-residential uses.

**Policy LU-A1:** Provide incentives to encourage development of a variety of different housing types that are affordable to students, University employees, and employees of Southside businesses.

The proposed project would redevelop the existing site with high density residential uses, including 81 units marketed primarily to UC Berkeley students. The proposed project would contribute to the planned increase in the Southside area’s housing stock. Therefore, the proposed project supports Objective LU-A and Policy LU-A of the Southside Plan.

**Objective LU-C:** Encourage development consistent with the objectives of the Southside Plan on suitable underutilized sites in the Southside.

**Policy LU-C1:** Suitable sites that are the highest priority for redevelopment and reuse in the Southside, in order of priority, include:

- Vacant properties;
- Surface parking lots and single-level parking garages on Bancroft, Durant, and Telegraph Avenue;
- Underutilized lots with single-story structures that are not historically significant resources on Bancroft, Durant, and Telegraph;
- Surface parking lots and single-level parking garages on all other streets; and
- Underutilized lots with single-story structures that are not historically significant resources on all other streets.

The project site is considered to be an “opportunity site” as defined in the Southside Plan because it consists of an underutilized single-story structure that is not known to be a historically significant resource (though this condition will be further evaluated in the EIR). Although the existing commercial building is currently fully occupied, there have been frequent times in the past when the building has had long periods of vacancies. The proposed project would redevelop the site with residential uses, which is consistent with the Southside Plan’s vision for the site; therefore, the proposed project supports Objective LU-C and Policy LU-C1 of the Southside Plan.

**Policies for the Residential Subareas**

**Policy LU-F1:** Housing is the recommended land use in the Residential Subareas and is the preferred land use for all opportunity sites in these subareas.

The proposed project would redevelop the underutilized “opportunity site” (see discussion under Objective LU-C) with residential uses, which is consistent with the Southside Plan’s Residential High Density designation for the site. Therefore, the proposed project supports Southside Plan Policy LU-F1.
Policy LU-F2: A variety of building types are recommended, including houses, condominiums, townhouses, apartment buildings, group living facilities, and loft-style housing that would serve a variety of populations including students, families, UC staff and faculty, and others who desire to live in this vibrant, easily accessible neighborhood.

The proposed project would redevelop the existing commercially-developed site with a residential apartment building complex that would be designed for and marketed primarily to UC Berkeley students. The apartment floor plans, with central common living and kitchen space, and building layouts, with common ground level open space and rooftop deck areas, are all designed to be particularly attractive to students. In addition, the site is located approximately four blocks from the UC Berkeley campus and within walking distance of commercial shopping areas. Therefore, the proposed project supports Southside Plan Policy LU-F2.

Policy LU-F4: Encourage new residential development in the R-S Residential High Density Subarea.

The proposed project would provide new residential dwelling units within the Residential High Density Subarea. Therefore, the proposed project supports Southside Plan Policy LU-F4.

Objective CC-F: Enhance the urban streetscape, landscaping, and open space in the Southside.

Policy CC-F8: Take into account shading impacts on adjacent structures and sidewalks in reviews of building design in an effort to allow as much natural light as possible.

Although the project would cast new shadows onto adjacent structures and sidewalks, the project has been designed to incorporate opportunities for on-site solar access while also limiting the overall bulk and mass of the new building and resulting off-site shading. The applicant prepared a shadow study which depicts the net new shadows cast by the project. The length of these shadows would vary throughout the day and year, with the most extensive shadow coverage occurring during the morning hours throughout the year, and the afternoon hours during the winter and summer. The design of the building as 18 separate and distinct volumes seeks to limit these effects by allowing natural light to reach adjacent properties and sidewalks through the gaps between these volumes. In addition, the building is set back from the adjacent properties to the north and east by 10 feet, which further preserves the amount of natural light reaching these properties. Therefore, the proposed project would not be inconsistent with Objective CC-F and Policy LU-F8 of the Southside Plan.

Zoning Ordinance. The project site is located within the Residential Southside District (R-S) zoning district. Among other things, the primary purposes of the R-S District are to: implement General Plan and Southside Plan policy by encouraging relatively high and moderate density, multi-story residential development close to major shopping, transportation and employment centers; permit the construction of residential structures, such as apartments, which will provide housing opportunities for transient or seasonal residents; encourage the construction of new housing on vacant properties and surface parking lots; encourage the redevelopment of single-story structures that are not historically significant resources with more dense housing development; an protect and enhance historically and
architecturally significant buildings by ensuring that new development complements their existing architectural character. Building heights of up to 45 feet are allowed subject to a Use Permit and lot coverage for corner lots of up to 4 stories may not exceed 60 percent. The project applicant is requesting the following permits, pursuant to the Berkeley Municipal Code (BMC):

- Use Permit for establishment of multi-family dwelling units in the R-S District (BMC Section 23D.48.030);
- Use Permit for demolition of the existing commercial building (BMC Section 23C.08.050.A); and
- Administrative Use Permit for installation of elevator mechanical equipment reaching 54 feet in height and protruding beyond the height of the roofline (BMC Section 23D.04.020.C).

The proposed project includes affordable housing units and is therefore entitled to a density bonus under Government Code Section 65915. In order to accommodate the required 21-unit density bonus on the site, the project applicant is requesting the following waivers/modifications under Government Code Section 65915(e):

- Increase in maximum building height from three stories (35 feet) to four stories (45 feet) (BMC Section 23D.48.070.C.2);
- Reduction of front setback requirement from 10 feet to 0 feet (BMC Section 23D.48.070.E);
- Reduction of street side setback requirement from 6, 8, or 10 feet (depending on story) to 0 feet (not otherwise allowed under BMC); and
- Reduction of rear yard setback requirement from 10 or 17 feet (depending on story) to 10 feet (not otherwise allowed under BMC).

In addition to the various permits and waivers/modifications requested above, the applicant is requesting two additional concessions pursuant to Density Bonus Law. The first concession would allow two dwelling units that would otherwise be located on the ground floor of the base project to be located on the fifth floor, thereby expanding the building envelope by approximately 1,500 square feet. The purpose of this concession is to allow the 1,500-square-foot indoor common area on the first floor of the building without reducing the total number of dwelling units in the project. The second concession would allow a reduction in vehicle parking requirements from 70 spaces to 49 spaces, primarily to avoid the need for additional excavation and construction of a second below-grade garage level.

According to Government Code Section 65915(f)(5) the granting of additional permits to allow a required density bonus and concessions is not considered to be in conflict with the General Plan and Zoning Ordinance. Furthermore, the Zoning Ordinance contains many developments standards which may be modified with a Use Permit upon a finding that the requested modification is not detrimental. Such modifications are typically requested as part of similar development projects and are not considered to be in conflict with the Zoning Ordinance. The City’s Zoning Adjustments Board would consider granting the Use Permits,
waivers/modifications, and incentives/concessions as it reviews the proposed project. Therefore, the proposed project would be consistent with the City's Zoning Ordinance.

c) **Conflict with any applicable habitat conservation plan or natural community conservation plan? (No Impact)**

Please refer to Section IV.f. The proposed project would not conflict with any applicable habitat conservation plan or natural community conservation plans.

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<th>XI. MINERAL RESOURCES. Would the project:</th>
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<td>b) Result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?</td>
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**a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the State? (No Impact)**

The proposed project is located within an urban area on a developed site. There are no known mineral resources within or in the vicinity of the project site. The proposed project would not result in the loss of availability of a known mineral resource of value to the region or residents of the State.

**b) Result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan? (No Impact)**

Please refer to Section XI.a. The proposed project would not result in the loss of availability of any known locally-important mineral resource recovery site.

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XII. NOISE. Would the project result in:

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a) Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies? *(Potentially Significant Unless Mitigation Incorporated)*

The City of Berkeley addresses noise levels in the General Plan and Municipal Code. The standards within the City of Berkeley’s General Plan Environmental Management Element noise section determine the acceptable noise environment for proposed land uses. For multi-family residential uses, the guidelines indicate that an exterior noise environment with ambient noise levels between 60 dBA and 70 dBA L_{eq} is considered “conditionally acceptable” for new development (meaning that development may be permitted only after detailed analysis of the noise environment and project characteristics to determine whether
noise insulation or protection features would be required). The City of Berkeley Municipal Code\textsuperscript{34} establishes exterior noise level standards for residential, commercial, and industrial land uses. Noise sources that are an exception to the standards are noise sources for the purpose of emergency notification, warning devices, and train horns. The noise ordinance also specifies that construction activities are to be limited to the hours of 7:00 a.m. to 7:00 p.m. on Monday through Friday and 9:00 a.m. to 8:00 p.m. on weekends or holidays if such noise levels would exceed the City’s noise performance standards.

**Construction Noise Impacts.** The proposed project would demolish the existing building and surface parking lot on the site. Construction debris, such as old foundations, pavements, utilities, and structures, would be collected and off-hauled. The construction period would include approximately 3 months of excavation for the sub-surface parking garage and construction of the podium deck on which the modular building would be assembled. Excavation of the sub-surface parking garage would occur at a maximum depth of 12 feet (16 feet at the elevator pit). The modular building would be constructed off-site and installation would occur over a 6 month period. The construction period is expected to begin in October 2013 and would occur over a 9-month period. Occupancy of the units could occur as early as July 2014.

Demolition, site preparation, and construction would require the use of heavy construction equipment including bulldozers, scrapers, loaders, excavators, cranes, and trucks. Pile driving is not proposed as part of the project. Demolition and site preparation phases are typically the loudest phases of construction due to the types of equipment used. Assuming each piece of construction equipment operates at some distance apart from the other equipment, the worst-case combined noise level during these two phases of construction would be 91 dBA $L_{\text{max}}$ at a distance of 50 feet from an active construction area.

The project site is located in downtown Berkeley and is bordered by multi-family residential and commercial land uses. At the closest point, proposed construction activities would occur within 10 feet of residential uses immediately bordering the site. At this distance, construction noise levels at the exterior facade of these buildings would be expected to range up to 105 dBA $L_{\text{max}}$ if multiple pieces of equipment operated simultaneously near the project border adjacent these properties.

This noise level substantially exceeds the City’s construction noise standard for receiving land uses for long-term (longer than 10 days) construction operations. The City’s noise ordinance standards require that, “where technically and economically feasible,”\textsuperscript{35} daytime (7:00 a.m. to 7:00 p.m.) noise levels from long-term (more than 10 days) construction activities should not exceed 65 dBA $L_{\text{max}}$ as measured at receiving multi-family residential land uses and should not exceed 70 dBA $L_{\text{max}}$ as measured at receiving commercial land uses. Based on Section 13.40.070.B(7)(b) of the Municipal Code, where noise levels have been mitigated to the extent technically and economically feasible (after balancing certain

\textsuperscript{34} Berkeley, City of, Municipal Code Section 13.40.

factors such the number of decibels and the amount of time the noise has exceeded the allowed limit, the number of persons affected, and the cost of reducing the decibels or amount of time to come into compliance with the code), the noise level is deemed to be in compliance with the City’s noise ordinance.

It would not be technically or economically feasible to reduce potential construction-related noise levels (which could range up to 105 dBA \( L_{\text{max}} \) at the closest off-site sensitive receptors) to meet the noise level standards (65 dBA \( L_{\text{max}} \) as measured at receiving multi-family residential land uses) as measured at the closest noise sensitive land uses.

As described in the Berkeley Southside Plan EIR,\(^{36}\) the City of Berkeley requires each development project to adhere to a standard set of conditions of approval (COA’s) to mitigate potential noise impacts that could result from construction activities. Implementation of these standard conditions of approval are contingent upon various factors, including the size and type of development proposed and the surrounding land uses that could be potentially affected. The implementation of the City’s standard conditions of approval in addition to any project-specific conditions would reduce potential impacts associated with construction-related noise to a less-than-significant level. Therefore, all technically and economically feasible noise reduction standard conditions of approval shall be included in the project to reduce construction noise impacts to the maximum extent feasible, as required by the Municipal Code. Such conditions shall include restrictions on the hours of construction in order to minimize sleep disturbance. The following multi-part mitigation measure includes standard and project-specific conditions of approval to be incorporated into the proposed project and, implementation of these measures would ensure that construction noise levels would be mitigated to the extent technically and economically feasible. Therefore, this impact would be less than significant.

**Mitigation Measure NOISE-1:** Prior to the issuance of building permits, the applicant shall develop a noise reduction program prepared by a qualified acoustical consultant to reduce construction noise impacts to the maximum extent feasible, subject to review and approval of the Zoning Officer. The noise reduction program shall include appropriate time limits for construction (from 7:00 a.m. to 7:00 p.m. weekdays and from 9:00 a.m. to 8:00 p.m. on weekends or holidays, unless more restrictive hours are required by the Zoning Adjustments Board) as well as technically and economically feasible controls to reduce construction noise levels to the maximum extent feasible. The noise reduction program should include, but shall not be limited to, the following available controls:

a. Construction equipment should be well maintained and used judiciously to be as quiet as practical. Equipment and trucks used for project construction shall utilize the best available noise control techniques (e.g., improved mufflers, equipment redesign, use of intake silencers, ducts, engine enclosures, and acoustically attenuating shields or shrouds), wherever feasible;

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b. Utilize “quiet” models of air compressors and other stationary noise sources where such technology exists. Select hydraulically- or electrically-powered equipment and avoid pneumatically powered equipment where feasible. Impact tools (e.g., jack hammers, pavement breakers, and rock drills) used for project demolition or construction shall be hydraulically or electrically powered wherever possible to avoid noise associated with compressed air exhaust from pneumatically powered tools. However, where use of pneumatic tools is unavoidable, an exhaust muffler on the compressed air exhaust shall be used; this muffler can lower noise levels from the exhaust by up to about 10 dBA. External jackets on the tools themselves shall be used if such jackets are commercially available, and this could achieve a reduction of 5 dBA. Quieter procedures shall be used, such as drills rather than impact equipment, whenever such procedures are available and consistent with construction procedures;

c. Locate stationary noise-generating equipment as far as possible from sensitive receptors that adjoin construction sites. Construct temporary noise barriers or partial enclosures to acoustically shield such equipment where feasible;

d. Prohibit unnecessary idling of internal combustion engines;

e. Prior to initiation of on-site construction-related demolition or earthwork activities, a minimum 8-foot-high temporary sound barrier shall be erected along the northern and eastern project property lines abutting adjacent residential land uses. These temporary sound barriers shall be constructed with a minimum surface weight of 4 pounds per square foot and shall be constructed so that vertical or horizontal gaps are eliminated. These temporary barriers shall remain in place through the construction phase in which heavy construction equipment, such as excavators, dozers, scrapers, loaders, rollers, pavers, and dump trucks, are operating on the project site. This measure could lower construction noise levels at adjacent ground floor residential units by up to 8 dBA;

f. Erect temporary noise control blanket barriers, if necessary, along building façades facing construction sites to prevent sleep disturbance. This measure would only be necessary if conflicts occurred which were irresolvable by proper scheduling;

g. To the maximum extent feasible, route construction-related traffic along major roadways and away from sensitive receptors;

h. Notify all businesses, residences or other noise-sensitive land uses within 300 feet of the perimeter of the construction site of the construction schedule in writing prior to the beginning of construction and prior to each construction phase change that could potentially result in a significant temporary increase in ambient noise levels in the project vicinity;

i. Signs shall be posted at the construction site that include permitted construction days and hours, a day and evening contact number for the job site, and a day and evening contact number for the on-site complaint and enforcement manager, and the City’s Noise Enforcement Officer, in the event of problems;

j. An on-site complaint and enforcement manager shall be available to respond to and track complaints. The manager will be responsible for responding to any complaints regarding construction noise and for coordinating with the adjacent land
uses. The manager will determine the cause of any complaints (e.g., starting too early, bad muffler, etc.) and coordinate with the construction team to implement effective measures (considered technically and economically feasible) warranted to correct the problem. The telephone number of the coordinator shall be posted at the construction site and provided to neighbors in a notification letter. The manager shall notify the City's Noise Enforcement Officer of all complaints within 24 hours. The manager will be trained to use a sound level meter and should be available during all construction hours to respond to complaints; and

k. A preconstruction meeting shall be held with the Noise Enforcement Officer and the general contractor/on-site project manager to confirm that noise measures and practices (including construction hours, neighborhood notification, posted signs, etc.) are fully operational.

Depending on the specific construction operations, implementation of these measures would be expected to conservatively achieve a reduction of 8 dBA to 12 dBA at receiving properties. Implementation of this multi-part mitigation measure would reduce construction noise to the maximum extent technically and economically feasible, minimizing disturbance to off-site sensitive receptors. Therefore, construction noise impacts would be reduced to a less-than-significant level.

**Operational Noise Impacts.** The proposed project could generate noise from motor vehicle trips as well as from stationary sources (i.e., HVAC equipment, etc.) that could adversely affect nearby noise-sensitive land uses.

The FHWA highway traffic noise prediction model (FHWA RD-77-108) was used to evaluate traffic-related noise conditions in the vicinity of the project site. The resultant noise levels were weighted and summed over a 24-hour period in order to determine the L_{eq} values. The existing, short-term, and with project traffic volumes from the Traffic Impact and Parking Study\(^{37}\) prepared for this project were used in the traffic noise impact analysis. Table 6 shows the traffic noise levels under existing traffic conditions for each of the modeled roadway segments. Table 7 shows the traffic noise levels adjacent to the modeled roadway segments in the project vicinity under short-term conditions (which assumes a 2 percent annual traffic growth for 2 years). Table 8 shows the predicted traffic noise levels that would be experienced under short-term conditions with implementation of the proposed project.

The results of the FHWA highway traffic noise prediction model indicate that the addition of project-related traffic would result in a less-than-significant increase in ambient noise levels on roadway segments in the project vicinity. Increases in traffic noise would range from 0.0 dBA to 0.4 dBA over existing conditions. This is well below a 4 dBA or greater increase that would be considered significant under the City of Berkeley’s criteria. Therefore, off-site traffic noise impacts related to the project would be less-than-significant.

### Table 6: Traffic Noise Levels under Existing Conditions

<table>
<thead>
<tr>
<th>Roadway Segment</th>
<th>ADT</th>
<th>Centerline to 70 L_{dn} (feet)</th>
<th>Centerline to 65 L_{dn} (feet)</th>
<th>Centerline to 60 L_{dn} (feet)</th>
<th>L_{dn} (dBA) 50 Feet from Centerline of Outermost Lane</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dwight Way - Shattuck Street to Fulton Street</td>
<td>5,000</td>
<td>&lt; 50</td>
<td>&lt; 50</td>
<td>63</td>
<td>60.7</td>
</tr>
<tr>
<td>Dwight Way - Fulton Street to Ellsworth Street</td>
<td>10,000</td>
<td>&lt; 50</td>
<td>&lt; 50</td>
<td>99</td>
<td>63.7</td>
</tr>
<tr>
<td>Dwight Way - Dana Street to Telegraph Avenue</td>
<td>14,900</td>
<td>&lt; 50</td>
<td>60</td>
<td>129</td>
<td>65.5</td>
</tr>
<tr>
<td>Fulton Street - Channing Way to Haste Street</td>
<td>6,100</td>
<td>&lt; 50</td>
<td>&lt; 50</td>
<td>71</td>
<td>61.6</td>
</tr>
<tr>
<td>Fulton Street - Haste Street to Dwight Way</td>
<td>4,900</td>
<td>&lt; 50</td>
<td>&lt; 50</td>
<td>62</td>
<td>60.7</td>
</tr>
<tr>
<td>Fulton Street - Dwight Way to Blake Street</td>
<td>600</td>
<td>&lt; 50</td>
<td>&lt; 50</td>
<td>&lt; 50</td>
<td>51.5</td>
</tr>
<tr>
<td>Haste Street - Fulton Street to Ellsworth Street</td>
<td>4,600</td>
<td>&lt; 50</td>
<td>&lt; 50</td>
<td>59</td>
<td>60.4</td>
</tr>
</tbody>
</table>

Note: Shaded cells represent roadway segments adjacent to the project site.

### Table 7: Traffic Noise Levels under Short-Term Conditions

<table>
<thead>
<tr>
<th>Roadway Segment</th>
<th>ADT</th>
<th>Centerline to 70 L_{dn} (feet)</th>
<th>Centerline to 65 L_{dn} (feet)</th>
<th>Centerline to 60 L_{dn} (feet)</th>
<th>L_{dn} (dBA) 50 Feet from Centerline of Outermost Lane</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dwight Way - Shattuck Street to Fulton Street</td>
<td>5,200</td>
<td>&lt; 50</td>
<td>&lt; 50</td>
<td>64</td>
<td>60.9</td>
</tr>
<tr>
<td>Dwight Way - Fulton Street to Ellsworth Street</td>
<td>10,400</td>
<td>&lt; 50</td>
<td>&lt; 50</td>
<td>102</td>
<td>63.9</td>
</tr>
<tr>
<td>Dwight Way - Dana Street to Telegraph Avenue</td>
<td>15,500</td>
<td>&lt; 50</td>
<td>62</td>
<td>133</td>
<td>65.7</td>
</tr>
<tr>
<td>Fulton Street - Channing Way to Haste Street</td>
<td>6,400</td>
<td>&lt; 50</td>
<td>&lt; 50</td>
<td>74</td>
<td>61.8</td>
</tr>
<tr>
<td>Fulton Street - Haste Street to Dwight Way</td>
<td>5,000</td>
<td>&lt; 50</td>
<td>&lt; 50</td>
<td>63</td>
<td>60.7</td>
</tr>
<tr>
<td>Fulton Street - Dwight Way to Blake Street</td>
<td>600</td>
<td>&lt; 50</td>
<td>&lt; 50</td>
<td>&lt; 50</td>
<td>51.5</td>
</tr>
<tr>
<td>Haste Street - Fulton Street to Ellsworth Street</td>
<td>4,800</td>
<td>&lt; 50</td>
<td>&lt; 50</td>
<td>61</td>
<td>60.6</td>
</tr>
</tbody>
</table>

Note: Shaded cells represent roadway segments adjacent to the project site.
Table 8: Traffic Noise Levels under Project Conditions

<table>
<thead>
<tr>
<th>Roadway Segment</th>
<th>ADT</th>
<th>Center-line to 70 L_{dn} (feet)</th>
<th>Center-line to 65 L_{dn} (feet)</th>
<th>Center-line to 60 L_{dn} (feet)</th>
<th>L_{dn} (dBA) 50 Feet from Centerline of Outermost Lane</th>
<th>Increase over Existing</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dwight Way - Shattuck Street to Fulton Street</td>
<td>5,400</td>
<td>&lt; 50</td>
<td>&lt; 50</td>
<td>66</td>
<td>61.1</td>
<td>0.4</td>
</tr>
<tr>
<td>Dwight Way - Fulton Street to Ellsworth Street</td>
<td>10,900</td>
<td>&lt; 50</td>
<td>&lt; 50</td>
<td>105</td>
<td>64.1</td>
<td>0.4</td>
</tr>
<tr>
<td>Dwight Way - Dana Street to Telegraph Avenue</td>
<td>15,500</td>
<td>&lt; 50</td>
<td>62</td>
<td>133</td>
<td>65.7</td>
<td>0.2</td>
</tr>
<tr>
<td>Fulton Street - Channing Way to Haste Street</td>
<td>6,500</td>
<td>&lt; 50</td>
<td>&lt; 50</td>
<td>74</td>
<td>61.9</td>
<td>0.3</td>
</tr>
<tr>
<td>Fulton Street - Haste Street to Dwight Way</td>
<td>5,200</td>
<td>&lt; 50</td>
<td>&lt; 50</td>
<td>64</td>
<td>60.9</td>
<td>0.2</td>
</tr>
<tr>
<td>Fulton Street - Dwight Way to Blake Street</td>
<td>600</td>
<td>&lt; 50</td>
<td>&lt; 50</td>
<td>&lt; 50</td>
<td>51.5</td>
<td>0.0</td>
</tr>
<tr>
<td>Haste Street - Fulton Street to Ellsworth Street</td>
<td>5,000</td>
<td>&lt; 50</td>
<td>&lt; 50</td>
<td>63</td>
<td>60.7</td>
<td>0.3</td>
</tr>
</tbody>
</table>

Note: Shaded cells represent roadway segments adjacent to the project site.


The City’s normally acceptable threshold for new multi-family residential development is 60 dBA L_{dn}; the City considers environments with noise levels between 60 dBA and 70 dBA L_{dn} to be conditionally acceptable (provided that adequate noise insulation features are included in the design). Traffic noise levels from Dwight Way immediately adjacent to the project site would range up to 64.1 dBA L_{dn} under with project conditions. Traffic noise levels along Fulton Street immediately adjacent to the project site would range up to 60.9 dBA L_{dn} under with project conditions. These noise levels are within the City’s conditionally acceptable range for new multi-family residential development. Therefore, noise insulation features that would maintain acceptable interior noise levels should be incorporated into the project design.

Based on the EPA’s Protective Noise Levels (EPA 550/9-79-100, November 1978), with a combination of walls, doors, and windows, standard construction for northern California residential buildings would provide more than 25 dBA in exterior to interior noise reduction with windows closed and 15 dBA or more with windows open. Undue interference with general residential activities should not occur if levels do not exceed 45 dBA L_{dn}. With windows open, interior noise levels of the proposed residential units on both parcels would not meet the interior noise goal of 45 dBA L_{dn} (i.e., 64.1 dBA - 15 dBA = 49.1 dBA). However, with windows closed, noise levels in rooms exposed to even the loudest traffic noise would be reduced to meet the interior noise goal of 45 dBA L_{dn} (i.e., 64.1 dBA – 25 dBA = 39.1 dBA). Therefore, an alternative form of ventilation, such as noise-baffled passive air ventilation systems or mechanical ventilation systems, would be required to ensure that windows can remain closed for a prolonged period of time.

Implementation of the following mitigation measure would ensure that the proposed project complies with the California Building Code requirements for multi-family housing.
development and therefore meets the City’s standards for reducing on-site project traffic noise impacts to a less-than-significant level.

Mitigation Measure NOISE-2: All residential units of the proposed project that are within 100 feet of the centerline of Dwight Way or within 60 feet of the centerline of Fulton Avenue shall include an alternative form of ventilation, such as noise-baffled passive air ventilation systems or mechanical ventilation systems, that would allow windows to remain closed for prolonged periods of time to meet the interior noise standard of 45 dBA Ldn established by the City and the California Building Code Requirements.

Heating and ventilation, and/or other mechanical equipment would also be operated at the project site. However, because such equipment is required to be designed and used in a manner that complies with the Noise Ordinance, the related noise impact to on-site and adjacent land uses would be less-than-significant.

b) Exposure of persons to or generation of excessive ground borne vibration or ground borne noise levels? (Potentially Significant Unless Mitigation Incorporated)

No permanent noise sources that would expose persons to excessive groundborne vibration or noise levels would be located within the project site. In addition, there are no known sources of groundborne vibration in the project vicinity that would expose persons residing within the project site to excessive levels of groundborne noise or vibration. However, construction activities associated with development of the proposed project could generate excessive groundborne vibration levels.

Pile driving can be a potential source of groundborne vibration. However, the project would not employ pile driving as a construction method; instead, a mat slab foundation is proposed for the project’s foundation.

Project demolition and construction activities would require the use of heavy construction equipment. These activities would occur within 10 feet of adjacent structures, potentially generating groundborne vibration levels that would exceed damage impact criterion for fragile structures. The Federal Transit Administration (FTA) has established industry-accepted construction-related groundborne vibration impact criteria. Construction-related groundborne vibration impacts on building structures are generally assessed in terms of peak particle velocity (PPV). The impact criteria threshold for fragile structures is 0.12 PPV, while the impact criterion for structures of non-engineered timber and masonry construction is 0.2 PPV.

Typical groundborne vibration levels from heavy construction equipment in full operation, such as heavy roller compactors, can range up to 0.21 PPV as measured at a distance of 25 feet from the operating equipment. At a distance of approximately 10 feet, groundborne vibration levels from the operation of heavy construction equipment could range up to approximately 0.83 PPV.
As noted in the Berkeley Southside Plan EIR, for development projects in the Southside area, project specific measures that the City may require, in addition to implementation of the City’s standard conditions of approval, would reduce potential vibration impacts to a less-than-significant level. Implementation of the following multi-part vibration reduction measure, which incorporates standard and project-specific conditions of approval, would ensure potential construction-related groundborne vibration impacts on adjacent structures would be less-than-significant and would ensure compliance with Section 13.40.070 of the City’s Municipal Code.

**Mitigation Measure NOISE-3a:** Prior to construction and issuance of required building permits by the City, the project applicant shall retain a qualified noise and vibration specialist, who, in consultation with the City, shall determine the construction equipment and methods that would generate the least groundborne vibration levels (as measured in PPV). The construction equipment and methods that would generate the least groundborne vibration levels, and that can be feasibly implemented, shall be used to construct the project. Pile driving shall not be utilized.

The noise and vibration specialist shall prepare a memorandum to document the results of the consultation with the City, including the specific construction equipment and methods to be used by the project. The recommendations of the memorandum shall be included in the appropriate contract documents to be signed by contractors assigned to construct the project.

While it is not anticipated that all the construction equipment and methods selected for the project during consultation with the applicant’s noise and vibration specialist and City would generate groundborne vibration levels below the FTA threshold for fragile structures (0.12 PPV), judicious selection and use of construction equipment and methods would minimize the potential of damage to and repair of structures adjacent to the project site.

**Mitigation Measure NOISE-3b:** Implement all portions of Mitigation Measure NOISE-1.

c) A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project? **(No Impact)**

Please refer to Section XII.a. Based on the traffic noise modeling results, the proposed project would not generate traffic at a level that would result in a perceptible change (greater than 4 dBA) in traffic noise in the vicinity of the project site. Stationary noise sources, such as parking lot activities and heating and air conditioning systems that are included as part of the project, would be similar to those already existing in the project vicinity and would not result in a perceptible increase in ambient noise levels. Therefore, no substantial permanent increase in ambient noise levels is expected as a result of project implementation.

d) A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project? **(Potentially Significant Unless Mitigation Incorporated)**
Please refer to Section XII.a. Project-related construction activities could result in high intermittent noise up to 105 dBA $L_{\text{max}}$ at nearby land uses. This noise would result from the temporary use of demolition and construction equipment. However, implementation of multi-part Mitigation Measure NOISE-1, including permissible hours of construction, would reduce potential impacts associated with construction-related noise to a less-than-significant level.

e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels? (No Impact)

The project site is located over 11 miles north of Oakland International Airport (the nearest airport) and 22 miles northeast of San Francisco International Airport. While aircraft noise is occasionally audible on the project site, due to the distance from area airports and the orientation of runways and flight patterns, the project site does not lie within the 55 dBA CNEL noise contours of any airport. Therefore, the impact of noise levels from aviation sources would be less than significant.

f) For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels? (No Impact)

The project site is not located in the vicinity of a private airstrip.

### XIII. POPULATION AND HOUSING

Would the project:

<table>
<thead>
<tr>
<th>Potentially Significant Impact</th>
<th>Potentially Significant Unless Mitigation Incorporated</th>
<th>Less Than Significant Impact</th>
<th>No Impact</th>
</tr>
</thead>
<tbody>
<tr>
<td>a) Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?</td>
<td>☐</td>
<td>☐</td>
<td>☒</td>
</tr>
<tr>
<td>b) Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?</td>
<td>☐</td>
<td>☐</td>
<td>☒</td>
</tr>
<tr>
<td>c) Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?</td>
<td>☐</td>
<td>☐</td>
<td>☒</td>
</tr>
</tbody>
</table>

a) Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)? (Less-Than-Significant Impact)
The proposed project would develop the site with residential uses, including 81 student-oriented market and below-market rate housing units, and therefore would directly increase population growth on the project site. A total of approximately 29 two-bedroom and 52 four-bedroom units would be distributed throughout the building. Double occupancy of the bedrooms would not be permitted; therefore, the project is expected to generate a population of 266 residents on the site. However, this population growth would not be considered substantial in the context of existing population in Berkeley. The anticipated population growth associated with the project represents less than 1 percent of both the City’s projected 2015 population (109,400) and projected 2020 population (111,900) – the earliest projected years during which the proposed project would be operational.\(^{38}\) The project’s population generation would also be consistent with projected growth within the City. Berkeley’s population is projected to grow to 114,500 by 2025 and 120,500 by 2035.

In addition, the project site is located within walking distance of local and regional transit stops and commercial shopping areas, and is an appropriate place for population growth as identified in the Berkeley Southside Plan. Shattuck Avenue, located one block west of the project site is a major bus and transit corridor, and the Downtown Berkeley BART stop is located approximately six blocks northwest of the project site.

Given the reasons described above, the proposed project would neither directly nor indirectly increase population growth in Berkeley beyond that planned for by the City.

\(b\) Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere? (**No Impact**)

No permanent housing is located within the project site. Therefore, implementation of the proposed project would not remove existing housing and no impact would occur.

\(c\) Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere? (**No Impact**)

Please refer to Section XIII.b. The proposed project would not displace any people and would not require the construction of replacement housing. Therefore, no impact would occur.

XIV. PUBLIC SERVICES.

a) Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:

- Fire protection? ☐ ☐ ☒ ☐
- Police protection? ☐ ☐ ☒ ☐
- Schools? ☐ ☐ ☒ ☐
- Parks? ☐ ☐ ☒ ☐
- Other public facilities? ☐ ☐ ☒ ☐

a) Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services: Fire protection, police protection, schools, parks, other public facilities? (Less-Than-Significant Impact)

The following section addresses the project’s potential effects on: fire service, police service, schools, parks, and other public facilities. Impacts to public services would occur if the project increased demand for services such that new or expanded facilities would be required, and these new facilities would themselves cause environmental impacts.

**Fire.** The Berkeley Fire Department provides fire protection and emergency medical services to the project site. The Berkeley Fire Department operates seven fire stations including seven engine companies, two truck companies, and three ambulances. Primary service to the project site would be provided by Station 5, which is located at 2680 Shattuck

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Avenue, approximately ½ mile southwest of the project site. Station 5 is staffed by 6 firefighters and paramedics combined. Station 5 is equipped with one engine company including an aerial ladder truck, engine, one reserve engine, and a Type IV four-wheel drive truck.

Currently, the Fire Department has 127 sworn fire fighters, 12.75 civilian staff, and 72 certified paramedics. The City’s goal for staffing is reviewed each budget cycle and considers historical and current year information related to fire and emergency services.

In 2011, the Berkeley Fire Department responded to 12,333 calls for service – 232 calls for fires and 8,497 medical calls; the remainder included calls regarding hazardous materials, water problems, and false alarms. The standard response time for emergency medical service calls is 5½ minutes and the standard response time for non-emergency medical service calls is 4½ minutes.

The addition of 81 residential units would increase the day and night time population on the site and the Southside area of Berkeley in general, potentially incrementally increasing the demand for emergency fire services and emergency medical services. Project buildings would be up to 50 feet tall and would be one to two stories higher than most surrounding structures; however, the Fire Department’s aerial ladder truck reaches 100 feet and the Department has the appropriate equipment to access taller buildings. The potential increase is not expected to be substantial and would not adversely affect existing response times to the site or within the City.

The proposed project would be required to comply with all applicable codes for fire safety and emergency access. The new building would also be equipped with an automatic sprinkler system. Redevelopment of the site with new and upgraded facilities may actually reduce the demands on firefighting services as new buildings would be built to comply with the most current Fire Code provisions.

The Berkeley Fire Department would continue to provide services to the project site and would not require additional firefighters to serve the proposed project. The construction of new or expanded fire stations would not be required. Therefore, the proposed project would not result in a substantial adverse physical impact associated with the provision of additional fire facilities or services.

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42 Berkeley Fire Department, 2012. John Fitch, Written communication with City of Berkeley Planning Department. September 27.

The Berkeley Fire Department administers the Uniform Fire Code and applicable sections of the California Health and Safety Code, California Administrative Codes, Title 19, Public Safety and Title 24, Building Standards. The Berkeley Fire Department also actively participates in the City of Berkeley’s development process by commenting on building design and materials. The proposed project would be required to comply with all applicable codes for fire safety and emergency access and additional review by the Fire Department would be required prior to approval of the proposed project and final site development plans to ensure that appropriate measures are implemented to reduce hazardous conditions at the site and provide for adequate emergency access. Compliance with the Berkeley Fire Department’s requirements would further ensure that potential impacts to fire services are less than significant.

**Police.** The Berkeley Police Department provides police protection services to the project site. Police headquarters are located at 2100 Martin Luther King Jr. Way, approximately less than 1 mile northwest of the project site. The Police Department currently consists of 171 sworn officers and 95 civilian staff.\(^4^4\) The City’s goal for staffing is reviewed each budget cycle and considers historical and current year information related to police services. Due to budgetary issues, the sworn staffing levels have decreased substantially over the last 10 years.

The Police Department provides regular patrols to 18 beats within the City; the project site is located within Beat 6.\(^4^5\) Primary law enforcement concerns in this area include disturbances, burglaries and thefts. Additionally, the number of street robberies is disproportionately high in this beat. In 2011 (the most recent year for which data is available), the Communications Center processed 140,000 calls for service (police and fire). The standard city-wide response time for Priority 1 calls (life-threatening situations) is 5 minutes from the time of dispatch.

Redevelopment of the existing project site with residential uses would not substantially increase the demand for police services when examined in a city-wide context. The removal of 20,500 square feet of commercial building and the addition of 81 new dwelling units would increase the daytime and nighttime population on the site and within the Southside area of Berkeley in general, incrementally increasing the demand for police services. Given the Police Department’s current staffing levels and call volumes, any increase in service to one location has the potential to reduce, though not substantially, levels of service or response times in other areas. This would be largely dependent on factors such as the severity of the incident, time of day, day of week, and staffing levels. In order to reduce potential calls for service from this location, the project applicant agrees to designate an on-site resident manager, as recommended by the Police Department. Furthermore, all access points to the

\(^{44}\) Berkeley Police Department, 2012. Erik Upson. Written communication with City of Berkeley Planning Department. September 27.

\(^{45}\) Berkeley, City of, 2012. City of Berkeley Area Coordinators. Website: www.ci.berkeley.ca.us/uploadedFiles/Police/Level_3_-_General/AreaCoordLieutenantsWeb2(1).pdf (accessed September 6). March
The Berkeley Police Department would continue to provide services to the project site and would not require additional officers to serve the project site. The construction of new or expanded police stations would not be required. Therefore, the proposed project would not result in a substantial adverse physical impact associated with the provision of additional police facilities or services.

**Schools.** The Berkeley Unified School District (BUSD) operates 20 schools, including 3 early childhood education locations, 11 elementary schools (grades K-5), 3 middle schools (grades 6-8), 1 comprehensive high school and 1 continuation high school (grades 9-12), and 1 adult school in the City of Berkeley.\(^{46}\) The BUSD has not developed student generation rates to estimate the number of students that might be anticipated with new development. Furthermore, it is anticipated that the proposed project would house few K-12 students. The project would primarily be marketed to college-aged adults, and due to the site's location near the campus and design of residential floor plans, the project would most likely to be occupied primarily by students. If school-aged children were to reside at the project site, they would likely attend Washington Elementary or LeConte Elementary and Willard Middle Schools. High School students would attend Berkeley High School, located at 2223 Martin Luther King Jr. Way.

Senate Bill 50 (SB50), which revised the existing limitation on developer fees for school facilities, was enacted as legislation which became effective on November 4, 1998, as a result of the California voters approving a bond measure (Proposition 1A). SB50 established a 1998 base amount of allowable developer fees (Level One fee) for residential construction (subject to adjustment) and prohibits school districts, cities, and counties from imposing school impact mitigation fees or other requirements in excess or in addition to those provided in the statute.

In the City of Berkeley, developers can negotiate directly with the affected school district to pay school impact fees, if determined to be necessary. The school district is responsible for implementing the specific methods for mitigating school impacts under the Government Code. These fees would be directed towards maintaining adequate service levels, which include incremental increases in school capacities. Compliance with this State fee system would ensure that any impact to schools that could result from the proposed project would be offset by development fees, and in effect, reduce potential impacts to a less-than-significant level.

**Parks.** Parks and recreational facilities located near the project site include the 2.8-acre Peoples Park (owned and managed by the University of California), located approximately ½ mile east of the project site at 2556 Haste Street; the 2.7-acre Martin Luther King Civic Center Park at 2151 Martin Luther King Jr. Way, located approximately 0.6 mile northwest of

the project site; and the 2.72-acre Willard Park, located 0.7 mile southeast of the project site at 2730 Hillegass Avenue.

Development of the proposed project could increase the use of these parks as well as other parks within the City. However, this increase in use is not expected to adversely affect the physical conditions of local and regional open space areas or recreational facilities, or require the provision of new parks or facilities. In addition, common open space and recreation areas to be provided as part of the proposed project would reduce the increase in demand for public parks and recreational facilities. Useable open space would be provided throughout the project site. Separate common courtyards would be provided on the ground level and five common roof decks would be provided at the interior of the site in addition to the 1,500-square-foot indoor common area.

**Other Public Facilities.** Development of the residential uses on the project site could also increase demand for other public services, including libraries, community centers, and public health care facilities. However, the resident population that would result from the project is not expected to result in substantially increased usage of these facilities, such that new facilities would be needed to maintain service standards. In addition, these types of facilities are available at the University of California Berkeley campus and it is likely that student residents would access these facilities rather than City facilities.

<table>
<thead>
<tr>
<th>Potentially Significant Impact</th>
<th>Potentially Significant Mitigation Incorporated</th>
<th>Less Than Significant Impact</th>
<th>No Impact</th>
</tr>
</thead>
<tbody>
<tr>
<td>☐</td>
<td>☐</td>
<td>☒</td>
<td>☐</td>
</tr>
</tbody>
</table>

**XV. RECREATION.**

a) Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?

b) Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?

a) **Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated? (Less-Than-Significant Impact)**

As discussed in Section XIV, residents of the project site would use local parks in the vicinity of the project site. Although the project would incrementally increase use of area parks; this minor increase is not expected to result in substantial physical deterioration of local parks.
The playing fields/track at Berkeley High School, located approximately 0.6 mile northwest of the project site are also available to the public when not in use for physical education classes, team practices, and school sporting events. The YMCA, located 0.6 mile northwest of the project site also provides its members and guests with indoor recreation and fitness facilities. Additional recreational facilities are available for students attending the University of California Berkeley, located approximately 1 mile northeast of the project site.

The nearest regional parks and recreation areas are Tilden Park and the Claremont Canyon Regional Preserve, which are both owned by the East Bay Regional Park District (EBRPD). Tilden Park is approximately 3 miles from the site and includes over 2,000 acres of open space, hiking trails, and recreational facilities. The Claremont Canyon Regional Preserve is approximately 1.5 miles from the site and includes 208 acres of open space and hiking trails. Although the project would incrementally increase use of community and regional recreation facilities, this minor increase is not expected to result in substantial physical deterioration of these facilities.

In addition, the proposed project would provide open space and open-air roof top garden and deck areas within the project site for use by project residents. Useable open space would be provided throughout the project site. Separate common courtyards would be provided on the ground level and five common roof decks would be provided at the interior of the site. In addition, a common area would be located on the first level of two of the buildings that could include space for an exercise room, a game room, community room, or lounge. The provision of common open and recreational space on the site would further ensure that the project’s impacts on local parks and recreational facilities would be less than significant.

b) Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment? (No Impact)

The proposed project would redevelop the existing project site with residential uses. The project does not include or require the construction or expansion of existing public recreational facilities; therefore, development of the proposed project and associated recreational opportunities for use by project residents would not result in additional environmental effects beyond those described in this document.
XVI. TRANSPORTATION/TRAFFIC. Would the project:

a) Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit? □ ☐ ☒ ☐

b) Conflict with an applicable congestion management program, including, but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways? □ ☐ ☐ ☒

c) Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks? □ ☐ ☐ ☒

d) Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)? □ ☐ ☒ ☐

e) Result in inadequate emergency access? □ ☐ ☒ ☐

f) Conflict with adopted polices, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities? □ ☐ ☒ ☐

Responses in this section rely on information and findings provided in the Traffic Impact and Parking Study\(^{47}\) prepared for the project site and peer-reviewed by transportation professionals at LSA, unless otherwise noted. This report is available for review at the City of Berkeley, Planning and Development Department.

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a) Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit? (Less-Than-Significant Impact)

Overview. The Traffic Impact and Parking Study prepared for the proposed project was conducted according to the requirements of the City of Berkeley’s Traffic Impact Report Guidelines. Specifically, the study focuses on project trip generation, distribution, and the extent that project trips would affect traffic operations on three critical street intersections near the project site. The following three study intersections are shown in Figure 7 and are evaluated herein:

1. Fulton Street and Dwight Way
2. Fulton Street and Haste Street
3. Telegraph Avenue and Dwight Way

These intersections were evaluated under four different scenarios to determine the project’s effects on intersection level of service. These scenarios were identified to allow detailed analysis of the incremental effects of the proposed project on traffic conditions, and to allow a comparison of the traffic anticipated to be generated by the proposed project to the amount of traffic expected to be generated by other entitled development. Each of these scenarios is described below:

- *Existing Conditions*. Existing traffic operations were evaluated with traffic counts collected from the field in early March 2012.

- *Existing Plus Project Conditions*. This scenario represents the existing conditions plus trips generated by the project.

- *Short-Term Conditions*. Short-term traffic operations were established by adding an annual traffic growth rate of 2 percent for two years to the Existing Conditions. There are no approved projects within the vicinity of the site that would likely affect study area intersections.

- *Short-Term Plus Project Conditions*. This scenario represents the Short-Term Conditions plus trips generated by the project.

A long-term traffic (2035) scenario analysis was not required due to project’s small size and low trip generation estimates. In addition, while not strictly required as part of this CEQA analysis, the study also examines parking conditions along segments of Fulton Street and Dwight Way.

Analysis Methodology. Intersection Level of Service (LOS) is a qualitative description of the performance of an intersection based on the average delay per vehicle. As shown in Table 1, intersection levels of service range from LOS A, which indicates free flow or excellent conditions with short delays, to LOS F, which indicates congested or overloaded conditions with extremely long delays.
Intersection LOS was evaluated using the SYNCHRO computer software package, which implements the 2000 Highway Capacity Manual (HCM) LOS evaluation methodology for both signalized and non-signalized intersections. The HCM methodology determines traffic LOS based on intersection delay (the average delay for all approaches) for signalized intersections. For non-signalized intersections, such as the site access driveway in this study, delays were calculated for individual approaches only. The City of Berkeley considers LOS D (maximum of 55 seconds of delay for signalized intersections or 35 seconds of delay for non-signalized intersections) the lowest acceptable condition and requires mitigation for intersections with LOS below D.

**Trip Generation.** As shown in Table 10, the proposed project is expected to generate 43 AM (9 inbound/34 outbound) and 52 PM (33 inbound/18 outbound) peak hour trips based on rates compiled and published by the Institute of Transportation Engineers (ITE) Trip Generation Manual, 8th Edition. On a 24-hour basis, the project is expected to generate a total of 540 trips, including both inbound and outbound trips. This estimate is conservative because it does not deduct trips generated by the existing office use, and the trip generation rate for apartments does not take into account the travel patterns associated with student-oriented housing near a university campus (described in next paragraph). Therefore, the traffic study overstates the amount of traffic that would actually be generated by the proposed project.

### Table 9: Intersection Level of Service Definitions

<table>
<thead>
<tr>
<th>Level of Service</th>
<th>Signalized Intersections Control Delay (seconds)</th>
<th>Unsignalized Intersections Average Control Delay (seconds/vehicle)</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>&lt; 10.0</td>
<td>0.0 – 10.0</td>
<td>Little or no delay</td>
</tr>
<tr>
<td>B</td>
<td>10.1 – 20.0</td>
<td>10.1 – 15.0</td>
<td>Short traffic delays</td>
</tr>
<tr>
<td>C</td>
<td>20.1 – 35.0</td>
<td>15.1 – 25.0</td>
<td>Average traffic delays</td>
</tr>
<tr>
<td>D</td>
<td>35.1 – 55.0</td>
<td>25.1 – 35.0</td>
<td>Long traffic delays</td>
</tr>
<tr>
<td>E</td>
<td>55.1 – 80.0</td>
<td>35.1 – 50.0</td>
<td>Very long traffic delays</td>
</tr>
<tr>
<td>F</td>
<td>&gt; 80.0</td>
<td>&gt; 50.0</td>
<td>Extreme traffic delays with intersection capacity exceeded</td>
</tr>
</tbody>
</table>


### Table 10: Project Trip Generation Analysis

<table>
<thead>
<tr>
<th>Land Use</th>
<th>Units/ Ksf</th>
<th>AM Peak Hour Trips</th>
<th>PM Peak Hour Trips</th>
<th>Daily Trips</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Rates In</td>
<td>Trips Out</td>
<td>Rates In</td>
<td>Trips Out</td>
</tr>
<tr>
<td>Office – Existing (ITE 715)</td>
<td>20.5</td>
<td>1.80</td>
<td>89%</td>
<td>32</td>
</tr>
<tr>
<td>Apartments – Proposed (ITE 220)</td>
<td>81</td>
<td>0.51</td>
<td>20%</td>
<td>9</td>
</tr>
<tr>
<td>Total (Net)</td>
<td>-23</td>
<td>31</td>
<td>28</td>
<td>-11</td>
</tr>
</tbody>
</table>

Note: LOS calculations assume full project trip generation without reduction for the existing office building trips since the office building is occasionally semi-vacant and the traffic count conducted in March 2012 would not have captured all trips to and from the existing office building.

Project Site

Study Intersection

FIGURE 7

SOURCE: PHA TRANSPORTATION CONSULTANTS, SEPTEMBER 2012.

Project Location and Study Intersections

2201 Dwight Way Project Initial Study

NOT TO SCALE
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Because this is a housing development primarily catering to UC Berkeley students, it is likely that most peak hour trips are actually pedestrian and bicycle trips to and from campus, which is less than 2,000 feet away and within walking distance. The traffic study conducted as part of the University’s LRDP (Long Range Development Plan) Draft EIR in 2003 revealed that of all undergraduate students living within 1 mile of campus, 85 percent walk to school, 5 percent ride bicycles, 10 percent ride public transit, 0 percent drive alone and/or carpool/vanpool. For graduate students, 66 percent walk, 19 percent bicycle, 14 percent take public transit, and 0 percent drive alone or carpool/vanpool. As previously described, the traffic analysis does not account for these patterns and therefore overstates the amount of traffic generated by the proposed project.

**Trip Distribution.** The directional distribution of project traffic, which evaluates the potential routes of travel, was estimated based on examination of the study area street layouts, area wide land use, current circulation patterns, traffic volumes and consultation with City staff. Trip distribution is shown in Figure 8. The City of Berkeley considers intersection LOS D with delays up to 55 seconds acceptable. Table 11 shows a comparison of intersection LOS for all three study scenarios.

**Existing Conditions.** Figure 9 depicts peak hour traffic volumes and lane configurations under Existing Conditions. As shown in Table 11, results of the Existing Conditions analysis indicate that all three study intersections currently operate at LOS A and B with average vehicle delays ranging between 7 and 11 seconds. These operational levels can be attributed to the one-way street patterns in the area designed to minimize conflicting traffic movements to achieve better traffic flows. The above calculated intersection LOS and delays are consistent with field inspection. Field observation made during traffic data collection indicates smooth traffic operation with minimal delays and vehicle queues. In addition, no traffic back-ups or delays were observed at the intersections of Shattuck Avenue and Dwight Way, and Shattuck Avenue and Haste Street.

**Existing Plus Project Conditions.** Figure 10 depicts peak hour traffic volumes and lane configurations under Existing Plus Project Conditions. As shown in Table 11, results of the Existing Conditions Plus Project Conditions analysis indicate that all three study intersections would remain unchanged at LOS A and B during AM and PM peak hours with intersection delays of less than 11 seconds in the worse-case. As such, the proposed project’s impact on area traffic operation during Existing Plus Project conditions would be minimal.

**Short-Term Conditions.** Figure 11 depicts peak hour traffic volumes and lane configurations under Short-Term Conditions. For Short-Term Conditions, study intersection traffic operations were evaluated with the addition of 2 percent area wide traffic growth. As shown in Table 11, results of the Short-Term Conditions analysis indicate that all three study intersection LOS would remain unchanged at LOS A and B. The short-term traffic scenario assumes the same intersection geometrics and traffic control as with the existing conditions.

48 While not included in the traffic study scope, traffic operations at the intersections of Shattuck Avenue and Dwight Way, and Shattuck Avenue and Haste Street were reviewed during field visits.
Table 11: Study Intersection Traffic Operation (LOS) Analysis

<table>
<thead>
<tr>
<th>Study Intersections</th>
<th>Existing Conditions</th>
<th>Existing Plus Project Conditions</th>
<th>Short-Term Conditions</th>
<th>Short-Term Plus Project Conditions</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>AM Peak V/C Delay LOS</td>
<td>PM Peak V/C Delay LOS</td>
<td>AM Peak V/C Delay LOS</td>
<td>PM Peak V/C Delay LOS</td>
</tr>
<tr>
<td>1. Fulton Street/ Dwight Way</td>
<td>0.37 7.5 A</td>
<td>0.43 7.0 A</td>
<td>0.38 7.5 A</td>
<td>0.44 7.2 A</td>
</tr>
<tr>
<td>2. Fulton Street/ Haste Street</td>
<td>0.28 8.7 A</td>
<td>0.39 10.7 B</td>
<td>0.31 8.8 A</td>
<td>0.40 10.7 B</td>
</tr>
<tr>
<td>3. Telegraph Ave./ Dwight Way</td>
<td>0.40 8.5 A</td>
<td>0.47 7.5 A</td>
<td>0.40 8.5 A</td>
<td>0.47 7.5 A</td>
</tr>
</tbody>
</table>

2201 Dwight Way Project Initial Study
Existing Conditions Peak Hour Traffic Volume and Lane Configurations

FIGURE 9

NOT TO SCALE

SOURCE: PHA TRANSPORTATION CONSULTANTS, SEPTEMBER 2012.
I:\CBE1205 2201 Dwight Way\Figures\Fig_9.ai (10/5/12)
FIGURE 10

Existing + Project Condition
Traffic Volume
a.m. vol (p.m. vol)

2201 Dwight Way Project Initial Study
Existing Plus Project Conditions Peak Hour
Traffic Volume and Lane Configuration
FIGURE 11

Short-term Conditions Peak Hour Traffic Volume and Lane Configuration
FIGURE 12

Source: PHA Transportation Consultants, September 2012.

2201 Dwight Way Project Initial Study
Short-Term Plus Project Conditions Peak Hour
Traffic Volume and Lane Configuration
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City staff has confirmed that there are no roadway and/or traffic capacity improvement projects planned for the study area intersections that would affect traffic circulation.

**Short-Term Plus Project Conditions.** Figure 12 shows Short-Term Plus Project Conditions. As shown in Table 11, results of intersection LOS analyses indicated that all of the three study intersections would operate at the same LOS for both AM and PM peak periods, with the addition of project traffic. As such, the proposed project’s impact on area traffic operation during Short-Term Plus Project conditions would be minimal.

b) *Conflict with an applicable congestion management program, including but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways? (No Impact)*

Two roadways in the vicinity of the project are designated on the Alameda County Congestion Management Program network. These roadways are Ashby Avenue (State Route-13) from I-80 to Tunnel Road and Shattuck Avenue from University Avenue to Derby Street. Based on the project trip generation and distribution, the project would add fewer than 10 trips to Ashby Avenue. It is unlikely that fewer than 10 trips would be noticeable or would add measureable delay to Ashby Avenue. The project would not add more than 20 total trips to the intersections of Shattuck Avenue and Dwight Way, and Shattuck Avenue and Haste Street, and is not expected to have a noticeable impact on traffic operations. As a result, the project would not cause Ashby Avenue (SR-13) and Shattuck Avenue (at the intersections at Dwight Way and Haste Street) to exceed any standard established by the Alameda County Congestion Management Agency.

c) *Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks? (No Impact)*

The project site is located approximately 11 miles from Oakland International Airport. The proposed project would not result in the construction of buildings that would be sufficiently high or configured in a way that would affect air traffic patterns. Therefore, the proposed project would not result in a substantial safety risk associated with a change in air traffic patterns.

d) *Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)? (Less-Than-Significant Impact)*

With one entrance driveway on Dwight Way and one exit driveway on Fulton Street, adequate access would be provided to the project site. The one-way drive aisle in the parking area would provide for safe and orderly internal circulation and parking maneuvers. The project site plan does not show dimensions for parking stalls, drive aisle, and driveways.

These should be designed according to the City of Berkeley standards and depicted on the site plan prior to issuance of a building permit.
The proposed driveways are not expected to have sight distance problems as there are no horizontal or vertical curves near the site on either Fulton Street or Dwight Way. The entrance driveway on Dwight Way, as shown on the site plan, being very close to a multifamily driveway to the east, may not be ideal, but should work satisfactorily since this is an entrance-only driveway and Dwight Way is a one-way street. Motorists would not encounter conflicting vehicle movements or have stopping sight distance issues. Driveway operation LOS analyses indicate that the entrance on Dwight Way would perform well at LOS A with no delays since Dwight Way is one-way and motorist entering the site would not encounter conflicting vehicle movements from the opposing direction. It is recommended that the security gate should be set back to accommodate at least one car so that motorists entering the site would not block pedestrian traffic on the sidewalk or the travel lane on Dwight Way.

The exit driveway on Fulton Street would operate at LOS A during the morning peak hour with delays of 9.7 seconds and LOS B in the evening peak hour with delays of 10.4 seconds. To improve exit driveway safety, the project proponent should consider installing a mirror and an alarm system to improve visibility and alert pedestrian of exiting vehicles.

One on-street parking space is expected to be removed from Dwight Way to allow for the new driveway; however, this could be compensated for by removing the curb cut on Dwight Way near the intersection with Fulton Street. The exit driveway on Fulton Street is not expected result in the removal of on-street parking spaces because the driveway will likely be located at the same location as the existing surface parking lot driveway. The proposed exit driveway may be narrower compared to the existing driveway, which is an inbound/outbound driveway, and that could add several feet to the available on-street parking space. Depending on the final location of the exit driveway, a couple of marked parking spaces on the eastside of Fulton Street may need to be reconfigured or shifted.

The proposed project would be required to meet the City’s design requirements for on- and off-site circulation. Therefore, the proposed project would not result in a hazardous design feature.

e) Result in inadequate emergency access? (Less-Than-Significant Impact)

Emergency vehicle access to the project site would be available from existing surrounding roadways. As part of the project’s Building Permit, the City of Berkeley Fire Department would approve of the final site plan and provide the appropriate conditions of approval to ensure that adequate emergency access is provided.

f) Conflict with adopted polices, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities? (Less-Than-Significant Impact)

Transit, Bicycle, and Pedestrian Facilities. Alameda and Contra Costa (AC) Transit provides public transit services to Berkeley including the study area with its Line 1, 1R, 12, 49, 51B, 52, and F. There are no transit services on Dwight Way, Haste Street, and Fulton Street near the project site. The closest bus stop near the project site is at the southeast
corner of Shattuck Avenue and Dwight Way, approximately one block to the west. In addition to the above AC transit services, the University of Berkeley and other major Berkeley employers also provide shuttle service to students and employees in the area. The proposed project, as a student housing development, is not expected to have a significant impact on public transit during normal peak hour operation. Students are likely walk or bike to campus due to the short distance.

The project is expected to generate pedestrian and bicycle traffic in the area. Currently, there are pedestrian sidewalks along all city streets as well as pedestrian crosswalks at most intersections in the study area. These facilities would not be adversely affected by the small volumes of additional pedestrian and bike traffic from the proposed project.

According to the City of Berkeley Bicycle Network Map, Dana Street is currently the only designated bike lane in the immediate area that provides a direct connection between the project site and the campus. The City plans to designate Fulton Street between Dwight Way and Oxford Street as a bike lane but there is no plan to designate Ellsworth Street as a bike lane. Adding Ellsworth Street between Dwight Way and the campus as a bike lane would further enhance bicycle travel for students in the area. It should be pointed out that bicycle travel is not precluded from any Berkeley streets. Field observations indicate that there are considerable pedestrian and bicycle traffic throughout the study area streets.

For all of the reasons outlined above, any potential impacts to alternative transportation resulting from implementation of the proposed project would be considered less-than-significant.

**Parking.** An Appeals Court ruling in 2002 held that parking is not part of the permanent physical environment, that parking conditions change over time as people change their travel patterns, and that unmet parking demand created by a project need not be considered a significant environmental impact under CEQA unless it would cause significant secondary effects.\(^\text{49}\) Similarly, the December 2009 amendments to the State CEQA Guidelines (which became effective March 18, 2010) removed parking from the State’s Environmental Checklist (Appendix G of the State CEQA Guidelines) as an environmental factor to be considered under CEQA.

Even though it was adopted prior to the Court’s ruling or the revision to Appendix G of the CEQA Guidelines, this concept was anticipated in the City of Berkeley General Plan Policy T-40 Parking Impacts (adopted December 18, 2001):

- **Policy T-40:** Parking Impacts. When considering parking impacts under the California Environmental Quality Act for residential projects with more than two units located in the Avenue Commercial, Downtown, or High Density Residential land use classifications, any significant parking impacts identified that result from the project should be mitigated by improving alternatives to automobile travel and thereby reducing the need for parking. Examples include

\(^\text{49}\) *San Franciscans Upholding the Downtown Plan v. the City and County of San Francisco* (2002) 102 Cal. App. 4th 656.
improvements to public transportation, pedestrian access, car sharing programs, and bicycle facility improvements. Parking impacts for these projects should not be mitigated through the provision of additional parking on the site. The City finds that:

1. Parking supply and demand may easily be adjusted by changing local pricing policies and by changing how the supply is managed.
2. As the parking supply increases or parking costs decrease, automobile use becomes a more attractive transportation alternative and demand for parking increases. As parking supply decreases and its price increases, demand decreases.
3. Increasing the parking supply increases automobile use, which causes a measurably negative impact on the environment.

The sub-surface parking garage would include 49 vehicle stalls (two of which would be ADA-compliant spaces), 4 motorcycle stalls, and 27 bicycle stalls. An additional 28 bicycle stalls would be provided at ground level for a total of 55 bicycle stalls. According to the City's Municipal Code, 70 vehicle parking spaces are required to serve the proposed project. The project applicant is requesting a concession to allow a reduction in vehicle parking requirements, primarily to avoid the need for additional excavation and construction of a second below-grade garage. To support this requested concession, the traffic study included an analysis of parking demand for the proposed project and availability of parking spaces in the project area.

The parking study includes a 12 block area measuring about 600 feet from the project site. Figure 13 shows the boundary of the parking study area and the number of parking spaces available (capacity) at each block. The study area is subdivided into 12 zones (A through L) for analysis and presentation purposes. The study focuses on on-street parking because the objective of the study is to identify if there are adequate vacant parking spaces on the street that would accommodate the project's estimated parking space shortage of 21 spaces.

The survey area includes 22 metered spaces and 102 unmarked spaces. All metered spaces are on Dwight Way west of Fulton Street. Metered spaces here are restricted to two hours between 9:00 a.m. and 6:00 p.m. The remaining blocks in the study area require Residential Preferential Parking (RPP) permits. Without permits, motorists can park for two hours between 8:00 a.m. and 7:00 p.m., and for an unlimited length of time between 5:00 p.m. and 10:00 a.m. the next day.

Parking surveys were conducted at 8:00 p.m. and 11:00 p.m. on two different days during the first and second week of March 2012 while UC Berkeley was in session. These hours are considered peak demand times for residential areas as residents would likely return from work, school, or other activities. Survey results showed that at 11:00 p.m., a total of 115 parked cars were counted in the study area with 18 spaces left vacant. At 8:00 p.m. the following week, 105 parked cars were counted with 19 spaces left vacant. Most vacant spaces are available on Dwight Way west of Fulton Street, which are metered but are free after 6:00 p.m. Table 12 presents a summary of the parking surveys.
FIGURE 13

SOURCE: PHA TRANSPORTATION CONSULTANTS, SEPTEMBER 2012.

2201 Dwight Way Project Initial Study
Parking Study Area
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Table 12: Parking Availability Analysis

<table>
<thead>
<tr>
<th>Zone</th>
<th>Description</th>
<th>Block Length (A)</th>
<th>Driveways + Painted Curbs (B)</th>
<th>Capacity (A-B)/20’</th>
<th>11:00 p.m. (3/6/12 Tue)</th>
<th>8:00 p.m. (3/15/12 Thur)</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>RPP (I) Parking spaces are not metered or marked.</td>
<td>270</td>
<td>79</td>
<td>10</td>
<td>11</td>
<td>10</td>
</tr>
<tr>
<td>B</td>
<td>RPP (I) Parking spaces are not metered or marked.</td>
<td>270</td>
<td>121</td>
<td>7</td>
<td>8</td>
<td>9</td>
</tr>
<tr>
<td>C</td>
<td>RPP (I) Parking spaces are not metered or marked.</td>
<td>275</td>
<td>107</td>
<td>8</td>
<td>7</td>
<td>9</td>
</tr>
<tr>
<td>D</td>
<td>RPP (I) Parking spaces are not metered or marked.</td>
<td>275</td>
<td>144</td>
<td>7</td>
<td>10</td>
<td>10</td>
</tr>
<tr>
<td>E</td>
<td>Parking spaces are metered with 2-hour limits.</td>
<td>515</td>
<td>NA</td>
<td>14</td>
<td>6</td>
<td>8</td>
</tr>
<tr>
<td>F</td>
<td>RPP (I) Parking spaces are not metered or marked.</td>
<td>610</td>
<td>183</td>
<td>21</td>
<td>22</td>
<td>0</td>
</tr>
<tr>
<td>G</td>
<td>Parking spaces are metered with 2-hour limits.</td>
<td>515</td>
<td>NA</td>
<td>8</td>
<td>2</td>
<td>6</td>
</tr>
<tr>
<td>H</td>
<td>RPP (I) Parking spaces are not metered or marked.</td>
<td>610</td>
<td>297</td>
<td>16</td>
<td>19</td>
<td>17</td>
</tr>
<tr>
<td>I</td>
<td>RPP (J) Parking spaces are not metered or marked.</td>
<td>275</td>
<td>107</td>
<td>8</td>
<td>7</td>
<td>6</td>
</tr>
<tr>
<td>J</td>
<td>RPP (J) Parking spaces are not metered or marked.</td>
<td>275</td>
<td>131</td>
<td>7</td>
<td>7</td>
<td>3</td>
</tr>
<tr>
<td>K</td>
<td>RPP (J) Parking spaces are not metered or marked.</td>
<td>275</td>
<td>102</td>
<td>9</td>
<td>8</td>
<td>5</td>
</tr>
<tr>
<td>L</td>
<td>RPP (J) Parking spaces are not metered or marked.</td>
<td>275</td>
<td>98</td>
<td>9</td>
<td>8</td>
<td>4</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td><strong>124</strong></td>
<td><strong>115</strong></td>
<td><strong>18</strong></td>
<td><strong>105</strong></td>
<td><strong>19</strong></td>
</tr>
</tbody>
</table>

Notes:
- RPP = Residential Preferential Parking
- (I) = RPP zone generally north of Dwight Way in the project vicinity
- (J) = RPP zone generally south of Dwight Way in the project vicinity
- Non-resident parking is restricted to two hours between 7:00 a.m. and 7:00 p.m. in RPP areas.
- Capacity: Parking spaces available measured by counting the number of spaces either metered or striped. For areas where parking spaces are not striped or metered, parking spaces are calculated by measuring the length of the block while subtracting driveways and painted curbs, then divided by 20 feet/parking space.
- Parking surveys were conducted at 11:00 p.m. on 3/6/2012 and 8:00 p.m. on 3/15/2012 while UC Berkeley and City College are in session.
- Vacant spaces were not counted, but were calculated by subtracting occupied spaces from the capacity.
Survey results revealed that in some zones there were more parked cars than available spaces. This is because many cars require less than the standard 20 feet length space assumed in the study. As such, it is possible that more cars can park in the available spaces than are marked or striped. Field observation also indicated there were cars parked in front of some driveways (possibly some motorists prefer to park in front of their house driveways for convenience) but were counted as parked cars in the survey.

The project would need to provide 21 additional parking spaces to meet the City’s requirements for multi-family development. However, the survey area may be able to accommodate the project due to the availability of excess on-street parking spaces.

However, it is likely that the project would generate less parking demand than the City’s parking requirement. As a development marketed primarily to university students, vehicle ownership would likely be lower than typical multi-family housing developments and would have a lower parking demand. The City’s parking requirement of 70 spaces for the project is based on the parking needs for a typical multi-family development and would not reflect the lower vehicle ownership of university students.

According to transportation surveys conducted by University housing staff, vehicle ownership with students living in University housing, at the periphery of the campus such as those 2135 College Avenue and 2311 Le Conte Avenue is less than 5 percent. Student vehicle ownership would likely be similar for the project due to its short distance to campus.

With 29 two-bedroom and 52 four-bedroom apartments, the project is expected to accommodate 266 residents. Assuming a similar 5 percent vehicle ownership rate, the project would need 14 parking spaces to accommodate its parking needs. At a higher 10 percent vehicle ownership rate, the project would need 27 parking spaces.

On-street parking in the area surrounding the project site, for several blocks in all directions, is either metered or within RPP zones. Section 14.72.080.C of the Berkeley Municipal Code prohibits the issuance of RPP permits to residents of projects that do not meet the minimum parking requirements. Therefore, project residents who do not have parking on site would have to either move their vehicles every two hours during the day (except on Sundays), or purchase monthly parking in a private off-street parking facility, in which case impacts on on-street parking would not occur. These factors would help reduce the likelihood of parking demand from the project exceeding available supply.

Parking deficits may be associated with secondary physical environmental impacts, such as air quality and noise effects, caused by congestion resulting from drivers circling as they look for a parking space. However, the absence of a ready supply of parking spaces, and the RPP restrictions noted above, combined with available alternatives to auto travel (e.g., transit service, shuttles, taxis, bicycles or travel by foot), may induce drivers to shift to other modes of travel, or change their overall travel habits. Any such resulting shifts to transit service, in particular, would be in keeping with the City’s Transit First policy.
XVII. UTILITIES AND SERVICE SYSTEMS. Would the project:

a) Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board? □ □ ☒ □

b) Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects? □ □ ☒ □

c) Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects? □ □ ☒ □

d) Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed? □ □ ☒ □

e) Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project’s projected demand in addition to the provider’s existing commitments? □ □ ☒ □

f) Be served by a landfill with sufficient permitted capacity to accommodate the project’s solid waste disposal needs? □ □ ☒ □

g) Comply with federal, State, and local statutes and regulations related to solid waste? □ □ ☒ ☒

a) Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board? (Less-Than-Significant Impact)

In Berkeley, sanitary sewage flows toward San Francisco Bay through a network of pipes, beginning with building connections at the upper laterals, which are privately owned and maintained, and continuing to the lower laterals and to the sewer mains, which are City-owned and maintained. Within the City of Berkeley, there are approximately 400 miles of sanitary sewer mains, with an estimated 28,000 lateral connections. The sewer mains vary from 1 to 100 years old, and vary in size from 6 to 48 inches in diameter.
The City’s sewer system is connected to trunk lines which convey flows to East Bay Municipal Utility District’s (EBMUD’s) wastewater interceptors, which direct flows to EBMUD’s Main Wastewater Treatment Plant (MWWTP) in the City of Oakland. The MWWTP has a primary treatment capacity of 320 million gallons per day (mgd) and a secondary treatment capacity of 168 mgd. Storage basins provide plant capacity for a short-term hydraulic peak of 415 mgd. The average annual daily flow into the MWWTP is approximately 75 mgd, representing 45 percent of the plant’s secondary treatment capacity.\(^{50}\) Treated effluent is disinfected, dechlorinated, and discharged through a deep-water outfall 1 mile off the East Bay shoreline into the San Francisco Bay.

The City of Berkeley’s Inflow/Infiltration correction program allows for a 20 percent increase in the base wastewater flow for each of the City’s 89 sub-basins due to changes in land use or population. The Inflow/Infiltration correction program, initiated in late 1987, proposes rehabilitation or replacement of 50 percent of the City’s existing system over 30 years.

The proposed project would generate domestic wastewater, treated by the EBMUD treatment facilities. EBMUD is required to meet applicable RWQCB treatment requirements. In addition, the proposed project would use an incremental portion of EBMUD’s wet weather treatment capacity. The type and intensity of development proposed by the project would be consistent with the wastewater generation projections outlined in the Environmental Impact Report prepared for the Southside Plan, which assumed that 472 new dwelling units would be built in the area for an increase in the demand for wastewater treatment by about 0.18 mgd.\(^{51}\) Wastewater generated by the proposed project would be minimal when compared to the average daily flow for the MWWTP and would not exceed the capacity of the MWWTP. Therefore, the proposed project would not exceed the wastewater treatment requirements of the Regional Water Quality Control Board, San Francisco Bay Region (Water Board).

Wastewater discharges that may occur at the project site would be required to comply with the terms of the permit and may be subject to monitoring by EBMUD to ensure that the development’s sewage discharge does not impair the ability of the MWWTP to meet wastewater treatment objectives and requirements.

\(b\) Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects? (Less-Than-Significant Impact)

The water and wastewater treatment facilities that serve the project site and area include EBMUD’s Orinda Water Treatment Plant (WTP) and the MWWTP, respectively.\(^{52,53}\) The


\(^{53}\) East Bay Municipal Utility District, 2012a. op. cit.
Orinda WTP has the largest output of EBMUD’s treatment plants with a maximum capacity of 190 mgd and is currently operating at approximately 57 percent of capacity.54,55

Please refer to Section XVII.a for a description of the MWWTP’s capacity. Development of the proposed project on an infill site would not substantially increase water demand or wastewater generation at the project site such that new or expanded water or wastewater treatment facilities would be required to serve the proposed project.

The proposed project would connect to existing water delivery systems within the vicinity of the site; an existing 6-inch water line is located along Dwight Way. The proposed project would be consistent with the level of development envisioned under the Southside Plan and would locate high density residential uses on the site.56

Depending on EBMUD metering requirements and fire flow requirements set by the City of Berkeley Fire Department, a main extension may be required to serve the project site. In addition, off-site pipeline improvements, which could include the replacement of existing water mains to the project site, may also be required to meet fire flow requirements.57 If EBMUD and the City of Berkeley Fire Department determine capacity would be exceeded by the proposed project, necessary replacement and installation of the water main and/or off-site pipeline improvements would be made at the project applicant’s expense58 and would be incorporated into the project design via standard conditions of approval.

The proposed project would connect to an existing 8-inch sanitary sewer line located along Fulton Street. As discussed in the Southside Plan EIR, in 1987, the City of Berkeley implemented a sewage infiltration and inflow (I/I) correction program, consistent with the goals of the East Bay Infiltration and Inflow Study (1985). The program outlined a 30-year implementation period and over 90 percent of the sewer replacement projects in the City have been completed. Among the infiltration and inflow correction projects in the Southside area, one project along Dwight Way between Fulton and Ellsworth Streets, adjacent to the project site, was completed in 2004.59 As described in the Southside Plan EIR, sewer replacement and rehabilitation projects in the Southside area have included larger mains to provide additional sewer conveyance capacity in anticipation of increased residential development in this area. The Southside Plan EIR also concluded that existing sewer mains have the capacity to serve the anticipated increase in housing units and commercial space within the Southside area. A citywide plan is also currently underway, which would provide the City with more exact analytical tools to assess the impacts of individual project through

54 East Bay Municipal Utility District, 2012b. op. cit.
57 Rehnstrom, David, 2012. Senior Civil Engineer. East Bay Municipal Utility District. Written communication with City of Berkeley Planning Department. September 27.
58 Ibid.
hydraulic modeling. Because of the recent improvements made in existing wastewater capacity within the Southside area, wastewater infrastructure would adequately serve the site.

Given the above, the proposed project would not result in the construction of new or expansion of existing water or wastewater treatment or conveyance facilities or infrastructure, such that environmental impacts would occur. Therefore, this impact would be less than significant.

c) **Require or result in the construction of new stormwater drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects? (Less-Than-Significant Impact)**

Most of the creeks in Berkeley (except in a few locations) have been culverted, forming the basis of the storm drain system layout. Berkeley's original storm drain system is over 100 years old. Prior to 1945, the system conveyed both untreated sanitary sewer and storm water to the San Francisco Bay. The storm drain system was separated from the sanitary system by 1961, with the exception of 72 sewer-to-storm drain bypass installations.

Berkeley has approximately 78 miles of storm drains ranging from 6 inches to 6 feet in diameter. In addition, there are approximately 1,900 catch basins and 4,000 storm inlets/ outlets which divert the storm water runoff into the underground mains. Maintenance and improvement of the system is paid for by the General Fund and through hook-up fees paid by new development.

The proposed project would connect to the existing stormwater system. The project applicant would be required to pay the cost of installing new storm drains at the project site, if determined necessary by the Public Works Department. The project would not increase impervious surfaces at the site and would therefore not result in increased amounts of stormwater runoff (which may actually be less than existing conditions); therefore new, larger stormwater facilities are not likely required for the new development and this impact would be less than significant.

Please refer to Section IX.a and e for a discussion of stormwater drainage. Implementation of Mitigation Measures HYDRO-1 and HYDRO-2 would ensure that potential impacts to the existing storm drainage system would be less than significant.

d) **Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed? (Less-Than-Significant Impact)**

Water service at the project site and in the project area is provided via EBMUD's Berryman pressure zone. EBMUD obtains approximately 90 percent of its water from the Mokelumne River watershed, and transports it through pipe aqueducts to temporary storage reservoirs in the East Bay hills. EBMUD has water rights and facilities to divert up to a daily maximum
of 325 mgd from the Mokelumne River. EBMUD also has a contract with the U.S. Bureau of Reclamation to obtain water from the American River via the Folsom South Canal, but these facilities have yet to be built because of litigation opposing further diversions from the Sacramento River Delta.

EBMUD faces water supply problems such as the growing risk of aqueduct failure in the Delta, increasing shortages in dry periods, and increased difficulty in maintaining high quality drinking water. In response, EBMUD recently completed development of Water Supply Management Program (WSMP) 2040, the District’s plan for providing water to its customers over the next 30 years. The plan calls for maintaining a reliable, high-quality water supply by aggressively conserving and recycling water. New water supplies will come from water transfers, groundwater storage and regional supply projects. The City of Berkeley is located in one of EBMUD’s identified water reuse zones. Some of the recycled water demands identified by EBMUD in the City of Berkeley include irrigation, toilet flushing, commercial process water, and decorative fountains. EBMUD’s Non-Potable Water Policy 73 (Policy 73) seeks to implement recycled water programs. Policy 73 requires that, when non-potable water is available, customers of EBMUD use non-potable water for non-domestic purposes when it is of adequate quality and quantity, available at reasonable cost, not detrimental to public health, and not injurious to plant life, fish and wildlife.

Water demand from new development in the Southside area was considered in the Southside Plan EIR. The analysis in the Southside EIR demonstrates that anticipated water demand in this area has been accounted for in EBMUD’s water demand projections and that anticipated growth under the Southside Plan would not change EBMUD’s 2020 demand projections. Because the proposed project is consistent with the type and intensity of development anticipated under the Southside Plan, it is not anticipated that EBMUD would need new or expanded entitlements to serve the proposed project.

However, due to EBMUD’s limited water supply, future users of the site (and all EBMUD customers) should plan for shortages in time of drought. Policy EM-26 in the City of Berkeley General Plan promotes water conservation through City programs and requirements, including cooperation with EBMUD to make recycled water available for irrigation and other uses. Compliance with standard City requirements for incorporating water conservation measures into the project design will ensure efficient use of water at the project site and minimize the project’s potential water demand to a level that is considered less than significant.

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EBMUD also imposes a system capacity charge on new developments to fund system maintenance and the development of new water sources. The project applicant would be required to pay this fee and undertake water conservation measures to conserve water such as the installation of low-flow toilets. In addition, the project applicant would also be required to comply with Section 31 of EBMUD’s Water Service Regulations, which require applicable water-efficiency measures be installed to water using equipment at the applicant’s expense. The project applicant also would be required to coordinate with EBMUD and the City of Berkeley Fire Department to assess fire flow requirements and comply with them as part of the project.

The proposed project is not subject to either an assessment required by Senate Bill 221 (project is consistent with the General Plan, is not subject to a referendum, and is not a subdivision) or an assessment required by Senate Bill 610 (project consists of less than 500 units and 500,000 square feet of commercial space, and will have fewer than 1,000 employees).

e) Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project’s projected demand in addition to the provider’s existing commitments? (Less-Than-Significant Impact)

Please refer to Section XVII,a. The proposed project would not exceed the capacity of the wastewater treatment system.

f) Be served by a landfill with sufficient permitted capacity to accommodate the project’s solid waste disposal needs? (Less-Than-Significant Impact)

The City of Berkeley is one of the few cities in Northern California to operate its own refuse collection system. The City of Berkeley provides curbside recycling and refuse collection services to the project site. Solid waste would be transported from the Berkeley Transfer Station, located at 1021 Second Street, to the Altamont Landfill and Resource Recovery Facility, located near the Altamont Pass, northeast of the City of Livermore. In 2006 (the year for which the most current data is available), the City of Berkeley diverted approximately 57 percent of its solid waste from landfills through recycling and/or composting efforts.

The project site could result in approximately 250 tons of demolition waste and approximately 400 cubic yards of construction debris. All demolition and construction waste would be recycled to the extent feasible. There are two permitted landfills in Alameda County with the capacity to accommodate solid waste generated in Berkeley: Altamont Landfill and Vasco Road Sanitary Landfill. Waste generated by the proposed project would not exceed the

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66 Ibid.
combined permitted capacity of approximately 95 million cubic yards of these landfills. Prior to approval of large development projects, the City of Berkeley Solid Waste Management Division staff reviews proposed plans for the adequate design of trash and recycling facilities. The project applicant would be required to prepare a Construction Demolition Recycling Plan prior to issuance of a Demolition Permit for the proposed project. The purpose of the plan is to divert as much debris as possible from the waste stream. The proposed project would also comply with General Plan Policy EM-5 and EM-8, which promotes and encourages compliance with “green” building standards, and encourages rehabilitation and reuse of buildings, respectively.

\[g\] Comply with federal, State, and local statutes and regulations related to solid waste? (No Impact)

The proposed project would comply with all federal, State, and local solid waste statutes and/or regulations related to solid waste. Also refer to Section XVII.f.

<table>
<thead>
<tr>
<th>Potentially Significant Impact</th>
<th>Potentially Significant Unless Mitigation Incorporated</th>
<th>Less Than Significant Impact</th>
<th>No Impact</th>
</tr>
</thead>
</table>

**XVIII. MANDATORY FINDINGS OF SIGNIFICANCE.**

a) Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal, or eliminate important examples of the major periods of California history or prehistory?

b) Does the project have impacts that are individually limited, but cumulatively considerable? (“Cumulatively considerable” means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects.)

---

c) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?

a) Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal, or eliminate important examples of the major periods of California history or prehistory? (Potentially Significant Impact)

As discussed in Section IV, development of the proposed project would not: 1) substantially reduce the habitat of a fish or wildlife species; 2) cause a fish or wildlife species population to drop below self-sustaining levels; 3) threaten to eliminate a plant or animal community; or 4) reduce the number or restrict the range of a rare or endangered plant or animal. As discussed in Section V, the proposed project may impact on- and/or off-site historic resources. The EIR will address the potential of the proposed project to otherwise degrade the quality of the environment as it relates to environmental issues of concern not addressed in this Initial Study.

b) Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects.) (Potentially Significant Impact)

With the mitigation measures recommended in this report, impacts related to air quality, cultural resources, hydrology and water quality, and noise would be individually limited and not cumulatively considerable in the context of impacts associated with other pending and planned development projects. These impacts are typical of infill development projects and the impacts of the project would be reduced to a less-than-significant level through implementation of the standard mitigation measures recommended in this report.

However, as discussed in this Initial Study, potentially significant impacts related to aesthetics; historic resources; and hazards and hazardous materials may result from the proposed project. These impacts, as well as any cumulatively considerable impacts that may result from the proposed project, will be evaluated in the EIR that is being prepared for the proposed project.

c) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly? (Potentially Significant Impact)
The EIR will address the project's potential to result in any environmental effects that would cause substantial direct or indirect adverse effects on human beings.
REPORT PREPARATION

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B. REFERENCES


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San Franciscans Upholding the Downtown Plan v. the City and County of San Francisco (2002) 102 Cal. App. 4th 656.


C. COMMUNICATIONS

Berkeley Fire Department, 2012. John Fitch, Written communication with City of Berkeley Planning Department. September 27.

Berkeley Police Department, 2012. Erik Upson. Written communication with City of Berkeley Planning Department. September 27.


Rehnstrom, David, 2012. Senior Civil Engineer. East Bay Municipal Utility District. Written communication with City of Berkeley Planning Department. September 27.