2128 Oxford Street Mixed-Use Project

Draft Environmental Impact Report

prepared by

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Executive Summary

This document is an infill Environmental Impact Report (EIR) analyzing the environmental effects of the proposed 2128 Oxford Street Mixed-Use Project (proposed project). This section summarizes the characteristics of the proposed project, alternatives to the proposed project, and the environmental impacts and mitigation measures associated with the proposed project.

Project Synopsis

Project Applicant and Contact Person

Core Berkeley Oxford LLC
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Chicago, Illinois 60647

Contact: Jonathan Kubow, (312)-593-3895

Lead Agency Name, Address, and Contact Person

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Project Location

The project site encompasses two parcels totaling 0.82 acres (35,522 square feet) at 2128-2136 Oxford and 2132-2154 Center Street in the City of Berkeley, Alameda County. The project site has two parcels but three Assessor Parcel Numbers: 057-2031-001-01 (2128-2136 Oxford Street), 057-2031-013 (2132-2154 Center Street), and 057-2031-014 (2142 Center Street).

Project Description

This EIR has been prepared to examine the potential environmental effects of the 2128 Oxford Street Mixed-Use Project. The following is a summary of the full project description, which can be found in Section 2, *Project Description*.

The project would involve demolition of the existing on-site buildings (including the 2142 Center Street building which was found individually eligible for local designation and is a contributor to the CRHR-eligible Shattuck Avenue Commercial Corridor Historic District) and construction of a new 26-story (approximately 285-foot) mixed-use building. The mixed-use building would include up to 463 residential units, with 41 of those units at below market rate, located on floors 2 through 25. The proposed project would also include approximately 15,000 square feet of retail and restaurant space. Approximately 10,500 square feet of retail and restaurant space would be on the ground floor and 4,500 square feet of restaurant space would be located on the roof.

The proposed project would also include a below-ground basement level which would include mail and package rooms, an office, and mechanical and utility storage rooms and equipment. A 36-space

parking garage would be located at-grade, with access from a driveway on Oxford Lane and would include mechanical lifts in a pit that would extend into the basement. There would also be an exterior amenity roof deck on level 25 and a restaurant on level 26.

Table ES-1 summarizes the project characteristics.

Table ES-1 Project Characteristics

Use	Gross Floor Area (square feet)
Height/Stories	285 feet, 4 inches to the highest roof point, 297 feet 4 inches to highest parapet 26 stories above grade 1 basement story below grade
Gross Floor Area	694,778 sf[1]
Garage (Ground Floor)	7,268 sf
Retail/Restaurant (Ground Floor and Level 26)	14,961 sf
Amenity/Lobby (Basement, Ground Floor, Level 1-2, Level 25)	16,804 sf
Common/ Corridor (Basement- Floor 26)	96,908 sf
Residential (Floors 2-25)	527,187 sf
Exterior Amenity (Floor 25)	11,135 sf

[1] The gross floor area is calculated not including the exterior amenity or basement.

sf = square feet

Project Objectives

The objectives for the project include:

- Implement the Downtown Area Plan (DAP) by leveraging the development potential under Zoning Ordinance standards and State law to generate the revenue necessary to provide on-site affordable housing and construct an environmentally superior transit-oriented housing project, plus provide additional community and public benefits, while maintaining project financial feasibility.
- Generate high-quality, transit-oriented, and sustainable market rate housing to support and contribute substantial affordable housing and in-lieu fees toward the construction of affordable housing, as required by the Berkeley Municipal Code.
- Activate the pedestrian environment along Oxford Street and Center Street with a building design and ground floor interface with vibrant, walkable retail and pedestrian amenities.
- Provide an opportunity through the payment of substantial Streets and Open Space Improvements (SOSIP) fees to fulfill the vision of the DAP to close Center Street (at least a portion of it) to vehicle traffic and allow for an expanded pedestrian amenity space on one of the highest pedestrian-traveled streets in the East Bay.
- Provide a green building using environmentally sustainable siting, development, and construction practices, including LEED Gold or equivalent certification and an all-electric building system.
- Incorporate ecologically beneficial native and drought-tolerant landscaping that promotes watershed health and creates safe, comfortable, and inviting open spaces.

Alternatives

As required by the California Environmental Quality Act (CEQA), this EIR examines alternatives to the proposed project. Studied alternatives include the following three alternatives. Based on the alternatives analysis, Alternative 2 was determined to be the environmentally superior alternative.

- Alternative 1: No Project Alternative
- Alternative 2: 2142 Center Street Building to Remain Alternative
- Alternative 3: Façade Preservation Alternative

Alternative 1 (*No Project Alternative*) assumes that the proposed 26-story mixed-use building with 463 residential units and approximately 15,000 square feet of retail and restaurant space are not constructed. The project site is currently developed with two existing buildings that would remain under this alternative. The building located at 2128 Oxford Street is two stories tall and includes a bakery, restaurant/bar, and vacant storefronts on the ground floor. There is also a parklet located on the ground floor along the Oxford Street frontage. The building located at 2124 Center Street is a two-story building with five restaurants and two cafes on the ground floor, along with presently vacant storefronts. The building at 2142 Center Street includes 16 rent-controlled residential units on the second floor, all of which are currently vacant. The No Project Alternative would not meet any of the Project Objectives.

Alternative 2 (*2142 Center Street Building to Remain Alternative*) would not demolish the NRHP and CRHR-eligible building at 2142 Center Street and the existing uses in the building would remain. This would eliminate the significant and unavoidable historic impact. The existing uses in the building would remain. The remaining portion of the project site, including the surface parking lot and building at 2128 Oxford Street, would be demolished and developed at maximum density into a mixed-use building. This alternative assumes that the building on the remaining portion of the site would be developed with a 26-story building with 5,000 square feet of ground-floor retail, a 4,500 square foot roof-top restaurant, and 325 residential units.

Alternative 2 would fulfill the Project Objectives because, similar to the proposed project, Alternative 2 would maximize the housing yield of the site, provide affordable and transit-oriented housing, and help meet the City's RHNA target. However, it would not provide housing to the same extent as under the proposed project.

Alternative 3 (*Façade Preservation Alternative*) would include the same characteristics as the proposed project described in Section 2, *Project Description*. Existing on-site buildings would be demolished to construct a new 26-story mixed-use building with 463 residential units with approximately 15,000 square feet of retail and restaurant space. However, the façade on the 2142 Center Street building would be preserved under this Alternative, while the rest of the building would be demolished. The existing façade would be incorporated into the design of the proposed mixed-use building.

Alternative 3 would fulfill all Project Objectives because similar to the proposed project, Alternative 3 would maximize the housing yield of the site, provide affordable and transit-oriented housing, and help meet the City's RHNA target.

Refer to Section 6, *Alternatives*, for the complete alternatives analysis.

Areas of Known Controversy

The EIR scoping process identified historical resources and transportation as areas of known controversy for the proposed project. Responses to the Notice of Preparation of a Draft EIR and input received at the EIR scoping meeting held by the City are summarized in Section 1, *Introduction* and included in Appendix A.

Issues to be Resolved

The proposed project would require discretionary approval and is subject to approval by the City of Berkeley's Zoning Adjustments Board, the decision of which would be appealable to the City Council.

Issues Not Studied in Detail in the EIR

The issue areas of Aesthetics, Agricultural Resources, Air Quality, Biological Resources, Energy, Greenhouse Gas Emissions, Hydrology and Water Quality, Land Use and Planning, Mineral Resources, Population and Housing, Recreation, Transportation, Utilities and Service Systems, and Wildfire are studied in the Infill Environmental Checklist (IEC) included in Appendix B of this EIR.

Impacts related Cultural Resources, Geology and Soils, Hazards and Hazardous Materials, Public Services, and Tribal Cultural Resources were found to be potentially significant in the IEC and are analyzed in this EIR.

Summary of Impacts and Mitigation Measures

Table ES-2 summarizes the environmental impacts of the proposed project, proposed mitigation measures, and residual impacts (the impact after application of mitigation, if required). Impacts are categorized as follows:

- **Significant and Unavoidable.** An impact that cannot be reduced to below the threshold level given reasonably available and feasible mitigation measures. Such an impact requires a Statement of Overriding Considerations to be issued if the project is approved per *CEQA Guidelines* Section 15093.
- **Less than Significant with Mitigation Incorporated.** An impact that can be reduced to below the threshold level given reasonably available and feasible mitigation measures. Such an impact requires findings under *CEQA Guidelines* Section 15091.
- **Less than Significant.** An impact that may be adverse, but does not exceed the threshold levels and does not require mitigation measures. However, mitigation measures that could further lessen the environmental effect may be suggested if readily available and easily achievable.
- **No Impact.** The proposed project would have no effect on environmental conditions or would reduce existing environmental problems or hazards.

Table ES-2 Summary of Environmental Impacts, Mitigation Measures, and Residual Impacts

Impact	Mitigation Measure (s)	Residual Impact
Cultural Resources		
Impact CR-1. The proposed project would demolish a historic resource at 2132-2154 Oxford Street, which is eligible for the California Register of Historical Resources (CRHR) and local designation. Implementation of project mitigation measures CR-1 and CR-2 would reduce the severity of the project's impact on historical resources to the extent feasible. However, because the project would demolish a historical resource, even with implementation of mitigation, this impact would be significant and unavoidable.	**Project Mitigation Measure CR-1 Building Documentation.** Archival documentation of as-built and as-found condition shall be prepared for 2132-2154 Center Street, prior to demolition. Prior to issuance of demolition permits, the City of Berkeley shall ensure that documentation of the building proposed for demolition is completed at the project applicant's expense. Documentation should follow the general guidelines of the National Park Service (NPS) Heritage Documentation Program-like standards and shall include high resolution digital photographic recordation, an outline format historic report, and compilation of historic research. The documentation shall be completed by a qualified professional who meets the standards for history or architectural history as set forth by the Secretary of the Interior's Professional Qualification Standards (36 Code of Federal Regulations, Part 61). The original documentation shall be offered as donated material by the lead agency to repositories such as the Berkeley Architectural Heritage Association and to the Berkeley Public Library to make it available for current and future generations. Archival copies of the documentation also would be submitted to the City of Berkeley and Northwest Information Center (NWIC) where it would be available to local researchers. **Project Mitigation Measure CR-2 Shattuck Avenue Commercial Corridor Historic District Update.** Prior to the issuance of a certificate of occupancy, the existing record for the Shattuck Avenue Commercial Corridor District, first identified in the 2009 Downtown Area Plan and recorded and evaluated in *Shattuck Avenue Commercial Corridor Historic Context and Survey* in 2015 by Archives & Architecture, shall be updated. The City of Berkeley shall ensure that an updated survey and evaluation of the Historic District shall be undertaken at the project applicant's expense to document and verify the conditions of the Historic District. The Department of Parks and Recreation District Record (Series 523D) forms shall be updated to document changes to the historic district, including alterations, demolitions, and changes in setting. The documentation shall be completed by a qualified professional who meets the standards for history or architectural history as set forth by the Secretary of the Interior's Professional Qualification Standards (36 Code of Federal Regulations, Part 61).	Significant and unavoidable.

Impact	Mitigation Measure (s)	Residual Impact
Impact CR-2. Demolition and excavation for the proposed project may result in damage to or destruction of a potential archaeological resource (Oxf-001). However, this impact would be less than significant with mitigation incorporated.	**Project Mitigation Measure CR-3 Preparation of a Cultural Resources Mitigation and Monitoring Plan**. The applicant shall retain a Qualified Archaeologist, meeting the Secretary of Interior's Professional Qualification Standards, to oversee all aspects of the cultural resources mitigation measures. Avoidance and preservation in place is the preferred manner of mitigating impacts to historical resources of an archaeological nature. If the Qualified Archaeologist in coordination with the City, the applicant, and the consulting Tribe(s) determine that preservation in place is infeasible, the Qualified Archaeologist shall prepare and oversee the implementation of a Cultural Resources Mitigation and Monitoring Plan (CRMMP). To reduce impacts to Oxf-001, the CRMMP shall include an archival research and data recovery plan component, a worker's environmental awareness program (WEAP), an archaeological and Native American monitoring plan, and an unanticipated discoveries plan. Preparation of the CRMMP and implementation of its archival research and data recovery plan component shall be completed prior to the issuance of a demolition permit. The CRMMP shall be prepared in consultation with the consulting Tribe(s) and in coordination with local interested historical groups. Implementation and the effectiveness of the CRMMP requirements shall be assessed by the City on a monthly basis during the pre-construction, construction, and post-construction phases of the project. Archival research shall be conducted to prepare a detailed development history of the project site and shall include, but not be limited to, review of historic literature, records, and maps held at UC Berkeley, and local historical groups, and libraries. The CRMMP shall identify which local historical groups shall be contacted as part of this background research. The results of the archival research shall be the basis for a historic context presented in the data recovery plan and shall inform methods to be implemented as part of the data recovery as well as interpretations of the data recovery results. The data recovery plan shall include excavation methods for: initial investigations to determine the extent and content of Oxf-001 in order to narrow in on the most productive areas for data recovery excavations; the methods for data recovery excavations aimed at recovering the scientifically important data contained in Oxf-001; and methods for documentation, mapping, artifact collection, special studies, laboratory analysis and cataloging, curation, and reporting. The data recovery plan shall also include procedures for the treatment of human remains. The WEAP component of the CRMMP shall include training materials that shall be presented to construction personnel to inform them of the cultural sensitivity associated with the site and to provide procedures when working in culturally sensitive areas and in coordination with archaeological and Native American monitors. The training shall include a description of the types of materials that could be encountered, procedures to be implemented in the event resources are discovered, stop work authorizations and notification protocols, and laws protecting cultural	Less than significant.

Impact	Mitigation Measure (s)	Residual Impact
	resources. All construction personnel shall attend WEAP training prior to participating in any ground disturbing work on the project site and WEAP training attendance sheets shall be prepared and retained on site and available to the City. The monitoring plan component of the CRMMP shall include monitoring procedures and requirements that shall be implemented during project construction. Archaeological and Native American monitoring shall be conducted during all ground disturbing activities including pavement removal, grading, and trenching. Procedures shall include provisions for the reduction or termination of construction monitoring at the recommendation of the Qualified Archaeologist and in coordination with the City and the consulting Tribe(s). The discovery plan component of the CRMMP shall address procedures and notifications to be implemented in the event of an unanticipated discovery of archaeological resources during ground disturbing activities. The procedures listed within the discovery plan for unanticipated discoveries shall incorporate the procedures documented in the DAP EIR, the City's Conditions of Approval, and tribal recommendations The discovery plan shall include procedures by which the Qualified Archaeologist, in coordination with the consulting Tribe(s), for discoveries of Native American origin, shall consider whether the discovery is associated with Oxf-001 or constitutes a separate and individual resource. If a discovery is determined to be associated with Oxf-001, the Qualified Archaeologist shall determine whether the unanticipated discovery is a contributor in that it contributes new or different data and information than what had been recovered during implementation of the data recovery plan and further data recovery shall be implemented. For redundant discoveries associated with Oxf-001, no additional data recovery shall be conducted, unless otherwise determined necessary through consultation between the City, the consulting Tribe(s), and the Qualified Archaeologist. If the discovery is determined to be unrelated to Oxf-001, the resource shall be evaluated for listing in the CRHR and if recommended eligible by the Qualified Archaeologist, treatment implemented, as needed. Work in the area of a discovery shall not resume until the aforementioned steps are completed. Additionally, the CRMMP shall document the process for the repatriation of Native American materials to the appointed Most Likely Descendant (MLD). As a result of AB 52 consultation between the City and the consulting Tribe(s), the reburial of all Native American materials shall take place within the project site in a location agreed upon by the consulting Tribe(s), the MLD (if appointed and if different from the consulting Tribe(s), the City, and the applicant through consultation. The area selected for reburial shall be defined as a Cultural Resources Easement and marked on City map as an area not to be excavated and free of further disturbance, including utilities.	

Impact	Mitigation Measure (s)	Residual Impact
	Project Mitigation Measure CR-4 Preparation of an Interpretive and Educational Plan. Following the completion of ground disturbing activities associated with the project and prior to the issuance of occupancy permits, the Qualified Archaeologist shall prepare a plan to provide for public interpretation and education focused on providing public access to the results of the implementation of the CRMMP. Interpretation and education may include, but is not limited to, educational or interpretive panels or signage, exhibits, web-based or other media, and placing non-confidential materials and reports on file at UC Berkeley, with local historical societies, and libraries. The plan shall also include the reintegration of the Kellogg School Berkeley Historic Plaque within the project site. The reintegration of the existing plaque shall necessitate coordination with the Berkeley Historical Plaque Project which are responsible for the current location of the plaque. The Interpretive and Educational Plan shall be prepared in consultation with the consulting Tribe(s)on Native American aspects and in coordination with Project Mitigation Measure TCR-1, and in coordination with local interested historical groups on historic aspects. Implementation and the effectiveness of the Interpretive and Educational Plan requirements shall be assessed by the City on a monthly basis until implementation of the plan is completed. **Project Mitigation Measure CR-5 Archaeological Monitoring.** Archaeological monitoring shall be performed under the direction of the Qualified Archaeologist during all ground disturbing activities including pavement removal, grading, and trenching. The archaeological monitor shall have the authority to halt and redirect work should any archaeological resources be identified during monitoring. If archaeological resources are encountered during ground-disturbing activities, work within 50 feet of the find must halt and the find evaluated for listing in the CRHR. The Qualified Archaeologist, in consultation with the consulting Tribe(s) for resources of Native American origin, shall determine whether the discovery is associated with Oxf-001 and whether it constitutes a contributor or whether the discovery is a separate and individual resource. Work in the area of the discovery shall not resume until the Qualified Archaeologist has recommended and implemented treatment of the discovery, as needed. Archaeological monitoring may be reduced or halted by the Qualified Archaeologist, as identified in the CRMMP.	
Impact CR-3. The proposed project could have impacts on unknown human remains on the project site. However, with adherence to Berkeley's Standard Conditions of Approval and State regulations, this impact would be less than significant.	None required.	Less than significant without mitigation.

Impact	Mitigation Measure (s)	Residual Impact
Geology and Soils		
Impact GEO-1. There are no faults that cross the project site. The closest fault is the Hayward Fault approximately one 0.73 miles away. Because there are no faults that are near or cross the project site, the proposed project would not expose people or structures to risks associated with rupture of a known fault. Further, the proposed project would not exacerbate the likelihood of surface fault rupture. No impact would occur.	None required.	No impact without mitigation.
Impact GEO-2. With adherence to applicable laws and regulations, the proposed project would not result in substantial soil erosion or the loss of topsoil. This impact would be less than significant.	None required.	Less than significant without mitigation.
Impact GEO-3. The project site is less than one mile from the Hayward Fault. The proposed project would be subject to seismically-induced ground shaking and other seismic hazards which could damage structures and result in loss of property and risk to human health and safety. However, required compliance with State-mandated building standards, the CBC, and the BMC, and implementation of mitigation, would reduce impacts to a less than significant level. This impact would be less than significant with mitigation incorporated.	**Project Mitigation Measure GEO-1 Implementation of Geotechnical Report Recommendations**. All recommendations included in *Section 5: Preliminary Geotechnical Recommendations* (pages 10 through19 and Appendix C pages C-i through C-xxv) of the Geotechnical Report (Partner 2022) and in the Supplemental Geotechnical Peer Review – Liquefaction Zone study (Cotton, Shires, and Associates 2023) prepared for the proposed project shall be incorporated into the project design. These include but are not limited to the following: ▪ **Excavation Considerations**. The project shall use shored excavations to establish the basement of the project and to protect nearby structures. ▪ **Deep Foundations**. The project shall utilize drilled foundations that extend at least ten feet into the competent bedrock. ▪ **On Grade Construction**. In areas with deep instability, test pits shall be excavated and evaluated and additional resolutions such as the use of geotextiles, chemical treatments, thickened slabs, or lime treated aggregate base may be used. ▪ **Observation on site**. Observation and testing shall be conducted during these construction activities: ▫ Solider pile and tieback installation ▫ Tieback anchor testing ▫ Lagging installation ▫ Installation of wall back-drainage provisions ▫ Foundation bottom observation and approval ▫ Placement and compaction of fill material ▫ Removal of shoring within the public right-of-way upon completion of the project ▫ De-tensioning of tieback anchors ▫ Installation of drywells	Less than significant.

Impact	Mitigation Measure (s)	Residual Impact
	▪ **Geotechnical Plan Review.** The City shall verify that all recommendations are incorporated into the project design prior to the issuance of any building permits.	
Hazards and Hazardous Materials		
Impact HAZ-1. Construction and operation of the proposed project could result the use, storage, disposal, or transportation of hazardous materials. Upset or accident conditions on the project site could result in the release of hazardous materials into the environment. However, required adherence to existing regulations and the nature of the proposed land uses would ensure that impacts would be less than significant.	None required.	Less than significant without mitigation.
Impact HAZ-2. Berkeley High School and other private schools and childcare centers are located within one-quarter mile of the project site. The proposed project would not emit or handle substantial quantities of hazardous or acutely hazardous materials. This impact would be less than significant	None required.	Less than significant without mitigation.
Impact HAZ-3. The project is associated with a closed LUST case and is therefore located on a site that is included on a list of hazardous material sites compiled pursuant to Government Code Section 65962.5. There are known and unknown hazardous material impacts to soil, soil vapor, and groundwater at the project site. However, compliance with applicable regulations and the City's Standard Conditions of Approval requiring site characterization and cleanup, in addition to mitigation for potential soil, soil vapor, and/or groundwater impacts at the project site, would minimize hazards from the implementation of the proposed project. This impact would be less than significant with mitigation incorporated	**Project Mitigation Measure HAZ-1 Remediation of Contaminated Soils.** Where soil is known to be impacted, or is identified to be present during compliance with existing State and local regulations as well as the City's Standard Conditions of Approval, within the construction envelope at chemical concentrations exceeding ESLs and/or hazardous waste screening thresholds for contaminants in soil (CCR Title 22, Section 66261.24), the project applicant shall retain a qualified environmental consultant (Professional Geologist [PG] or Professional Engineer [PE]) to properly dispose of the contaminated soil. The qualified environmental consultant shall utilize the project site analytical results for waste characterization purposes prior to offsite transportation or disposal of potentially impacted soils or other impacted wastes. The qualified environmental consultant shall provide disposal recommendations and arrange for proper disposal of the waste soils or other impacted wastes (as necessary), and/or provide recommendations for remedial engineering controls, if appropriate. Remediation of impacted soils and/or implementation of remedial engineering controls may require additional delineation of sub-surface impacts; additional analytical testing per landfill or recycling facility requirements; soil excavation; and offsite disposal or recycling. The TMD shall review and approve the project site disposal recommendations prior to transportation of waste soils offsite, and review and approve remedial engineering	Less than significant.

Impact	Mitigation Measure (s)	Residual Impact
	controls, prior to construction. Subsequently, the project applicant shall review and implement the disposal recommendations prior to transportation of waste soils off-site, and review and implement the remedial engineering controls, prior to construction. Lastly, the City shall review the project site disposal recommendations for regulated waste and remedial engineering controls prior to issuing a grading permit. **Project Mitigation Measure HAZ-2 Disposal of Groundwater.** If contaminated groundwater (decontamination water, purge water, dewatering, or underground structures [groundwater leakage into the final structure]) is generated during construction of the project, the RWQCB or the City and/or Alameda County Public Works Agency shall be consulted to determine if the treated groundwater can be disposed through one of their waste discharge permits. RWQCB may require that an individual National Pollution Discharge Elimination System (NPDES) permit and/or waste discharge requirements be obtained for dewatering activities. The groundwater discharge and disposal requirements vary by agency, location, concentration, and contaminants of concern, and would therefore be developed in consultation with the City and the applicable agency, which could include RWQCB, the City, and/or the Alameda County Public Works Agency. **Project Mitigation Measure HAZ-3 Vapor Intrusion Mitigation System.** Where soil vapor is known (or is identified to be present during compliance with the City's Standard Conditions of Approval or implementation of mitigation measure HAZ-1), to be present at chemical concentrations exceeding the ESLs for sub-slab/soil gas (vapor) intrusion, the project applicant shall retain a qualified environmental consultant (PG or PE) or other qualified person to prepare a vapor intrusion mitigation system design for the proposed project. The plan shall include, but is not limited to: ▪ Design specifications ▪ Material specifications ▪ Installation requirements ▪ Monitoring requirements The project applicant shall design and implement engineering measures or institutional controls (e.g., soil vapor barrier) to prevent potential soil vapor intrusion into new residences or businesses in accordance with the measures included in the DTSC's Vapor Intrusion Guidance Document – Final (October 2011) and Vapor Intrusion Mitigation Advisory, Revision 1 (October 2011). TMD shall review and approve the Vapor Intrusion Mitigation System Design prior to construction. Engineering measures or institutional controls shall be submitted to the City's Planning and Development Department prior to the issuance of any grading or building permits. The project applicant and/or contractor shall incorporate a sub-slab vapor barrier	

Impact	Mitigation Measure (s)	Residual Impact
	during construction, the implementation of which would prevent the potential for soil gas VOCs from migrating to indoor air. The project applicant shall retain a qualified professional to certify that the accepted measures and controls are properly constructed and functioning at the project site. The efficacy of the measures and controls shall be confirmed and certified by a qualified professional pursuant to the construction quality assurance/quality control testing guidance of the DTSC's Vapor Intrusion Guidance Document – Final (October 2011). Written verification shall be submitted to TMD and the City. TMD may require the creation of an Operations and Maintenance Plan to ensure that future operational activities (e.g., underground utility repairs), do not alter the effectiveness of the selected vapor intrusion mitigation system. TMD shall review and approve the Operations and Maintenance Plan (if required) prior to occupancy. The City shall review the Operations and Maintenance Plan (if required) prior to issuing an occupancy permit. The project applicant shall implement the Operations and Maintenance Plan during occupancy at the project site.	
Public Services		
Impact PS-1. The proposed project would introduce additional residents and a high-rise structure to the Downtown area. The proposed project would increase demand for fire protection services Downtown. However, the project in and of itself would not require the expansion of fire services or necessitate the construction of new fire facilities. With compliance with the CBC, General Plan policies, and the California Fire Code, impacts related to fire service facilities would be less than significant.	None required.	Less than significant without mitigation.
Tribal Cultural Resources		
Impact TCR-1. Demolition and excavation for the proposed project may result in damage to or destruction of a potential tribal cultural resource (Oxf-001). However, this impact would be less than significant with mitigation incorporated.	**Project Mitigation Measure TCR-1 Native American Monitoring.** Prior to ground disturbing activities, a Native American monitor from the Confederated Villages of Lisjan shall be retained. If a Native American monitor from the Confederated Villages of Lisjan cannot be retained, another Tribe with cultural affiliations to the project site can be contacted for monitoring. The consulting Tribe, in consultation with the lead agency, and in coordination with the qualified archaeologist will have the authority to halt and redirect work should any archaeological or tribal cultural resources be identified during monitoring. If archaeological or tribal cultural resources are encountered during ground-disturbing activities, work within 50 feet of the find must halt and the find evaluated for listing in the CRHR and NRHP.	Less than significant.

Impact	Mitigation Measure (s)	Residual Impact
	Monitoring may be reduced or halted at the discretion of the Native American monitor, in consultation with the lead agency, as warranted by conditions such as encountering bedrock, sediments being excavated are fill, or negative findings during the first 50 percent of the entire area of ground-disturbance. Avoidance and preservation in place, as well as other mitigation options identified in PRC Section 21084.3 shall be considered by the lead agency. However, if these measures are determined infeasible, treatment shall be implemented in coordination amongst the Confederated Villages of Lisjan, the City, and the Qualified Archaeologist. If monitoring is reduced to spot-checking, spot-checking shall occur when ground-disturbance moves to a new location within the project site and when ground disturbance will extend to depths not previously reached (unless those depths are within bedrock). **Project Mitigation Measure TCR-2 Strawberry Creek Ohlone Past & Present Interpretive Display.** The project applicant shall be responsible for the design, production and installation of a permanent interpretive display that focuses on the Confederated Villages of Lisjan's past/present use of the area around Strawberry Creek in Downtown Berkeley. The display shall be designed in consultation with the Confederated Villages of Lisjan and shall be located in a publicly-accessible area, prior to receipt of occupancy. The style of display (e.g., mounted story board, mural, pavement installation, etc.) shall be selected in consultation with the Confederated Villages of Lisjan with the goal of educating the public about the area's significance to the Confederated Villages of Lisjan. Plans for the display shall be subject to review and approval by the City's Land Use Planning Division prior to installation.	

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1 Introduction

This document is an Infill Environmental Impact Report (EIR) prepared pursuant to CEQA Guidelines Section 15183.3 for a proposed mixed-use development located at 2128 Oxford Street in Berkeley, California. The proposed 2128 Oxford Street Mixed-Use Project (hereafter referred to as the "proposed project" or "project") would be constructed on a site currently occupied by two existing buildings and a surface parking lot. One building is located at 2128 Oxford Street and includes a bakery, restaurant/bar, and vacant storefronts on the ground floor. The second building is located at 2132-2154 Center Street and includes five restaurants and two cafes on the ground floor, along with presently vacant storefronts and 16 rent-controlled residential units on the second floor, all of which are currently vacant. The project would involve demolition of these existing buildings and construction of a 26-story mixed-use building with up to 463 residential units and approximately 15,000 square feet of retail and restaurant space. An at-grade parking garage with 36 parking spaces in stackers and a bike room with 264 bicycle parking spaces would be provided. The proposed project is described in detail in Section 2, *Project Description*.

This section discusses (1) the EIR background; (2) the legal basis for preparing an EIR; (3) the scope and content of the EIR; (4) issue areas found not to be significant; (5) the lead, responsible, and trustee agencies; and (6) the environmental review process required under the California Environmental Quality Act (CEQA).

1.1 Environmental Impact Report Background

The City of Berkeley distributed a Notice of Preparation (NOP) of the EIR and an Infill Environmental Checklist (IEC) for a 30-day agency and public review period starting on August 2, 2023, and ending on September 1, 2023. In addition, the City held an EIR Scoping Meeting on August 16, 2023. The meeting, held at 6:00 PM, was aimed at providing information about the proposed project and accepting comments on the scope and content of the EIR to members of public agencies, interested stakeholders and residents/community members. The meeting was held via Zoom teleconference. The City received no comments at the public scoping meeting. The City received letters from two public agencies and two individuals in response to the NOP during the 30-day scoping period. The NOP included as Appendix A of this EIR. The Infill Environmental Checklist is included as Appendix B. Table 1-1 on the following page summarizes the concerns raised in the comment letters received and in specific section the EIR or IEC that addresses the concerns.

Table 1-1 NOP Comments and EIR Response

Commenter	Summary of Comment	Where Topic is Addressed
Agency Comments		
East Bay Municipal Utility District (EBMUD)	▪ Project sponsor will be required to provide evidence of conformance with Section 537 of California's Water Code & Section 1954.201-2019 of California's Civil Code. ▪ Project sponsor should contact EBMUD's New Business Office and request a water service estimate to determine costs and conditions for providing water service to the proposed project. ▪ EBMUD will not install piping or services in contaminated soil or groundwater nor will EBMUD install piping or services in areas where groundwater contamination concentrations exceed specific limits. The project sponsor must submit copies to EBMUD of all known information regarding soil and groundwater quality and a legally sufficient complete and specific remediation plan for the removal treatment and disposal of contaminated soil and groundwater. ▪ EBMUD's main wastewater treatment plant is anticipated to have adequate dry weather capacity to accommodate the proposed wastewater flows from the project but expresses concern over wet weather flows. ▪ Recommends that the City require the project applicant to comply with EBMUD's Regional Private Sewer Lateral Ordinance and incorporate mitigation measures to prevent excessive infiltration and inflow to the maximum extent feasible. ▪ Project sponsor must comply with Assembly Bill 325 "Model Water Efficient Landscape Ordinance."	Topics are addressed in Section 10, *Hydrology and Water Quality* and Section 19, *Utilities and Service Systems* in the IEC, included as Appendix B of this EIR.
Alameda County Transportation Commission (ACTC)	▪ ACTC states that because the project will generate at least 100 p.m. peak hour trips over existing conditions, the Congestion Management Plan (CMP) Land Use Analysis Program requires the City to conduct a transportation impact analysis of the project. ▪ Summarizes the transportation findings in the IEC and states that Although SB 743 requires the use of VMT analyses rather than Level of Service (LOS) analyses to determine projects' transportation impacts under CEQA, Government Code Section 65089(b) and the Congestion Management Program (CMP) Land Use Analysis Program continue to require jurisdictions to analyze each project's potential impacts on the CMP roadway network. ▪ States that the EIR should address potential impacts of the project on Metropolitan Transportation System (MTS) transit operators and that the project would require a Caltrans permit for the transportation of heavy construction equipment. ▪ States that impacts to pedestrian and bicycle networks should be incorporated into the EIR. ▪ States that the EIR should detail when proposed roadway or transit route improvements are expected to be completed, how they will be funded, and the effect on service standards if only the funded portions of these mitigation measures are built prior to Project completion.	Topics are addressed in Section 17, *Transportation/ Traffic* in the IEC included as Appendix B of this EIR. Because it is not required under CEQA, a CMP analysis is not included in this EIR. A CMP analysis has been prepared and will be provided to ACTC separately outside of the CEQA process.

Commenter	Summary of Comment	Where Topic is Addressed
	▪ States that the EIR should consider the use of transportation demand management (TDM) measures, in conjunction with roadway and transit improvements, as a means of attaining acceptable levels of service.	
Steven Schuyler	Expresses concern over the use of acronyms and planning jargon included in the NOP letter and suggests the use of plain English.	This comment does not make recommendations related to the environmental analysis in the EIR. Acronyms are defined before use in the EIR. Acronyms used in the NOP are defined in the text of the NOP.
Mike Tehrani	Expresses concern over the lack of parking spaces provided at newly developed projects in the proposed project's vicinity. Recommends the proposed project provide more parking spaces for the sake of nearby tenants and business owners.	This comment pertains to parking, which is not an issue required to be discussed under CEQA. Parking is addressed in section 5.9 of the Traffic Impact Analysis (included for informational purposes as part of Appendix E of the IEC). Furthermore, AB-2097, which is effective as of January 1, 2023, prohibits local jurisdictions from requiring minimum parking for most uses as long as the parcel is located within a half mile of a transit stop or high-quality transit corridor, as defined in Section 21155 of the Public Resources Code. The proposed project is located within a half mile of a transit stop.

1.2 Purpose and Legal Authority

The proposed project requires discretionary approval from the City of Berkeley; therefore, the project is subject to the environmental review requirements of CEQA. In accordance with *CEQA Guidelines* Section 15121, the purpose of this EIR is to serve as an informational document that:

> "...will inform public agency decision makers and the public generally of the significant environmental effects of a project, identify possible ways to minimize the significant effects, and describe reasonable alternatives to the project."

This EIR has been prepared as a project-level EIR pursuant to *CEQA Guidelines* Section 15161. A project EIR is appropriate for a specific development project. As stated in the *CEQA Guidelines*:

> "This type of EIR should focus primarily on the changes in the environment that would result from the development project. The EIR shall examine all phases of the project, including planning, construction, and operation."

This EIR is to serve as an informational document for the public and City of Berkeley decision makers. The process will include public hearings before the Zoning Adjustments Board to consider certification of a Final EIR and approval of the proposed project.

1.3 Scope and Content

The 2014 *CEQA Guidelines* introduced Section 15183.3, Infill Streamlining updates, which were developed pursuant to Senate Bill (SB) 226 (Simitian, 2011). The purpose of *CEQA Guidelines* Section 15183.3 is to streamline the environmental review process for eligible infill projects by limiting the topics subject to review at the project level where the effects of infill development have been addressed in a planning level decision or by uniformly applicable development policies. The Streamlining updates contain performance standards that can be used to determine an infill project's eligibility for streamlined review. Pursuant to *CEQA Guidelines* Section 15183.3(b), to be eligible for streamlined review, an infill project must:

1. Be located in an urban area on a site that either has been previously developed or that adjoins existing qualified urban uses on at least seventy-five percent of the site's perimeter. For the purpose of this subdivision "adjoin" means the infill project is immediately adjacent to qualified urban uses, or is only separated from such uses by an improved public right-of-way;
2. Satisfy the performance standards provided in Appendix M; and
3. Be consistent with the general use designation, density, building intensity, and applicable policies specified for the project area in either a sustainable communities strategy or an alternative planning strategy...

As discussed in the Infill Environmental Checklist (Appendix B to this EIR), the proposed project qualifies as an infill project under *CEQA Guidelines* Section 15183.3. The project is located in an urban area on a site that has been previously developed, and satisfies the performance standards provided in Appendix M. The information demonstrating that the infill project satisfies the Appendix M performance standards is provided on pages 21 through 23 of the Infill Environmental Checklist in a section titled "Satisfaction of Appendix M Performance Standards." Examples of performance standards include remediation onsite, protection of public health, and proximity to an existing major transit stop/transit corridor.

The project is consistent with the general use designation, density, building intensity and applicable policies specified for the project area in the City's Downtown Area Plan (DAP) EIR. As documented in the Infill Environmental Checklist, the project would be generally consistent with the land uses analyzed in the DAP EIR, and potential redevelopment of the project site was considered in the assumptions of the DAP and evaluated in the DAP EIR.

For eligible infill projects, CEQA does not apply to the effects of the project in the following ways, pursuant to *CEQA Guidelines* Section 15183.3(c):

- If a significant environmental effect was addressed in a prior EIR for a planning level decision, then, with some exceptions, that effect need not be analyzed again for an individual infill project even when that effect was not reduced to a less than significant level in the prior EIR.
- An effect need not be analyzed, even if it was not analyzed in a prior EIR or is more significant than previously analyzed, if the lead agency makes a finding that uniformly applicable development policies or standards, adopted by the lead agency or a city or county, apply to the infill project and would substantially mitigate that effect.

If the infill project would result in new project-specific effects or more significant effects, and uniformly applicable development policies or standards would not substantially mitigate such effects, those effects are subject to CEQA pursuant to *CEQA Guidelines* Section 15183.3(d)(2)(C).

With respect to those effects that are subject to CEQA, the lead agency must prepare an infill EIR (otherwise referred to as "EIR" throughout this document) if the written checklist shows that the effects of the infill project would be potentially significant. An infill EIR need not analyze growth inducing impacts.

This infill EIR addresses the issues determined to be potentially significant by the City of Berkeley in the context of the streamlining provisions discussed above. To identify potentially significant environmental issues, the City conducted a review of the project through an Infill Environmental Checklist (Appendix B to this EIR), pursuant to *CEQA Guidelines* Section 15183.3. The Infill Environmental Checklist determined that the proposed project would have potentially significant impacts related to cultural resources, geology and soils, hazards and hazardous materials, public services, and tribal cultural resources. Therefore, this infill EIR addresses these potentially significant impacts. For the reasons documented in the Infill Environmental Checklist, impacts in all other environmental areas would either be less than significant; were analyzed in the DAP EIR; or would be substantially mitigated by uniformly applicable development standards.

For the topics areas evaluated in this EIR, each section identifies the potentially significant environmental impacts, including site specific and cumulative effects of the project. In addition, the EIR recommends feasible mitigation measures, where possible, that would eliminate or reduce adverse environmental effects.

The Alternatives section of this EIR (Section 6) was prepared in accordance with *CEQA Guidelines* Section 15126.6. The alternatives discussion evaluates the CEQA required "no project" alternative and two alternative development scenarios for the site. It also identifies the environmentally superior alternative among the alternatives assessed. It should be noted that, pursuant to *CEQA Guidelines* Section 15183.3(e), the analysis of alternatives in an infill EIR need not address alternative locations, densities, or building intensities.

The level of detail contained throughout this EIR is consistent with the requirements of CEQA and applicable legal precedent. The *CEQA Guidelines* provide the standard of adequacy on which this document is based. *CEQA Guidelines* Section 15151 states:

> "An EIR should be prepared with a sufficient degree of analysis to provide decision-makers with information which enables them to make a decision which intelligently takes account of environmental consequences. An evaluation of the environmental effects of the proposed project need not be exhaustive, but the sufficiency of an EIR is to be reviewed in light of what is reasonably feasible. Disagreement among experts does not make an EIR inadequate, but the EIR should summarize the main points of disagreement among the experts. The courts have looked not for perfection, but for adequacy, completeness, and a good faith effort at full disclosure."

While the environmental review in this EIR has been streamlined to some extent pursuant to *CEQA Guidelines* Section 15183.3, project-specific analysis was required for cultural resources, geology and soils, hazards and hazardous materials, public services, and tribal cultural resources to meet the intent of Section 15183 and to provide the public and decision-makers with up to date and accurate environmental review of the project.

The EIR references pertinent City policies and guidelines, certified EIRs and adopted CEQA documents, and background documents prepared or relied upon by the City in preparing this CEQA analysis. A full reference list is contained in Section 7, References and Preparers.

1.4 Lead, Responsible, and Trustee Agencies

The *CEQA Guidelines* define lead, responsible and trustee agencies. The City of Berkeley is the lead agency for the project because it holds principal responsibility for approving the project.

A responsible agency refers to a public agency other than the lead agency that has discretionary approval over the project. There are no responsible agencies for the proposed project.

A trustee agency refers to a state agency having jurisdiction by law over natural resources affected by a project. There are no trustee agencies for the proposed project.

1.5 Environmental Review Process

The environmental review process, as required under CEQA, is summarized below and illustrated in Figure 1-1. The steps are presented in sequential order.

1. **Notice of Preparation (NOP)**. After deciding that an EIR is required, the lead agency (City of Berkeley) must file a NOP soliciting input on the EIR scope to the State Clearinghouse, other concerned agencies, and parties previously requesting notice in writing (*CEQA Guidelines* Section 15082; Public Resources Code Section 21092.2). The NOP must be posted in the County Clerk's office for 30 days. The NOP may be accompanied by an Initial Study that identifies the issue areas for which the project could create significant environmental impacts. Because this CEQA document is being prepared pursuant to *CEQA Guidelines* Section 15183.3, an Infill Environmental Checklist was prepared. The NOP and Infill Environmental Checklist were released on August 2, 2023, and the public review and scoping period was for 30 days from August 2, 2023 to September 1,2023 in accordance with *CEQA Guidelines* Section 15082. In addition, the City of Berkeley held a scoping meeting on August 16, 2023, to give the public the opportunity to receive more information on the proposed project and to provide comments and suggestions on the scope of the infill EIR. Comments on the scope and content of the EIR were received and written comments are included in Appendix A of this EIR.
2. **Draft EIR Prepared.** The Draft EIR must contain: a) table of contents or index; b) summary; c) project description; d) environmental setting; e) discussion of significant impacts (direct, indirect, cumulative, growth-inducing and unavoidable impacts); f) a discussion of alternatives; g) mitigation measures; and h) discussion of irreversible changes. Public and agency review of the 2128 Oxford Street Mixed Use Project will be further encouraged through distribution of the Draft EIR for at least the required 45-day public review period. Written comments should be submitted by mail or email with appropriate contact information, to the following:

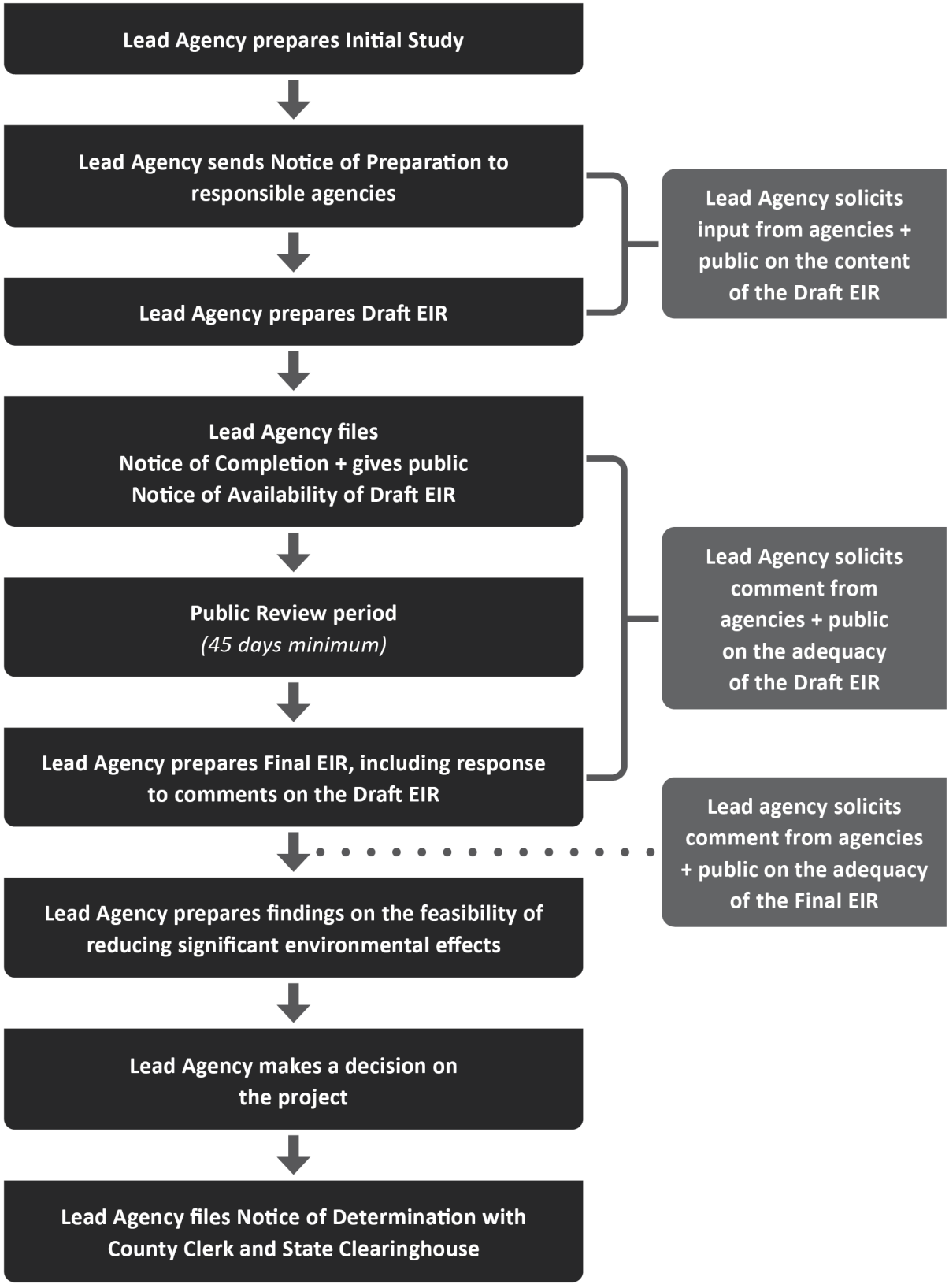
   Sharon Gong, Senior Planner
   City of Berkeley
   Planning & Development Department, Land Use Division
   1947 Center Street, 2nd Floor
   Berkeley, California 94704

   Any agency, organization, or members of the public desiring to comment on the EIR must submit their comments prior to the end of the public comment period.
3. **Notice of Completion (NOC)/Notice of Availability of a Draft EIR.** The lead agency must file a NOC with the State Clearinghouse when it completes a Draft EIR and prepare a Public Notice of Availability of a Draft EIR. The lead agency must place the NOC in the County Clerk's office for 30

days (Public Resources Code Section 21092) and send a copy of the NOC to anyone requesting it (*CEQA Guidelines* Section 15087). Additionally, public notice of Draft EIR availability must be given through at least one of the following procedures: a) publication in a newspaper of general circulation; b) posting on and off the project site; and c) direct mailing to owners and occupants of contiguous properties. The lead agency must solicit input from other agencies and the public and respond in writing to all comments received (Public Resources Code Sections 21104 and 21253). The minimum public review period for a Draft EIR is 30 days. When a Draft EIR is sent to the State Clearinghouse for review, the public review period must be 45 days unless the State Clearinghouse approves a shorter period (Public Resources Code 21091).

4. **Final EIR.** A Final EIR must include: a) the Draft EIR; b) copies of comments received during public review; c) list of persons and entities commenting; and d) responses to comments. According to PRC Section 21081.6, for projects in which significant impacts would be minimized by mitigation measures, the lead agency must include an MMRP. The purpose of an MMRP is to ensure compliance with required mitigation measures during implementation of the project. After the Final EIR is completed, and at least 10 days prior to its certification, a copy of the response to comments on the Draft ESIR will be provided or made available to all commenting parties.
5. **Certification of Final EIR.** Prior to making a decision on a proposed project, the lead agency must certify that: a) the Final EIR has been completed in compliance with CEQA; b) the Final EIR was presented to the decision-making body of the lead agency; and c) the decision making body reviewed and considered the information in the Final EIR prior to approving a project (*CEQA Guidelines* Section 15090).
6. **Lead Agency Project Decision.** The lead agency may a) disapprove the project because of its significant environmental effects; b) require changes to the project to reduce or avoid significant environmental effects; or c) approve the project despite its significant environmental effects, if the proper findings and statement of overriding considerations are adopted (*CEQA Guidelines* Sections 15042 and 15043).
7. **Findings/Statement of Overriding Considerations**. For each significant impact of the project identified in the EIR, the lead agency must find, based on substantial evidence, that either: a) the project has been changed to avoid or substantially reduce the magnitude of the impact; b) changes to the project are within another agency's jurisdiction and such changes have or should be adopted; or c) specific economic, social, or other considerations make the mitigation measures or project alternatives infeasible (*CEQA Guidelines* Section 15091). If an agency approves a project with unavoidable significant environmental effects, it must prepare a written Statement of Overriding Considerations that sets forth the specific social, economic, or other reasons supporting the agency's decision.
8. **Mitigation Monitoring Reporting Program.** When the lead agency makes findings on significant effects identified in the EIR, it must adopt a reporting or monitoring program for mitigation measures that were adopted or made conditions of project approval to mitigate significant effects.
9. **Notice of Determination (NOD).** The lead agency must file a NOD after deciding to approve a project for which an EIR is prepared (*CEQA Guidelines* Section 15094). A local agency must file the NOD with the County Clerk. The NOD must be posted for 30 days and sent to anyone previously requesting notice. Posting of the NOD starts a 30-day statute of limitations on CEQA legal challenges (Public Resources Code Section 21167[c]).

Figure 1-1 Environmental Review Process



2 Project Description

This section describes the proposed project, including the project site and surrounding land uses, major project characteristics, project objectives, and discretionary actions needed for approval.

2.1 Project Title

2128 Oxford Street Mixed-Use Project

2.2 Project Applicant and Contact Person

Core Berkeley Oxford LLC
1643 N. Milwaukee Avenue, 5th Floor
Chicago, Illinois 60647

Contact: Jonathan Kubow, (312)-593-3895

2.3 Lead Agency and Contact Person

City of Berkeley
Planning & Development Department, Land Use Division
1947 Center Street, 2nd Floor
Berkeley, California 94704

Contact: Sharon Gong, Senior Planner, (510) 981-7429, sgong@berkeleyca.gov

2.4 Project Location

The project site encompasses two parcels totaling 0.82 acres (35,522 square feet) at 2128-2136 Oxford Street and 2132-2154 Center Street in the City of Berkeley, Alameda County. The project site has two parcels but three Assessor Parcel Numbers: 057-2031-001-01 (2128-2136 Oxford Street), 057-2031-013 (2132-2154 Center Street), and 057-2031-014 (2142 Center Street). The project site is located on the southwest corner of Center Street and Oxford Street, with its longer frontage along Center Street, and its shorter frontage along Oxford Street. The project site is bounded by Center Street to the north, Oxford Street to the east, and residential and commercial development to the west and south. Across Oxford Street to the east is the University of California, Berkeley (U.C. Berkeley) campus and across Center Street to the north is the Berkeley Art Museum and Pacific Film Archive (BAMFA).

Figure 2-1 shows the regional location of the project site and Figure 2-2 shows the project site's immediate location and selected nearby land uses.

Figure 2-1 Regional Location

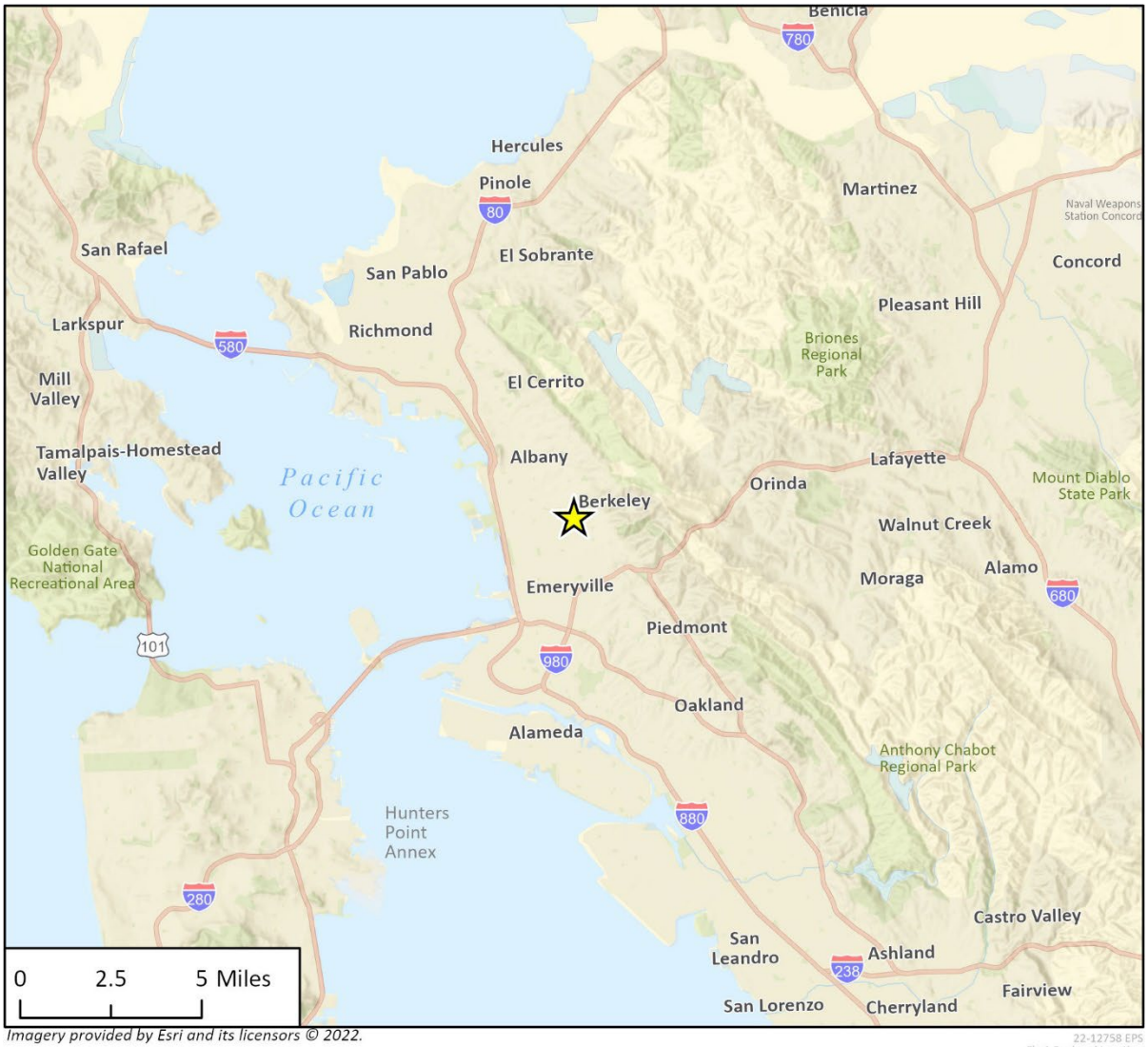


Figure 2-2 Project Site Location

Imagery provided by Microsoft Bing and its licensors © 2023.

22-12758 EPS
Fig 2 Project Location

2.5 Prior Environmental Document(s) Analyzing the Effects of the Infill Project (including State Clearinghouse Number)

Berkeley Downtown Area Plan (DAP) Final Environmental Impact Report (EIR), certified 2012 State Clearinghouse Number 2008102032.

2.6 Location of Prior Environmental Document(s) Analyzing the Effects of the Infill Project

City of Berkeley Planning & Development Department, Land Use Division
1947 Center Street, 2nd Floor
Berkeley, California 94704

2.7 Existing Site Characteristics and Setting

2.7.1 Land Use Designation

Berkeley General Plan

The project site is designated as "Downtown (DT)" in the Berkeley General Plan. This land use designation allows for both residential and commercial uses.

Zoning

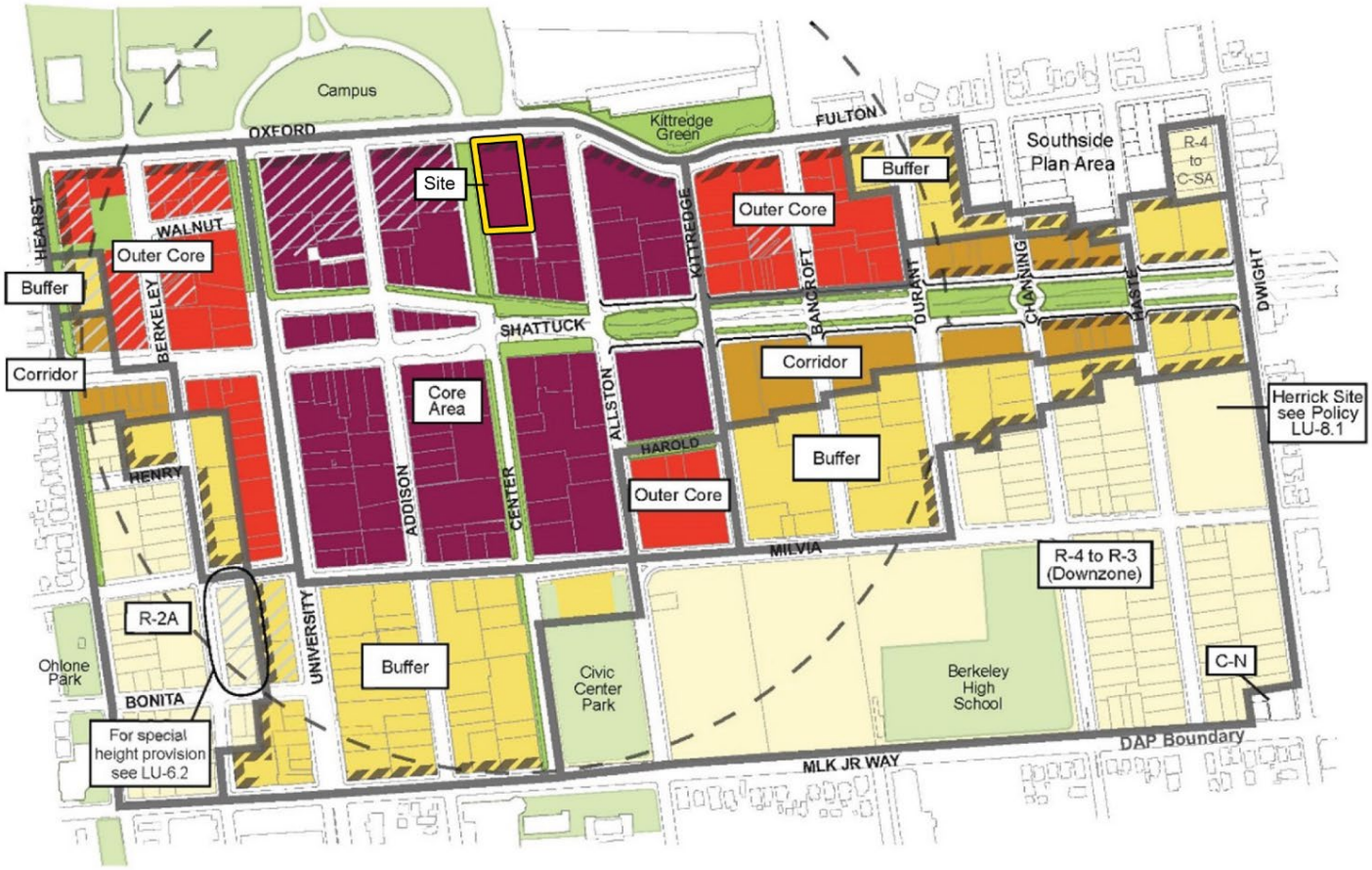
The project site is in the Core Sub-Area of the Downtown Mixed Use (C-DMU) Zoning District. As stated in the Berkeley Municipal Code (BMC), the purpose of the Core Sub-Area in the C-DMU district is to implement the vision and goals of the Downtown Area Plan (DAP) which includes goals and policies pertaining to environmental sustainability, land use, access, historic preservation and urban design, streets and open space, housing and community health and services, and economic development.

The C-DMU District designation allows for up to two buildings with a minimum height of 75 feet and a maximum height of 120 feet in the combined Core and Outer Core Sub-Areas. Up to three buildings are allowed with a minimum height of 120 feet and a maximum height of 180 feet in the Core Sub-Area. Allowed uses within the three tallest buildings in the Core Sub-Area include: two residential buildings with ground-level commercial and one hotel with conference facilities and accessory commercial uses (BMC Section 23.204.130).

Downtown Area Plan

The Core Sub-Area designation allows for multi-family housing, commercial uses, cultural and community uses, educational uses, and public and private open space uses. The DAP allows for the tallest buildings, including three buildings up to 180 feet, to be located within the Core Sub-Area due to the locations proximity to Bay Area Rapid Transit (BART) stations, multiple bus lines, and nearby walk-to conveniences (City of Berkeley 2012). DAP land use designations are shown on Figure 2-3.

Figure 2-3 Downtown Area Plan Land Use Designation



Source: City of Berkeley, 2012.

2.7.2 Surrounding Area Setting

The project site is located in a fully developed block of downtown Berkeley. The surrounding area is characterized by a mix of uses, including restaurants, commercial, hotel, museum, educational (U.C. Berkeley) and residential. Building heights in the immediate vicinity range from two stories (commercial and residential buildings along Center and Oxford Streets) to 16 stories (Residence Inn across Center Street to the northwest of the project site). The Berkeley Art Museum and Pacific Film Archive is located across Center Street to the north of the project site. The U.C. Berkeley campus is located across Oxford Street to the east of the project site. The project site is approximately one block (350 feet) east of the Downtown Berkeley BART Station, as shown on Figure 2. Because the project site is within 0.5-mile of the Downtown Berkeley BART Station, it is within a Transit Priority Area (TPA), which is defined in California Public Resource Code Section 21099 as "an area within one-half mile of a major transit stop that is existing or planned." A "major transit stop" includes a rail or bus rapid transit station.

2.7.3 Project Site Existing Setting

The project site includes two existing buildings. The building located at 2128-2130 Oxford Street (referred to as "2128 Oxford Street") is two stories tall and includes a bakery, restaurant/bar, and vacant storefronts on the ground floor. There is also a parklet located on the ground floor along the Oxford Street frontage. The building located at 2132-2154 Center Street (referred to as "2124 Center Street) is a two-story building with five restaurants and two cafes on the ground floor, along with presently vacant storefronts. The building at 2142 Center Street includes 16 rent-controlled residential units on the second floor, all of which are currently vacant.

The 2142 Center Street building was evaluated for listing in the National Register of Historic Places (NRHP) and the California Register of Historical Resources (CRHR), and for designation as a City of Berkeley Landmark. It was found eligible for the NRHP, CRHR, and local designation, and is a contributor to the historic downtown Shattuck Avenue District.

Figure 2-4 and Figure 2-5 include photographs of the project site and Table 2-1 lists the existing site characteristics.

Figure 2-4 Project Site Photographs – Photos 1 and 2

Photograph 1. View from the northeast corner of Center Street and Oxford Street looking southwest towards the project site.

Photograph 2. View from the east side of Oxford Street looking west towards the 2128 Oxford Street building. The existing ground floor parklet can be seen in the foreground and the 16-story Residence Inn hotel building can be seen in the background.

Figure 2-5 Project Site Photographs – Photos 3 and 4

Photograph 3. View from Center Street looking south at the 2132-2154 Center Street building.

Photograph 4. View of the frontage of the 2132-2154 Center Street building looking west from the Center Street sidewalk.

Table 2-1 Existing Site Characteristics

Address:	2128-2130 Oxford Street and 2132-2168 Center Street
Assessor's Parcel Number:	057-2031-001-01, 057-2031-013, 057-2031-014
Site Size:	35,522 square feet (0.82 acres)
General and Specific Plan Land Use Designations:	General Plan: Downtown (DT) DAP: Core Sub-Area
Zoning Designation:	Downtown Mixed Use District (C-DMU, Core Sub-Area)
Current Use and Development:	Two-story commercial and residential buildings
Surrounding General and Specific Plan Land Use Designations:	General Plan: Avenue Commercial, Downtown, High Density Residential DAP: Core Area, Outer Core
Surrounding Zoning Designations:	C-DMU Corridor, C-DMU Buffer, C-DMU Outer Core
Regional Access: Local Access:	I-580, SR 24, SR 123, SR 13 Center Street, Oxford Street, Oxford Lane, Kala Bagai Way/Shattuck Avenue
Public Services:	Water: East Bay Municipal Utility District (EBMUD) Wastewater: EBMUD for wastewater treatment, City of Berkeley for wastewater collection Solid Waste: City of Berkeley Fire Protection: Berkeley Fire Department Police Protection: Berkeley Police Department School District: Berkeley Unified, Central Zone

2.8 Project Objectives

The objectives for the project include:

- Implement the Downtown Area Plan (DAP) by leveraging the development potential under Zoning Ordinance standards and State law to generate the revenue necessary to provide on-site affordable housing and construct an environmentally superior transit-oriented housing project, plus provide additional community and public benefits, while maintaining project financial feasibility.
- Generate high-quality, transit-oriented, and sustainable market rate housing to support and contribute substantial affordable housing and in-lieu fees toward the construction of affordable housing, as required by the Berkeley Municipal Code.
- Activate the pedestrian environment along Oxford Street and Center Street with a building design and ground floor interface with vibrant, walkable retail and pedestrian amenities.
- Provide an opportunity through the payment of substantial Streets and Open Space Improvements (SOSIP) fees to fulfill the vision of the DAP to close Center Street (at least a portion of it) to vehicle traffic and allow for an expanded pedestrian amenity space on one of the highest pedestrian-traveled streets in the East Bay.
- Provide a green building using environmentally sustainable siting, development, and construction practices, including LEED Gold or equivalent certification and an all-electric building system.
- Incorporate ecologically beneficial native and drought-tolerant landscaping that promotes watershed health and creates safe, comfortable, and inviting open spaces.

2.9 Project Characteristics

The project would involve demolition of the existing on-site buildings (including the 2142 Center Street building which was found individually eligible for local designation and is a contributor to the CRHR-eligible Shattuck Avenue Commercial Corridor Historic District) and construction of a new 26-story (approximately 285-foot) mixed-use building (see subsection 2.8.1, Affordable Housing and Density Bonus for further information on building height in relation to the DAP's 180-foot height provision). The project would include 456 units as currently proposed; however, because the project would be allowed up to 463 units under the Density Bonus, this analysis in this EIR conservatively assumes up to 463 residential units with 40 of the units at below market rate located on floors 2 through 25. The proposed project would also include approximately 15,000 square feet of retail and restaurant space. Approximately 10,500 square feet of retail and restaurant space would be on the ground floor and 4,500 square feet of restaurant space would be located on the roof.

The proposed project would also include a below-ground basement level which would include mail and package rooms, an office, and mechanical and utility storage rooms and equipment. A 36-space parking garage would be located at-grade, with access from a driveway on Oxford Lane and would include mechanical lifts in a pit that extends into the basement. There would also be an exterior amenity roof deck on level 25 and a restaurant on level 26 (discussed in detail below in the Open Space and Amenities subsection). The exterior design of the new building would be modern, with rectangular forms, and would include a combination of cementitious panels, storefront systems, and metal panels.

Table 2-2 lists selected project characteristics and Figure 2-6 shows the overall project site plan.

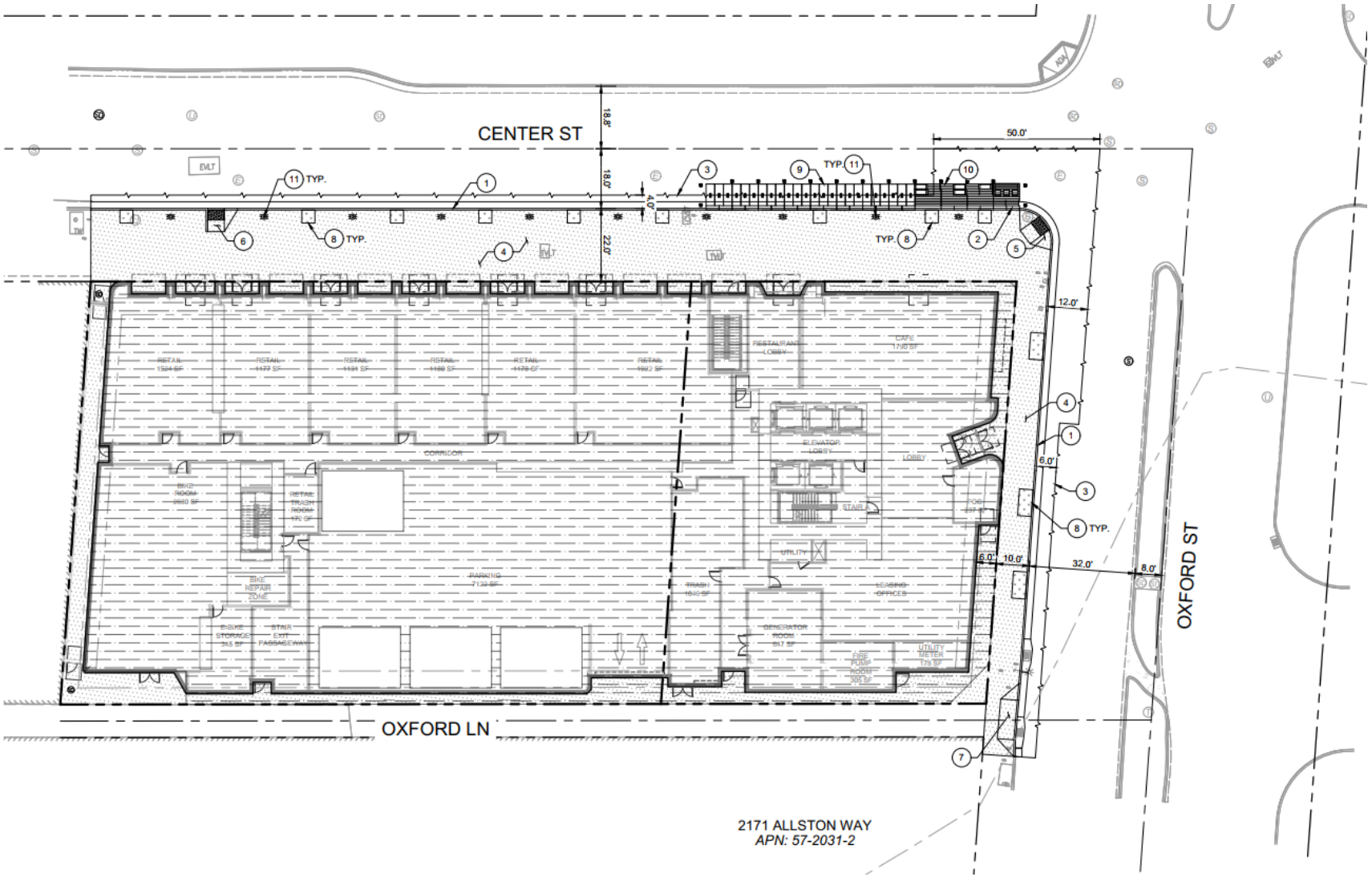
Table 2-2 Project Characteristics

Use	Gross Floor Area (square feet)
Height/Stories	285 feet, 4 inches to the highest roof point, 297 feet 4 inches to highest parapet 26 stories above grade 1 basement story below grade
Gross Floor Area	694,778 sf[1]
Garage (Ground Floor)	7,268 sf
Retail/Restaurant (Ground Floor and Level 26)	14,961 sf
Amenity/Lobby (Basement, Ground Floor, Level 1-2, Level 25)	16,804 sf
Common/ Corridor (Basement- Floor 26)	96,908 sf
Residential (Floors 2-25)	527,187 sf
Exterior Amenity (Floor 25)	11,135 sf

[1] The gross floor area is calculated not including the exterior amenity or basement

sf = square feet

Figure 2-6 Overall Site Plan



Source: Kimley-Horn and Associates, Inc. 2024

2.9.1 Affordable Housing and Density Bonus

The proposed project would include 40 below-market rate units, including six extremely low-income units and 34 very-low-income units. This project is subject to the City of Berkeley's Inclusionary Housing requirement (BMC Chapter 23.328) and Affordable Housing Mitigation Fee (BMC Section 22.20.065). Together, these ordinance sections require a rental unit project to pay a fee or provide affordable units on-site in lieu of the fee.[1] The project applicant would provide a portion of required units on-site (40 units). For the remaining requirement, the project applicant would contribute approximately $11 million as an in-lieu fee toward Berkeley's Affordable Housing Trust Fund.

The base density for the project site would allow for 333 units. The project would provide at least 5 percent of the base project units (minimum of 36 units) as very low-income affordable units and is eligible for a density bonus under Government Code Section 65915. State Density Bonus Law allows for additional density ("bonus") and flexibility in development standards in exchange for providing affordable housing units on site. The proposed project provides 12 percent of the base project units as very low-income units, which achieves a 38.75 percent density bonus under state law for a total of 456 proposed units (up to maximum of 463 units). The project applicant is also requesting the following waivers:[2]

- Waiver of BMC (Berkeley Municipal Code) Section 23.204.130(E)(2)(a) to exceed building height limits, to be 285 feet 4 inches to the roof and 297 feet 4 inches to the top of the parapet (twelve-foot parapet), where 180 feet is the maximum (plus five-foot parapet, by right)
- Waiver of BMC Section 23.204.130(E)(3)(a) to reduce the front yard setback requirement to zero feet, where 10 feet is the minimum, above 120-foot building height
- Waiver of BMC Section 23.204.130(E)(3)(a) to reduce the street side yard setback requirement to zero feet, where 15 feet is the minimum, above 120-foot building height
- Waiver of BMC Section 23.204.130(E)(3)(a) to reduce the interior side yard setback requirement to seven feet, where 15 feet is the minimum, above 120-foot building height
- Waiver of BMC Section 23.204.130(E)(3)(a) to reduce the rear yard setback requirement from to five feet, where 15 feet is the minimum, above 120-foot building height
- Waiver of BMC Section 23.204.130(E)(4) to reduce the usable open space requirement by providing 20,837 square feet of where 36,480 square feet is the minimum; and zero square feet of POPOS where 299 square feet is required
- Waiver of BMC Section 23.204.130(E)(3)(d)(i) to exceed diagonal width, to be 295 feet, 2 inches, where 120 feet is the maximum
- Waiver of BMC Section 23.304.050(A) to allow for structures above the height limit to cover 18% of the average floor area of all of the building's stories, where 15% is the maximum
- Waiver of BMC Section 23.322.090(A)(2) reduce the long-term residential bicycle parking requirement by providing 264 spaces, where 383 spaces is the minimum
- Waiver of BMC Section 23.322.100(A), to reduce the loading space requirement to zero where one is required

[1] Through a Senate Bill 330 Preliminary Application, the project vested the provisions in BMC Chapter 23.328, Inclusionary Housing and BMC Section 22.20.065, Affordable Housing Mitigation Fee, prior to revisions to these ordinance sections that became effective on February 28, 2023.

[2] A "waiver" is a reduction or modification of a development standard if the development standards would physically preclude the development at the density permitted. The developer must provide written documentation to justify why the waiver is needed to construct the project. There is no limit to the number of waivers an applicant can request. (Government Code Sections 65915(e)(1) and 65915(e)(2))

2.9.2 Parking, Site Access, and Transportation Improvements

The proposed project would include a parking garage with mechanical car stackers with access from a driveway on Oxford Lane, which is the existing alley between Center and Oxford streets. The garage would include 36 parking spaces, including two Americans with Disabilities Act (ADA) accessible parking spaces and two ADA accessible van spaces. Charging infrastructure to accommodate electric vehicles (EVs) in accordance with California Green Building Code (CALGreen) Tier 2 standards would be provided, including 8 EV chargers and 8 spaces with potential for EV chargers. One of the ADA parking spaces and one of the van ADA spaces would also have EV chargers. The parking would be provided for the commercial (retail and restaurant) uses and building employees only. No residential parking would be provided. A loading space would also be provided and accessed via Oxford Lane.

A separate 2,627 square foot bike room located at the southwest corner of the building with a separate entrance from Oxford Lane would provide approximately 264 bicycle parking spaces and a 315-square foot electric bike storage area and bike repair area would also be provided in the bicycle storage room. Bicycle racks for short-term bicycle parking would also be provided along the Center Street project frontage.

The proposed project also includes payment of a proportionate share of the construction costs to install rapid rectangular flashing beacons (RRFBs) at crosswalks on Oxford Street at Allston Way to increase pedestrian safety where vehicle U-turns are anticipated to increase. The RRFB would be designed to meet City standards and requirements. Future City capital improvement plans include a traffic signal light at this intersection. The installation of a signal light would allow the RRFB to be removed.

2.9.3 Design and Architecture

The proposed project would include a base, shaft (middle floors) and capital (parapet and upper most floors) pursuant to the Downtown Design Guidelines and for consistency to the predominant Classical Revival style of architecture throughout Downtown Berkeley. The ground floor storefronts would include transparent glass with canopies for signage areas. Facades, storefront and entrances, materials, details, colors, and lighting have been designed to adhere to the Downtown Design Guidelines.

The proposed project would also incorporate the following design features to help discourage bird strikes and to reduce light spillover and glare:

- Exterior light fixtures pointed downward rather than toward the sky, as required by the BMC
- Interior plantings would be located away from glass areas that are lit at night
- Window coverings would be part of the furnishings package and provided for all units
- Opaque elements, including the ground-floor awnings and overhangs at Levels 6 and 7, would create shadows and break up expanses of glass

2.9.4 Open Space and Amenities

The project would include removal of the ground-floor parklet that is on the Oxford Street frontage along the project site boundary and replacement with a parklet on Center Street.

Private open space in the form of balconies and terraces are proposed for a portion of the residential units. Total balcony square footage would be 9,702 square feet. Levels 2 and 8 would

include several shared common tenant terraces with lounge furnishings and large planters. Levels 6 and 7 would have green roof areas separating several unit terraces. These spaces would be planted decoratively for use by tenants.

The project would also include shared common space on Level 2, Level 24, and Level 25. Level 2 would include a fitness room, yoga room, and spa. Level 24 would include large and small study rooms and Level 25 would include a game room and a music room. The outdoor amenity deck on Level 25 would be the largest common open space on the project site, with outdoor grilling stations, dining and seating areas, firepits, and hot tubs. It would also include an open lawn, stormwater infiltration planters, and garden spaces. Planted areas would be irrigated and would be planted with drought-tolerant and native or adapted species.

While the project would provide 20,837 square feet of usable open space, it would not meet the open space requirement of 80 square feet per unit (38,800 total square feet); therefore, the project applicant requests a waiver, as noted above under Section 2.8.1, Affordable Housing and Density Bonus. The applicant would pay in-lieu fees for the publicly-accessible open space requirement based on the commercial floor area.

Table 2-3 summarizes the project's proposed open space and amenities.

Table 2-3 Proposed Open Space and Amenities

Level	Size	Features
Public Open Space		
25	11,135 sf roof deck	Level 25 would include 11,135 sf of open space in the form of a roof deck and 3,470 sf of indoor residential amenities. The outdoor amenity deck would include outdoor grilling stations, dining and seating areas, firepits, and hot tubs. This area Also includes an open lawn, bio-infiltration planters, and mounded garden spaces.
Private Open Space		
2-24 and 26 (83 units total)	9,702 sf	Private tenant balconies and patios
Total	**20,837 sf**	

sf = square feet

2.9.5 Landscaping

Construction of the project would include removal of fourteen street trees: three red maples (*Acer rubrum*) and eleven Chinese Hackberry trees (*Celtis sinensis*). These would be replaced by approximately 15 new street trees –California Sycamore (*Platanus racemose*) or other species as directed by the City Arborist –as part of the proposed project.

The shared common open space areas and planters on floors 2, 6, 7, and 8 would be landscaped with shade tolerant species such as the seaside wooly sunflower (*Eriophyllum Staechadifolium*), Diamond Heights ceanothus (*Ceanothus 'Diamond Heights*), redwood penstemon (*Keckiella corymbose*), Douglas iris (*Iris douglasiana 'Canyon Snow'*), island alum root (*Heuchera maxima*), crevice alum root (*Heuchera micranthra*), seascape mat rush (*Lomdandra longifolia 'Seascape'*), Zanzibar gem (*Dudleya farinose*), and woodland stonecrop (*Sedum ternatum*).

Floors 6 and 7 would also include some partial shade tolerant species such as common yarrow (*Achillea millefolium*), nodding onion (*Allium cernuum*), clustered field sage (*Carex praegracilis*), aurea stonecrop (*Sedum acre 'Aurea'*), white stonecrop (*Sedum album*), Kamaschatka stonecrop

(*Sedum kamschaticum*), blue spruce stonecrop (*Sedum reflexum 'Blue Spruce*). Levels 6 and 7 would also include the planting of sun tolerant species such as California fuschia (*Epilobium canum*), coyote brush (*Baccharis pilularis*), Yankee Point ceanothus (*Ceanothus thrysiflorus 'Yankee Point'*), Seaside Wooly Sunflower (*Eriophyllum Staechadifolium*), bluff lettuce (*Dudleya farinosa*), cliff buckwheat (*Eriogonum parviflorum*), and dwarf coyote brush (*Baccharis 'Pigeon Point').*

Floor 25 would include a total of 3,084 square feet of irrigated area and 1,215 square feet of stormwater infiltration area. Plantings would include Howard Mcminn manzanita (*Arctostaphylos densiflora 'Howard Mcminn'*), dwarf coastal manzanita (*Arctostaphylos edmundsii 'Big Sur'*), California juniper (*Juniperus califronica*), cliff buckwheat (*Eriogonum parviflorum*), seaside wooly sunflower (*Eriophyllum Staechadifolium*), dwarf coyote brush (*Baccharis 'Pigeon Point'),* California fuschia *(Epilobium canum),* common yarrow (*Achillea Millefolium*), Yankee Point ceanothus (*Ceanothus thrysiflorus 'Yankee Point'*), island alum root (*Heuchera maxima*), hummingbird sage (*Salvia spathacea*), douglas iris (*Iris douglasiana*), bluff lettuce (*Dudleya farinose)*, Zanzibar gem (*Zamioculcas zamiifolia*), seascape mat rush (*Lomdandra longifolia 'Seascape')*, Berkeley sedge (*Carex tumulicola*), Canyon Prince wild rye (*Elymus condenstatus 'Canyon Prince'*), and a grass lawn (on Level 25).

2.9.6 Green Building Features

The project proposes the following sustainable building design elements. These include measures incorporated in compliance with local and state green building regulations as well as voluntary measures:

- All-electric building design and the use of air source heat pump water heaters in lieu of natural gas. The proposed new construction would be all-electric and would not include any natural gas infrastructure. A transformer would be located on the ground-floor in order to accommodate the all-electric design and be able to serve electricity to the building.
- Energy efficient lighting and appliances in all residential units
- Use of reclaimed stormwater for irrigation
- Water efficient appliances and fixtures in all residential units
- Electric vehicle charging infrastructure consistent with Tier 2 CALGreen standards
- Pursuant to BMC Chapter 19.37, diversion of waste during construction would comply with BMC Chapter 19.37, including 100 percent of asphalt, concrete, excavated soil and land-clearing debris and a minimum of 65 percent of other nonhazardous construction and demolition waste
- On site stormwater management, and the planting of mostly low and very low water use plants which would comply with the California Water Efficient Landscape Ordinance (WELO), outdoor landscaped areas would employ landscape irrigation and water efficiency best practices
- Low flow water fixtures and a heat recovery system

Interior space heating would be provided by air source heat pump water heaters and grey water heat recovery heat pump systems with electric backup boilers would be used for interior space heating and water heating in lieu of natural gas heating, because the building would be all-electric. A wastewater heat recovery system would transfer heat from the sanitary (black) water to the heating hot water loop. This heating hot water loop would be used to heat water for the space heating system and domestic hot water heating system (with double walled heat exchangers). Induction cooktops would also be used in lieu of natural gas ranges.

2.9.7 Construction

The project would demolish 35,433 square feet of existing buildings. The entire project site would be graded and approximately 10,000 cubic yards of soil would be removed. Excavation for the subterranean parking stackers would reach a maximum depth of approximately 15 feet below ground surface. Demolition, site preparation, grading, construction, and paving would take an estimated 42 months (roughly three and a half years) and would occur during allowable construction hours: Monday-Thursday from 7:00 AM-6:00 PM and Saturday from 9:00 AM-4:00 PM.

2.9.8 Stormwater and Utilities

The project site currently has an estimated 31,544 square feet of impermeable surface. The proposed project would include stormwater control measures, such as the use of efficient irrigation systems designed to reduce runoff. The proposed project would include 1,215 square feet of stormwater filtration and treatment area on the Level 25 roof deck.

East Bay Municipal Utility District (EBMUD) supplies water to customers within Berkeley and would supply water for the proposed project. Electricity for the project would be supplied by East Bay Community Energy (ECBE). Due to the size of the project and because it would be an all-electric building, the project would require a 12 kilovolt (kV) Primary Service Station with customer owned substation. This would be located inside the new building on the Center Street Frontage or in an underground vault.

2.10 Requested Permits and Other Approvals

The project is subject to approval by the City of Berkeley's Zoning Adjustments Board, the decision of which would be appealable to the City Council. No additional discretionary public agency permits or approvals would be required for this project.

The project would require the following discretionary entitlements from the City of Berkeley:

- Use Permit under Berkeley Municipal Code (BMC) Section 23.326.070(A) to demolish a non-residential building
- Use Permit under BMC Section 23.326.030(A)(3) to demolish a building containing two or more units
- Use Permit under BMC Section 23.326.030(A) to demolish 16 dwelling units in a building constructed prior to June 1980
- Use Permit under BMC Section 23.204.020(A) to construct a new mixed-use development
- Use Permit under BMC 23.204.020(A) to construct dwelling units
- Use Permit under BMC Section 23.204.030(A)(1) to create new floor area of 10,000 square feet or more
- Use Permit under BMC Section 23.204.130(E)(2)(a) to construct a building that exceeds the district height limit, and that is over 120 feet but not more than 180 feet
- Use Permit under BMC Section 23.204.130(E)(3)(b) to modify the front, side, and rear setback requirements and to exceed 120 feet in width in diagonal measurement
- Use Permit under BMC Section 23.204.130(E)(6)(b) to pay a fee in-lieu of providing privately owned public open space.

- Use Permit under BMC Section 23.304.030(C)(2)(b) to reduce the front setbacks on a commercially zoned lot that confronts a residential district
- Use Permit under 23.304.130(D), to eliminate display window and fence requirements when abutting a residential district
- Administrative Use Permit under BMC 23.304.050(A) to allow architectural elements to exceed the district height limit
- Use Permit under BMC Section 23.310.020(B) to begin alcoholic beverage service (distilled spirits incidental to food service)
- Administrative Use Permit under BMC Section 23.302.070(E)(5)(2) to establish a food service establishment of more than 3,000 square feet
- Administrative Use Permit under BMC Section 23.302.070(E)(5)(a) for outdoor café seating abutting a residential district
- Use Permit pursuant to BMC Section 23.302.020(E)(4) for outdoor use abutting a residential district.

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3 Environmental Setting

This section provides a general overview of the environmental setting for the proposed project. More detailed descriptions of the environmental setting for each environmental issue area can be found in Section 4, *Environmental Impact Analysis*.

3.1 Regional Setting

The project site is located in the city of Berkeley, Alameda County, in the East Bay region of the San Francisco Bay Area. Figure 2-1 in Section 2, *Project Description*, shows the location of the project site relative to Berkeley and nearby East Bay cities. The East Bay region generally includes cities along the eastern shores of the San Francisco Bay and San Pablo Bay and inland communities in Alameda and Contra Costa counties. Approximately one-third of the Bay Area's population resides in the East Bay. Berkeley is the fourth largest city in Alameda County in population following Oakland, Fremont, and Hayward (California Department of Finance [DOF] 2023). The city borders the cities of Oakland and Emeryville to the south and the city of Albany and the unincorporated community of Kensington to the north. To the east lies Contra Costa County and the ridge of the Berkeley Hills, while the western edge is defined by the San Francisco Bay.

A grid system of east-west and north-south roadways, including arterials, collectors, and local streets, provide vehicular access throughout much of Berkeley and to the region. The major roadways include San Pablo Avenue (State Route [SR] 123), Ashby Avenue (SR 13), University Avenue, Telegraph Avenue, Shattuck Avenue, and Sacramento Street. Regional access to Berkeley is provided by I-580, SR 13, and SR 24. SR 13 is approximately one mile south of the project site, SR 24 is approximately 1.95 miles south of the project site, and I-580 is approximately two miles west of the project site. Berkeley is also served by the Amtrak passenger rail network, Bay Area Rapid Transit (BART) and the Alameda-Contra Costa Transit District (AC Transit) bus service.

Berkeley enjoys a mild climate characterized by cool winters and moderate summers. Average high temperatures range from about 70 degrees F in summer to 60 degrees F in winter. Annual rainfall averages about 27 inches per year, with most rainfall occurring between October and April (U.S. Climate Data 2023).

3.2 Neighborhood and Project Site Setting

The project site is located in a fully developed block of downtown Berkeley. The surrounding area is characterized by a mix of uses, including restaurants, commercial, hotel, museum, educational (University of California, Berkeley) and residential. Building heights in the immediate vicinity range from two stories (commercial and residential buildings along Center and Oxford Streets) to 16 stories (Residence Inn across Center Street to the northwest of the project site). The Berkeley Art Museum and Pacific Film Archive is located across Center Street to the north of the project site. The U.C. Berkeley campus is located across Oxford Street to the east of the project site.

The project site is approximately one block (350 feet) east of the Downtown Berkeley BART Station. Because the project site is within 0.5-mile of the Downtown Berkeley BART Station, it is within a Transit Priority Area (TPA), which is defined in California Public Resource Code Section 21099 as "an

area within one-half mile of a major transit stop that is existing or planned." A "major transit stop" includes a rail or bus rapid transit station.

The project site encompasses two parcels totaling 0.82 acres (35,522 square feet) at 2128-2136 Oxford Street and 2132-2154 Center Street. The project site has two parcels but three Assessor Parcel Numbers: 057-2031-001-01 (2128-2136 Oxford Street), 057-2031-013 (2132-2154 Center Street), and 057-2031-014 (2142 Center Street). The project site is located on the southwest corner of Center Street and Oxford Street, with its longer frontage along Center Street, and its shorter frontage along Oxford Street. As shown on Figure 2-2 in Section 2, *Project Description,* the project site is bordered by Center Street to the north, Oxford Lane to the south, mixed-used development to the west, and Oxford Street to the east.

The project site includes two existing buildings and a surface parking area which is accessed via Oxford Lane. The existing building located at 2128 Oxford Street is two-stories in height and includes a bakery, restaurant/bar, and vacant storefronts on the ground floor. There is also an existing parklet located on the ground floor along the Oxford Street frontage. The existing building located at 2132-2154 Center Street is a two-story building with five restaurants and two cafes on the ground floor, along with presently vacant storefronts. The existing building at 2142 Center Street includes 16 rent-controlled residential units on the second floor, all of which are currently vacant. The 2142 Center Street building was evaluated for listing in the National Register of Historic Places (NRHP) and the California Register of Historical Resources (CRHR), and for designation as a City of Berkeley Landmark. It was found eligible for the NRHP, CRHR, and local designation, and is a contributor to the historic downtown Shattuck Avenue District.

The entire site is designated "Downtown (DT)" in the Berkeley General Plan and within the Core Sub-Area of the Downtown Mixed Use (C-DMU) Zoning District.

The project site slopes gently downward from east to west but is generally level. The site is fully developed, with minimal landscaping. There are 14 street trees on the sidewalks along Oxford Street and Center Street adjacent to the project site.

3.3 Cumulative Development

In addition to the specific impacts of individual projects, CEQA requires EIRs to consider potential cumulative impacts of the proposed project. CEQA defines "cumulative impacts" as two or more individual impacts that, when considered together, are substantial or will compound other environmental impacts. Cumulative impacts are the combined changes in the environment that result from the incremental impact of development of the proposed project and other nearby projects. For example, traffic impacts of two nearby projects may be less than significant when analyzed separately but could be significant when analyzed together. Cumulative impact analysis allows the EIR to provide a reasonable forecast of future environmental conditions and can more accurately gauge the effects of a series of projects.

The project's potential contribution to cumulative impacts is discussed in each impact section included in this EIR. CEQA requires cumulative impact analysis in EIRs to consider either a list of planned and pending projects that may contribute to cumulative effects or a forecast of future development potential. For the purposes of this EIR, which focuses on consideration of the project's potential impact to cultural resources, geology and soils, hazards and hazardous materials, public services, and tribal cultural resources, the study area for the cumulative analysis is the Downtown area as envisioned for development in the Downtown Area Plan (DAP).

Table 3-1 lists current planned and pending projects in Berkeley's Downtown Area Plan study area. These projects are consistent with the overall buildout of the Downtown Area as envisioned in the Downtown Area Plan and are within the development potential under the Plan that was analyzed in the Downtown Area Plan EIR. The DAP EIR analysis for year 2030 buildout of the DAP assumed that the Downtown Area would accommodate up to 3,100 new residential units and up to 1,000,000 square feet of non-residential floor space.

Table 3-1 Cumulative Projects List

Project Location	Description	Status	Distance to Project Site
2113-15 Kittredge	Demolish the existing commercial building (preserving the historic landmarked portions), and construct an 18-story, mixed-use building with 211 dwelling units (including 22 very low-income units) and a 24,273 square foot live theater facility.	Under review	475 feet
1950-98 Shattuck (1974)/ 2071 University	Demolition of structures at the following addresses: 1950, 1974, 1984, 1998 Shattuck Ave & 2071 University. Construction of a 28-story, 28,319-square-foot mixed-use building with 599 dwelling units and a roof-top restaurant over ground-level commercial with lobbies.	Under review	0.2 miles
2274 Shattuck	Partial removal of the existing commercial structure to allow for the construction of a new 17-story mixed-use development with 227 dwelling units, ground level lobbies, commercial space, and parking, with a state of California density bonus.	Under review	0.16 miles
2109 Milvia Street #A	Remove existing parking lot and construct a new 14-story mixed-use building with 105 dwelling units, ground floor level lobbies and commercial space.	Under review	0.18 miles

Source: City of Berkeley Planning Staff, 2023

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4 Environmental Impact Analysis

This section discusses the possible environmental effects of the 2128 Oxford Street Mixed-Use Project for the specific issue areas that were identified through the scoping process and in the Infill Environmental Checklist (Appendix B of this EIR) as having the potential to experience significant effects. A "significant effect" as defined by the *CEQA Guidelines* Section 15382:

> means a substantial, or potentially substantial, adverse change in any of the physical conditions within the area affected by the project including land, air, water, minerals, flora, fauna, ambient noise, and objects of historic or aesthetic significance. An economic or social change by itself shall not be considered a significant effect on the environment. A social or economic change related to a physical change may be considered in determining whether the physical change is significant.

The assessment of each issue area begins with a discussion of the environmental setting related to the issue, which is followed by the impact analysis. In the impact analysis, the first subsection identifies the methodologies used and the "significance thresholds," which are those criteria adopted by the City and other agencies, universally recognized, or developed specifically for this analysis to determine whether potential effects are significant. The next subsection describes each impact of the proposed project, mitigation measures for significant impacts, and the level of significance after mitigation. Each effect under consideration for an issue area is separately listed in bold text with the discussion of the effect and its significance. Each bolded impact statement also contains a statement of the significance determination for the environmental impact as follows:

- **Significant and Unavoidable.** An impact that cannot be reduced to below the threshold level given reasonably available and feasible mitigation measures. Such an impact requires a Statement of Overriding Considerations to be issued if the project is approved per *CEQA Guidelines* Section 15093.
- **Less than Significant with Mitigation Incorporated.** An impact that can be reduced to below the threshold level given reasonably available and feasible mitigation measures. Such an impact requires findings under *CEQA Guidelines* Section 15091.
- **Less than Significant.** An impact that may be adverse but does not exceed the threshold levels and does not require mitigation measures. However, mitigation measures that could further lessen the environmental effect may be suggested if readily available and easily achievable.
- **No Impact.** The proposed project would have no effect on environmental conditions or would reduce existing environmental problems or hazards.

Following each environmental impact discussion is a list of mitigation measures (if required) and the residual effects or level of significance remaining after implementation of the measure(s). In cases where the mitigation measure for an impact could have a significant environmental impact in another issue area, this impact is discussed and evaluated as a secondary impact. The impact analysis concludes with a discussion of cumulative effects, which evaluates the impacts associated with the proposed project in conjunction with other planned and pending developments in the area listed in Section 3, *Environmental Setting*.

The Executive Summary of this EIR summarizes all impacts and mitigation measures that apply to the proposed project.

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4.1 Cultural Resources

This section assesses potential impacts on cultural resources related to implementation of the proposed project. The information presented in this section is informed by the Cultural Resources Technical Report prepared by Rincon Consultants in July 2023 included as Appendix C and the Ground Penetrating Radar (GPR) Technical Report prepared by Byram Archaeological Consulting in December 2023.

4.1.1 Regulatory Setting

This regulatory framework section identifies the federal, state, and local laws, statutes, guidelines, and regulations that govern the identification and treatment of cultural resources as well as the analysis of potential impacts to cultural resources. The lead agency must consider the provisions and requirements of this regulatory framework when rendering decisions on projects that have the potential to affect cultural resources.

a. Federal Regulations

National Register of Historic Places

Although the project does not have a federal nexus, properties which are listed in or have been formally determined eligible for listing in the National Register of Historic Places (NRHP) are automatically listed in the California Register of Historical Resources (CRHR). The following is therefore presented to provide applicable regulatory context. The NRHP was authorized by Section 101 of the National Historic Preservation Act and is the nation's official list of cultural resources worthy of preservation. The NRHP recognizes the quality of significance in American, state, and local history, architecture, archaeology, engineering, and culture present in districts, sites, buildings, structures, and objects. Per 36 Code of Federal Regulations, Part 60.4, a property is eligible for listing in the NRHP if it meets one or more of the following criteria:

Criterion A: Is associated with events that have made a significant contribution to the broad patterns of our history

Criterion B: Is associated with the lives of persons significant in our past

Criterion C: Embodies the distinctive characteristics of a type, period, or method of installation, or that represent the work of a master, or that possess high artistic values, or that represent a significant and distinguishable entity whose components may lack individual distinction

Criterion D: Has yielded, or may be likely to yield, information important in prehistory or history

In addition to meeting at least one of the above designation criteria, resources must also retain integrity. The National Park Service recognizes seven aspects or qualities that, considered together, define historic integrity. To retain integrity, a property must possess several, if not all, of these seven qualities, defined as follows:

Location: The place where the historic property was constructed or the place where the historic event occurred

Design:	The combination of elements that create the form, plan, space, structure, and style of a property
Setting:	The physical environment of a historic property
Materials:	Materials are the physical elements that were combined or deposited during a particular period of time and in a particular pattern or configuration to form a historic property
Workmanship:	The physical evidence of the crafts of a particular culture or people during any given period in history or prehistory
Feeling:	A property's expression of the aesthetic or historic sense of a particular period of time
Association:	The direct link between an important historic event or person and a historic property

Certain properties are generally considered ineligible for listing in the NRHP, including cemeteries, birthplaces, graves of historical figures, properties owned by religious institutions, relocated structures, or commemorative properties unless they meet certain criteria. Additionally, a property must be at least 50 years of age to be eligible for listing in the NRHP. The National Park Service states that 50 years is the general estimate of the time needed to develop the necessary historical perspective to evaluate significance (National Park Service 1997:41). Properties which are less than 50 years must be determined to have "exceptional importance" to be considered eligible for NRHP listing.

b. State Regulations

California Environmental Quality Act

California Public Resources Code (PRC) Section 21804.1 requires that lead agencies determine whether or not a project could have a significant impact on historical or unique archaeological resources. As defined in PRC Section 21084.1, a *historical resource* is a resource listed in, or determined eligible for listing in the CRHR, a resource included in a local register of historical resources or identified in a historical resources survey pursuant to PRC Section 5024.1(g), or any object, building, structure, site, area, place, record, or manuscript that a lead agency determines to be historically significant. PRC Section 21084.1 also states resources meeting the above criteria are presumed to be historically or culturally significant unless the preponderance of evidence demonstrates otherwise. Resources listed in the NRHP) are automatically listed in the CRHR and are, therefore, historical resources under CEQA. Historical resources may include eligible built environment resources and archaeological resources of the precontact or historic periods.

CEQA Guidelines Section 15064.5(c) provides further guidance on the consideration of archaeological resources. If an archaeological resource does not qualify as a historical resource, it may meet the definition of a "unique archaeological resource" as identified in PRC Section 21083.2. PRC Section 21083.2(g) defines a unique archaeological resource as an artifact, object, or site about which it can be clearly demonstrated that, without merely adding to the current body of knowledge, there is a high probability that it meets any of the following criteria: 1) it contains information needed to answer important scientific research questions and that there is a demonstrable public interest in that information, 2) has a special and particular quality such as being the oldest of its type or the best available example of its type, or 3) is directly associated with a scientifically recognized important prehistoric or historic event or person.

If an archaeological resource does not qualify as a historical or unique archaeological resource, the impacts of a project on those resources would be less than significant and need not be considered further (*CEQA Guidelines* Section 15064.5[c][4]). *CEQA Guidelines* Section 15064.5 also provides guidance for addressing the potential presence of human remains, including those discovered during the implementation of a project.

According to CEQA, an impact that results in a substantial adverse change in the significance of a historical resource is considered a significant impact on the environment. A substantial adverse change could result from physical demolition, destruction, relocation, or alteration of the resource or its immediate surroundings such that the significance of the historical resource would be materially impaired (*CEQA Guidelines* Section 15064.5 [b][1]). *Material impairment* is defined as demolition or alteration in an adverse manner [of] those characteristics of a historical resource that convey its historical significance and that justify its inclusion in, or eligibility for inclusion in, the CRHR or a local register (*CEQA Guidelines* Section 15064.5[b][2][A]).

If it can be demonstrated that a project would cause damage to a unique archaeological resource, the lead agency may require reasonable efforts be made to permit any or all of these resources to be preserved in place or left in an undisturbed state. To the extent that resources cannot be left undisturbed, mitigation measures are required (PRC Section 21083.2[a][b]).

Section 15126.4 of the CEQA Guidelines stipulates an Environmental Impact Report (EIR) shall describe feasible measures to minimize significant adverse impacts. In addition to being fully enforceable, mitigation measures must be completed within a defined time period and be roughly proportional to the impact of the project. Generally, a project which is found to comply with the Secretary of the Interior's *Standards for the Treatment of Historic Properties with Guidelines for Preserving, Rehabilitating, Restoring, and Reconstructing Historic Buildings* (the Standards) is considered to be mitigated below a level of significance (*CEQA Guidelines* Section 15126.4 [b][1]). For historical resources of an archaeological nature, lead agencies should also seek to avoid damaging effects where feasible. Preservation in place is the preferred manner to mitigate impacts to archaeological sites; however, data recovery through excavation may be the only option in certain instances (CEQA Guidelines Section 15126.4[b][3]).

California Register of Historical Resources

The CRHR was established in 1992 and codified by PRC §§5024.1 and 4852. The CRHR is an authoritative listing and guide to be used by State and local agencies, private groups, and citizens in identifying the existing historical resources of the State and to indicate which resources deserve to be protected, to the extent prudent and feasible, from substantial adverse change (Public Resources Code, 5024.1(a)). The criteria for eligibility for the CRHR are consistent with the NRHP criteria but have been modified for state use in order to include a range of historical resources that better reflect the history of California (Public Resources Code, 5024.1(b)). Unlike the NRHP however, the CRHR does not have a defined age threshold for eligibility; rather, a resource may be eligible for the CRHR if it can be demonstrated sufficient time has passed to understand its historical or architectural significance (California Office of Historic Preservation 2006). Further, resources may still be eligible for listing in the CRHR even if they do not retain sufficient integrity for NRHP eligibility (California Office of Historic Preservation 2006). Generally, the California Office of Historic Preservation recommends resources over 45 years of age be recorded and evaluated for historical resources eligibility (California Office of Historic Preservation 1995:2).

Properties are eligible for listing in the CRHR if they meet one of more of the following criteria:

Criterion 1: Is associated with events that have made a significant contribution to the broad patterns of California's history and cultural heritage

Criterion 2: Is associated with the lives of persons important to our past

Criterion 3: Embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of an important creative individual, or possesses high artistic values

Criterion 4: Has yielded, or may be likely to yield, information important in prehistory or history

California Health and Safety Code

Section 7050.5 of the California Health and Safety Code states that in the event of discovery or recognition of any human remains in any location other than a dedicated cemetery, there shall be no further excavation or disturbance of the site or any nearby area reasonably suspected to overlie adjacent remains until the Coroner of the county in which the remains are discovered has determined if the remains are subject to the Coroner's authority. 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.

California Public Resources Code

Section 5097.98 of the PRC states that the NAHC, upon notification of the discovery of Native American human remains pursuant to Health and Safety Code Section 7050.5, shall immediately notify those persons (i.e., the Most Likely Descendant [MLD]) that it believes to be descended from the deceased. With permission of the landowner or a designated representative, the MLD may inspect the remains and any associated cultural materials and make recommendations for treatment or disposition of the remains and associated grave goods. The MLD shall provide recommendations or preferences for treatment of the remains and associated cultural materials within 48 hours of being granted access to the site.

c. Local Regulations

Downtown Area Plan (DAP) and DAP EIR Summary

Because the proposed project is located in Downtown Berkeley, it must also be evaluated for its consistency with the Downtown Area Plan (DAP). The Historic Preservation and Urban Design Chapter of the DAP establishes the importance of design review in Berkeley's downtown:

> Policies of the Downtown Area Plan seek to harmonize and balance the twin goals of preserving and enhancing historic resources, and encouraging new and complementary development. It is fundamental to this Plan that, with appropriate design guidelines and regulations, both goals can be achieved and complement each other. The character of new development must be considered through the lens of good urban design and consideration for Downtown's historic settings. Context – geographic and cultural – presents critical design considerations that help lead to projects that fit the place. In addition, through continued care and investment, historic buildings and good urban design will continue to contribute continuity and character to Downtown's changing yet principled cityscape.

The DAP EIR discussed cultural resources impacts on pages 4-93 through 4-124. The DAP EIR identified the following impacts and mitigation measures (note that Impact CUL-4 pertained to paleontological resources which are addressed in the Geology and Soils section of the Infill Environmental Checklist included in Appendix B):

- **Impact CUL-1: Demolition of Historic Resources.** Despite the substantial protections in place in City policy and the proposed DAP, it is possible that development anticipated under the DAP could result in the demolition of historic resources located in the Downtown Area. Were demolition of historic resources to occur, this would represent a significant and unavoidable impact associated with DAP implementation. Demolition of any historic resources in the Downtown Area would represent a significant and unavoidable environmental impact, which could not be mitigated to a level of less than significant. However, should demolition be proposed, a separate, site-specific environmental review would be required, requiring an analysis of alternatives and potential project-specific mitigation measures.
- **Impact CUL-2: Substantial Adverse Changes in Character-Defining Features in Portions of the Downtown Area that may have the Potential for Future Designation as Historic Districts.** Implementation of the DAP may cause substantial adverse changes in the character-defining features of structures in areas in the Downtown Area that may have the potential for future designation as historic districts. Because implementation of the DAP could result in a cumulative impact on the existing character-defining features in those portions of the Downtown Area that may be formally designated as historic districts at some point in the future, any significant adverse change to those features would represent a potentially significant impact.
    - **Mitigation CUL-2: Establish Parameters for Compatible Infill Development in the Downtown Area within Updated Design Guidelines.** Using the Secretary of the Interior's "Standards" as a starting point (in compliance with DAP Policy HD-I-la), the Design Guidelines for future development in the Downtown Area should be updated to ensure that new construction respects the authentic character, significance and integrity of the existing building stock in areas that may have the potential for designation as historic districts. Specific guidelines that could be added for this purpose include, but are not limited to, the following:
        - Consider the difference in character of individual blocks. The scale of buildings change in the potential historic district(s) and new construction should reflect the appropriate scale per block.
        - Priorities for new construction and additions include: build-to-the-street, particularly at corners; construct infill buildings at vacant or underutilized sites along major streets; and modify non-historic buildings so that they contribute visual interest and quality.
        - Construct new buildings, of compatible design with the surrounding neighborhood.
        - Encourage creative and innovative contemporary designs for new buildings in the downtown.
        - Streetscape plays an important role in drawing individuals to a particular area of the city. Use signage, lighting, and paving to improve the pedestrian experience.
        - Build consistently with the street wall, particularly at corner sites. Continue dominant rhythms for structural bays, bay windows, large pilasters, and other repeating vertical elements. Also, continue dominant cornice lines, such as between ground floors and upper stories, and at the top of facades that meet a street.

- Design new buildings to respond to the existing building context within a block, and provide continuity to the overall streetscape. Frequently, a new building will be inserted on a site between two existing buildings of disparate scale and design.
- Set back upper floors where taller buildings are permitted, so that dominant roof and cornice lines remain generally consistent in the Downtown, as seen from the street.
- Explore options for multi-use buildings, combining residential, commercial, and other compatible uses where appropriate.
- Provide multi-tenant retail space and other active publicly accessible uses at the street level. These should be accessible directly from the sidewalk, rather than through common interior lobbies.
- Provide easy-to-locate building entrances on all street-facing facades. Where a building extends through an entire block or is located at a comer, connect its entrances with a suitably scaled public lobby. Highlight entrances with signage and lighting to distinguish them from storefronts.
- Use vertically-proportioned windows. Group such windows in sets where a horizontally proportioned window opening is desired, especially for the expression of structural bays.

As individual development projects are proposed in the Downtown Area, those which may have potential adverse effects on historic resources would be evaluated under the Landmark Preservation Ordinance. Project compliance with the provisions of the Landmark Preservation Ordinance, conformance with the Secretary of the Interior's Standards (consistent with DAP Policy HD 1-1a), and consistency with updated Design Guidelines intended to protect the character-defining features of those portions of the Downtown Area which may have the potential for designation as historic districts (as called for in Mitigation CUL-2, above) would reduce potential impacts associated with development that might jeopardize existing character defining features in those areas to a less than-significant level.

As a result of Impact CUL-2, the Downtown Berkeley Design Guidelines were developed.

- **Impact CUL-3: Possible Disturbance of Unidentified Subsurface Archaeological Resources.** Although no archaeological resources are currently known to exist in the Downtown Area, ground-disturbing activities associated with new construction and related underground utility installation could result in the destruction or disturbance of unidentified subsurface archaeological resources, which would represent a potentially significant impact.
  - **Mitigation CUL-3: Halt Work/Archaeological Evaluation/Site-Specific Mitigation.** If archaeological resources are uncovered during construction activities, all work within 50 feet of the discovery shall be redirected until a qualified archaeologist can be contacted to evaluate the situation, determine if the deposit qualifies as an archaeological resource, and provide recommendations. If the deposit does not qualify as an archaeological resource, then no further protection or study is necessary. If the deposit does qualify as an archaeological resource, then the impacts to the deposit shall be avoided by project activities. If the deposit cannot be avoided, adverse impacts to the deposit must be mitigated. Mitigation may include, but is not limited to, archaeological data recovery. Upon completion of the archaeologist's assessment, a report should be prepared documenting the methods, findings and recommendations. The report should be submitted to the City, the project proponent and the NWIC.

- **Impact CUL-5: Possible Disturbance of Unidentified Human Remains.** Ground disturbing activities associated with new construction and related underground utility installation could result in the disturbance of unidentified subsurface human remains, which would represent a potentially significant impact.
  - **Mitigation CUL-5: Halt Work/Coroner's Evaluation/Native American Heritage Consultation/Compliance with Most Likely Descendent Recommendations.** If human remains are encountered during construction activities, all work within 50 feet of the remains should be redirected and the County Coroner notified immediately. At the same time, an archaeologist shall be contacted to assess the situation. 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 NAHC will identify a Native American Most Likely Descendant (MLD) to inspect the site and provide recommendations for the proper treatment of the remains and any associated grave goods. The archaeologist shall recover scientifically-valuable information, as appropriate and in accordance with the recommendations of the MLD. Upon completion of the archaeologist's assessment, a report should be prepared documenting methods and results, as well as recommendations regarding the treatment of the human remains and any associated archaeological materials. The report should be submitted to the City, the project proponent and the NWIC.

Implementation of this mitigation measure would reduce the impact to a level of less than significant.

In addition to the Historic Preservation and Urban Design Chapter of the DAP, the Noise and Vibration Chapter of the DAP EIR, acknowledges that new construction may have an effect on historic buildings.

The DAP EIR discussed noise and vibration impacts on pages 4-176 through 4-205. The DAP EIR identified the following impacts and mitigation measures to historic buildings:

- **Impact NOI-6: Construction-Related Vibration:** Residences, businesses, and historic structures within or in the vicinity of the Downtown Area could be exposed to construction-related vibration during the excavation and foundation work of the buildings constructed under the DAP, a significant impact.
  - **Mitigation NOI-6: Avoidance of Pile-Driving/Site Specific Vibration Studies/Monitoring/Contingency Planning.** The following measures are recommended to reduce vibration from construction activities:
    - Avoid impact pile-driving where possible. Drilled piles causes lower vibration levels where geological conditions permit their use.
    - Avoid using vibratory rollers and tampers near sensitive areas.
    - In areas where project construction is anticipated to include vibration-generating activities, such as pile-driving in close proximity to existing structures, site-specific vibration studies should be conducted to determine the area of impact and to present appropriate mitigation measures that may include the following:
    - Identification of sites that would include vibration compaction activities such as pile-driving and that have the potential to generate groundborne vibration, and the sensitivity of nearby structures to groundborne vibration. Vibration limits should be applied to all vibration-sensitive structures located within 200 feet of the project. A qualified structural engineer should conduct this task.

- Development of a vibration monitoring and construction contingency plan to identify structures where monitoring would be conducted, set up a vibration monitoring schedule, define structure-specific vibration limits, and address the need to conduct photo, elevation, and crack surveys to document before and after construction conditions.
- Construction contingencies would be identified for when vibration levels approached the limits.
- At a minimum, vibration monitoring should be conducted during initial demolition activities and during pile-driving activities. Monitoring results may indicate the need for more or less intensive measurements.
- When vibration levels approach limits, suspend construction and implement contingencies to either lower vibration levels or secure the affected structures.
- Conduct post-survey on structure where either monitoring has indicated high levels or complaints of damage has been made. Make appropriate repairs or compensation where damage has occurred as a result of vibration.

It may not be possible to avoid using impact pile-drivers, vibratory rollers, and tampers entirely during the construction of projects in the Downtown Area. Due to the density of development in the area, some of these activities may take place near sensitive structures. In these cases, the mitigation measures listed above may not be sufficient to reduce groundborne vibration to a level of less than significant. Therefore, this impact would be significant and unavoidable.

City of Berkeley Landmarks Preservation Ordinance

The City of Berkeley Landmarks Preservation Ordinance (Ordinance Nos. 5686-NS Section 1 [1985] and 4694-NS Section 3.1 [1974]) authorizes the Landmark Preservation Commission to designate local landmarks, historic districts, and structures of merit, as approved by the City Council, by the procedures outlined in the ordinances. An eligible property may be nominated and designated as a landmark, historic district, or structure of merit if it satisfies the requirements set forth below.

Landmarks and Historic Districts

General Criteria which the commission shall use when considering structures, sites and areas for landmark or historic district designation are as follows:

1) Architectural Merit:
    a. Property that is the first, last, only, or most significant architectural property of its type in the region
    b. Properties that are prototypes of or outstanding examples of periods, styles, architectural movements or construction, or examples of the more notable works of the best surviving work in a region of an architect, designer, or master builder
    c Architectural examples worth preserving for the exceptional values they add as part of the neighborhood fabric
2) Cultural value: Structures, sites and areas associated with the movement or evolution of religious, cultural, governmental, social and economic developments of the City
3) Educational value: Structures worth preserving for their usefulness as an educational force

4) Historic value: Preservation and enhancement of structures, sites, and areas that embody and express the history of Berkeley/Alameda County/California/United States History may be social, cultural, economic, political, religious, or military
5) Any property which is listed on the National Register described in Section 470A of Title 16 of the United States Code

Structures of Merit

Criteria which the commission shall use when considering a structure for structure of merit designation are as follows:

1) General criteria shall be architectural merit and/or cultural, educational, or historic interest or value. If upon assessment of a structure, the commission finds that the structure does not currently meet the criteria as set out for a landmark, but it is worthy of preservation as part of a neighborhood, a block or a street frontage, or as part of a group of buildings which includes landmarks, that structure may be designated a structure of merit.
2) Specific criteria include, but are not limited to one or more of the following:
    a. The age of the structure is contemporary with (1) a designated landmark within its neighborhood, block, street frontage, or group of buildings, or (2) an historic period or event of significance to the city, or to the structure's neighborhood, block, street frontage, or group of buildings.
    b. The structure is compatible in size, scale, style, materials, or design with a designated landmark structure within its neighborhood, block, street frontage, or group of buildings.
    c. The structure is a good example of architectural design.
    d. The structure has historical significance to the city and/or to the structure's neighborhood, block, street frontage, or group of buildings.

Downtown Berkeley Design Guidelines

As a result of Impact CUL-2 in the DAP EIR, the Downtown Berkeley Design Guidelines were established, and incorporated recommendations from Mitigation Measure CUL-2. The guidelines include three categories: those which apply to Landmark Buildings, those that apply to Significant Buildings, and to those that apply to All Buildings. Because the proposed project is to demolish the existing Significant Building at 2132-2154 Center Street for the construction of a new building, the appropriate guidelines are those that apply to all buildings. Guidance for the treatment of buildings is broken into six areas: building design; awning and canopies; signs and graphics; site design; special sites, buildings, and subareas; and special considerations. The building design category is further refined and includes the following subcategories: facades; roof forms; storefronts and entrances; materials; details and ornament; colors; lighting, security and equipment; and special historic features. The site design category includes subcategories for the following: frontages, setbacks and heights; heights; open spaces; and parking and loading. Each area has detailed and specific guidance. A copy of the Downtown Berkeley Design Guidelines are available in Appendix A. Downtown Berkeley Design Guidelines, by area, are as follows:

Building Design

- **Facades.** The form, rhythm and character of Downtown established by its Landmark and Significant buildings should be reinforced and enhanced by renovation and new construction. Landmark and Significant facades should not be mimicked or trivialized, but should provide design guidance for new physical changes. Downtown area should have a unified visual identity which complements the historic character of its buildings, while allowing contemporary expressions.
- **Roof Forms.** Nearly all buildings of architectural significance in Downtown Berkeley have distinctive roof forms or details, which provide an attractive terminus for the building, and add visual interest to the skyline. New construction and façade alterations should continue the precedent of utilizing changes of height, profile, detailing, or materials in order to enhance the sense of enclosure that is established at roof level.
- **Storefronts and Entrances.** Many of the features desirable for a pedestrian oriented Downtown are precisely those found in the original storefronts of Downtown Berkeley's Landmark and Significant buildings. These features, which include inviting entranceways, continuous display windows, obvious locations for signs, and sensitively scaled proportions should be incorporated into new as well as remodeled storefronts.
- **Materials.** Many of the features desirable for a pedestrian-oriented Downtown are precisely those found in the original storefronts of Downtown Berkeley's Landmark and Significant buildings. These features, which include inviting entranceways, continuous display windows, obvious locations for signs, and sensitively scaled proportions, should be incorporated into new as well as remodeled storefronts.
- **Details and Ornament.** Downtown owes much of its character and richness to the ways that details and ornament have been incorporated in the design of buildings. Because the Downtown Area Plan emphasizes respect for the historic context of Downtown, alterations and new construction should provide a level of detailing that adds to and complements the ornate quality of the historic buildings found throughout Downtown.
- **Color.** Color is a very powerful design tool and can have an enormous influence on the way a building or area is perceived. Most buildings in Downtown are faced with concrete, masonry, tile, or stone, resulting in a predominance of light earth tones. Downtown should project an image of quality, harmony, and cleanliness through the use of sensitive and compatible color schemes.
- **Lighting, Security, and Equipment.** Areas that are perceived as safe and secure are clean, well lit, and active. This sense of security promotes a high level of use and discourages crime and vandalism. In the pedestrian-oriented Downtown Area, lighting should be brightest at sidewalks and storefronts, and building equipment should be located so it is neither seen nor heard from public areas. An objective for Downtown Berkeley is to create a safe and inviting environment which, due to its variety of commercial, retail and residential uses, encourages pedestrian activity and vitality at all hours.

Awnings and Canopies

- Awnings and canopies provide sun and rain protection to pedestrians, provide a sense of enclosure at sidewalk level, are good locations for pedestrian-related signs, and shield window displays from the sun. awnings and canopies must respect the architectural integrity of the façade on which they are places, the context of their location, and the historic character of Downtown.

Signs and Graphics

- Signs are an extremely visible part of the streetscape, and should reflect the quality of goods and services begin offered Downtown. They should communicate an image of excellence, distinctive craftsmanship, and creativity, and should reinforce the unique and historic character to Downtown.

Site Design

- **Frontages, Setbacks, and Heights.** Buildings should frame and define the street as an active public space. Throughout Downtown, buildings are typically built to street-facing property line(s). This historic "streetwall" of facades should be preserved, and extended through new construction. Setbacks at the ground or upper floors may be used selectively to preserve sunlight, enhance views, provide open space or improve scale relationships, but should be designed with care to ensure that visual continuity of the streetwall is not disrupted.
- **Heights.** It is a specific goal of the Downtown Area Plan to provide continuity between the old and new in the built environment, and to respect the unique and historic character of Downtown, while promoting beneficial new development. New development should be scaled down at the periphery of Downtown in order to provide a graceful transitions between Downtown and adjacent neighborhoods.
- **Open Spaces.** Inviting open spaces should be provided throughout the Downtown. These spaces should be suitably scaled to their surroundings, and sited in locations which reinforce rather than disrupt pedestrian flow. The most successful open spaces are those which are strongly defined by building forms and/or landscaping, and designed to encourage public use. Encourage open space where it provides a visual connection to the Berkeley Hills and San Francisco Bay.
- **Parking and Loading.** Downtown is first and foremost a place for pedestrians, and every effort should be taken to ensure their comfort, safety and continued patronage. Often, vehicular activity is at odds with this goal. Pedestrians should be given first considerations in site planning for parking and loading.

Special Sites, Buildings, and Subareas

Throughout the Downtown, there are certain building types and areas which should be given particular consideration. Special sites should take advantage of desirable views or characteristics and express good urban design principles. Unique building types such as parking structures and civic buildings should express their function in a way that is harmonious with the pedestrian environment and historic character of Downtown.

Subareas Where Historic Resources are Concentrated: Downtown contains subareas with noticeable concentrations of historic buildings – and the potential for cultivating distinct and memorable places. The Downtown Design Guidelines seek to protect and reinforce the overall character of these subareas. In subareas where historic resources are concentrated, designers should pay special attention to a project's context, including the character of adjacent properties and subarea as a whole.

Special Considerations

Design decisions are not the only factors which influence the appearance of Downtown buildings. Codes and regulations have tremendous impact on the design of buildings and sites. In today's economic climate, financial considerations are perhaps the most influential determinants of physical

form. Special consideration must be given to regulatory, environmental, and financial requirements and incentives in order to produce optimal design solutions which also satisfy functional and physical needs. Of note are programs and regulations to encourage the restoration of and change of use within historic structures.

4.1.2 Cultural Resources Setting

This section provides background information pertaining to the cultural context of the project site, and includes an overview of the regional indigenous history and post-contact history. An overview of the ethnographic context is provided in Section 4.6, *Tribal Cultural Resources.*

a. Indigenous History

The project site is located in the San Francisco Bay Area archaeological region (Milliken et al. 2007, Moratto 1984). Milliken et al. (2007) generally divided the pre-contact chronology of the Bay Area into five periods: The Early Holocene (8000 to 3500 Before Common Era [BCE]), Early Period (3500 to 500 BCE), Lower Middle Period (500 BCE to CE 430 common era [CE]), the Upper Middle Period (430 to 1050 CE), and the Late Period (1050 CE to contact).

It is presumed that early Paleoindian groups lived in the area prior to 8000 BCE due to evidence in Alta California and the Channel Islands (McLaren et al. 2019). However, no evidence for this period has been discovered in the San Francisco Bay Area (Milliken et al. 2007). Sites dating to this period may be submerged or deeply buried as a result of rising sea levels and widespread sediment deposition that has occurred since the Terminal Pleistocene (Byrd et al. 2017). For this reason, the Terminal Pleistocene Period (ca. 11,700 to 8000 BCE) is not discussed here.

The earliest intensive study of archaeology in the San Francisco Bay Area began with N. C. Nelson of the University of California, Berkeley, between 1906 and 1908. Mr. Nelson documented over 400 shell mounds throughout the area. Nelson was the first to identify the Bay Area as a discrete archaeological region (Moratto 1984).

Early Holocene (8000 to 3500 BCE)

Archaeological evidence from the early Holocene is limited as sites dating to this period are likely buried under Holocene alluvial deposits (Moratto 1984, Ragir 1972). Available data suggests that the Early Holocene in the San Francisco Bay Area is characterized by a mobile forager pattern and the presence of millingslabs, handstones, and a variety of leaf-shaped projectile points. Two archaeological sites (CA-CCO-696 and CA-CCO-637) dating to this period have been identified in Contra Costa County at the Los Vaqueros Reservoir. Early dates for the Early Holocene come from the CA-CCO-696, dating to approximately 7000 BCE (Milliken et al. 2007).

Early Period (3500 to 600 BCE)

The Early Period saw increased sedentism with the introduction of new ground stone technologies (i.e., mortar and pestle) with an increase in regional trade, and the first cut shell beads. The earliest evidence for the use of the mortar and pestle in the San Francisco Bay Area dates to 3800 BCE and comes from CA-CCO-637. By 1500 BCE, mortars and pestles had almost completely replaced millingslabs and handstones, indicating a greater reliance on processing nuts, especially acorns. Faunal evidence from various sites during this period indicates a diverse faunal exploitation pattern based on the presence mussel and other shellfish, marine mammals, terrestrial mammals, and birds within sites dating to this period (D'Oro 2009).

The earliest cut bead horizon is also associated with this period. Rectangular *Haliotis* spp. (abalone) and Olivella *(Callianax biplicata)* (Vellanoweth et al. 2014) (snail) beads have been identified at several Early Period sites, including CA-CCO-637, CA-SCL-832 in Sunnyvale and CA-ALA-307 in Berkeley (Milliken et al. 2007). These early examples of cut beads were recovered from mortuary contexts.

Lower Middle Period (500 BCE to 430 CE)

The Lower Middle Period saw numerous changes from the previous period. The presence of chipped stone points and bone tools became typical. Rectangular shell beads, common during the Early Period, disappear completely and are replaced by split-beveled and saucer Olivella beads. *Haliotis* spp. ornaments, bone tools and ornaments, and basketry awls also became typical, indicating the development of coiled basketry technology. Mortars and pestles continued to be the dominant grinding tool (Luby and Gruber 1999, Milliken et al. 2007).

Evidence for the Lower Middle Period in the Bay Area comes from sites such as the Emeryville shell mound (CA-ALA-309) and Ellis Landing (CA-CCO-295). CA-ALA-309 is one of the largest shell mounds in the San Francisco Bay Area and contains multiple cultural sequences. The lower levels of the site, which date to the Middle Period, contain flexed burials with bone implements, chert bifaces, charmstones, and oyster shells (Moratto 1984).

Upper Middle Period (430 to 1050 CE)

Around 430 CE, Olivella saucer bead trade networks that had been established during earlier periods collapsed and over half of known sites occupied during the Lower Middle Period were abandoned. Olivella saucer beads were replaced with Olivella saddle beads. New types of material culture appear within these sites, including elaborate, decorative blades, fishtail charmstones, new *Haliotis* spp. ornament forms, and mica ornaments. Sea otter bones became more abundant, while salmon and other fish became less so, suggesting changes in faunal exploitation patterns from earlier periods (Milliken et al. 2007, Simons and Carpenter 2009). Excavations at CA-ALA-309 indicate that a shift from mussels to oysters, and oysters to clams may have occurred (Gifford 1916). Isotopic analysis confirms that San Francisco Bay Area individuals shifted from hunting higher trophic-level foods in the Early Period to gathering foods like plants and shellfish in the Middle and Upper periods (Burns et al. 2012). Subsistence analyses at various sites dating to this period indicate a diverse diet that included numerous species of fish, mammals, birds, shellfish, and plant resources that varied by location in the San Francisco Bay Area (Hylkema 2002).

Late Period (1050 CE to contact)

The Late Period saw an increase in social complexity, indicated by differences in burials and an increased level of sedentism relative to preceding periods, evidenced by mortars weighing up to 90.7 kilograms (Lentz 2012: 198). An increase in imported Napa Valley obsidian occurred during this time for the production of smaller points, preforms and simple flake tools. Small, finely worked projectile points of the Stockton Serrated series associated with bow and arrow technology appear around 1250 CE. Olivella shell beads disappeared and were replaced with Olivella-lipped and spire-lopped beads in the south bay and clamshell disk beads in the north bay. Thicker and larger beads indicated higher affluence. The toggle harpoon, hopper mortar, and magnesite tube beads also appeared during this period (Milliken et al. 2007, Lentz 2012, Von Der Porten et al. 2014). As did an increase in the intensity of resource exploitation that correlates with an increase in population (Moratto 1984). Many of the well-known sites of earlier periods, such as the Emeryville shell mound

(CA-ALA-309) and the West Berkeley site (CA-ALA-307), were abandoned, as indicated by the lack of Late Period elements. Researchers have suggested that the abandonment of these sites may have resulted from fluctuating climates and drought that occurred throughout the Late Period (Lightfoot and Luby 2002).

b. Post-Contact Setting

Post-Contact history for the state of California is generally divided into three periods: the Spanish Period (1769–1822), Mexican Period (1822–1848), and American Period (1848–present). Although Spanish, Russian, and British explorers visited the area for brief periods between 1529 and 1769, the Spanish Period in California begins with the establishment in 1769 of a settlement at San Diego and the founding of Mission San Diego de Alcalá, the first of 21 missions constructed between 1769 and 1823. Independence from Spain in 1821 marks the beginning of the Mexican Period, and the signing of the Treaty of Guadalupe Hidalgo in 1848, ending the Mexican American War, signals the beginning of the American Period when California became a territory of the United States.

Spanish Period (1769-1822)

Spanish explorers made sailing expeditions along the coast of California between the mid-1500s and mid-1700s. Juan Rodriguez Cabrillo in 1542 led the first European expedition to observe what was known by the Spanish as Alta (upper) California. For more than 200 years, Cabrillo and other Spanish, Portuguese, British, and Russian explorers sailed the Alta California coast and made limited inland expeditions, but they did not establish permanent settlements (Bean 1968, Rolle 2003). The Spanish crown laid claim to Alta California based on the surveys conducted by Cabríllo and Vizcaíno (Bancroft 1885, Gumprecht 1999).

During this period, Berkeley appears to have been sparsely inhabited by this time with the main Huichin (the territory of the Chochenyo speaking Ohlone people) villages located near Richmond. By the 18th century, Spain developed a three-pronged approach to secure its hold on the territory and counter against other foreign explorers. The Spanish established military forts known as presidios, as well as missions and pueblos (towns) throughout Alta California. The 1769 overland expedition by Captain Gaspár de Portolá marks the beginning of California's Historic period, occurring just after the King of Spain installed the Franciscan Order to direct religious and colonization matters in assigned territories of the Americas. Portolá established the Presidio of San Diego as the first Spanish settlement in Alta California in 1769. Franciscan Father Junípero Serra also founded Mission San Diego de Alcalá that same year, the first of the 21 missions that would be established in Alta California by the Spanish and the Franciscan Order between 1769 and 1823.

Mission San Francisco was founded in 1776. Few Ohlone people from the Huichin villages moved to the mission during the initial years, but by 1794 had migrated *en masse* to the mission. Construction of missions and associated presidios was a major emphasis during the Spanish Period in California to integrate the Native American population into Christianity and communal enterprise. In 1794, 187 Huichin Ohlone were baptized at Mission San Francisco. In the following years, native people suffered from disease, dietary deficiency, and conflict that resulted in a nearly 80 percent population decline by 1832.

Spain began making land grants in 1784, typically to retiring soldiers, although the grantees were only permitted to inhabit and work the land. The land titles technically remained property of the Spanish king (Livingston 1914).

Mexican Period (1822-1848)

Several factors kept growth within Alta California to a minimum, including the threat of foreign invasion, political dissatisfaction, and unrest among the indigenous population. After more than a decade of intermittent rebellion and warfare, New Spain won independence from Spain in 1821. In 1822, the Mexican legislative body in California ended isolationist policies designed to protect the Spanish monopoly on trade, and decreed California ports open to foreign merchants (Dallas 1955).

Extensive land grants were established in the interior during the Mexican Period, in part to increase the population inland from the more settled coastal areas where the Spanish had first concentrated their colonization efforts. The secularization of the missions following Mexico's independence from Spain resulted in the subdivision of former mission lands and establishment of many additional ranchos. Commonly, former soldiers and well-connected Mexican families were the recipients of these land grants, which now included the title to the land.

Berkeley was within Rancho San Antonio, which was granted to Luis Maria Peralta in 1820. Peralta had come to California in 1776 with the Anza expedition. The rancho stretched for more than 43,000 acres, including the area from present-day Albany in the north to San Leandro Creek in the south. In 1842, Luis Peralta divided the ranch among his sons, with José Domingo receiving what is today Berkeley and Albany and José Vicente receiving what is now Emeryville, North and West Oakland, and Piedmont.

During the supremacy of the ranchos (1834–1848), landowners largely focused on the cattle industry and devoted large tracts to grazing. Cattle hides became a primary Southern California export, providing a commodity to trade for goods from the east and other areas in the United States and Mexico. The number of nonnative inhabitants increased during this period because of the influx of explorers, trappers, and ranchers associated with the land grants. The rising California population contributed to the introduction and rise of diseases foreign to the Native American population, who had no associated immunities.

In 1849 the area rapidly developed as a result of the Gold Rush. The Peralta family was plagued by squatters who overran rancho land, sometimes violently. Domingo Peralta sought to have his property confirmed in United States courts and was burdened by legal proceedings to prove his ownership and sold portions of his land to raise money for legal fees.

American Period (1848-Present)

The United States went to war with Mexico in 1846. During the first year of the war, John C. Fremont traveled from Monterey to Los Angeles with reinforcements for Commodore Stockton and evaded Californian soldiers in Santa Barbara's Gaviota Pass by taking the route over the San Marcos grade instead (Kyle 2002). The war ended in 1848 with the Treaty of Guadalupe Hidalgo, ushering California into its American Period.

In the San Francisco Bay Area, gold discovered in along the American River in 1849 ushering in the Gold Rush. Immigrants flowed to the area and by the end of 1849, San Francisco's population had from about 500 hundred to 25,000. California officially became a state with the Compromise of 1850, which also designated Utah and New Mexico (with present-day Arizona) as United States territories (Waugh 2003). With the influx of people seeking gold, cattle were no longer desired mainly for their hides but also as a source of meat and other goods. During the 1850s cattle boom, rancho vaqueros drove large herds from Southern to Northern California to feed that region's burgeoning mining and commercial boom.

c. Downtown Berkeley History

The following historical context statement for the downtown Berkeley area is largely excerpted from the City of Berkeley Downtown Area Plan Historic Resource Evaluation (Architectural Resources Group 2008).

Located within Alameda County, California, the development of the city of Berkeley was heavily influenced by East Bay transportation routes and the establishment of the University of California, Berkeley. The principal commercial center for Berkeley began to take shape in 1876 when Francis Kittredge Shattuck and J. L. Barker persuaded the stockholders of the Central Pacific Railroad (later Southern Pacific) to run a spur line through Shattuck's property. Rail access provided the impetus for new commercial growth in what became Downtown Berkeley. Furthermore, the relocation of the University to lands just east of downtown in 1873 also provided opportunity for commercial growth to support the University community. When the Town of Berkeley was incorporated in 1878, Shattuck Avenue was already established as the city's "Main Street." By the 1890s a fully operational rail line with steam trains ran along Shattuck Avenue terminating at what is now Berkeley Square and Shattuck Square. Additional commercial centers established during Berkeley's early history were West Berkeley (Ocean View), North Berkeley (Berryman's) and the Telegraph Avenue area, south of the University of California campus. Others which came later were the Elmwood area along College near Ashby, San Pablo Avenue, South Berkeley (formerly the Lorin District), and Thousand Oaks along Solano Avenue.

The 1906 Earthquake resulted in an influx of new residents to Berkeley, and businesses in downtown quickly began to accommodate the expanded population. Downtown Berkeley became a bustling business, commercial, and light industrial center in the 1920s and continued to grow and expand into the 1940s. As with many commercial downtowns in California, post-World War II suburban expansion resulted in the creation of new residential and commercial areas away from the historic commercial core.

Today, Berkeley's commercial downtown is eclectic, with numerous businesses, government agencies, and educational institutions reflective of Berkeley's wealth of ethnic diversity established after World War II. Close proximity to the University of California, Berkeley campus and access to public transportation has enabled Berkeley to expand, grow and thrive. Throughout the downtown there is a mix of older commercial buildings, post-war development and more recent modern additions to the commercial core. The historic resources present in downtown reflect a wide range of themes and historic contexts including residential and commercial development; civic, government and educational institutions; transportation; recreation; and cultural groups.

d. Project Site Existing Conditions

The analysis in this section is based, in part, on the Cultural Resources Technical Report prepared by Rincon Consultants (June 2023) and the GPR Technical Report prepared by Byram Archaeological Consulting (December 2023) for the 2128 Oxford Street Mixed-Use Project. Rincon's study involved archival research including a cultural resources records search of the California Historical Resources Information System (CHRIS), a Sacred Lands File (SLF) search by the Native American Heritage Commission (NAHC), a built environment site visit to confirm the existing conditions of 2132-2154 Center Street and the larger Shattuck Avenue Commercial Corridor Historic District, and the preparation of Department of Parks and Recreation (DPR) Series 523 forms. The GPR study was conducted to identify the potential for subsurface archaeological materials within accessible areas within the project site, consisting generally of the areas used for surface parking.

The CHRIS records search and background research identified 93 cultural resources within 0.25-mile of the project site, including two Native American resources and 91 historic buildings. Of these resources, three are recorded within the project site: 2132-2154 Center Street, Shattuck Avenue Commercial Corridor Historic District, and a Native American burial (P-01-010538). On December 15, 2022, the NAHC responded to the SLF search request, stating that the project site is positive for sacred lands.

The built environment site visit confirmed the presence of one historical resource within the project site, 2132-2154 Center Street, also known as the Thomas Block, that was previously evaluated and found eligible for listing as an individual property in the National Register of Historic Places and locally significant individually and as a contributor to the Shattuck Avenue Commercial Corridor Historic District. This resource was surveyed and confirmed to be locally significant as an individual resource and also as a contributor to the Historic District. The background research and site visit also confirmed the project site is within the boundaries of the proposed Shattuck Avenue Commercial Corridor Historic District, which is also a historical resource under CEQA. There are four identified historic architectural resources qualifying as historical resources in the vicinity of the project site, which are contributors to this district, including among others 2128-2130 Center Street, immediately adjacent to the project site (also known as the Ennor's Restaurant Building), also listed as a Berkeley Landmark.

Resource P-01-010538 is identified as a Native American burial which, according to records obtained from the CHRIS, was reportedly removed from the site in 1959 (Pettitt 1973) but was not formally recorded until 2001. The burial is reported to have been discovered during construction activities at the site of the Kellogg School (Schwartz 2001). As is documented by the presence of a plaque placed at 2136 Oxford Street by Berkeley Historical Plaque Project, the Kellogg School was constructed in the central portion of the site in 1879 (Berkeley Historic Plaque Project 2024; Sanborn Fire Insurance Map 1894). The Kellogg School was named after the Board of Education president, Martin Kellogg, the University of California's first appointed academic senator and seventh president; the school was the first in California to be accredited by the University of California. The project site appears to have been developed as early as the mid-1800s and has since been occupied by a variety of uses including residential, institutional, and commercial throughout the historic period (Berkeley Historic Plaque Project 2024; Sanborn Fire Insurance Maps 1894, 1911, 1929, and 1959).

The results of the GPR identified subsurface anomalies interpreted to be consistent with historic-period features including privies, refuse pits, a structural foundation or rubble layer, and possible pavement, or possibly prehistoric features, as well as a stratigraphic transition possibly between historic and prehistoric sediments (Byram Archaeological Consulting 2023). The GPR results are consistent with geotechnical observations indicating the presence of historic-period materials in the subsurface underlain by native soils (Marcus et al. 2022). Native soils across the project site consist of Holocene-age alluvial sediments deposited from adjacent Strawberry Creek contemporary with prehistoric occupation of the area.

Based on the results of the studies described, one archaeological resource was identified consisting of a multi-component (prehistoric and historic period) site (temporary designation Oxf-001). The historic period component consists of features such as privies, refuse pits, and possible foundations. The prehistoric component includes the previously removed Native American burial (P-01-010538) and the potential presence of prehistoric features.

4.1.3 Impact Analysis

a. Significance Thresholds and Methodology

According to Appendix G of the *CEQA Guidelines*, impacts related to cultural resources from the proposed project would be significant if the project would:

1. Cause a substantial adverse change in the significance of an historical resource pursuant to Section 15064.5;
2. Cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5; or
3. Disturb any human remains, including those interred outside of formal cemeteries.

Impacts related to Threshold 1 are analyzed below. The impacts assessment considers the results of the Cultural Resources Technical Report prepared by Rincon Consultants in 2023. The results of these studies were considered along with the *CEQA Guidelines* to determine if the proposed project would result in a significant impact to historical resources. Pursuant to Section 15064.5(b) of the *CEQA Guidelines*, a significant effect on the environment would occur if a historical resource is materially impaired, i.e., the resource's significant physical features would be directly or indirectly altered in such a way it would no longer be eligible for listing in the CRHR or a local register.

The Impact assessment related to thresholds 2 and 3 considers the results of the Cultural Resources Technical Report prepared by Rincon Consultants in 2023 (Appendix C) and the GPR Technical Report prepared by Byram Archaeological Consulting in 2023.

b. Project Impacts and Mitigation Measures

Threshold 1:	Would the project cause a substantial adverse change in the significance of a historical resource pursuant to §15064.5?

Impact CR-1 THE PROPOSED PROJECT WOULD DEMOLISH A HISTORIC RESOURCE AT 2132-2154 OXFORD STREET, WHICH IS ELIGIBLE FOR THE CALIFORNIA REGISTER OF HISTORICAL RESOURCES (CRHR) AND LOCAL DESIGNATION. IMPLEMENTATION OF PROJECT MITIGATION MEASURES CR-1 AND CR-2 WOULD REDUCE THE SEVERITY OF THE PROJECT'S IMPACT ON HISTORICAL RESOURCES TO THE EXTENT FEASIBLE. HOWEVER, BECAUSE THE PROJECT WOULD DEMOLISH A HISTORICAL RESOURCE, EVEN WITH IMPLEMENTATION OF MITIGATION, THIS IMPACT WOULD BE SIGNIFICANT AND UNAVOIDABLE.

The following analysis is limited to built environmental resources. The DAP EIR identifies impacts to cultural resources which could result from the implementation of projects under the DAP and identifies measures to mitigate those impacts to the extent feasible. These measures are considered as part of the impact analysis below.

Impact CUL-1 of the DAP EIR recognizes that development anticipated under the DAP could result in the demolition of historic resources. Impacts resulting from the demolition of a historic resource are considered significant and unavoidable and could not be mitigated to a level of less than significant, under the DAP EIR. The proposed project would result in the demolition of two buildings, located at 2128 Oxford Street and 2132-2154 Center Street respectively. The 2128 Oxford Street building was constructed in 1996 and does not meet the 45-year age threshold required for historic resources eligibility under OHP guidelines. Its demolition therefore would not result in a significant impact pursuant to Section 15064.5 of the CEQA Guidelines.

The 2132-2154 Center Street building, also known as the Thomas Block building, was determined to be locally eligible individually and as a contributor to the CRHR eligible Shattuck Avenue Commercial Corridor Historic District. Therefore, the property qualifies as a historic resource as defined by CEQA. The project proposes to demolish the 2132-2154 Center Street building, and result in the material impairment of the building, meaning it would alter in an adverse manner, those physical characteristics that convey its historical significance and justify its eligibility for listing individually and as a contributor to the Shattuck Avenue Commercial Corridor Historic District. The project would therefore result in a substantial adverse change to the significance of a historical resource and result in a significant impact to historical resources pursuant to Section 15064.5(b) of the CEQA Guidelines.

In consideration of potential impacts to other historical resources in the Downtown Area, Impact CUL-2 of the DAP EIR recognizes that implementation of the DAP may cause substantial adverse changes in the character-defining features of structures the Downtown Area such as the Shattuck Avenue Commercial Corridor Historic District. To address these impacts, the DAP EIR included Mitigation CUL-2, which led to the establishment of the Downtown Berkeley Design Guidelines. According to the DAP EIR, project-specific compliance with the provisions of the Landmark Preservation Ordinance, conformance with the Standards (consistent with DAP Policy HD 1-1a), and consistency with updated Design Guidelines would protect the character-defining features of those portions of the Downtown Area which may have the potential for designation as historic districts would reduce potential impacts associated with development that might jeopardize existing character defining features in those areas to a less-than-significant level.

The proposed project includes the construction of a new 26-story mixed-use building, measuring 288-feet in height. Four identified historical resources in the vicinity of the project site are contributors to the proposed Shattuck Avenue Commercial Corridor Historic District, including 2128-2130 Center Street, directly adjacent to the project site, also known as the Ennor's Restaurant Building. The Neoclassical commercial building is also a City of Berkeley Landmark. As discussed in the DAP EIR, potential impacts to the Ennor's Restaurant Building and other adjacent historic resources must be considered through an analysis of a project's conformance to the provisions of the Landmark Preservation Ordinance, conformance with the Standards (consistent with DAP Policy HD 1-1a), and Downtown Berkeley Design Guidelines. The provisions of the Landmark Preservation Ordinance require review of applications for permits to carry out any construction, alteration, or demolition on an initiated or designated historic district by the Landmarks Preservation Commission. However, they are not applicable to this project because the Ennor's Restaurant Building is neither designated nor formally initiated for designation as a locally designed historic district. The Standards are primarily focused on alterations occurring directly to and/or within the boundaries of a historic property. The Standards do, however, provide guidelines related to changes in the setting of a district or neighborhood, which is described as the larger area or environment in which a historic building (or property such as a district) is located. That guidance recommends the identification, retention, and preservation of buildings and landscapes that define the overall character of the setting, such as roads and streets, or important views and visual relationships. The proposed project, which is located within the boundary of the Shattuck Avenue Commercial Corridor Historic District, would result in a new building substantially taller than surrounding contributing buildings to the historic district, which generally range from two to three stories high on side streets and reach up to twelve stories along Shattuck Avenue. It would, as a result, introduce a new visual feature to the district by introducing a building which is taller than the contributing buildings. The visual impact on the historic setting would be somewhat reduced by its location. The project site is at the eastern edge of the district boundary and though Ennor's Restaurant Building

and other buildings on the south side of Center Street are contributors to the district, buildings opposite the proposed building and within the district boundary are not contributors to the district, including one recent 17-story development adjacent to the project site at the northeast corner of Center Street and Shattuck Avenue. The proposed project's effect on the historic relationship between the historic district and the commercial corridor of Shattuck Avenue would be reduced by its location on the eastern edge of the district boundary and by its consistency with the surrounding recent development approved within the historic district boundary.

Additionally, the proposed project design implements materials, color, cornice design, fenestration patterns, structural bays, roof forms, and vertical projections consistent with guidance in the Downtown Berkeley Design Guidelines. Furthermore, the proposed storefront design along Oxford Street is consistent with the existing streetwall and continues the historic rhythm of structural bays. The proposed setback at upper floors reinforces the existing dominant roof and cornice lines of adjacent historic buildings. Overall, the proposed design is consistent with guidance in the Downtown Berkeley Design Guidelines, inclusive of its six areas—building design; awning and canopies; signs and graphics; site design; special sites, buildings, and subareas; and special considerations, thereby meeting requirements set forth by Mitigation CUL-2 of the DAP EIR and resulting in a less than significant impact to the Shattuck Avenue Commercial Corridor Historic District and its other contributing buildings.

Other potential impacts could occur to surrounding resources through construction activity, which would intermittently generate vibration on and adjacent to the project site. Although pile drivers, which generate strong ground borne vibration, would not be used during construction, vibration related impacts could occur through other equipment, including bulldozers and loaded trucks to move materials and debris, and vibratory rollers for paving. Vibration-generating equipment on the project site would be used as close as approximately 15 feet from the nearest sensitive receivers to the south. Additionally, vibration-generating equipment may be used as close as five feet to the City of Ennor's Restaurant Building. DAP EIR Mitigation Measure NOI-6 would apply to minimize exposure to vibration from construction activities and would require the avoidance of pile driving, vibratory rollers, and other vibration-generating activities where feasible near sensitive areas, such as the adjacent Ennor's Restaurant Building. It would also require the project applicant to develop a vibration monitoring plan, to be approved by the City. Additionally, the applicant would be subject to the City's standard condition of approval to notify businesses and residents within 500 feet of the site of impending construction activities, the daily construction schedule and expected duration, and contact information for a liaison responsible for responding to local complaints about construction noise. This requirement would ensure prior notification of construction activities that generate noise and vibration. With implementation of DAP EIR Mitigation Measure NOI-6 and the City's Standard Condition of Approval listed below, the project's construction-period noise and vibration impacts would be less than significant. Therefore, impacts to adjacent historical resources would be less than significant.

> **Condition of Approval: Damage Due to Construction Vibration.** The project applicant shall submit screening level analysis prior to, or concurrent with demolition building permit. If a screening level analysis shows that the project has the potential to result in damage to structures, a structural engineer or other appropriate professional shall be retained to prepare a vibration impact assessment (assessment). The assessment shall take into account project specific information such as the composition of the structures, location of the various types of equipment used during each phase of the project, as well as the soil characteristics in the project area, in order to determine whether project construction may cause damage to any of

the structures identified as potentially impacted in the screening level analysis. If the assessment finds that the project may cause damage to nearby structures, the structural engineer or other appropriate professional shall recommend design means and methods of construction that to avoid the potential damage, if feasible. The assessment and its recommendations shall be reviewed and approved by the Building and Safety Division and the Zoning Officer. If there are no feasible design means or methods to eliminate the potential for damage, the structural engineer or other appropriate professional shall undertake an existing conditions study (study) of any structures (or, in case of large buildings, of the portions of the structures) that may experience damage. This study shall:

- Establish the baseline condition of these structures, including, but not limited to, the location and extent of any visible cracks or spalls; and
- Include written descriptions and photographs.

The study shall be reviewed and approved by the Building and Safety Division and the Zoning Officer prior to issuance of a grading permit. Upon completion of the project, the structures (or, in case of large buildings, of the portions of the structures) previously inspected would be resurveyed, and any new cracks or other changes shall be compared to pre-construction conditions and a determination shall be made as to whether the proposed project caused the damage. The findings shall be submitted to the Building and Safety Division and Zoning Officer for review. If it is determined that project construction has resulted in damage to the structure, the damage shall be repaired to the pre-existing condition by the project sponsor, provided that the property owner approves of the repair.

Mitigation Measures

DAP EIR Mitigation Measure NOI-6 and the following mitigation measures are required:

Project Mitigation Measure CR-1 Building Documentation

Archival documentation of as-built and as-found condition shall be prepared for 2132-2154 Center Street, prior to demolition. Prior to issuance of demolition permits, the City of Berkeley shall ensure that documentation of the building proposed for demolition is completed at the project applicant's expense. Documentation should follow the general guidelines of the National Park Service (NPS) Heritage Documentation Program-like standards and shall include high resolution digital photographic recordation, an outline format historic report, and compilation of historic research. The documentation shall be completed by a qualified professional who meets the standards for history or architectural history as set forth by the Secretary of the Interior's Professional Qualification Standards (36 Code of Federal Regulations, Part 61). The original documentation shall be offered as donated material by the lead agency to repositories such as the Berkeley Architectural Heritage Association and to the Berkeley Public Library to make it available for current and future generations. Archival copies of the documentation also would be submitted to the City of Berkeley and Northwest Information Center (NWIC) where it would be available to local researchers.

Project Mitigation Measure CR-2 Shattuck Avenue Commercial Corridor Historic District Update

Prior to the issuance of a certificate of occupancy, the existing record for the Shattuck Avenue Commercial Corridor District, first identified in the 2009 Downtown Area Plan and recorded and evaluated in *Shattuck Avenue Commercial Corridor Historic Context and Survey* in 2015 by Archives

& Architecture, shall be updated. The City of Berkeley shall ensure that an updated survey and evaluation of the Historic District shall be undertaken at the project applicant's expense to document and verify the conditions of the Historic District. The Department of Parks and Recreation District Record (Series 523D) forms shall be updated to document changes to the historic district, including alterations, demolitions, and changes in setting. The documentation shall be completed by a qualified professional who meets the standards for history or architectural history as set forth by the Secretary of the Interior's Professional Qualification Standards (36 Code of Federal Regulations, Part 61).

Significance After Mitigation

Implementation of project mitigation measures CR-1 and CR-2, DAP EIR Mitigation Measure NOI-6, and the City of Berkeley's Standard Condition of Approval would reduce the impacts of the demolition of the 2132-2154 Center Street and impacts to neighboring historical resources, to the extent feasible. Nonetheless, the project would involve demolition of the 2132-2154 Center Street building. Demolition by its nature is complete and total material impairment of the historical resource, and no feasible mitigation measures are available to mitigate the demolition of the CEQA historical resources to a less than significant level. As a result, demolition of an eligible resource under the proposed project would be a significant and unavoidable adverse impact after implementation of required mitigation.

Threshold 2:	Would the project cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?

Impact CR-2 DEMOLITION AND EXCAVATION FOR THE PROPOSED PROJECT MAY RESULT IN DAMAGE TO OR DESTRUCTION OF A POTENTIAL ARCHAEOLOGICAL RESOURCE (OXF-001). HOWEVER, THIS IMPACT WOULD BE LESS THAN SIGNIFICANT WITH MITIGATION INCORPORATED.

The project would involve demolition of the existing buildings, removal of the current paved parking lot, and excavation of the project site to a depth of 15 feet below current ground surface for the installation of subterranean parking stackers. DAP EIR Mitigation Measure CUL-3 would continue to apply to the project to address unanticipated archeological discoveries. One multicomponent archaeological resource (Oxf-001), consisting of a historic-period component including privies, pit features, and foundations, and a prehistoric component including the previously removed burial and possible prehistoric features, has been identified within the project site. The proposed project could result in substantial adverse change to Oxf-001 in the form of damage or destruction as a result of project-related grading and excavation activities, which would be a significant impact to a historical resource under CEQA. This impact is potentially significant.

Mitigation Measures

DAP EIR Mitigation Measure CUL-3 and the following mitigation measures are required:

Project Mitigation Measure CR-3 Preparation of a Cultural Resources Mitigation and Monitoring Plan

The applicant shall retain a Qualified Archaeologist, meeting the Secretary of Interior's Professional Qualification Standards, to oversee all aspects of the cultural resources mitigation measures. Avoidance and preservation in place is the preferred manner of mitigating impacts to historical resources of an archaeological nature. If the Qualified Archaeologist in coordination with the City,

the applicant, and the consulting Tribe(s) determine that preservation in place is infeasible, the Qualified Archaeologist shall prepare and oversee the implementation of a Cultural Resources Mitigation and Monitoring Plan (CRMMP). To reduce impacts to Oxf-001, the CRMMP shall include an archival research and data recovery plan component, a worker's environmental awareness program (WEAP), an archaeological and Native American monitoring plan, and an unanticipated discoveries plan. Preparation of the CRMMP and implementation of its archival research and data recovery plan component shall be completed prior to the issuance of a demolition permit. The CRMMP shall be prepared in consultation with the consulting Tribe(s) and in coordination with local interested historical groups. Implementation and the effectiveness of the CRMMP requirements shall be assessed by the City on a monthly basis during the pre-construction, construction, and post-construction phases of the project.

Archival research shall be conducted to prepare a detailed development history of the project site and shall include, but not be limited to, review of historic literature, records, and maps held at UC Berkeley, and local historical groups, and libraries. The CRMMP shall identify which local historical groups shall be contacted as part of this background research. The results of the archival research shall be the basis for a historic context presented in the data recovery plan and shall inform methods to be implemented as part of the data recovery as well as interpretations of the data recovery results. The data recovery plan shall include excavation methods for: initial investigations to determine the extent and content of Oxf-001 in order to narrow in on the most productive areas for data recovery excavations; the methods for data recovery excavations aimed at recovering the scientifically important data contained in Oxf-001; and methods for documentation, mapping, artifact collection, special studies, laboratory analysis and cataloging, curation, and reporting. The data recovery plan shall also include procedures for the treatment of human remains.

The WEAP component of the CRMMP shall include training materials that shall be presented to construction personnel to inform them of the cultural sensitivity associated with the site and to provide procedures when working in culturally sensitive areas and in coordination with archaeological and Native American monitors. The training shall include a description of the types of materials that could be encountered, procedures to be implemented in the event resources are discovered, stop work authorizations and notification protocols, and laws protecting cultural resources. All construction personnel shall attend WEAP training prior to participating in any ground disturbing work on the project site and WEAP training attendance sheets shall be prepared and retained on site and available to the City.

The monitoring plan component of the CRMMP shall include monitoring procedures and requirements that shall be implemented during project construction. Archaeological and Native American monitoring shall be conducted during all ground disturbing activities including pavement removal, grading, and trenching. Procedures shall include provisions for the reduction or termination of construction monitoring at the recommendation of the Qualified Archaeologist and in coordination with the City and the consulting Tribe(s).

The discovery plan component of the CRMMP shall address procedures and notifications to be implemented in the event of an unanticipated discovery of archaeological resources during ground disturbing activities. The procedures listed within the discovery plan for unanticipated discoveries shall incorporate the procedures documented in the DAP EIR, the City's Conditions of Approval, and tribal recommendations The discovery plan shall include procedures by which the Qualified Archaeologist, in coordination with the consulting Tribe(s), for discoveries of Native American origin, shall consider whether the discovery is associated with Oxf-001 or constitutes a separate and individual resource. If a discovery is determined to be associated with Oxf-001, the Qualified

Archaeologist shall determine whether the unanticipated discovery is a contributor in that it contributes new or different data and information than what had been recovered during implementation of the data recovery plan and further data recovery shall be implemented. For redundant discoveries associated with Oxf-001, no additional data recovery shall be conducted, unless otherwise determined necessary through consultation between the City, the consulting Tribe(s), and the Qualified Archaeologist. If the discovery is determined to be unrelated to Oxf-001, the resource shall be evaluated for listing in the CRHR and if recommended eligible by the Qualified Archaeologist, treatment implemented, as needed. Work in the area of a discovery shall not resume until the aforementioned steps are completed.

Additionally, the CRMMP shall document the process for the repatriation of Native American materials to the appointed Most Likely Descendant (MLD). As a result of AB 52 consultation between the City and the consulting Tribe(s), the reburial of all Native American materials shall take place within the project site in a location agreed upon by the consulting Tribe(s), the MLD (if appointed and if different from the consulting Tribe(s), the City, and the applicant through consultation. The area selected for reburial shall be defined as a Cultural Resources Easement and marked on City map as an area not to be excavated and free of further disturbance, including utilities.

Project Mitigation Measure CR-4 Preparation of an Interpretive and Educational Plan

Following the completion of ground disturbing activities associated with the project and prior to the issuance of occupancy permits, the Qualified Archaeologist shall prepare a plan to provide for public interpretation and education focused on providing public access to the results of the implementation of the CRMMP. Interpretation and education may include, but is not limited to, educational or interpretive panels or signage, exhibits, web-based or other media, and placing non-confidential materials and reports on file at UC Berkeley, with local historical societies, and libraries. The plan shall also include the reintegration of the Kellogg School Berkeley Historic Plaque within the project site. The reintegration of the existing plaque shall necessitate coordination with the Berkeley Historical Plaque Project which are responsible for the current location of the plaque. The Interpretive and Educational Plan shall be prepared in consultation with the consulting Tribe(s)on Native American aspects and in coordination with Project Mitigation Measure TCR-1, and in coordination with local interested historical groups on historic aspects. Implementation and the effectiveness of the Interpretive and Educational Plan requirements shall be assessed by the City on a monthly basis until implementation of the plan is completed.

Project Mitigation Measure CR-5 Archaeological Monitoring

Archaeological monitoring shall be performed under the direction of the Qualified Archaeologist during all ground disturbing activities including pavement removal, grading, and trenching. The archaeological monitor shall have the authority to halt and redirect work should any archaeological resources be identified during monitoring. If archaeological resources are encountered during ground-disturbing activities, work within 50 feet of the find must halt and the find evaluated for listing in the CRHR. The Qualified Archaeologist, in consultation with the consulting Tribe(s) for resources of Native American origin, shall determine whether the discovery is associated with Oxf-001 and whether it constitutes a contributor or whether the discovery is a separate and individual resource. Work in the area of the discovery shall not resume until the Qualified Archaeologist has recommended and implemented treatment of the discovery, as needed. Archaeological monitoring may be reduced or halted by the Qualified Archaeologist, as identified in the CRMMP.

Significance After Mitigation

Implementation of DAP EIR Mitigation Measure CUL-3 and project mitigation measures CR-3 through CR-5 would reduce impacts to the multicomponent archaeological site Oxf-001 and to archaeological discoveries. Therefore, this impact would be less than significant with implementation of mitigation.

Threshold 3:	Would the project disturb any human remains, including those interred outside of formal cemeteries?

Impact CR-6 THE PROPOSED PROJECT COULD HAVE IMPACTS ON UNKNOWN HUMAN REMAINS ON THE PROJECT SITE. HOWEVER, WITH ADHERENCE TO BERKELEY'S STANDARD CONDITIONS OF APPROVAL AND STATE REGULATIONS, THIS IMPACT WOULD BE LESS THAN SIGNIFICANT.

A Native American burial was reportedly removed from the project site in 1959. If human remains are found, during ground disturbing activities, the State of California Health and Safety Code Section 7050.5 states that no further excavation or disturbance of the site or any nearby area reasonably suspected to overlie adjacent remains shall occur until the County Coroner has made a determination of origin and disposition pursuant to PRC Section 5097.98. In the event of an unanticipated discovery of human remains, the County Coroner must be notified immediately. If the human remains are determined to be of Native American origin, the Coroner would notify the NAHC, which would determine and notify a MLD. The MLD has 48 hours from being granted site access to make recommendations for the disposition of the remains. If the MLD does not make recommendations within 48 hours, the landowner shall reinter the remains in an area of the property secure from subsequent disturbance.

Further, the proposed project would be required to adhere to DAP EIR Mitigation Measure CUL-5 as well as to the City's Standard of Conditions of approval which include the following:

> **Human Remains (Ongoing throughout demolition, grading, and/or construction).** In the event that human skeletal remains are uncovered at the project site during ground-disturbing activities, all work shall immediately halt and the Alameda County Coroner shall be contacted to evaluate the remains, and following the procedures and protocols pursuant to Section 15064.5(c)(1) of the *CEQA Guidelines*. If the County Coroner determines that the remains are Native American, the City shall contact the California Native American Heritage Commission (NAHC), pursuant to subdivision (c) of Section 7050.5 of the Health and Safety Code, and all excavation and site preparation activities shall cease within a 50-foot radius of the find until appropriate arrangements are made. If the lead agencies determine that avoidance is not feasible, then an alternative plan shall be prepared with specific steps and timeframe required to resume construction activities. Monitoring, data recovery, determination of significance and avoidance measures (if applicable) shall be completed expeditiously.

With adherence to existing regulations, DAP EIR Mitigation Measure CUL-5, and the City's Standard Condition of Approval, this impact would be less than significant.

Mitigation Measures

This impact would be less than significant with adherence to the DAP EIR mitigation measure CUL-5, existing regulations, and the City of Berkeley's Standard Conditions of Approval. No additional mitigation measures are required.

c. Cumulative Impacts

A project's environmental impacts are "cumulatively considerable" if the "incremental effects of an individual project are significant when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects" (CEQA Guidelines Section 15065[a][3]).

As noted above in Impact CR-1, the proposed project would result in significant and unavoidable impacts to historical resources. Adherence to DAP EIR Mitigation Measure NOI-6, the City of Berkeley's Standard Condition of Approval, and project mitigation measures CR-1 and CR-2 would reduce some but not all potential impacts to historical resources in Berkeley. As concluded in the DAP EIR, demolition of historic resources within the Downtown Area is considered a significant and unavoidable cumulative environmental impact. Because the proposed project would include demolition and alteration of historic structures, the project's contribution to this impact would be cumulatively considerable for future projects. Therefore, cumulative historical resources impacts would be significant, and the project's contribution would be cumulatively considerable.

A multicomponent archaeological resource has been identified within the project site. Adherence to project mitigation measures CR-3 through CR-5 and implementation of DAP EIR Mitigation Measure CUL-3 would reduce potential impacts to archaeological resources to less than significant. Therefore, cumulative archaeological resources impacts would be less than significant, and the project's contribution would not be cumulatively considerable.

Further, development in Berkeley that could encounter human remains would be subject to compliance with Berkeley's Standard Conditions of Approval and State regulations for the treatment of human remains should they be encountered. Therefore, cumulative impacts to human remains would be less than significant, and the project's contribution would not be cumulatively considerable.

4.2 Geology and Soils

This section assesses potential impacts related to geologic and soil hazards associated with the proposed project.

4.2.1 Setting

a. Topography and Geology

Berkeley is located on the East Bay Plain (the Plain), a flat area that extends 50 miles from Richmond in the north to San Jose in the south. The Plain is about three miles wide in the Berkeley area. At its eastern edge, the plain transitions into hills, rising to approximately 1,683 feet at Barberry Peak, the highest point in Berkeley's Claremont Hills neighborhood. On its western edge, the Plain slopes down to San Francisco Bay, the largest estuary on the California coast (City of Berkeley 2001).

The Plain is part of the larger Coast Ranges geomorphic province, one of the eleven geomorphic provinces of California (California Geological Survey [CGS] 2002). The Coast Ranges extend along the majority of California's coast from the California-Oregon border to Point Arguello in Santa Barbara County in the south and consist of northwest-trending mountain ranges and valleys. The Coast Ranges are composed of Mesozoic and Cenozoic sedimentary, igneous, and metamorphic strata. The eastern side is characterized by strike-ridges and valleys in the Upper Mesozoic strata. The Coast Ranges province runs parallel to and overlaps the San Andreas Fault in some areas, although not in Berkeley (CGS 2002).

Berkeley's rich alluvial soils and temperate climate support a wide variety of plants and animals. Wetlands in the western part of Berkeley provide habitat for the salt marsh harvest mouse and other special status species. Strawberry Creek and Codornices Creek remain two of the few waterways in the urbanized East Bay that retain their natural character along most of their respective courses (City of Berkeley 2001).

Berkeley is located in the United States Geological Survey's (USGS) *Briones Valley*, *Richmond*, *Oakland East*, and *Oakland West* 7.5-minute topographic quadrangles. The area is typified by low topographic relief, with gentle slopes to the west in the direction of San Francisco Bay. By contrast, the Berkeley Hills that lie directly east of Berkeley have more pronounced topographic relief, with elevations that exceed 1,000 feet above mean sea level (City of Berkeley 2001).

Additionally, Berkeley is located in a seismically active region of California. Faults within Berkeley are discussed in greater detail below under part (b).

b. Geologic and Soil Hazards

Similar to much of California, Berkeley is located in a seismically active region. Seismic hazards relevant to the project site are described below.

Active Faults in the Vicinity of the Project Site

The USGS defines active faults as those that have had surface displacement within the Holocene period (about the last 11,000 years). Surface displacement can be recognized by the existence of cliffs in alluvium, terraces, offset stream courses, fault troughs and saddles, the alignment of depressions, sag ponds, and the existence of steep mountain fronts. Potentially active faults are

those that have had surface displacement during the last 1.6 million years. Inactive faults have not had surface displacement within that period.

Several faults are located near the project site. The major faults and fault zones include the San Andreas Fault, Hayward Fault and Mount Diablo Thrust Fault. These are described below.

San Andreas Fault

The San Andreas Fault, the most likely source of a major earthquake in California, is located approximately 15 miles west of the project site. The San Andreas Fault is the primary surface boundary between the Pacific and the North American plates. There have been numerous historic earthquakes along the San Andreas Fault, and it generally poses the greatest earthquake risk to California. In general, the San Andreas Fault is likely capable of producing a Maximum Credible Earthquake of 8.0.

Hayward Fault

The Hayward Fault, one of ten major faults that make up the San Andreas Fault Zone, is approximately 0.73 miles east of the project site. Although the last major earthquake generated by the Hayward Fault was in 1868, pressure is slowly building again and will begin to overcome the friction and other forces that cause the fault zone to stick. According to a study of earthquake probabilities by the University of California, Berkeley, the fault system that includes the Hayward and Rodgers Creek faults has a 31 percent probability of generating an earthquake with a magnitude greater than or equal to 6.7 on the Mercalli Richter Scale in the next 13 years (UC Berkeley 2023). Because of the project site's proximity to the Hayward Fault, the project site would likely experience strong ground shaking due to seismic activity associated with this fault.

Mount Diablo Thrust Fault

The Mount Diablo Thrust Fault is located approximately 12.4 miles from the project site. The 2003 Working Group for California Earthquake Probability assigned a three percent probability that the Mount Diablo Thrust Fault would produce a magnitude 6.7 or larger earthquake in the next 30 years (USGS 2003).

Surface Rupture and Ground Shaking

Faults generally produce damage in two ways: ground shaking and surface rupture. Surface rupture is limited to very near the fault. The project site is not within an Alquist-Priolo fault zone (CGS 2023). Therefore, there is no potential for surface rupture.

Seismically induced ground shaking covers a wide area and is greatly influenced by the distance of the site to the seismic source, soil conditions, and depth to groundwater. Hazards associated with seismically induced ground shaking include liquefaction, seismically induced settlement, and earthquake-triggered landslides. Movement along any of the faults listed above could potentially generate substantial ground shaking on or near the project site leading to these secondary hazards, as discussed below.

In addition to the primary hazard of surface rupture, earthquakes often result in secondary hazards that can cause widespread damage. According to the Geotechnical Report prepared by Partner in June 2022 (Appendix D) the most likely secondary earthquake hazards within the project site are ground shaking and liquefaction.

Liquefaction and Seismically-Induced Settlement

Liquefaction is defined as the sudden loss of soil strength due to a rapid increase in soil pore water pressure resulting from seismic ground shaking. Liquefaction potential is dependent on such factors as soil type, depth to ground water, degree of seismic shaking, and the relative density of the soil. When liquefaction of the soil occurs, buildings and other objects on the ground surface may tilt or sink, and lightweight buried structures (such as pipelines) may float toward the ground surface. Liquefied soil may be unable to support its own weight or that of structures, which could result in loss of foundation bearing or differential settlement. Liquefaction may also result in cracks in the ground surface followed by the emergence of a sand-water mixture.

Seismically induced settlement occurs in loose to medium dense unconsolidated soil above groundwater. These soils compress (settle) when subjected to seismic shaking. The settlement can be exacerbated by increased loading, such as from the construction of buildings. Settlement can also result solely from human activities including improperly placed artificial fill, and structures built on soils or bedrock materials with differential settlement rates.

Earthquake hazard maps produced by the Association of Bay Area Governments (ABAG) indicate that a large Hayward Fault quake would trigger very strong shaking on the project site and throughout Berkeley and a high risk of liquefaction across Berkeley (ABAG 2018).

The southwest corner of the project site is mapped within a liquefaction zone according to California Geological Survey (CGS) mapping (CGS 2019). However, according to the Geotechnical Report (Appendix D), the potential liquefaction settlement at the site is negligible.

Landslides

Landslides result when the driving forces that act on a slope (i.e., the weight of the slope material, and the weight of objects placed on it) are greater than the slope's natural resisting forces (i.e., the shear strength of the slope material). Slope instability may result from natural processes, such as the erosion of the toe of a slope by a stream, or by ground shaking caused by an earthquake. Slopes can also be modified artificially by grading, or by the addition of water or structures to a slope. Development that occurs on a slope can substantially increase the frequency and extent of potential slope stability hazards.

Areas susceptible to landslides are typically characterized by steep, unstable slopes in weak soil/bedrock units that have a record of previous slope failure. There are numerous factors that affect the stability of the slope, including: slope height and steepness, type of materials, material strength, structural geologic relationships, ground water level, and level of seismic shaking.

According to the City's General Plan Disaster Preparedness and Safety Element (2001), landslide risk is low throughout the majority of Berkeley and is mostly found in the hills, and there is no risk on the project site. Additionally, according to the Alquist-Priolo Fault Map, the project site is not within an area susceptible to landslides.

Expansive Soils

Expansive soils can change dramatically in volume depending on moisture content. When wet, these soils can expand; conversely, when dry, they can contract or shrink. Sources of moistures that can trigger this shrink-swell phenomenon include seasonal rainfall, landscape irrigation, utility leakage, and/or perched groundwater. Expansive soil can develop wide cracks in the dry season, and changes in soil volume have the potential to damage concrete slabs, foundations, and pavement. Special

building/structure design or soil treatment are often needed in areas with expansive soils. Expansive soils are typically very fine-grained with a high to very high percentage of clay. The clay minerals present typically include montmorillonite, smectite, and/or bentonite.

As discussed in the Downtown Area Plan (DAP) EIR, the Downtown Area is relatively flat, and soils have proven sufficiently stable to support previous urban development; however, expansive soils may be present within the Downtown Area. As discussed in the Geotechnical Report prepared by Partner Engineering & Science in June 2022 (Appendix D), clay soils are the predominant soil type underlying the project site and these clay soils may be expansive.

Erosion

Erosion is the wearing away of the soil mantle by running water, wind or geologic forces. It is a naturally occurring phenomenon and ordinarily is not hazardous. However, excessive erosion can contribute to landslides, siltation of streams, undermining of foundations, and ultimately the loss of structures. Removal of vegetation tends to heighten erosion hazards. Due to the developed nature of the site, there is not a high risk of erosion associated with the proposed project.

4.2.2 Regulatory Setting

a. Federal Regulations

Clean Water Act

Congress enacted the Clean Water Act (CWA), formerly the Federal Water Pollution Control Act of 1972, with the intent of restoring and maintaining the chemical, physical, and biological integrity of the waters of the United States. The CWA requires states to set standards to protect, maintain, and restore water quality through the regulation of point source and non-point source discharges to surface water. Those discharges are regulated by the National Pollutant Discharge Elimination System (NPDES) permit process (CWA Section 402). NPDES permitting authority is administered by the California State Water Resources Control Board (SWRCB) and its nine Regional Water Quality Control Boards (RWQCB). Berkeley is in a watershed administered by the Bay Area RWQCB. Individual projects within Berkeley that disturb more than one acre would be required to obtain NPDES coverage under the California General Permit for Storm Water Discharges Associated with Construction and Land Disturbance Activities (Construction General Permit). The Construction General Permit requires the development and implementation of a storm water pollution prevention plan describing best management practices (BMP) the discharger would use to prevent and retain stormwater runoff and to prevent soil erosion.

b. State Regulations

California Building Code

The California Building Code (CBC), Title 24, Part 2 provides building codes and standards for the design and construction of structures in California. It requires, among other things, seismically resistant construction and foundation and soil investigations prior to construction. The CBC also establishes grading requirements that apply to excavation and fill activities and requires the implementation of erosion control measures. The City is responsible for enforcing the 2022 CBC within Berkeley.

The referenced codes and standards include requirements for evaluations of geologic conditions at future project sites and design and construction standards to address geologic hazards. geotechnical investigations are performed to identify the geologic conditions at a site and to evaluate whether a proposed project is feasible given the existing geological conditions. The geotechnical report must be completed by a California licensed professional and must provide recommendations for foundation and structural design to address any geologic hazards.

Alquist-Priolo Earthquake Fault Zoning Act

The Alquist-Priolo Earthquake Fault Zoning Act of 1972 was passed into law following the destructive February 9, 1971, magnitude 6.6 San Fernando earthquake. The Act provides a mechanism for reducing losses from surface fault rupture on a statewide basis. The intent of the Act is to ensure public safety by prohibiting the siting of most structures for human occupancy across traces of active faults that constitute a potential hazard to structures from surface faulting or fault creep. This Act groups faults into categories of active, potentially active, and inactive. Historic and Holocene age faults are considered active, Late Quaternary and Quaternary age faults are considered potentially active, and pre-Quaternary age faults are considered inactive.

Seismic Hazards Mapping Act

The Seismic Hazards Mapping Act addresses geo-seismic hazards, other than surface faulting, and applies to public buildings and most private buildings intended for human occupancy. The Seismic Hazards Mapping Act identifies and maps seismic hazard zones to assist cities and counties in preparing the safety elements of their general plans and encourages land use management policies and regulations that reduce seismic hazards. The Act mandated the preparation of maps delineating "Liquefaction and Earthquake-Induced Landslide Zones of Required Investigation." Berkeley contains land designated as liquefaction risk areas according to the California Geologic Survey (2003).

c. Local Regulations

City of Berkeley General Plan

The Disaster Preparedness and Safety Element of the Berkeley General Plan contains the following policies and actions related to geological hazards:

Policy S-13: Hazards Identification. Identify, avoid and minimize natural and human-caused hazards in the development of property and the regulation of land use.

Action S-13A. Maintain and make publicly available up-to-date hazards maps identifying areas subject to heightened risk from potential seismic hazards (including fault rupture, ground failure, ground shaking, and liquefaction), and fire, flood, landslide, and other hazards, such as toxic contamination and radioactive release.

Action S-13B. Improve the understanding of identified hazards and mitigation needs via area-specific studies such as microzonation studies.

Policy S-14: Land Use Regulation. Require appropriate mitigation in new development, in redevelopment/reuse, or in other applications.

Action S-14B. Require soil investigation and/or geotechnical reports in conjunction with development/redevelopment on sites within designated hazard zones such as areas with

high potential for soil erosion, landslide, fault rupture, liquefaction and other soil-related constraints.

Action S-14 C. Place structural design conditions on new development to ensure that recommendations of the geotechnical/soils investigations are implemented.

Action S-14 D. Encourage owners to evaluate their buildings' vulnerability to earthquake hazards, fire, landslides, and floods and to take appropriate action to minimize risk.

Action S-14E. Develop criteria for disaster-resistant land use regulations to ensure that new construction reduces rather than increases risk of all kinds.

Policy S-15: Construction Standards. Maintain construction standards that minimize risks to human lives and property from environmental and human-caused hazards for new and existing buildings.

Action S-15A. Periodically update and adopt the California Building Standards Code with local amendments to incorporate the latest knowledge and design standards to protect people and property against known fire, flood, landslide, and seismic risks in both structural and non-structural buildings and site components.

Action S-15B. Ensure proper design and construction of hazard-resistant structures through careful plan review/approval and thorough and consistent construction inspection.

Downtown Area Plan (DAP) and DAP EIR Summary

Because the proposed project is located in Downtown Berkeley, it must also be evaluated for its consistency with the DAP. The DAP does not include specific goals and policies related to geologic hazards.

The DAP EIR discusses geologic impacts on pages 4-125 through 4-132. The DAP EIR identified the following impacts related to geology and soils:

- **Impact GEO-1: Fault Rupture.** Although there are many active faults within the region, no portion of the Downtown Area is within any established Alquist-Priolo Earthquake Fault Zone. In the absence of any identified active faults within the Downtown Area, the risks associated with possible fault rupture would be considered less than significant.
- **Impact GEO-2: Strong Seismic Ground Shaking.** ABAG has classified the Modified Mercalli Intensity Shaking Severity Level of ground shaking anticipated in the Downtown Area during a major earthquake as "VII - Strong". A major seismic event on one of the major active faults in the region could result in significant ground shaking in the Downtown Area. The design of all new development within the Downtown Area would be consistent with current Uniform Building Code and City of Berkeley design requirements and guidelines for buildings constructed in areas of high seismic risk (as required by General Plan Policy S-14 and Policy S-15), reducing the potential impact to a level of less than significant. In the event that development under the DAP results in the retrofitting or replacement of existing soft-story or URM buildings, existing risks to those who would otherwise be living and working in those buildings would be reduced during strong seismic ground shaking. General Plan Policy S-20 identifies mitigation for potentially hazardous buildings.

- **Impact GEO-3: Seismic Related Ground Failure**. There is relatively low risk of liquefaction or landslides that would result in seismic-related ground failure in the Downtown Area. General Plan Policy S-14 and Policy S-15 would ensure that new development in the Downtown Area would be evaluated for susceptibility to liquefaction and landslides, and in those instances where associated risk is present, appropriate structural design features would be required to reduce that risk to a level of less than significant.
- **Impact GEO-4: Landslides**. The Downtown Area is relatively flat, and not subject to landslides. The risks associated with earthquake-induced landslides in this area is considered less than significant.
- **Impact GEO-5: Soil Erosion**. Most of the Downtown Area has already been developed. The use of standard soil erosion control measures during demolition and construction associated with development under the DAP would be expected to minimize erosion from exposed surfaces and reduce soil erosion impacts to a level of less than significant.
- **Impact GEO-6: Unstable Soils**. The Downtown Area is relatively flat, and soils have proven sufficiently stable to support previous urban development. Development under the DAP would not be expected to face major soil stability concerns, and appropriate foundation design in accordance with current Uniform Building Code requirements would be expected to reduce any potential stability hazards to a level of less than significant.
- **Impact GEO-7: Expansive Soils**. Expansive soils may be present within the Downtown Area. However, General Plan Policy S-14 would help to reduce the potential risk associated with development on expansive soil. This Policy includes the following actions:
  - When appropriate, utilize the environmental review process to ensure avoidance of hazards and/or adequate mitigation of hazard-induced risk.
  - Require soil investigation and/or geotechnical reports in conjunction with development/redevelopment on sites within designated hazard zones such as areas with high potential for soil erosion, landslides, fault rupture, liquefaction and other soil-related constraints.
  - Place structural design conditions on new development to ensure that recommendations of the geotechnical/soils investigations are implemented.
  - Encourage owners to evaluate their buildings' vulnerability to earthquake hazards, fire, landslides, and floods and to take appropriate action to minimize the risk.
  - Develop criteria for disaster-resistant land use regulations to ensure that new construction reduces rather than increases risk of all kinds.

  Compliance with this Policy would ensure that risks to life and property from expansive soils would be less than significant.

City of Berkeley Municipal Code

Chapter 21, Section 40, Grading, erosion and sediment control requirements of the Berkeley Municipal Code (BMC) requires projects to comply with all grading, erosion and sediment control regulations on file in the Public Works Department.

4.2.3 Impact Analysis

a. Methodology and Significance Thresholds

In accordance with Appendix G of the *CEQA Guidelines*, the proposed project would result in a significant impact if it would:

1. Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:
    a) 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
    b) Strong seismic ground shaking
    c) Seismic-related ground failure, including liquefaction
    d) Landslides;
2. Result in substantial soil erosion or the loss of topsoil;
3. 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;
4. 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;
5. Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater; or
6. Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature.

Impacts related to thresholds 1(a-d) through 4 are analyzed below. Threshold 1(a) is addressed under Impact GEO-1, Threshold (2) is addressed under Impact GEO-2, and thresholds 1(b), 1(c), 1(d), 3, and 4 are addressed under Impact GEO-3. Thresholds 5 and 6 were previously analyzed in Section 7, *Geology and Soils,* in the IEC (Appendix B of this EIR). The impacts assessment is based primarily on the Geotechnical Report prepared by Partner in June 2022, the Supplemental Geotechnical Peer Review completed by Cotton, Shires, and Associates, Inc. In July 2023, the Response to the Peer Review prepared by Partner in August 2023, and the Supplemental Response Peer Review completed by Cotton, Shires, and Associates Inc. in September 2023 (Collectively referred to as the Geotechnical Report, Appendix D).

b. Project Impacts and Mitigation

Threshold 1(a):	Would the project expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving 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?

Impact GEO-1 THERE ARE NO FAULTS THAT CROSS THE PROJECT SITE. THE CLOSEST FAULT IS THE HAYWARD FAULT APPROXIMATELY ONE 0.73 MILES AWAY. BECAUSE THERE ARE NO FAULTS THAT ARE NEAR OR CROSS THE PROJECT SITE, THE PROPOSED PROJECT WOULD NOT EXPOSE PEOPLE OR STRUCTURES TO RISKS ASSOCIATED WITH RUPTURE OF A KNOWN FAULT. FURTHER, THE PROPOSED PROJECT WOULD NOT EXACERBATE THE LIKELIHOOD OF SURFACE FAULT RUPTURE. NO IMPACT WOULD OCCUR.

There are no faults on the project site; the project site is not within an Alquist-Priolo fault zone (CGS 2023). As discussed in the *Setting* (subsection 4.2.1 above), the nearest fault is the Hayward Fault, which is approximately 0.73 miles from the project site. While the site is near this fault zone, the site is considered subject to relatively moderate seismicity. Therefore, the project would not exacerbate surface fault rupture. Further, because there are no faults that are near or cross the project site, the proposed project would not expose people or structures to risks associated with rupture of a known fault. No impact would occur.

Mitigation Measure

No impact would occur and no mitigation measures are required.

Threshold 2:	Would the project result in substantial soil erosion or the loss of topsoil?

Impact GEO-2 WITH ADHERENCE TO APPLICABLE LAWS AND REGULATIONS, THE PROPOSED PROJECT WOULD NOT RESULT IN SUBSTANTIAL SOIL EROSION OR THE LOSS OF TOPSOIL. THIS IMPACT WOULD BE LESS THAN SIGNIFICANT.

Construction of the proposed project would involve activities such as stockpiling, grading, excavation, paving, and other earth-disturbing activities that could result in erosion and loss of topsoil, particularly if soils are exposed to wind or stormwater during construction. However, the project would be required to comply with BMC Section 21.40.270 which requires compliance with grading, erosion, and sediment control regulations. Additionally, the proposed project would incorporate best management practices (BMPs) related to stormwater management in order to reduce erosion and runoff during construction. These would include, but would not be limited to, limiting clearing and earth moving activities to dry weather periods, the use of sediment controls, and the trapping of sediment on site using sediment basins, silt fences, or soil blankets. As discussed in Section 10, *Hydrology and Water Quality,* of the IEC (Appendix B), the proposed project would comply with applicable stormwater management requirements during construction.

Operations and maintenance of the proposed project would not require additional soil disturbance and would not result in erosion or loss of topsoil. As discussed in Section 10, *Hydrology and Water Quality,* of the IEC (Appendix B), the proposed project would comply with applicable stormwater management requirements through inclusion of control measures for project operation in the proposed design, such as the use of efficient irrigation systems designed to reduce runoff.

Implementation of BMPs and required compliance with aforementioned regulations would ensure that impacts associated with substantial soil erosion or loss of topsoil during construction and operation would be less than significant.

Mitigation Measures

The impact would be less than significant and no mitigation measures are required.

Threshold 1(b):	Would the project expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving strong seismic ground shaking?
Threshold 1(c):	Would the project expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving seismic-related ground failure, including liquefaction?
Threshold 1(d):	Would the project expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving landslides?
Threshold 3:	Would the project 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?
Threshold 4:	Would the project be located on expansive soil, as defined in Table 1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property?

Impact GEO-3 THE PROJECT SITE IS LESS THAN ONE MILE FROM THE HAYWARD FAULT. THE PROPOSED PROJECT WOULD BE SUBJECT TO SEISMICALLY-INDUCED GROUND SHAKING AND OTHER SEISMIC HAZARDS WHICH COULD DAMAGE STRUCTURES AND RESULT IN LOSS OF PROPERTY AND RISK TO HUMAN HEALTH AND SAFETY. HOWEVER, REQUIRED COMPLIANCE WITH STATE-MANDATED BUILDING STANDARDS, THE CBC, AND THE BMC, AND IMPLEMENTATION OF MITIGATION, WOULD REDUCE IMPACTS TO A LESS THAN SIGNIFICANT LEVEL. THIS IMPACT WOULD BE LESS THAN SIGNIFICANT WITH MITIGATION INCORPORATED.

As discussed in *Setting* (subsection 4.2.1, above), the site is approximately 0.73 miles from the Hayward fault and is in a seismically active area. The Hayward Fault has been assessed to have a 31 percent probability of generating an earthquake with a magnitude greater than or equal to 6.7 on the Mercalli Richter Scale in the next 13 years (UC Berkeley 2023). A seismic event with magnitude 6.7 or greater would have potential to damage structures and result in loss of property and risk to human health and safety. This section discusses potential impacts associated with unstable soils including landslides, liquefaction, and expansive soils.

Landslides

According to the Geotechnical Report (Appendix D) the project site is relatively flat and is not located in an area at risk of landslides. Therefore, the project would not alter or exacerbate landslide risks, and the impact would be less than significant.

Liquefaction

As discussed in *Setting* (subsection 4.2.1, above), the project site is partially mapped within a liquefaction hazard zone according to the CGS Earthquake Zones of Required Investigation Map.

Liquefaction occurs when saturated or partially saturated and unconsolidated soils lose strength in response to a stress, typically an earthquake. This phenomenon can result in damage to infrastructure and foundations. Similarly, seismically-induced settlement, or the potential for the ground surface to lower/settle, is an existing geologic hazard that typically occurs where loose- to medium-density unconsolidated soils are located above groundwater; settlement can also be induced or exacerbated by the improper placement of artificial fill, or the placement of structures on soils or bedrock with differential settlement rates. According to the Geotechnical Report (Appendix D), there are clayey soils below the groundwater table on the project site. These soils have a plasticity index ranging from 20 to 23 which fails to meet the criteria for soils with liquefaction risk according to the California Geologic Survey, Guidelines for evaluating and mitigating Seismic Hazards in California- Special Publication 117A (CGS 2008). Therefore, liquefaction risk on the site is negligible and impacts would be less than significant.

Expansive Soils

Expansive soils can change dramatically in volume depending on moisture content. When wet, these soils can expand; conversely, when dry, they can contract or shrink. Expansive soil can develop wide cracks in the dry season, and changes in soil volume have the potential to damage concrete slabs, foundations, and pavement. Expansive soils are typically very fine-grained with a high to very high percentage of clay. As discussed in the Geotechnical Report (Appendix D), there is clay soil on site which may be expansive. Expansive soil onsite could impact the stability of the project's foundations and slabs and could impact surrounding structures during excavation. The Geotechnical Report concludes that the project is feasible with the incorporation of the mitigation measures included in the report, such as excavation shoring and drilled foundations to lessen the impact associated with the expansive soils on the project site. Due to the presence of expansive soil onsite, this impact would be potentially significant and mitigation is required.

Unstable Soils

Seismic hazards also include the potential for unstable soils to result in damage to existing or proposed infrastructure, and/or to introduce potential hazards to human health and safety. As discussed in the Geotechnical Report, the project is feasible with incorporation of recommendations such as deep drilled foundations to address hazards associated with unstable soils on site. As discussed in the IEC (Appendix B of this EIR), the City Engineer has also confirmed, based on the Geotechnical Report (Appendix D), the location of the Strawberry Creek culvert and associated fill in relation to the site, and the project design, that the proposed project would not impact the culvert and that the presence of the culvert would not affect the stability of the foundation or soils. Additionally, the project would be required to comply with CBC Chapter 18 which includes requirements for the construction of foundations. However, due to the presence of unstable clay soils on the project site which could affect the project's foundation and structures surrounding the project site during excavation and construction, this impact is potentially significant.

Summary

The proposed project would be subject to compliance with the CBC, Public Resources Code (PRC) Section 2690-2699.6, and the BMC which would reduce potential impacts associated with strong seismic groundshaking and unstable soils. Nonetheless, based on the conclusions of the Geotechnical Report, impacts related to seismic hazards and unstable or expansive soils are potentially significant and mitigation is required.

Mitigation Measure

The following mitigation measure is required:

Project Mitigation Measure GEO-1 Implementation of Geotechnical Report Recommendations

All recommendations included in *Section 5: Preliminary Geotechnical Recommendations* (pages 10 through 19 and Appendix C pages C-i through C-xxv) of the Geotechnical Report (Partner 2022) and in the Supplemental Geotechnical Peer Review – Liquefaction Zone study (Cotton, Shires, and Associates 2023) prepared for the proposed project shall be incorporated into the project design. These include but are not limited to the following:

- **Excavation Considerations**. The project shall use shored excavations to establish the basement of the project and to protect nearby structures.
- **Deep Foundations**. The project shall utilize drilled foundations that extend at least ten feet into the competent bedrock.
- **On Grade Construction**. In areas with deep instability, test pits shall be excavated and evaluated and additional resolutions such as the use of geotextiles, chemical treatments, thickened slabs, or lime treated aggregate base may be used.
- **Observation on site**. Observation and testing shall be conducted during these construction activities:
  - Solider pile and tieback installation
  - Tieback anchor testing
  - Lagging installation
  - Installation of wall back-drainage provisions
  - Foundation bottom observation and approval
  - Placement and compaction of fill material
  - Removal of shoring within the public right-of-way upon completion of the project
  - De-tensioning of tieback anchors
  - Installation of drywells
- **Geotechnical Plan Review.** The City shall verify that all recommendations are incorporated into the project design prior to the issuance of any building permits.

Significance After Mitigation

Implementation of project Mitigation Measure GEO-1 would require that all recommendations included in the Geotechnical Report (Appendix D) are incorporated into the project design. This would ensure that impacts related to seismic hazards such as related to ground shaking, expansive soils, and unstable soils would be less than significant.

c. Cumulative Impacts

All development in Berkeley is subject to geological hazards related to seismic activity, including strong ground shaking. Cumulative development in Downtown Berkeley as described in Chapter 3, *Environmental Setting,* would gradually increase population and therefore gradually increase the number of people exposed to potential geological hazards, including effects associated with seismic

events such as ground rupture and strong shaking. As discussed in the DAP EIR, no portion of the Downtown Area is within an established Alquist-Priolo Earthquake Fault Zone; therefore, there is no risk of exacerbating ground rupture associated with cumulative development Downtown. Nonetheless, development in Downtown would be subject to groundshaking in the event of an earthquake. However, conformance with the current CBC, the City's General Plan policies, and the other laws and regulations would ensure that project-specific impacts associated with geology and soils would be less than significant; thereby reducing the potential cumulative impact associated with any single development project to less than significant.

Development of the proposed project could also result in soil erosion or the loss of topsoil which could result in cumulative impacts when combined with other development in Downtown Berkeley and the region that might also cause erosion. However, compliance with existing regulations would reduce potential erosion impacts associated with the proposed project.

Development of the proposed project would also involve development on a site containing potential unstable or expansive soils. However, this impact is generally site-specific and would not combine with other cumulative projects to result in cumulative impacts. Compliance with existing regulations and incorporation of project mitigation measure GEO-1 would reduce potential impacts associated with the proposed project. Potential impacts associated with geology and soils would not be cumulatively considerable, and cumulative impacts related to geologic hazards would be less than significant.

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4.3 Hazards and Hazardous Materials

This section evaluates the potential impacts associated with exposure to hazards and hazardous materials associated with the proposed project.

4.3.1 Setting

a. Definition of Hazardous Materials and Hazardous Waste

The term "hazardous material" has different definitions for different regulatory programs. For the purpose of this EIR, the term "hazardous materials" refers to both hazardous materials and hazardous waste. The California Health and Safety Code (HSC) Section 25501(n)(1) defines a hazardous material as any material that "because of its quantity, concentrations, or physical or chemical characteristics, poses a significant present or potential hazard to human health and safety or to the environment if released into the workplace or the environment." Hazardous materials include but are not limited to hazardous substances, hazardous waste, and any material that a handler or the administering agency has a reasonable basis for believing would be injurious to the health and safety of persons or harmful to the environment if released into the workplace or environment.

A material is hazardous if it exhibits one or more of the following characteristics: toxicity, ignitability, corrosivity, and reactivity. These types of hazardous materials are defined below:

- **Toxic Substances.** Toxic substances may cause short-term or long-lasting health effects, ranging from temporary effects to permanent disability, or even death. For example, such substances can cause disorientation, acute allergic reactions, asphyxiation, skin irritation, or other adverse health effects if human exposure exceeds certain levels (the level depends on the substances involved and is chemical-specific). Carcinogens, substances that can cause cancer, are a special class of toxic substances. Examples of toxic substances include benzene (a component of gasoline and suspected carcinogen) and methylene chloride (a common laboratory solvent and a suspected carcinogen).
- **Ignitable Substances.** Ignitable substances are hazardous because of their ability to burn. Gasoline, hexane, and natural gas are examples of ignitable substances.
- **Corrosive Materials.** Corrosive materials can cause severe burns. Corrosives include strong acids and bases such as sodium hydroxide (lye) or sulfuric acid (battery acid).
- **Reactive Materials.** Reactive materials may cause explosions or generate toxic gases. Explosives, pure sodium or potassium metals (which react violently with water), and cyanides are examples of reactive materials.

Soil and groundwater can become contaminated by hazardous material releases in a variety of ways, including permitted or illicit use and accidental or intentional disposal or spillage. Before the 1980s, most land disposal of chemicals was unregulated, resulting in numerous industrial properties and public landfills becoming dumping grounds for unwanted chemicals. The largest and most contaminated of these sites became Superfund sites, so named for their eligibility to receive cleanup money from a federal fund established under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA). The National Priorities List (NPL) is the list of national priorities among the known releases or threatened releases of hazardous substances, pollutants, or contaminants throughout the United States and its territories. The NPL is intended primarily to

guide the United States Environmental Protection Agency (USEPA) in determining which sites warrant further investigation. Sites are added to the NPL following a hazard ranking system.

Numerous smaller properties have been designated as contaminated sites. Often these are gas station sites where leaking underground storage tanks (USTs) were upgraded under a federal requirement in the late 1980s. Another category of sites that may have some overlap with the types already mentioned is "brownfields" – previously used, often abandoned, sites that due to actual or suspected contamination are undeveloped or underused. Both the USEPA and California Department of Toxic Substances Control (DTSC) maintain lists of known brownfields sites. These sites are often difficult to inventory due to their owners' reluctance to publicly label their property as potentially contaminated.

b. Existing Hazardous Materials Sites

The locations where hazardous materials are used, stored, treated and/or disposed of comes to the attention of regulatory agencies through various means, including licensing and permitting, enforcement actions, and anonymous tips. To the extent possible, the locations of these businesses and operations are recorded in database lists maintained by various State, Federal, and local regulatory agencies. In addition, Federal, State, and local agencies enforce regulations applicable to hazardous waste generators and users. The Alameda County Department of Environmental Health Hazardous Materials Division created the Hazardous Materials Business Plan (HMBP) Program, which is designed to prevent or minimize harm to public health and the environment from a release or threatened release of a hazardous material.

Permitted uses of hazardous materials include those facilities that use hazardous materials or handle hazardous wastes in accordance with current hazardous materials and hazardous waste regulations. The use and handling of hazardous materials from these sites is considered low risk, although there can be instances of unintentional chemical releases. In such cases, the site would be tracked in the environmental databases as an environmental case. Permitted sites without documented releases are, nevertheless, potential sources of hazardous materials in the soil and/or groundwater due to accidental spills, incidental leakage, or spillage that may have gone undetected. Some facilities are permitted for more than one hazardous material use and, therefore, could appear in more than one database.

The potential to encounter hazardous materials in soil and groundwater in Berkeley is generally based on a search of Federal, State, and local regulatory databases that identify permitted hazardous materials uses, environmental cases, and spill sites. The DTSC EnviroStor database contains information on properties in California where hazardous substances have been released or where the potential for a release exists. The California State Water Resources Control Board (SWRCB) GeoTracker database contains information on properties in California for sites that require cleanup, such as leaking underground storage tank (LUST) sites, which may impact, or have potential impacts, to water quality, with emphasis on groundwater. Existing sites that may potentially contain hazardous land uses in Berkeley include large and small-quantity generators of hazardous waste, such as dry cleaners, gas stations, and other industrial uses.

c. Project Site

2021 Phase I Environmental Site Assessment

Partner Engineering and Science, Inc. prepared a Phase I Environmental Site Assessment (ESA) for the project site in April 2021 (Appendix E). The Phase I ESA identified two recognized environmental conditions in connection with the project site: 1) former dry cleaner and hat cleaner on the project site, and multiple adjacent and nearby dry cleaning facilities, and 2) closed Leaking Underground Storage Tank (LUST) case associated with the project site with lack of information available. The Phase I ESA also identified the potential for asbestos-containing materials (ACM) and/or lead-based paint (LBP) to be present in the 2142 Center Street building on the project site as an "environmental issue" (Partner 2021).

According to the Phase I ESA, a former "cleaning" facility operated at the project site in at least 1911 and a former hat cleaner operated at the project site from at least 1933 to 1943, although based on city directory listings, "it is unknown how long the hat cleaning and/or dry cleaning tenant occupied [the project site]." Additionally, southern adjacent properties were occupied by dry cleaners from at least 1920 to 1970 and several other dry cleaning facilities were noted in proximity to the project site in 1920 and 1955 to 1975. The Phase I ESA indicated that dry cleaning facilities prior to 1930 typically used petroleum-based cleaning solvents and began to use tetrachloroethene (PCE) in 1930. Partner concluded that based on the types of chemicals used and lack of regulatory oversight during the operation of the onsite, adjacent, and nearby dry cleaning facilities, "the potential exists for adverse impact to the [project site]."

In regard to the closed LUST case for the project site, the Phase I ESA noted that a January 27, 1994 case closure letter was available via the SWRCB's online GeoTracker database. The case closure letter indicated that based on a January 18, 1994 document submitted to the San Francisco Bay Regional Water Quality Control Board (SFBRWQCB) by the City of Berkeley Toxic Program (currently the Toxics Management Division [TMD]), "further investigation and/or cleanup of soil and groundwater pertaining to the former 1,500-gallon UST would not be necessary." The Phase I ESA concluded that because additional documentation was not available (including the January 18, 1994 document and a January 7, 1994 report by Weiss Associates reportedly submitted to the SFBRWQCB), it was unknown if the UST was removed or closed in place, if sampling was conducted during case closure, or if contamination was allowed to remain in place. Rincon requested records for the case from the City of Berkeley and the SFBRWQCB on November 30, 2022; records provided on December 8, 2022 include a January 18, 1994 letter, which indicates that total petroleum hydrocarbons (TPH) in the diesel range was detected in a "water sample" collected during UST removal at a concentration of 4,900 parts per billion.

Although not identified as an environmental concern in the Phase I ESA, Partner observed a partial basement beneath the building on the project site (2138-2142 Center Street) with paint storage and a sump.

Based on the findings of the Phase I ESA, Partner recommended conducting a subsurface investigation, including a geophysical survey and soil, soil vapor, and groundwater sampling, at the project site, and implementing an operations and maintenance program to safely manage the suspect ACM and LBP at the project site.

2023 Phase II Environmental Site Assessment

Based on the recommendation in Partner's Phase I ESA, Terracon Consultants, Inc. (Terracon) prepared a Limited Site Assessment (Phase II ESA) for the project site in May 2023 (Appendix E). The Phase II ESA consisted of a geophysical survey and soil and soil vapor sampling. The results of the geophysical survey and review of City of Berkeley TMD records identified the former location of the UST at 2148 Center Street and confirmed that the UST was removed and the pit was backfilled. Three soil borings (converted into temporary soil vapor probes) were advanced in the vicinity of the former onsite dry cleaners (2152 and 2156 Center Street) and the former southern adjacent dry cleaner (2138 Oxford Street). TPH in the gasoline, diesel, and motor oil ranges and volatile organic compounds (VOCs) were detected in the soil samples analyzed at concentrations below their respective 2019 SFBRWQCB Environmental Screening Levels (ESLs) for residential, commercial/industrial, and construction worker exposure scenarios. TPH in the gasoline range and VOCs were detected in the soil vapor samples analyzed at concentrations below their respective 2019 ESLs for residential and commercial/industrial exposure scenarios, with the following exceptions:

- Benzene: Detected at concentrations ranging from 2.41 to 8.08 micrograms per cubic meter ($\mu g/m^3$), which exceeds the residential ESL of 3.20 $\mu g/m^3$ but is below the commercial/industrial ESL of 14 $\mu g/m^3$
- Ethylbenzene: Detected at concentrations ranging from 1.17 to 42.4 $\mu g/m^3$, which exceeds the residential ESL of 37 $\mu g/m^3$ but is below the commercial/industrial ESL of 160 $\mu g/m^3$

Benzene and ethylbenzene were not detected above laboratory reporting limits in the soil samples collected at the respective depth intervals of the soil vapor probe in each boring. Notably, PCE was detected in soil vapor at concentrations below its residential ESL. Groundwater was not encountered in the soil borings to a maximum depth of 30 feet below ground surface. The Phase II ESA report concluded that "Based on the analytical results and use of the first floor for commercial/industrial purposes, no further investigation is recommended at this time. If future land use development is planned for residential land use on the first floor of the structure, additional soil vapor sampling is recommended to further evaluate if a vapor barrier may be recommended for the future structure." Terracon also concluded in their report that "Though soil analytical results collected as part of this investigation did not identify concentrations of TPH or VOCs above respective construction worker exposure ESLs, residual impacts to soils may be present within the vicinity of the former UST located under the sidewalk along Center Street that could affect worker safety. Additionally, groundwater was not assessed as part of this investigation. Based on the potential for residual impacts near the former UST and unknown groundwater conditions, the preparation of a Media Management Plan prior to future construction is recommended."

d. Potential Hazardous Material Concerns

Additional research was completed by Rincon Consultants in 2023 to determine if landfills, oil and gas wells, hazardous material transportation pipelines, and per- and polyfluoroalkyl substances (PFAS) investigative sites are located onsite or could be affecting the project site.

Landfills

According to a review of the California Department of Resources, Recycling, and Recovery (CalRecycle) online Solid Waste Information System (SWIS) database, there is one active solid waste facility, City of Berkeley Solid Waste Management Center and Transfer Station located

approximately 2.2 mile west-northwest of the project site (CalRecycle 2023). This facility is classified as an active, permitted transfer/processing solid waste facility. There is also one landfill (closed Santa Fe Pacific Berkeley Landfill) located approximately 2 miles west of the project site and one landfill (closed Berkeley Landfill) located approximately 2.5 miles west of the project site.

Oil and Gas Wells/Fields

According to a review of California Department of Conservation, Geologic Energy Management Division (CalGEM) online oil and gas well and field records, the project site is not located within an oil/gas field and there are no oil or gas wells located within 0.25 mile of the project site (CalGEM 2023). The nearest oil well is a plugged dry hole well located approximately 3 miles east-northeast of the project site near the City of Orinda.

Hazardous Material Pipelines

According to a review of the United States Department of Transportation (USDOT), Pipeline and Hazardous Materials Safety Administration's online National Pipeline Mapping System database, there is a natural gas transmission pipeline (Pacific Gas & Electric Co. pipeline #2840, active/filled) located adjacent to east of the project site along Oxford Street (USDOT 2023).

Per- and Polyfluoroalkyl Substances

Beginning in 2019, the SWRCB issued letters to property owners of sites that may be potential sources of PFAS. These sites currently include select landfills, airports, chrome plating facilities, publicly owned treatment works facilities, Department of Defense sites, and bulk fuel storage terminals and refineries. The letters included a SWRCB Water Code Section 13267 Order (Investigative Order); an Investigative Order is a directive from the SWRCB to conduct on-site testing of groundwater and/or leachate. This does not mean that PFAS has been produced, used, or discharged at these sites. According to the SWRCB, "PFAS are a large group of human-made substances that do not occur naturally in the environment and are resistant to heat, water, and oil" (SWRCB 2023a).

According to a review of the California Statewide California PFAS Investigations online map viewer, there are no current landfill, airport, chrome plating, publicly owned treatment works, Department of Defense, or bulk fuel storage terminal/refinery PFAS orders at any facilities listed as located within 2 miles of the project site (SWRCB 2023a).

Review of the online GeoTracker PFAS Map viewer indicates that perfluorooctanoic acid (PFOA) and perfluorooctanesulfonic acid (PFOS) were detected at concentrations above their SWRCB notification and response levels in four groundwater samples collected from an open Cleanup Program Site case located approximately 4.5 miles south of the project site as part of a PFAS investigative order (SWRCB 2023b).

Asbestos-Containing Materials

Asbestos is a naturally occurring fibrous material that was widely used in structures built between 1945 and 1978 for its fireproofing and insulating properties. ACM were banned by USEPA between the early 1970s and 1991 under the authority of the federal Clean Air Act (CAA) and the Toxic Substances Control Act (TSCA) due to their harmful health effects. Exposure to asbestos increases risk of developing lung disease, such as lung cancer, mesothelioma, or asbestosis (USEPA 2023a). Common ACMs include vinyl flooring and associated mastic, wallboard and associate joint

compound, plaster, stucco, acoustic ceiling spray, ceiling tiles, heating system components, and roofing materials. Pre-1978 commercial and industrial structures are affected by asbestos regulations if damage occurs, or if remodeling, renovation, or demolition activities disturb ACMs.

Lead and Lead-Based Paint

Lead is a naturally occurring metallic element. Because of its toxic properties, lead is regulated as a hazardous material. Excessive exposure to lead can result in the accumulation of lead in the blood, soft tissues, and bones. Children are particularly susceptible to potential lead-related health problems because it is easily absorbed into developing systems and organs. Lead can affect almost every organ and system in the body. In children, lead can cause behavior and learning problems, lower IQ and hyperactivity, hearing problems, and anemia. In adults, lead can cause cardiovascular effects, decreased kidney function, and reproductive problems. In addition, lead can result in serious effects to the developing fetus and infant for pregnant women (USEPA 2023b). Among its numerous uses and sources, lead can be found in paint, water pipes, solder in plumbing systems, and in soils surrounding buildings and structures that are painted with LBP. LBP was primarily used during the same time period as ACMs. Pre-1978 commercial and industrial structures are affected by LBP regulations if the paint is in a deteriorated condition or if remodeling, renovation, or demolition activities disturb LBP surfaces.

e. Use, Transport, and Abatement of Hazardous Materials

The use of hazardous materials is typically associated with industrial land uses. Activities such as manufacturing, plating, cleaning, refining, and finishing, frequently involve chemicals that are considered hazardous when accidentally released into the environment.

To a lesser extent, hazardous materials may also be used by various commercial enterprises, as well as residential uses. In particular, dry cleaners use cleaning agents considered to be hazardous materials. Hardware stores typically stock paints and solvents, as well as fertilizers, herbicides, and pesticides. Swimming pool supply stores stock acids, algaecides, and caustic agents. Most commercial businesses occasionally use commonly available cleaning supplies that, when used in accordance with manufacturers' recommendations, are considered safe by the State of California, but when not handled properly can be considered hazardous. Private residences also use and store commonly available cleaning materials, paints, solvents, swimming pool and spa chemicals, as well as fertilizers, herbicides, and pesticides.

If improperly handled, hazardous materials can result in public health hazards through human contact with contaminated soils or groundwater, or through airborne releases in vapors, fumes, or dust. There is also the potential for accidental or unauthorized releases of hazardous materials that would pose a public health concern. The use, transport, and disposal of hazardous materials and wastes are required to occur in accordance with Federal, State, and local regulations. In accordance with such regulations, the transport of hazardous materials and wastes can only occur with transporters who have received training and appropriate licensing. Additionally, hazardous waste transporters are required to complete and carry a hazardous waste manifest, which includes forms, reports, and procedures designed to seamlessly track hazardous waste.

f. Educational Facilities

School locations require consideration because children are particularly sensitive to hazardous materials exposure. Additional protective regulations apply to projects that could use or disturb potentially hazardous products near or at schools. The California Public Resources Code requires

projects that would be located within 0.25 mile of a school and might reasonably be expected to emit or handle hazardous materials to consult with the school district regarding potential hazards. Berkeley High School is located approximately 0.23 miles from the project site and several private schools and childcare centers are also located within 0.25 miles of the project site.

4.3.2 Regulatory Setting

Hazardous materials and waste can pose a potential hazard to human health and the environment when improperly treated, stored, transported, disposed of, or otherwise managed. Federal, State, and local programs that regulate the use, storage, and transportation of hazardous materials and hazardous waste are in place to prevent unwanted consequences. These regulatory programs are designed to reduce the risk that hazardous substances may pose to people and businesses under normal daily circumstances and as a result emergencies and disasters.

a. Federal Regulations

Primary Federal agencies with responsibility for hazardous materials management include the USEPA, U.S. Department of Labor's Occupational Safety and Health Administration (OSHA), and the USDOT. The major laws enforced by these agencies are described below.

Toxic Substances Control Act (1976) and the Resource Conservation and Recovery Act of 1976 (RCRA)

These acts established a program administered by the USEPA for the regulation of the generation, transportation, treatment, storage, and disposal of hazardous waste. RCRA was amended in 1984 by the Hazardous and Solid Waste Act, which affirmed and extended the "cradle to grave" system of regulating hazardous wastes. Among other things, the use of certain techniques for the disposal of some hazardous wastes was specifically prohibited by the Hazardous and Solid Waste Act.

Lead-Based Paint Elimination Final Rule 24 Code of Federal Regulations

Governed by the U.S. Housing and Urban Development, regulations for LBP are contained in the Lead-Based Paint Elimination Final Rule 24 Code of Federal Regulations (CFR) 33, which requires sellers and lessors to disclose known LBP and LBP hazards to perspective purchasers and lessees. Additionally, all LBP abatement activities must follow California and federal occupational safety and health administrations (California Occupational Safety and Health Administration [CalOSHA] and federal OSHA, respectively and with the State of California Department of Health Services requirements. Only LBP-trained and certified abatement personnel can perform abatement activities. All LBP removed from structures must be hauled and disposed of by a transportation company licensed to transport this type of material at a landfill or receiving facility licensed to accept the waste.

U.S. Environmental Protection Agency

The USEPA is the agency primarily responsible for enforcement and implementation of Federal laws and regulations pertaining to hazardous materials. Applicable Federal regulations pertaining to hazardous materials are contained in the CFR Titles 29, 40, and 49. Hazardous materials, as defined in the CFR, are listed in 49 CFR 172.101. The management of hazardous materials is governed by the following laws:

1. Resource Conservation and Recovery Act of 1976 (42 USC 6901 et seq.)
2. Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (also called the Superfund Act) (42 USC 9601 et seq.)
3. Federal Insecticide, Fungicide, and Rodenticide Act (7 USC 136 et. Seq.)
4. Superfund Amendments and Reauthorization Act of 1986 (Public Law 99 499)

These laws and associated regulations include specific requirements for facilities that generate, use, store, treat, and/or dispose of hazardous materials. USEPA provides oversight and supervision for Federal Superfund investigation/remediation projects, evaluates remediation technologies, and develops hazardous materials disposal restrictions and treatment standards.

U.S. Department of Transportation Regulations

USDOT prescribes strict regulations for the safe transportation of hazardous materials, including requirements for hazardous waste containers and licensed haulers that transport hazardous waste on public roads. The Secretary of the USDOT receives the authority to regulate the transportation of hazardous materials from the Hazardous Materials Transportation Act (HMTA), as amended and codified in in 49 U.S. Code (U.S.C.) Section 5101 et seq. The Secretary is authorized to issue regulations to implement the requirements of 49 U.S.C. The Pipeline and Hazardous Materials Safety Administration (PHMSA), formerly the Research and Special Provisions Administration, was delegated the responsibility to write the hazardous materials regulations, which are contained in Title 49 of the CFR Parts 100-180. Title 49 of the CFR, which contains the regulations set forth by the HMTA, specifies requirements and regulations with respect to the transport of hazardous materials. It requires that every employee who transports hazardous materials receive training to recognize and identify hazardous materials and become familiar with hazardous materials requirements. Under the HMTA, the Secretary "may authorize any officer, employee, or agent to enter upon, inspect, and examine, at reasonable times and in a reasonable manner, the records and properties of persons to the extent such records and properties relate to: (1) the manufacture, fabrication, marking, maintenance, reconditioning, repair, testing, or distribution of packages or containers for use by any 'person' in the transportation of hazardous materials in commerce; or (2) the transportation or shipment by any 'person' of hazardous materials in commerce."

Occupational Safety and Health Act of 1970

The U.S. Department of Labor's OSHA was created to assure safe and healthful working conditions by setting and enforcing standards and by providing training, outreach, education, and assistance. OSHA provides standards for general industry and construction industry on hazardous waste operations and emergency response. The Occupational Safety and Health Act, which is implemented by OSHA, contains provisions with respect to hazardous materials handling. Federal Occupational Safety and Health Act requirements, as set forth in Title 29 of the CFR Section 1910, et. seq., are designed to promote worker safety, worker training, and a worker's right-to-know. OSHA has delegated the authority to administer OSHA regulations to the State of California.

Title 49 of the CFR, which contains the regulations set forth by the HMTA of 1975, specifies additional requirements and regulations with respect to the transport of hazardous materials. Title 49 of the CFR requires that every employee who transports hazardous materials receive training to recognize and identify hazardous materials and become familiar with hazardous materials requirements. Drivers are also required to be trained in function and commodity-specific requirements.

Other Hazardous Materials Regulations

In addition to the USDOT regulations for the safe transportation of hazardous materials, there are other applicable federal laws that also address hazardous materials:

- Community Environmental Response Facilitation Act of 1992
- Clean Water Act
- Clean Air Act
- Safe Drinking Water Act
- Atomic Energy Act
- Federal Insecticide, Fungicide, and Rodenticide Act

b. State Regulations

Department of Toxic Substances Control

As a department of the California Environmental Protection Agency (CalEPA), the DTSC is the primary agency in California that regulates hazardous waste, cleans up existing contamination, and looks for ways to reduce the hazardous waste produced in California. DTSC regulates hazardous waste in California primarily under the authority of RCRA and the California HSC.

The DTSC also administers the California Hazardous Waste Control Law (HWCL) to regulate hazardous wastes. While the HWCL is generally more stringent than RCRA, until the USEPA approves the California program, both state and federal laws apply in California. The HWCL lists 791 chemicals and approximately 300 common materials that may be hazardous; establishes criteria for identifying, packaging, and labeling hazardous wastes; prescribes management controls; establishes permit requirements for treatment, storage, disposal, and transportation; and identifies some wastes that cannot be disposed of in landfills.

Government Code Section 65962.5 requires CalEPA, via the DTSC, the State Department of Health Services, the SWRCB, and CalRecycle to compile and annually update lists of hazardous waste sites and land designated as hazardous waste sites throughout the state (collectively known as the Cortese List). The Secretary for Environmental Protection consolidates the information submitted by these agencies and distributes it to each city and county where sites on the lists are located. Before the lead agency accepts an application for any development project as complete, the applicant must consult these lists to determine if the site at issue is included.

If any soil is excavated from a site containing hazardous materials, it would be considered a hazardous waste if it exceeded specific criteria in Title 22 of the California Code of Regulations (CCR). Remediation of hazardous wastes found at a site may be required if excavation of these materials is performed, or if certain other soil disturbing activities would occur. Even if soil or groundwater at a contaminated site does not have the characteristics required to be defined as hazardous waste, remediation of the site may be required by regulatory agencies subject to jurisdictional authority. Cleanup requirements are determined on a case-by-case basis by the agency taking jurisdiction.

California Occupational Safety and Health Act – California Labor Code, Section 6300 et seq.

The California Occupational Safety and Health Act of 1973 addresses California employee working conditions, enables the enforcement of workplace standards, and provides for advancements in the field of occupational health and safety. The Act also created CalOSHA, the primary agency responsible for worker safety in the handling and use of chemicals in the workplace. CalOSHA's standards are generally more stringent than federal regulations. Under the former, the employer is required to monitor worker exposure to listed hazardous substances and notify workers of exposure. The regulations specify requirements for employee training, availability of safety equipment, accident-prevention programs, and hazardous substance exposure warnings. At sites known or suspected to be contaminated by hazardous materials, workers must have training in hazardous materials operations and a Site Health and Safety Plan must be prepared, which establishes policies and procedures to protect workers and the public from exposure to potential hazards at the contaminated site.

California Code of Regulations, Title 22, Hazardous Waste Management

At the State level, under Title 22, Division 4.5 of the CCR, DTSC regulates hazardous waste in California primarily under the authority of the Federal RCRA and the California HSC. The HWCL, under CCR 22, establishes regulations that are similar to RCRA but more stringent in their application and empowers the DTSC to administer the State's hazardous waste program and implement the federal program in California. The DTSC is responsible for permitting, inspecting, ensuring compliance, and imposing corrective action programs to ensure that entities that generate, store, transport, treat, or dispose of potentially hazardous materials and waste comply with federal and State laws. The DTSC defines hazardous waste as waste with a chemical composition or other properties that make it capable of causing illness, death, or some other harm to humans and other life forms when mismanaged or released into the environment. The DTSC shares responsibility for enforcement and implementation of hazardous waste control laws with the SWRCB and, at the local level, the Regional Water Quality Control Boards (RWQCB), and city and county governments.

California Code of Regulations Title 23, Chapter 15 Discharges of Hazardous Waste to Land Section 2511(b)

CCR 23, Chapter 15 Discharges of Hazardous Waste to Land Section 2511(b) pertains to water quality aspects of waste discharge to land. The regulation establishes waste and site classifications as well as waste management requirements for waste treatment, storage, or disposal in landfills, surface impoundments, waste piles, and land treatment facilities. Requirements are minimum standards for proper management of each waste category, which allows regional water boards to impose more stringent requirements to accommodate regional and site-specific conditions. In addition, the requirements of CCR 23, Chapter 15 applies to cleanup and abatement actions for unregulated hazardous waste discharges to land (e.g., spills).

California Unified Program Administration

The Unified Program consolidates, coordinates, and makes consistent the administrative requirements, permits, inspections, and enforcement activities of six environmental and emergency response programs, as listed below:

- Hazardous Materials Release Response Plans and Inventories (Business Plans)
- California Accidental Release Prevention (CalARP) Program
- Underground Storage Tank (UST) Program
- Aboveground Petroleum Storage Act Program
- Hazardous Waste Generator and Onsite Hazardous Waste Treatment (tiered permitting) Programs
- California Uniform Fire Code: Hazardous Material Management Plans and Hazardous Material Inventory Statements

The state agency partners involved in the Unified Program have the responsibility of setting program element standards, working with CalEPA on ensuring program consistency, and providing technical assistance to the CUPA. The following state agencies are involved with the Unified Program:

- CalEPA is directly responsible for coordinating the administration of the Unified Program. The Secretary of the CalEPA certifies CUPAs
- DTSC provides technical assistance and evaluation for the hazardous waste generator program including onsite treatment (tiered permitting)
- The Office of Emergency Services is responsible for providing technical assistance and evaluation of the Hazardous Material Release Response Plan (Business Plan) Program and the CalARP Programs
- The Office of the State Fire Marshal is responsible for ensuring the implementation of the Hazardous Material Management Plans and the Hazardous Material Inventory Statement Programs. These programs tie in closely with the Business Plan Program.
- The SWRCB provides technical assistance and evaluation for the UST Program in addition to handling the oversight and enforcement for the Aboveground Storage Tank Program

The City of Berkeley TMD is the CUPA for the City of Berkeley. The TMD is responsible for implementing the federal and state laws and regulations pertaining to the handling of hazardous wastes and hazardous materials.

California Accidental Release Prevention (CalARP) Program

The purpose of the CalARP program is to prevent accidental releases of substances that can cause serious harm to the public and the environment, to minimize the damage if releases do occur, and to satisfy community right-to-know laws. The CalARP requires any business that handles more than threshold quantities of an extremely hazardous substance per California regulations to develop a Risk Management Plan (RMP). The RMP is implemented by the business to prevent or mitigate releases of regulated substances that could have off-site consequences through hazard identification, planning, source reduction, maintenance, training, and engineering controls. The RMP contains the following elements:

- Safety Information
- A Hazard Review
- Operating Procedures
- Training Requirements
- Compliance Audits
- Incident Investigation Procedures

The RMP must also consider the proximity to sensitive populations located in schools, residential areas, general acute care hospitals, long-term health care facilities, and child day care facilities. The RMP must also consider external events such as seismic activity. The CUPAs determine the level of detail in the RMPs, review the RMPs, conduct facility inspections, and provide public access to most of the information. There are three program levels identified by CalARP and they are dependent on the type of business, potential impact, and accident history, among other factors.

If an accidental release occurs, the owner/operator of a facility shall ensure that response actions have been coordinated with local emergency planning and response agencies.

California Fire and Building Code

The 2022 Fire and Building Code establishes the minimum requirements consistent with nationally recognized good practices to safeguard the public health, safety, and general welfare for the hazards of fire, explosion, or dangerous conditions in new and existing buildings, structures and premises, and to provide safety and assistance to firefighters and emergency responders during emergency operations. The provisions of this code apply to the construction, alteration, movement enlargement, replacement, repair, equipment, use and occupancy, location, maintenance, removal, and demolition of every building or structure or any appurtenances connected or attached to such building structures throughout the State of California.

c. Regional Regulations

San Francisco Bay Regional Water Quality Control Board

The nine RWQCBs are authorized by the SWRCB to enforce provisions of the Porter-Cologne Water Quality Control Act of 1969. This Act gives the RWQCBs authority to require groundwater investigations when the quality of groundwater or surface waters of the State is threatened and to require remediation of a site, if necessary. Both of these agencies are part of the CalEPA. In the City of Berkeley, the City of Berkeley TMD handles most leaking underground storage tank cases, so the SFBRWQCB may oversee cases involving other groundwater contaminants; i.e., Cleanup Program cases. In the case of hazardous material releases at a project site, the responsible party would notify the City of Berkeley TMD, RWQCB, or DTSC and a lead would be determined.

Administration and enforcement of the major environmental programs were transferred to local agencies as CUPA beginning in 1996. The purpose of this was to simplify environmental reporting by reducing the number of regulatory agency contacts a facility must maintain and requiring the use of more standardized forms and reports.

Bay Area Air Quality Management District Regulation 11, Rule 2

The Bay Area Air Quality Management District (BAAQMD) regulates demolition and renovation operations involving ACM in the Bay Area through Rule 2, which applies to any planned renovation that involves 100 square feet, 100 linear feet, or 35 cubic feet or more of ACM, as well as to all demolitions regardless of ACM content. The requirements include a noticing period, the conducting of a pre-demolition survey for ACM materials by a certified inspector, and a general prohibition on demolition until ACM has been abated and removed from the location and requires that abatement be conducted by persons with specific asbestos certifications (primarily Asbestos Hazard Emergency Response Act [AHERA] certification).

d. Local Regulations

City of Berkeley General Plan

The Berkeley General Plan Disaster Preparedness and Safety Element and Environmental Management Element includes goals and policies to reduce the risk of death, injuries, and property damage in the city. Relevant goals and policies are listed below:

Policy S-1 Response Planning. Ensure that the City's emergency response plans are current and incorporate the latest information on hazards, vulnerability, and resources.

Policy S-10 Mitigation of Potentially Hazardous Buildings. Pursue all feasible methods, programs, and financing to mitigate potentially hazardous buildings.

Policy S-12 Utility and Transportation Systems. Improve the disaster-resistance of utility and transportation systems to increase public safety and to minimize damage and service disruption following a disaster.

Policy S-13 Hazards Identification. Identify, avoid, and minimize natural and human-caused hazards in the development of property and the regulation of land use.

Policy S-14 Land Use Regulation. Require appropriate mitigation in new development, in redevelopment/reuse, or in other applications.

Policy S-15 Construction Standards. Maintain construction standards that minimize risks to human lives and property from environmental and human-caused hazards for both new and existing buildings.

Policy S-21 Fire Preventative Design Standards. Develop and enforce construction and design standards that ensure new structures incorporate appropriate fire prevention features and meet current fire safety standards.

Policy S-22 Fire Fighting Infrastructure. Reduce fire hazard risks in existing developed areas.

Policy S-23 Property Maintenance. Reduce fire hazard risks in existing developed areas by ensuring that private property is maintained to minimize vulnerability to fire hazards.

Policy S-24 Mutual Aid. Continue to fulfill legal obligations and support mutual aid efforts to coordinate fire suppression in Alameda and Contra Costa Counties, Oakland, the East Bay Regional Park District, and the State of California to prevent and suppress major wildland and urban fire destruction.

Policy EM-8 Building Reuse and Construction Waste. Encourage rehabilitation and reuse of buildings whenever appropriate and feasible in order to reduce waste, conserve resources and energy, and reduce construction costs.

Policy EM-10 Materials Recovery and Remanufacturing. Support and encourage serial materials recovery and remanufacturing industries.

Policy EM-11 Biodegradable Materials and Green Chemistry. Support efforts to phase out the use of long-lived synthetic compounds, such as pesticides and vehicle anti-freeze, and certain naturally occurring substances which do not biodegrade. Encourage efforts to change manufacturing processes to use biodegradable materials, recycle manufactured products, reuse byproducts, and use "green" products.

Policy EM-12 Education. Work with other State and local agencies to educate business owners and residents regarding safe use, recycling, and disposal of toxic materials; reducing hazardous household wastes; and substitutes for these substances.

Policy EM-13 Hazardous Materials Disclosure. Continue to require the disclosure of hazardous materials usage and encourage businesses using such materials to prepare and implement a plan to reduce the use of hazardous materials and the generation of hazardous wastes.

Policy EM-14 Hazardous Material Regulation. Control and regulate the use, storage and transportation of toxic, explosive, and other hazardous and extremely hazardous material to prevent unauthorized and accidental discharges.

Policy EM-15 Environmental Investigation. When reviewing applications for new development in areas historically used for industrial uses, require environmental investigation as necessary to ensure that soils, groundwater, and buildings affected by hazardous material releases from prior land uses would not have the potential to affect the environment or the health and safety of future property owners, users, or construction workers.

Policy EM-16 Risk Reduction. Work with owners of vulnerable structures with significant quantities of hazardous material to mitigate potential risks.

Policy EM-17 Warning Systems. Establish a way to warn residents of a release of toxic material or other health hazard, such as sirens and/or radio broadcasts.

Berkeley Local Hazard Mitigation Plan

Berkeley is exposed to several natural and human-caused hazards that vary in their intensity and impacts on the city. The Local Hazard Mitigation Plan (LHMP) addresses earthquake, wildland-urban interface, fire, flood, landslide, tsunami, and also hazardous materials releases, climate change, extreme heat events, and terrorism. Hazardous materials release is described as a cascading impact of a natural hazard.

The City of Berkeley's 2019 LHMP serves three main functions:

- The LHMP documents the City's current understanding of the hazards present in Berkeley, along with their vulnerabilities to each hazard – the ways that the hazard could impact buildings, infrastructure, community, and environment.
- The LHMP presents Berkeley City government's Mitigation Strategy for the coming five years. The Mitigation Strategy reflects a wide variety of both funded and unfunded actions, each of which could reduce the Berkeley's hazard vulnerabilities.
- By fulfilling requirements of the Disaster Mitigation Act of 2000, the LHMP ensures that Berkeley will remain eligible to apply for mitigation grants before disasters, and to receive federal mitigation funding and additional State recovery funding after disasters.

Downtown Area Plan (DAP) and DAP EIR

Because the proposed project is located in Downtown Berkeley, it must also be evaluated for its consistency with the Downtown Area Plan (DAP). The DAP EIR discussed hazards and hazardous materials impacts on pages 4-133 through 4-140. It addressed the issues of hazardous materials, aviation hazards, emergency response and evacuation, and wildland fire hazards. The DAP EIR discussions of these impact areas are summarized below.

- **Impact HAZ-1: Hazardous Materials Use and Transport.** The DAP identified motor vehicle use and storage and use of materials for periodic cleaning, repair, and maintenance or for landscape maintenance/pest control as potential sources of exposure to hazardous materials. However, it concluded that normal use of hazardous materials at commercial and residential land uses in the Downtown Area would not pose a significant risk to human health or the environment because those using such materials would be responsible for their safe use and would be required to comply with all applicable regulations regarding the disposal of household hazardous waste. According to the DAP EIR, the major sources of existing hazardous materials contamination on sites in the Downtown Area are associated with non-residential activity. These include chemical contamination from businesses such as dry cleaning establishments, gasoline and waste oil contamination from automobile repair and service facilities whose underground storage tanks may have leaked, and fuel oil contamination from underground heating oil storage tanks. It identifies sites with a record of having leaking underground storage tanks and leaking underground fuel tanks, but does not identify sites on the "Cortese" list (the lists of hazardous waste sites complied pursuant to Government Code Section 65962.5). The DAP EIR concluded that development on these sites would require remediation of the site contamination, but that after remediation, impacts associated with development on these sites would be considered less than significant.

  The DAP EIR stated that medical facilities, dentists, veterinarians, and clinics in the Downtown Area are another potential source of hazardous materials, but they are required to comply with the Medical Waste Management Act, which establishes handling, storing, hauling, treating and disposal requirements for medical waste. The Medical Waste Management Act also requires generators responsible for the production of more than 200 pounds of medical waste per month register with the State. The DAP EIR identified potential activities of UC Berkeley in the downtown that may involve the routine transport, use, and disposal of hazardous materials, such as chemicals, medical wastes and biohazards, radioactive substances, explosives, toxic gases, nanoparticles, and controlled substances. However, it stated that the hazardous materials management team from the University's Office of Environment, Health and Safety has responsibility for monitoring the transport, use, and disposal of all hazardous materials that may be present in University laboratories and research facilities, and has established procedures and regulations to ensure all such materials are handle' safely. The DAP EIR concluded that potential impacts related to hazardous materials transport, such as risk of upset, would be less than significant.

  Similarly, the DAP EIR concluded that, although there are schools in the Downtown Area that could be within 0.25 mile of facilities with the potential to release hazardous materials, compliance with existing regulations and standard safety procedures for the handling of hazardous materials at these facilities would be expected to reduce potential impacts to a less than significant level.
- **Impact HAZ-2: Aviation Hazards.** The DAP EIR concluded that, because there are no airstrips in the vicinity of the Downtown Area, development under the DAP would not expose those in the Downtown Area to hazards associated with aviation operations.
- **Impact HAZ-3: Emergency Response and Evacuation.** The DAP EIR found that the DAP proposed no changes to the Downtown Area street system that would impede or otherwise negatively affect emergency access, including the emergency access and evacuation routes identified in the Berkeley General Plan. Policy T-28 identified actions to help maintain emergency access, including not installing diverters or speed humps on streets identified as emergency access and evacuation routes, including all streets in the Downtown Area, except Milvia Street north of

University Avenue and Fulton Street south of Bancroft Way. This would help ensure adequate emergency access. Finally, the DAP EIR indicates the Berkeley Fire Department (BFD) and Berkeley Police Department (BPD) would review potential proposed changes to the current emergency access and evacuation routes prior to modification, and finds that, for all these reasons, the DAP would have a less than significant impact on emergency response and evacuation.

- **Impact HAZ-4: Wildland Fire Hazards.** The DAP EIR stated that no part of the Downtown Area is in an area formally identified as subject to wildland fire hazards, and development under the DAP would therefore not increase exposure to this hazard in a significant way, although such a hazard cannot be completely ruled out. As stated on page 4-135 of the DAP EIR, "in September 1923, a major wildfire that began in the Wildcat Canyon area ultimately destroyed homes within a few blocks of the Downtown Area. An uncontrolled wildfire originating in the Berkeley Hills today could still pose a threat to people and property in the Downtown Area, given conditions favorable to the rapid spread of such a fire."

City of Berkeley Municipal Code

Title 15 of the Berkeley Municipal Code (BMC) includes the Berkeley Hazardous Materials Code. The intent of this title is to provide regulations and standards for certain operations, enterprises or activities which, if not regulated, may adversely affect the public health and safety.

Berkeley's TMD is a CUPA and implements Chapter 6.11 of Division 20 of California HSC and Title 15 of the BMC. The TMD has created Berkeley's HMBP, which is meant to satisfy federal and state Community laws. It provides detailed information for use by emergency responders. The HMBP also assists residents in complying with the State requirements and provides emergency responders adequate information about the type, quantity of, storage location – and management practices regarding – hazardous materials that are stored at different facilities within Berkeley. A HMBP must be filed if the following occurs:

- At any time during the year hazardous materials or hazardous wastes are handled, stored or generated and are equal to or greater than:
  - 55 gallons for liquids
  - 500 pounds for solids
  - 200 cubic feet (at normal temperature and pressure) for compressed gases.
- A facility handles any amount of perchlorate material, pursuant to California HSC Section 25504.1.
- A facility has any quantity of radioactive materials pursuant to BMC Title 15. Report the information on the Hazardous Materials Inventory.
- A facility has any quantity of etiologic agents, pursuant to BMC Title 15. Report the agent name, quantity, and storage location to the TMD.
- A facility exceeds reportable thresholds for Extremely Hazardous Substances (EHS), as defined in 40 CFR, Part 355, Appendix A.
- A facility stores or handles manufactured nanoscale materials, pursuant to BMC Title 15. The City's TMD must be contacted to determine if documentation is required.

4.3.3 Impact Analysis

a. Methodology and Thresholds of Significance

The following thresholds are based on *CEQA Guidelines* Appendix G. For purposes of this EIR, impacts related to hazards and hazardous materials are considered significant if implementation of the proposed project would:

1. Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials;
2. 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;
3. Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school;
4. 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 create a significant hazard to the public or the environment;
5. 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, result in a safety hazard or excessive noise for people residing or working in the project area;
6. Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan; or
7. Expose people or structures, either directly or indirectly, to a significant risk of loss, injury, or death involving wildland fires.

As discussed in Section 9, *Hazards and Hazardous Materials*, of the Infill Environmental Checklist (Appendix B of this EIR), impacts related to thresholds 5, 6, and 7 would be less than significant and do not require further analysis in an EIR. This section includes an analysis related to thresholds 1 through 4.

b. Project Impacts or Mitigation Measures

Threshold 1:	Would the project create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?
Threshold 2:	Would the project 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?

Impact HAZ-1 CONSTRUCTION AND OPERATION OF THE PROPOSED PROJECT COULD RESULT IN THE USE, STORAGE, DISPOSAL, OR TRANSPORTATION OF HAZARDOUS MATERIALS. UPSET OR ACCIDENT CONDITIONS ON THE PROJECT SITE COULD RESULT IN THE RELEASE OF HAZARDOUS MATERIALS INTO THE ENVIRONMENT. HOWEVER, REQUIRED ADHERENCE TO EXISTING REGULATIONS AND THE NATURE OF THE PROPOSED LAND USES WOULD ENSURE THAT IMPACTS WOULD BE LESS THAN SIGNIFICANT.

Transport and use of hazardous materials for the proposed project could occur during the three stages of the project: demolition, construction, and operation. This section addresses impacts from

aboveground hazardous material generation, handling, use, and transport; impacts from potential contaminated soil, soil vapor, and groundwater are discussed under Impact HAZ-3.

Construction Activities

The following discussion addresses the use of hazardous materials during construction activities; the potential for release of existing contaminated materials during construction; and the potential for release of ACM or LBP during demolition or construction.

Use of Hazardous Materials During Construction

Construction associated with the proposed project may include the temporary transport, storage, and use of potentially hazardous materials including fuels, lubricating fluids, cleaners, or solvents. If spilled, these substances could pose a risk to the environment and to human health. However, the transport, storage, use, or disposal of hazardous materials is subject to various federal, state, and local regulations designed to reduce risks associated with hazardous materials, including potential risks associated with upset or accident conditions. Hazardous materials would be required to be transported under USDOT regulations (USDOT HMTA, 49 CFR), which stipulate the types of containers, labeling, and other restrictions to be used in the movement of such material on interstate highways. DTSC regulates hazardous waste, cleans up existing contamination, and looks for ways to control and reduce the hazardous waste produced in California. It does this primarily under the authority of RCRA and in accordance with the California HWCL (California HSC Division 20, Chapter 6.5) and the Hazardous Waste Control Regulations (Title 22, California CCR, Divisions 4 and 4.5). DTSC also oversees permitting, inspection, compliance, and corrective action programs to ensure that hazardous waste managers follow federal and State requirements and other laws that affect hazardous waste specific to handling, storage, transportation, disposal, treatment, reduction, cleanup, and emergency planning. Compliance with existing regulations would reduce the risk of potential release of hazardous materials during construction.

Release of Contaminated Materials During Construction

The project site is located in an Environmental Management Area (EMA) as identified by the City's TMD that identifies areas known or suspected to have groundwater contamination (City of Berkeley 2023). Potential health and environmental concerns related to contaminated groundwater and soil may occur during excavation and dewatering during construction. In addition, grading or excavation may also result in the transport and disposal of hazardous materials if they are unearthed and removed from the site. However, the proposed project would be subject to regulatory programs such as those overseen by the RWQCB and the DTSC. These agencies require applicants for development of potentially contaminated properties to perform investigation and cleanup if the properties are contaminated with hazardous substances. In addition, development in the EMA requires project review by the TMD prior to issuance of permits. Upon project review, the TMD determines if any special requirements apply based on site conditions. Typically, projects in the EMA must include preparation of a Phase I Environmental Site Assessment, implementation of a soil and groundwater management plan, and/or a groundwater dewatering and monitoring plan to ensure the discharge of clean water.

Finally, the proposed project would be subject to the following City of Berkeley Standard Condition of Approval:

> **Toxics.** The applicant shall contact the TMD to determine which of the following documents are required and timing for their submittal:
>
> **A. Environmental Site Assessments**
>
> 1. Phase I & Phase II Environmental Site Assessments (ESAs). A recent Phase I ESA (less than 6 months old shall be submitted to TMD for developments for:
>   - All new commercial, industrial and mixed-use developments and all large improvement projects.
>   - All new residential buildings with 5 or more dwelling units located in the EMA.
>   - EMA is available online at:
>
>   https://berkeley.maps.arcgis.com/apps/webappviewer/index.html?id=2c7dfafbb1f64e159f4fdf28a52f51c6&showLayers=Berkeley%20Parcels;Environment
>
> 2. Phase II ESA is required to evaluate Recognized Environmental Conditions (REC) identified in the Phase I ESA or other RECs identified by TMD staff. The TMD may require a third-party toxicologist to review human or ecological health risks that may be identified. The applicant may apply to the appropriate state, regional, or county cleanup agency to evaluate the risks.
> 3. If the Phase I ESA is over 6 months old, it will require a new site reconnaissance and interviews. If the facility was subject to regulation under Title 15 of the BMC since the last Phase I ESA was conducted, a new records review must be performed.
>
> **B. Soil and Groundwater Management Plan**
>
> 1. A Soil and Groundwater Management Plan (SGMP) shall be submitted to TMD for all non-residential projects, and residential or mixed-use projects with five or more dwelling units, that: (1) are in the EMA and (2) propose any excavations deeper than 5 feet below grade. The SGMP shall be site specific and identify procedures for soil and groundwater management including identification of pollutants and disposal methods. The SGMP will identify permits required and comply with all applicable local, state and regional requirements.
> 2. The SGMP shall require notification to TMD of any hazardous materials found in soils and groundwater during development. The SGMP will provide guidance on managing odors during excavation. The SGMP will provide the name and phone number of the individual responsible for implementing the SGMP and post the name and phone number for the person responding to community questions and complaints.
> 3. TMD may impose additional conditions as deemed necessary. All requirements of the approved SGMP shall be deemed conditions of approval of this Use Permit.
>
> **C. Building Materials Survey**
>
> 1. Prior to approving any permit for partial or complete demolition and renovation activities involving the removal of 20 square or lineal feet of interior or exterior walls, a building materials survey shall be conducted by a qualified professional. The survey shall include, but not be limited to, identification of any LBP, asbestos, polychlorinated biphenyl (PCB) containing equipment, hydraulic fluids in elevators or lifts, refrigeration systems, treated wood, and mercury-containing devices (including fluorescent light

bulbs and mercury switches). The Survey shall include plans on hazardous waste or hazardous materials removal, reuse or disposal procedures to be implemented that fully comply with state hazardous waste generator requirements (22 CCR 66260 et seq). The Survey becomes a condition of any building or demolition permit for the project. Documentation evidencing disposal of hazardous waste in compliance with the survey shall be submitted to TMD within 30 days of the completion of the demolition. If asbestos is identified, per BAAQMD Regulation 11-2-401.3 a notification must be made and the J number must be made available to the City of Berkeley Permit Service Center.

D. Hazardous Materials Business Plan

1. A HMBP in compliance with BMC Section 15.12.040 shall be submitted electronically at http://cers.calepa.ca.gov/ within 30 days if on-site hazardous materials exceed BMC 15.20.040. HMBP requirement can be found at https://berkeleyca.gov/doing-business/operating-berkeley/hazardous-materials-business-plan

The removal, transport, storage, use, or disposal of hazardous materials would be subject to federal, state, and local regulations pertaining to the transport, use, storage, and disposal of hazardous materials, including those outlined in the Standard Condition of Approval above. Compliance with these requirements would ensure that risks associated with hazardous materials would be minimized. Impacts would be less than significant.

Asbestos and Lead

The project site is developed with commercial buildings that, due to their age, may contain asbestos and/or LBP. Structures built before the 1970s typically contain ACM and LBP. Demolition and redevelopment of the on-site structures could result in health hazard impacts to workers if not remediated prior to construction activities. However, the proposed project would be subject to the City of Berkeley Standard Conditions of Approval above, which includes a Building Materials Survey prior to approval of permits for complete or partial demolition. The Standard Condition of Approval requires that a Building Materials Survey be conducted by a qualified professional. The survey must include plans on hazardous waste or hazardous materials removal, reuse, or disposal procedures to be implemented that fully comply with state hazardous waste generator requirements. The proposed project would also be required to adhere to BAAQMD Regulation 11, Rule 2, which governs the proper handling and disposal of ACM for demolition, renovation, and manufacturing activities in the Bay Area, and CalOSHA regulations regarding lead-based materials. The CCR Section 1532.1 requires testing, monitoring, containment, and disposal of lead-based materials, such that exposure levels do not exceed CalOSHA standards. With adherence to Standard Conditions of Approval, BAAQMD, and CalOSHA policies regarding ACM and LBP, impacts at the proposed project would be less than significant.

Operation

The proposed project involves residential and commercial uses which do not typically use hazardous materials other than small amounts for cleaning and landscaping. These materials would not be different from household chemicals and solvents already in wide use throughout the Berkeley. Residents and workers are anticipated to use limited quantities of products routinely for periodic cleaning, repair, and maintenance or for landscape maintenance/pest control that could contain hazardous materials. Those using such products would be required to comply with all applicable regulations regarding the disposal of household waste. Additionally, the proposed project would be

required to comply with the provisions of the California Fire Code and the CUPA requirements set forth in the California Health and Safety Code, Division 20, Chapter 6.95, Articles 1 and 2. As described in the *Regulatory Setting* (subsection 4.3.2 above), and under Impact HAZ-1, all businesses that handle more than a specified amount of hazardous materials are required to submit a HMBP to a regulating agency, in this case, the TMD. Therefore, operation of new residential and commercial uses pose little risk of exposing the public to hazardous materials. Further, the proposed equipment in the transformer room would not require the use of hazardous materials during operation.

The proposed project would involve development of new industrial, warehouse, auto-service, or manufacturing uses. Therefore, the proposed project would not introduce new manufacturing, warehouse, or industrial uses that would sell, use, store, transport, or release substantial quantities of hazardous materials.

Summary

Compliance with existing applicable regulations and programs would minimize risks from routine transport, use, and disposal of hazardous materials, including potential hazards from the accidental release of hazardous materials. Oversight by the appropriate federal, State, and local agencies and compliance by new development with applicable regulations related to the handling and storage of hazardous materials would minimize the risk of the public's potential exposure to these materials. Therefore, impacts from a hazard to the public or the environment through routine transport, use or disposal of hazardous materials, or from accidental release or exposure to these materials would be less than significant.

Mitigation Measures

Impacts would be less than significant and therefore no mitigation measures are required.

Threshold 3:	Would the project emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within 0.25 mile of an existing or proposed school?

Impact HAZ-2 BERKELEY HIGH SCHOOL AND OTHER PRIVATE SCHOOLS AND CHILDCARE CENTERS ARE LOCATED WITHIN ONE-QUARTER MILE OF THE PROJECT SITE. THE PROPOSED PROJECT WOULD NOT EMIT OR HANDLE SUBSTANTIAL QUANTITIES OF HAZARDOUS OR ACUTELY HAZARDOUS MATERIALS. THIS IMPACT WOULD BE LESS THAN SIGNIFICANT.

The University of California, Berkeley campus is located across Oxford Street from the project site. Berkeley High School is located approximately 0.23 miles from the project site and several private schools and childcare centers are also located within 0.25 miles of the project site. Children are particularly susceptible to long-term effects from exposure to hazardous materials. Locations where children spend extended periods of time, such as schools, are considered sensitive to hazardous air emissions and accidental release associated with the handling of extremely hazardous materials, substances, or wastes.

As detailed under Impact HAZ-1, above, demolition and construction of the proposed project may involve the use of hazardous materials, including creation of ACM-containing dust during demolition or transport of hazardous wastes and materials. However, with compliance with existing regulations, these materials would not release into the environment such that students at nearby schools would be affected. As detailed under Impact HAZ-1, construction could involve both the use and transport of both hazardous materials and hazardous wastes and would be required to be

managed by the BMPs included in the project SWPPP; in addition, the use of common construction hazardous materials and wastes in quantities needed for a residential development of this size would not be expected to present hazards to the school. The use of such materials would present a potential impact were they to be transported near the school; however, as discussed under Impact HAZ-1 above licensed hazardous materials transporters leaving the project site would take the shortest direct route to the I-80/I-580 which is Oxford Street or Shattuck Avenue to University Avenue. Schools may be located within 0.25 mile of these roadways and therefore hazardous materials may be transported in the vicinity of schools. However, with compliance with existing regulations related to the transportation and storage of hazardous materials, these materials would not be released into the environment such that students at nearby schools would be affected. Impacts related to construction hazardous materials to the school would be less than significant.

As described above under Impact HAZ-1, the proposed project would not involve new industrial or manufacturing uses. Hazardous materials and waste generated from by the proposed project would not pose a health risk to nearby schools or childcare facilities because the proposed project would be residential and commercial uses which do not typically handle or emit hazardous materials or substances. They may involve use and storage of some materials considered hazardous, though primarily these would be limited to solvents, paints, chemicals used for cleaning and building maintenance, and landscaping supplies. These materials would not be different from household chemicals and solvents already in general and wide use throughout Berkeley. Uses in Berkeley that sell, use, store, generate, or release hazardous materials must adhere to applicable federal, State, and local safety standards, ordinances, and regulations. Impacts from potential contaminated soil, soil vapor, and groundwater that could be disturbed during construction are discussed under Impact HAZ-3; required assessment, cleanup and control actions discussed there would avoid the potential for a substantial release of hazardous materials within 0.25-mile of a school during grading and excavation. Overall, the proposed project would not result in use of new hazardous material use within a quarter mile radius of existing schools and childcare facilities in Berkeley, and impacts would be less than significant.

Mitigation Measures

This impact would be less than significant and therefore no mitigation measures are required.

Threshold 4:	Would the project be located on a site that is included on a list of hazardous material 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?

Impact HAZ-3 **THE PROJECT IS ASSOCIATED WITH A CLOSED LUST CASE AND IS THEREFORE LOCATED ON A SITE THAT IS INCLUDED ON A LIST OF HAZARDOUS MATERIAL SITES COMPILED PURSUANT TO GOVERNMENT CODE SECTION 65962.5. THERE ARE KNOWN AND UNKNOWN HAZARDOUS MATERIAL IMPACTS TO SOIL, SOIL VAPOR, AND GROUNDWATER AT THE PROJECT SITE. HOWEVER, COMPLIANCE WITH APPLICABLE REGULATIONS AND THE CITY'S STANDARD CONDITIONS OF APPROVAL REQUIRING SITE CHARACTERIZATION AND CLEANUP, IN ADDITION TO MITIGATION FOR POTENTIAL SOIL, SOIL VAPOR, AND/OR GROUNDWATER IMPACTS AT THE PROJECT SITE, WOULD MINIMIZE HAZARDS FROM THE IMPLEMENTATION OF THE PROPOSED PROJECT. THIS IMPACT WOULD BE LESS THAN SIGNIFICANT WITH MITIGATION INCORPORATED.**

As noted in *Setting* (subsection 4.3.1 above), the project site is associated with a closed LUST case (City of Berkeley Case #01-1857). Based on the 2021 Phase I ESA and 2023 Phase II ESA prepared for the project site, a UST was formerly located under the sidewalk along Center Street; no additional information is currently available for the case and this area was not assessed during the Phase II

ESA. Therefore, impacts to soil, soil vapor, and groundwater may be present in the vicinity of the former UST on the project site.

Additionally, based on the 2021 Phase I ESA prepared for the project site, two dry cleaning facilities formerly operated at the project site, southern adjacent properties, and other nearby properties. The results of the 2023 Phase II ESA conducted in the parking lot at the project site indicate that TPH and VOCs were detected in soil at concentrations below the 2019 ESLs for residential, commercial/industrial, and construction worker exposure scenarios. TPH in the gasoline range and VOCs were also detected in soil vapor at concentrations below the 2019 ESLs for residential and commercial/ industrial exposure scenarios, with the exception of benzene and ethylbenzene, detected concentrations of which exceed their respective 2019 residential ESLs (but not the 2019 commercial/industrial ESLs). Therefore, TPH- and VOC-impacted soil and soil vapor are present on the project site. Because groundwater was not encountered during the 2023 Phase II ESA, groundwater conditions at the project site are unknown and may be present on-site. Due to the limited soil and soil vapor sampling conducted directly below and adjacent to the former onsite dry cleaners during the 2023 Phase II ESA, additional soil and soil vapor impacts may be present at the project site.

Construction Activities

With the unknown and known hazardous material project site conditions, there is a potential for construction workers to be exposed to contaminants (e.g., TPH and VOCs) during demolition and grading via dust, soil, soil vapor, or groundwater. Additionally, if offsite disposal of soils from the project site would occur during project construction, the soil may require special handling or disposal as a waste. Consequently, the existing conditions at this known release site would result in a potentially significant hazard to the public or the environment during demolition and grading/construction at the project site. Although groundwater was not encountered above 30 feet below ground surface at the project site during the 2023 Phase II ESA, groundwater in the vicinity of the project site has been measured at 9 to 11 feet below ground surface in January 2022 (Pangea Environmental Services, Inc. 2022). Further, according to the geotechnical report prepared for the proposed project (Partner 2022; Appendix D), the historic high groundwater levels have been estimated up to 10 feet below the existing ground surface. The proposed project would involve a maximum depth of excavation of approximately 15 feet below ground surface. Therefore, groundwater may be encountered during construction activities at the project site.

Operation

The risk of hazardous materials creating a significant hazard to the public or the environment would primarily occur during construction of the project site as on-site contamination is disturbed. Once the project is operational, the contaminated media would mostly be removed and/or mitigated (see mitigation measures HAZ-1 through HAZ-3) and would no longer pose a significant risk.

As discussed above, with the unknown and known hazardous material project site conditions, there is a potential for maintenance workers and building occupants (residential and commercial) to be exposed to contaminants via soil vapor at the project site.

Vapor intrusion occurs when volatile compounds migrate from contaminated groundwater or subsurface soils into the indoor air of an overlying building. Therefore, vapor intrusion of volatile compounds from the impacted groundwater and soil vapor could expose future occupants to potentially unacceptable health risks. This impact is potentially significant. The potential risk for

vapor intrusion can be mitigated through engineering controls (e.g., sub-slab vapor barrier) to mitigate against the potential for VOC vapors to collect in overlying structures.

Summary

Demolition and grading/construction at the project site may involve ground disturbance on sites where soil, soil vapor, or groundwater contamination is present such that hazardous materials are released. This could expose construction workers and/or nearby occupants to hazardous materials.

Construction and operation of the proposed project would be preceded by investigation, remediation, and cleanup under the supervision of the oversight agency (City's TMD, RWQCB, or DTSC) before construction activities could begin. Therefore, the project site would be remediated in accordance with State and regional standards for residential and mixed uses.

The extent to which groundwater may be affected by former project site uses or the former UST, if at all, depends on the type of contaminant, the amount released, the duration of the release, and depth to groundwater. If groundwater contamination is identified, characterization of the vertical and lateral extent of the contamination and remediation activities would likely be required by the oversight agency prior to the commencement of any new construction activities that would disturb the subsurface. If groundwater contamination is identified, characterization of the vertical and lateral extent of the contamination and remediation activities may be required by the oversight agency prior to the commencement of any new construction activities that would disturb the subsurface. If contamination exceeds regulatory action levels, the project applicant may be required to undertake remediation procedures prior to grading and development under the supervision of the oversight agency, depending upon the nature of any identified contamination.

As discussed under Impact HAZ-1, the proposed project would be subject to the City's Standard Conditions of Approval and the City's TMD would evaluate projects to determine if Phase I/Phase II ESAs are required to characterize potential contamination and develop a SGMP to address hazards during construction and operation. However, remediation and/or soil vapor intrusion engineering controls are not included in the City's Standard Conditions of Approval as listed under Impact HAZ-1. Although it is unclear if remediation and/or soil vapor intrusion engineering controls are necessary at the proposed project, impacts are potentially significant and mitigation is required.

Mitigation Measures

The following mitigation measures are required:

Project Mitigation Measure HAZ-1 Remediation of Contaminated Soils

Where soil is known to be impacted, or is identified to be present during compliance with existing State and local regulations as well as the City's Standard Conditions of Approval, within the construction envelope at chemical concentrations exceeding ESLs and/or hazardous waste screening thresholds for contaminants in soil (CCR Title 22, Section 66261.24), the project applicant shall retain a qualified environmental consultant (Professional Geologist [PG] or Professional Engineer [PE]) to properly dispose of the contaminated soil. The qualified environmental consultant shall utilize the project site analytical results for waste characterization purposes prior to offsite transportation or disposal of potentially impacted soils or other impacted wastes. The qualified environmental consultant shall provide disposal recommendations and arrange for proper disposal of the waste soils or other impacted wastes (as necessary), and/or provide recommendations for remedial engineering controls, if appropriate.

Remediation of impacted soils and/or implementation of remedial engineering controls may require additional delineation of sub-surface impacts; additional analytical testing per landfill or recycling facility requirements; soil excavation; and offsite disposal or recycling.

The TMD shall review and approve the project site disposal recommendations prior to transportation of waste soils offsite, and review and approve remedial engineering controls, prior to construction. Subsequently, the project applicant shall review and implement the disposal recommendations prior to transportation of waste soils off-site, and review and implement the remedial engineering controls, prior to construction. Lastly, the City shall review the project site disposal recommendations for regulated waste and remedial engineering controls prior to issuing a grading permit.

Project Mitigation Measure HAZ-2 Disposal of Groundwater

If contaminated groundwater (decontamination water, purge water, dewatering, or underground structures [groundwater leakage into the final structure]) is generated during construction of the project, the RWQCB or the City and/or Alameda County Public Works Agency shall be consulted to determine if the treated groundwater can be disposed through one of their waste discharge permits. RWQCB may require that an individual National Pollution Discharge Elimination System (NPDES) permit and/or waste discharge requirements be obtained for dewatering activities.

The groundwater discharge and disposal requirements vary by agency, location, concentration, and contaminants of concern, and would therefore be developed in consultation with the City and the applicable agency, which could include RWQCB, the City, and/or the Alameda County Public Works Agency.

Project Mitigation Measure HAZ-3 Vapor Intrusion Mitigation System

Where soil vapor is known (or is identified to be present during compliance with the City's Standard Conditions of Approval or implementation of Mitigation Measure HAZ-1), to be present at chemical concentrations exceeding the ESLs for sub-slab/soil gas (vapor) intrusion, the project applicant shall retain a qualified environmental consultant (PG or PE) or other qualified person to prepare a vapor intrusion mitigation system design for the proposed project.

The plan shall include, but is not limited to:

- Design specifications
- Material specifications
- Installation requirements
- Monitoring requirements

The project applicant shall design and implement engineering measures or institutional controls (e.g., soil vapor barrier) to prevent potential soil vapor intrusion into new residences or businesses in accordance with the measures included in the DTSC's Vapor Intrusion Guidance Document – Final (DTSC 2011a) and Vapor Intrusion Mitigation Advisory, Revision 1 (DTSC 2011b).

TMD shall review and approve the Vapor Intrusion Mitigation System Design prior to construction. Engineering measures or institutional controls shall be submitted to the City's Planning and Development Department prior to the issuance of any grading or building permits. The project applicant and/or contractor shall incorporate a sub-slab vapor barrier during construction, the implementation of which would prevent the potential for soil gas VOCs from migrating to indoor air.

The project applicant shall retain a qualified professional to certify that the accepted measures and controls are properly constructed and functioning at the project site. The efficacy of the measures and controls shall be confirmed and certified by a qualified professional pursuant to the construction quality assurance/quality control testing guidance of the DTSC's Vapor Intrusion Guidance Document – Final (October 2011). Written verification shall be submitted to TMD and the City.

TMD may require the creation of an Operations and Maintenance Plan to ensure that future operational activities (e.g., underground utility repairs), do not alter the effectiveness of the selected vapor intrusion mitigation system.

TMD shall review and approve the Operations and Maintenance Plan (if required) prior to occupancy. The City shall review the Operations and Maintenance Plan (if required) prior to issuing an occupancy permit. The project applicant shall implement the Operations and Maintenance Plan during occupancy at the project site.

Significance After Mitigation

In addition to adherence to existing State and local regulations as well as the City's Standard Conditions of Approval (listed under Impact HAZ-1), implementation of project mitigation measures HAZ-1 through HAZ-3 during demolition, construction, and operation of the project would reduce potential hazardous material impacts at the project site below applicable thresholds of significance by ensuring additional investigation and remedial measures, engineering controls, transportation of impacted materials, agency oversight, and/or site management practices ensure construction worker safety and the health of future workers and visitors.

c. Cumulative Impacts

Cumulative development has the potential to expose future area residents, employees, and visitors to current and former use of hazardous materials. Continued urban development in the Downtown area as described in Section 3, *Environmental Setting*, will cumulatively increase the potential for exposure to existing hazards associated with hazardous materials. Therefore, an overall increase in the potential for human health hazards will occur as intensification of development occurs in downtown Berkeley. However, overall, hazards and hazardous materials impacts associated with individual developments are site specific in nature and must be addressed on a case-by-case basis. For the proposed project, impacts would either be less than significant or less than significant with implementation of mitigation. Project mitigation measures HAZ-1 through HAZ-3 have been designed to ensure that potential contamination or hazards associated with the project would not escape the project site such that surrounding uses would be impacted. The magnitude of hazards for individual projects would depend upon the location, type, and size of development and the specific hazards associated with individual sites. Since hazards and hazardous materials are required to be examined as part of the permit application and environmental review process, it is anticipated that potential impacts associated with individual projects will be adequately addressed and mitigated prior to permit approval. Compliance with regulatory requirements, City of Berkeley Standard Conditions of Approval, and General Plan policies, including remedial action on contaminated sites, would avoid potential hazard impacts associated with cumulative development. With adherence to the City's Standard Conditions of Approval, General Plan policies, and other local, regional, state, and federal regulations, no significant cumulative human or environmental health impacts are anticipated, and the project's cumulative contribution to impacts would be less than significant.

4.4 Public Services

This section evaluates potential environmental impacts of the proposed project with respect to fire protection services. Impacts related to other public services, including police protection services, public schools, and parks are discussed in Section 15, *Public Services*, of the Infill Environmental Checklist (IEC) included in Appendix B of this EIR.

4.4.1 Setting

a. Fire Protection

The Berkeley Fire Department (BFD) provides fire protection and emergency medical services in Berkeley. The BFD service area represents 11 square miles and approximately 120,000 residents. The BFD also provides fire protection services to the University of California, Berkeley campus. The BFD operates seven fire stations including seven engine companies, two truck companies four ambulances, a battalion chief, a Hazardous Materials Response Team, two water rescue crafts and rescue swimmers. The BFD responds to over 17,000 service calls per year. The BFD is organized into nine divisions, including: Office of the Fire Chief, Operations, Training Division, Emergency Medical Services, Office of Emergency Services, Support Services, Administrative and Fiscal Services, Fire Prevention, Wildland Urban Interface, and Emergency Services. The BFD is responsible for protecting life, property and the environment. As needed, BFD is available 24/7 to respond to fire, medical, and rescue incidents (City of Berkeley 2023).

Facilities

The Fire Department maintains seven fire stations within City limits as shown in Figure 4.4-1:

- Station 1: 2442 Eighth Street
- Station 2: 2029 Berkeley Way
- Station 3: 2710 Russell Street
- Station 4: 1900 Marin Avenue
- Station 5: 2680 Shattuck Avenue
- Station 6: 999 Cedar Street
- Station 7: 3000 Shasta Road

The closest fire station to the project site is Station 2 located at 2029 Berkeley Way, approximately 0.4 miles from the project site.

Response Times

The BFD has an average response time of five minutes and fifty-three seconds (5:53) from when the station receives the call to the first unit arriving on the scene. This exceeds the best practice response time of 5:00 by 1:53 (Citygate Associates 2023).

Figure 4.4-1 Fire Stations in Berkeley

Imagery provided by Microsoft Bing and its licensors © 2023.

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Fig 4.13-1 Fire Stations in Berkeley

4.4.2 Regulatory Setting

a. Federal

There are no federal regulations pertaining to public services that are applicable to this analysis. Applicable State and local regulations are described below.

b. State

California Fire and Building Code

The State of California provides minimum standards for building design through the California Building Code (CBC), which is located in Part 2 of Title 24, California Building Standards Code, of the CCR. The CBC is based on the International Building Code but has been amended for California conditions. It is generally adopted on a jurisdiction-by-jurisdiction basis, subject to further modification based on local conditions. Commercial and residential buildings are plan-checked by local building officials for compliance with the CBC. Typical fire safety requirements of the CBC include: the installation of sprinklers in all high-rise buildings; the establishment of fire resistance standards for fire doors, building materials, and particular types of construction; and the clearance of debris and vegetation within a prescribed distance from occupied structures in wildfire hazard areas.

c. Local

Downtown Area Plan (DAP) and DAP EIR Summary

Because the proposed project is located in Downtown Berkeley, it must also be evaluated for its consistency with the Downtown Area Plan (DAP). While the DAP does not include goals or policies specific to fire department services, the project would be required to comply with Berkeley General Plan requirements, the CBC, and California Fire Code as discussed under threshold 1(a) below.

- **Impact PS-1: Fire Protection and Emergency Medical Services.** According to the DAP EIR, development under the DAP could result in an increase in the population of the Downtown Area by up to 3,252 new residents during the planning period. This increase in the number of Downtown Area residents could result in additional service calls to the Berkeley Fire Department. As individual development projects are proposed in the Downtown Area, Planning Department staff and the Berkeley Fire Department will review such projects to determine whether or not significant adverse effects to the City's ability to provide fire protection and emergency response services that might increase response times could result. Since the level of development anticipated in the Downtown Area is generally consistent with what has been anticipated in the Berkeley General Plan, it is not expected that such development would generate a need for new or expanded facilities to support fire protection and emergency response providers, and the impact would be less than significant**.** Also, as indicated in the City's DRAFT General Plan EIR (February, 2001, mitigation measure SVC- 6a and mitigation measure 6b, Page 91), the BFD will continue to review new development for potential increases in fire safety hazards to ensure that new development does not adversely impact fire services, and the City will annually review BFD staffing levels and development trends to determine whether additional staffing or impact fees are warranted to support fire services.

- **Impact PS-2: Police Protection.** Development under the DAP could result in an increase in the population of the Downtown Area by up to 3,252 new residents during the planning period. This increase in the number of Downtown Area residents could result in additional service calls to the Berkeley Police Department. As individual development projects are proposed in the Downtown Area, Planning Department staff and the Berkeley Police Department will review such projects to determine whether or not significant adverse effects to the City's ability to provide police services that might increase response times could result. Also, as indicated in the City's Draft General Plan EIR (February, 2001, mitigation measure SVC-4, page 89), the City shall annually review police staffing development trends and crime trends to determine whether additional police staffing is needed. Since the level of development anticipated in the Downtown Area is generally consistent with what has been anticipated in the Berkeley General Plan, it is not expected that such development would generate a need for new or expanded police facilities, and the impact would be less than significant.
- **Impact PS-3: Schools.** Development under the DAP during the planning period could add up to 3,252 new residents, and some of them would be likely to be public school students. The Berkeley Unified School District has not established student generation rates to estimate the number of students that might be anticipated with new development. However, the District does maintain a Facilities Construction Plan and the Berkeley Schools Excellence Project, which program and budget for facility and other system improvements so as to ensure adequate facilities and programs are available to serve local public school students. The level of development anticipated under the DAP is not expected to result in demand for school services that would exceed the existing or planned capacity of the District, and the District would not anticipate the need to develop new facilities or expand existing facilities to accommodate an increased number of school-age residents who might be living in the Downtown Area following development under the DAP. Project developers in the Downtown Area would be required to pay all applicable school impact fees to the Berkeley Unified School District, which (under California law) would effectively reduce any school-related impacts that might be associated with such development to a level of less than significant. Also, as indicated in the City's Draft General Plan EIR (February, 2001, mitigation measure SVC-5, page 90), the City and the BUSD will continue to work in concert to evaluate the impacts of new development on BUSD facilities.
- **Impact PS-4: Parks.** Development under the DAP could result in an increase in the population of the Downtown Area by up to 3,252 new residents during the planning period. Although a number of proposed improvements identified in the DAP could result in an increase in the acreage of open space available for recreational use in the Downtown Area (e.g., the "park blocks" along Shattuck Avenue south of Durant Avenue), the increase in the number of Downtown Area residents could place additional pressure on the only City park in the area: Martin Luther King Jr. Memorial Park at the Civic Center. However, residents in the Downtown Area would continue to have access to the public open space on the nearby University of California campus, which could relieve population pressure on Martin Luther King Jr. Memorial Park, and the DAP-related impact in terms of possible physical deterioration of existing parks would be less than significant.
- **Impact PS-5: Library Services.** Development under the DAP could result in an increase in the population of the Downtown Area by up to 3,252 new residents during the planning period. This increase in the number of Downtown Area residents could place additional demands on the Berkeley Central Library. Although the City of Berkeley has no formal methodology to

evaluate the adequacy of library services, the existing ratio of 3.12 items in the collection per Berkeley resident (325,000 books + 7,500 CDs and tapes + 1,400 periodicals = 333,900 items, divided by Berkeley's 1/1/08 estimated population of 106,697), would only drop slightly to 3.03 items per resident, which would be considered a less than significant impact on the library system. No new library facilities, and no expansion of existing library facilities, would be needed to serve the new residents of the Downtown Area.

- **Impact PS-6: Health and Human Services.** Development under the DAP could result in an increase in the population of the Downtown Area by up to 3,252 new residents during the planning period. This increase in the number of Downtown Area residents could place additional demands on providers of health and human services in Berkeley. Although the City of Berkeley has no formal methodology to evaluate the adequacy of health and human services, the additional population in the Downtown Area would not be likely to require new health/human services facilities or expansion of existing health/human services facilities, and the DAP-related impact would be less than significant.

Berkeley General Plan

Fire Protection Goals, Policies, and Actions

The Disaster Preparedness and Safety Element and the Transportation Element of the City's General Plan contain the following policies and actions related to fire protection services (City of Berkeley 2001a, 2001c):

Policy S-1 Response Planning. Ensure that the City's emergency response plans are current and incorporate the latest information on hazards, vulnerability, and resources. (Also see Transportation Policy T-28.)

Action G. Conduct coordinated planning and training between local and regional police, fire, and public health agencies in preparation for natural and man-made disasters, and ensure that the City's disaster response communication technologies are compatible with regional agency communication technologies.

Policy S-22 Fire Fighting Infrastructure. Reduce fire hazard risks in existing developed areas.

Action A. Develop proposals to make developed areas more accessible to emergency vehicles and reliable for evacuation. Consider restricting on-street parking, increasing parking fines in hazardous areas, and/or undergrounding overhead utilities. Require that all private access roads be maintained by a responsible party to ensure safe and expedient passage by the Fire Department at any time, and require approval of all locking devices by the Fire Department. Ensure that all public pathways are maintained to provide safe and accessible pedestrian evacuation routes from the hill areas.

Action B. Evaluate existing access to water supplies for fire suppression. Identify, prioritize, and implement capital improvements and acquire equipment to improve the supply and reliability of water for fire suppression. Continue to improve the water supply for firefighting to assure peak load water supply capabilities. Continue to work with EBMUD to coordinate water supply improvements. Develop aboveground, (transportable) water delivery systems.

Action C. Provide properly staffed and equipped fire stations and engine companies. Monitor response time from initial call to arrival and pursue a response time goal of four minutes from the nearest station to all parts of the city. Construct a new hill area fire station that has wildland firefighting equipment and ability[1].

Policy S-23 Property Maintenance. Reduce fire hazard risks in existing developed areas by ensuring that private property is maintained to minimize vulnerability to fire hazards.

Action A. Continue and expand existing vegetation management programs.

Action B. Property owners shall be responsible for maintaining their structures at a reasonable degree of fire and life safety to standards identified in adopted codes and ordinances.

Action C. Promote smoke detector installation in existing structures. Require the installation of smoke detectors as a condition of granting a permit for any work on existing residential and commercial buildings and as a condition for the transfer of property.

Action D. Promote fire extinguisher installation in existing structures, particularly in kitchens, garages, and workshops.

Action E. Require bracing of water heaters and gas appliances and the anchoring of houses to foundations to reduce fire ignitions following earthquakes.

Policy S-25 Fire Safety Education. Use Fire Department personnel to plan and conduct effective fire safety and prevention programs.

Action A. Provide fire safety presentations and programs to local schools, community groups, and neighborhoods.

Action B. Provide fire safety classes for high-occupancy institutional land uses, and commercial and industrial occupancies.

Action C. Develop and implement a program to improve public awareness and disseminate appropriate warnings during times of high fire danger.

Policy T-28 Emergency Access. Provide for emergency access to all parts of the city and safe evacuation routes. (Also see Disaster Preparedness and Safety Policy S-22.)

Action A. Do not install new full diverters or speed humps on streets identified on the Emergency Access and Evacuation Network map unless it is determined by the Fire and Police Departments that the installation will not significantly reduce emergency access or evacuation speeds. The Fire Department should be able to access all Berkeley locations within four minutes (see Disaster Preparedness and Safety Element). All other proposed traffic calming devices or obstructions to the free flow of traffic on these streets should be reviewed by the Fire and Police Departments to ensure that the proposed change will not significantly increase emergency response times or hinder effective evacuation of adjacent neighborhoods.

Action B. Maintain and improve pedestrian pathways throughout the city that are dedicated for public use and provide an alternative to the streets in case of an emergency evacuation.

[1] The Shasta Hills Fire Station completed construction in 2005.

Action C. Maintain and make available to the public up-to-date maps of all emergency access and evacuation routes.

Action D. Where necessary, consider parking restrictions to ensure adequate access for emergency vehicle access and evacuation in hill area neighborhoods with narrow streets.

Action E. Prioritize evacuation routes for undergrounding of overhead utilities.

Berkeley Municipal Code

Chapter 19.48, Berkeley Fire Code, of the Berkeley Municipal Code (BMC) adopts the 2022 California Fire Code as the City's fire code and provides City-specific amendments, as necessary. This chapter regulates the use of construction materials and requires the installation of specific fire safety features in new construction in Berkeley.

Berkeley Local Hazard Mitigation Plan

The City adopted its Local Hazard Mitigation Plan in 2019. The mitigation goals and priorities of the City's LHMP are to increase Berkeley's level of preparation for potential disasters and to minimize the impacts associated with natural and man-made hazards; identify strategies and tools to facilitate community disaster and hazards awareness and education; provide for the safety of Berkeley citizens by maintaining efficient, well-trained, and adequately equipped City personnel; encourage a disaster-resistant City and surrounding area by reducing the potential for loss of life, property damage, and environmental degradation from disasters and hazards; reduce the vulnerability of public and private facilities and infrastructure to the effects of earthquakes, fire, and landslides; and promote conditions and strategies that will accelerate the capacity for physical and economic recovery from disasters and hazards (City of Berkeley 2019). The City's Fire Department and Police Department are designated to respond to hazards and emergencies in Berkeley.

Standards of Cover and Community Risk Assessment for Berkeley Fire Department

Citygate Associates, LLC. Prepared a Standards of Cover and Community Risk Assessment for Berkeley Fire Department in June 2023. This Assessment defined appropriate levels of service based on a comprehensive analysis of historical performance; expectations; and existing and projected community risk factors, hazards, population growth and aging, topography, and the density and vertical growth of the build environment. This report also includes recommendations to be implemented by the Berkeley Fire Department to achieve appropriate levels of service. These recommendations include, but are not limited to, the addition of two ambulances which would require 16 additional staff members, increasing the staffing on six of the nine firefighting units from three to four personnel per day, adding an additional battalion chief to each shift, and designing and focus on new strategies to provide for traffic calming and pedestrian safety while not significantly worsening emergency response times or community evacuation times. The study found that if these strategies do not improve acute emergency response times, the City should construct infill fire or ambulance-only stations between the current busiest station pairs of Stations 2 and 5 and 1 and 6.

4.4.3 Impact Analysis

a. Significance Thresholds and Methodology

According to Appendix G of the *CEQA Guidelines*, impacts related to public services from implementation of the proposed project would be significant if the project would:

1. 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 objectives for any of the public services:
    a. Fire protection;
    b. Police protection;
    c. Schools;
    d. Parks; or
    e. Other public facilities.

Impacts related to Threshold 1(a) are analyzed below. Impacts to police protection services, public schools, and d other public facilities are discussed in Section 15, *Public Services*, of the IEC (Appendix B). Impacts associated with public facilities such as water, wastewater, and solid waste are addressed in Section 19, *Utilities and Service Systems*, of the IEC.

Public services information was acquired through review of relevant documents and communications with city staff and the BFD. The determination that the proposed project would or would not result in substantial adverse effects concerning public services considers the relevant policies and regulations established by State, local, and regional agencies, the proposed projects' compliance with such policies, and whether the proposed project would create the need for new or expanded facilities, the construction of which could result in environmental impacts.

In *City of Hayward v. Trustees of California State University* (2015) 242 Cal.App.4th 833, the Court of Appeal held that significant impacts under CEQA consist of adverse changes in any of the physical conditions within the area of a project and potential impacts on public safety services are not an environmental impact that CEQA requires a project applicant to mitigate: "[T]he obligation to provide adequate fire and emergency medical services is the responsibility of the city. (Cal. Const., art. XIII, § 35, subd. (a)(2) ["The protection of the public safety is the first responsibility of local government and local officials have an obligation to give priority to the provision of adequate public safety services."].) Thus, the need for additional fire department services is not an environmental impact that CEQA requires a project proponent to mitigate, but may require a city to address.

b. Project Impacts and Mitigation

Threshold 1a:	Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered fire protection facilities, or the need for new or physically altered fire protection facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives?

Impact PS-1 THE PROPOSED PROJECT WOULD INTRODUCE ADDITIONAL RESIDENTS AND A HIGH-RISE STRUCTURE TO THE DOWNTOWN AREA. THE PROPOSED PROJECT WOULD INCREASE DEMAND FOR FIRE PROTECTION SERVICES DOWNTOWN. HOWEVER, THE PROJECT IN AND OF ITSELF WOULD NOT REQUIRE THE EXPANSION OF FIRE SERVICES OR NECESSITATE THE CONSTRUCTION OF NEW FIRE FACILITIES. WITH COMPLIANCE WITH THE CBC, GENERAL PLAN POLICIES, AND THE CALIFORNIA FIRE CODE, IMPACTS RELATED TO FIRE SERVICE FACILITIES WOULD BE LESS THAN SIGNIFICANT.

The proposed project would not expand the BFD service area but would result in an increased demand in the downtown area within BFD's existing service area. The project would be required to comply with the CBC, California Fire Code, and policies included in the Berkeley General Plan, as listed in the *Setting* (subsection 4.4.1 above), which are designed to ensure that projects are fire resilient which would reduce the demand for fire protection services on site. The BFD would review project plans to ensure conformance with Fire Code requirements.

As discussed in the IEC (Appendix B), according to Steven Riggs, Fire Marshal, the community's latest evaluation and rating in 2022 by the Insurance Services Organization (ISO, Inc.) examined fire water availability throughout Berkeley. ISO found that in some cases existing fire water flows available within the geographic area covered by the DAP are deficient according to ISO's standard, including at Shattuck Avenue, Allston Way, and Durant Avenue. Kimley Horn prepared a Fire Flow Study Memorandum for the proposed project in October 2023. The purpose of the study was to verify that the existing East Bay Municipal Utility District (EBMUD) water infrastructure has sufficient capacity to satisfy the fire demand for the proposed project. The study calculated fire flow demand based on 2022 California Fire Code specifications and found that in the event of a fire the necessary fire flow for the project would be 1,750 gallons per minute (gpm) and the required sprinkler demand would be 2,750 gpm. The study concluded that the two proposed 8-inch fire service connections would be able to provide 1,375 gpm each (or 2,750 gpm total) of fire flow to the proposed building with a residual pressure of 118 pounds per square inch at the building sprinkler system point of connection. Two existing fire hydrants along Center Street would be able to provide an additional 875 gpm each (1,750 gpm total) of fire flow at 112 psi. Therefore, the existing water system has adequate capacity to support the fire demand of the proposed project.

Nonetheless, because the proposed project would add population to the Downtown, the proposed project would increase the demand for fire protections services in this area. Further, as a high-rise structure, the proposed project could further lengthen response times because firefighting units must travel to the site and then ascend several stories to where the patient or fire is located. As discussed in the Standards of Cover Study and Community Risk Assessment, the BFD is not fully capable of meeting current or future citywide fire demand. Continued growth in the city, including growth associated with the proposed high-rise project, would increase strain on department response times that already exceed best practice standards. However, the proposed project itself is not the sole reason for the required expansion of services as the city would need to expand services even when disregarding the proposed project and its associated population increase. While the

Standards of Cover Study and community Risk Assessment does state that the addition of up to two infill fire or ambulance-only stations may be needed, it includes recommendations such as department improvements and limiting traffic to improve response times before construction or expansion of fire stations is contemplated.

In November 2020, the City of Berkeley passed Measure FF, which mandates that the City enact a tax on construction and improvements within Berkeley. Measure FF is estimated to generate approximately $8.5 million annually, which would be used to implement a state-of-the-art 911 dispatch system to ensure rapid assistance to emergency medical calls, increase ambulance and paramedic capacity, to better meet the needs of all residents, and strengthen wildfire, earthquake and other disaster prevention and preparedness with new, expanded emergency warning systems, fire fuel reduction and evacuation planning. These funds will allow the Fire Department to address increased call volumes and emergency medical service needs that result from city-wide increases in residential density, including the anticipated increase allowed under the proposed project.

While the proposed project would increase demand for fire services, the project itself would not necessitate expansion of fire infrastructure, such as additional fire stations. The Standards of Cover Study and Community Risk Assessment recommends the addition of an infill fire stations; however, it is not known where such facilities would be located. No location has been identified for a new fire station. When and if the Fire Department proposes a new station and identifies an appropriate site and funding, the City will conduct an evaluation of the station's environmental impacts under CEQA.

Overall, the proposed project itself would not result in the need for new or expanded fire facilities, the construction of which could cause significant environmental impacts. This impact would be less than significant.

Mitigation Measures

This impact would be less than significant and therefore no mitigation measures are required.

c. Cumulative Impacts

As described in Section 3, *Environmental Setting*, cumulative development involves buildout in the DAP Area as projected by the DAP and discussed in the DAP EIR. Cumulative development in the Downtown would increase demand for fire protection services.

The proposed project would increase demand and potentially lead to an increase in reported incidents, leading to longer response times. The Standards of Cover Study and Community Risk Assessment included several recommendations to improve response times but concluded that if the recommended strategies do not improve response times, the City should construct infill fire or ambulance-only stations between the current busiest station pairs of Stations 2 and 5 and 1 and 6. Therefore, an additional fire station may be needed. Nonetheless, although the city may eventually determine that a new fire station or ambulance-only station is needed, these stations would be needed with or without the project and would be located in developed areas and would be infill development. It is unlikely that the construction of one or two stations would result in significant environmental impacts, and future construction would undergo project-specific CEQA review. Therefore, a significant cumulative impact associated with construction of future fire facilities would not occur. Further, as described above under Impact PS-1, with continued implementation of General Plan policies, Fire Code requirements, and with additional funding sources under Measure FF, the proposed project would not in and of itself necessitate the construction of a new fire station. The proposed project is within the assumptions for growth in the Downtown as analyzed in the DAP

EIR and also within the growth assumptions analyzed in the Standards of Cover Study and Community Risk Assessment. The DAP EIR found that development under the DAP would not result in significant public services impacts. Therefore, the project-specific impacts related to fire protection facilities would be less than significant and the project would not result in a cumulatively considerable contribution to a significant cumulative impact.

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4.5 Tribal Cultural Resources

This section analyzes the proposed project's impacts on tribal cultural resources. Tribal cultural resources are those resources identified by California Native American Tribes in consultation with lead agencies during tribal consultation [also referred to as Assembly Bill (AB) 52 consultation]. Impacts associated with historic and archaeological resources are addressed in Section 4.1, *Cultural Resources*.

4.5.1 Regulatory Setting

This section includes a discussion of the applicable State and local laws, ordinances, regulations, and standards governing cultural resources, which must be adhered to before and during implementation of the proposed project.

a. Federal Regulations

No federal regulations are applicable to this topic.

b. State Regulations

Assembly Bill 52 of 2014

AB 52 expanded CEQA by defining a new resource category, "tribal cultural resources." AB 52 establishes that "a project with an effect that may cause a substantial adverse change in the significance of a tribal cultural resource is a project that may have a significant effect on the environment" (Public Resources Code [PRC] Section 21084.2). AB 52 further requires that, when feasible, the lead agency shall establish measures to avoid impacts that would alter the significant characteristics of a tribal cultural resource (PRC Section 21084.3). PRC Section 21074 (a)(1)(A) and (B) defines tribal cultural resources as "sites, features, places, cultural landscapes, sacred places, and objects with cultural value to a California Native American Tribe" and that meet either of the following criteria:

a. Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in PRC Section 5020.1(k).
b. A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of PRC Section 5024.1. In applying the criteria set forth in subdivision (c) of PRC Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American Tribe.

In recognition of California Native American tribal sovereignty and the unique relationship of California local governments and public agencies with California Native American tribal governments and with respect to the interests and roles of project proponents, it is the intent AB 52 to accomplish the following:

1. Recognize that California Native American prehistoric, historic, archaeological, cultural, and sacred places are essential elements in tribal cultural traditions, heritages, and identities.
2. Establish a new category of resources in CEQA called "tribal cultural resources" that considers the tribal cultural values in addition to the scientific and archaeological values when determining impacts and mitigation.

3. Establish examples of mitigation measures for tribal cultural resources that uphold the existing mitigation preference for historical and archaeological resources of preservation in place, if feasible.
4. Recognize that California Native American tribes may have expertise with regard to their tribal history and practices, which concern the tribal cultural resources with which they are traditionally and culturally affiliated (because CEQA calls for a sufficient degree of analysis, tribal knowledge about the land and tribal cultural resources at issue should be included in environmental assessments for projects that may have a significant impact on those resources).
5. In recognition of their governmental status, establish a meaningful consultation process between California Native American tribal governments and lead agencies, respecting the interests and roles of all California Native American tribes and project proponents, and the level of required confidentiality concerning tribal cultural resources, early in the CEQA environmental review process, so that tribal cultural resources can be identified, and culturally appropriate mitigation and mitigation monitoring programs can be considered by the decision-making body of the lead agency.
6. Recognize the unique history of California Native American tribes and uphold existing rights of all California Native American tribes to participate in, and contribute their knowledge to, the environmental review process pursuant to CEQA.
7. Ensure that local and tribal governments, public agencies, and project proponents have information available, early in CEQA environmental review process, for purposes of identifying and addressing potential adverse impacts to tribal cultural resources and to reduce the potential for delay and conflicts in the environmental review process.
8. Enable California Native American tribes to manage and accept conveyances of, and act as caretakers of, tribal cultural resources.
9. Establish that a substantial adverse change to a tribal cultural resource has a significant effect on the environment.

The formal consultation process requires lead agencies to work with California tribes traditionally and culturally affiliated with the geographic area of the proposed project. This includes those that have previously requested notice and that are listed by the State as having expertise regarding potential resources and impacts. Consultation must be completed before a CEQA document can be certified or adopted.

Codes Governing Human Remains

The disposition of human remains is governed by Section 7050.5 of the California Health and Safety Code and PRC Sections 5097.94 and 5097.98 and falls within the jurisdiction of the Native American Heritage Commission (NAHC). If human remains are discovered, the County Coroner must be notified within 48 hours and there should be no further disturbance to the site where the remains were found. If the remains are determined by the coroner to be Native American, the coroner is responsible for contacting the NAHC within 24 hours. The NAHC, pursuant to Section 5097.98, will immediately notify those persons it believes to be most likely descended from the deceased Native Americans so they can inspect the burial site and make recommendations for treatment or disposal.

c. Local Regulations

Downtown Area Plan (DAP) and DAP EIR Summary

Because the proposed project is located in Downtown Berkeley, it must also be evaluated for its consistency with the Downtown Area Plan (DAP). Though the DAP EIR does not specifically address tribal cultural resources, it does discuss cultural resources impacts on pages 4-93 through 4-124. The DAP EIR identified the following impacts and mitigation measures that are relevant to cultural resources, which may also be identified as tribal cultural resources:

- **Impact CUL-3: Possible Disturbance of Unidentified Subsurface Archaeological Resources.** Although no archaeological resources are currently known to exist in the Downtown Area, ground-disturbing activities associated with new construction and related underground utility installation could result in the destruction or disturbance of unidentified subsurface archaeological resources, which would represent a potentially significant impact.
  - **Mitigation CUL-3: Halt Work/Archaeological Evaluation/Site-Specific Mitigation**. If archaeological resources are uncovered during construction activities, all work within 50 feet of the discovery shall be redirected until a qualified archaeologist can be contacted to evaluate the situation, determine if the deposit qualifies as an archaeological resource, and provide recommendations. If the deposit does not qualify as an archaeological resource, then no further protection or study is necessary. If the deposit does qualify as an archaeological resource, then the impacts to the deposit shall be avoided by project activities. If the deposit cannot be avoided, adverse impacts to the deposit must be mitigated. Mitigation may include, but is not limited to, archaeological data recovery. Upon completion of the archaeologist's assessment, a report should be prepared documenting the methods, findings and recommendations. The report should be submitted to the City, the project proponent and the NWIC.

- **Impact CUL-5: Possible Disturbance of Unidentified Human Remains.** Ground disturbing activities associated with new construction and related underground utility installation could result in the disturbance of unidentified subsurface human remains, which would represent a potentially significant impact.
  - **Mitigation CUL-5: Halt Work/Coroner's Evaluation/Native American Heritage Consultation/Compliance with Most Likely Descendent Recommendations.** If human remains are encountered during construction activities, all work within 50 feet of the remains should be redirected and the County Coroner notified immediately. At the same time, an archaeologist shall be contacted to assess the situation. 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 NAHC will identify a Native American Most Likely Descendant (MLD) to inspect the site and provide recommendations for the proper treatment of the remains and any associated grave goods. The archaeologist shall recover scientifically-valuable information, as appropriate and in accordance with the recommendations of the MLD. Upon completion of the archaeologist's assessment, a report should be prepared documenting methods and results, as well as recommendations regarding the treatment of the human remains and any associated archaeological materials. The report should be submitted to the City, the project proponent and the NWIC.

4.5.2 Tribal Cultural Resources Setting

a. Ethnographic Context

The project site lies within the traditional territory of the Ohlone (or Costanoan) people. According to early ethnographers, Ohlone territory extends along the California coast from the point where the San Joaquin and Sacramento rivers merge into the San Francisco Bay to Point Sur. Their inland boundary was limited to the interior Coast Ranges. The Ohlone language belongs to the Penutian family, with several distinct dialects throughout the region (Kroeber 1925). Ethnographers divided it into eight regional dialects: Karkin, Chochenyo, Ramaytush, Awaswas, Taymen, Mutsun, Rumsen, and Chalon (Milliken et al. 2009, Jones 2015).

The pre-contact Ohlone were semi-sedentary with a settlement system characterized by base camps and seasonal reserve camps composed of tule reed houses with thatched roofs made of matted grass (Schick 1994, Skowronek 1998). Just outside base camps, large sweat houses were built into the ground near stream banks used for spiritual ceremonies and possibly hygiene (Jones 2015, Schick 1994,). Villages were divided into small polities, each of which was governed by a chief responsible for settling disputes, acting as a war leader during times of conflict, and supervising economic and ceremonial activities (Skowronek 1998, Kroeber 1925). Social organization appeared flexible to ethnographers, and any sort of social hierarchy was not apparent to mission priests (Skowronek 1998).

Archaeological investigations helped inform Ohlone mortuary rituals along with ethnographic evidence. Cemeteries were set away from villages and visited during the annual Mourning Anniversary (Leventhal and DiGiuseppe 2009). Ceremonial human grave offerings might include Olivella beads, as well as tools like drills, mortars, pestles, hammerstones, bone awls, and utilized flakes (Leventhal and DiGiuseppe 2009). Ohlone mythology includes animal characterization and animism, which was the basis for several creation narratives. Ritually burying animals, such as a wolf, squirrel, deer, mountain lion, gray fox, elk, badger, grizzly bear, blue goose, and bat ray, was commonly practiced. Similar to human burials, ceremonial offerings were added to ritual animal graves like shell beads, ornaments, and exotic goods (Kroeber 1925, Field and Leventhal 2003, Jones 2010).

Ohlone food sources were based on hunting, gathering, and fishing (Kroeber 1925, Skowronek 1998). Larger animals, like bears, might be avoided, but smaller game was hunted and snared on a regular basis (Schick 1944: 17). The acorn was an important staple and was prepared by leaching acorn meal in openwork baskets and in holes dug into the sand (Kroeber 1925, Levy 1978). The Ohlone also practiced controlled burning to facilitate plant growth (Kroeber 1925, Skowronek 1998). During specific seasons or in times of drought, the reserve camps would be utilized for gathering seasonal food and accessing food storage (Schick 1994). The Ohlone fished from tule reed canoes using nets and gorge hooks (Schick 1994: 16–17). Mussels were a particularly important food resource. Sea mammals such as sea lions and seals were hunted, and beached whales were consumed (Kroeber 1925).

Seven Franciscan missions were built in Ohlone territory in the late 1700s, and all members of the Ohlone group were eventually brought into the mission system (Kroeber 1925, Skowronek 1998, Milliken et al. 2009). After the establishment of the missions, the Ohlone population dwindled from roughly 10,000 people in 1770 to 1,300 by 1814 (Skowronek 1998). In 1973, the population of people with Ohlone descent was estimated at fewer than 300. The descendants of the Ohlone united in 1971 and have since arranged political and cultural organizations to revitalize aspects of

their culture (Skowronek 1998). Today, the descendant communities of the Ohlone can be found in multiple tribes throughout Northern and Central California.

b. Tribal Consultation and Results

The City of Berkeley prepared and mailed AB 52 notification letters on March 23, 2023, to tribes listed by the Native American Heritage Commission as being traditionally and culturally affiliated with the project vicinity. The tribal contacts included the following:

- Irenne Zwierlein, Chairwoman of the Amah Mutsun Band of Mission San Juan Bautista
- Ann Marie Sayers, Chairperson of the Indian Canyon Mutsun Band of Costanoan
- Kanyon Sayers-Roods, Most Likely Descendant of the Indian Canyon Mutsun Band of Costanoan
- Tony Cerda, Chairperson of the Costanoan Rumsen Carmel Tribe
- Donald Duncan, Chairperson of the Guidiville Indian Rancheria
- Monica Arellano, Vice Chairwoman of the Muwekma Ohlone Indian Tribe of the SF Bay Area
- Timothy Perez, contact for the North Valley Yokuts Tribe
- Katherine Perez, Chairperson of the North Valley Yokuts Tribe
- Andrew Galvan, contact for the Ohlone Indian Tribe
- Desiree Vigil, Tribal Historic Preservation Officer of the Ohlone Indian Tribe
- Kenneth Woodrow, Chairperson of the Wuksache Indian Tribe/Eshom Valley Band
- Corrina Gould, Chairperson of the Confederated Villages of Lisjan[1]

Under AB 52, tribes have 30 days to request consultation from receipt of the notification letters.

On March 23, 2023, the Northern Valley Yokuts Tribe/Nototomne Cultural Preservation requested consultation and requested the results of record searches that had been conducted. The City of Berkeley responded to set up a consultation meeting and sent the SLF search results on March 28. On April 13, 2023, the City of Berkeley met with Northern Valley Yokuts Tribe/Nototomne Cultural Preservation over teleconference to discuss the project and proposed mitigation measures. On June 14, 2023, the City of Berkeley sent the draft Cultural Resources Technical Report, which included the CHRIS records search results, to the Northern Valley Yokuts Tribe/Nototomne Cultural Preservation. The City of Berkeley sent follow up emails on August 24, September 14, October 4, and December 18, 2023 and left voicemails on September 5, 2023 and October 5, 2023, to verify whether the Tribe had reviewed the report and proposed mitigation measures and wished to meet again, but no response was received.

On March 27, 2023, the Confederated Villages of Lisjan responded and requested a copy of the final CHRIS and EIR for this project, along with the SLF from NAHC and any additional archeological reports. The City of Berkeley provided the results of the SLF search on March 28. On June 14, 2023, the City of Berkeley sent the draft Cultural Resources Technical Report, which included the CHRIS records search results, to the Confederated Villages of Lisjan. The City of Berkeley met with the Confederated Villages of Lisjan on April 26, 2023, September 20, 2023, October 18, 2023, January 17, 2024, and March 6, 2024 to discuss proposed mitigation measures. The Confederated Villages of Lisjan requested a Ground Penetrating Radar (GPR) survey to determine the potential for buried resources or remains to be discovered and also requested additional detail on how resources and

[1] This tribe refers to themselves as Confederated Villages of Lisjan Nation but in this report they are referred to as Confederated Villages of Lisjan or CVL.

remains would be treated should they be found. The Tribe expressed a preference for resources to be reburied on site and for the Tribe to have access. These requests are reflected in mitigation measures TCR-1 and CR-3 through CR-6 (Section 4.1). To date, the City has not received responses for additional consultation under AB 52.

The City of Berkeley sent emails to the Confederate Villages of Lisjan on March 21, 2024, and to the North Valley Yokuts Tribe/Nototomne Cultural Preservation on March 27, 2024, to conclude AB 52 consultation.

Correspondence related to AB 52 is included in Appendix F.

c. Project Site Existing Conditions

The analysis in this section is based, in part, on the Cultural Resources Technical Report prepared by Rincon Consultants (June 2023) and the GPR Technical Report prepared by Byram (December 2023) for the 2128 Oxford Street Mixed-Use Project. As it relates to cultural resources of interest to Tribes, Rincon's study included archival research including a cultural resources records search of the California Historical Resources Information System (CHRIS), a Sacred Lands File (SLF) search by the Native American Heritage Commission (NAHC), and the preparation of Department of Parks and Recreation (DPR) Series 523 forms. The GPR study was conducted to identify the potential for subsurface archaeological materials within accessible areas within the project site, consisting generally of the areas currently being used for surface parking.

On December 15, 2022, the NAHC responded to the SLF search request, stating that the project site is positive for sacred lands.

The CHRIS records search and background research identified 93 cultural resources within 0.25-mile of the project site, including two Native American resources, one of which is mapped within the project site. Resource P-01-010538 is identified as a Native American burial which according to records obtained from the CHRIS, was reportedly removed from the site in 1959 (Pettitt 1973) but was not formally recorded until 2001. The burial is reported to have been discovered during construction activities at the site of the Kellogg School (Schwartz 2001).

The results of the GPR identified subsurface anomalies interpreted to be consistent with historic-period features including privies, refuse pits, a structural foundation or rubble layer, and possible pavement, or possibly prehistoric features, as well as a stratigraphic transition possibly between historic and prehistoric sediments (Byram 2023). The GPR results are consistent with geotechnical observations indicating the presence of historic-period materials in the subsurface underlain by native soils (Marcus et al. 2022). Native soils across the project site consist of Holocene-age alluvial sediments deposited from adjacent Strawberry Creek contemporary with prehistoric occupation of the area.

Based on the results of the studies described above, one archaeological resource was identified consisting of a multi-component (prehistoric and historic period) site (temporary designation Oxf-001). The historic period component consists of features such as privies, refuse pits, and possible foundations. The prehistoric component consists of a Native American burial (P-01-010538; which has been removed in 1959) and the potential presence of prehistoric features. The Confederated Villages of Lisjan has identified the Native American burial and any other archaeological materials of Native American origin to be tribal cultural resources.

4.5.3 Impact Analysis

a. Methodology and Significance Thresholds

Consistent with the *CEQA Guidelines*, impacts related to tribal cultural resources would be considered potentially significant if implementation of the project would:

1. Cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:
   a. Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k); or
   b. A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resource Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.

b. Project Impacts and Mitigation

Threshold 1: Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:

a. Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k), or

b. A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resource Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe?

Impact TCR-1 DEMOLITION AND EXCAVATION FOR THE PROPOSED PROJECT MAY RESULT IN DAMAGE TO OR DESTRUCTION OF A POTENTIAL TRIBAL CULTURAL RESOURCE (OXF-001). HOWEVER, THIS IMPACT WOULD BE LESS THAN SIGNIFICANT WITH MITIGATION INCORPORATED.

The project would involve demolition of the existing buildings and removal of the paved parking lot. Excavation for the subterranean parking stackers would reach a maximum depth of approximately 15 feet below ground surface. No tribal cultural resources listed or eligible for listing in the CRHR as described in Threshold 1(a) or through the City's discretion as described in Threshold 1(b) have been identified within the project site. However, Confederated Villages of Lisjan has identified the previously removed Native American burial and any other materials of Native American origin associated with Oxf-001 as tribal cultural resources. The proposed project could result in substantial adverse change to Oxf-001 in the form of demolition or destruction as a result of project-related

grading and excavation activities. Such an impact would be considered a significant impact to a tribal cultural resource under CEQA. The proposed project would be required to implement the following DAP EIR mitigation measures CUL-3 and CUL-5 and the City's Standard Condition of Approval related to archaeological resources:

> **DAP EIR Mitigation Measure CUL-3: Halt Work/Archaeological Evaluation/Site-Specific Mitigation**. If archaeological resources are uncovered during construction activities, all work within 50 feet of the discovery shall be redirected until a qualified archaeologist can be contacted to evaluate the situation, determine if the deposit qualifies as an archaeological resource, and provide recommendations. If the deposit does not qualify as an archaeological resource, then no further protection or study is necessary. If the deposit does qualify as an archaeological resource, then the impacts to the deposit shall be avoided by project activities. If the deposit cannot be avoided, adverse impacts to the deposit must be mitigated. Mitigation may include, but is not limited to, archaeological data recovery. Upon completion of the archaeologist's assessment, a report should be prepared documenting the methods, findings and recommendations. The report should be submitted to the City, the project proponent and the NWIC.
>
> **DAP EIR Mitigation Measure CUL-5: Halt Work/Coroner's Evaluation/Native American Heritage Consultation/Compliance with Most Likely Descendent Recommendations**. If human remains are encountered during construction activities, all work within 50 feet of the remains should be redirected and the County Coroner notified immediately. At the same time, an archaeologist shall be contacted to assess the situation. 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 NAHC will identify a Native American Most Likely Descendant (MLD) to inspect the site and provide recommendations for the proper treatment of the remains and any associated grave goods. The archaeologist shall recover scientifically-valuable information, as appropriate and in accordance with the recommendations of the MLD. Upon completion of the archaeologist's assessment, a report should be prepared documenting methods and results, as well as recommendations regarding the treatment of the human remains and any associated archaeological materials. The report should be submitted to the City, the project proponent and the NWIC.
>
> **Condition of Approval: Archaeological Resources (*Ongoing throughout demolition, grading, and/or construction*).** B. If any find is determined to be significant, representatives of the project proponent and/or lead agency and the qualified professional would meet to determine the appropriate avoidance measures or other appropriate measure, with the ultimate determination to be made by the City of Berkeley. All significant cultural materials recovered shall be subject to analysis, professional museum curation, or reburial, and/or a report prepared by the qualified professional according to current professional standards. There shall be no destructive or invasive testing on sacred items, burial goods and Native American human remains (invasive procedures includes photography of cultural materials).

Although the DAP EIR mitigation measures and the City's Standard Condition of Approval above reduce project impacts to tribal cultural resources, a Native American burial is recorded as removed from the project site in 1959 and considered a part of multicomponent resource Oxf-001. The prehistoric component of Oxf-001 would be subject to substantial adverse change in the form of demolition or destruction as a result of project-related grading and excavation activities. Therefore, impacts to tribal cultural resources are potentially significant.

Mitigation Measures

Implementation of DAP EIR mitigation measures CUL-3 and CUL-5, project mitigation measures CR-3 through CR-5 listed in Section 4.1, *Cultural Resources,* and the following mitigation measures are required:

Project Mitigation Measure TCR-1 Native American Monitoring

Prior to ground disturbing activities, a Native American monitor from the Confederated Villages of Lisjan shall be retained. If a Native American monitor from the Confederated Villages of Lisjan cannot be retained, another Tribe with cultural affiliations to the project site can be contacted for monitoring. The consulting Tribe, in consultation with the lead agency, and in coordination with the qualified archaeologist will have the authority to halt and redirect work should any archaeological or tribal cultural resources be identified during monitoring. If archaeological or tribal cultural resources are encountered during ground-disturbing activities, work within 50 feet of the find must halt and the find evaluated for listing in the CRHR and NRHP. Monitoring may be reduced or halted at the discretion of the Native American monitor, in consultation with the lead agency, as warranted by conditions such as encountering bedrock, sediments being excavated are fill, or negative findings during the first 50 percent of the entire area of ground-disturbance. Avoidance and preservation in place, as well as other mitigation options identified in PRC Section 21084.3 shall be considered by the lead agency. However, if these measures are determined infeasible, treatment shall be implemented in coordination amongst the Confederated Villages of Lisjan, the City, and the Qualified Archaeologist. If monitoring is reduced to spot-checking, spot-checking shall occur when ground-disturbance moves to a new location within the project site and when ground disturbance will extend to depths not previously reached (unless those depths are within bedrock).

Project Mitigation Measure TCR-2 Strawberry Creek Ohlone Past & Present Interpretive Display

The project applicant shall be responsible for the design, production and installation of a permanent interpretive display that focuses on the Confederated Villages of Lisjan's past/present use of the area around Strawberry Creek in Downtown Berkeley. The display shall be designed in consultation with the Confederated Villages of Lisjan and shall be located in a publicly-accessible area, prior to receipt of occupancy. The style of display (e.g., mounted story board, mural, pavement installation, etc.) shall be selected in consultation with the Confederated Villages of Lisjan with the goal of educating the public about the area's significance to the Confederated Villages of Lisjan. Plans for the display shall be subject to review and approval by the City's Land Use Planning Division prior to installation.

Significance After Mitigation

Implementation of DAP EIR mitigation measures CUL-3 and CUL-5, the City's Standard Conditions of Approval, project mitigation measures CR-3 through CR-5 listed in Section 4.1, *Cultural Resources,* of this EIR, and project mitigation measures TCR-1 and TCR-2 listed above would reduce impacts to tribal cultural resources. This impact would be less than significant with implementation of mitigation.

c. Cumulative Impacts

The proposed project would result in a less than significant impact to a tribal cultural resource with mitigation incorporated, as noted in Impact TCR-1 above. Adherence to DAP EIR mitigation

measures CUL-3 and CUL-5, the City's Standard Conditions of Approval, project mitigation measures CR-3 through CR-5 in Section 4.1, *Cultural Resources,* of this EIR, and project mitigation measures TCR-1 and TCR-2 would reduce potential impacts to tribal cultural resources. Therefore, cumulative tribal cultural resources impacts would be less than significant, and the project's contribution would not be cumulatively considerable.

5 Other CEQA Required Discussions

This section discusses significant environmental impacts and irreversible environmental impacts that would be caused by the proposed project.

CEQA Guidelines Section 15126(d) requires a discussion of a proposed project's potential to foster economic or population growth, including ways in which a project could remove an obstacle to growth. However, according to *CEQA Guidelines* Section 15183.3(e), "an infill EIR need not analyze growth inducing impacts." Therefore, because this EIR is an infill EIR prepared in accordance with *CEQA Guidelines* Section 15183.3, this EIR does not analyze growth-inducing impacts.

5.1 Significant Unavoidable Effects

CEQA Guidelines Section 15126(b) requires that an EIR identify significant environmental impacts which cannot be avoided if the proposed project is implemented. These include impacts that a project would cause which cannot be reduced to a less than significant with the application of mitigation measures. The implications and reasons why the project is being proposed, notwithstanding, must be described.

As discussed in Section 4.1, *Cultural Resources*, of this EIR, implementation of the proposed project would result in significant, unavoidable impacts associated historical resources, specifically the demolition of the building at 2142 Center Street which is eligible for listing on the National Register of Historic Places (NRHP), the California Register of Historical Resources (CRHR), local designation, and is a contributor to a historic downtown Shattuck Avenue District.

5.2 Irreversible Environmental Effects

CEQA Guidelines Section 15126(d) requires a discussion of any significant irreversible environmental changes which would be caused by implementation of the proposed project. Such significant irreversible environmental changes may include the following:

- Use of non-renewable resources during the initial and continued phases of the project which would be irreversible because a large commitment of such resources makes removal or non-use unlikely.
- Primary impacts and, particularly secondary impacts (such as highway improvement which provides access to a previously inaccessible area) which generally commit future generations to similar uses.
- Irreversible damage which may result from environmental accidents associated with the project.

The proposed project involves infill development on a currently developed site in the City of Berkeley. Construction and operation of the project would involve an irreversible commitment of construction materials and non-renewable energy resources. Construction of the proposed project would require building materials and energy, including non-renewable resources. Consumption of these resources would occur with any development in Berkeley and are not unique to the proposed project.

The proposed project would also irreversibly increase local demand for non-renewable energy resources such as electricity. However, development would be subject to the energy conservation requirements of the California Energy Code (Title 24, Part 6, of the California Code of Regulations, *California's Energy Efficiency Standards for Residential and Nonresidential Buildings*) and the California Green Building Standards Code (Title 24, Part 11 of the California Code of Regulations). The California Energy Code provides energy conservation standards for all new and renovated commercial and residential buildings constructed in California, and the Green Building Standards Code requires solar access, natural ventilation, and stormwater capture. The proposed project would include an all-electric design and would utilize energy efficient lighting and appliances in all residential units; reclaimed stormwater for irrigation; water efficient appliances and fixtures in all residential units; EV charging infrastructure consistent with Tier 2 CALGreen standards; diversion of a minimum of 65 percent of other nonhazardous construction and demolition waste; and planting of mostly low and very low water use plants which would comply with the California Water Efficient Landscape Ordinance (WELO). Consequently, development would not use unusual amounts of energy or construction materials and impacts related to consumption of non-renewable resources would be less than significant. Again, consumption of these resources would occur with any development in the region and is not unique to the proposed project.

Additional vehicle trips associated with the proposed project would incrementally increase local traffic and regional air pollutant and greenhouse gas emissions. As discussed in the IEC (Appendix B), development and operation of the proposed project would not generate air quality or GHG emissions that would result in a significant impact. Additionally, Section 17, *Transportation*, of the IEC (Appendix B) concludes that long-term impacts associated with the proposed project would be less than significant based on City and regional thresholds.

Growth accommodated by the proposed project would require an irreversible commitment of fire protection services, law enforcement, water supply, wastewater treatment, and solid waste disposal services', however, as described in Section 4.4, *Public Services*, of this EIR and Section 15, *Public Services*, and Section 19, *Utilities and Service Systems,* of the IEC (Appendix B), these impacts would be less than significant.

6 Alternatives

As required by *CEQA Guidelines* Section 15126.6, this EIR examines a range of reasonable alternatives to the proposed project that would attain most of the basic project objectives but would avoid or substantially lessen the significant adverse impacts. Section 15126.6 also requires consideration of a "No Project" alternative, regardless of whether it would achieve the project objectives or lessen its environmental effects.

As discussed in Section 2, *Project Description*, the objectives for the proposed project, are as follows:

- Implement the Downtown Area Plan (DAP) by leveraging the development potential under Zoning Ordinance standards and State law to generate the revenue necessary to provide on-site affordable housing and construct an environmentally superior transit-oriented housing project, plus provide additional community and public benefits, while maintaining project financial feasibility.
- Generate high-quality, transit-oriented, and sustainable market rate housing to support and contribute substantial affordable housing and in-lieu fees toward the construction of affordable housing, as required by the Berkeley Municipal Code.
- Activate the pedestrian environment along Oxford Street and Center Street with a building design and ground floor interface with vibrant, walkable retail and pedestrian amenities.
- Provide an opportunity through the payment of substantial Streets and Open Space Improvements (SOSIP) fees to fulfill the vision of the DAP to close Center Street (at least a portion of it) to vehicle traffic and allow for an expanded pedestrian amenity space on one of the highest pedestrian-traveled streets in the East Bay.
- Provide a green building using environmentally sustainable siting, development, and construction practices, including LEED Gold or equivalent certification and an all-electric building system.
- Incorporate ecologically beneficial native and drought-tolerant landscaping that promotes watershed health and creates safe, comfortable, and inviting open spaces.

Included in this analysis are three alternatives, including the CEQA-required "no project" alternative, that involve changes to the project that may reduce the project-related environmental impacts as identified in this EIR. Alternatives have been developed to provide a reasonable range of options to consider that would help decision makers and the public understand the general implications of revising or eliminating certain components of the proposed project.

The following alternatives are evaluated in this EIR:

- Alternative 1: No Project Alternative
- Alternative 2: 2142 Center Street Building to Remain Alternative
- Alternative 3: Façade Preservation Alternative

Detailed descriptions of the alternatives are included in the impact analysis for each alternative. The potential environmental impacts of each alternative are analyzed in Sections 6.1 through 6.3.

6.1 Alternatives Considered but Rejected

One other alternative was considered by the City but rejected. To avoid impacts to buried cultural resources or tribal cultural resources, an alternative was considered that involved developing the site with housing but avoiding all ground disturbance. While this alternative could meet most of the project objectives by providing housing, due to the shallow nature of the resources it was determined that it would not be feasible to build housing without some level of ground disturbance for foundation structure support and utility trenching such that the resources could be avoided. Therefore, the City has considered but rejected an alternative that involved constructing housing without ground disturbance.

6.2 Alternative 1: No Project Alternative

6.2.1 Description

The No Project Alternative assumes that the proposed 26-story mixed-use building with up to 463 residential units and approximately 15,000 square feet of retail and restaurant space are not constructed. The project site is currently developed with two existing buildings that would remain under this alternative. The building located at 2128 Oxford Street is two stories tall and includes a bakery, restaurant/bar, and vacant storefronts on the ground floor. There is also a parklet located on the ground floor along the Oxford Street frontage. The building located at 2124 Center Street is a two-story building with five restaurants and two cafes on the ground floor, along with presently vacant storefronts. The building at 2142 Center Street includes 16 rent-controlled residential units on the second floor, all of which are currently vacant. The No Project Alternative would not meet any of the Project Objectives.

6.2.2 Impact Analysis

a. Cultural Resources

As described in Section 4.1, *Cultural Resources*, the building at 2142 Center Street was found individually eligible for local designation and is a contributor to the CRHR-eligible Shattuck Avenue Commercial Corridor Historic District. Construction of the proposed project would result in demolition of the building at 2142 Center Street, and impacts would be significant and unavoidable. Under the No Project alternative, demolition of the building at 2142 Center Street would not occur and significant and unavoidable impacts to historical resources would be avoided and no impact would occur. Project Mitigation Measure CR-1 and Project Mitigation Measure CR-2 would not be required.

Under Alternative 1, construction would not occur, which would reduce potential impacts to previously unidentified archaeological resources and human remains. Impacts would be reduced compared to the proposed project and no impact would occur. Project mitigation measures CR-3 through CR-5 would not be required.

b. Geology and Soils

Since no demolition or construction would occur under the No Project Alternative, there would be no impacts related to soil erosion or the loss of topsoil. Because the existing site and the proposed project site would be in the same location, impacts related to ground-shaking, liquefaction,

landslides, unstable soils, and expansive soils would be the same as the proposed project. Impacts related to geology and soils would be reduced under this alternative compared to the proposed project and no impact would occur. Project Mitigation Measure GEO-1 would not be required.

c. Hazards and Hazardous Materials

Since no demolition or construction would occur under the No Project Alternative, potential hazardous materials such as asbestos and lead-based paint dust would not be released from buildings. Further, since this alternative would not involve ground disturbance or the construction of residences on a site with the potential presence of soil, soil vapor, and groundwater contamination. Therefore, impacts related to hazards and hazardous materials would be reduced under this alternative compared to the proposed project and no impact would occur. Project Mitigation Measure HAZ-1, Project Mitigation Measure HAZ-2, and Project Mitigation Measure HAZ-3 would not be required.

The No Project Alternative would also not involve the use of hazardous materials (other than minimal amounts associated with existing uses already in use on the site) and would not impair an adopted emergency response or evacuation plan or expose people residing or working near the project site to safety hazards or excessive noise or wildland fires. Overall, hazards and hazardous materials impacts would be reduced compared to those of the proposed project. No impact would occur.

d. Public Services

Under the No Project Alternative, the existing buildings would not be demolished and there would be no change in population. The demand for fire protection services would remain the same under existing conditions, and new or expanded public service facilities would not be required. Therefore, public services impacts under the No Project Alternative would be reduced compared to the proposed project, but would remain less than significant.

e. Tribal Cultural Resources

Under Alternative 1, construction would not occur which would reduce potential impacts to buried tribal cultural resources. Impacts would be reduced compared to the proposed project and no impact would occur. Project Mitigation Measure TCR-1 and Project Mitigation Measure TCR-2 would not be required.

6.3 Alternative 2: 2142 Center Street Building to Remain

6.3.1 Description

Under this alternative, the building at 2142 Center Street, which was found individually eligible for local designation, and is a contributor to the CRHR-eligible Shattuck Avenue Commercial Corridor Historic District would not be demolished. The existing uses in the building would remain. The remaining portion of the project site, including the surface parking lot and building at 2128 Oxford Street, would be demolished and developed at maximum density into a mixed-use building. This alternative assumes that the building on the remaining portion of the site would be developed with a 26-story building with 5,000 square feet of ground-floor retail, a 4,500 square foot roof-top restaurant, and 325 residential units. Figure 6-1 shows a depiction of Alternative 2.

Figure 6-1 Depiction of Alternative 2

Alternative 2 would fulfill the Project Objectives because, similar to the proposed project, Alternative 2 would provide affordable and transit-oriented housing. However, it would not provide housing to the same extent as under the proposed project.

6.3.2 Impact Analysis

a. Cultural Resources

As described in Section 4.1, *Cultural Resources*, the building at 2142 Center Street was found individually eligible for local designation and is a contributor to the CRHR-eligible Shattuck Avenue Commercial Corridor Historic District. Construction of the proposed project would result in demolition of the building at 2142 Center Street, and impacts would be significant and unavoidable. Under Alternative 2, demolition of the building at 2142 Center Street would not occur and significant and unavoidable impacts to historical resources would be avoided and impacts would be less than significant. Alternative 2 would include demolition of the building at 2128 Oxford Street, which does not meet the 45-year age threshold required for historical resources eligibility under OHP guidelines, and developing the site and the surface parking lot. The parking lot is not a contributor to significance for the building at 2124 Center Street. Under Alternative 2, Project Mitigation Measure CR-1 and Project Mitigation Measure CR-2 would not be required. Alternative 2 would not result in a significant and unavoidable impact related to historical resources and impacts would be less than that of the proposed project.

Similar to the proposed project, implementation of Project mitigation measures CR-3 through CR-5 under Alternative 2 would reduce impacts to previously unidentified archaeological resources and human remains, to a less than significant level. Overall, impacts related to archaeological resources would be reduced when compared to the proposed project due to a reduction in ground disturbance, but the impact would remain significant but mitigable.

b. Geology and Soils

Alternative 2 would require ground disturbance and demolition which could result in exposed soil, impacts related to soil erosion or the loss of topsoil would be the same as the proposed project but slightly reduced as less ground-disturbance and exposure would occur.

Because the existing site and the proposed project site would be in the same location, impacts related to ground-shaking, liquefaction, landslides, unstable soils, and expansive soils would also be the same as the proposed project. Alternative 2 would be required to comply with the same guidelines and regulations related to geology and soils as the proposed project, including Project Mitigation Measure GEO-1, which would ensure that impacts related to seismic hazards such as related to ground shaking, expansive soils, and unstable soils would be less than significant. Impacts would be less than significant with mitigation, the same as under the proposed project.

c. Hazards and Hazardous Materials

Alternative 2 may include the transport, storage, and use of potentially hazardous materials during construction. However, Alternative 2 would be required to comply with the same State and local regulations as the proposed project to reduce the risk of potential release of hazardous materials during construction. Similarly, since Alternative 2 would include the same uses as the proposed project, including residential and commercial uses which do not typically use hazardous materials other than small amounts for cleaning and landscaping, impacts related to hazardous materials during operation would be less than significant. Since Alternative 2 would be in the same location as

the proposed project, impacts related to emitting hazardous emissions or handling hazardous materials within 0.25-mile of an existing school would also be the same as the proposed project. With adherence to BMPs and other applicable federal, State, and local safety standards, ordinances, and regulations, impacts would be less than significant, the same as under the proposed project.

Similar to the proposed project, Alternative 2 would include ground disturbance on a site where soil, soil vapor, or groundwater contamination is present such that hazardous materials are released. Since there are unknown and known hazardous material project site conditions, there is a potential for construction workers, maintenance workers, and adjacent uses to be exposed to contaminants via soil vapor at the project site. In addition, groundwater may be encountered during construction activities and contamination could potentially be identified and exceed regulatory action levels. Therefore, as with the proposed project, Alternative 2 would be required to implement Project Mitigation Measure HAZ-1, Project Mitigation Measure HAZ-2, and Project Mitigation Measure HAZ-3 which would ensure impacts related to hazardous materials and safety of workers and residents would be reduced to a less than significant level. Because Alternative 2 would involve less ground disturbance, impacts would be slightly reduced but would remain less than significant with mitigation, the same as under the proposed project.

d. Public Services

The proposed project would facilitate the construction of up to 463 residential units and 15,000 square feet of retail and restaurant space, while Alternative 2 would facilitate the construction of 325 residential units and 9,500 square feet of retail and restaurant space, resulting in 138 fewer residential units and 5,500 fewer square feet of retail and restaurant space. As discussed in Section 4.4, *Public Services*, although the proposed project would increase demand for fire protection services, the proposed project in and of itself would not require the expansion of fire services or necessitate the construction of new fire facilities. Therefore, similar to the proposed project, Alternative 2 would not require the expansion of fire services or necessitate the construction of new fire facilities. Alternative 2 would be required to comply with existing State and local regulations which would ensure impacts related to fire services would be reduced to a less than significant level. Since Alternative 2 would result in a reduced level of development, impacts would be reduced under this alternative compared to the proposed project, but would remain less than significant.

e. Tribal Cultural Resources

Alternative 2 would result in development on the same project site as the proposed project. As discussed in Section 4.5, *Tribal Cultural Resources*, the Sacred Land File (SLF) search results were positive for known sacred sites within the project vicinity. Therefore, as with the proposed project, Alternative 2 could potentially adversely impact tribal cultural resources during ground disturbing activities during construction. Nonetheless, with implementation of Project Mitigation Measure TCR-1 and Project Mitigation Measure TCR-2, impacts related to tribal cultural resources would be less than significant. Since Alternative 2 would involve less ground disturbance compared to the proposed project, impacts related to tribal cultural resources would be reduced under this alternative compared to the proposed project but would remain less than significant with mitigation incorporated.

6.4 Alternative 3: Façade Preservation Alternative

6.4.1 Description

Alternative 3 would include the same characteristics as the proposed project described in Section 2, *Project Description*. Existing on-site buildings would be demolished to construct a new 26-story mixed-use building with up to 463 residential units with approximately 15,000 square feet of retail and restaurant space. However, the façade for the 2142 Center Street building would be preserved under this Alternative, while the rest of the building would be demolished. The existing façade would be incorporated into the design of the proposed mixed-use building.

Alternative 3 would fulfill all Project Objectives because similar to the proposed project, Alternative 3 would provide affordable and transit-oriented housing.

6.4.2 Impact Analysis

a. Cultural Resource

As described in Section 4.1, *Cultural Resources*, the building at 2142 Center Street was found individually eligible for local designation and is a contributor to the CRHR-eligible Shattuck Avenue Commercial Corridor Historic District. As described in the Cultural Resources Technical Report (Appendix C), defining elements of the building at 2142 Center Street include "its historic proportion of walls to windows; its rhythm and placement of windows; and extant tile detailing and décor, which are essential to convey its significance as an early 20th century commercial building in Downtown Berkeley's commercial center." Alternative 3 would preserve the existing façade on the 2142 Center Street building, which would retain the physical characteristics and design that help to convey its historical significance as a contributing resource to the Shattuck Avenue Commercial Corridor Historic District. Because this alternative retains some of the physical elements of the building that convey its historical associations and justify its historical significance, it would reduce adverse impacts to the historical resource, but would continue to result in a substantial adverse change.

Alternative 3 would be required to implement CR-1 and CR-2 which would reduce the impacts related to demolition of the 2142 Center Street building to the extent feasible. Nonetheless, Alternative 3 would include demolition of the rest of the 2142 Center Street building excluding the façade and impacts would remain significant and unavoidable.

Similar to the proposed project, implementation of Project mitigation measures CR-3 through CR-5 under Alternative 3 would reduce impacts to previously unidentified archaeological resources and human remains, to a less than significant level.

Overall, impacts related to cultural resources would be slightly reduced when compared to the proposed project.

b. Geology and Soils

Since Alternative 3 would include demolition of on-site buildings, impacts related to soil erosion or the loss of topsoil would be the same as under the proposed project. Because the existing site and the proposed project site would be in the same location, impacts related to ground-shaking, liquefaction, landslides, unstable soils, and expansive soils would also be the same as the proposed project. Alternative 3 would be required to comply with the same guidelines and regulations related

to seismic hazards as the proposed project, including Project Mitigation Measure GEO-1, which would ensure that impacts related to seismic hazards such as related to ground shaking, expansive soils, and unstable soils would be less than significant. Impacts would be less than significant with mitigation, the same as under the proposed project.

c. Hazards and Hazardous Materials

Alternative 3 may include the transport, storage, and use of potentially hazardous materials during construction. However, Alternative 3 would be required to comply with the same State and local regulations as the proposed project to reduce the risk of potential release of hazardous materials during construction. Similarly, since Alternative 3 would include the same uses as the proposed project, including residential and commercial uses which do not typically use hazardous materials other than small amounts for cleaning and landscaping, impacts related to hazardous materials during operation would be less than significant. Since Alternative 2 would be in the same location as the proposed project, impacts related to emitting hazardous emissions or handling hazardous materials within 0.25-mile of an existing school would also be the same as the proposed project. With adherence to BMPs and other applicable federal, State, and local safety standards, ordinances, and regulations, impacts would be less than significant, the same as under the proposed project.

Similar to the proposed project, Alternative 2 would include ground disturbance on a site where soil, soil vapor, or groundwater contamination is present such that hazardous materials are released. Since there are unknown and known hazardous material project site conditions, there is a potential for construction workers, maintenance workers, and adjacent uses to be exposed to contaminants via soil vapor at the project site. In addition, groundwater may be encountered during construction activities and contamination could potentially be identified and exceed regulatory action levels. Therefore, as with the proposed project, Alternative 2 would be required to implement Project Mitigation Measure HAZ-1, Project Mitigation Measure HAZ-2, and Project Mitigation Measure HAZ-3 which would ensure impacts related to hazardous materials and safety of workers and residents would be reduced to a less than significant level. Because Alternative 2 would involve less ground disturbance, impacts would be slightly reduced but would remain less than significant with mitigation, the same as under the proposed project.

d. Public Services

Since Alternative 3 would include the same buildout as the proposed project, for the same reasons as described for the proposed project, Alternative 3 would not result in substantial adverse physical impacts associated with the provision of new or physically altered fire protection facilities. Therefore, public services impacts under the Alternative 2 would be the same as under the proposed project and would be less than significant.

e. Tribal Cultural Resources

Alternative 3 would result in development on the same project site as the proposed project. Therefore, as with the proposed project, Alternative 3 could potentially adversely impact tribal cultural resources during ground disturbing activities during construction. Nonetheless, with implementation of Project Mitigation Measure TCR-1 and Project Mitigation Measure TCR-2, impacts related to tribal cultural resources would be less than significant. Impacts related to tribal cultural resources would be the same under this alternative compared to the proposed project.

6.5 Environmentally Superior Alternative

Table 6-1 indicates whether each alternative's environmental impact is greater than, less than, or similar to that of the proposed project for each of the issue areas studied. CEQA requires the identification of the environmentally superior alternative among the options studied. When the "No Project" alternative is determined to be environmentally superior, CEQA also requires identification of the environmentally superior alternative among the development options.

Alternative 1 (*No Project Alternative)* assumes that the proposed 26-story mixed-use building with up to 463 residential units and approximately 15,000 square feet of retail and restaurant space would not be constructed, and the existing buildings on site would remain and no ground disturbance would occur. The building at 2142 Center Street was found individually eligible for local designation, and is a contributor to the CRHR-eligible Shattuck Avenue Commercial Corridor Historic District. Under this impact, the significant impact to historical resources would be avoided. In addition, no construction would occur; therefore, the project mitigation measures associated with cultural resources, geology and soils, hazards and hazardous materials, and tribal cultural resources would not be required. Based on the alternatives analysis provided above, Alternative 1 would be the environmentally superior alternative. However, Alternative 1 would not achieve the basic project objectives as stated in at the beginning of this section. This alternative would not meet the Project Objectives because it would not generate high-quality, transit-oriented, and sustainable market rate housing and would not provide a superior green building or generate significant revenue streams for the city.

Under Alternative 2 (*2142 Center Street Building to Remain Alternative*), the building at 2128 Oxford Street and the surface parking lot would be demolished and developed with a 26-story building with 5,000 square feet of ground-floor retail, a 4,500 square foot roof-top restaurant, and 325 residential units. Because this alternative would not demolish the historical building at 2142 Center Street and the building would remain in its current use, this alternative would eliminate a significant and unavoidable historical resources impact. Because this alternative would reduce the amount of development and ground disturbance, it would result in similar but reduced impacts when compared to the proposed project. Project mitigation measures related to archaeological resources, geology and soils, hazards and hazardous materials, and tribal cultural resources would continue to be required. Alternative 2 would also fulfill the Project Objectives, though it would not develop housing to the same extent as under the proposed project.

Alternative 3 (*Façade Preservation Alternative*) would include the same characteristics as the proposed project. Existing on-site buildings would be demolished to construct a new 26-story mixed-use building with up to 463 residential units with approximately 15,000 square feet of retail and restaurant space. However, the façade on the existing 2142 Center Street building would be preserved under this Alternative, while the rest of the building would be demolished. Preservation of the façade would minimize the impact to historic resources since it would retain the building's physical characteristics and design that convey its historical significance to be consistent with the character of the Shattuck Avenue Commercial Corridor Historic District. However, since the rest of the building would be demolished, this would constitute a substantial adverse change and impacts would remain significant and unavoidable. Similar to the proposed project, Alternative 3 would be required to implement the same project mitigation measures related to cultural resources, geology and soils, hazards and hazardous materials, and tribal cultural resources. Alternative 3 would fulfill the Project Objectives. Overall, in comparison to the proposed project, Alternative 3 would result in

the same impacts, but historical resources would be slightly reduced due to the preservation of the façade of the 2142 Center Street building.

Among the development alternatives, because it would eliminate the significant and unavoidable historical resources impact associated with the 2142 Center Street building, Alternative 2 would be considered as the environmentally superior alternative.

Table 6-1 Impact Comparison of Alternatives

Issue	Proposed Project Impact Classification	Alternative 1: No Project/Existing Buildings to Remain	Alternative 2: 2124 Oxford Street Building to Remain	Alternative 3: Façade Preservation
Cultural Resources	Significant and Unavoidable	+	+	=/+
Geology and Soils	Less than Significant with Mitigation Incorporated	+	=	=
Hazards and Hazardous Materials	Less than Significant with Mitigation Incorporated	+	=	=
Public Services	Less than Significant	+	=/+	=
Tribal Cultural Resources	Less than Significant with Mitigation Incorporated	+	=	=

+ Superior to the proposed project (reduced level of impact)

- Inferior to the proposed project (increased level of impact)

= Similar level of impact to the proposed project

7 References

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Executive Summary

None.

1 Introduction

None.

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5 Other CEQA-Related Discussions

None.

6 Alternatives

None.

7.2 List of Preparers

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