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Folsom Center for Health Master Plan and Phase 1 Medical Office Building

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UC Davis Folsom Center for Health Master Plan and Phase 1 Medical Office Building

Draft Environmental Impact Report

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Prepared for:

University of California, One Shields Avenue
Davis, CA 95616
Contact: Matt Dulcich, AICP
Director of Environmental Planning
530.304.3898

Prepared by:

ICF
980 9th Street, Suite 1200
Sacramento, CA 95814
Contact: Lance Unverzagt
858.444.3922

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ES.1 Introduction

This Executive Summary is provided in accordance with the California Environmental Quality Act (CEQA) Guidelines Section 15123. It contains an overview of the programmatic analysis of the University of California, Davis (UC Davis) Folsom Center for Health Master Plan (project), as well as detailed analysis of Phase 1 of the Master Plan (Phase 1). The UC Davis Folsom Center for Health Master Plan programmatic analysis will evaluate the master plan for the site and can be used at a program level in the environmental review of subsequent phases and development projects. In addition, the detailed analysis for Phase 1 development of the project will evaluate impacts that would occur as a result of construction of the medical office building (MOB), parking, and other supporting infrastructure.

As stated in CEQA Guidelines Section 15123(a), "[a]n EIR shall contain a brief summary of the proposed actions and its consequences. The language of the summary should be as clear and simple as reasonably practical." CEQA Guidelines Section 15123(b) states, "[t]he summary shall identify: 1) each significant effect with proposed mitigation measures and alternatives that would reduce or avoid that effect; 2) areas of controversy known to the Lead Agency, including issues raised by agencies and the public; and 3) issues to be resolved including the choice among alternatives and whether or how to mitigate the significant effects." Accordingly, this summary includes a brief synopsis of the project and plan alternatives, environmental impacts and mitigation, areas of known controversy, and issues to be resolved during environmental review. Table ES-1 presents the summary of potential environmental impacts, their level of significance without mitigation measures, the mitigation measures, and the levels of significance following mitigation measures.

ES.2 Summary Description of the Project

The University of California (UC) system consists of 10 campuses, 5 of which support health sciences programs that include teaching hospital facilities affiliated with medical schools: San Francisco, San Diego, Irvine, Los Angeles, and Davis. At the UC Davis Campus, the affiliation between the teaching hospital and the medical school is a single organization called UC Davis Health. UC Davis Health is committed to providing quality primary care throughout the Sacramento region (Figure 2-1), and in total, UC Davis Health leases over 830,000 square feet (sf) of offsite facilities in the Sacramento region for clinics and offices. The Folsom Center for Health would provide medical services, research, and educational services to Sacramento and El Dorado Counties and function as a supporting facility to the UC Davis Medical Center in Sacramento.

The project is located in the city of Folsom, south of U.S. Route 50 (US 50) on East Bidwell Road, as shown on Figure 2-2. The approximately 34.6-acre project site is currently an undeveloped parcel within the Folsom Plan Area Specific Plan (FPASP), which was adopted by the City of Folsom along with a certified programmatic environmental impact report (EIR) in 2011. Although the City of Folsom certified an EIR for the FPASP that includes the UC Davis parcel, UC Davis has prepared this EIR as an independent stand-alone EIR with appurtenant technical analysis to address recent

changes to CEQA and to provide the most current information concerning the site and potential environmental impacts.

The project will consist of approximately 400,000 sf of building space for wellness and healthcare services, which will be built out in multiple phases, as shown in Table 2-2 in Chapter 2, *Project Description*. The project is anticipated to include a 110,000-sf medical office building (MOB), a 114,000-sf ambulatory surgery center (ASC), an 80,000-sf hotel with approximately 100 rooms, an 86,000-sf micro-hospital which includes an emergency department with up to 30 beds, a central utility plant, and approximately 1,357 parking stalls (Figure 2-2). In addition to the programmatic evaluation of the Folsom Center for Health Master Plan, this EIR provides detailed environmental analysis for Phase 1 development of the project, which is anticipated to include a MOB, parking, and other supporting infrastructure.

ES.3 Project Objectives

When determining what alternatives should be considered in an EIR, project objectives must be considered; attainment of most of a project's basic objectives forms one of the tests of where an alternative is feasible. UC Davis has identified the following objectives for the project:

- Provide locally accessible quality medical care throughout the Sacramento region.
- Fulfill the UC mission of teaching, research, public service, and patient care.
- Increase UC Davis Health public presence and facilities closer to the growing population in eastern Sacramento County and on the U.S. Route 50 (US 50) corridor.
- Develop a robust plan of development of the site by UC and its partners, as laid out in the Master Plan, as a coherent program meeting the UC vision for the development and built in phases.
- Implement sustainable site design and building design practices to support ongoing implementation of the UC Sustainable Practices Policy.
- Incorporate a holistic approach to building the site, integrating buildings, infrastructure, and landscape as one collective system. Develop a strong public realm and landscape character, providing outdoor spaces to support patient health and family support. Comply with Health Care Access and Information (HCAI) standards and requirements for health care facilities.
- Develop the site for uses that are supportive of patient care and the UC mission, including family lodging for hospitalized patients.
- Encourage site development and program flexibility to address emerging trends in health care.
- Create robust pedestrian connections throughout the development. Provide attractive entries and edges. Create a safe, convenient, and pleasant experience for people navigating to the buildings.
- Provide services to meet current local and regional needs for medical care while allowing for future expansion and flexibility over time to serve a growing population.

In addition, UC Davis has identified the following objectives specifically for the Phase 1 development.

- Fulfill the UC mission of teaching, public service, and patient care.

- Increase UC Davis Health public presence and facilities closer to the growing population in eastern Sacramento County and on the US 50 corridor.
- Provide in-demand services in the near term and establish UC Davis presence in the US 50 corridor.
- Implement sustainable site design and building design practices to support ongoing implementation of the UC Sustainable Practices Policy.
- Provide outdoor spaces to support patient health and family support.
- Comply with HCAI standards and requirements for health care facilities.
- Provide services to meet current local and regional needs while allowing for future expansion and flexibility over time to serve a growing population.
- Begin development of the site with a project that will stand alone to serve short-term demand while supporting future implementation of the Master Plan.

ES.4 Summary of Environmental Impacts and Mitigation Measures

Pursuant to CEQA Guidelines Section 15382, a significant effect on the environment is defined as "a substantial, or potentially substantial, adverse change in any of the physical conditions within the area affected by the plan, including land, air, water, minerals, flora, fauna, ambient noise, and objects of historic or aesthetic significance." Chapter 3, *Existing Environmental Setting, Impacts, and Mitigation*, of this EIR describes in detail the significant environmental impacts that would result from implementation of the project. Table ES-1 summarizes the environmental impacts and mitigation measures discussed in these chapters. Chapter 4, *Cumulative Impacts*, and Chapter 5, *Other CEQA Considerations*, provide a discussion of cumulative impacts and other CEQA considerations, respectively.

ES.5 Significant and Unavoidable Environmental Impacts

Section 21100(b)(2)(A) of the CEQA Guidelines provides that an EIR shall include a detailed statement setting forth "in a separate section: any significant effect on the environment that cannot be avoided if the project is implemented." Accordingly, this section provides a summary of significant environmental impacts of the plan that cannot be mitigated to a less-than-significant level.

Chapter 3 provides a description of the potential environmental impacts of the plan and recommends various mitigation measures to reduce impacts, to the extent feasible. Chapter 4 determines whether the incremental effects of this plan are significant when viewed in connection with the effects of past projects, other current projects, and probable future projects. After implementation of the recommended mitigation measures, most of the impacts associated with development of the plan would be reduced to a less-than-significant level. The following impacts are considered significant and unavoidable; that is, no feasible mitigation is available or the mitigation

measures available were not sufficient to reduce the plan's impacts to a less-than-significant level. Note, this is only a summary of those impacts; it is important to review the discussions in Chapters 3 and 4 of this EIR to understand the full context of the impact determinations. Implementation of the project would result in the following significant unavoidable environmental impacts, following implementation of feasible mitigation measures:

- Impact AQ-3: Exposure of sensitive receptors to substantial pollutant concentrations (Master Plan).
- Impact NOI-1: Generation of increased ambient noise levels in the project vicinity in excess of applicable standards during project construction (Master Plan)

Significant and unavoidable cumulative impacts would occur with respect to air quality, and noise.

ES.6 Alternatives to the 2020 LRDP Update

CEQA Guidelines Section 15126.6, as amended, mandates that all EIRs include a comparative evaluation of the proposed plan with alternatives to the plan that are capable of attaining most of the plan's basic objectives, but would avoid or substantially lessen any of the significant effects of the plan. CEQA requires an evaluation of a "range of reasonable" alternatives, including the "no project" alternative. The following alternatives are under consideration for the project:

- **Alternative 1: No Project (No Build).** This alternative assumes that neither Phase 1 nor the rest of the Master Plan would be developed, and the project site would remain vacant.
- **Alternative 2: No Project (Development Consistent with the FPASP).** Under this alternative, the project site (assuming the Regional Commercial Center land use and SP-RC zoning designations under FPASP), would be able to accommodate highway-oriented commercial uses with a maximum of approximately 1,200 employees. Under this alternative, the project site would be developed by others consistent with the FPASP and Folsom General Plan land use designations.
- **Alternative 3: Concentrated Development Alternative.** Under this alternative, development would be concentrated in one or two large buildings on the western portion of the project site and leave the eastern portion as landscaped open space. The micro-hospital, ASC, and MOB would be combined into one or two buildings.
- **Alternative 4: Replace Hotel with Workforce Housing.** This alternative would replace the proposed hotel at the southeastern portion of the site with housing for the hospital workforce. The 100 rooms in the hotel would be replaced with approximately 100 units of multifamily residential housing in a multistory apartment building.

CEQA Guidelines Section 15126.6 states that an EIR should identify the "environmentally superior" alternative. "If the environmentally superior alternative is the 'no project' alternative, the EIR shall also identify an environmentally superior alternative among the other alternatives."

Each of the alternatives considered would result in long-term, significant and unavoidable environmental impacts. As described in Chapter 6, *Alternatives*, the Concentrated Development Alternative would result in greater impact reductions compared to the other alternatives due to the reduced lot coverage, which would move uses further from the eastern edge of the site, thereby reducing noise impacts on the Dignity Health Center. Therefore, the Concentrated Development

Alternative is considered environmentally superior to the other alternatives. However, while this alternative would have lesser impacts than the project, it would not allow the fully integrated landscape and structure design envisioned in the Master Plan. Additionally, the Concentrated Development Alternative would not facilitate the project phasing to respond to population growth over time, a major goal of the project.

ES.7 Areas of Controversy

In accordance with CEQA Statute Section 21092 and CEQA Guidelines Section 15082, a Notice of Preparation (NOP) was prepared and circulated on December 1, 2021, for a minimum 30-day period of public and agency comment. The public review period ended on January 5, 2022. The NOP was submitted to the State Clearinghouse and the clerk-recorder for Sacramento County. UC Davis conducted a virtual open house scoping session during the NOP comment period on Tuesday, December 14, 2021, via Zoom Webinar. Appendix D, *NOP Comment Letters Received*, contains the comment letters submitted in response to the NOP.

Based on the comments received during the NOP comment period, the major areas of controversy associated with the project include air quality, biological resources, cultural and tribal cultural resources, climate change, energy efficiency, hydrology and water quality, hazardous materials, traffic/circulation, public safety, and public utilities. UC Davis carefully reviewed comments provided during the NOP scoping period (described in Section 1.3.1, *Notice of Preparation and Public Scoping*) to assist in refining the project details and to assist in preparing the information and analysis contained in this EIR. All of the substantive environmental issues raised in the NOP comment letters and at the scoping meeting have been addressed or otherwise considered during preparation of this EIR.

Table ES-1. Summary of Impacts and Mitigation Measures

Impacts	Significance before Mitigation	Mitigation Measures	Significance after Mitigation
Aesthetics			
Impact AES-1: Potential to have a substantial adverse effect on a scenic vista. ***Construction*** Construction-phase impacts would be significant due to the potential for fugitive dust and unsightly construction activities. Air quality Mitigation Measure AQ-2b, FPASP Mitigation Measure 3A.1-4, and Mitigation Measure AES-1 would reduce these impacts to a less-than-significant level for all viewer groups by reducing the potential for fugitive dust, screening construction staging areas, and reducing unsightly conditions at construction sites. Therefore, construction impacts on scenic vistas would be **less than significant with mitigation**. ***Operation*** The central utility plant may still be visible within the scenic vista view and has the potential to detract from views at the site, resulting in potentially significant impacts. FPASP Mitigation Measures 3B.1-2a and 3B.1-2b would ensure that the exterior appearance of the central utility plant is enhanced with aesthetic treatments and landscaping, reducing impacts to a less-than-significant level. Therefore, operational impacts on scenic vistas would be **less than significant with mitigation**.	**S**	**Mitigation Measure AQ-2b: Reduce construction-generated fugitive dust** Refer to Mitigation Measure AQ-2b under Impact AQ-2. **FPASP Mitigation Measure 3A.1-4: Screen construction staging areas** The project applicant(s) for all project phases shall locate staging and material storage areas as far away from sensitive biological resources and sensitive land uses (e.g., residential areas, schools, parks) as feasible. Staging and material storage areas shall be approved by the appropriate agency (identified below) before the approval of grading plans and building permits for all project phases and shall be screened from adjacent occupied land uses in earlier development phases to the maximum extent practicable. Screens may include, but are not limited to, the use of such visual barriers such as berms or fences. The screen design shall be approved by the appropriate agency to further reduce visual effects to the extent possible. Mitigation for the off-site elements outside of the City of Folsom's jurisdictional boundaries shall be coordinated by the project applicant(s) of each applicable project phase with the affected oversight agency(ies) (i.e., El Dorado and/or Sacramento Counties, and [the California Department of Transportation] Caltrans). **FPASP Mitigation Measure 3B.1-2a: Enhance exterior appearance of structural facilities** The external appearance of above-ground facilities, including the choice of color and materials, shall seek to reduce the visual impact of the proposed WTP, pump station, and above-ground storage tank facilities. Bright reflective materials and colors shall be avoided. As appropriate, the exterior design of these facilities should follow	**LTS**

NI = No impact LTS = Less than significant S = Significant SU = Significant and unavoidable

Impacts	Significance before Mitigation	Mitigation Measures	Significance after Mitigation
		design guidelines provided in applicable land use plans. Minimum exterior design requirements shall include, but are not limited to, the following: • painting (with earth-colored tones) of structural façades to blend with surrounding land uses, • use of fencing or structural materials similar to those used by nearby land uses, • installation of berms and/or landscaping around the facility (see Mitigation Measure 3B.2-2b for additional detail), and • clustering of structural facilities to maximize open space buffering. **FPASP Mitigation Measure 3B.1-2b: Prepare landscaping plan** The City shall develop a landscaping plan for each structural facility site that uses a combination of locally derived native vegetation, earthen features (e.g., boulders), and, if appropriate, topographical separations (e.g., berms) to maximize site appearance and shield the new facilities from nearby sensitive receptors to the extent feasible. In addition to complying with local standards, the landscaping plan shall require the following at each site: • Vegetation shall be arranged in a hierarchy of plant groupings to enhance the visual and scenic qualities of the site(s). To the extent practical, the design will minimize the need for supplemental irrigation. • New or replacement vegetation shall be compatible with surrounding vegetation and shall be adaptable to the site with regard to rainfall, soil type, exposure, growth rate, erosion control, and energy conservation purposes.	

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Impacts	Significance before Mitigation	Mitigation Measures	Significance after Mitigation
		• Plant materials chosen shall be species which do not present any safety hazards, which allow native flora to reestablish in the area, and which require minimal maintenance, including watering, pest control, and clean-up of litter from fruit and droppings. Note that UC Davis would implement this mitigation rather than the City. **Mitigation Measure AES-1: Reduce visual impacts from construction** The following measures will be taken to reduce unsightly conditions at construction sites. • The construction sites will be kept clean and organized. Unused materials, debris, trash, and construction equipment that is no longer needed will be removed from the site on a daily basis. Unsightly materials will be stored outside of the line of sight from adjacent land uses if they will be needed onsite for long periods of time, such as a full day or longer. • Large equipment such as cranes and scaffolding will be removed as soon as possible when no longer needed. If scaffolding is not needed until a later stage more than 90 days away, the scaffolding will be removed and rebuilt when needed again. • Construction crew and equipment parking will be kept clean and surfaced to reduce the chances of track-out dirt. When construction will result in high levels of track-out dirt, wheel washers will be employed to reduce these impacts.	
Impact AES-2: Potential to substantially damage scenic resources along a scenic highway ***Construction***	**S**	**Mitigation Measure AQ-2b: Reduce construction-generated fugitive dust** Refer to Mitigation Measure AQ-2b under Impact AQ-2.	**LTS**

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Impacts	Significance before Mitigation	Mitigation Measures	Significance after Mitigation
For the same reasons discussed under Impact AES-1, construction-phase impacts would be significant due to the potential for fugitive dust and unsightly construction activities that would be visible, in passing, from US 50. Mitigation Measure AQ-2b, FPASP Measure 3A.1-4, and Mitigation Measure AES-1 would reduce these impacts to a less-than-significant level for all viewer groups by reducing the potential for fugitive dust, screening construction staging areas, and reducing unsightly conditions at construction sites. Therefore, construction impacts on scenic highways would be **less than significant with mitigation**. ***Operation*** For the same reasons discussed under Impact AES-1, the central utility plant would still be visible from US 50 and has the potential to detract from views at the site, resulting in potentially significant impacts. FPASP Mitigation Measures 3B.1-2a and 3B.1-2b would ensure that the exterior appearance of the central utility plant is enhanced with aesthetic treatments and landscaping, reducing impacts to a less-than-significant level. Therefore, operational impacts on scenic highways would be **less than significant with mitigation**.		**FPASP Mitigation Measure 3A.1-4: Screen construction staging areas** Refer to FPASP Mitigation Measure 3A.1-4 under Impact AES-1. **FPASP Mitigation Measure 3B.1-2a: Enhance exterior appearance of structural facilities** Refer to FPASP Mitigation Measure 3B.1-2a under Impact AES-1. **FPASP Mitigation Measure 3B.1-2b: Prepare landscaping plan** Refer to FPASP Mitigation Measure 3B.1-2b under Impact AES-1. **Mitigation Measure AES-1: Reduce visual impacts from construction** Refer to Mitigation Measure AES-1 under Impact AES-1.	
Impact AES-3: Conflict with zoning or other regulations governing scenic quality in urbanized areas Although much of the project design would comply with regulations governing scenic quality in an urbanized area, the central utility plant may still be visible from US 50 and detract from views at the site, resulting in potentially significant impacts. Implementation of FPASP Mitigation Measures 3B.1-2a and 3B.1-2b would ensure that exterior appearance of the central utility plant is enhanced with aesthetic treatments and landscaping, reducing impacts to a less-than-significant level. Therefore, operation impacts would be **less than significant with mitigation**.	**Master Plan: S** **Phase 1: S**	**FPASP Mitigation Measure 3B.1-2a: Enhance exterior appearance of structural facilities** Refer to FPASP Mitigation Measure 3B.1-2a under Impact AES-1. **FPASP Mitigation Measure 3B.1-2b: Prepare landscaping plan** Refer to FPASP Mitigation Measure 3B.1-2b under Impact AES-1.	**Master Plan: LTS** **Phase 1: LTS**

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Impacts	Significance before Mitigation	Mitigation Measures	Significance after Mitigation
Impact AES-4: Introduction of a new source of substantial light or glare that would adversely affect daytime or nighttime views in the area ***Construction*** It is possible that some construction activities may occur at night. Light from nighttime activities could spill over into adjacent areas, especially into the residential areas south of the site. This would result in a significant impact. FPASP Mitigation Measure 3B.1-3a would reduce this impact to less-than-significant levels by limiting construction to daylight hours to the extent possible and ensuring that unshielded lights, reflectors, or spotlights are not located and directed to shine toward or be directly visible from adjacent properties or streets if nighttime lighting or construction is necessary. Therefore, construction impacts would be **less than significant with mitigation**. ***Operation*** The project's use of BRWL LED lighting would result in a substantial source of nighttime light and glare that would negatively affect nighttime views and residential receptors in the area. Such lighting could result in significant impacts if the lighting spills outside the site boundaries, creating a new source of nuisance lighting or glare for adjacent sensitive viewers, or by creating a notable site-specific contribution to increasing localized nighttime sky glow from a site that is currently unlit. FPASP Mitigation Measures 3A.1-5 would ensure that the project uses directional lighting methods with shielded and cutoff-type light fixtures to minimize glare and upward-directed lighting. This mitigation would also ensure compliance with City of Folsom General Plan Policies NCR 1.1.7 and NCR 2.1.3 that seek to limit fugitive light from outdoor sources and reduce light pollution. However, these measures would not offset the impacts associated with BRWL LED lighting or the potential for light and	**Master Plan: S** **Phase 1: S**	**FPASP Mitigation Measure 3A.1-5: Establish and require conformance to lighting standards and prepare and implement a lighting plan** To reduce impacts associated with light and glare, the City shall: • Establish standards for on-site outdoor lighting to reduce high-intensity nighttime lighting and glare as part of the Folsom Specific Plan design guidelines/standards. Consideration shall be given to design features, namely directional shielding for street lighting, parking lot lighting, and other substantial light sources, that would reduce effects of nighttime lighting. In addition, consideration shall be given to the use of automatic shutoffs or motion sensors for lighting features to further reduce excess nighttime light. • Use shielded or screened public lighting fixtures to prevent the light from shining off of the surface intended to be illuminated. To reduce impacts associated with light and glare, the project applicant(s) of all project phases shall: • Shield or screen lighting fixtures to direct the light downward and prevent light spill on adjacent properties. • Place and shield or screen flood and area lighting needed for construction activities, nighttime sporting activities, and/or security so as not to disturb adjacent residential areas and passing motorists. • For public lighting in residential neighborhoods, prohibit the use of light fixtures that are of unusually high intensity or brightness (e.g., harsh mercury vapor, low-pressure sodium, or fluorescent bulbs) or that blink or flash.	**Master Plan: LTS** **Phase 1: LTS**

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Impacts	Significance before Mitigation	Mitigation Measures	Significance after Mitigation
glare coming from the project site to affect nearby viewers. Mitigation Measure AES-4 would ensure that BRWL LED lighting is not used at the project site, reducing impacts to a less-than-significant level. Therefore, operational impacts resulting from light and glare would be **less than significant with mitigation**.		• Use appropriate building materials (such as low-glare glass, low-glare building glaze or finish, neutral, earth-toned colored paint and roofing materials), shielded or screened lighting, and appropriate signage in the office/commercial areas to prevent light and glare from adversely affecting motorists on nearby roadways. • Design exterior on-site lighting as an integral part of the building and landscape design in the Folsom Specific Plan area. Lighting fixtures shall be architecturally consistent with the overall site design. • Lighting of off-site facilities within the City of Folsom shall be consistent with the City's General Plan standards. • Lighting of the off-site detention basin shall be consistent with Sacramento County General Plan standards. • Lighting of the two local roadway connections from Folsom Heights off-site into El Dorado Hills shall be consistent with El Dorado County General Plan standards. A lighting plan for all on- and off-site elements within each agency's jurisdictional boundaries (specified below) shall be submitted to the relevant jurisdictional agency for review and approval, which shall include the above elements. The lighting plan may be submitted concurrently with other improvement plans and shall be submitted before the installation of any lighting or the approval of building permits for each phase. The project applicant(s) of all project phases shall implement the approved lighting plan. Mitigation for the off-site elements outside of the City of Folsom's jurisdictional boundaries must be coordinated by the project applicant(s) of each applicable project phase with the affected oversight agency(ies) (i.e., El Dorado and/or Sacramento Counties).	

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Impacts	Significance before Mitigation	Mitigation Measures	Significance after Mitigation
		FPASP Mitigation Measure 3B.1-3a: Conform to construction lighting standards The City shall limit construction to daylight hours to the extent possible. If nighttime lighting or construction is necessary, the City shall ensure that unshielded lights, reflectors, or spotlights are not located and directed to shine toward or be directly visible from adjacent properties or streets. To the extent possible, the City shall minimize the use of nighttime construction lighting within 500 feet of existing residences. This measure shall be identified on grading plans and in construction contracts. Note that UC Davis would implement this mitigation rather than the City. **Mitigation Measure AES-4: Additional light and glare minimization measures** All LED lighting will avoid the use of blue-rich white light lamps and use a correlated color temperature that is no higher than 3,000 K (International Dark-Sky Association 2010a, 2010b, 2015).	
Air Quality			
Impact AQ-1: Conflict with or obstruction of implementation of the applicable air quality plan The project is consistent with regional growth projections and would not disrupt or hinder implementation of adopted transportation control measures. The project and surrounding land uses will reduce vehicle trip lengths and facilitate mode shift. However, implementation of the project would result in NO_X and PM10 emissions above SMAQMD's thresholds, resulting in a significant impact before mitigation. SMAQMD also requires BMPs to control fugitive dust emissions. Mitigation Measures AQ-2a and AQ-2b would reduce NO_X and PM10 emissions below SMAQMD's thresholds and control fugitive dust emissions consistent with SMAQMD guidance. Accordingly, the project	**Master Plan: S** **Phase 1: S**	**Mitigation Measure AQ-2a: Reduce heavy-duty off-road equipment exhaust emissions** Refer to measure description under Impact AQ-2. **Mitigation Measure AQ-2b: Reduce construction-generated fugitive dust** Refer to measure description under Impact AQ-2.	**Master Plan: LTS** **Phase 1: LTS**

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Impacts	Significance before Mitigation	Mitigation Measures	Significance after Mitigation
would not conflict with air quality attainment plans, and this impact is **less than significant with mitigation**.			
Impact AQ-2: Cumulatively considerable net increase of any criteria pollutant for which the project region is a nonattainment area for an applicable federal or state ambient air quality standard Construction of buildings and facilities as part of the implementation of the project would not exceed SMAQMD's emissions thresholds with implementation of Mitigation Measures AQ-2a and AQ-2b. Operational emissions resulting from the project would not exceed SMAQMD and EDCAQMD thresholds. Accordingly, this impact would be **less than significant with mitigation**.	**Master Plan: S** **Phase 1: S**	**Mitigation Measure AQ-2a: Reduce heavy-duty off-road equipment exhaust emissions** UC Davis will provide a plan for approval by SMAQMD that demonstrates the heavy-duty off-road vehicles (50 horsepower or more) to be used 8 hours or more during the construction project will achieve a project-wide fleet-average 10 percent NO_X reduction compared to the most recent CARB fleet average. Acceptable options for reducing emissions may include use of cleaner engines (e.g., Tier 4 equipment), low-emission diesel products, alternative fuels or renewable diesel (Mitigation Measure AQ-3a), engine retrofit technology, after-treatment products, and other options as they become available. The plan will have two components: an initial report submitted before construction and a final report submitted at the completion. UC Davis will submit the initial report at least 4 business days prior to construction activity using the SMAQMD's Construction Mitigation Tool. The report must provide project and construction company information and include the equipment type, horsepower rating, engine model year, projected hours of use, and the CARB equipment identification number for each piece of equipment in the plan. The report will incorporate all owned, leased and subcontracted equipment to be used. UC Davis will submit the final report at the end of the job, phase, or calendar year, as pre-arranged with SMAQMD staff and documented in the approval letter, to demonstrate continued project compliance. SMAQMD may conduct periodic site inspections to determine compliance. Nothing in this mitigation will supersede other air district, state or federal rules or regulations. This mitigation will sunset on the later of January 1, 2028, or the date when full implementation of the CARB In Use Off-Road Regulation is expected.	**Master Plan: LTS** **Phase 1: LTS**

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Impacts	Significance before Mitigation	Mitigation Measures	Significance after Mitigation
		Mitigation Measure AQ-2b: Reduce construction-generated fugitive dust UC Davis will require all construction contractors to implement the following measures to reduce construction-generated fugitive dust. Control of fugitive dust is required per SMAQMD Rule 403 and enforced by SMAQMD staff. The list of required measures was informed by SMAQMD's basic and enhanced construction emission control practices. • Water exposed soil with adequate frequency to prevent fugitive dust and particulates from leaving the project site. However, do not overwater to the extent that sediment flows off the site. Exposed surfaces include, but are not limited to soil piles, graded areas, and unpaved parking areas, • Suspend excavation, grading, and/or demolition activity when sustained wind speeds exceed 25 miles per hour. • Install wind breaks (e.g., plant trees, solid fencing) on the average dominant windward side(s) of construction areas. For purposes of implementation, chain-link fencing with added landscape mesh fabric adequately qualifies as solid fencing. • For dust control in disturbed but inactive construction areas, apply soil stabilization measures adequate to mitigate airborne particulates as soon as possible. • Use wet power vacuum street sweepers to remove any visible trackout mud or dirt onto adjacent public roads at least once a day. Use of dry power sweeping is prohibited. • Treat site accesses from the paved road with a 6- to 12-inch layer of wood chips, mulch, gravel, or other approved method to reduce generation of road dust and road dust carryout onto public roads.	

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Impacts	Significance before Mitigation	Mitigation Measures	Significance after Mitigation
		• Cover or maintain at least 2 feet of free board space on haul trucks transporting soil, sand, or other loose material on the site. Any haul trucks that would be traveling along freeways or major roadways should be covered. • Establish a 15-mile-per-hour speed limit for vehicles driving on unpaved portions of project construction sites. Water all unpaved roads at least twice daily. • Post a publicly visible sign with the telephone number and person to contact at the lead agency regarding dust complaints. This person will respond and take corrective action within 48 hours. The phone number of the SMAQMD will also be visible to ensure compliance. UC Davis will ensure that the implementation of this mitigation measure is consistent with the UC Davis stormwater program and does not result in offsite runoff as a result of watering for dust control purposes.	
Impact AQ-3: Exposure of sensitive receptors to substantial pollutant concentrations Construction of the project is expected to occur over a period of up to 20 years. Current local and state air quality regulations will substantially reduce the emissions intensity of equipment and vehicles over that time period (e.g., the Advanced Clean Truck Regulation requires all new sales of medium- and heavy-duty trucks be zero-emission by 2045). Future regulations mandating engine electrification, alternative fuels, and other zero-emission strategies are expected given California's long-term carbon neutrality and climate change goals.[1] These regulations, coupled	**Master Plan: S** **Phase 1: S**	**Mitigation Measure AQ-2a: Reduce heavy-duty off-road equipment exhaust emissions** Refer to measure description under Impact AQ-2. **Mitigation Measure AQ-2b: Reduce construction-generated fugitive dust** Refer to measure description under Impact AQ-2. **Mitigation Measure AQ-3a: Perform a site investigation for naturally occurring asbestos** A site investigation will be performed to determine whether and where NOA is present in the soil and rock on the project site and/or	**Master Plan: SU** **Phase 1: LTS**

[1] For example, Executive Order N-79-20 directs CARB to develop and propose strategies to achieve 100 percent zero-emission off-road vehicles and equipment operations by 2035.

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Impacts	Significance before Mitigation	Mitigation Measures	Significance after Mitigation
with Mitigation Measures AQ-2a, AQ-3b, and AQ-3c, will significantly reduce receptor exposure to DPM emissions generated by the project. Despite these considerations, there may be instances where specific conditions over the 20-year construction of the project preclude the reduction of health risks below adopted thresholds. Therefore, health impacts from receptor exposure to construction-generated DPM are considered **significant and unavoidable**.		areas that would be disturbed by the project. The site investigation will include the collection of soil and rock samples (three per acre) by a California registered geologist. If the site investigation determines that NOA is not present on the project site then UC Davis will submit a geologic exemption as allowed under Title 17, Section 93105, Asbestos Airborne Toxic Control Measure for Construction, Grading, Quarrying, and Surface Mining (Asbestos ATCM). If the site investigation determines that NOA is present on the project site, then UC Davis will submit an asbestos dust mitigation plan including but not limited to control measures required by the Asbestos ATCM for approval by SMAQMD. [UC Davis will submit the plan to SMAQMD for review and approval before beginning any ground disturbance activity.] SMAQMD approval of the plan must be received before ground disturbance occurs in any "areas moderately likely to contain NOA," as determined by the map in California Geological Survey's report titled *Relative Likelihood for the Presence of Naturally Occurring Asbestos in Eastern Sacramento County, California*. Upon approval of the asbestos dust mitigation plan by SMAQMD, UC Davis will ensure that construction contractors implement the terms of the plan throughout the construction period. This measure will be fully funded by UC Davis. **Mitigation Measure AQ-3b: Reduce receptor exposure to construction-generated diesel particulate matter** Buildings constructed under the project will require the prime construction contractor to implement the following measures to reduce receptor exposure to DPM concentrations and associated health risks. • Use renewable diesel fuel in all heavy-duty off-road diesel-fueled equipment. Renewable diesel must meet the most recent American Society of Testing and Materials D975 specification for ultra low sulfur diesel and have a carbon intensity no greater than 50 percent of diesel with the lowest	

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Impacts	Significance before Mitigation	Mitigation Measures	Significance after Mitigation
		carbon intensity among petroleum diesel fuels sold in California. • Minimize idling time either by shutting equipment off when not in use or reducing the time of idling to 5 minutes (13 CCR Sections 2449(d)(3) and 2485). Provide clear signage that posts this requirement for workers at the entrances to the site. • Provide current certificate(s) of compliance for CARB's In-Use Off-Road Diesel-Fueled Fleets Regulation (13 CCR Sections 2449 and 2449.1). • Maintain all construction equipment in proper working condition according to manufacturer's specifications. The equipment must be checked by a certified mechanic and determined to be running in proper condition before it is operated. • Locate operation of diesel-powered construction equipment as far away from sensitive receptors as possible. • Establish staging areas for the construction equipment that are as distant as possible from offsite and onsite receptors. • Where feasible, use haul trucks with on-road engines instead of off-road engines even for onsite hauling. • Use electric, compressed natural gas, or other alternatively fueled construction equipment instead of the diesel counterparts, where available. **Mitigation Measure AQ-3c: Prepare a health risk assessment for future development located within 1,000 feet of sensitive receptors** UC Davis will conduct a project-level construction HRA for development phases 2 and 3 if sensitive receptors (as defined by	

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Impacts	Significance before Mitigation	Mitigation Measures	Significance after Mitigation
		SMAQMD) are determined to be within 1,000 feet of the construction activity. The HRA for construction of phase 3 must consider potential health risks to the onsite ambulatory surgery center, which will be constructed during phase 2. If the HRA demonstrates, to the satisfaction of the City, that the health risk exposures to receptors will be less than SMAQMD's thresholds, then additional mitigation would be unnecessary. However, if the HRA demonstrates that health risks would exceed SMAQMD's thresholds, additional feasible onsite (e.g., mandates for engine electrification) and offsite (e.g., financial assistance for high-efficiency air filters) mitigation will be analyzed by UC Davis to help reduce risks to the greatest extent practicable. The HRAs will be submitted to the University for review and approval and implementation of project revisions or additional mitigation measures (if applicable) would be required to reduce significant impacts to less than significant.	
Impact AQ-4: Other emissions (such as those leading to odors) adversely affecting a substantial number of people Operational odors related to implementation of the project would be minimal and principally associated with diesel-fueled delivery trucks. Like exhaust-related odors during construction, any potential odors from delivery trucks would be localized and transitory. The new micro-hospital would not be located near any potentially significant sources of odors. The nearest potentially odorous sources are the El Dorado Disposal Recycling Center and El Dorado Hills Wastewater Treatment Facility, which are more than 3 miles from the micro-hospital. Therefore, the project would not cause odor effects or expose receptors to adverse odors. The impact would be **less than significant**.	**Master Plan: LTS** **Phase 1: LTS**	**Mitigation Measures** No mitigation measures are necessary.	**Master Plan: LTS** **Phase 1: LTS**
Biological Resources			
Impact BIO-1: Potential to result in a substantial adverse effect, either directly or through habitat modifications, on any species in local or regional plans, policies, or	**Master Plan: S** **Phase 1: S**	**Mitigation Measure BIO-1a: Conduct preconstruction surveys for ground and vegetation nesting migratory birds and raptors, and establish protective buffers**	**Master Plan: LTS**

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Impacts	Significance before Mitigation	Mitigation Measures	Significance after Mitigation
regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service The project would not be in full compliance with the MBTA and CFGC Sections 3503, 35.03.5 or 3511 if it resulted in construction-related disturbances and installation of new building structures, that result in nest abandonment or failure, or mortality of adults, chicks or eggs of migratory birds and raptors. Loss or disturbance of a large number of migratory birds and raptors would be a significant impact. Mitigation Measures BIO-1a, BIO-1b, and BIO-1c would reduce this impact to a less-than-significant level. Therefore, the impact would be **less than significant with mitigation**.		For any activities under the Folsom Center for Health Master Plan that would require ground disturbance or vegetation removal (i.e., trees, shrubs, and ruderal vegetation) or would result in construction disturbances in the vicinity of suitable nesting habitat, the following measures will be implemented prior to initiation of construction to avoid and minimize impacts on nesting migratory birds and raptors, and to avoid violation of the MBTA and CFGC Sections 3503, 3503.5, and 3511. • For construction activities that occur during the nesting season for migratory birds and raptors (generally February 1 through August 31), UC Davis will retain a qualified wildlife biologist familiar with the nesting behavior of bird species that occur in the project site to conduct a preconstruction nesting bird survey. The nesting bird surveys will be conducted no less than 14 days prior to vegetation removal or construction disturbance activities near nesting habitat. The survey will include a search of all trees and shrubs, and ruderal or graded areas that provide suitable nesting habitat for birds and raptors in the construction disturbance area. In addition, a 600-foot area around the construction area will be surveyed for nesting raptors and a 100-foot area around the construction area will be surveyed for songbirds. • If no active bird or raptor nests are detected during the preconstruction surveys, then no additional measures are required. If an active nest is found in the survey area, a no-disturbance buffer will be established to avoid disturbance or destruction of the nest site until the end of the breeding season (generally August 31) or until after a qualified wildlife biologist determines that the young have fledged and moved out of the construction area (this date varies by species). The extent of these buffers will be determined by a qualified	**Phase 1: LTS**

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Impacts	Significance before Mitigation	Mitigation Measures	Significance after Mitigation
		biologist in coordination with any applicable agencies (as determined by species) and will depend on the level of noise or construction disturbance taking place, the line of sight between the nest and the disturbance, ambient levels of noise and other non-project disturbances, and other topographical or artificial barriers. Suitable buffer distances may vary between species; however, a minimum of 50 feet for songbirds and 300 feet for raptors is typical. In developed habitats, buffer areas may be adjusted based on presence of existing barriers. **Mitigation Measure BIO-1b: Modify existing structures during the non-breeding season for structure-nesting migratory birds or conduct preconstruction surveys and implement exclusion measures to deter nesting** For any projects under the Master Plan that would modify any existing built structures, the following measures will be implemented prior to initiation of construction to avoid and minimize impacts on structure-nesting migratory birds, and to avoid violation of the MBTA and CFGC Section 3503. • Conduct building modification activities during the non-breeding season for structure-nesting migratory birds (generally September 1 through January 31). If this is not possible, UC Davis will implement the following avoidance measures. o Prior to the start of each phase of construction anticipated to occur during the migratory bird breeding season (generally February through August), UC Davis will retain a qualified wildlife biologist to thoroughly inspect structures that would be modified or disturbed to locate remnant bird nests. It is preferable to perform this survey in the non-breeding season (September 1 through	

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Impacts	Significance before Mitigation	Mitigation Measures	Significance after Mitigation
		January 31) so that if nests are found and are determined to be inactive, they may be removed. o After inactive nests are removed and prior to construction that would occur between February 1 and August 31, known or potential nesting areas on or within the building structure to be modified or demolished will be covered with a suitable exclusion material that will prevent birds from nesting (i.e., 0.5- to 0.75-inch mesh netting, plastic tarp, or other suitable material safe for wildlife). UC Davis will hire a qualified wildlife management specialist experienced with installation of bird exclusion materials to ensure that exclusion devices are properly installed and will avoid inadvertent entrapment of migratory birds. All exclusion devices will be installed before February 1 and will be monitored throughout the breeding season (typically several times a week). The exclusion material will be anchored so that birds cannot attach their nests to the structures through gaps in a net. o If exclusion material is not installed on structures prior to February 1 and migratory birds colonize a structure, modification to that portion of the structure may not occur until after August 31, or until a qualified biologist has determined that the young have fledged and the nest is no longer in use. o If surveys determine that no active bird nests are present within existing structures to be modified and appropriate steps are taken to prevent migratory birds from constructing new nests as described in the preceding measures, work can proceed at any time of the year.	

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Impacts	Significance before Mitigation	Mitigation Measures	Significance after Mitigation
		Mitigation Measure BIO-1c: Design new building facades and structures to minimize bird collisions Proposed building structures will implement "bird friendly" design strategies from the American Bird Conservancy's Bird-Friendly Building Design (American Bird Conservancy 2015) that provides state-of-the-art guidance on how to meet bird-friendly requirements. Building specific design considerations to minimize bird collisions include, but are not limited to, the use of: • ultraviolet patterned glass, fritted glass, and low reflectance, opaque glass such as spandrel glass • window films or solutions applied to interior glass, such as interior window shades, or a combination thereof • low-level landscaping adjacent to the building façade • exterior shades or fins • awnings or overhangs • angled glass • considerations for interior and site lighting • siting of the building Prior to issuance of plan approval, UC Davis will review the architectural elevations, landscape, and lighting plans to verify compliance with this measure. After construction, UC Davis will monitor and adjust bird collision reduction strategies. Over time, the combination of the UC Davis bird collision reduction strategies already committed to as part of the project are projected to minimize bird collisions on proposed buildings. To verify the effectiveness of the "bird friendly" design strategies after construction of Phase 1, UC Davis will monitor bird strikes as described in the Bird-Friendly Building Design (American Bird Conservancy 2015) consisting of morning strike surveys conducted weekly over a 24-month period. If bird strike rates during monitoring are increasing, UC Davis will add additional measures	

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Impacts	Significance before Mitigation	Mitigation Measures	Significance after Mitigation
		such as lighting modifications, window film, or additional landscaping in consultation with the California Department of Fish and Wildlife. After the addition of new measures, subsequent ongoing monitoring of collision rates, and as necessary, additional measures and consultation with CDFW will take place to further reduce this impact.	
Impact BIO-2: Potential to result in a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service The project site does not support riparian habitat or any other sensitive natural communities. Therefore, the project would have **no impact** on riparian habitat or other sensitive natural communities.	**Master Plan: NI** **Phase 1: NI**	**Mitigation Measures** No mitigation measures are necessary.	**Master Plan: NI** **Phase 1: NI**
Impact BIO-3: Potential to result in substantial adverse effect on state- or federally protected wetlands or non-wetland waters (e.g., marshes, vernal pools, coastal wetlands) through direct removal, filling, hydrological interruption, or other means All required compensatory mitigation associated with applicable permits covering the project site, including mitigation for the loss of state- or federally protected wetlands and non-wetland waters, has been acquired and there are no outstanding compensatory mitigation obligations. Therefore, the project would have no direct impact on state- and federally protected wetlands or non-wetland waters. The project SWPPP would prevent indirect impacts on offsite wetlands and non-wetland waters. There would be **no impact**.	**Master Plan: NI** **Phase 1: NI**	**Mitigation Measures** No mitigation measures are necessary.	**Master Plan: NI** **Phase 1: NI**
Impact BIO-4: Substantial interference with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife	**Master Plan: LTS**	**Mitigation Measures** No mitigation measures are necessary.	**Master Plan: LTS**

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Impacts	Significance before Mitigation	Mitigation Measures	Significance after Mitigation
corridors, or impedance of the use of native wildlife nursery sites Based on the small size of the project site, presence of existing movement barriers, and lack of established wildlife corridors or nursery sites (including stream channels or riparian corridors), the project is not expected to substantially interfere with the movement of native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors or impede the use of native wildlife nursery sites. This impact would be **less than significant**.	**Phase 1: LTS**		**Phase 1: LTS**
Impact BIO-5: Conflict with a local policy or ordinance protecting biological resources, such as a tree preservation policy or ordinance Landscaping installed on the project site could introduce invasive plant species. While UC Davis is not required to comply with Sacramento County or City of Folsom policies on the UC-owned site, the Master Plan landscape plan emphasizes the use of native plant species, and the maintenance plan requires eradication of invasive species. The project would not conflict with any local policies on invasive species, and there would be **no impact**. The project site does not support any trees. In addition, UC Davis is not required to comply with local ordinances. Therefore, the project would not conflict with the ordinance, and there would be **no impact**.	**Master Plan: NI** **Phase 1: NI**	**Mitigation Measures** No mitigation measures are necessary.	**Master Plan: NI** **Phase 1: NI**
Impact BIO-6: Conflict with the provisions of an adopted habitat conservation plan, natural community conservation plan, or other approved local, regional, or state habitat conservation plan	**Master Plan: NI** **Phase 1: NI**	**Mitigation Measures** No mitigation measures are necessary.	**Master Plan: NI** **Phase 1: NI**

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Impacts	Significance before Mitigation	Mitigation Measures	Significance after Mitigation
The project site is not included in areas covered under any adopted conservation plans. Therefore, there would be **no impact.**			
Archaeological, Historical, and Tribal Cultural Resources			
Impact CUL-1: Potential to cause a substantial adverse change in the significance of a historical resource As a result of the previous inventory and evaluation of cultural resources completed for the FPASP, no historical resources are located within the project site. The two resources previously documented in the project site were evaluated as not eligible for the CRHR. Therefore, there will be **no impact** on historical resources and no further mitigation is required.	**Master Plan: NI** **Phase 1: NI**	**Mitigation Measures** No mitigation measures are necessary.	**Master Plan: NI** **Phase 1: NI**
Impact CUL-2: Potential to cause a substantial adverse change in the significance of an archaeological resource No archaeological resources have been identified within the project site. However, there is potential that buried archaeological resources could be encountered during construction. Therefore, this impact would be **less than significant with mitigation.**	**Master Plan: S** **Phase 1: S**	**Mitigation Measure CUL-2a: Conduct cultural resources sensitivity training** Prior to any ground disturbance, construction crews will be required to attend a cultural resources sensitivity training. The training will focus on identifying potential archaeological resources as well as human remains. If potential archaeological resources or human remains are encountered, construction crews will be instructed to notify the University immediately. **Mitigation Measure CUL-2b: Discovery of Previously Unknown Archaeological Resources** In the event that potential archaeological resources are discovered during Project implementation, all earth-disturbing work within 100 feet of the find shall be temporarily suspended or redirected until a qualified archaeologist retained by UC Davis can adequately assess the find and determine whether the resource requires further study. If the archaeological resource discovery is potentially significant, UC Davis and any local, state, or federal agency with approval or permitting authority over the Project that has requested/required notification shall be notified within 48 hours.	**Master Plan: LTS** **Phase 1: LTS**

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Impacts	Significance before Mitigation	Mitigation Measures	Significance after Mitigation
		For all discoveries known or likely to be associated with Native American heritage (precontact sites and select post contact historic-period sites), A Tribal Representative from a California Native American tribe that is traditionally and culturally affiliated with a geographic area shall be immediately notified and shall determine if the find is a TCR (PRC §21074). If the find is identified as a TCR, the Tribal Representative, in consultation with UC Davis and a qualified archaeologist, shall develop a treatment plan in any instance where significant impacts cannot be avoided. The treatment plan shall be prepared in collaboration with consulting Tribes and be submitted to UC Davis and any participating tribe for review and approval prior to its implementation, and additional work in the vicinity of the discovery shall not proceed until the plan is in place. The location of any such finds must be kept confidential, and measures shall be taken to secure the area from site disturbance and potential vandalism. Impacts on previously unknown significant archaeological or tribal cultural resources shall be avoided through preservation in place, if feasible. Damaging effects on tribal cultural resources shall be avoided or minimized following the measures identified in Public Resources Code section 21084.3, subdivision (b), if feasible, unless other measures are mutually agreed to by the lead archaeologist and culturally affiliated tribes that would be as or more effective.	
Impact CUL-3: Disturbance of any human remains, including those interred outside of dedicated cemeteries No human remains are known to be in or near the project site. However, the possibility always exists that unmarked burials may be unearthed during subsurface construction activities. Consequently, there is the potential for the project to disturb human remains during construction, including those outside of formal cemeteries. This impact is considered potentially significant but would be reduced to a less-than-significant level	**Master Plan: S** **Phase 1: S**	**Mitigation Measure CUL-3: Unanticipated Discovery of Human Remains** If human remains, including Native American remains or burials are encountered, all provisions provided in California Health and Safety Code section 7050.5 and Pub. Resources Code § section 5097.98 shall be followed. Work shall stop within 100 feet of the discovery and the County Coroner shall be immediately contacted by the UC Davis on-site construction inspector. If human remains are of Native American origin, the County Coroner shall notify the Native American Heritage Commission (see at	**Master Plan: LTS** **Phase 1: LTS**

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Impacts	Significance before Mitigation	Mitigation Measures	Significance after Mitigation
by Mitigation Measure CUL-3. Therefore, this impact would be **less than significant with mitigation.**		http://www.nahc.ca.gov/profguide.html) within 24 hours of this determination, and a Most Likely Descendent shall be identified. No work is to proceed in the discovery area until consultation is complete and procedures to avoid or recover the remains have been implemented.	
Impact CUL-4: Potential to cause a substantial adverse change in the significance of a tribal cultural resource with cultural value to a California Native American tribe and that is 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) No consultation has been requested under AB 52, no tribal cultural resources have been identified. Accordingly, there would be **no impact**.	**Master Plan: NI** **Phase 1: NI**	**Mitigation Measures** No mitigation measures are necessary.	**Master Plan: NI** **Phase 1: NI**
Impact CUL-5: Potential to cause a substantial adverse change in the significance of a tribal cultural resource with cultural value to a California Native American tribe and that is a resource determined by the lead agency to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1 For the same reasons described above in impact CUL-4, No consultation has been requested under AB 52, no tribal cultural resources have been identified. Accordingly, there would be **no impact**.	**Master Plan: NI** **Phase 1: NI**	**Mitigation Measures** No mitigation measures are necessary.	**Master Plan: NI** **Phase 1: NI**
Energy			
Impact EN-1: Wasteful, inefficient, or unnecessary consumption of energy resources during project construction or operation ***Construction***	**Master Plan: LTS** **Phase 1: LTS**	**Mitigation Measures** No mitigation measures are necessary.	**Master Plan: LTS** **Phase 1: LTS**

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Impacts	Significance before Mitigation	Mitigation Measures	Significance after Mitigation
There are no unusual project characteristics that would necessitate the use of construction equipment that would be less energy efficient than the equipment used at comparable construction sites in other parts of the state. Idling of onsite equipment during construction would be limited to no more than 5 minutes in accordance with California Code of Regulations, Title 13, Sections 2449(d)(3) and 2485. Further, onsite construction equipment may include AFVs where feasible. Finally, the selected construction contractors would use best available engineering techniques, construction and design practices, and equipment operating procedures, ensuring that the wasteful consumption of fuels and use of energy would not occur. Therefore, this impact would be **less than significant**. ***Operation*** Development under the project would be subject to attainment at a minimum of LEED Silver standards and would comply with California Code of Regulations Title 24 requirements through the UC Sustainable Practices Policy. Specifically, the MOB, ambulatory surgery center, micro-hospital, hotel, and support facility buildings would be designed, constructed, and commissioned to outperform ASHRAE 90.1 or meet the whole-building energy performance targets listed in Table 2 in Section V.A.3 of the UC Sustainable Practices Policy. In addition, UC Davis would continue to implement the conservation and efficiency programs (e.g., Green Commuter Program, Clean Energy Efforts) identified above, and is committed to meeting the goals of the UC Sustainable Practices Policy that would reduce overall energy use and increase the use of onsite renewable energy. Therefore, this impact would be **less than significant**.			
Impact EN-2: Conflict with or obstruction of a state or local plan for renewable energy or energy efficiency The project would exceed Title 24 Building Energy Efficiency Standards by attainment of LEED Silver standards, and	**Master Plan: LTS** **Phase 1: LTS**	**Mitigation Measures** No mitigation measures are necessary.	**Master Plan: LTS** **Phase 1: LTS**

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Impacts	Significance before Mitigation	Mitigation Measures	Significance after Mitigation
continued implementation of the UC Sustainable Practices Policy and other efficiency programs and initiatives. Therefore, this impact would be **less than significant.**			
Geology, Soils, and Seismicity			
Impact GEO-1: Potential substantial adverse effects, including the risk of loss, injury, or death involving: (1) rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault; (2) strong seismic ground shaking; (3)seismic-related ground failure, including liquefaction; or (4) landslides The site is not located within the boundaries of an Earthquake Fault Zone for fault-rupture hazard, and no faults are known to pass through the property. Adherence to the 2019 CBSC and the design recommendations in the geotechnical report would preclude substantial adverse effects, including the risk of loss, injury, or death involving rupture of a known earthquake fault, strong seismic ground shaking, seismic-related ground failure, or landslides. Therefore, the impact of the project would be **less than significant,** and no mitigation is required.	**Master Plan: LTS** **Phase 1: LTS**	**Mitigation Measures** No mitigation measures are necessary.	**Master Plan: LTS** **Phase 1: LTS**
Impact GEO-2: Potential to result in substantial soil erosion or the loss of topsoil Construction would involve clearing and grading at project sites and trenching in areas where utility infrastructure would be laid. Campus projects are required to comply with National Pollutant Discharge Elimination System (NPDES) permits and would be subject to a Stormwater Pollution Prevention Plan (SWPPP). Therefore, this impact would be **less than significant.**	**Master Plan: LTS** **Phase 1: LTS**	**Mitigation Measures** No mitigation measures are necessary.	**Master Plan: LTS** **Phase 1: LTS**
Impact GEO-3: Placement of project-related facilities on a geologic units or soil that is unstable or that would become	**Master Plan: LTS**	**Mitigation Measures** No mitigation measures are necessary.	**Master Plan: LTS**

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Impacts	Significance before Mitigation	Mitigation Measures	Significance after Mitigation
unstable as a result of the project and potentially result in onsite or offsite landslide, lateral spreading, subsidence, liquefaction, or collapse As discussed in Impact GEO-1, given that the site is underlain by bedrock and due to the low gradient of the site, the potential for liquefaction and landsliding at the project site is low. Adherence to the 2019 CBSC and the design recommendations in the geotechnical report would preclude impacts that would result in a landslide, lateral spreading, subsidence, liquefaction, or collapse. Therefore, potential impacts resulting from unstable soils would be **less-than-significant.**	**Phase 1: LTS**		**Phase 1: LTS**
Impact GEO-4: Placement of project-related facilities on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property Near surface soils at the project site have a very low expansion potential. There would be a low potential for damage to improperly designed or constructed structures and facilities. With adherence to the provisions in the CBSC, expansive soils would be addressed consistent with the current engineering standard of care, and the impact of the project would be **less than significant.**	**Master Plan: LTS** **Phase 1: LTS**	**Mitigation Measures** No mitigation measures are necessary.	**Master Plan: LTS** **Phase 1: LTS**
Impact GEO-5: Placement of project facilities on soils incapable of adequately support the use of septic tanks or alternative wastewater disposal systems in areas where sewers are not available for the disposal of wastewater The project site would be connected to the City of Folsom wastewater system and no component of the project would require the installation of a septic system. Therefore, there would be **no impact**.	**Master Plan: NI** **Phase 1: NI**	**Mitigation Measures** No mitigation measures are necessary.	**Master Plan: NI** **Phase 1: NI**

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Impacts	Significance before Mitigation	Mitigation Measures	Significance after Mitigation
Impact GEO-6: Direct or indirect destruction of a unique paleontological resource or site or unique geologic feature Because of the nature of the rock formations and the lack of previously recorded vertebrate or plant fossil localities, these formations are not considered to be paleontologically sensitive rock units under the Society of Vertebrate Paleontology guidelines. Therefore, impacts of the project on paleontological resources would be **less than significant.**	**Master Plan: LTS** **Phase 1: LTS**	**Mitigation Measures** No mitigation measures are necessary.	**Master Plan: LTS** **Phase 1: LTS**
Greenhouse Gas Emissions			
Impact GHG-1: Generation of greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment ***Construction*** The project is estimated to generate GHG emissions above SMAQMD's 1,100 MT CO_2e threshold during several years of construction. This is a significant impact before mitigation. Mitigation Measure GHG-1a, AQ-2a, and AQ-3a will reduce construction-generated GHG emissions by requiring use of alternative fuels and minimizing vehicle idling time, among other BMPs. Although emissions are still projected to exceed SMAQMD's significance threshold during several years of construction. Mitigation Measure GHG-1b is therefore required to purchase GHG credits to reduce construction emissions below SMAQMD's 1,100 MT CO_2e threshold. Mitigation Measure GHG-1b, coupled with Mitigation Measures GHG-1a, AQ-2a, and AQ-3a, ensures that emissions generated by construction of the project would not make a cumulatively considerable contribution to climate change. Accordingly, the impact of construction GHG emissions on the environment is **less than significant with mitigation.** ***Operation***	**Master Plan: S** **Phase 1: S**	**Mitigation Measure GHG-1a. Implement best management practices to reduce construction-generated GHG emissions** Buildings constructed under the project will require its prime construction contractor to implement the following measures to reduce construction-related GHG emissions. The list of required measures was informed by SMAQMD's guidance for construction GHG emissions reduction. Measures required by Mitigation Measure AQ-3a have been removed to avoid duplication. • Encourage and provide carpools, shuttle vans, transit passes, and secure bicycle parking for construction worker commutes. • Reduce electricity use in the construction office by using compact fluorescent bulbs, powering off computers every day, and replacing heating and cooling units with more efficient ones. Obtain 100 percent clean electricity. • Recycle or salvage nonhazardous construction and demolition debris (goal of at least 75 percent by weight). • Use locally sourced or recycled materials for construction materials (goal of at least 20 percent based on costs for building materials, and based on volume for roadway, parking	**Master Plan: LTS** **Phase 1: LTS**

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Impacts	Significance before Mitigation	Mitigation Measures	Significance after Mitigation
The mobile source emissions estimated for the project are conservative, and the intensity of the impact would likely be less than reported in this EIR. Nonetheless, mobile source emissions generated by the project beyond 2045 would be significant before mitigation. Mitigation Measure GHG-1b is required to ensure the project does not impede the state's ability to achieve its midcentury (i.e., 2045) carbon neutrality goal. This impact would be **less than significant with mitigation.**		lot, sidewalk and curb materials). Use wood products certified through a sustainable forestry program, as feasible. • Minimize the amount of concrete for paved surfaces or utilize a low carbon concrete option. • Use the proper size of equipment for the job. • Use SmartWay certified trucks for deliveries where the haul distance exceeds 100 miles and a heavy-duty class 7 or class 8 semi-truck or 53-foot or longer box type trailer is used for hauling. SmartWay certified trucks are outfitted at point of sale or retrofitted with equipment that significantly reduces fuel use and emissions. **Mitigation Measure AQ-2a: Reduce heavy-duty off-road equipment exhaust emissions** Refer to measure description under Impact AQ-2. **Mitigation Measure AQ-3a: Reduce receptor exposure to construction-generated diesel particulate matter** Refer to measure description under Impact AQ-3. **Mitigation Measure GHG-1b: Implement verifiable actions or activities or purchase the equivalent GHG credits from a CARB-approved registry or a locally approved equivalent program to reduce GHG emissions generated by the project** As part of this mitigation measure, UC Davis is making the following separate, though overlapping, GHG emission reduction commitments: (1) per the UC Sustainable Practices Policy, Scope 1 and Scope 2 GHG emissions generated by the project will, commencing in 2025, be entirely carbon neutral; (2) also per the UC Sustainable Practices Policy, commencing in 2050, Scope 1, Scope 2, and Scope 3 (commuting and air travel) emissions generated by the project will be offset; and (3) UC Davis will undertake additional action to achieve the following GHG reduction performance standards for the project.	

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Impacts	Significance before Mitigation	Mitigation Measures	Significance after Mitigation

- GHG emissions generated by construction of the project will be reduced to below SMAQMD's threshold of 1,100 MT CO_2e per year.
- By 2045 and thereafter, the project will achieve carbon neutrality (i.e., net zero emissions).

GHG emissions from construction and long-term operation of the project at full implementation were quantified as part of this Draft EIR. The emissions quantification yields the following maximum GHG reduction targets for the above performance standards.

Table 3.7-9. GHG Reduction Targets for Mitigation Measure GHG-1b

Condition	MT CO_2e per Year		
	Draft EIR Emissions	Performance Standard	Reduction Target
Construction Period			
Phase 1, 2023	1,459	1,100	359
Phase 1, 2024	1,857	1,100	757
Phase 1, 2025	2	1,100	0
Phase 2, year 1	2,210	1,100	1,110
Phase 2, year 2	2,746	1,100	1,646
Phase 2, year 3	2,547	1,100	1,447
Phase 2, year 4	4	1,100	0
Phase 3, year 1	1,519	1,100	419
Phase 3, year 2	694	1,100	0
Full Implementation Operations			
2045+	10,151	0	10,151

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		The reduction targets are required to be achieved based on actual emission calculations as completed in the future, as discussed under *Measure Monitoring and Reporting*, and may therefore change over time. It is possible that some strategies under the below commitments could independently achieve the performance standards of this measure. Various combinations of strategies could also be pursued to optimize total costs or community co-benefits. UC Davis will be responsible for determining the overall mix of strategies necessary to ensure the performance standards to mitigate GHG generated by the project. Each of the measure commitments is described in more detail below. ***Compliance with the University of California Sustainable Practices Policy*** Compliance with the UC Sustainable Practices Policy for carbon neutrality will be accomplished through reductions in direct emissions, purchase of renewable electricity, and the purchase of GHG credits. UC Davis will purchase voluntary GHG credits as the final action to reach the GHG emission reduction targets outlined in the UC Sustainable Practices Policy. As part of the University Carbon Neutrality Initiative, internal guidelines have been developed to ensure that any use of credits for this purpose will result in additional, verified GHG emissions reductions from actions that align, as much as possible, with the University's research, teaching, and public service mission. Specifically, any voluntary carbon credits used by UC Davis to comply with the UC Sustainable Practices Policy will do the following. 1. Prioritize local (within the Sacramento region) and in-state credits over national credits. Credits will be third-party verified by a major registry recognized by CARB such as the Climate Action Reserve (CAR). If sufficient local and in-state credits are not available, UC Davis will purchase CARB-	

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		conforming national credits registered with an approved registry. 2. Be reported publicly and tracked through TCR as required by the UC Sustainable Practices Policy.[2] TCR is a nonprofit organization governed by U.S. states and Canadian provinces and territories. UC Davis TCR reports will be third-party verified and posted publicly. ***Additional Greenhouse Gas Reduction Actions*** UC Davis will do one or more of the following options to reduce GHG emissions generated by the project to achieve the measure performance standards. 1. Implement onsite GHG reduction actions at the project (Option 1). 2. Implement GHG reduction actions throughout the communities surrounding the Folsom Center for Health in the city of Folsom (Option 2). 3. Purchase CARB-verified GHG credits (Option 3). Each of the options is described in more detail below. *Onsite Greenhouse Gas Reduction Actions* Actions to reduce GHG emissions at the project (Option 1) must exceed or not duplicate activities implemented pursuant to the UC Sustainable Practices Policy. Potential actions may include, but are not limited to, the following. • **(1)-1**: All UC Davis vehicles that will operate at the Folsom Center for Health will be fuel efficient, low-emission vehicles, ZEV, and/or alternative fueled.	

[2] Reports can be accessed at: https://cris4.org/.

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Impacts	Significance before Mitigation	Mitigation Measures	Significance after Mitigation
		• **(1)-3**: Require use of natural alternatives to HFCs that are feasible and readily available for refrigeration and air conditioning. Natural refrigerants include ammonia, CO_2, or hydrocarbons. UC Davis will require all future development to meet CARB regulations restricting HFCs, if and when adopted. If UC Davis complies with the performance standards of this measure, as specified above, through onsite GHG reduction actions (Option 1), then no further action will be required. If additional GHG reductions are required to meet the performance standards, they may be achieved through offsite GHG reduction actions (Option 2) or procurement of GHG credits (Option 3). *Offsite GHG Reduction Actions* Actions to reduce GHG emissions throughout the surrounding community (Option 2) may include, but are not limited to, the following. • **(2)-1:** Develop a residential energy retrofit package in conjunction with SMUD to achieve reductions in natural gas and electricity usage by the surrounding community. The retrofit package may include identification and sealing of dust and air leaks, installation of programmable thermostats, replacement of interior high-use incandescent lamps with compact florescent lamps or light-emitting diodes (LED), replacement of natural gas dryers with electric clothes dryers, replacement of windows with double-pane or triple-pane solar-control low-E argon gas–filled wood frame windows, or other strategies selected by UC Davis in consultation with SMUD. • **(2)-2:** Develop a commercial energy retrocommissioning package in conjunction with SMUD to improve the energy efficiency of surrounding commercial buildings by at least	

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Impacts	Significance before Mitigation	Mitigation Measures	Significance after Mitigation
		15 percent, relative to current (2019) energy consumption levels. • **(2)-3:** Develop a residential rooftop solar installation program in conjunction with SMUD. The installation program will allow surrounding homeowners to install solar PV systems at zero or minimal up-front cost. All projects installed under this measure must be designed for high performance (e.g., optimal full-sun location, solar orientation) and additive to utility RPS goals. • **(2)-4:** Develop a commercial rooftop solar installation program in conjunction with SMUD. The installation program will allow surrounding business owners to install solar PV systems at zero or minimal up-front cost. All projects installed under this measure must be designed for high performance (e.g., optimal full-sun location, solar orientation) and additive to utility RPS goals. • **(2)-5:** Partner with the City of Folsom and SACOG to assess the feasibility of improving high-quality regional transit serving the Folsom Center for Health. GHG reductions achieved by all offsite projects must be real, permanent, quantifiable, verifiable, enforceable, and additional (per the definition in California Health and Safety Code Section 38562(d)(1)), as defined under Option 3. If UC Davis complies with the performance standards of this measure through offsite GHG reduction actions (Option 2), then no further action will be required. If additional GHG reductions are required to meet the performance standards, they may be achieved through onsite GHG reduction actions (Option 1) or procurement of GHG credits (Option 3). *GHG Credits*	

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		All GHG credits must be created through a CARB-approved registry. These registries are currently the American Carbon Registry (ACR), Climate Action Reserve (CAR), and Verified Carbon Standard (Verra), although additional registries may be accredited by CARB in the future. These registries use robust accounting protocols for all GHG credits created for their exchange, including the six currently approved CARB protocols. This mitigation measure specifically requires GHG credits created for the project originate from a CARB-approved protocol or a protocol that is equal to or more rigorous than CARB requirements under 17 CCR Section 95972. The selected protocol must demonstrate that the reduction of GHG emissions is real, permanent, quantifiable, verifiable, enforceable, and additional. Definitions of these terms from 17 CCR Section 95802(a) are provided below (the original text used the term offset, which has been replaced in the text below with the generic term "GHG credit" as this measure allows for use of both offsets and forecasted mitigation units [FMU]). • **Real**: GHG reductions or GHG enhancements result from a demonstrable action or set of actions, and are quantified using appropriate, accurate, and conservative methodologies that account for all GHG emissions sources, GHG sinks, and GHG reservoirs in the [GHG credit] project boundary and account for uncertainty and the potential for activity-shifting leakage and market-shifting leakage. • **Additional**: GHG reductions or removals that exceed any GHG reduction or removals otherwise required by law, regulation, or legally binding mandate, and that exceed any GHG reductions or removals that would otherwise occur in a conservative business-as-usual scenario. • **Permanent**: GHG reductions and GHG removal enhancements are not reversible, or when GHG reductions and GHG removal	

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		enhancements may be reversible, mechanisms are in place to replace any reversed GHG emission reductions and GHG removal enhancements to ensure that all credited reductions endure for at least 100 years. • **Quantifiable**: The ability to accurately measure and calculate GHG reductions or GHG removal enhancements relative to a project baseline in a reliable and replicable manner for all GHG emission sources, GHG sinks, or GHG reservoirs included in the [GHG credit] project boundary, while accounting for uncertainty and activity-shifting leakage and market-shifting leakage. • **Verifiable**: A [GHG credit] project report assertion is well documented and transparent such that it lends itself to an objective review by an accredited verification body. • **Enforceable:** The authority for CARB to hold a particular party liable and to take appropriate action if any of the provisions of this article are violated. Note that this definition of enforceability is specific to the cap-and-trade regulation, where CARB holds enforcement authority, but this measure will employ GHG credits from the voluntary market, where CARB has no enforcement authority. Applying the definition to this mitigation measure means that GHG reductions must be owned by a single entity and be backed by a legal instrument or contract that defines exclusive ownership. GHG credits may be in the form of GHG offsets for prior reductions of GHG emissions verified through protocols or FMUs for future committed GHG emissions meeting protocols. Because emissions reductions from GHG offsets have already occurred, their benefits are immediate and can be used to compensate for an equivalent quantity of project-generated emissions at any time. GHG credits	

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		from FMUs must be funded and implemented within 5 years of project GHG emissions to qualify as a GHG credit under this measure (i.e., there can only be a maximum of 5 years lag between project emissions and their real-world reductions through funding a FMU in advance and implementing the FMU on the ground). Any use of FMUs that result in a time lag between project emissions and their reduction by GHG credits from FMUs must be compensated through a pro-rated surcharge of additional FMUs proportional to the effect of the delay. Since emissions of CO_2 in the atmosphere reach their peak radiative forcing within 10 years, a surcharge of 10 percent for every year of lag between project emissions and their reduction through a FMU will be added to the GHG credit requirement (i.e., 1.10 FMUs would be required to mitigate 1 MT of project GHG emissions generated in the year prior to funding and implementation of the FMU). UC Davis will identify GHG credits in geographies closest to the project first and only go to larger geographies (i.e., California, United States) if adequate credits cannot be found in closer geographies, or the procurement of such credits would create an undue financial burden. UC Davis will provide the following justification for not using credits in closer geographies in terms of either availability or cost prohibition. • Lack of enough credits available in closer geographies (i.e., Sacramento or El Dorado Counties). • Prohibitively costly credits in closer geographies, defined as credits costing more than 300 percent the amount of the settlement price of the latest cap-and-trade auction. UC Davis documentation submitted supporting GHG credit proposals will be verified by an independent verifier accredited by the ANSI National Accreditation Board or CARB, or an expert with equivalent qualifications to the extent necessary to assist with the verification. Following the standards and requirements established by the	

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		accreditation board (ANSI National Accreditation Board or CARB), the verifier will certify the following. • GHG credits conform to a CARB-approved protocol or a protocol that is equal to or more rigorous than CARB requirements under 17 CCR Section 95972. Verification of the latter requires certification that the credits meet or exceed the standards in 17 CCR Section 95972. • GHG credits are real, permanent, quantifiable, verifiable, enforceable, and additional, as defined in this measure. • GHG credits were purchased according to the geographic prioritization standard defined in this measure. Verification of GHG offsets must occur as part of the certification process for compliance with the accounting protocol. Because FMUs are GHG credits that will result from future projects, additional verification must occur beyond initial certification. Verification for FMUs must include initial certification and independent verification every 5 years over the duration of the FMU generating the GHG credits. The verification will examine both the GHG credit realization on the ground and its progress toward delivering future GHG credits. UC Davis will retain an independent verifier meeting the qualifications described above to certify reductions achieved by FMUs are achieved following completion of the future reduction project. ***Measure Monitoring and Reporting*** UC Davis will implement the UC Sustainable Practices Policy to meet the requirement of carbon neutrality for Scope 1 and 2 emissions by 2025 and carbon neutrality for Scope 3 emissions by 2050. The results of these efforts will be reflected in the UC Davis' annual GHG inventory used to track GHG emissions and sources at the project. As part of the annual GHG inventory for the project, UC Davis will complete a report specifying the annual amount of MT CO_2e	

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		reduction achieved by additional GHG reduction actions pursuant to this mitigation (i.e., Option 1, onsite actions, and Option 2, offsite actions). The report must include evidence that these actions are not being used to mitigate GHG for any other project or entity. GHG reductions achieved by the onsite and offsite actions would be reflected in the project's annual GHG inventory. The estimated annual emissions will then be compared to the measure performance standards to determine the level of additional GHG reductions required (if any). For the identified amount of exceedance of the performance standard(s), UC Davis will purchase GHG credits according to the requirements established under Option 3. As and when the credits are retired, UC Davis will document in its annual report the unique identifier of those credits showing that they have been retired and accepted by TCR.	
Impact GHG-2: Conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases The project would not conflict with local UC Davis plans and policies, the Folsom GHG Reduction Strategy or *2017 Scoping Plan*, SACOG's MTP/SCS, other general state regulations adopted for the purposes of reducing GHG emissions (e.g., SB 100), or the state's ability to achieve its near-term 2030 reduction target under SB 32. Mitigation Measures GHG-1b and GHG-2, as well as Mitigation Measure AQ-3a would require UC Davis to reduce or offset project GHG emissions to achieve carbon neutrality beginning in 2045, consistent with the state's long-term climate change goal. Accordingly, this impact is **less than significant with mitigation**.	**Master Plan: S** **Phase 1: S**	**Mitigation Measure AQ-3a: Reduce receptor exposure to construction-generated diesel particulate matter** Refer to measure description under Impact AQ-3. **Mitigation Measure GHG-1b: Implement verifiable actions or activities or purchase the equivalent GHG credits from a CARB-approved registry or a locally approved equivalent program to reduce GHG emissions generated by the project** Refer to measure description under Impact GHG-1. **Mitigation Measure GHG-2: Provide electric vehicle ready parking** UC Davis will require the design builder for the project to provide EV-ready parking for at least 8 percent of the total parking spaces. EV ready includes installation of the electrical panel capacity and raceway conduit with termination at a junction box or outlet.	**Master Plan: LTS** **Phase 1: LTS**

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Impacts	Significance before Mitigation	Mitigation Measures	Significance after Mitigation
Hazards and Hazardous Materials			
Impact HAZ-1: Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials Construction and operation of the project would result in transport, use, and disposal of hazardous materials to and from the project site that are either currently in place or would be required for new projects would ensure this impact would be **less than significant.**	**Master Plan: LTS** **Phase 1: LTS**	**Mitigation Measures** No mitigation measures are necessary.	**Master Plan: LTS** **Phase 1: LTS**
Impact HAZ-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 It is possible that soil and groundwater in a portion of the project site is contaminated from the historic use of railroad lines. Potential exposure of construction workers to contaminated soils is considered to be a significant impact because of the possible threat to human health from the handling of these materials during ground-disturbing construction activities. However, Mitigation Measure HAZ-2 would require preliminary soil testing before construction, which would reduce the potential for worker exposure to contaminated soils. Therefore, this impact would be **less than significant with mitigation.**	**Master Plan: S** **Phase 1: S**	**Mitigation Measure HAZ-2: Conduct a preliminary investigation and screening for hazardous materials in soils** Construction contract specifications will provide that if soils adjacent to US 50 and East Bidwell Road are to be disturbed, UC Davis or its contractors will conduct a preliminary investigation and screening for ADL, heavy metals, total petroleum hydrocarbons as diesel, fuel oil, and polychlorinated biphenyls of the surface and near-surface soils along the project alignment. If soils contain hazardous materials in excess of established thresholds, soils will be handled in a manner compliant with the Sacramento County CUPA regulatory requirements and disposed of properly. If, during construction, soil or groundwater contamination is suspected, construction activities in the vicinity of the discovery will cease and appropriate health and safety procedures will be implemented, including the use of appropriate personal protective equipment (e.g., respiratory protection, protective clothing, helmets, goggles).	**Master Plan: LTS** **Phase 1: LTS**
Impact HAZ-3: Result in hazardous emissions or handling of hazardous or acutely hazardous materials, substances, or waste within 0.25 mile of an existing or proposed school There are no existing or planned schools within 0.25 mile of the project site. Schools proposed as part of the FPASP include five	**Master Plan: NI** **Phase 1: NI**	**Mitigation Measures** No mitigation measures are necessary.	**Master Plan: NI** **Phase 1: NI**

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elementary schools, a middle school, and a high school. The closest proposed school to the project site is approximately 0.45 mile southeast. Therefore, the project would not emit hazardous emissions or handle hazardous materials within 0.25 mile of an existing or proposed school, and there would be **no impact**.			
Impact HAZ-4: Place project-related facilities on a site that is included on a list of hazardous materials sites, and resulting creation of a significant hazard to the public or the environment The closest of listed site within 0.25 mile of the project site is located at the Folsom Gateway Shopping Mall on the north side of US 50. Listed violations were either closed or did not involve leaks or spills of hazardous materials and are listed as "returned to compliance." There are no known hazardous materials sites or facilities listed within the project site. Therefore, the project would not occur on or near a listed hazardous materials site and there would be **no impact**.	**Master Plan: NI** **Phase 1: NI**	**Mitigation Measures** No mitigation measures are necessary.	**Master Plan: NI** **Phase 1: NI**
Impact HAZ-5: Place project-related facilities within an airport land use plan area, or where such a plan has been adopted, within 2 miles of a public airport or public use airport, resulting in a safety hazard or excessive noise for people residing or working in the project area The project would not be located within the ALUCP for Cameron Park Airpark or Mather Airport or within 2 miles of an airport and would not result in airport safety hazards or excessive noise. Therefore, there would be **no impact**.	**Master Plan: NI** **Phase 1: NI**	**Mitigation Measures** No mitigation measures are necessary.	**Master Plan: NI** **Phase 1: NI**
Impact HAZ-6: Impair implementation of or physical interference with an adopted emergency response plan or emergency evacuation plan Implementation of the project could result in short-term, temporary impacts on street traffic because of potential extension of construction activities into the right-of-way. This	**Master Plan: NI** **Phase 1: NI**	**Mitigation Measures** No mitigation measures are necessary.	**Master Plan: NI** **Phase 1: NI**

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could result in a reduction in the number of lanes or temporary closure of certain road segments. This would occur only during construction activities adjacent to roads. This impact would be **less than significant**.			
Impact HAZ-7: Expose people or structures, either directly or indirectly, to a significant risk of loss, injury, or death involving wildland fires No portion of the project is in or near an area designated as a high or very high FHSZ. Project operation could involve the use of flammable materials such as fuels and solvents, which could be inadvertently ignited by sparks from equipment or machinery. However, use of flammable materials would comply with regulations enforced by CUPA and Cal-OSHA. In addition, all standard fire safety and prevention measures would be implemented, and emergency fire prevention procedures as described in the EAP would further reduce fire risks. Therefore, this impact would be **less than significant.**	**Master Plan: LTS** **Phase 1: LTS**	**Mitigation Measures** No mitigation measures are necessary.	**Master Plan: LTS** **Phase 1: LTS**
Hydrology and Water Quality			
Impact WQ-1: Violation of any water quality standards or waste discharge requirements or other degradation of surface or groundwater quality ***Construction*** Project construction would also involve use of motorized heavy equipment including trucks and dozers that require fuel, lubricating grease and other fluids. Accidental chemical release or spill from a vehicle or equipment could affect surface water. These construction activities could also generate dust, settlement, litter, oil and other pollutants that could temporarily contaminate water runoff from the project site. Implementation of Mitigation Measure MM-WQ-1 and associated requirements would ensure that construction activities do not result in a violation of water quality standards or waste discharges	**Master Plan: S** **Phase 1: S**	**MM-WQ-1: Prepare and Implement a Stormwater Pollution Prevention Plan** Project construction will be required to implement a site-specific SWPPP that is consistent with the NPDES Construction General Permit. The SWPPP will include project construction features designed to protect the quality of stormwater runoff, known as BMPs. As part of the NPDES Construction General Permit, standard erosion control measures and BMPs would be identified in a SWPPP and would be implemented during construction to reduce sedimentation of waterways and loss of topsoil. The SWPPP is required to be submitted before a grading permit is issued. Construction BMPs could include, but not be limited to, the following:	**Master Plan: LTS** **Phase 1: LTS**

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Impacts	Significance before Mitigation	Mitigation Measures	Significance after Mitigation
requirements, or otherwise result in water quality degradation. Potential impacts on water quality from construction activities would be **less than significant with mitigation**. ***Operation*** The project would be designed and maintained in accordance with local and Central Valley Regional Water Board water quality requirements, such as the MS4 permit, UC sustainability practices and procedures for stormwater management, and the FPASP. The project would comply with the Construction General Permit and would implement a SWPPP and other erosion control measures that incorporate stormwater treatment areas such as bioretention and stormwater treatment areas. The project would not violate any water quality standards or otherwise result in water quality degradation during operation. Therefore, project impacts on water quality during operation would be **less than significant.**		• Minimization of disturbed areas to the portion of the project site necessary for construction • Stabilization of exposed or stockpiled soils and cleared or graded slopes • Establishment of permanent revegetation or landscaping as early as is feasible • Removal of sediment from surface runoff before it leaves the project site by silt fences or other similar devices around the site perimeter • Protection of all storm drain inlets on site or downstream of the project site to eliminate entry of sediment • Prevention of tracking soils and debris off site through use of a gravel strip or wash facilities, which would be located at all construction exits from the project site • Proper storage, use, and disposal of construction materials, such as solvents, wood, and gypsum • Continual inspection and maintenance of all BMPs through the duration of construction • Treatment requirements and operating procedures to control site runoff, spillage or leaks, sludge or waste disposal, or drainage from material storage The SWPPP will also contain a site map(s) showing the construction perimeter, existing and proposed buildings, stormwater collection and discharge points, general pre- and post-construction topography, drainage patterns across the site, and adjacent roadways; a visual monitoring program; a chemical monitoring program for “non-visible” pollutants; and a sediment monitoring plan, should the site discharge directly into a waterbody listed on the	

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		303(d) list for sediment. Section A of the Construction General Permit lists all elements that must be contained in a SWPPP. Once grading begins, the SWPPP must be kept on site and updated as needed while construction progresses.	
Impact WQ-2: Substantial decrease of groundwater supplies or substantial interference with groundwater recharge such that the project may impede sustainable groundwater management of the basin Groundwater is not a planned source of water supply in the project site. Therefore, the project would not substantially deplete groundwater supplies because it would not increase groundwater demand. The project would result in an increase in impervious surface area, and associated decrease in groundwater recharge potential at the project site. However, the project design includes pervious areas such as vegetated areas and stormwater features including bioswales, subsurface infiltration, and pervious pavement for parking areas. These landscape and hydromodification features would allow increased groundwater infiltration. Therefore, this impact would be **less than significant**.	**Master Plan: LTS** **Phase 1: LTS**	**Mitigation Measures** No mitigation measures are necessary.	**Master Plan: LTS** **Phase 1: LTS**
Impact WQ-3: Substantial alteration of existing drainage patterns in a manner that would result in substantial erosion or siltation onsite or offsite; substantial increase in the amount of surface runoff in a manner that would result in flooding onsite or offsite; creation of or contribution to runoff water that would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; alteration of the existing drainage pattern in a manner that would impede or redirect flood flows Implementation of the project would result in increased impervious surface areas, and consequently increased stormwater flows. However, stormwater runoff associated with	**Master Plan: LTS** **Phase 1: LTS**	**Mitigation Measures** No mitigation measures are necessary.	**Master Plan: LTS** **Phase 1: LTS**

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impervious surfaces would be reduced with sustainable site design features incorporated into projects associated with implementation of the project. Changes in impervious area would not substantially change the quantity of stormwater discharge; therefore, no flooding or additional sources of polluted runoff would result. Therefore, this impact would be **less than significant.**			
Impact WQ-4: Conflict with or obstruction of implementation of a water quality control plan or sustainable groundwater management plan Construction BMPs and sustainable site design features would ensure that water quality standards would be achieved. Groundwater supplies would not be used during operation. Therefore, the impact would be **less than significant**.	**Mater Plan: LTS** **Phase 1: LTS**	**Mitigation Measures** No mitigation measures are necessary.	**Master Plan: LTS** **Phase 1: LTS**
Land Use and Planning			
Impact LU-1: Physically divide an established community The project site is within the boundaries of the city of Folsom and is currently vacant, undeveloped, and composed of slightly rolling grassland. The project would not physically divide an established community; therefore, there would be **no impact**.	**Master Plan: NI** **Phase 1: NI**	**Mitigation Measures** No mitigation measures are necessary.	**Master Plan: NI** **Phase 1: NI**
Impact LU-2: Cause a significant environmental impact due to a conflict with any applicable land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect The project would not conflict with any applicable land use plan. Because the University holds jurisdiction over campus-related projects, projects carried out by UC Davis would be consistent with the Master Plan. The impact would be **less than significant.**	**Master Plan: LTS** **Phase 1: LTS**	**Mitigation Measures** No mitigation measures are necessary.	**Master Plan: LTS** **Phase 1: LTS**

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Impacts	Significance before Mitigation	Mitigation Measures	Significance after Mitigation
Noise			
Impact NOI-1: Generation of increased ambient noise levels in the project vicinity in excess of applicable standards during project construction Based on the existing and predicted with-construction noise levels, project construction noise may result in a 10-dB or greater increase over the ambient noise level, depending on the activities proposed, the equipment used, and the location of construction. Therefore, although construction noise would not conflict with the applicable City Municipal Code regulations, project construction may result in a substantial temporary increase in noise at the nearest noise-sensitive land uses. Project construction noise impacts during daytime hours would be considered significant. Mitigation Measure NOI-1a and NOI-1b, which includes measures to reduce noise from construction activity, would reduce this significant impact related to daytime construction noise. Although this mitigation measure may reduce construction noise effects, it may not be possible to reduce construction noise to less-than-significant levels because it is not feasible, in all cases and during all construction activities, to ensure that noise levels would not result in excessive noise increases. For these reasons, and because proposed noise control measures may not reduce the construction noise increases over ambient noise to less-than-significant levels, construction noise impacts during daytime hours would be **significant and unavoidable** with Mitigation Measures NOI-1a and NOI-1b.	**Master Plan: S** **Phase 1: LTS**	**Mitigation Measure NOI-1a: Implement daytime construction noise reduction measures** UC Davis will implement or incorporate the following noise reduction measures into the project construction specifications for contractor(s) implementation during project construction. 1. Construction activities will be limited to the daytime hours of 7:00 a.m. and 6:00 p.m. Monday through Saturday and between 9:00 a.m. and 6:00 p.m. on Sunday, when feasible. 2. All construction equipment will be equipped with suitable exhaust and intake silencers in good working order. All construction equipment will be properly maintained and equipped with intake silencers and exhaust mufflers and/or engine shrouds, in accordance with manufacturer recommendations. Equipment engine shrouds, if used, will be closed during equipment operation. 3. All construction equipment and equipment staging areas will be located as far as possible from nearby noise-sensitive land uses, and/or located such that existing or constructed noise attenuating features (e.g., temporary noise wall, blankets) block the line of sight between affected noise-sensitive land uses and construction staging areas, to the extent feasible. 4. Individual operations and techniques will be replaced with quieter procedures (e.g., welding instead of riveting, mixing concrete offsite instead of onsite) where feasible and consistent with building codes and other applicable laws and regulations. 5. Stationary noise sources such as generators or pumps will be located as far as feasible from noise-sensitive land uses. 6. Maintain all construction equipment to minimize noise emissions.	**Master Plan: SU** **Phase 1: LTS**

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Impacts	Significance before Mitigation	Mitigation Measures	Significance after Mitigation
		7. No less than 1 week prior to the start of construction activities, notification will be provided to residential or noise-sensitive uses within 500 feet of the construction site. 8. Install temporary noise barriers as close as possible to the noise source or the receptor and within the direct line-of-sight path between the noise source and nearby sensitive receptor(s), along the eastern perimeter of the project site. The barrier should be constructed of material that has a surface weight of at least 1 pound per square foot and has an acoustical rating of at least 25 Sound Transmission Class. This can include a temporary barrier constructed with plywood supported on a wood frame, sound curtains supported on a frame, or other comparable material. 9. Use "quiet" gasoline-powered compressors or electrically powered compressors as well as electric rather than gasoline- or diesel-powered forklifts for small lifting, where feasible. 10. Prohibit idling of inactive construction equipment for prolonged periods (i.e., more than 5 minutes). **Mitigation Measure NOI-1b: Develop and implement construction noise control plan to reduce noise outside standard construction hours in the city of Folsom** The University will develop a construction noise control plan to reduce noise levels and comply with municipal nighttime noise standards in the city of Folsom. The plan will demonstrate that noise from construction activities that occur daily between 10:00 p.m. and 7:00 a.m. weekdays will comply with the applicable City of Folsom noise limit of 45 dBA, or equal to the existing ambient noise level (whichever is higher), at the nearest noise-sensitive land uses. Measures to reduce noise from construction activity during non-standard construction hours will be incorporated into this plan and may include, but are not limited to, the following.	

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Impacts	Significance before Mitigation	Mitigation Measures	Significance after Mitigation
		• Plan for the noisiest construction activities to occur during daytime hours when people are less sensitive to noise. • Require all construction equipment be equipped with mufflers and sound control devices (e.g., intake silencers, noise shrouds) that are in good condition (at least as effective as those originally provided by the manufacturer) and appropriate for the equipment. • Maintain all construction equipment to minimize noise emissions. • Locate construction equipment as far as feasible from adjacent or nearby noise-sensitive receptors. • Conduct all early morning concrete pour activities at least 500 feet from the nearest offsite noise-sensitive land use. • Require all stationary equipment be located to maintain the greatest possible distance to the nearby existing buildings, where feasible. • Install noise-reducing sound walls or fencing (e.g., temporary fencing with sound blankets) around noise-generating equipment during nighttime/non-standard daytime hours. • Prohibit idling of inactive construction equipment for prolonged periods during nighttime/non-standard hours (i.e., more than 2 minutes). • Conduct additional noise measurements during the specific hours and times that early morning or nighttime construction is proposed to set an appropriate threshold for construction noise during these times. • Provide the name and telephone number of an onsite construction liaison through onsite signage and on the notices	

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Impacts	Significance before Mitigation	Mitigation Measures	Significance after Mitigation
		mailed/delivered to surrounding land uses. If early morning or nighttime construction noise is found to be intrusive to the community (i.e., if complaints are received), the construction liaison will take reasonable efforts to investigate the source of the noise and require that reasonable measures be implemented to correct the problem.	
Impact NOI-2: Generation of increased ambient noise levels in the project vicinity in excess of applicable standards during project operations Combined noise levels demonstrates that operational equipment noise at could exceed the allowable 45 dBA limit during nighttime hours. In addition, the daytime limit of 55 dBA L_{eq} could also be exceeded, depending on the final equipment selected and attenuation features included in the project design. Further, the City Municipal Code includes a stipulation that noise from air conditioning and refrigeration units be limited to 50 dBA at the nearest noise-sensitive uses. This noise limit could also be exceeded. For these reasons, noise from mechanical equipment under the project would be considered significant. Mitigation Measures NOI-2a and NOI-2b would reduce this potentially significant impact related to mechanical equipment noise to a less-than-significant level by ensuring that equipment operations would not result in noise levels above thresholds. This impact would be **less than significant with mitigation.**	**Master Plan: S** **Phase 1: S**	**Mitigation Measure NOI-2a: Mechanical equipment noise reduction plan (all phases)** To reduce potential noise impacts resulting from project mechanical equipment, including heating, cooling, and ventilation equipment, the University will conduct a noise analysis to estimate noise levels of project-specific mechanical equipment based on the final selected equipment models and design features, and create a noise reduction plan to ensure noise levels of equipment, once installed, are below the applicable criteria. The noise reduction plan will include any necessary noise reduction measures required to reduce project-specific mechanical equipment noise to a less-than-significant level. The plan will also demonstrate that with the inclusion of selected measures, noise from equipment would be below the significance thresholds. Feasible noise reduction measures to reduce noise below the significance threshold include, but are not limited to, selecting quieter equipment, utilizing silencers and acoustical equipment at vent openings, siting equipment farther from the roofline, and enclosing all equipment in a mechanical equipment room designed to reduce noise. This analysis will be conducted, and the results and final noise reduction plan will be provided to the University prior to the issuance of building permits for each phase. The noise analysis and noise reduction plan will be prepared by persons qualified in acoustical analysis and/or engineering. The noise reduction plan will demonstrate with reasonable certainty that noise from mechanical equipment selected for the project, including the attenuation features incorporated into the project design, will	**Master Plan: LTS** **Phase 1: LTS**

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Impacts	Significance before Mitigation	Mitigation Measures	Significance after Mitigation
		not exceed the City of Folsom's threshold of 55 dBA during daytime hours or 45 dBA during nighttime hours for nearby sensitive (hospital or residential) uses. The University will incorporate all feasible methods to reduce noise identified above and any other feasible recommendations from the acoustical analysis and noise reduction plan into the building design and operations as necessary to ensure that noise sources meet applicable requirements of the respective noise ordinances at receiving properties. **Mitigation Measure NOI-2b: Emergency generator noise reduction plan** Prior to approval of building permits, the University will conduct a noise analysis to estimate noise levels from the testing of project-specific emergency generators and create a noise reduction plan to ensure noise levels of generator testing are below the applicable criteria. This analysis will be conducted, and the noise reduction plan will be created, based on the analysis results. The analysis will account for proposed noise attenuation features, such as specific acoustical enclosures and mufflers or silences, and the final noise reduction plan will demonstrate with reasonable certainty that proposed generator(s) will not exceed the City of Folsom noise limits of 50 dBA during daytime hours at the nearest noise-sensitive uses. Acoustical treatments may include, but are not limited to, the following. ● Enclosing generator(s) ● Installing relatively quiet model generator(s) ● Orienting or shielding generator(s) to protect noise-sensitive receptors to the greatest extent feasible ● Installing exhaust mufflers or silencers	

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Impacts	Significance before Mitigation	Mitigation Measures	Significance after Mitigation
		• Increasing the distance between generator(s) and noise-sensitive receptors • Placing barriers around generator(s) to facilitate the attenuation of noise In addition, all project generator(s) will be tested only between the hours of 7:00 a.m. and 8:00 p.m. The University will incorporate all recommendations from the acoustical analysis into the building design and operations to ensure that noise sources meet applicable requirements of the noise ordinance.	
Impact NOI-3: Generation of excessive groundborne vibration or groundborne noise levels The project would not include the development of land uses that generate high vibration levels during operations, such as manufacturing, mining, or railroad tracks. Therefore, the analysis of potential project-related vibration effects is limited to project construction activities. However, because construction activities are estimated to be below the applicable FTA criteria during both daytime and nighttime hours, vibration-related impacts would be **less than significant**	**Master Plan: LTS** **Phase 1: LTS**	**Mitigation Measures** No mitigation measures are necessary.	**Master Plan: LTS** **Phase 1: LTS**
Impact NOI-4: Placement of project-related activities in the vicinity of a private airstrip or an airport land use plan or within 2 miles of a public airport or public use airport, resulting in exposure of people residing or working in the project area to excessive noise levels There are no public or public use airport facilities in the vicinity of the project site. However, the Folsom Ranch Dignity Health Hospital, currently under construction east of the project site, would include a helipad for occasional emergency helicopter operations. According to the Helicopter Noise Technical Report	**Master Plan: LTS** **Phase 1: LTS**	**Mitigation Measures** No mitigation measures are feasible.	**Master Plan: LTS** **Phase 1: LTS**

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Impacts	Significance before Mitigation	Mitigation Measures	Significance after Mitigation
for the Folsom Ranch Medical Center, the 60 CNEL contour for this helipad would extend out about 200 feet from the center of the pad and would be contained within the Dignity Health Campus. It would not extend west of the campus or include East Bidwell Street or the project site. According to the California Airport Noise Standards, an acceptable level of aircraft noise for persons living in the vicinity of airports is a 65 dB CNEL. Overnight patients at the micro-hospital and guests at the hotel affiliated with the project would therefore not be exposed to CNEL noise levels in excess of the typical allowable levels for residences. Aircraft noise impacts for the project would be **less than significant.**			
Population and Housing			
Impact POP-1: Creation of substantial unplanned population growth either directly or indirectly The employment associated with the project would not result in a demand for additional housing beyond that planned in the area, as the new employees would be part of the population planned for in the Folsom General Plan. Therefore, the project would not result in the creation of substantial unplanned population growth. This impact would be **less than significant**.	**Master Plan: LTS** **Phase 1: LTS**	**Mitigation Measures** No mitigation measures are necessary.	**Master Plan: LTS** **Phase 1: LTS**
Impact POP-2: Directly displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere The project site is vacant. The development of the project will not result in any displacement of people or housing. There would be **no impact.**	**Master Plan: NI** **Phase 1: NI**	**Mitigation Measures** No mitigation measures are necessary.	**Master Plan: NI** **Phase 1: NI**
Public Services			
Impact PS-1: Creation of a need for new or physically altered governmental facilities to maintain acceptable service	**Master Plan: LTS**	**Mitigation Measures** No mitigation measures are necessary.	**Master Plan: LTS**

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Impacts	Significance before Mitigation	Mitigation Measures	Significance after Mitigation
ratios, response times, or other performance objectives for fire protection facilities Development associated with the project would not result in a demand for additional fire protection services beyond that already planned in the area. Therefore, the project would not result in the need for new or physically altered governmental facilities to maintain acceptable service ratios, response times, or other performance objectives for fire protection facilities. This impact would be **less than significant**.	**Phase 1: LTS**		**Phase 1: LTS**
Impact PS-2: Creation of a need for new or physically altered governmental facilities to maintain acceptable service ratios, response times, or other performance objectives for police protection facilities Because the employment associated with the project would not result in a demand for additional police protection services beyond that already planned in the area, the new employees would be part of the population planned for in the Folsom General Plan and FPASP. Therefore, the project would not result in the need for new or physically altered governmental facilities to maintain acceptable service ratios, response times, or other performance objectives for police protection facilities. This impact would be **less than significant**.	**Master Plan: LTS** **Phase 1: LTS**	**Mitigation Measures** No mitigation measures are necessary.	**Master Plan: LTS** **Phase 1: LTS**
Impact PS-3: Creation of a need for new or physically altered governmental facilities to maintain acceptable service ratios, response times, or other performance objectives for school facilities The population affiliated with the 116 new jobs at the project site would reside throughout the Sacramento metropolitan region in areas already served by schools. Consequently, the project would not result in a substantial increase in enrollment in any one school district. Because the project would result in 116 new employees who would reside in various locations	**Master Plan: LTS** **Phase 1: LTS**	**Mitigation Measures** No mitigation measures are necessary.	**Master Plan: LTS** **Phase 1: LTS**

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Impacts	Significance before Mitigation	Mitigation Measures	Significance after Mitigation
throughout the Sacramento metropolitan region, the project would not result in a substantial increase in enrollment in any one school district and no new facilities would be needed. Therefore, this impact would be **less than significant**.			
Impact PS-4: Creation of a need for new or physically altered governmental facilities to maintain acceptable service ratios, response times, or other performance objectives for other public facilities The project would result in 116 new employees who would likely reside throughout the Sacramento metropolitan region, which is served by existing public libraries. Because the project would not substantially affect population levels in the Folsom area, substantial increased demand for library services in Folsom is not anticipated to the extent that new library facilities would be necessary, and this impact would be **less than significant**.	**Master Plan: LTS** **Phase 1: LTS**	**Mitigation Measures** No mitigation measures are necessary.	**Master Plan: LTS** **Phase 1: LTS**
Recreation			
Impact REC-1: Substantially increase the use of existing recreational facilities or result in substantial physical deterioration Although the number of park users is expected to increase as a result of the project, such an increase in and of itself would not cause substantial physical deterioration of existing facilities or a need for new facilities to be constructed. Given the variety of existing nearby open space and recreational facilities, planned future parkland, and the project's incorporation of onsite open space features, the increased usage of any one park by new employees or visitors at the project site would not be substantial. Therefore, the impacts related to the use of existing parks and recreational facilities would be **less than significant**.	**Master Plan: LTS** **Phase 1: LTS**	**Mitigation Measures** No mitigation measures are necessary.	**Master Plan: LTS** **Phase 1: LTS**

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Impacts	Significance before Mitigation	Mitigation Measures	Significance after Mitigation
Impact REC-2: Construction or expansion of recreational facilities that might have an adverse physical effect on the environment While the project does include several areas of open space, no construction or expansion of recreational facilities that might have an adverse effect on the environment is proposed. Therefore, this impact would be **less than significant**.	**Master Plan: LTS** **Phase 1: LTS**	**Mitigation Measures** No mitigation measures are necessary.	**Master Plan: LTS** **Phase 1: LTS**
Transportation and Circulation			
Impact TRA-1: Change in work vehicle miles traveled per employee The project would generate new trips to and from the project site. The expected work VMT per employee is 18.24, which is 14.4 percent below the baseline regional average as shown in Table 3.15-5. The limited development around the project site contributes to this VMT performance. The project's work VMT per employee is projected to decrease over time as the site and surrounding area continue to develop and provide more complementary land uses. However, because work VMT per employee is less than 15 percent below baseline regional average, the project's VMT impact is significant under baseline plus Phase 1 and baseline plus Master Plan conditions. With implementation of Mitigation Measure TRA-1, UC Davis will implement additional VMT reduction strategies either from those identified in the GHG Handbook or that emerge over time from new research sufficient to reduce work VMT per employee below the threshold. This would reduce the impact to **less than significant with mitigation.**	**Master Plan: S** **Phase 1: S**	**Mitigation Measure TRA-1: Monitor and adjust VMT reduction strategies** Over time, the combination of the UC Davis VMT reduction strategies already committed to as part of the project and the development of the FPASP are projected to produce work VMT per employee below the significance threshold. To minimize the amount of time that the project generates VMT above the threshold of 18.1 (i.e., 15 percent below the regional baseline average) after construction of Phase 1, UC Davis will monitor work VMT per employee to verify performance against the VMT significance threshold. During Phase 1's first year of operation and every 2 years thereafter, UC Davis will survey and record work VMT per employee by all employees at the Folsom Center for Health. The first survey will establish an observed baseline work VMT per employee and benchmark future VMT reductions. This survey should be coordinated with any similar assessment necessary for compliance with the UC Sustainable Practices Policy mode split targets. Surveys will continue until substantial evidence is sufficient to demonstrate that the project performs below the VMT threshold and is likely to remain at or better than this level. In any survey period where work VMT per employee is not below the threshold, UC Davis will implement additional VMT reduction strategies either from those identified in the GHG Handbook or that emerge over time from new research sufficient to reduce work VMT per employee below the threshold.	**Master Plan: LTS** **Phase 1: LTS**

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Impacts	Significance before Mitigation	Mitigation Measures	Significance after Mitigation
Impact TRA-2: Disrupt existing, or interfere with planned, transit, roadway, bicycle, and pedestrian facilities The project is in an undeveloped area with no bicycle or pedestrian facilities or other land uses adjacent to the project site. Therefore, the project would not disrupt any existing bicycle or pedestrian facilities, nor would it disrupt bicycle or pedestrian travel. In addition, UC Davis would provide a 25-foot easement along the site's northern and eastern frontages to allow construction of a planned regional Class I bikeway and trail. All planned bicycle and pedestrian facilities would be constructed as part of the Folsom Ranch Development. The project would not interfere with a planned bicycle or pedestrian facility; rather, it would integrate into the network by providing bicycle and pedestrian access points around its perimeter. This impact would be **less than significant**.	**Master Plan: LTS** **Phase 1: LTS**	**Mitigation Measures** No mitigation measures are required.	**Master Plan: LTS** **Phase 1: LTS**
Impact TRA-3: Result in changes to the transportation system that would affect safety or emergency access The project does not propose any new roadways or transportation facilities that would be inconsistent with applicable design standards. This impact would be **less than significant.**	**Master Plan: LTS** **Phase 1: LTS**	**Mitigation Measures** No mitigation measures are required.	**Master Plan: LTS** **Phase 1: LTS**
Impact TRA-4: Result in construction activity that could cause temporary impacts to transportation and traffic Implementation of the project would involve construction activities that could cause temporary impacts to transportation and traffic. However, projects under construction are required to comply with traffic control plan requirements of the City of Folsom as specified in Section 10.05 and 10.06 of the City of Folsom Construction Specification to minimize disruptions to traffic and conflicts between modes so work in the public right-of-way is done in an expeditious manner and causes as little inconvenience to the traveling public as possible. Further, all	**Master Plan: LTS** **Phase 1: LTS**	**Mitigation Measures** No mitigation measures are required.	**Master Plan: LTS** **Phase 1: LTS**

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Impacts	Significance before Mitigation	Mitigation Measures	Significance after Mitigation
public traffic will be permitted to pass through the work areas with the least obstruction and inconvenience and all modes must be allowed to pass at all times except during an emergency closure. Therefore, this impact would be **less than significant.**			
Utilities and Service Systems			
Impact UT-1: Relocation or construction of new or expanded water, wastewater treatment, stormwater drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects While the implementation of the project would increase the project site's population and generate a corresponding increase in demand for utilities, the project and the surrounding area have adequate facilities to accommodate this demand and would not require the relocation or construction of new facilities. Improvements related to increased capacity or infrastructure are analyzed in various sections of this document as part of the analysis of the new facilities, and would not result in substantial physical changes. This impact would be **less than significant**.	**Master Plan: LTS** **Phase 1: LTS**	**Mitigation Measures** No mitigation measures are required.	**Master Plan: LTS** **Phase 1: LTS**
Impact UT-2: Creation of a need for new or expanded entitlements or resources for sufficient water supply to serve the project and reasonably foreseeable future development during normal, dry, and multiple dry years While the project would create an increase in demand for water, this amount was considered in the planning and analysis for the FPASP, and the City has sufficient water supply exists to meet this demand. Furthermore, the project would incorporate strategies to minimize water consumption as described in the UC Sustainable Practices Policy and the UC Davis Drought Response Action Plan. For these reasons, the increased water demand would not result in the need for the City of Folsom to obtain	**Master Plan: LTS** **Phase 1: LTS**	**Mitigation Measures** No mitigation measures are required.	**Master Plan: LTS** **Phase 1: LTS**

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Impacts	Significance before Mitigation	Mitigation Measures	Significance after Mitigation
additional entitlements to serve project. The impact would be **less than significant.**			
Impact UT-3: Project-related exceedance of existing wastewater treatment capacity Development associated with implementation of the project would increase wastewater but would not require any substantial infrastructure improvements at SRWTP. Therefore, this impact would be **less than significant**.	**Master Plan: LTS** **Phase 1: LTS**	**Mitigation Measures** No mitigation measures are required.	**Master Plan: LTS** **Phase 1: LTS**
Impact UT-4: Project-related exceedance of state or local solid waste standards or of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals The amount of solid waste generated by construction and implementation of the project would not exceed the estimated rates for implementation of the FPASP and would not exceed the maximum tons per day that could be received at Kiefer Landfill. The City of Folsom's Construction and Demolition Recycling Ordinance together with compliance with the UC Sustainable Practices Policy would continue to reduce landfill contributions. The impact would be **less than significant.**	**Master Plan: LTS** **Phase 1: LTS**	**Mitigation Measures** No mitigation measures are required.	**Master Plan: LTS** **Phase 1: LTS**
Impact UT-5: Inconsistency with federal, state, and local management and reduction statutes and regulations related to solid waste Although the University is not subject to state and local regulations related to solid waste, development associated with implementation of the Folsom Health Center would comply with the UC Sustainable Practices Policy, which encourages waste reduction and diversion programs and is consistent with the management and reduction regulations related to solid waste, such as CIWMA, AB 341, SB 1374, and AB 1826. Therefore, project implementation would not be inconsistent with federal,	**Master Plan: NI** **Phase 1: NI**	**Mitigation Measures** No mitigation measures are required.	**Master Plan: NI** **Phase 1: NI**

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Impacts	Significance before Mitigation	Mitigation Measures	Significance after Mitigation
state, or local management and reduction statutes and regulations related to solid waste. There would be **no impact**.			
Wildfire			
Impact WF-1: Substantially impair an adopted emergency response plan or emergency evacuation plan The project site is not located in an area with significant risk related to wildland fires. The project would not include any changes to existing public roadways that provide emergency access to the site or surrounding area. Emergency vehicle access to the project site would be provided through Loop Road, which would minimize interactions with the proposed adjacent parking facilities. Also, the project would be designed to comply with the California Fire Code and the EAP requirements that require onsite access for emergency vehicles and prevent impairment or disruption of emergency response or evacuation plans. The impact would be **less than significant**.	**Master Plan: LTS** **Phase 1: LTS**	**Mitigation Measures** No mitigation measures are required.	**Master Plan: LTS** **Phase 1: LTS**
Impact WF-2: Exacerbation of wildfire risks associated with pollutant concentrations or uncontrolled spread of wildfire Compliance with established goals, policies, and requirements would reduce potential impacts related to wildfire risks and the pollutants associated with wildfire. In addition, the project site and proposed buildings would be separated by paved parking areas, landscaping, and building setbacks that would reduce wildfire risks. The project site is also relatively flat and landscaping would be properly irrigated and maintained, which would also reduce the risk of wildfire. Therefore, this impact would be **less than significant.**	**Master Plan: LTS** **Phase 1: LTS**	**Mitigation Measures** No mitigation measures are required.	**Master Plan: LTS** **Phase 1: LTS**
Impact WF-3: Project-related installation or maintenance of associated infrastructure that may exacerbate fire risk or result in temporary or ongoing environmental impacts	**Master Plan: LTS** **Phase 1: LTS**	**Mitigation Measures** No mitigation measures are required.	**Master Plan: LTS** **Phase 1: LTS**

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Impacts	Significance before Mitigation	Mitigation Measures	Significance after Mitigation
The project, including infrastructure upgrades, would be completed in conformance with the CBSC, and would maintain defensible space throughout all construction and operation activities to reduce potential fire hazards. Therefore, impacts of the project related to the installation or maintenance of facilities and associated wildfire risk and environmental impacts would be **less than significant**.			
Impact WF-4: Exposure of people or structures to significant risks such as downslope or downstream flooding or landslide as a result of runoff, post-fire slope instability, or drainage changes The topography of the project site and surrounding area is relatively flat; therefore, the project would not expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of post-fire slope instability or drainage changes and there would be **no impact**.	**Master Plan: NI** **Phase 1: NI**	**Mitigation Measures** No mitigation measures are required.	**Master Plan: NI** **Phase 1: NI**

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Chapter 1
Introduction

1.1 Purpose and Intended Use of this EIR

This chapter summarizes the purposes of this programmatic environmental impact report (EIR) for the development of a health center by the University of California, Davis (UC Davis) in Folsom, as laid out in the Folsom Center for Health Master Plan (project).

"Master Plan" in this context refers to the process and document(s) that defines a stable and vetted program for a multi-facility development; identifies building uses and approximate square footage per building; identifies specific landscape and other site features; defines approximate physical layout of all of these elements relative to each other and to the site more broadly; and determines logical phasing of site development.

This chapter describes the California Environmental Quality Act (CEQA) requirements for this project, the intended uses of the EIR, the EIR scope and organization, and a summary of the agency and public comments received during the public review period for the Notice of Preparation (NOP) for the EIR. This analysis has been prepared under the direction of the University of California (UC) Board of Regents (the Regents) in accordance with the requirements of CEQA (Public Resources Code [PRC] Section 21000 et seq.) and the CEQA Guidelines (California Code of Regulations [CCR], Title 14, Division 6, Chapter 3, Section 15000 et seq.). The Regents serve as the lead agency under CEQA for consideration of certification of this EIR and potential project approval; CCR Section 15367 defines "lead agency" as the agency with principal responsibility for carrying out and approving a project.

According to CEQA, if the lead agency determines that a project may have a significant effect on the environment, the lead agency shall prepare an EIR (CCR Section 15064(f)(1)). An EIR is an informational document used to inform public agency decision makers and the general public of the significant environmental effects of a project, identify possible ways to mitigate or avoid the significant environmental effects, and describe a range of reasonable alternatives to the project that could feasibly attain most of the basic objectives of the project while substantially lessening or avoiding any of the significant environmental impacts.

CEQA requires that state and local government agencies consider the environmental effects of projects over which they have discretionary authority before taking action on those projects (PRC Section 21000 et seq.). CEQA also requires that each public agency avoid or mitigate to less-than-significant levels, wherever feasible, the significant environmental effects of projects it approves or implements. If a project would result in significant and unavoidable environmental impacts (i.e., significant effects that cannot be feasibly mitigated to less-than-significant levels), the project can still be approved, but the lead agency must prepare and issue a "statement of overriding considerations" explaining in writing the specific economic, social, or other considerations that make those significant effects acceptable (PRC Section 21002; CCR Section 15093).

When certified, this EIR will serve as the programmatic environmental document for overall expected development at the Folsom campus and will be used for future environmental review and tiering of CEQA environmental review when implementing future phases of the development.

Within CEQA, "tiering" refers to basing the later CEQA analyses for specific future projects upon the planned development analyzed in the programmatic document. The Master Plan (Appendix A, *Folsom Center for Health Master Plan*) lays out the planned development of the project site.

Phase 1 development will include construction and operation of the medical office building (MOB) element of the project as well as the community arrival landscaped area, the central green, supporting site utilities serving the MOB, driveways, perimeter buffer, landscaping and stormwater facilities, and approximately 525 parking spaces. This EIR provides detailed analysis for the first phase of development identified in the Master Plan.

1.2 Relationship to the Folsom South of US 50 Specific Plan and the FPASP EIR/EIS

In May 2011, the City of Folsom certified the EIR/environmental impact statement (EIS) for the Folsom South of US 50 Specific Plan project (SCH #2008092051) (Folsom Plan Area Specific Plan or FPASP). The FPASP encompasses approximately 3,500 acres of land in eastern Sacramento County that was annexed into the City of Folsom. The FPASP EIR/EIS covered the potential effects of six alternative land use scenarios for a mixed-use development within the Specific Plan area. The FPASP was intended to support a combination of employment-generating uses, retail and supporting services, recreational uses, and a broad range of residential uses and associated infrastructure and roads within an approximately 3,510-acre area entirely within the City's sphere of influence, but which was previously under jurisdiction of Sacramento County. This land has since been annexed to the City of Folsom, and buildout of the FPASP is underway.

The Folsom Center for Health Master Plan occurs on an approximately 34.6-acre area within the north-central portion of the FPASP, southwest of the intersection of U.S. Route 50 (US 50) and East Bidwell Street. This document does not tier from the FPASP EIR/EIS. Rather, this Program EIR is a stand-alone EIR.

However, the FPASP EIR/EIS contains much relevant information about the project vicinity and the project site. For this reason, the FPASP EIR/EIS is incorporated by reference as described in Section 3.0.3, *Incorporation by Reference*.

Site preparation as anticipated in the development agreement (as amended) is a part of the development project approved by the City of Folsom and assessed in the FPASP EIR/EIS and its addendums and not a part of the Folsom Center for Health Master Plan project. As described in the Development Agreement (DA) (as amended) (Appendix B, *Development Agreement*) with UC Davis' purchase of the 34.6-acre property, UC Davis is acquiring a mass-graded pad with accommodations for basic infrastructure as anticipated in the FPASP EIR/EIS. As detailed in the DA, the FPASP EIR/EIS required the developer to implement specific mitigation for CEQA impacts as well as the impacts on wetlands and waters of the United States (which necessitated the EIS). The DA codifies the acceptance by the City, that at the time of the hearing (June 16, 2021) the Planning Commission considered the Environmental Checklist and Addendum to the FPASP EIR/EIS and certified that all applicable mitigation measures have been implemented for those impacts associated with the City's adoption of the DA, and site preparation to the condition described in the DA. Recital 'D' of the DA is an acknowledgement by the City that the Regents, as a public trust corporation, shall be permitted to exercise its land use authority as lead agency under Section 9 of Article IX of the California

Constitution, subject to Landowner's[1] promise and commitment to subject itself to the City's land use and zoning ordinances, including the City's Building and Zoning Codes, except as otherwise specified in the DA.

Notwithstanding the aforementioned provisions set forth in the development agreement (as amended) the DA also specifies that the new landowner (University of California) shall perform necessary environmental review and analysis under CEQA, and where consistent with CEQA Guidelines, the new landowner shall incorporate applicable mitigation measures or their equivalent from the previously certified FPASP EIR/EIS. Infrastructure improvements are currently underway, and mass-grading of the 34.6-acre project site is expected to begin in early 2022. The major milestones for the site preparation, including mass grading, installation of utility infrastructure, curb and gutter, and streetlights and landscaping, and other infrastructure improvements that are being installed by the master developer,[2] are expected to be completed by spring 2023.

1.3 Public and Agency Involvement during the Environmental Review Process

1.3.1 Notice of Preparation and Public Scoping

"Scoping" refers to the process used to assist lead agencies under CEQA in determining the focus and content of an EIR. Scoping solicits input on the potential topics to be addressed in an EIR, the range of project alternatives, and possible mitigation measures. Scoping is also helpful in establishing methods of assessment and in selecting the environmental effects to be considered in detail. Tools used in scoping this EIR included informal stakeholder and interagency consultation, a public scoping meeting, and publication of the NOP for the EIR.

Pursuant to CEQA Guidelines Section 15082, the lead agency is required to send an NOP to the Governor's Office of Planning and Research (OPR), responsible and trustee agencies, and federal agencies involved in funding or approving the project. The NOP must provide sufficient information for responsible agencies to make a meaningful response. At a minimum, the NOP must include a description of the project, location of the project, and probable environmental effects of the project (CEQA Guidelines Section 15082(a)(1)). Within 30 days after receiving the NOP, responsible and trustee agencies and OPR must provide the lead agency with specific detail about the scope and content of the environmental information related to that agency's area of statutory responsibility that must be included in the Draft EIR (CEQA Guidelines Section 15082(b)).

In accordance with PRC Section 21092 and CCR Section 15082, an NOP was prepared and circulated on December 1, 2021, for a 30-day period of public and agency comment. The NOP was submitted to the State Clearinghouse and the Sacramento County clerk-recorder. A copy of the NOP and the written comments received during the NOP comment period are provided in Appendices C, *Notice of Preparation*, and Appendix D, *Notice of Preparation Comment Letters Received*, respectively. A

[1] The landowner is the Regents of the University of California.

[2] The master developer is a landowner, often working with a development manager, who owns a large site that is planned for comprehensive development. Typically, a project will be built out in phases over a number of years by different developers, following a plan approved under an overarching planning consent.

summary of the relevant NOP comments is provided at the beginning of each topical section in Chapter 3, *Existing Environmental Setting, Impacts, and Mitigation*.

UC Davis conducted a virtual open house scoping session during the NOP comment period on Tuesday, December 14, 2021, via Zoom Webinar. The objective of the session was to brief interested parties on the scope of the Folsom Center for Health Master Plan project and obtain the views of agency representatives and the public on the scope and content of the upcoming Draft EIR and potentially significant environmental impacts related to the project.

1.3.2 Draft EIR Review and Comment

This Draft EIR is being circulated for a 45-day period of review and comment by the public and other interested parties, agencies, and organizations. A virtual public hearing will be held on April 14th from 4:30 to 5:30 P.M., to receive verbal comments from agencies and the public on the Draft EIR. To register for the public hearing, please visit: https://environmentalplanning.ucdavis.edu/folsom-center-health-draft-eir.

Copies of the Draft EIR are available on the UC Davis Environmental Planning website for review at the link listed above.

Hard copies of the document are available at the following locations.

- UC Davis Health Center, Facilities Design and Construction, 4800 Second Avenue, Suite 3010, Sacramento, CA 95817.
- UC Davis Office of Environmental Stewardship and Sustainability in 436 Mrak Hall on the UC Davis Campus, Davis, CA 95616.
- Reserves at Shields Library on the UC Davis Campus, Davis, CA 95616.
- Folsom Public Library, 411 Stafford Street, Folsom, CA 95630.

The public review period will conclude at 5:00 p.m. on May 9, 2022. All comments on the Draft EIR should be addressed to:

Matt Dulcich, AICP
Director of Environmental Planning
Campus Planning and Environmental Stewardship
University of California
One Shields Avenue
Davis, CA 95616
environreview@ucdavis.edu

After the close of the public comment period, responses to written and oral comments on environmental issues will be prepared. Consistent with CCR Section 15088(b), commenting agencies will be provided a minimum of 10 days to review the proposed responses to their comments before any action is taken on the Final EIR or project. The Final EIR (consisting of this Draft EIR and the Response to Comments document) will then be considered for certification (in accordance with CCR Section 15090) and approval by the Regents. If the Regents find that the Final EIR is "adequate and complete," the Regents may certify the Final EIR in accordance with CEQA. The rule of adequacy generally holds that an EIR can be certified if the following is true.

1. The EIR shows a good faith effort at full disclosure of environmental information, and

2. The EIR provides sufficient analysis to allow decisions to be made regarding the proposed project with consideration given to its environmental impacts.

The level of detail contained throughout this EIR is consistent with CCR Section 15151 of the CEQA Guidelines and recent court decisions, which provide the standard of adequacy on which this document is based. The CEQA Guidelines state as follows.

> 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 the environmental consequences. An evaluation of the environmental effects of a proposed project need not be exhaustive, but the sufficiency of an EIR is to be reviewed in the 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. (CEQA Guidelines Section 15151)

CEQA requires that when a public agency makes findings based on an EIR, the public agency must adopt a reporting or monitoring program for those measures it has adopted or made a condition of the project approval to mitigate significant adverse effects on the environment. The reporting or monitoring program must be designed to ensure compliance during project implementation. The mitigation monitoring and reporting program for the project will be prepared and considered by the Regents in conjunction with the Final EIR review.

1.4 Scope of the Draft EIR

UC Davis has determined that the UC Davis Folsom Center for Health Master Plan project will require a Program EIR that will evaluate the master plan for the site and can be used in the environmental review of subsequent phases and development projects. In other words, future projects will be reviewed in light of the analysis contained within this program level EIR to determine whether the potential environmental impacts of the subsequent project have been adequately described and analyzed in the program-level document or whether additional environmental review will be required. In addition, this EIR provides detailed analysis for Phase 1 development of the project, which includes the MOB, parking, and other supporting infrastructure.

As discussed in the NOP, several resource areas will not be analyzed in detail in the EIR—agricultural and forestry resources and mineral resources—for the reasons described below. All other environmental topics covered by CEQA are addressed at a program level in this EIR and at a project level for Phase 1.

The project site is not zoned for agricultural use, and there are no parcels enrolled in a Williamson Act contract in the vicinity. There is no forest land or timberland in the vicinity and the surrounding lands are similarly planned for development pursuant to the FPASP. Because development on the project site would not convert farmland or forest land to non-agricultural uses, there would be **no impact** on these resources, and no further analysis is required.

Development on the project would not involve extraction of mineral resources and therefore would not result in the loss of availability of a known mineral resource. There would be **no impact**, and no further analysis is required.

1.5 Known Areas of Controversy and Issues of Concern

Pursuant to CEQA Guidelines Section 15123(b)(2), a lead agency is required to include in the EIR areas of controversy raised by agencies and the public during the public scoping process. Issues of concern and issue areas raised during the scoping process include air quality, biological resources, cultural and tribal cultural resources, climate change, energy efficiency, hydrology and water quality, hazardous materials, traffic/circulation, public safety, and public utilities. UC Davis carefully reviewed comments provided during the NOP scoping period (described in Section 1.3.1, *Notice of Preparation and Public Scoping*) to assist in refining the project details and to assist in preparing the information and analysis contained in this EIR.

1.6 Responsible and Trustee Agencies

Under CEQA, responsible agencies are state and local public agencies other than the lead agency that have the authority to carry out or approve a project or that are required to approve a portion of the project for which a lead agency is preparing or has prepared an EIR. Trustee agencies are state agencies with legal jurisdiction over natural resources affected by a project that are held in trust for the people of the State of California. Agencies that may have responsibility for or jurisdiction over implementation of elements of the project are listed in Section 2.8, *Anticipated Public Approvals*.

This EIR and any environmental analysis relying on this EIR are expected to be used to satisfy the CEQA requirements of the listed responsible and trustee agencies.

1.7 Organization of the Draft EIR

This Draft EIR is a program-level evaluation of the Folsom Center for Health Master Plan, as well as the project-level impacts of Phase 1, the MOB, and required infrastructure. This EIR is organized as follows.

- *Executive Summary* provides an overview of the environmental evaluation, including impact conclusions and recommended mitigation measures.
- Chapter 1, *Introduction*, describes the purpose, process, scope, and public outreach for this EIR.
- Chapter 2, *Project Description*, describes the location of the project, the project background, existing conditions on the project site, and the nature and location of specific elements of the project.
- Chapter 3, *Existing Environmental Setting, Impacts, and Mitigation*, includes a topic-by-topic analysis of impacts that would or could result from the project. The analysis is organized into 17 topical sections. Each section includes a discussion of the environmental and regulatory setting, impact analysis, and mitigation measures (if any).
- Chapter 4, *Cumulative Impacts*, provides information regarding the potential cumulative impacts that would result from the project together with other past, present, and probable future projects.

- Chapter 5, *Other CEQA Considerations*, includes a discussion of growth inducement and unavoidable adverse impacts.
- Chapter 6, *Alternatives*, describes feasible alternatives to the project, including the No Project Alternative that describes the consequences of taking no action.
- Chapter 7, *Preparers*, identifies preparers of the Draft EIR.
- Chapter 8, *References*, lists source material cited in the Draft EIR.
- Chapter 9, *Acronyms and Abbreviations*, defines terms used in the Draft EIR.

1.8 COVID-19 Considerations

In December 2019, the U.S. Centers for Disease Control and Prevention identified the first human cases of the COVID-19 coronavirus. In January 2020, the first case was identified in the United States, and the virus was identified in California in February 2020. As a key component of providing key new regional hospital facilities, the project design incorporates new information learned from the COVID-19 pandemic with key facility details for isolation treatment flexibility, air handling for improved ventilation, material handling efficiencies for potential infected materials, and adaptable patient rooms for improved intensive care flexibility in case of future pandemics.

In relation to the COVID-19 pandemic events, Governor Gavin Newsom declared a State of Emergency in California. As of July 2021, there were 3,724,833 confirmed cases and 63,376 fatalities in the state (California Department of Public Health 2021). On March 19, 2020, the State Public Health Officer issued an order directing all individuals living in the state to stay at home except as needed to perform essential activities. As of the writing of this document, while the stay-at-home order has ended, COVID-19 continues to present a significant risk to the health of individuals throughout California and some restrictions are still in place.

Due to these ongoing changes in our communities, there are many unknowns related to what the "new normal" will be after the COVID-19 pandemic. Likely assumptions include an increased potential for telecommuting, changes in traffic patterns, reduced public transit and shuttle use, and potential changes in demand for types of medical services (such as telemedicine). It is likely that avoidance of ride sharing or public transit due to social distancing, at the same time that increased numbers of workers may continue with full-time or part-time telework, could occur and could have repercussions on future conditions. While these factors should be acknowledged, they are currently speculative and therefore cannot be considered in future conditions or in relation to potential impacts, as CEQA requires consideration of reasonably foreseeable outcomes and does not require consideration of changes that are speculative.

Chapter 2
Project Description

2.1 Introduction

The University of California (UC) system consists of 10 campuses, 5 of which support health sciences programs that include teaching hospital facilities affiliated with medical schools: San Francisco, San Diego, Irvine, Los Angeles, and Davis. At the UC Davis Campus, the affiliation between the teaching hospital and the medical school is a single organization called UC Davis Health. UC Davis Health includes the School of Medicine, the Betty Irene Moore School of Nursing, a 625-bed acute care hospital, a National Cancer Institute–designated Comprehensive Cancer Center, and outpatient clinics on the UC Davis Sacramento Campus and in communities throughout the Sacramento region. UC Davis Health is committed to providing quality primary care throughout the Sacramento region (Figure 2-1). In total, UC Davis Health leases over 830,000 square feet (sf) of offsite facilities in the Sacramento region for clinics and offices. The Folsom Center for Health would provide medical services, research, and educational services to Sacramento and El Dorado Counties and function as a supporting facility to the UC Davis Medical Center in Sacramento.

UC Davis proposes the development of UC Davis Folsom Center for Health as laid out in the Folsom Center for Health Master Plan[1] (project). The project will consist of approximately 400,000 sf of building space for wellness and healthcare services, which will be built out in multiple phases, as shown in Table 2-2. The project is anticipated to include a 110,000-sf medical office building (MOB), a 114,000-sf ambulatory surgery center (ASC), an 80,000-sf hotel with approximately 100 rooms, an 86,000-sf micro-hospital which includes an emergency department with up to 30 beds, a central utility plant (CUP), and approximately 1,357 parking stalls (Figure 2-2). In addition to the programmatic evaluation of the Folsom Center for Health Master Plan, this EIR provides detailed environmental analysis for Phase 1 development of the project, which is anticipated to include a MOB, parking and other supporting infrastructure.

The project is located in the city of Folsom, south of U.S. Route 50 (US 50) on East Bidwell Road, as shown on Figure 2-2. The project site is currently an undeveloped parcel within the Folsom Plan Area Specific Plan (FPASP), which was adopted by the City of Folsom along with a certified programmatic EIR in 2011. Although the City of Folsom certified an EIR for the FPASP that includes the UC Davis parcel, UC Davis has prepared this EIR as an independent stand-alone EIR with appurtenant technical analysis to address recent changes to the California Environmental Quality Act (CEQA) and to provide the most current information concerning the site and potential environmental impacts.

UC Davis completed the purchase of the 34.6-acre parcel along Bidwell Road near the US 50 interchange in October 2021.

This chapter presents a detailed description of the project.

[1] "Master Plan" in this context refers to the process and document(s) that defines a stable and vetted program for a multi-facility development; identifies building uses and approximate square footage per building; identifies specific landscape and other site features; defines approximate physical layout of all of these elements relative to each other and to the site more broadly; and determines logical phasing of site development.

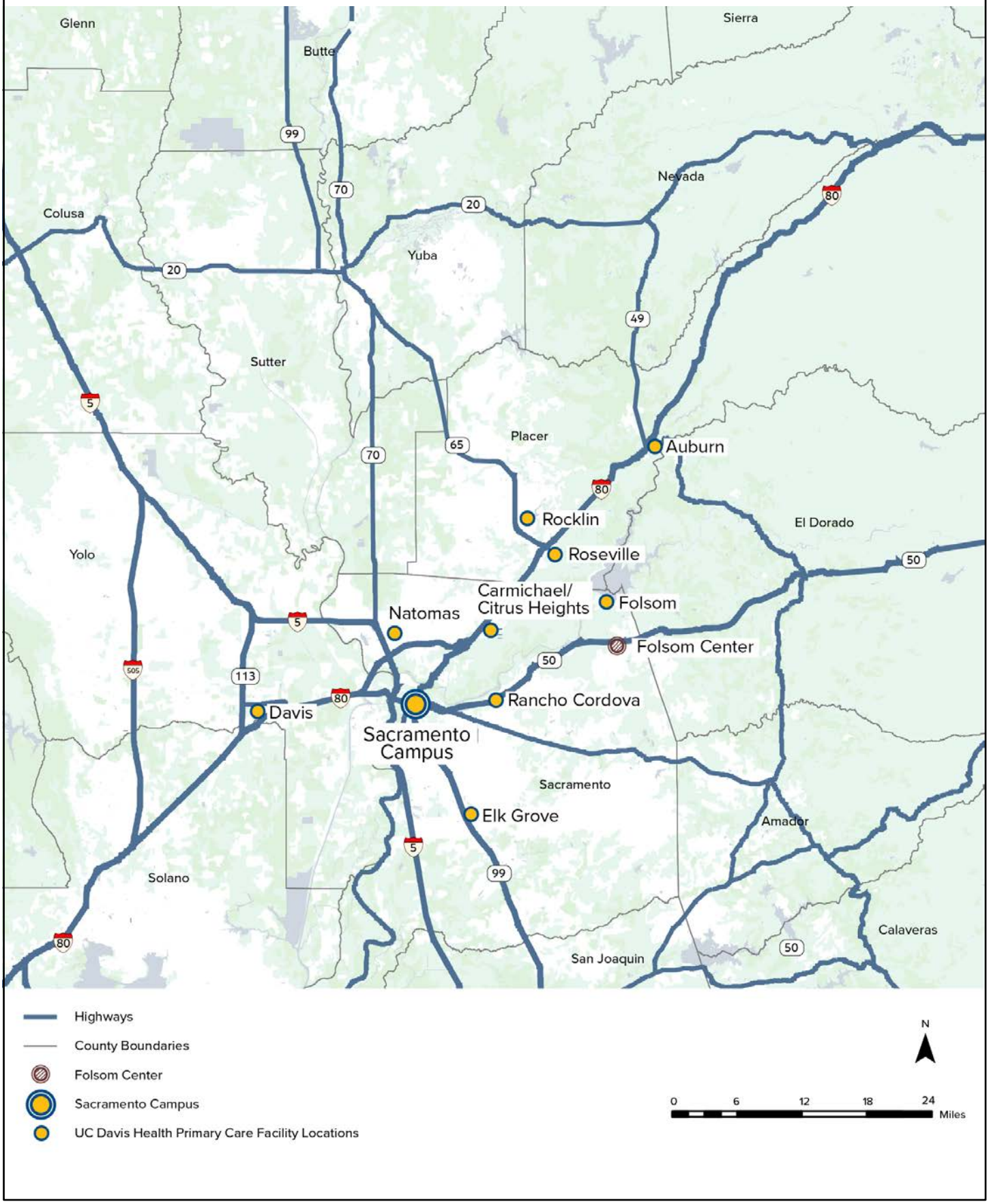

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Figure 2-1
UC Davis Health Primary Care Facility Locations

Building	Building (GSF)	Site (AC)	Building Levels	Building Height (ft)
Medical Office Building	110,000	.7	3-4	40-76'
Ambulatory Surgery Center	114,000	1.1	3-4	40-76'
Micro Hospital (28 Beds)	86,000	1.3	2-4	40-76'
Central Utility Plant	10,000	.6	1	40'
Hotel (100 Keys)	80,000	.9	3-4	40-76'
Parking & Circulation	N/A	14.3	N/A	N/A
Landscape/Outdoor Spaces/ Bike Trail	N/A	17.1	N/A	N/A
TOTAL	**400,000**	**36.0**	–	–

Note: All future programming is speculative

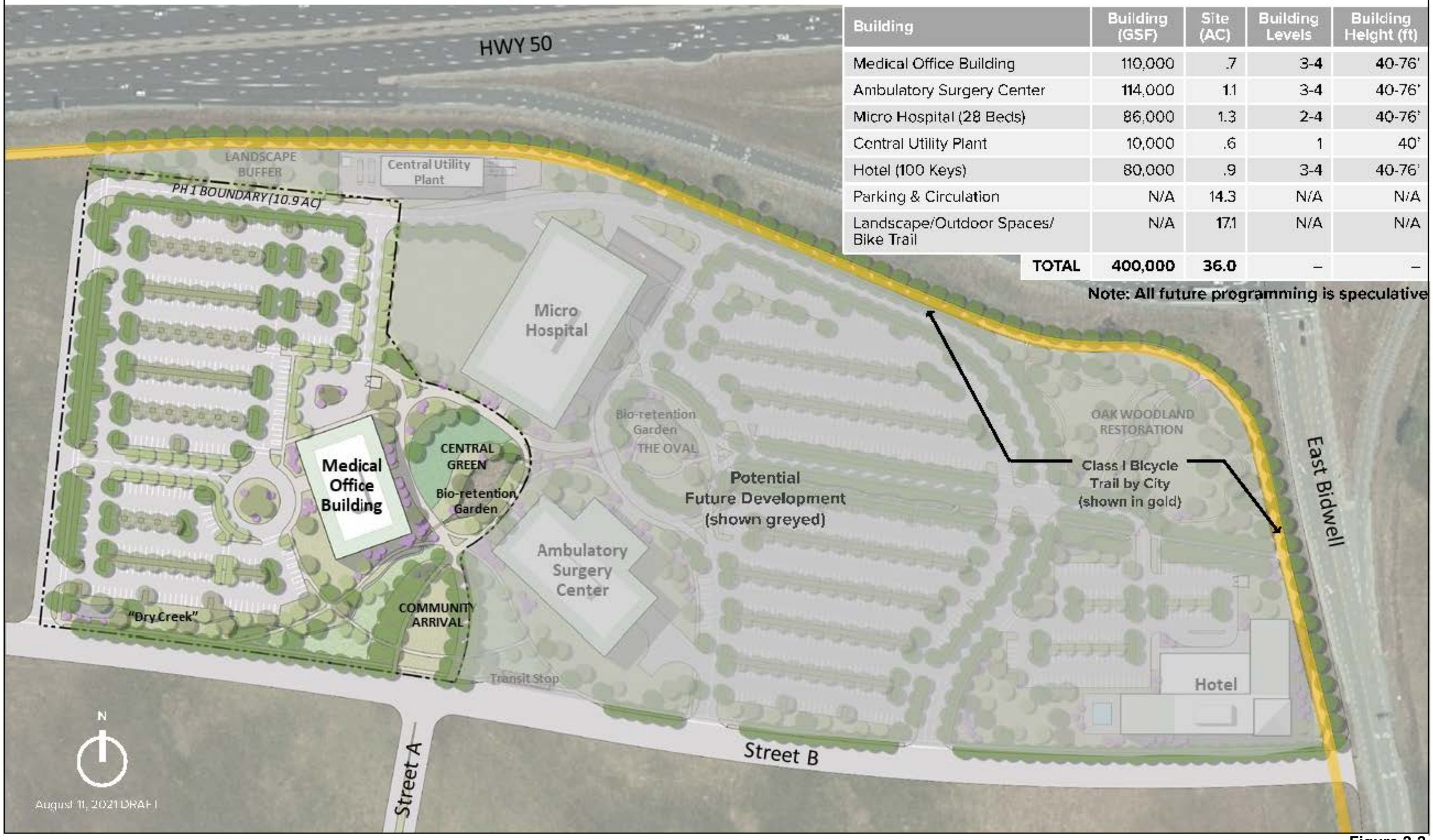

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Figure 2-2
Folsom Center for Health Conceptual Plan and Program

2.2 Project Location and Setting

The project is approximately 25 miles east of Sacramento in the city of Folsom, in Sacramento County (Figures 2-3 and 2-4).

US 50 serves primarily commuter and regional traffic and runs along the northern boundary of the site, separating the already developed part of Folsom from the newly annexed Folsom Ranch Area currently in the development phase. East Bidwell Street runs along the east side of the project site.

The anticipated patient service area includes Folsom, El Dorado Hills, Rancho Cordova, Sacramento, and parts of Fair Oaks, Orangevale, Placerville, and other communities, with Folsom and El Dorado Hills serving as the target patient service area.

2.2.1 Project Site

The project site location is 25 miles northeast of Sacramento in the city of Folsom. The site is in the southern part of the city of Folsom, west of the city of El Dorado Hills (Figure 2-5). The project site is bounded by US 50 (i.e., El Dorado Freeway) to the north and East Bidwell Street to the east. The site is part of the proposed FPASP, a 3,500-acre specific plan, which will include a town center to the south and a mix of multifamily residential housing, schools, offices, hotels, and retail uses in adjacent parcels.

The project site is a 34.6-acre parcel. The site is vacant, and there are no structures or trees existing on the site. As described in Section 1.2 *Relationship to the Folsom South of U.S. 50 Specific Plan and the FPASP Project DEIR/DEIS*, with UC Davis' purchase of the 34.6-acre property, UC Davis is acquiring a mass-graded pad with accommodations for basic infrastructure as detailed in the FPASP EIR/environmental impact statement (EIS). Infrastructure improvements are currently underway, and mass-grading of the 34.6-acre project site is expected to start in early 2022 and be completed in early 2023, prior to the start of project construction. The FPASP EIR/EIS required the developer to implement specific mitigation for CEQA impacts as well as the impacts on wetlands and waters of the United States (which necessitated the EIS), and these mitigation measures have been implemented.

2.2.2 Surrounding Land Uses

Land uses surrounding the project site consist primarily of residential neighborhoods composed of single-family homes and some commercial and urban development. Existing development is concentrated north of US 50, including the residential neighborhoods, Folsom Gateway Mall, and Folsom Ambulatory Surgery Center (Figure 2-5). East Bidwell Street is east of the project site, and the planned Innovation Drive, previously called Street B, is to the south. The existing conditions of the surrounding properties are vacant and graded, approved and ready for development. Planned land uses around the project site include multifamily housing, including lands directly west of the project site, offices, a town center, retail, and a hotel as part of the Folsom Ranch development. The future town center will be south of, but not directly adjacent to, the project site.

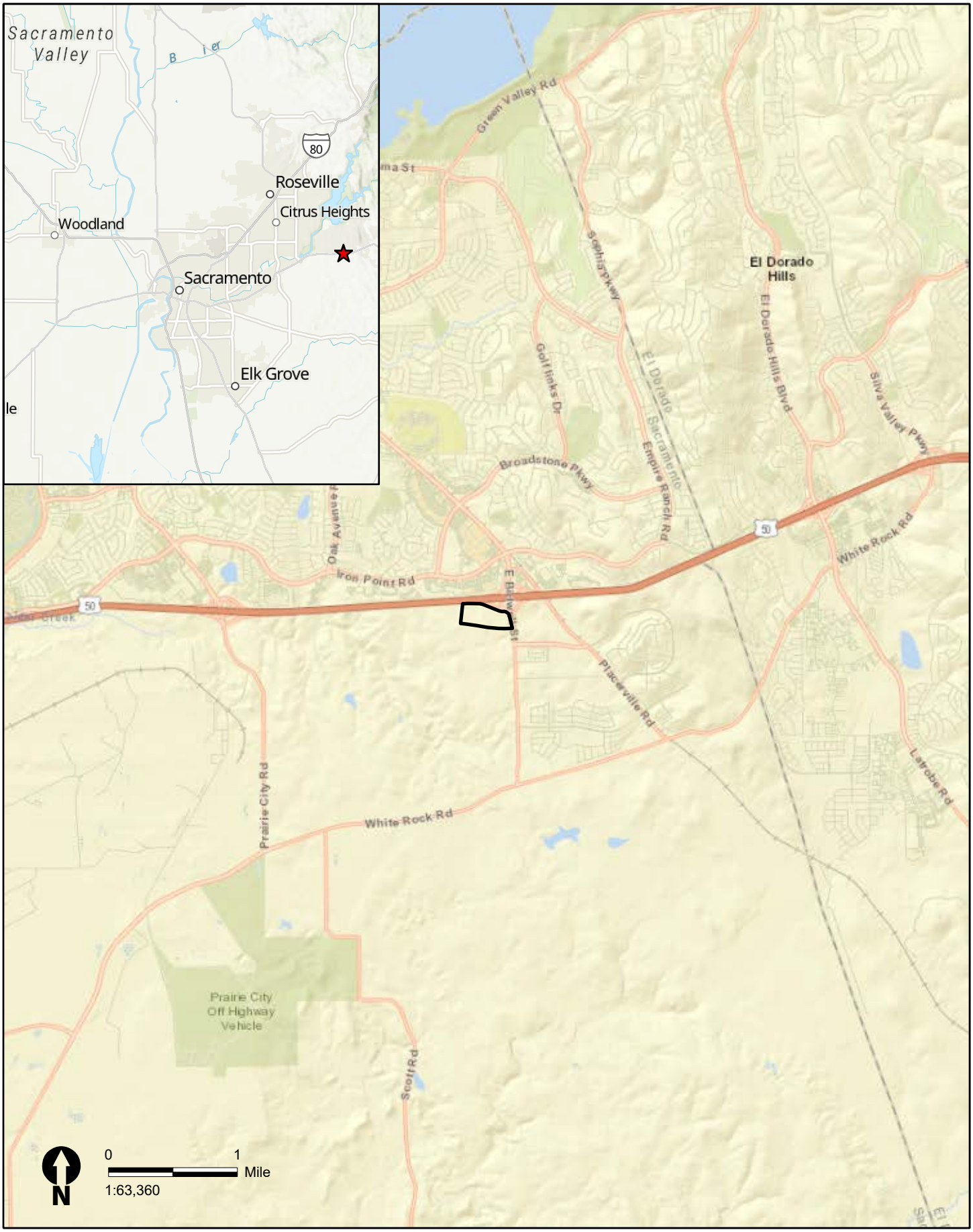

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Figure 2-3
Project Vicinity

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Figure 2-4
Project Area Boundary

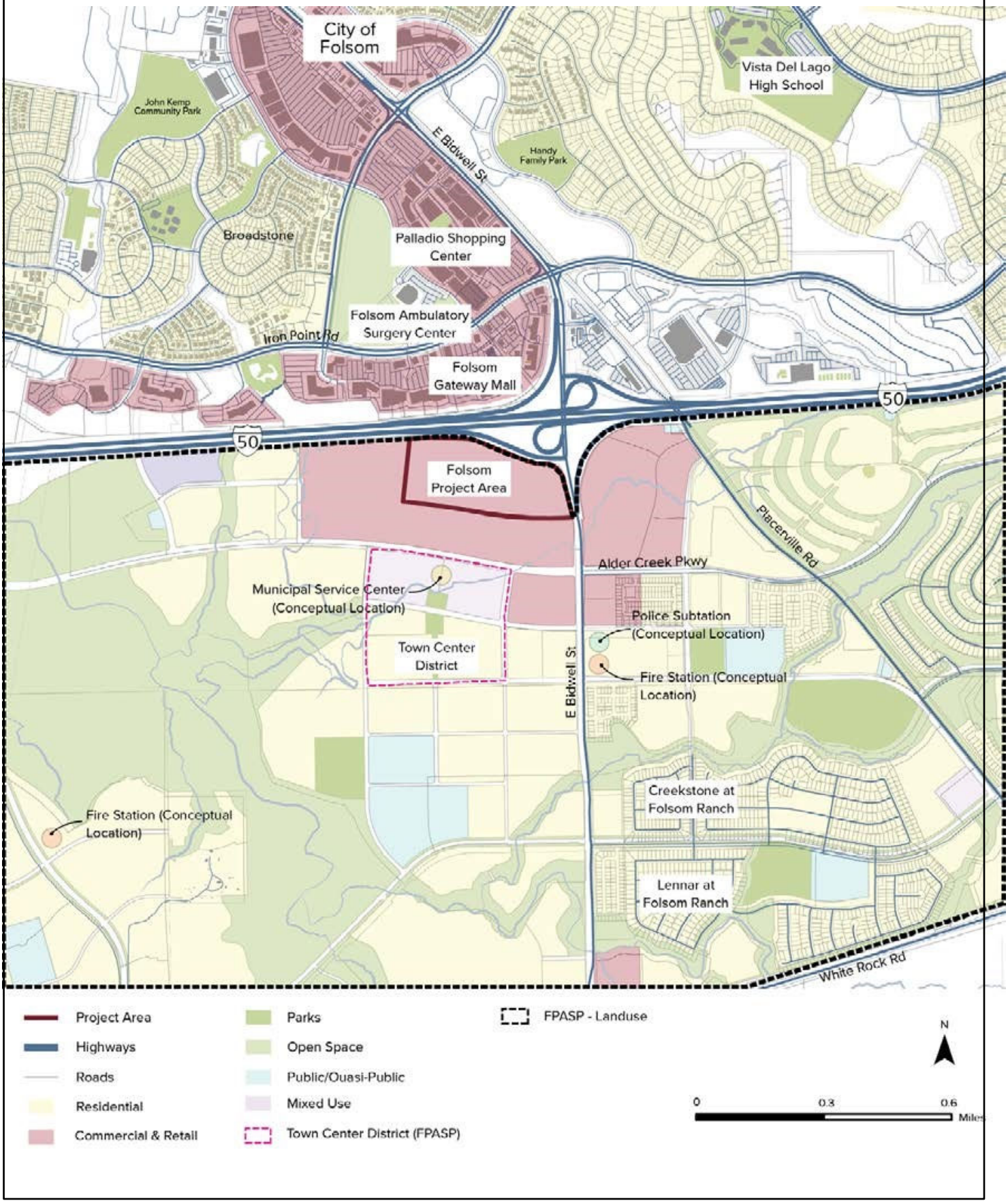

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Figure 2-5
Project Area - Surrounding Land Use (Existing & Planned)

Existing residential uses are more than 1,800 feet to the north, on the other side of the freeway from the project site. Single-family housing is under construction as a part of the specific plan development, and is located to the southeast, more than 500 feet from the eastern boundary of the project site.

2.3 Folsom Center for Health Master Plan

2.3.1 Project Elements

The Master Plan for the site would encompass total new construction of approximately 400,000 sf, which is anticipated to include a MOB of up to 110,000 sf, a 114,000-sf ASC, an 80,000-sf hotel with approximately 100 rooms, an 86,000-sf micro-hospital with an emergency department and approximately 30 hospital beds, a CUP, and approximately 1,357 parking stalls (Figure 2-2).

A "Master Plan" in this context refers to the process and document(s) that defines a stable and vetted program for a multi-facility development; identifies building uses and approximate square footage per building; identifies specific landscape and other site features; defines approximate physical layout of all of these elements relative to each other and to the site more broadly; and determines logical phasing of site development. The Master Plan also includes detailed design guidelines and standards for the design of the site, including utilities, landscape elements, structures and buildings, in Chapter 6 of the Master Plan. While general performance guidelines are identified for all future development on site, specific design of buildings and structures beyond Phase 1 was not completed as a part of the Master Plan.

Healthcare Facilities

Medical Office Building

The proposed MOB would be three or four stories in height, and approximately 110,000 sf.

Proposed uses would include the following.

- Primary care clinic
- Specialty clinic
- Ancillary clinic services (i.e. imaging, blood draw)
- Out-patient procedure suite (GI lab)

Primary access to the MOB would be on the west side of the building. Secondary and staff access would be from the east. The MOB would have a receiving/loading area for delivery of building supplies but is not anticipated to have a loading dock.

Ambulatory Surgery Center

The proposed ASC is projected to be three stories in height, and approximately 114,000 sf.

Proposed uses are anticipated to include the following.

- Operating rooms
- Clinical space and storage

- Service yard for waste, gas, and a generator

Micro-Hospital

The proposed micro-hospital is projected to be up to three stories in height, and up to 86,000 sf.

Proposed uses are anticipated to include the following.

- Emergency department, with dedicated drop-off for ambulances, separated from other patient access
- Drop-off areas
- Approximately 30 hospital beds

Hotel

The hotel onsite would be up to four stories, and 80,000 sf. It would have approximately 100 rooms.

Central Utility Plant

The CUP would serve the hospital building and provide storage space and generator space as well as centralized chillers for cooling. Details of the CUP are shown on Figure 2-6. All equipment within the CUP is planned to be powered by electricity (provided by the Sacramento Municipal Utility District [SMUD]) except the diesel-engine generators that provide emergency power during utility outages or normal switchgear failure. Power to the CUP would be provided via an underground 12-kilovolt (kV) service line that connects to a 12kV distribution line located around the perimeter of the project site.

As stated in the Master Plan, Section 5.9.1, "the non-Hospital buildings are proposed to have localized, standalone mechanical and electrical systems that would be designed and installed as part of the phased development. In this configuration, SMUD would provide separate electrical service to each building, and the hot water and steam systems would be localized".

An emergency water supply plan (EWSP) will be prepared for the hospital to prepare for, respond to, and recover from a total or partial interruption of the facility's normal water supply. Onsite facilities to implement the EWSP would include a 5,000-gallon underground water storage tank located at the CUP, with space for a second 5,000-gallon tank reserved for future needs.

Sanitary drainage storage for the hospital, sufficient to provide onsite sanitary drainage for 72 hours, would be provided by underground tanks west of the hospital.

Transportation Facilities

Site access would be from existing public streets and the internal access street and driveways as shown on Figure 2-7 and described in detail in Section 5.6 of the Master Plan.

Transit is not currently provided to the site, but the Master Plan includes provision of transit shelters and waiting zones to be provided in coordination with transit providers. A transit stop may be located along the front of the project site, near the entrance to the MOB.

A bicycle path is planned to be constructed by the City of Folsom along the north side of the project site in a city easement. The bicycle path and onsite bicycle circulation are depicted on Figure 2-8.

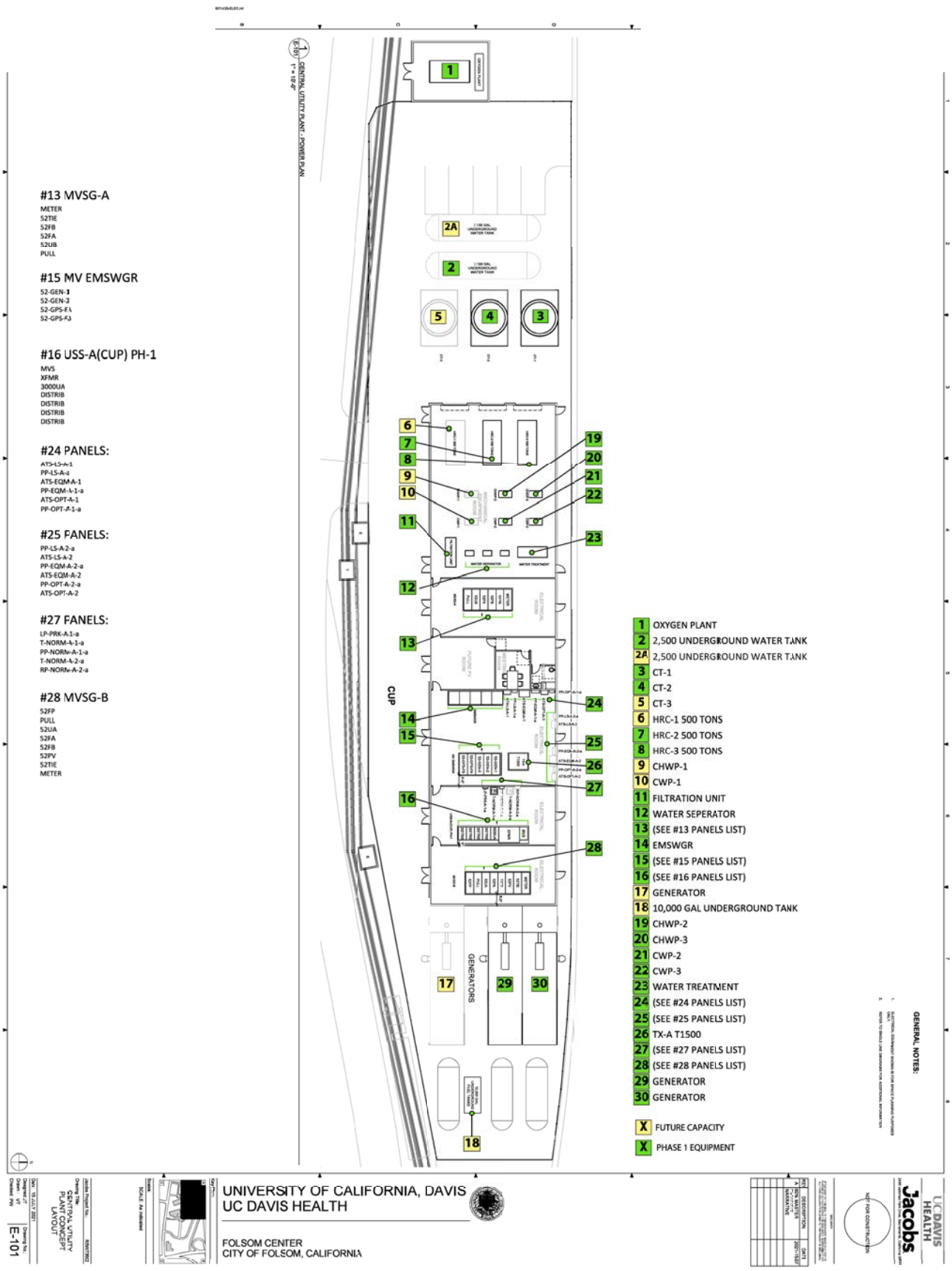

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Figure 2-6
Conceptual Central Utility Plant Layout

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Figure 2-7
Vehicular Circulation - Visitor, Staff, and Service

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Figure 2-8
Bicycle Circulation

Pedestrian walkways would connect the project site elements across the site as depicted on Figure 2-9.

Emergency access is depicted on Figure 2-10.

Parking

Automobile parking would be provided through surface parking lots throughout the project site as depicted on Figure 2-11.

Table 2-1. Vehicular Parking Spaces

Building	Total Spaces (Estimated*)	Accessible Spaces	EV Charging Stations
Ambulatory Surgery Center	570	57	57
Micro-Hospital	112	11	11
Medical Office Building	550	55	55
Hotel	120	5	12
Central Utility Plant	5	N/A	N/A

* UC Davis is not required to comply with City of Folsom parking standards; therefore, a parking ratio of 5 spaces for every 1,000 GSF (.005) was developed in consultation with UC Davis' Healthcare SMEs, UC Davis Health feedback, studies of off-street parking requirements, and comparison to other similar facilities.

Parking lots would include landscaping, shade trees, and infrastructure for solar canopies. Pursuant to the Master Plan, 10 percent of total provided parking spaces for the MOB would be electric vehicle (EV) ready; and a minimum of 6 percent of parking spaces for the rest of the Master Plan would be EV ready. Bicycle parking would be provided to Sustainable Sites Initiative (or SITES) or California Green Building Standards Code standards, whichever requires the highest number of spaces. Parking is discussed in detail in Master Plan Section 5.8.

Landscaped Areas

Project site landscaping would include landscaped buffers around project borders and parking lots, landscaping along the bicycle path easement, and other landscape features as shown on Figure 2-12, including the following.

- Green space at the main entry (community arrival), which may include an urban orchard that produces food, or a grove of native or adapted ornamental trees if food production is not feasible, a formal lawn for larger events, and functional stormwater features offering public recreational and educational opportunities. Gatherings such as weekly farmers markets, or small fairs or concerts several times a year, could occur at this location.
- Central green in the area between the MOB, the ASC, and the micro-hospital, which would provide areas for respite for visitors and staff. Gatherings such as weekly farmers markets, or small fairs or concerts several times a year, could occur at this location.
- The promenade, a landscaped walkway from the east side of the project site, where the hotel would be located, to the oval.
- The oval, a landscaped space east of the ASC and the micro-hospital, at the terminus of the promenade.

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Figure 2-9
Pedestrian Circulation

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Figure 2-10
Vehicular Circulation - Ambulance and Fire Truck Routes

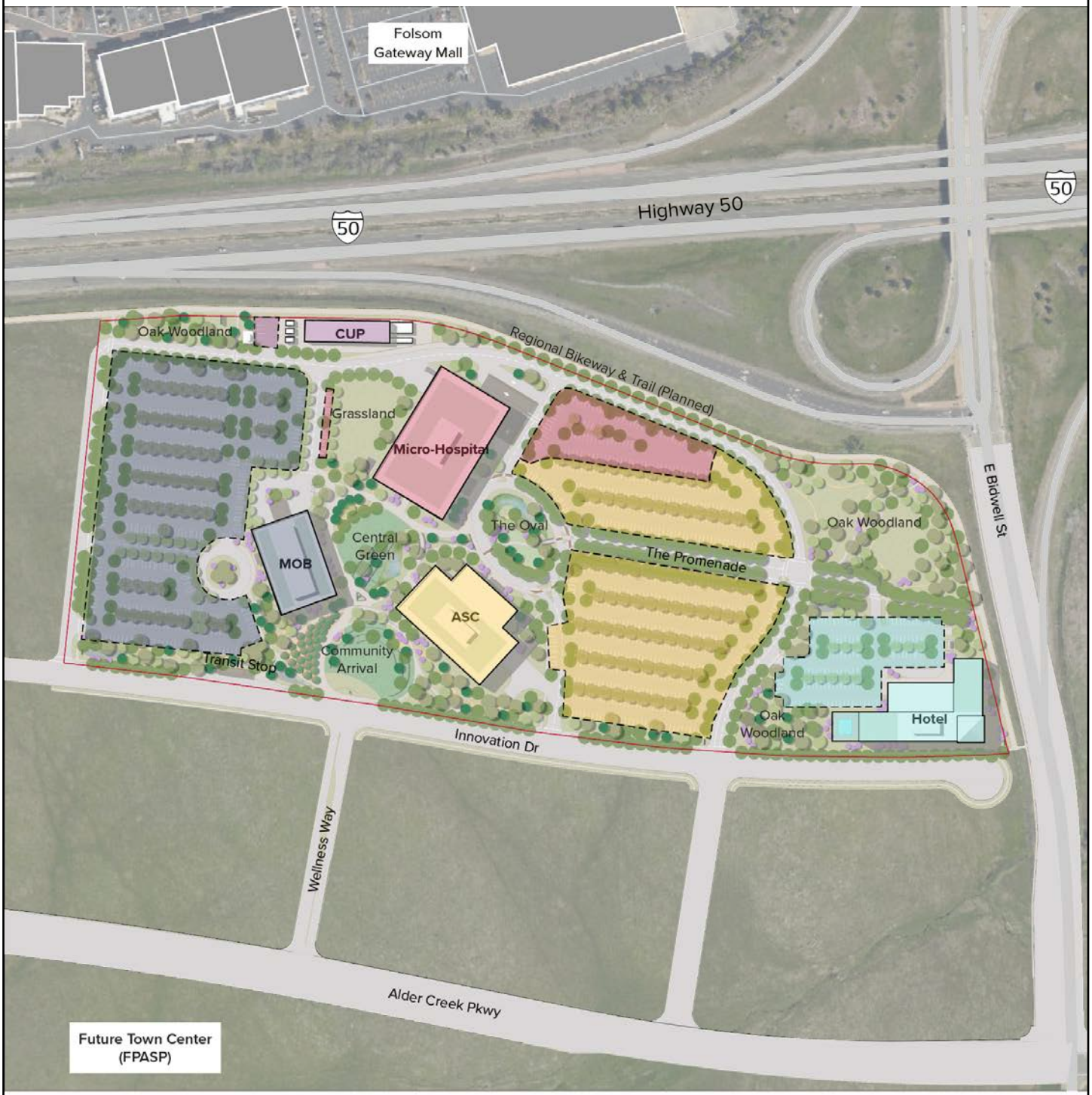

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Figure 2-11
Surface Parking Distribution

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Figure 2-12
Landscaping Concept Plan

- An open space area, located just west of East Bidwell Street and south of the freeway interchange.
- A smaller open space just south of the freeway on the west side of the project site.

Drainage

Storm drainage onsite would be via a constructed dry creek bed, designed to emulate natural creek beds, which are common in the surrounding foothill areas, and is proposed to be a continuous water course. It is envisioned to flow under roadways via culverts and under walkways via footbridges. The constructed creek bed would widen into constructed pond or basin features at certain locations, which serve to filter and infiltrate stormwater. Overflow at these ponds and basins would be connected to the municipal storm sewer system via underground pipes. Portions of the pipe system within the City of Folsom's right-of-way would be provided in accordance with the City's requirements for pipe design. The creek bed is depicted on Figure 2-13 (Master Plan Figure 5.9).

2.4 Phase 1 Development

Phase 1 development would include construction and operation of the MOB element of the project as described in Section 2.3.1, *Project Elements*. In addition, Phase 1 encompasses the MOB, the community arrival, the central green, supporting site utilities serving the MOB, driveways, perimeter buffer, landscaping and stormwater facilities, and approximately 525 parking spaces. The Phase 1 area, as shown in Figure 2-14, is approximately 11.6 acres.

2.5 Project Objectives

When determining what alternatives should be considered in an EIR, project objectives must be considered; attainment of most of a project's basic objectives forms one of the tests of whether an alternative is feasible. UC Davis has identified the following project objectives for the Folsom Center for Health Master Plan.

- Provide locally accessible quality medical care throughout the Sacramento region.
- Fulfill the UC mission of teaching, research, public service, and patient care.
- Increase UC Davis Health public presence and facilities closer to the growing population in eastern Sacramento County and on the US 50 Corridor.
- Develop a robust plan of development of the site by UC and its partners, as laid out in the Master Plan, as a coherent program meeting the UC vision for the development to be built in phases.
- Implement sustainable site design and building design practices to support ongoing implementation of the UC Sustainable Practices Policy.
- Incorporate a holistic approach to building the site, integrating buildings, infrastructure, and landscape as one collective system. Develop a strong public realm and landscape character, providing outdoor spaces to support patient health and family support. Comply with Health Care Access and Information (HCAI) standards and requirements for health care facilities.

UCDAVIS

Figure 2-13
The Creek Bed

UCDAVIS

Figure 2-14
Phase 1 Development

- Develop the site for uses that are supportive of patient care and the UC mission, including family lodging for hospitalized patients.
- Encourage site development and program flexibility to address emerging trends in healthcare.
- Create robust pedestrian connections throughout the development. Provide attractive entries and edges. Create a safe, convenient, and pleasant experience for people navigating to the buildings.
- Provide services to meet current local and regional needs for medical care while allowing for future expansion and flexibility over time to serve a growing population.

UC Davis has identified the following objectives for the Phase 1 development.

- Fulfill the UC mission of teaching, public service, and patient care.
- Increase UC Davis Health public presence and facilities closer to the growing population in eastern Sacramento County and on the US 50 corridor.
- Provide in-demand services in the near term and establish UC Davis presence in the US 50 corridor.
- Implement sustainable site design and building design practices to support ongoing implementation of the UC Sustainable Practices Policy.
- Provide outdoor spaces to support patient health and family support.
- Comply with HCAI standards and requirements for health care facilities.
- Provide services to meet current local and regional needs while allowing for future expansion and flexibility over time to serve a growing population.
- Begin development of the site with a project that will stand alone to serve short-term demand while supporting future implementation of the Master Plan.

2.6 Public Services and Utilities

2.6.1 Police Protection

Police protection would be provided by the City of Folsom.

2.6.2 Fire Protection

Fire protection would be provided by the City of Folsom.

2.6.3 Utilities

All utility services, including potable and recycled water, wastewater, solid waste, and recycling, would be provided for all facilities by the City of Folsom or SMUD (Figure 2-15).

UCDAVIS

Figure 2-15
Utilities and Infrastructure Plan

Potable Water

The project expects to complete a water main service loop with two points of connection to the planned public water main in Innovation Drive. Two separate, individual connections are expected to be required based on the Master Plan, one to the MOB and one to the hotel.

Non-Potable Water

According to the Master Plan, the project would extend offsite non-potable water from either the existing termination point near the intersection of East Bidwell Street and Alder Creek Parkway, or depending on order of construction, the extension may occur along East Bidwell Street to Innovation Drive, or it may be extended within Street A to the project site.

Wastewater

Sanitary sewer services and service mains would connect to the planned public sewer within Innovation Drive. Each building is assumed to have its own sewer service lateral; a portion of the buildings would connect to an onsite sewer service main. This onsite system would terminate at the existing roadway right-of-way and discharge to the planned City of Folsom public sewer system in Innovation Drive.

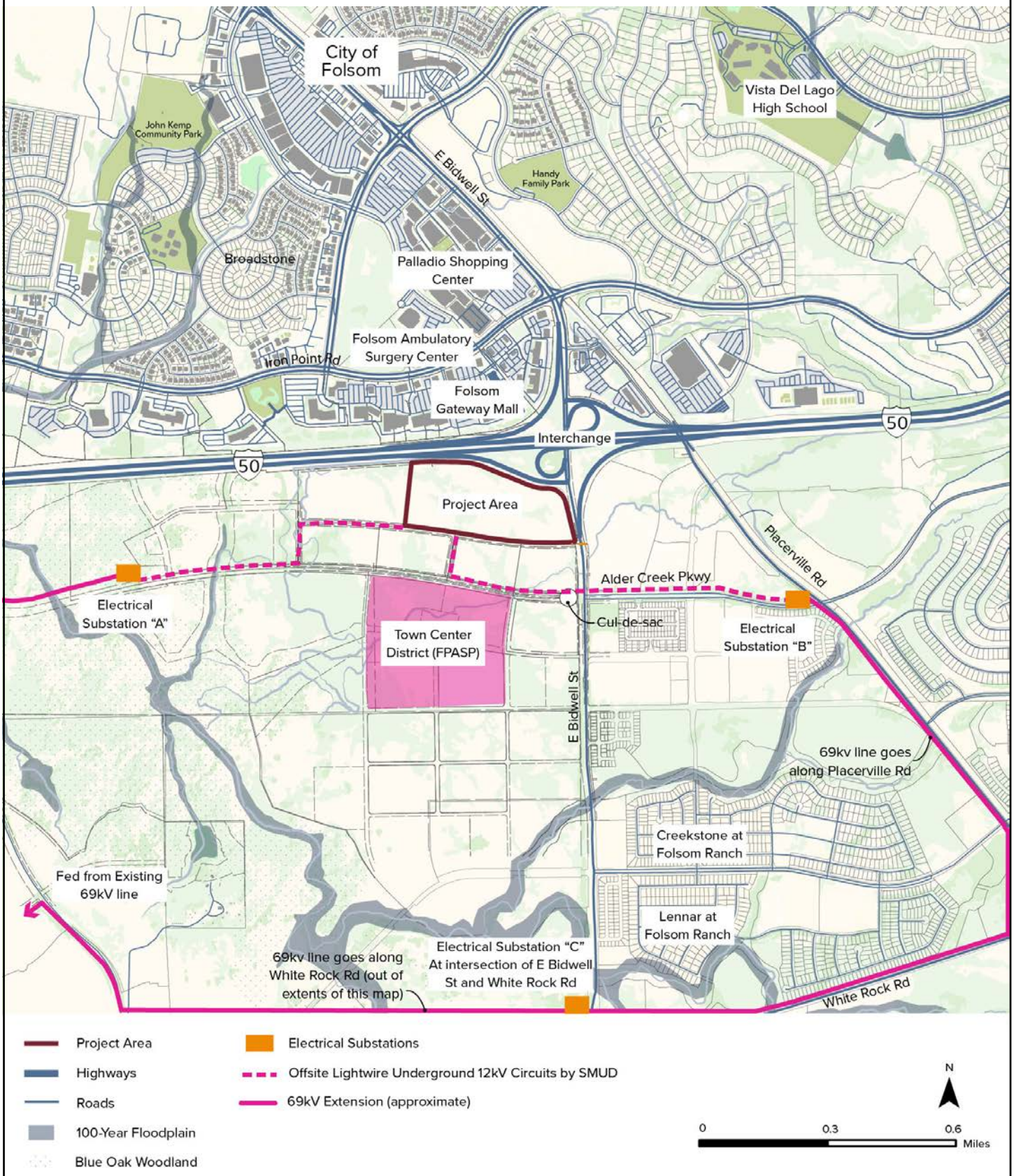
Energy

Electric power would be provided by SMUD. Planned improvements to serve the FPASP would provide power to the location of the project site (Figure 2-16). Onsite improvements would include new power lines along the southern boundary of the project site and running along roadways and driveways to serve the proposed buildings.

2.6.4 Sustainability

UC is committed to responsible stewardship of its physical resources and to demonstrating leadership in sustainable practices. To that end, the Regents have adopted the UC Sustainable Practices Policy, which includes water, wastewater, energy, and greenhouse gas (GHG) reduction. As part of implementing this policy, UC Davis has planned reductions in GHG emissions to meet the GHG emissions reduction targets established by the University. UC's goals for GHG reduction are to be carbon neutral (i.e., net zero annual GHG emissions) for Scope 1 and 2 emissions by 2025 (not including commuting emissions) and carbon neutral for Scope 1 through 3 emissions (including commuting emissions) by 2050. The UC Sustainable Practices Policy is discussed further in Section 3.7, *Greenhouse Gas Emissions*.

The project aims to further the system's reputation as a global sustainability leader by demonstrating increased levels of positive social and ecological performance. This vision will be achieved through systems focused solutions that integrate design, management, and technology strategies. While sustainability principles and best practices are integrated throughout the approach and recommendations in this document, refer to the UC Sustainable Practices Policy for a more detailed explanation of the sustainability guiding principles, goals, objectives, verification documentation and processes, and strategies.



UCDAVIS

Figure 2-16
Electrical Substations and Lines

2.7 Project Construction, Phasing, and Schedule

2.7.1 Construction Activities

Project construction would include the following categories of activities. Building construction would not involve pile driving. Rather, the building foundations would be either continuous footings or isolated spread footings.

- Site preparation (geotechnical investigation, foundation investigation, soil sampling, pot holing for utilities)
- Grading (excavating foundations)
- Utilities installations (including trenching to a maximum depth of 8 feet)
- Asphalt laying (base coat)
- Building construction
- Asphalt laying (top coat)
- Architectural coatings (striping parking lot)

2.7.2 Phasing

Project construction would be conducted in multiple phases over 20 years (Table 2-2). Phase 1 development, with associated utilities and parking, would begin following EIR certification and project approval. Construction is anticipated to be completed in early 2025. Construction of future phases of the project following Phase 1 has not yet been programmed and would occur over the course of 15 to 20 years.

Table 2-2. Construction Phasing and Building Square Footages

Phase Building	Gross Square Feet	Employees	Visitors	Parking***
Phase 1 Construction start Spring 2023, construction complete Spring 2025				
Medical Office Building (up to 4 stories)	110,000	116	94	525
Total	**110,000**			
Future Expansion: Phase 2				
Ambulatory Surgery Center with Outpatient Services (3 stories)	114,000	264	758	715
Hotel (4 stories)	80,000			
Total	**194,000**			
Future Expansion: Phase 3				
Central Utility Plant (2 stories**)	10,000	144	86	117
Micro-Hospital (up to 3 stories)	86,000			
Total	**96,000**			
Total	**400,000**	**524**	**938**	**1,357**

* Employee and visitor population estimates are peak values, not daily populations.

** The central utility plant would be only one story, but the building would be approximately the height of a two-story building due to equipment requirements.

*** UC Davis is not required to comply with City of Folsom parking standards; therefore, a parking ratio of 5 spaces for every 1,000 GSF (.005) was developed in consultation with UC Davis' Healthcare SMEs, UC Davis Health feedback, studies of off-street parking requirements, and comparison to other similar facilities.

2.7.3 Construction Days and Hours

Project construction is anticipated to take place Monday through Friday 7 a.m. to 6 p.m., with some construction also occurring on Saturdays 8 a.m. to 5 p.m. Specific limited construction activities, such as concrete pours, may occur earlier than 7 a.m. in the summer, potentially as early as 5 a.m.

2.8 Anticipated Public Approvals

- Central Valley Regional Water Quality Control Board (Responsible Agency)—To provide waste discharge requirements for impacts on waters of the state and stormwater pollution prevention plans for construction/operation.
- State Water Resources Control Board (Responsible Agency)—To provide coverage under General Permit for Discharges of Storm Water Associated with Construction Activity and Statewide General Permit for Stormwater Discharges Associated with Industrial Activities.
- Sacramento Metropolitan Air Quality Management District (Responsible Agency)—To comply with stationary source permitting requirements (e.g., Authority to Construct and Permit to Operate).
- City of Folsom—Potential approval of roadway, bike path, sidewalk improvements, and new water, sewer, and stormwater utility connections.

Chapter 3

Existing Environmental Setting, Impacts, and Mitigation

This chapter of the Draft EIR evaluates the potential environmental impacts associated with the proposed UC Davis Folsom Center for Health Master Plan (project), including Phase 1. As noted in Chapter 1, *Introduction*, when certified, this EIR will serve as the programmatic environmental document for overall expected growth and will be used for tiering purposes when implementing the Master Plan. It also provides environmental analysis for Phase 1 of the Master Plan. This chapter is divided by environmental resource category; each resource category is organized to provide an integrated discussion of the existing environmental conditions (including regulatory setting and environmental setting), potential environmental effects (including direct and indirect impacts, as needed), and measures to reduce significant effects, where feasible.

Cumulative and growth-inducing impacts are discussed in Chapter 4, *Cumulative Impacts*, and Chapter 5, *Other CEQA Considerations*, respectively.

3.0 Introduction to the Analysis

As required by the California Environmental Quality Act (CEQA) Guidelines (California Code of Regulations [CCR] Section 15126.2), this Draft EIR identifies and focuses on the significant direct and indirect environmental effects of the project. Short-term effects are generally those associated with construction, and long-term effects are generally those associated with operation of the project. This chapter addresses the environmental setting, environmental impacts, and mitigation measures, as applicable, associated with the project in relation to the following resource categories.

- Section 3.1, *Aesthetics*
- Section 3.2, *Air Quality*
- Section 3.3, *Biological Resources*
- Section 3.4, *Archaeological, Historical, and Tribal Cultural Resources*
- Section 3.5, *Energy*
- Section 3.6, *Geology, Soils, and Seismicity*
- Section 3.7, *Greenhouse Gas Emissions*
- Section 3.8, *Hazards and Hazardous Materials*
- Section 3.9, *Hydrology and Water Quality*
- Section 3.10, *Land Use*
- Section 3.11, *Noise*
- Section 3.12, *Population and Housing*
- Section 3.13, *Public Services and Utilities*
- Section 3.14, *Recreation*

- Section 3.15, *Transportation and Circulation*
- Section 3.16, *Utilities and Service Systems*
- Section 3.17, *Wildfire*

Sections 3.1 through 3.17 follow the same general format.

Regulatory Setting presents the laws, regulations, plans, and policies that are relevant to each resource category. Regulations originating from the federal, state, University of California (UC), and regional and local levels are each discussed where applicable. Section 3.0.2, *University of California Autonomy*, provides information regarding UC's autonomy with respect to land use policies and municipal regulations. The Regulatory Setting is under the "Existing Conditions" subheading within each respective resource section.

Environmental Setting presents the existing environmental conditions on the project site and surrounding area as appropriate, generally at the time the Notice of Preparation (NOP) for the project was published on December 1, 2021, in accordance with CEQA Guidelines (CCR Section 15125). The geographic extent of the study area differs among resources, depending on the locations where impacts would be expected. For example, air quality impacts are assessed for the air basin (macroscale) as well as the site vicinity (microscale), whereas aesthetic impacts are assessed for the vicinity of the project site. The Environmental Setting is under the "Existing Conditions" subheading within each respective resource section.

Environmental Impacts and Mitigation Measures identify the thresholds of significance used to determine the level of significance of the environmental impacts for each resource category, in accordance with the CEQA Guidelines (CCR Sections 15126, 15126.2, and 15143). The thresholds of significance used in this EIR are based on the checklist presented in Appendix G of the CEQA Guidelines, best available data, and applicable regulatory standards of relevant public agencies. The thresholds may also reflect local policies adopted for the purpose of avoiding or reducing an environmental impact, particularly for impacts that may affect off-campus resources, even if UC Davis is not bound by such policies; please see Section 3.0.2. The level of each impact is determined by comparing the effects of the project to the environmental setting baseline and the listed thresholds. Key methods and assumptions used to frame and conduct the impact analysis as well as issues or potential impacts not discussed further (i.e., issues for which the project would have no impact) are also described.

Project impacts are organized in each subsection by number (e.g., Impact BIO-1, Impact BIO-2). Mitigation measures are numbered according to the impact number. For example, Mitigation Measure BIO-1 would be associated with Impact BIO-1. Impact analysis in this Draft EIR covers both the program-level Master Plan impacts and the project-level impacts associated with Phase 1 development of the medical office building and associated infrastructure. A bold-font impact title and a summary of each impact and its level of significance both prior to mitigation and after mitigation precede the discussion of each impact. The summary appears as follows for each impact.

Impact XXX-#: [Impact Title]

Summary of Impact XXX-1 by Phase

Component	Level of Significance before Mitigation	Mitigation Measures Required	Level of Significance after Mitigation
Folsom Center for Health Master Plan	XX	XX	XX
Phase 1, Medical Office Building	XX	XX	XX

The discussions that follow the impact summary first discuss the overall impact for the Master Plan. After the analysis and conclusion for the Master Plan, additional analysis and a conclusion is disclosed for Phase 1. Each of these discussions include the substantial evidence supporting the impact significance conclusion. In many cases, the impact conclusions are the same depending upon the type of resources being studied.

The EIR must describe any feasible measures that could avoid, minimize, rectify, reduce, or compensate for significant adverse impacts, and the measures are to be fully enforceable through incorporation into the project or as a condition of project approval (PRC Section 21081.6(b)). Mitigation measures are not required for effects that are found to be less than significant. Where feasible mitigation for a significant impact is available, it is described following the impact. Each identified mitigation measure is labeled numerically to correspond with the number of the impact that would be mitigated by the measure. Where sufficient feasible mitigation is not available to reduce impacts to a less-than-significant level, or where the Regents lack the ability to ensure that the mitigation is implemented when and as needed, the impacts are identified as remaining significant and unavoidable.

3.0.1 Terminology Used in the Draft EIR

This Draft EIR uses the following terminology to describe environmental effects of the project.

Less than Significant: A project impact is considered less than significant when it does not exceed the threshold of significance and, therefore, would not cause a substantial change in the environment (no mitigation required).

Less than Significant with Mitigation: A project impact is considered less than significant with mitigation when it could potentially exceed the threshold of significance, but mitigation is identified to reduce the impact to a less-than-significant level.

Significant: A project impact is considered significant if it results in a substantial adverse change in the physical conditions of the environment. Significant impacts are identified by the evaluation of project effects in the context of specified significance criteria. Mitigation measures and/or project alternatives are identified to reduce these effects on the environment to the extent feasible.

Significant and Unavoidable: A project impact is considered significant and unavoidable if it would result in a substantial adverse change in the environment that cannot be feasibly avoided or mitigated to a less-than-significant level if the project is implemented. If a lead agency proposes to approve a project with significant unavoidable impacts, it must adopt a statement of overriding considerations to explain its actions (CEQA Guidelines Section 15093(b)).

No Impact: A project impact is considered no impact if no change would occur to the resource.

Cumulative Impacts: According to CEQA, "cumulative impacts refer to two or more individual effects which, when considered together, are considerable or which compound or increase other environmental impacts" (CEQA Guidelines Section 15355). CEQA requires that cumulative impacts be discussed when the "project's incremental effect is cumulatively considerable... [or] ... provide a basis for concluding that the incremental effect is not cumulatively considerable (CEQA Guidelines, CCR Section 15130(a))."

Mitigation Measures: The CEQA Guidelines (CCR Section 15370) define mitigation as:

a) avoiding the impact altogether by not taking a certain action or parts of an action;

b) minimizing impacts by limiting the degree of magnitude of the action and its implementation;

c) rectifying the impact by repairing, rehabilitating, or restoring the affected environment;

d) reducing or eliminating the impact over time by preservation and maintenance operations during the life of the action; and

e) compensating for the impact by replacing or providing substitute resources or environments.

3.0.2 University of California Autonomy

UC Davis is part of the University of California, a constitutionally created entity of the State of California, with "full powers of organization and government" (Cal. Const. Art. IX, Section 9). As a constitutionally created state entity, UC is not subject to municipal regulations of surrounding local governments, such as the *City of Folsom General Plan* or land use ordinances, for uses on property owned or controlled by UC that are in furtherance of UC's educational purposes. Although there is no formal mechanism for joint planning or the exchange of ideas, UC Davis may consider, for coordination purposes, aspects of local plans and policies for the communities surrounding the Folsom Center for Health when it is appropriate and feasible, but it is not bound by those plans and policies in its planning efforts.

UC Davis seeks to maintain an ongoing exchange of ideas and information and to pursue mutually acceptable solutions for issues that confront both the Folsom Center for Health and its surrounding community. To foster this process, UC Davis participates in and communicates with city, county, and community organizations and sponsors various meetings and briefings to keep local organizations, associations, and elected representatives apprised of ongoing planning efforts and to consider community input.

3.0.3 Incorporation by Reference

CEQA allows incorporation by reference of existing documents used to prepare each resource chapter. This EIR incorporates by reference information and analysis from the FPASP and the FPASP EIR/EIS. It is noted that documents do not "expire" under CEQA; any existing document that contains information relevant to the new document's environmental analysis can be incorporated by reference. As stipulated in CEQA Guidelines Section 15150(c), where an EIR uses incorporation by reference, the incorporated part of the referenced document shall be briefly summarized or described.

The FPASP and the FPASP EIR/EIS are described briefly in Chapter 1. This section provides a summary of the information provided by these documents. Where specific sections of those documents are incorporated by reference in the resource sections of this EIR, a summary of that information is provided there.

Folsom Plan Area Specific Plan

The FPASP is the adopted specific plan governing the area within which the project site is located and is hereby incorporated by reference and is available for review on the City of Folsom's website as noted below. Section 1.2, *Relationship to the Folsom South of US 50 Specific Plan and the FPASP EIR/EIS*, of this document provides a description of the relationship of this project to the FPASP.

Folsom Plan Area Specific Plan EIR/EIS

The FPASP EIR/EIS (SCH #2008092051) and its addendums assessed the environmental impacts of buildout of the FPASP, including buildout of the project site as planned in the FPASP. The FPASP EIR/EIS is hereby incorporated by reference and is available for review on the City of Folsom's website at https://www.folsom.ca.us/government/community-development/planning-services/folsom-plan-area/maps-and-documents/-folder-174. UC Davis has agreed, through a development agreement with the City of Folsom, that development of the site will not exceed the development standards of the Specific Plan, including the following.

> Water use shall not exceed amount contemplated for the Property in the Specific Plan.
>
> The Property is part of Parcel 61, which has approved 302,481 square feet of Regional Commercial, 270,072 square feet of General Commercial, and 196,745 square feet of Industrial/Office Park. Landowner shall coordinate with owner(s) of the rest of Parcel 61 so that the aforementioned limitation for the entire Parcel 61 shall not be exceeded with the Development of the Property.

Therefore, the analysis of the effects of implementation of the FPASP as presented in the FPASP EIR/EIS and its addendums include the effects of development of the project. Where necessary, this EIR notes where information incorporated from the EIR/EIS has been updated. Relevant impacts presented in the FPASP EIR/EIS and its addendums include the following.

- **Aesthetics**—the FPASP EIR/EIS concluded that the project site and surrounding area is part of a large stretch of undeveloped land along U.S. Route 50 (US 50) in eastern Sacramento County that contains oak woodlands and rock outcroppings; it is considered to be a scenic vista. Because the FPASP contains high levels of vividness, intactness, and unity, and because of its location along US 50 where it is seen by thousands of motorists, viewer sensitivity is considered to be high. FPASP implementation would substantially degrade this scenic vista. The EIR/EIS also states that the FPASP would result in conversion of grassy hillsides to urban areas, generally consisting of housing units and commercial developments. Views would be permanently altered to urban development, substantially degrading viewsheds located on Scott Road, Placerville Road, White Rock Road, US 50, and for people located within the community of El Dorado Hills, the city of Folsom, and nearby rural residences. In addition, the presence and movement of heavy construction equipment and staging areas could temporarily degrade the existing visual character and/ or quality of the FPASP and surrounding area for existing developed land uses. Given the large scale of this urban development and the rural nature of its setting, the EIR/EIS concluded that the degradation of visual character at the FPASP would be significant.
- **Air Quality**—The FPASP EIR/EIS concluded:
    - Construction activities associated with the project would generate intermittent emissions of nitrogen oxides (NO_X) and particulate matter 10 microns or less in diameter (PM10). Because of the large size of the project, construction-generated emissions of NO_X, an ozone precursor, and fugitive PM10 dust would exceed Sacramento Metropolitan Air Quality Management District (SMAQMD)-recommended thresholds and would substantially

contribute to emissions concentrations that exceed the national ambient air quality standards (NAAQS) and California ambient air quality standards (CAAQS). Thus, project-generated, construction-related emissions of criteria air pollutants and precursors could violate or contribute substantially to an existing or projected air quality violation, expose sensitive receptors to substantial pollutant concentrations, and/or conflict with air quality planning efforts.

- Operational area- and mobile-source emissions from project implementation would exceed the SMAQMD-recommended threshold of 65 pounds per day for reactive organic gases and NO_X and would result in or substantially contribute to emissions concentrations that exceed the NAAQS or CAAQS for ozone and FPASP Mitigation Measure 3A.2-2 requires feasible best practices for reduction of operational emissions from land use–related sources, and no additional measures are recommended. FPASP Mitigation Measure 3A.2-2 would reduce this impact, but not to a less-than-significant level.
- The project would result in exposure of receptors to short- and long-term emissions of toxic air contaminants (TAC) from onsite stationary and mobile sources and from offsite mobile sources. The FPASP EIR/EIS determined that FPASP Mitigation Measure 3A.2-4b would lessen health-related risks associated with onsite mobile-source TACs, including truck activity at land uses proposed in the FPASP. The FPASP EIR/EIS concluded that as a result of the project, no new or substantially more severe air quality impacts would occur from TAC exposure from onsite truck activity.
- Temporary, short-term construction and long-term operation of the project could result in the frequent exposure of sensitive receptors to substantial objectionable odor emissions. The FPASP EIR/EIS determined that FPASP Mitigation Measure 3A.2-6 to address onsite operational sources of odorous emissions would reduce the impact to a less-than-significant level. Therefore, no new or substantially more severe odor impacts from onsite sources would occur as a result of the project.

- **Biological Resources**—The FPASP EIR/EIS concluded that the following special-status species could be substantially affected by the FPASP: vernal pool fairy shrimp, vernal pool tadpole shrimp, conservancy fairy shrimp, valley elderberry longhorn beetle, Swainson's hawk, special-status raptors, western spadefoot, tricolored blackbird, and special-status bats. Impacts on all other special-status wildlife species were considered less than significant. The FPASP EIR/EIS determined that FPASP Mitigation Measures 3A.3-2a, 3A.3-2b, 3A.3-2c, 3A.3-2d, 3A.3- 2e, 3A.3-2f, 3A.3-2g, and 3A.3-2h would lessen the impacts on special-status wildlife resulting from the FPASP; however, the EIR/EIS concluded that, even with the mitigation, the impact on Swainson's hawk would remain significant and unavoidable. All other special-status species impacts would be reduced to a less-than-significant level.
  - The FPASP EIR/EIS and Addendum evaluated impacts on state- and federally protected wetlands and non-wetland waters and concluded that these aquatic resources would be adversely impacted affected by implementation of the FPASP. Site preparation, including mass grading, to support development of the project site will fill or modify aquatic resources, including vernal pool, seasonal wetland swale, seep, creek/channel, and ditch. The FPASP EIR/EIS required Mitigation Measures 3A.3-1a and 3A.3-1b.
  - The FPASP EIR/EIS concluded that impacts on wildlife movement would be less than significant and that there would be no impact on conflicting with a conservation plan.

  - The FPASP EIR/EIS concluded that while FPASP Mitigation Measure 3A.3-5 would reduce the project's impact on blue oak woodland, the project would still result in the removal of some blue oak woodland, contributing to the continuing significant and unavoidable impact on blue oak woodland and other trees. Therefore, a significant and unavoidable cumulative oak woodland impact would remain.

- **Cultural Resources**—The FPASP EIR/EIS concluded that impacts on unknown cultural resources and paleontological resources and human remains would be less than significant with FPASP Mitigation Measures 3A.5-1a, 3A.5-1b, 3A.5-2, 3A.7-10, and 3A.5-3.
- **Geology and Soils**—The FPASP EIR/EIS concluded that the project site is not near any Alquist-Priolo Earthquake Fault Zone and that there would be no impact and no need to discuss the issue further. The FPASP EIR/EIS concluded that impacts from liquefaction would be less than significant. The FPASP EIR/EIS concluded that impacts from strong seismic ground shaking, landslides, erosion, and expansive soil would be less than significant with FPASP Mitigation Measures 3A.7-1a, 3A.7-1b, 3A.7-3, 3A.7-4, 3A.7-5, and 3A.9-1.
- **Greenhouse Gas Emissions**—The FPASP EIR/EIS concluded that greenhouse gas (GHG) emissions during construction would result in a cumulatively considerable incremental contribution to this significant and unavoidable cumulative impact. The FPASP EIR/EIS concluded that GHG emissions associated with operation of the project would not conflict with California Air Resources Board's Scoping Plan for 2020 targets and buildout of the Westland Eagle plan would not result in any new circumstances involving new significant impacts or substantially more severe impacts related to GHG emissions than were identified in the FPASP EIR/EIS.
- **Hazards and Hazardous Materials**—The FPASP EIR/EIS concluded that there would be no impacts related to the project being located near an airport or airstrip or susceptible to wildland fires. The FPASP EIR/EIS concluded that impacts from hazardous materials or interfering with an adopted emergency response plan would be less than significant. The FPASP EIR/EIS concluded that impacts from the release of hazardous materials into the environment, emitting hazardous emissions 0.25 mile from a school, and being located on a list of hazardous materials sites would be less than significant with FPASP Mitigation Measures 3A.8-2, 3A.8-3a, 3A.8-3b, and 3A.8-3c.
- **Hydrology and Water Quality**—The FPASP EIR/EIS concluded that there would be no impact from inundation by seiche, tsunami, or mudflow and that impacts on groundwater and placing housing within a 100-year flood zone would be less than significant. The FPASP EIR/EIS concluded that impacts on water quality, drainage, erosion and siltation, and flooding would be less than significant with FPASP Mitigation Measures 3A.9-1, 3A.9-2, 3A.9-3, and 3A.9-4.
- **Land Use**—The FPASP EIR/EIS concluded that there would be no impact related to physically dividing the community and conflicts with an applicable land use plan, policy, or regulation would be less than significant.
- **Noise**—The FPASP EIR/EIS concluded that traffic-related noise impacts would be less than significant with FPASP Mitigation Measure 4.12-1. The FPASP EIR/EIS concluded that short-term, temporary impacts from construction would be less than significant with FPASP Mitigation Measure 3A.11-1. The FPASP EIR/EIS concluded that impacts from groundborne vibration or noise would be less than significant.

- **Population and Housing**—The FPASP EIR/EIS concluded that population growth and displacement of homes/people would be less than significant.
- **Public Services**—The FPASP EIR/EIS concluded that impacts on schools and police would be less than significant. Impacts on fire protection were determined to be less than significant with FPASP Mitigation Measures 3A.14-1, 3A.14-2, and 3A.14-3.
- **Recreation**—The FPASP EIR/EIS concluded that impacts on recreation would be less than significant.
- **Transportation**—The FPASP EIR/EIS concluded that impacts on the transit system and bicycle and pedestrian facilities would be less than significant. Impacts on some freeway facilities were determined to be significant and unavoidable even with mitigation. Impacts during construction were determined to be less than significant with FPASP Mitigation Measure 3A.14-1. Impacts on intersections in cumulative conditions were determined to be less than significant with FPASP Mitigation Measure 4.16-2.
- **Utilities and Service Systems**—The FPASP EIR/EIS concluded that impacts on wastewater facilities would be less than significant with FPASP Mitigation Measures 3A.16-1, 3A.18-2a, 3A.18-2b, 3A.16-3, 3A.16-4, and 3A.16-5. Impacts on water facilities and drainage would be less than significant with FPASP Mitigation Measure 3A.18-1. Impacts on solid waste disposal and compliance would be less than significant.

3.1 Aesthetics

This section describes the regulatory and environmental setting for aesthetics on the UC Davis Folsom Center for Health Master Plan (project) site and in the project vicinity, analyzes effects on recreation that would result from the project, and provides mitigation measures, if applicable, to reduce the effects of any significant impacts.

In response to the Notice of Preparation for this EIR, although commenters did not express general concerns related to aesthetics, the following concerns specific to the project were expressed that indirectly relate to aesthetics.

- Include a bioretention pond, ample green space, oak woodland restoration, and a substantial tree canopy shading the parking lots.
- Incorporate the maximum number of new trees possible to shade pavements and structures and shade public walkways.

3.1.1 Existing Conditions

Regulatory Setting

University of California

As noted in Section 3.0.2, *University of California Autonomy*, the University of California (UC) is a constitutionally created state entity and is not subject to municipal regulations of surrounding local governments for uses on property owned or controlled by the UC that are in furtherance of its educational purposes. UC Davis may consider, for coordination purposes, aspects of local plans and policies for the communities surrounding the project site when it is appropriate and feasible, but it is not bound by those plans and policies in its planning efforts. There are no UC regulations specifically related to aesthetics that apply to the project.

Federal and State

There are no federal plans or policies addressing aesthetics that pertain to the project. In addition, there are no eligible or officially designated State Scenic Highways near the project site (California Department of Transportation 2019).

Regional and Local

As a constitutionally created state entity, the UC is exempt from compliance with local land use regulations, including general plans and zoning, when using land under its control in furtherance of its educational mission. As background information, the County of Sacramento and City of Folsom's general plan goals and policies relevant to aesthetic and visual resources are presented below.

County of Sacramento General Plan

The *Sacramento County General Plan of 2005–2030* Transportation Element, amended on October 6, 2020, identifies that freeways within the county are heavily traveled by commuters and that these routes should be beautified to create more pleasant travel ways and a more attractive image of the

Sacramento urban area. U.S. Route 50 (US 50) falls withing this category and is thus protected by the County general plan as a scenic corridor. The County has established scenic corridors protections that extend 660 feet to each side beyond the right-of-way by the freeway (County of Sacramento 2020).

Policy CI-59: Encourage Caltrans to landscape the freeways within Sacramento County, particularly stretches which form entrances to urban areas.

Policy CI-60: Encourage maintenance of natural roadside vegetation and landscaping with native plants which usually provide the best habitats for native wildlife.

Policy CI-63: Investigate in coordination with other County agencies the provision of distinctive planting schemes, vista points, and picnic areas along scenic corridors.

City of Folsom General Plan

The *Folsom General Plan 2035* was last amended in August 2021. The Land Use, General Mobility, and Natural and Cultural Resources elements contain the following goals and policies that are relevant to aesthetics (City of Folsom 2021). Although the City General Plan references scenic corridors, the City General Plan does not identify any City-designated scenic corridors. In addition, there are no scenic corridors identified by City zoning ordinances. Therefore, it has been assumed, for the purposes of this analysis, that the scenic corridor referenced in Policy NCR 2.1.1 of the Natural and Cultural Resources element is US 50, a county-designated scenic route.

GOAL LU 1.1: Retain and enhance Folsom's quality of life, unique identity, and sense of community while continuing to grow and change.

Policy LU 1.1.7: Concentrated Development. Allow project applicants to concentrate the proposed development on a portion of the site through the clustering of buildings to encourage the preservation of open spaces, cultural resources, and natural features of the landscape.

Policy LU 1.1.8: Preserve Natural Assets. Maintain the existing natural vegetation, landscape features, open space, and viewsheds in the design of new developments.

Goal LU 7.1: Provide for a commercial base of the city to encourage a strong tax base, more jobs within the city, a greater variety of goods and services, and businesses compatible with Folsom's quality of life.

Policy LU 7.1.1: Standards for Commercial Uses. Require new commercial uses to be subject to design and parking standards for:

1. The number and location of allowed curb cuts;

2. Landscaping or parking areas;

3. The location, size, number, and construction of signs; and

4. The configuration and design of commercial buildings.

5. Provision of designated, defined bicycle routes from public right-of-way to bicycle parking/pedestrian corridors.

Policy LU 7.1.5: Open Space. Require all commercial development and commercial portions of mixed-use development to contain at least 10 percent of land area in natural, improved, or functional open space, exclusive of roadways and parking lots. Developments in mixed-use designations in the FPASP shall provide at least five percent of land area in natural, improved, or functional open space, exclusive of roadways and parking lots.

Goal LU 9.1: Encourage community design that results in a distinctive, high-quality built environment with a character that creates memorable places and enriches the quality of life of Folsom's residents.

Policy LU 9.1.6: Community Beautification. Encourage the landscaping of public rights-of-way and planting of street trees to beautify Folsom consistent with water-wise policies.

Policy LU 9.1.7: District Identity. Encourage efforts to establish and promote district identities (e.g., urban centers, East Bidwell Street) through the use of signage, wayfinding signage, streetscape and building design standards, advertising, and site-specific historic themes.

Goal NCR 1.1: Protect and enhance Folsom's natural resources for current and future residents.

Policy NCR 1.1.4: Native and Drought Tolerant Vegetation. Encourage new developments to plant native vegetation, including that which is important to Native American lifeways and values, and drought tolerant species and prohibit the use of invasive plants.

Policy NCR 1.1.7: Fugitive Light. Encourage measures to limit fugitive light from outdoor sources, including street lighting.

Policy NCR 1.1.8: Planting in New Development. Require the planting of street trees, parking lot canopy trees, screening trees, and other amenity trees and landscaping in all new development, consistent with City landscaping development guidelines, to minimize the heat island effect. Planting strips must be large enough to accommodate a large tree canopy and allow for healthy root growth.

Goal NCR 2.1: Allow residents to enjoy views of the hills, lakes, river, and habitats that make Folsom such a beautiful place to live.

Policy NCR 2.1.1: Maintain Scenic Corridors. The City shall protect views along identified scenic corridors.

Policy NCR 2.1.3: Light Pollution Reduction. The City shall minimize obtrusive light by limiting outdoor lighting that is misdirected, excessive, or unnecessary, and requiring light for development to be directed downward to minimize overspill and glare onto adjacent properties and reduce vertical glare.

City of Folsom Plan Area Specific Plan

The Folsom Plan Area Specific Plan (FPASP) was last amended in March 2018. The Land Use and Circulation and Open Space elements contain the following goals and policies that are relevant to aesthetics (City of Folsom 2018).

Objective 4.3: Provide open space areas for the preservation and conservation of natural features, for limited recreational facilities and to provide visual relief.

Policy 7.2: Circulation within the Plan Area shall be ADA accessible and minimize barriers to access by pedestrians, the disabled, seniors and bicyclists. Physical barriers such as walls, berms, and landscaping that separate residential and nonresidential uses and impede bicycle or pedestrian access or circulation shall be minimized.

Policy 7.17: Public accessibility to open space and scenic areas within the Plan Area shall be provided via roadway, sidewalks, trail and bikeway connections, where appropriate.

Policy 7.22: Site design and building placement shall minimize barriers to pedestrian access and interconnectivity. Physical barriers such as walls, berms, landscaping and slopes between residential and non-residential land uses that unnecessarily impede bicycle or pedestrian circulation shall be minimized. Clearly marked shaded paths shall be provided through commercial and mixed use parking lots.

Objective 8.2: Incorporate oak woodlands into the FPASP as a viable open space area for the enjoyment and education of all Plan Area residents while protecting sensitive resources.

Objective 10.12: Select landscaping materials and apply implementation practices that conserve water.

Policy 10.53: The Plan Area landscape palette shall consist of California Central Valley and foothills native plant species as described in the most current edition of River-Friendly Landscape Guidelines and drought tolerant adaptive plant species except at neighborhood entry gateways and similar high visibility locations where ornamental plant species may be preferred.

Policy 10.56: Trees shall be interspersed throughout parking lots so that in fifteen (15) years, forty (40) percent of the parking lot will be in shade at high noon. At planting, trees shall be equivalent to a #15 container or larger.

Policy 10.63: Office park uses shall install automatic lighting and thermostat features.

Policy 10.64: Commercial and public buildings shall use energy efficient lighting with automatic controls to minimize energy use.

Environmental Setting

The study area for aesthetic resources—also referred to as the area of visual effect (AVE)—is in an urbanized area. The physical context in which a project would be located is a key consideration when analyzing whether the project would have significant impacts on aesthetic resources. Identifying a project's aesthetic resources and conditions involves the following three steps.

- Objective identification of the aesthetic features (i.e., visual resources) of the landscape, including whether there are any designated scenic vistas or State Scenic Highways.
- Assessment of the character and quality of those resources relative to overall regional visual character.
- Determination of the importance to people, or sensitivity, of views of aesthetic resources in the landscape.

Concepts and Terminology

Aesthetic resources are the visible components of the natural and built environments in the study area. Aesthetic resources include all objects (artificial and natural, moving and stationary) and features (e.g., landforms, waterbodies) visible on a landscape. These resources add to or detract from the scenic quality of the landscape (i.e., the visual appeal of the landscape).

Identifying a study area's aesthetic resources and conditions involves understanding the visual character of the area's visual features and the regulatory context. Once those parameters are understood, a study area's aesthetic resources are further defined by establishing the AVE and documenting the visual character of the environmental setting, including the natural and built environments. For the purposes of this section's analysis, the study area and AVE are synonymous. The affected population, or viewers, are defined by their relationship to the study area, their visual preferences, and their sensitivity to changes associated with the changes. Visual preferences, or what viewers like and dislike about the AVE's visual character, define the AVE's visual quality.

- "Visual character" includes attributes such as form, line, color, and texture and is used to describe, not evaluate, the visual environment; that is, these attributes are neither considered good nor bad.
- "Visual quality" is used to describe what viewers like and dislike about the visual resources that compose a particular scene and is expressed in terms of natural harmony and built environment.

Visual quality serves as the baseline for determining the degree of visual impacts and whether a project's visual impacts would be negative, beneficial, or neutral (Federal Highway Administration 2015:5-1–5-5).

Regional Character

The project region lies in the Sacramento Valley of Northern California, within the city of Folsom. The project site lies in the transition zone between the flat Sacramento Valley and the Sierra Nevada Mountains, where the terrain is gently rolling. The Sierra Nevada foothills and mountains, including the Eldorado National Forest, largely form the easternmost portion of the region. The westernmost portion of the region is characterized by the greater Sacramento metropolitan region, the growing city of West Sacramento, and the outlying agricultural lands and rangelands bordering developed areas. The landscape pattern is influenced by development sprawling from the cores of existing cities and the major roadways, such as US 50, State Route (SR) 99, Interstate (I-) 5, and I-80. This growth is changing the visual character from rural to suburban. The region primarily supports developed, industrial, agricultural, and open space land uses. In addition to numerous creeks and irrigation channels, major waterbodies in the region include Pleasant Grove, Orchard, Deer, Elder, and Morrison Creeks; Auburn Ravine; Folsom, Bass, and Stone Lakes; Lake Natoma; the Sacramento and American Rivers and their tributaries; and the Yolo Bypass (when flooded).

Project and Vicinity Character

The project is in the city of Folsom and county of Sacramento. Figure 2-1 identifies the project vicinity, and the project components and site plan are identified in Figure 2-2. The project is located within the city's boundaries, immediately south of US 50 and west of East Bidwell Street. The site is undeveloped, with gently rolling and grassy terrain, and there are no structures or trees existing on the site. However, the site is primarily surrounded by urban land uses that include commercial development north of US 50 and on either side of East Bidwell Street, and medium-density residential neighborhoods that are built or are being built to the south of the site and on either side of East Bidwell Street. The closest residential development is 0.2 mile from the southeastern edge of the project site. In addition, the land uses on undeveloped lands immediately surrounding the site are zoned commercial and retail, as shown on Figure 2-5. Therefore, the project is considered to be within an urbanized area. However, undeveloped open space is located further west of the project site that consists of oak woodlands that provide aesthetic value to the project vicinity. These areas are zoned for preserve and passive open space land uses to protect the oak woodlands and Alder Creek.

The commercial land uses north of US 50 consist of big box retail stores that are oriented toward Iron Point Road. Loading docks and a limited amount of parking are located behind the buildings, and landscaped slopes between the parking areas and the US 50 right-of-way act to screen many views from the parking area toward US 50 and the project site. The residential areas south of the project site consist of two-story single-family homes that are surrounded by sound walls. Therefore, lower-level views out toward the project site are not available. However, views toward the project site are available from the second stories of homes on the northwestern edges of the developments that face the project site. Undeveloped open space lands surrounding the project site, including the oak woodland areas, are in private ownership and do not have existing recreational uses that provide public views toward the project site.

As identified in *Regulatory Setting*, there are no State Scenic Highways near the project site (California Department of Transportation 2019; City of Folsom 2021). However, US 50 is a

Sacramento County–designated scenic route that is also protected by the City (County of Sacramento 2020; City of Folsom 2021). In addition, although there are no officially designated scenic vistas associated with the project site, the East Bidwell Street bridge over US 50 provides scenic vista views out over the project site near the eastbound US 50 on-ramp, looking southwest. This vista includes views of the rolling terrain and oak woodlands west of the project site. However, this vista also includes views of the residential development that has been and is being built south of US 50. Therefore, the view is one that is currently transitioning from open space to developed land uses.

There are no existing buildings on the project site with surfaces and windows to reflect light and cause glare. In addition, there are no existing trees or shrubs growing on the site to provide sources of shade. As a result, the daytime glare levels at the project site are moderately high. There are also no existing sources of nighttime lighting at the project site. However, light from outside the project site boundaries spills onto the site at night so that it is moderately lit at night. Light from outside the project site boundaries that enters the site comes from street lighting associated with the US 50/East Bidwell Street interchange, exterior building lighting and parking lot lighting associated with commercial uses north of US 50, light coming from residential areas south of the project site, and lighting from vehicle headlights. Lighting levels in the commercial areas to the north are moderately high, while lighting levels in the residential areas to the south are moderate.

Overall, the built environment of the project vicinity consists of well-planned commercial and residential land uses. Land uses north of US 50 are fixed and are not in flux. However, as described above, the project vicinity south of US 50 is in a state of visual transition as residential and commercial land uses are currently being built out. Although the development south of US 50 is newer, the architectural style is consistent with land uses to the north. The buildings and grounds are well maintained and contribute to an orderly built environment. Similarly, the natural environment associated with the project site and project vicinity consists of a combination of grassland and oak woodland natural areas and well-manicured lawns, ornamental grasses, shrubs, and trees associated with more formal landscaping that provide aesthetic relief, seasonal visual interest (e.g., flowers, fall colors), and shading. The natural areas south of US 50 contribute to scenic landscape views and the formal landscaping, once mature, will contribute to a pedestrian-friendly environment that will also reduce the apparent scale of nearby buildings. The resulting visual quality is moderately high due to the order of the built environment and natural harmony created by existing natural areas and formal landscaping in the vicinity.

Viewer Groups, Viewer Exposure, and Viewer Sensitivity

The study area consists of the developed land uses, and viewer groups include residential viewers, recreational viewers, and travelers on local roadways. This analysis evaluates the sensitivity of each viewer group and describes it using five ratings: low, moderately low, moderate, moderately high, and high.

Residential Viewers

The residential viewer group consists of a limited number of residents on the northwestern edges of the developments that are south of and facing the project site. These homes are newer and have been constructed within the past year or two. Views of the site are not available from the interior of the communities because the homes are close together and the structures on the edges of the community generally block views for those on the interior. Residents on the northwestern edges of the developments have views from the second stories of their homes. These residences are

surrounded by sound walls, so views of the project site are not available from the first story of these homes.

The residential viewer group is often preoccupied with activities inside their homes. However, the duration of their views may be extended when they are looking through their windows toward the project site. This results in a moderately high level of viewer exposure for residential viewers, as a whole. These viewers are usually aware of their surroundings and the site. In addition, these viewers are accustomed to the shifting visual dynamic of the landscape in this area because construction of new development is a normal part of existing views. These viewers, however, are likely to have an expectation that future development is aesthetically pleasing and visually consistent with other development being constructed in the area. Therefore, this viewer group has moderately high viewer sensitivity.

Recreationists

The recreationist viewer group includes people traveling on foot or by bicycle along East Bidwell Street. Views are also available to recreationists using Alder Creek Parkway, but only near its intersection with East Bidwell Street. Views from further east of the intersection along Alder Creek Parkway are blocked by existing landforms that prevent views toward the site. Terrain west of East Bidwell Street limits views; however, partial views of the project site would also be available from the Old Ranch Way, Savannah Parkway, Willow Grove Drive, and Mangini Parkway intersections with East Bidwell Street. Views further east of the intersections would be blocked by sound walls and residential development.

This viewer group is also relatively small because, sidewalks currently do not fully extend between Alder Creek Parkway and the US 50 on-ramps. In addition, although bike lanes are present along East Bidwell Street, the roadway is very busy and likely does not appeal to a large majority of cyclists. Therefore, it is expected that more experienced cyclists would use bike lanes along this roadway under current conditions. Because recreational viewers move at a slower pace of travel, the duration of their views is longer than viewers in vehicles. This results in a moderately high level of viewer exposure. This viewer group is somewhat preoccupied with the act of walking and biking but still has time to take in the visual environment around them. These viewers are typically aware of their surroundings because most of them use the street, sidewalks, and bike lanes regularly. Like residential viewers, recreationists are accustomed to the shifting visual dynamic of the landscape in this area because construction of new development is a normal part of existing views. Recreational viewers are also likely to have an expectation that future development is aesthetically pleasing and visually consistent with other development being constructed in the area. Therefore, this viewer group also has moderately high viewer sensitivity.

Commercial Viewers

The commercial viewer group includes people working in or visiting the commercial areas north of US 50, across from the project site. These big box retail buildings are oriented toward Iron Point Road and do not have windows facing the project site. However, limited views of the project are available from behind the buildings where loading docks and a limited amount of parking are located. Landscaped slopes between the parking areas and the US 50 right-of-way screen many views from the parking area towards US 50 and the project site. The duration of their views is relatively short, due to the activities associated with loading and unloading goods or the focus on the safety of the surroundings while walking to and entering parked vehicles. This results in a low level of viewer exposure. This viewer group is preoccupied with their activities, whether that is working

at or visiting the commercial buildings. These viewers are moderately aware of their surroundings because many of them regularly work in the businesses or visit sporadically. Therefore, this viewer group has moderately low viewer sensitivity.

Roadway Travelers

Roadway travelers include drivers and passengers in vehicles, primarily, on US 50 and East Bidwell Street, which makes up the largest viewer group associated with the project site. It also includes travelers at the intersections of Alder Creek Parkway, Old Ranch Way, Savannah Parkway, Willow Grove Drive, and Mangini Parkway with East Bidwell Street. Roadways surrounding the project sites are higher-speed routes and the duration of roadway travelers' views would be relatively short, less than minute on the freeway and between a minute or two for those on the local roads, as travelers pass by the project site. This results in a low level of viewer exposure.

This viewer group is generally preoccupied with the act of driving (though less so for passengers in vehicles). These viewers are typically aware of their surroundings because most of the vehicles are traveling to places where they regularly go. US 50 has a scenic route designation, and the site's undeveloped, rolling terrain is of moderately high visual quality. Like residential and recreational viewers, roadway travelers are accustomed to the shifting visual dynamic of the landscape in this area because construction of new development is a normal part of existing views. Roadway travelers are also likely to have an expectation that future development is aesthetically pleasing and visually consistent with other development being constructed in the area. Therefore, this viewer group has moderate viewer sensitivity.

3.1.2 Environmental Impacts

This section describes the environmental impacts associated with aesthetics that would result from the Folsom Center for Health Master Plan. It describes the methods used to determine the effects of the project and lists the thresholds used to conclude whether an impact would be significant. Measures to mitigate (i.e., avoid, minimize, rectify, reduce, eliminate, or compensate for) any significant impacts are provided, if available.

Methods for Analysis

Aesthetic resources are assessed by evaluating the visual character and visual quality of the resources composing the project environment before and after construction of the project and how these changes affect the surrounding natural and built environments. As described under *Concepts and Terminology*, visual quality serves as the baseline for determining the degree of visual impacts and whether a project's visual impacts would be negative, beneficial, or neutral. A "visual impact" is the creation of an intrusion or perceptible contrast that affects the scenic quality of a viewscape. A visual impact can be perceived by an individual or group as either positive or negative, depending on a variety of factors or conditions (e.g., personal experience, time of day, weather, seasonal conditions). Neutral impacts reflect little change to the visual environment and visual quality, retaining the existing landscape composition and vividness. Beneficial impacts can result where visual quality is improved through the enhancement of aesthetic resources or where visual experiences are improved through the creation of new or improved views of resources. The level of beneficial impact is determined by how much a project improves the existing landscape composition, and vividness and can range from small to very substantial improvements. Negative impacts can result when visual quality is degraded through aesthetic resource modification or by

blocking or altering views in a negative manner. The level of negative impact is determined by how much a project degrades the visual landscape and ranges from general negative changes to severe declines in the existing landscape composition and vividness (Federal Highway Administration 2015:6-1–6-8).

The impact assessment methodology for aesthetic resources includes the following components.

- Establish the AVE for aesthetics resources.
- Inventory and describe the environmental setting, affected viewers, and existing visual quality.
- Assess visual compatibility of the project and viewer sensitivity and analyze visual impacts.
- Propose methods to mitigate significant visual impacts.

The aesthetic impact assessment is also based on review of aerial and ground-level photos of the project site, the project description, and project design details.

The methods for evaluating impacts are intended to satisfy the state requirements for the California Environmental Quality Act (CEQA) and general conformity. In accordance with CEQA requirements, an environmental impact report must include a description of the existing physical environmental conditions in the vicinity of the project. Those conditions, in turn, "will normally constitute the baseline physical conditions by which a lead agency determines whether an impact is significant" (CEQA Guidelines Section 15125(a)).

Thresholds of Significance

In accordance with Appendix G of the CEQA Guidelines, the project would be considered to have a significant effect if it would result in any of the conditions listed below.

- A substantial adverse effect on a scenic vista.
- Substantial damage to scenic resources, including but not limited to trees, rock outcroppings, and historic buildings along a scenic highway.
- In non-urbanized areas, substantial degradation of the existing visual character or quality of public views of the site and its surroundings. In urbanized areas, conflict with applicable zoning or other regulations governing scenic quality.
- Introduction of a new source of substantial light or glare that would adversely affect daytime or nighttime views in the area.

Issues Not Evaluated Further

The project would be entirely within an urbanized area. No rural areas would be affected by the project. For these reasons, views of rural areas would not be affected by the project and these resources are not discussed further. There would be **no impact**.

Impacts and Mitigation Measures

Impact AES-1: Potential to have a substantial adverse effect on a scenic vista (less than significant with mitigation)

Summary of Impact AES-1 by Component

Component	Level of Significance before Mitigation	Mitigation Measures Required	Level of Significance after Mitigation
Folsom Center for Health Master Plan	S	AQ-2b FPASP 3A.1-4 FPASP 3B.1-2a FPASP 3B.1-2b AES-1	LTS
Phase 1, Medical Office Building	S	AQ-2b FPASP 3A.1-4 FPASP 3B.1-2a FPASP 3B.1-2b AES-1	LTS

LTS = less than significant; S = significant

Folsom Center for Health Master Plan and Phase 1, Medical Office Building

Construction

As described in *Project and Vicinity Character*, although there are no officially designated scenic vistas associated with the project site, the East Bidwell Street bridge over US 50 provides scenic vista views out over the project site near the eastbound US 50 on-ramp, looking southwest. This vista includes views of the rolling terrain and oak woodlands west of the project site. However, this vista also includes views of the residential development that has been and is being built south of US 50. Therefore, the view is currently transitioning from open space to developed land uses.

Construction of both the Master Plan and Phase 1 would result in temporary impacts on the visual character and quality of the project site, as seen in scenic vista views. Phase 1 would be constructed first, with subsequent phases being constructed over the next 15 to 20 years. These impacts would occur during each phase of construction and would result from the presence of large construction equipment on the site, stockpiles of construction materials, and the exposure of the cleared soil. In addition, construction activities could result in fugitive dust, which would affect visual quality onsite and offsite that is seen in the scenic vista view from the East Bidwell Street bridge over US 50. This would result in significant impacts on the scenic vista view.

Construction of the Master Plan would require the use of scaffolding and other equipment that may be unsightly and would be visible to all viewers associated with project site. However, as described under *Viewer Groups, Viewer Exposure, and Viewer Sensitivity*, all viewers are accustomed to construction occurring in the area and the shifting visual dynamic of the landscape because construction of new development is a highly common part of existing views. Construction at the site to build the later phases of the Master Plan would occur within the two decades following completion of Phase 1. The lands surrounding the project site are all slated for development. Therefore, construction would still likely be a common visual element as the FPASP area reaches full implementation over the next several decades. However, materials storage, construction parking

and access, and staging areas can also be unsightly and result in significant impacts on the scenic vista view.

Construction-phase impacts would be significant due to the potential for fugitive dust and unsightly construction activities. Mitigation Measure AQ-2b, FPASP Mitigation Measure 3A.1-4, and Mitigation Measure AES-1 would reduce these impacts to a less-than-significant level for all viewer groups by reducing the potential for fugitive dust, screening construction staging areas, and reducing unsightly conditions at construction sites. Therefore, construction impacts on scenic vistas would be **less than significant with mitigation**.

Operation

Once constructed and in operation, viewer groups would first see the built (up to) four-story medical office building (MOB), the community arrival, the central green, driveways, perimeter buffer, landscaping and stormwater facilities, and parking lots. This would be followed by the remaining built phases of the Master Plan to include the ambulatory surgery center (ASC; three stories), hotel (four stories), central utility plant (CUP; equivalent in height to two stories), and micro-hospital (up to three stories). The MOB and landscaping, as it matures, would act to partially obscure views of the oak woodlands to the east. Although the grasslands to the south would remain visible, it is likely that these grasslands would be developed within a similar timeframe as the Master Plan. Therefore, the Master Plan and Phase 1 would not look out of context. The Master Plan would ensure that aesthetic treatments are applied to building exteriors so that the structures would be aesthetically pleasing. In addition, landscaping and the oak woodland restoration at the project site would improve views by reducing the apparent scale of buildings, adding visual interest to the landscape, and softening the look of the project.

Because the area south of US 50 is slated for development and construction has commenced, viewers would be accustomed to the changing dynamics of this scenic vista and this change is an expected visual condition. The design of the MOB would meet the expectations of affected viewers. The micro-hospital, ASC, and hotel would be designed to visually complement the MOB. However, the CUP may still be visible within the scenic vista view and has the potential to detract from views at the site, resulting in potentially significant impacts. FPASP Mitigation Measures 3B.1-2a and 3B.1-2b would ensure that the exterior appearance of the CUP is enhanced with aesthetic treatments and landscaping, reducing impacts to a less-than-significant level. Therefore, operational impacts on scenic vistas would be **less than significant with mitigation**.

Mitigation Measure AQ-2b: Reduce construction-generated fugitive dust

Refer to Mitigation Measure AQ-2b under Impact AQ-2 in Section 3.2, *Air Quality*.

FPASP Mitigation Measure 3A.1-4: Screen construction staging areas

The project applicant(s) for all project phases shall locate staging and material storage areas as far away from sensitive biological resources and sensitive land uses (e.g., residential areas, schools, parks) as feasible. Staging and material storage areas shall be approved by the appropriate agency (identified below) before the approval of grading plans and building permits for all project phases and shall be screened from adjacent occupied land uses in earlier development phases to the maximum extent practicable. Screens may include, but are not limited to, the use of such visual barriers such as berms or fences. The screen design shall be approved by the appropriate agency to further reduce visual effects to the extent possible.

Mitigation for the off-site elements outside of the City of Folsom's jurisdictional boundaries shall be coordinated by the project applicant(s) of each applicable project phase with the affected oversight agency(ies) (i.e., El Dorado and/or Sacramento Counties, and [the California Department of Transportation] Caltrans).

FPASP Mitigation Measure 3B.1-2a: Enhance exterior appearance of structural facilities

The external appearance of above-ground facilities, including the choice of color and materials, shall seek to reduce the visual impact of the proposed WTP, pump station, and above-ground storage tank facilities. Bright reflective materials and colors shall be avoided. As appropriate, the exterior design of these facilities should follow design guidelines provided in applicable land use plans. Minimum exterior design requirements shall include, but are not limited to, the following:

- painting (with earth-colored tones) of structural façades to blend with surrounding land uses,
- use of fencing or structural materials similar to those used by nearby land uses,
- installation of berms and/or landscaping around the facility (see Mitigation Measure 3B.2-2b for additional detail), and
- clustering of structural facilities to maximize open space buffering.

FPASP Mitigation Measure 3B.1-2b: Prepare landscaping plan

The City shall develop a landscaping plan for each structural facility site that uses a combination of locally derived native vegetation, earthen features (e.g., boulders), and, if appropriate, topographical separations (e.g., berms) to maximize site appearance and shield the new facilities from nearby sensitive receptors to the extent feasible. In addition to complying with local standards, the landscaping plan shall require the following at each site:

- Vegetation shall be arranged in a hierarchy of plant groupings to enhance the visual and scenic qualities of the site(s). To the extent practical, the design will minimize the need for supplemental irrigation.
- New or replacement vegetation shall be compatible with surrounding vegetation and shall be adaptable to the site with regard to rainfall, soil type, exposure, growth rate, erosion control, and energy conservation purposes.
- Plant materials chosen shall be species which do not present any safety hazards, which allow native flora to reestablish in the area, and which require minimal maintenance, including watering, pest control, and clean-up of litter from fruit and droppings.

Note that UC Davis would implement this mitigation rather than the City.

Mitigation Measure AES-1: Reduce visual impacts from construction

The following measures will be taken to reduce unsightly conditions at construction sites.

- The construction sites will be kept clean and organized. Unused materials, debris, trash, and construction equipment that is no longer needed will be removed from the site on a daily basis. Unsightly materials will be stored outside of the line of sight from adjacent land uses if they will be needed onsite for long periods of time, such as a full day or longer.

- Large equipment such as cranes and scaffolding will be removed as soon as possible when no longer needed. If scaffolding is not needed until a later stage more than 90 days away, the scaffolding will be removed and rebuilt when needed again.
- Construction crew and equipment parking will be kept clean and surfaced to reduce the chances of track-out dirt. When construction will result in high levels of track-out dirt, wheel washers will be employed to reduce these impacts.

Impact AES-2: Potential to substantially damage scenic resources along a scenic highway (less than significant with mitigation)

Summary of Impact AES-3 by Component

Component	Level of Significance before Mitigation	Mitigation Measures Required	Level of Significance after Mitigation
Folsom Center for Health Master Plan	S	AQ-2b FPASP 3A.1-4 FPASP 3B.1-2a FPASP 3B.1-2b AES-1	LTS
Phase 1, Medical Office Building	S	AQ-2b FPASP 3A.1-4 FPASP 3B.1-2a FPASP 3B.1-2b AES-1	LTS

LTS = less than significant; S = significant

Folsom Center for Health Master Plan and Phase 1, Medical Office Building

Construction

As identified in the *Regulatory Setting* in Section 3.1.1, *Existing Conditions*, US 50 is a Sacramento County–designated scenic highway. Construction of both the Master Plan and Phase 1 MOB would result in the same temporary impacts on the visual character and quality of the project site, as seen from US 50, as described for Impact AES-1. For the same reasons discussed under Impact AES-1, construction-phase impacts would be significant due to the potential for fugitive dust and unsightly construction activities that would be visible, in passing, from US 50. Mitigation Measure AQ-2b, FPASP Measure 3A.1-4, and Mitigation Measure AES-1 would reduce these impacts to a less-than-significant level for all viewer groups by reducing the potential for fugitive dust, screening construction staging areas, and reducing unsightly conditions at construction sites. Therefore, construction impacts on scenic highways would be **less than significant with mitigation**.

Operation

Views of the project site from US 50 consist of grassy, rolling terrain that limits views of the site from US 50 to the foreground. The small clusters of trees that grow along the freeway would not be disturbed by the project. Grading would make the site flatter so that more of the project site would be visible from US 50. As described for Impact AES-1, once constructed and in operation, viewer groups would first see the built three-story MOB, the community arrival, the central green, driveways, perimeter buffer, landscaping, and parking lots. This would be followed by the remaining built phases of the Master Plan to include the ASC with outpatient services, hotel, CUP, and micro-

hospital. However, the landscape buffer and oak woodland restoration area along US 50 and landscaping associated with the buildings and parking areas would create a visual buffer that is similar to the landscape buffer that exists along westbound US 50, west of East Bidwell Street. In addition, the stormwater facilities would not likely be visible from US 50 because they would be built on the ground plane and not visible from US 50 due to intervening site features. The landscape buffer and oak woodland restoration area along US 50 would meet Sacramento County General Plan scenic corridor policies to beautify county freeways and comply with FPASP Mitigation Measure 3A.1-1 that requires a landscape corridor be constructed and maintained adjacent to US 50. Landscaping associated with the buildings and parking areas would also contribute to creating views from US 50 that are high quality. However, the CUP would still be visible from US 50 and has the potential to detract from views at the site, resulting in potentially significant impacts. FPASP Mitigation Measures 3B.1-2a and 3B.1-2b would ensure that the exterior appearance of the CUP is enhanced with aesthetic treatments and landscaping, reducing impacts to a less-than-significant level. Therefore, operational impacts on scenic highways would be **less than significant with mitigation**.

Mitigation Measure AQ-2b: Reduce construction-generated fugitive dust

Refer to Mitigation Measure AQ-2b under Impact AQ-2 in Section 3.2.

FPASP Mitigation Measure 3A.1-4: Screen construction staging areas

Refer to FPASP Mitigation Measure 3A.1-4 under Impact AES-1.

FPASP Mitigation Measure 3B.1-2a: Enhance exterior appearance of structural facilities

Refer to FPASP Mitigation Measure 3B.1-2a under Impact AES-1.

FPASP Mitigation Measure 3B.1-2b: Prepare landscaping plan

Refer to FPASP Mitigation Measure 3B.1-2b under Impact AES-1.

Mitigation Measure AES-1: Reduce visual impacts from construction

Refer to Mitigation Measure AES-1 under Impact AES-1.

Impact AES-3: Conflict with zoning or other regulations governing scenic quality in urbanized areas (less than significant with mitigation)

Summary of Impact AES-3 by Component

Component	Level of Significance before Mitigation	Mitigation Measures Required	Level of Significance after Mitigation
Folsom Center for Health Master Plan	S	FPASP 3B.1-2a FPASP 3B.1-2b	LTS
Phase 1, Medical Office Building	S	FPASP 3B.1-2a FPASP 3B.1-2b	LTS

LTS = less than significant; S = significant

Folsom Center for Health Master Plan and Phase 1, Medical Office Building

Impacts associated with compliance to regulations pertaining to light and glare are discussed under Impact AES-4.

Construction

Construction of both the Master Plan and Phase 1 MOB would result in the same temporary impacts on the visual character and quality of the project site as described for Impact AES-1. There are no policies pertaining to construction that specifically apply to aesthetic resources. Therefore, the project would not conflict with regulations governing scenic quality in an urbanized area and construction impacts would be **less than significant.**

Operation

As described under Impacts AES-1 and AES-2, once constructed and in operation, viewer groups would first see the built three-story MOB, the community arrival, the central green, driveways, perimeter buffer, landscaping and stormwater facilities, and parking lots. This would be followed by the remaining built phases of the Master Plan to include the ASC, hotel, CUP, micro-hospital, and their associated parking lots and site landscaping. The MOB and landscaping, as it matures, would partially obscure views of the oak woodlands to the east. Although the grasslands to the south would remain visible, it is likely that these grasslands would be developed within a similar timeframe as the Master Plan. Therefore, the built Master Plan and Phase 1 would not look out of context. The Master Plan would ensure that aesthetic treatments are applied to building exteriors so that the structures associated with all phases would be aesthetically pleasing. In addition, landscaping and the oak woodland restoration at the project site would improve views by reducing the apparent scale of buildings, adding visual interest to the landscape, and softening the look of the project. The micro-hospital, ASC, hotel, and associated landscaping would be designed to visually complement the MOB. The project would also be respectful of the City's Class I Bike Trail that would travel along US 50 and East Bidwell Street and landscaping associated with the Master Plan and Phase 1 would improve views along the trail and provide shading.

The design of the project and associated landscaping would comply with the City of Folsom's General Plan policies by helping to retain and enhance Folsom's identity, concentrate development, preserve a limited amount of open space, provide landscaped parking areas and landscaping along public roadways, utilize high-quality design, and incorporate native plantings for water conservation and to meet City landscaping guidelines (Policies LU 1.1.7, LU 1.1.8, LU 7.1.1, LU 7.1.5, LU 9.1.6, LU 9.1.7, NCR 1.1.4, NCR 1.1.8). Further, the design of the project and associated landscaping would comply with the FPASP objectives and policies to provide circulation that is Americans with Disabilities Act compliant and includes landscaping and site features that do not create separation between adjacent land uses, create shade throughout the site, facilitate trail connections to open space areas by enhancing the City's trail bordering the site and creating shade along the pathway, preserve a limited amount of open space, provide landscaped parking areas and landscaping along public roadways, incorporate oak woodlands into the project site, and incorporate native plantings for water conservation and to meet City landscaping guidelines (Objectives 4.3, 8.2, 10.12; Policies 7.2, 7.17, 7.22, 10.53, 10.56).

As described under Impact AES-2, the landscape buffer and oak woodland restoration area along US 50 would meet Sacramento County General Plan scenic corridor policies to landscape and beautify county freeways (Policies CI-59, CI-60, CI-63), City of Folsom's General Plan policy to maintain

scenic corridors (Policy NCR 2.1.1), and so the project as designed would also comply with FPASP Mitigation Measure 3A.1-1 that requires that a landscape corridor be constructed and maintained adjacent to US 50. Therefore, although much of the project design would comply with regulations governing scenic quality in an urbanized area, the CUP may still be visible from US 50 and detract from views at the site, resulting in potentially significant impacts. Implementation of FPASP Mitigation Measures 3B.1-2a and 3B.1-2b would ensure that exterior appearance of the CUP is enhanced with aesthetic treatments and landscaping, reducing impacts to a less-than-significant level. Therefore, operation impacts would be **less than significant with mitigation**.

FPASP Mitigation Measure 3B.1-2a: Enhance exterior appearance of structural facilities

Refer to FPASP Mitigation Measure 3B.1-2a under Impact AES-1.

FPASP Mitigation Measure 3B.1-2b: Prepare landscaping plan

Refer to FPASP Mitigation Measure 3B.1-2b under Impact AES-1.

Impact AES-4: Introduction of a new source of substantial light or glare that would adversely affect daytime or nighttime views in the area (less than significant with mitigation)

Summary of Impact AES-4 by Component

Component	Level of Significance before Mitigation	Mitigation Measures Required	Level of Significance after Mitigation
Folsom Center for Health Master Plan	S	FPASP 3A.1-5 FPASP 3B.1-3a AES-4	LTS
Phase 1, Medical Office Building	S	FPASP 3A.1-5 FPASP 3B.1-3a AES-4	LTS

LTS = less than significant; S = significant

Folsom Center for Health Master Plan and Phase 1, Medical Office Building

Construction

Daytime light source impacts that may occur during construction of both the Master Plan and Phase 1 involve the use of welding or cutting tools, which may cause a very bright light or sparking to occur. In addition, light reflecting off construction vehicle windshields may cause visible glare. Although these sources of daytime light and glare may be an annoyance, they would occur at a distance from offsite viewers and be temporary. Therefore, impacts would be **less than significant**.

It is possible that some construction activities may occur at night. Light from nighttime activities could spill over into adjacent areas, especially into the residential areas south of the site. This would result in a significant impact. FPASP Mitigation Measure 3B.1-3a would reduce this impact to less-than-significant levels by limiting construction to daylight hours to the extent possible and ensuring that unshielded lights, reflectors, or spotlights are not located and directed to shine toward or be directly visible from adjacent properties or streets if nighttime lighting or construction is necessary. Therefore, construction impacts would be **less than significant with mitigation**.

Operation

Daytime Light and Glare

As described under *Project and Vicinity Character*, daytime glare levels at the project site are moderately high because, although there are no existing buildings on the project site with surfaces and windows to reflect light and cause glare, there are no existing trees or shrubs growing on the site to provide sources of shade. Both the Master Plan and Phase 1 MOB would use earth-toned colors and would contain high-performance glass with low-emissivity coatings that would prevent significant reflectivity and high glare. Therefore, the surfaces of these buildings are not expected to reflect sunlight onto adjacent properties. The new landscaping and oak woodland restoration plantings would also screen street-level views of potential glare coming from the new buildings, as seen by all viewer groups surrounding the site. Further, new landscaping and oak woodland restoration plantings would mature and create new sources of shade at the site. Overall, it is not anticipated that daytime light and glare effects would be significant. Therefore, impacts from daytime light and glare would be **less than significant**.

Nighttime Light and Glare

Nighttime glare from headlights in the parking lots and along access routes associated with both the Master Plan and Phase 1 MOB are expected to be less than significant as seen by drivers along US 50 and East Bidwell Street and as seen from nearby residential and commercial areas. The landscape buffer, oak woodland restoration, and landscaping associated with the parking lots and structures would introduce trees and shrubs that would filter most light coming from vehicle headlights. In addition, intervening features (e.g., sound walls surrounding residential developments and landscape buffers associated with commercial areas) and other development that would be built in the near future surrounding the project site would obscure views of light coming from the parking lots and site access routes.

Interior light emanating from multistory buildings has the potential to result in significant impacts by increasing the amount of lighting that would radiate out from the site onto adjacent areas and also contribute to sky glow. The UC Sustainable Practices Policy identifies that automated lighting controls will be used for the project to shut off unnecessary lighting when no motion is detected, minimizing the amount of light emanating from buildings. The UC Sustainable Practices Policy would ensure compliance with FPASP Policies 10.63 and 10.64 that seek to limit energy use through automatic lighting, which would serve the dual purpose of limiting the amount of light radiating out from buildings.

Exterior accent lighting used in landscaping associated with the project would not be likely to affect nearby residential or commercial viewers, due to distance from these areas and intervening development and structures (e.g., sound walls surrounding residential developments). In addition, the landscape buffer, oak woodland restoration, and landscaping associated with the parking lots and structures would introduce trees and shrubs that would filter light coming from landscape accent lighting. However, exterior overhead lighting fixtures that would be installed within parking lots and along site access routes would most likely be light-emitting diode (LED) lights. LED lighting can negatively affect humans by increasing nuisance light and glare, in addition to increasing ambient light glow, if blue-rich white light lamps (BRWL) are used (American Medical Association 2016; International Dark-Sky Association 2010a, 2010b, 2015). BRWL lamps are lamps that have a color temperature of 4,000 Kelvin (K) or higher, and 4,000 K LED lamps are currently the UC Davis

standard. Studies have found that a 4,000 K white LED light causes approximately 2.5 times more pollution than high-pressure sodium lighting with the same lumen output, which would affect sensitive receptors and more than double the perceived brightness of the night sky (Aubé et al. 2013; Falchi et al. 2011, 2016). Overhead lighting would not be filtered by the landscape buffer, oak woodland restoration, and landscaping associated with the parking lots and structures until trees grow to a height to block such lighting and, unless the trees are evergreen, the landscape buffer would not provide year-round screening even when trees mature. Therefore, using BRWL LED lighting would result in a substantial source of nighttime light and glare that would negatively affect nighttime views and residential receptors in the area. Such lighting could result in significant impacts if the lighting spills outside the site boundaries, creating a new source of nuisance lighting or glare for adjacent sensitive viewers, or by creating a notable site-specific contribution to increasing localized nighttime sky glow from a site that is currently unlit.

The *Folsom Center for Health Draft Master Plan* (Master Plan) includes provisions to avoid light pollution by indicating that lighting would use fully shielded light sources and full cutoff fixtures designed to shield the source of light; LEDs with light color rendered as a warm white (rather than a cool white); avoids fluorescent lighting and over-lighting spaces; and minimizes pole heights in parking areas. However, the draft master plan also states that LED pole-mounted fixtures will have a color temperature of 4,000K, which is considered BRWL LED lighting (UC Davis Health 2021).

Therefore, the project would comply with FPASP Mitigation Measure 3A.1-5 by ensuring that the project uses directional lighting methods with shielded and cutoff-type light fixtures to minimize glare and upward-directed lighting. The project would also comply with City of Folsom General Plan Policies NCR 1.1.7 and NCR 2.1.3 that seek to limit fugitive light from outdoor sources and reduce light pollution. However, these measures would not offset the impacts associated with BRWL LED lighting or the potential for light and glare coming from the project site to affect nearby viewers because the Master Plan identifies that 4000 K LED lighting would be used. Mitigation Measure AES-4 would ensure that BRWL LED lighting is not used at the project site, reducing impacts to a less-than-significant level. Therefore, operational impacts resulting from light and glare would be **less than significant with mitigation**.

FPASP Mitigation Measure 3A.1-5: Establish and require conformance to lighting standards and prepare and implement a lighting plan

To reduce impacts associated with light and glare, the City shall:

- Establish standards for on-site outdoor lighting to reduce high-intensity nighttime lighting and glare as part of the Folsom Specific Plan design guidelines/standards. Consideration shall be given to design features, namely directional shielding for street lighting, parking lot lighting, and other substantial light sources, that would reduce effects of nighttime lighting. In addition, consideration shall be given to the use of automatic shutoffs or motion sensors for lighting features to further reduce excess nighttime light.
- Use shielded or screened public lighting fixtures to prevent the light from shining off of the surface intended to be illuminated.

To reduce impacts associated with light and glare, the project applicant(s) of all project phases shall:

- Shield or screen lighting fixtures to direct the light downward and prevent light spill on adjacent properties.

- Place and shield or screen flood and area lighting needed for construction activities, nighttime sporting activities, and/or security so as not to disturb adjacent residential areas and passing motorists.
- For public lighting in residential neighborhoods, prohibit the use of light fixtures that are of unusually high intensity or brightness (e.g., harsh mercury vapor, low-pressure sodium, or fluorescent bulbs) or that blink or flash.
- Use appropriate building materials (such as low-glare glass, low-glare building glaze or finish, neutral, earth-toned colored paint and roofing materials), shielded or screened lighting, and appropriate signage in the office/commercial areas to prevent light and glare from adversely affecting motorists on nearby roadways.
- Design exterior on-site lighting as an integral part of the building and landscape design in the Folsom Specific Plan area. Lighting fixtures shall be architecturally consistent with the overall site design.
- Lighting of off-site facilities within the City of Folsom shall be consistent with the City's General Plan standards.
- Lighting of the off-site detention basin shall be consistent with Sacramento County General Plan standards.
- Lighting of the two local roadway connections from Folsom Heights off-site into El Dorado Hills shall be consistent with El Dorado County General Plan standards.

A lighting plan for all on- and off-site elements within each agency's jurisdictional boundaries (specified below) shall be submitted to the relevant jurisdictional agency for review and approval, which shall include the above elements. The lighting plan may be submitted concurrently with other improvement plans and shall be submitted before the installation of any lighting or the approval of building permits for each phase. The project applicant(s) of all project phases shall implement the approved lighting plan.

FPASP Mitigation Measure 3B.1-3a: Conform to construction lighting standards

The City shall limit construction to daylight hours to the extent possible. If nighttime lighting or construction is necessary, the City shall ensure that unshielded lights, reflectors, or spotlights are not located and directed to shine toward or be directly visible from adjacent properties or streets. To the extent possible, the City shall minimize the use of nighttime construction lighting within 500 feet of existing residences. This measure shall be identified on grading plans and in construction contracts.

Note that UC Davis would implement this mitigation rather than the City.

Mitigation Measure AES-4: Additional light and glare minimization measures

All LED lighting will avoid the use of BRWL lamps and use a correlated color temperature that is no higher than 3,000 K (International Dark-Sky Association 2010a, 2010b, 2015).

3.2 Air Quality

This section describes the regulatory and environmental setting for air quality in the UC Davis Folsom Center for Health Master Plan (project) area, analyzes effects on air quality that would result from implementation of the project and Phase 1, Medical Office Building, and provides mitigation measures, if applicable, to reduce the effects of any potentially significant impacts. Appendix E, *Air Quality and Greenhouse Gas Modeling Inputs and Supporting Data*, presents supporting air quality calculations for the impact analysis. Appendix F, *Health Risk Assessment Supporting Data*, provides additional details on the human health risk assessment (HRA).

The air quality environmental impact analysis area encompasses the areas directly and indirectly affected by the project. Two geographic scales define the study area.

- The regional impact analysis area is the affected air basins. The project is in Sacramento County in the Sacramento Valley Air Basin (SVAB), but patients, visitors, and employees may travel from neighboring El Dorado County, which is in the Mountain Counties Air Basin (MCAB). Accordingly, the regional impact analysis area includes both SVAB and MCAB.
- Within the regional study area is the local impact analysis area, which encompasses areas within 1,000 feet of new or modified emissions-generating sources proposed under the project. The 1,000-foot screening distance represents an industry standard for analyzing localized air quality impacts and is commonly utilized in EIRs to disclose the potential air quality impacts close to the project site (California Air Resources Board 2005:14). These sources and areas include Phase 1 development and the larger Master Plan.

In response to the Notice of Preparation for this EIR, commenters expressed the following concerns related to air quality.

- Use of Sacramento Metropolitan Air Quality Management District's (SMAQMD) *Guide to Air Quality Assessment in Sacramento County* (SMAQMD's CEQA Guide) (Sacramento Metropolitan Air Quality Management District 2021a).
- Consistency with the Folsom Plan Area Specific Plan (FPASP) measures to reduce air quality impacts, including the operational Air Quality Mitigation Plan (AQMP) and FPASP Mitigation Monitoring and Reporting Program.
- Consistency with Sacramento Area Council of Governments' (SACOG) *2020 Metropolitan Transportation Plan/Sustainable Communities Strategy* (MTP/SCS) (Sacramento Area Council of Governments 2019).
- Provision of all-electric design, electric vehicle (EV)–ready spaces, and solar photovoltaic shade structures.
- Incorporation of measures to reduce the urban heat island effect.
- Compliance with SMAQMD rules and regulations.

3.2.1 Existing Conditions

Regulatory Setting

Air quality in the study area is regulated by the U.S. Environmental Protection Agency (EPA), the California Air Resources Board (CARB), SMAQMD, and El Dorado County Air Quality Management District (EDCAQMD). Each of these agencies develops rules, regulations, policies, and goals to comply with applicable legislation and maintain or improve air quality.

University of California

As noted in Section 3.0.2, *University of California Autonomy*, the University of California (UC), a constitutionally created state entity, is not subject to municipal regulations of surrounding local governments for uses on property owned or controlled by the UC that are in furtherance of its educational purposes. UC Davis may consider, for coordination purposes, aspects of local plans and policies for the communities surrounding the project when it is appropriate and feasible, but it is not bound by those plans and policies in its planning efforts.

The Board of Regents of the UC adopted the UC Sustainable Practices Policy in 2006. Most recently updated in 2020, the policy goals encompass nine areas of sustainable practices: green building design, clean energy, climate protection, sustainable transportation, sustainable building operations for campuses, zero waste, sustainable procurement, sustainable foodservices, and sustainable water systems (University of California 2020). Also relevant to air quality and the project are UC Davis Health's Green Commuter Program and the *Folsom Center for Health Sustainability Master Plan* (University of California, Davis Health 2021). These programs are further described in Section 3.7, *Greenhouse Gas Emissions*.

Federal

Clean Air Act and National Ambient Air Quality Standards

The federal Clean Air Act (CAA) and its subsequent amendments form the basis for the nation's air pollution control effort. The EPA is responsible for implementing most aspects of the CAA and has established national ambient air quality standards (NAAQS) for six criteria pollutants—ozone, particulate matter (PM; specifically, particulate matter 10 microns or less in diameter [PM10] and particulate matter 2.5 microns or less in diameter [PM2.5]), carbon monoxide (CO), nitrogen dioxide (NO_2), sulfur dioxide (SO_2), and lead. The NAAQS identify levels of air quality that are considered the maximum safe levels of ambient (background) air pollutants, within an adequate margin of safety, to protect public health and welfare. Table 3.2-1 shows the NAAQS currently in effect for each criteria pollutant, as well as the California ambient air quality standards (CAAQS) (discussed under *State*).

U.S. Environmental Protection Agency Non-Road Diesel Rule

The EPA has established a series of increasingly strict emission standards for new off-road diesel equipment, on-road diesel trucks, and locomotives. New equipment used for the project, including heavy-duty trucks and off-road construction equipment, are required to comply with the emission standards.

National Corporate Average Fuel Economy Standards

The Corporate Average Fuel Economy standards were first enacted in 1975 to improve the average fuel economy of cars and light duty trucks. In September 2019, the National Highway Traffic Safety Administration and EPA established "The Safer Affordable Fuel-Efficient (SAFE) Vehicles Rule," which withdrew California's ability to create its own fuel economy standards under the CAA (84 *Federal Register* [Fed. Reg.] 51310) and revised the national fuel economy standards for light-duty vehicles to 32 miles per gallon (mpg) through model year (MY) 2026 (85 Fed. Reg. 24174). However, on December 20, 2021, EPA issued a revised rule for MY 2023 through MY 2026 vehicles that is expected to achieve an average fuel economy label of 40 mpg (40 Fed. Reg. Parts 86 and 600). The revised rule took effect in February 2022.

Table 3.2-1. Current Federal and State Ambient Air Quality Standards

			National Standards[a]	
Criteria Pollutant	Average Time	California Standards	Primary	Secondary
Ozone	1-hour	0.09 ppm	None[b]	None[b]
	8-hour	0.070 ppm	0.070 ppm	0.070 ppm
Particulate matter (PM10)	24-hour	50 μg/m^3	150 μg/m^3	150 μg/m^3
	Annual mean	20 μg/m^3	None	None
Fine particulate matter (PM2.5)	24-hour	None	35 μg/m^3	35 μg/m^3
	Annual mean	12 μg/m^3	12.0 μg/m^3	15 μg/m^3
Carbon monoxide	8-hour	9.0 ppm	9 ppm	None
	1-hour	20 ppm	35 ppm	None
Nitrogen dioxide	Annual mean	0.030 ppm	0.053 ppm	0.053 ppm
	1-hour	0.18 ppm	0.100 ppm	None
Sulfur dioxide[c]	Annual mean	None	0.030 ppm	None
	24-hour	0.04 ppm	0.014 ppm	None
	3-hour	None	None	0.5 ppm
	1-hour	0.25 ppm	0.075 ppm	None
Lead	30-day Average	1.5 μg/m^3	None	None
	Calendar quarter	None	1.5 μg/m^3	1.5 μg/m^3
	3-month average	None	0.15 μg/m^3	0.15 μg/m^3
Sulfates	24-hour	25 μg/m^3	None	None
Visibility-reducing particles	8-hour	–[d]	None	None
Hydrogen sulfide	1-hour	0.03 ppm	None	None
Vinyl chloride	24-hour	0.01 ppm	None	None

Source: California Air Resources Board 2016.

ppm= parts per million; μg/m^3 = micrograms per cubic meter; NAAQS = national ambient air quality standard; SO_2 = sulfur dioxide; CAAQS = California ambient air quality standard

[a] National standards are divided into primary and secondary standards. Primary standards are intended to protect public health, whereas secondary standards are intended to protect public welfare and the environment.

[b] The federal 1-hour standard of 12 parts per hundred million was in effect from 1979 through June 15, 2005. The revoked standard is referenced because it was employed for a long period and is a benchmark for state implementation plans.

[c] The annual and 24-hour NAAQS for SO_2 only apply for 1 year after designation of the new 1-hour standard to those areas that were previously in nonattainment for 24-hour and annual NAAQS.

[d] CAAQS for visibility-reducing particles is defined by an extinction coefficient of 0.23 per kilometer – visibility of 10 miles or more due to particles when relative humidity is less than 70 percent.

State

Like the federal CAA at the national level, the California Clean Air Act (CCAA) established a statewide air pollution control program. CARB is responsible for enforcing the CCAA and has set CAAQS for criteria pollutants. The current CAAQS are shown in Table 3.2-1. CARB also regulates toxic air contaminants (TAC).

California Clean Air Act and California Ambient Air Quality Standards

In 1988, the state legislature adopted the CCAA, which established a statewide air pollution control program. The CCAA requires all air districts in the state to endeavor to meet the CAAQS by the earliest practical date. Unlike the CAA, the CCAA does not set precise attainment deadlines. Instead, the CCAA establishes increasingly stringent requirements for areas that require more time to achieve the standards. The CAAQS are generally more stringent than the NAAQS and incorporate additional standards for sulfates, hydrogen sulfide, visibility-reducing particles, and vinyl chloride.

CARB and local air districts bear responsibility for meeting the CAAQS, which are to be achieved through district-level air quality management plans incorporated into the State Implementation Plans (SIP). In California, the EPA has delegated authority to prepare SIPs to CARB, which, in turn, has delegated that authority to individual air districts. CARB traditionally has established state air quality standards, maintained oversight authority in air quality planning, developed programs for reducing emissions from motor vehicles, developed air emission inventories, collected air quality and meteorological data, and approved SIPs.

The CCAA substantially adds to the authority and responsibilities of air districts. The CCAA designates air districts as lead air quality planning agencies, requires air districts to prepare air quality plans, and grants air districts authority to implement transportation control measures. The CCAA also emphasizes the control of "indirect and area-wide sources" of air pollutant emissions. The CCAA gives local air pollution control districts explicit authority to regulate indirect sources of air pollution and to establish traffic control measures.

California Air Resources Board Advanced Clean Truck Regulation

CARB adopted the Advanced Clean Truck Regulation in June 2020 to accelerate a large-scale transition of zero-emission medium- and heavy-duty vehicles. The regulation requires the sale of zero-emission medium- and heavy-duty vehicles as an increasing percentage of total annual California sales from 2024 to 2035. By 2035, zero-emission truck/chassis sales would need to be 55 percent of Class 2b–3 truck sales, 75 percent of Class 4–8 straight truck sales, and 40 percent of truck tractor sales. By 2045, every new medium- and heavy-duty truck sold in California will be zero-emission. Large employers, including retailers, manufacturers, brokers, and others, are required to report information about shipments and shuttle services to better ensure that fleets purchase available zero-emission trucks.

California Air Resources Board Truck and Bus Regulation

Originally adopted in 2005, the on-road truck and bus regulation requires heavy trucks to be retrofitted with PM filters. The regulation applies to privately and federally owned diesel-fueled trucks with a gross vehicle weight rating greater than 14,000 pounds. Compliance with the

regulation can be reached through one of two paths: (1) vehicle retrofits according to engine year, or (2) phase-in schedule. Compliance paths ensure that by January 2023, nearly all trucks and buses will have MY 2010 engines or newer.

California Air Resources Board Tailpipe Emission Standards

Like the EPA at the federal level, CARB has established a series of increasingly strict emission standards for new off-road diesel equipment, on-road diesel trucks, and harbor craft operating in California. New equipment used to construct buildings and facilities as part of the project would be required to comply with the standards.

Carl Moyer Program

The Carl Moyer Memorial Air Quality Standards Attainment Program (Carl Moyer Program) is a voluntary program that offers grants to owners of heavy-duty vehicles and equipment. The program is a partnership between CARB and the local air districts throughout the state to reduce air pollution emissions from heavy-duty engines. Locally, the air districts administer the Carl Moyer Program.

Toxic Air Containment Identification and Control Act

California regulates TACs primarily through the Toxic Air Contaminant Identification and Control Act (Tanner Act; Assembly Bill [AB] 1807) and the Air Toxics "Hot Spots" Information and Assessment Act of 1987 (Hot Spots Act; AB 2588). In the early 1980s, CARB established a statewide comprehensive air toxics program to reduce exposure to air toxics. The Tanner Act (AB 1807) created California's program to reduce exposure to air toxics. The Hot Spots Act (AB 2588) supplements the AB 1807 program by requiring a statewide air toxics inventory, notification of people exposed to a significant health threat, and facility plans to reduce these hazards.

The Hot Spots Act requires that existing facilities that emit toxic substances above specified levels complete the following actions.

- Prepare a toxic emission inventory.
- Prepare a risk assessment if emissions are significant.
- Notify the public of significant risk levels.
- Prepare and implement risk reduction measures.

The Tanner Act sets forth a formal procedure for CARB to designate substances as TACs. This procedure includes research, public participation, and scientific peer review before CARB designates a substance as a TAC. To date, CARB has identified 21 TACs and has also adopted the EPA's list of hazardous air pollutants as TACs.

In September 2000, CARB approved a comprehensive diesel risk reduction plan to reduce emissions from both new and existing diesel-fueled engines and vehicles (California Air Resources Board 2000). The goal of the plan was to reduce diesel particulate matter (DPM) emissions and the associated health threat by 75 percent in 2010 and by 85 percent by 2020. The plan identifies 14 measures that target new and existing on-road vehicles (e.g., heavy-duty trucks and buses), off-road equipment (e.g., graders, tractors, forklifts, sweepers, and boats), portable equipment (e.g., pumps), and stationary engines (e.g., stand-by power generators).

CARB has adopted several regulations that will reduce diesel emissions from in-use vehicles and engines throughout California. For example, CARB adopted an idling regulation for on-road diesel-fueled commercial vehicles in July 2004 and updated it in October 2005. The regulation applies to public and privately owned trucks with a gross vehicle weight rating greater than 10,000 pounds. Vehicles subject to the regulation are prohibited from idling for more than 5 minutes in any one location. CARB also adopted a regulation for operation of diesel-powered construction and mining vehicles. Fleet owners are subject to retrofit or accelerated replacement/repower requirements for which CARB must obtain authorization from the EPA prior to enforcement. The regulation also imposes a 5-minute idling limitation on owners, operators, and renters or lessees of off-road diesel vehicles. In some cases, the PM reduction strategies also reduce smog-forming emissions such as nitrogen oxides (NO_X). As an ongoing process, CARB reviews air contaminants and identifies those that are classified as TACs. CARB also continues to establish new programs and regulations for the control of TACs, including DPM, as appropriate.

Regional Land Use and Transportation Planning to Reduce Vehicle Miles Travelled

Senate Bill (SB) 743 (passed in 2013) requires revisions to the California Environmental Quality Act (CEQA) Guidelines that establish new impact analysis criteria for the assessment of a project's transportation impacts. The intent behind SB 743 and revising the CEQA Guidelines is to integrate and better balance the needs of congestion management, infill development, active transportation, and emissions reduction. The Governor's Office of Planning and Research (OPR) recommends that vehicle miles traveled (VMT) serves as the primary analysis metric, replacing the existing criteria of delay and level of service. In 2018, OPR released a technical advisory outlining potential VMT significance thresholds for different project types. As of July 1, 2020, CEQA requires the use of VMT as well.

Regional and Local

Sacramento Air Quality Management District

SMAQMD has local air quality jurisdiction over projects in Sacramento County. SMAQMD is responsible for overseeing stationary-source emissions, approving permits, maintaining emissions inventories, maintaining air quality stations, and reviewing air quality–related sections of environmental documents required by CEQA. SMAQMD is also responsible for establishing and enforcing local air quality rules and regulations that address the requirements of federal and state air quality laws (e.g., the CAA and CCAA).

SMAQMD is required to prepare air quality attainment plans that outline specific strategies and programs for ensuring that NAAQS and CAAQS are met. SMAQMD has prepared several air quality plans, including the *2017 Sacramento Regional 8-Hour Ozone Attainment and Reasonable Further Progress Plan* (Sacramento Regional OAP), *PM2.5 Maintenance Plan and Redesignation Request* (El Dorado County Air Quality Management District et al. 2013, 2017), and *PM10 Implementation/Maintenance Plan and Redesignation Request for Sacramento County*. These plans respond to federal and state air quality planning requirements and outline strategies for attaining the ambient air quality standards for ozone and PM.

SMAQMD developed advisory emission thresholds to assist CEQA lead agencies in determining the level of significance of a project's emissions, which are outlined in SMAQMD's CEQA Guide (Sacramento Metropolitan Air Quality Management District 2020a). The air district also has established rules and regulations, of which the following may apply to the project. This list of rules

may not be all encompassing because additional SMAQMD rules may apply to the alternatives as specific components are identified.

- **Rule 201 (General Permit Requirements).** This rule requires that any project constructing, altering, replacing, or operating any stationary source operation, the use of which emits, may emit, or may reduce emissions, to obtain an Authority to Construct (ATC) and a Permit to Operate (PTO).
- **Rule 202 (New Source Review).** This rule provides mechanisms by which an ATC can be granted without interfering with the basin's attainment with ambient air quality standards. These mechanisms offer methods to generate no net increases in emissions of nonattainment pollutants over specific thresholds as detailed in the rule.
- **Rule 207 (Title V Federal Operating Permit Program).** This rule establishes an operating permitting system consistent with the requirements of 42 United States Code Section 7661 et seq. (Title V) and pursuant to 40 Code of Federal Regulations Part 70.
- **Rule 401 (Ringelmann Chart/Opacity).** This rule limits the discharge of air contaminants (i.e., fugitive dust, diesel exhaust) into the atmosphere through visible emissions and opacity.
- **Rule 402 (Nuisance).** This rule prevents criteria pollutants from creating a nuisance to surrounding properties.
- **Rule 403 (Fugitive Dust).** This rule controls fugitive dust emissions through best management practices (BMP).
- **Rule 404 (Particulate Matter).** This rule restricts emissions of PM greater than 0.23 gram per cubic meter.
- **Rule 405 (Dust and Condensed Fumes).** This rule limits the discharge of dust and condensed fumes into the atmosphere by establishing emission rates based on process weight.
- **Rule 406 (Specific Contaminants).** This rule limits the emission of sulfur compounds and combustion contaminants through establishment of emission concentrations.
- **Rule 412 (Stationary Internal Combustion Engines).** This rule controls emissions of NO_X, CO, and non-methane hydrocarbons from stationary internal combustion engines greater than 50 brake horsepower.
- **Rule 420 (Sulfur Content of Fuels).** This rule limits the emission of compounds of sulfur from combustion of fuels.
- **Rule 442 (Architectural Coatings).** This rule limits the quantity of volatile organic compounds (VOC) in architectural coatings supplied, sold, offered for sale, applied, solicited for application, or manufactured for use within the SMAQMD.
- **Rule 453 (Cutback and Emulsified Asphalt Paving).** This rule limits the application of cutback and emulsified asphalt.

El Dorado County Air Quality Management District

The EDCAQMD has local air quality jurisdiction over projects in El Dorado County. Like SMAQMD, EDCAQMD has adopted advisory emission thresholds to assist CEQA lead agencies in determining the level of significance of a project's emissions, which are outlined in its *Determining Significance of Air Quality Impacts Under the California Environmental Quality Act* (El Dorado County Air Quality

Management District 2002:3-5 and 3-7). EDCAQMD has also adopted the Sacramento Regional OAP and several rules and regulations to improve existing and future air quality. The following rules are most pertinent to project emissions sources (on-road vehicles) in EDCAQMD.

- **Rule 202 (Visible Emissions)**. Limits emissions that are darker in shade than No. 1 on the "Ringelmann Chart" or of such opacity as to obscure an observer's view to a degree equal to or greater than smoke.
- **Rule 205 (Nuisance).** Prohibits discharge of air contaminants or other material that (1) cause injury, detriment, nuisance, or annoyance to any considerable number of persons or to the public; (2) endanger the comfort, repose, health, or safety of any such persons or the public; or (3) cause, or have a natural tendency to cause, injury or damage to business or property.
- **Rule 207 (Particulate Matter).** Limits PM emissions in excess of 0.1 grain per cubic foot of dry exhaust gas.

Sacramento Area Council of Governments

SACOG is an association of local governments in the Sacramento region that provides transportation planning and funding for the region. SACOG is responsible for providing current population, employment, travel, and congestion projections for regional air quality planning efforts. SACOG's MTP/SCS for the Sacramento region provides a planning framework that proactively links land use, air quality, and transportation needs. The 2020 MTP/SCS was adopted by SACOG on November 18, 2019 (Sacramento Area Council of Governments 2019).

City of Folsom General Plan and Folsom Plan Area Specific Plan

The *City of Folsom General Plan 2035* (General Plan) was adopted on August 28, 2018 (City of Folsom 2018). The General Plan land use designation for the project site is Regional Commercial Center and the zoning is Specific Plan – Regional (SP-RC). The FPASP was adopted by the City of Folsom in 2011 and provides specific development standards for future growth and development in the plan area, which includes the project site. The programmatic EIR/environmental impact statement (EIS) for the FPASP identifies several mitigation measures relevant to air quality and the reduction of criteria pollutant emissions. Measures applicable to the project are discussed further in Section 3.2.2, *Environmental Impacts*.

Environmental Setting

"Air quality" describes the amount of air pollution to which the public is exposed. Air quality is an important consideration for the project because of current regional air quality conditions, which exceed certain federal and state ambient air quality standards. This section provides information on existing air quality conditions relevant to the impact analysis.

Climate, Meteorology, and Topography

Ambient air quality is affected by climatological conditions, topography, and the types and amounts of pollutants emitted. Atmospheric conditions such as wind speed, wind direction, and air temperature gradients interact with the physical features of the landscape to determine the movement and dispersal of air pollutants within and throughout various air basins. The primary regional impact analysis area is in the SVAB, although this analysis also includes the MCAB because of the potential for vehicle travel and associated emissions through El Dorado County. The following

subsections describe climate, meteorology, and topography of the SVAB, followed by a brief discussion of the MCAB.

Sacramento Valley Air Basin

The SVAB is bounded on the north by the Cascade Range, on the south by the San Joaquin Valley Air Basin (SJVAB), on the east by the MCAB, and on the west by the Coast Ranges. The SVAB contains all of Tehama, Glenn, Butte, Colusa, Yolo, Sutter, Yuba, Sacramento, and Shasta Counties, as well as portions of Solano and Placer Counties (17 California Code of Regulations [CCR] Section 60106).

The SVAB has a Mediterranean climate characterized by hot, dry summers and cool, rainy winters. During winter, the north Pacific storm track intermittently dominates Sacramento Valley weather, and fair weather alternates with periods of extensive clouds and precipitation. Periods of dense and persistent low-level fog, which is most prevalent between storms, are also characteristic of winter weather in the valley. The frequency and persistence of heavy fog in the valley diminish with the approach of spring. The average yearly temperature range for the Sacramento Valley is 20 degrees Fahrenheit (°F) to 115°F, with summer high temperatures often exceeding 90°F and winter low temperatures occasionally dropping below freezing.

In general, the prevailing winds are moderate in strength and vary from moist clean breezes from the south to dry land flows from the north. The mountains surrounding the SVAB create a barrier to airflow that can trap air pollutants under certain meteorological conditions. The highest frequency of air stagnation occurs in the autumn and early winter when large high-pressure cells collect over the Sacramento Valley. The lack of surface wind during these periods and the reduced vertical flow caused by less surface heating reduce the influx of outside air and allow air pollutants to become concentrated in a stable volume of air. The surface concentrations of pollutants are highest when these conditions are combined with temperature inversions (warm air over cool air), which trap pollutants near the ground. Figure 3.2-1 presents the current prevailing winds for the closest monitoring station, which is located at the Sacramento Executive Airport, approximately 22 miles west of the project site.

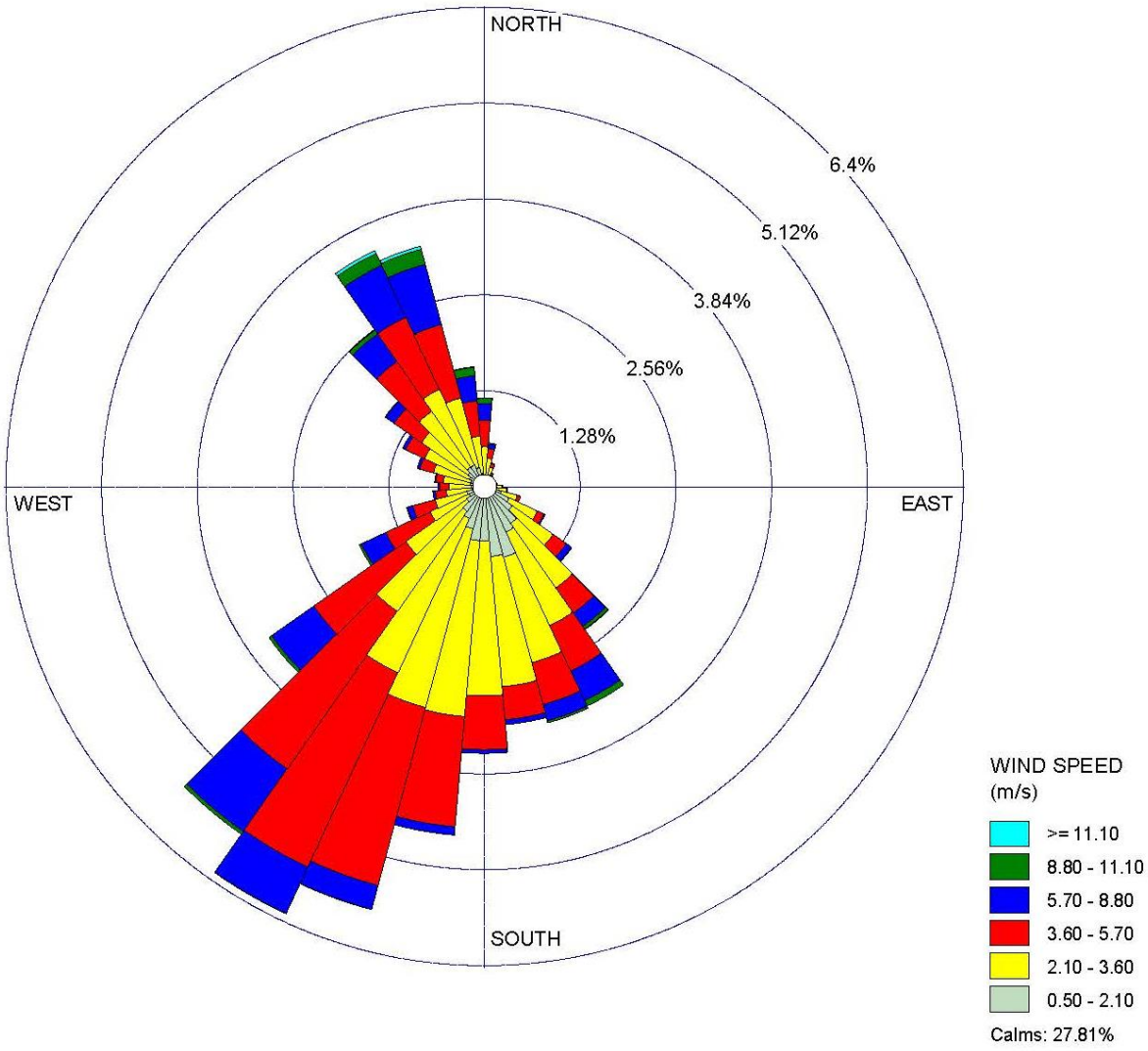
The ozone season (May through October) in the Sacramento Valley is characterized by stagnant morning air or light winds with the Delta sea breeze arriving in the afternoon out of the southwest. Usually, the evening breeze transports the airborne pollutants to the north out of the Sacramento Valley. During about half of the days from July to September, however, a phenomenon called the Schultz eddy prevents this from occurring. Instead of allowing the prevailing wind patterns to move north carrying the pollutants out, the Schultz eddy causes the wind pattern to circle back to the south. Essentially, this phenomenon causes the air pollutants to be blown south toward the Sacramento Valley. This phenomenon has the effect of exacerbating the pollution levels in the area and increases the likelihood of violating federal or state standards. The eddy normally dissipates around noon when the Delta sea breeze arrives.

WIND ROSE PLOT:

Station #23232 - Sacramento Executive Airport 2010-2014

DISPLAY:

Wind Speed
Direction (blowing from)



COMMENTS:	DATA PERIOD: **Start Date: 1/1/2010 - 00:00** **End Date: 12/31/2014 - 23:59**	COMPANY NAME:	
		MODELER:	
	CALM WINDS: **27.81%**	TOTAL COUNT: **41720 hrs.**	
	AVG. WIND SPEED: **2.60 m/s**	DATE: **3/16/2020**	PROJECT NO.:

WRPLOT View - Lakes Environmental Software

Figure 3.2-1
Prevailing Winds Near the Plan Area

Mountain Counties Air Basin

The MCAB borders the SVAB to the east, extending close to or contiguous with the Nevada border, and covering an area of roughly 11,000 square miles. Elevations range from over 10,000 feet at the Sierra Nevada crest down to several hundred feet above sea level at the Sacramento County boundary. Throughout El Dorado County, the topography is highly variable and includes rugged mountain peaks and valleys with extreme slopes and altitude differences in the Sierra Nevada, as well as rolling foothills to the west. The general climate of the MCAB varies considerably with elevation and proximity to the Sierra Nevada crest. In the lower elevations in western portions of the El Dorado, temperature can routinely exceed 100°F in the summer. Regional airflows are affected by the mountains and hills, which direct surface air flows, cause shallow vertical mixing, and create areas of high pollutant concentrations by hindering dispersion. During longer daylight hours in summer, stagnant air, high temperatures, and plentiful sunshine provide the conditions and energy for the formation of ozone.

Criteria Pollutants

Sources and Health Effects

Criteria air pollutants are a group of six air pollutants for which the EPA and CARB have set ambient air quality standards (Table 3.2-1). Ozone is considered a regional pollutant because its precursors affect air quality on a regional scale. CO, NO_2, SO_2, and lead are considered local pollutants that tend to accumulate in the air locally. PM is both a regional and local pollutant.

Concentrations of criteria pollutants are commonly used indicators of ambient air quality for which acceptable levels of exposure can be determined. The ambient air quality standards for these pollutants are set with an adequate margin of safety for public health and the environment (CAA Section 109). Epidemiological, controlled human exposure, and toxicology studies evaluate potential health and environmental effects of criteria pollutants and form the scientific basis for new and revised ambient air quality standards.

Table 3.2-2 provides a brief description of sources and health effects of the six criteria pollutants. The primary criteria pollutants of concern generated by the project are ozone precursors (NO_X and reactive organic gases [ROG]) and PM.[1] Additional narrative on sources and health effects of these pollutants follows the table.

Table 3.2-2. Sources and Potential Health and Environmental Effects of Criteria Pollutants

Pollutant	Primary Sources	Potential Effects
Ozone	Formed by a chemical reaction between ROG and NO_X in the presence of sunlight. Primary sources of ROG and NO_X are vehicle exhaust, industrial combustion, gasoline storage and transport, solvents, paints, and landfills.	Inflammation of the mucous membranes and lung airways; wheezing; coughing and pain when inhaling deeply; decreased lung capacity; aggravation of lung and heart problems. Reduced crop yield and damage to plants, rubber, some textiles, and dyes.

[1] Minor amounts of CO, NO_2, and SO_2 may be generated by construction and certain operational sources. These emissions are of less concern because neither construction nor operational activities associated with land use development projects are likely to generate substantial quantities of these criteria pollutants (Sacramento Metropolitan Air Quality Management District 2021a:3-2, 4-1). Lead emissions are typically associated with industrial sources, which are not included as part of the project. Sacramento and El Dorado Counties also currently attain the CAAQS and NAAQS for CO, NO_2, SO_2, and lead.

Pollutant	Primary Sources	Potential Effects
Particulate matter	Power plants, steel mills, chemical plants, unpaved roads and parking lots, wood-burning stoves and fireplaces, and automobiles.	Irritation of the airways, coughing, or difficulty breathing; aggravated asthma; development of chronic bronchitis; irregular heartbeat; nonfatal heart attacks; and premature death in people with heart or lung disease. Impairs visibility (haze).
Carbon monoxide	A component of motor vehicle exhaust that is formed when carbon in fuel is not burned completely.	Reduced ability of blood to deliver oxygen to vital tissues, effecting the cardiovascular and nervous system. Impaired vision and dizziness that can lead to unconsciousness or death.
Nitrogen dioxide	Motor vehicles, electric utilities, and other sources that burn fuel.	Aggravation of lung and heart problems. Precursor to ozone and acid rain. Contributes to global warming and nutrient overloading, which deteriorates water quality. Brown discoloration of the atmosphere.
Sulfur dioxide	Petroleum refineries, cement manufacturing, metal processing facilities, locomotives, large ships, and fuel combustion in diesel engines.	Aggravation of lung and heart problems. Converts to sulfuric acid, which can damage marble, iron, and steel. Damage to crops and natural vegetation. Impaired visibility.
Lead	Metal refineries, smelters, battery manufacturers, iron and steel producers, use of leaded fuels by racing and aircraft industries.	Anemia; damage to the kidneys, liver, brain, reproductive, nerves, and other organs; and neurological problems, including learning deficits and lowered IQ. Affects animals, plants, and aquatic ecosystems.

Source: California Air Pollution Control Officers Association n.d.
ROG = reactive organic gases; NO_X = nitrogen oxides; IQ = intelligence quotient.

Ozone

Ozone, or smog, is photochemical oxidant that is formed when ROGs and NO_X (both by-products of the internal combustion engine) react with sunlight. ROGs are compounds made up primarily of hydrogen and carbon atoms. Internal combustion associated with motor vehicle usage is the major source of hydrocarbons. Other sources of ROGs are emissions associated with the use of paints and solvents, the application of asphalt paving, and the use of household consumer products such as aerosols. The two major forms of NO_X are nitric oxide (NO) and NO_2. NO is a colorless, odorless gas formed from atmospheric nitrogen and oxygen when combustion takes place under high temperature and/or high pressure. NO_2 is a reddish-brown irritating gas formed by the combination of NO and oxygen. In addition to serving as an integral participant in ozone formation, NO_X also directly acts as an acute respiratory irritant and increases susceptibility to respiratory pathogens by impairing the immune system.

Ozone poses a higher risk to those who already suffer from respiratory diseases (e.g., asthma), children, older adults, and people who are active outdoors. Exposure to ozone at certain concentrations can make breathing more difficult, cause shortness of breath and coughing, inflame and damage the airways, aggravate lung diseases, increase the frequency of asthma attacks, and cause chronic obstructive pulmonary disease. Studies show associations between short-term ozone exposure and nonaccidental mortality, including deaths from respiratory issues. Studies also suggest long-term exposure to ozone may increase the risk of respiratory-related deaths (U.S.

Environmental Protection Agency 2021a). The concentration of ozone at which health effects are observed depends on an individual's sensitivity, level of exertion (i.e., breathing rate), and duration of exposure. Studies show large individual differences in the intensity of symptomatic responses, with one study finding no symptoms to the least responsive individual after a 2-hour exposure to 400 parts per billion of ozone and a 50 percent decrement in forced airway volume in the most responsive individual. Although the results vary, evidence suggests that sensitive populations (e.g., asthmatics) may be affected on days when the 8-hour maximum ozone concentration reaches 80 parts per billion (U.S. Environmental Protection Agency 2021b).

In addition to human health effects, ozone has been tied to crop damage, typically in the form of stunted growth, leaf discoloration, cell damage, and premature death. Ozone can also act as a corrosive and oxidant, resulting in property damage such as the degradation of rubber products and other materials.

Particulate Matter

PM pollution consists of very small liquid and solid particles floating in the air, which can include smoke, soot, dust, salts, acids, and metals. PM that is less than 10 microns in diameter, about 1/7th the thickness of a human hair, is referred to as PM10. PM that is 2.5 microns or less in diameter, roughly 1/28th the diameter of a human hair, is referred to as PM2.5. Major sources of PM10 include motor vehicles; wood burning stoves and fireplaces; dust from construction, landfills, and agriculture; wildfires and brush/waste burning; industrial sources; windblown dust from open lands; and atmospheric chemical and photochemical reactions. PM2.5 results from fuel combustion (from motor vehicles, power generation, and industrial facilities), residential fireplaces, and wood stoves. PM also forms when gases emitted from industries and motor vehicles, such as SO_2, NO_X, and ROG, undergo chemical reactions in the atmosphere.

Particulate pollution can be transported over long distances and may adversely affect the human respiratory system, especially for people who are naturally sensitive or susceptible to breathing problems. Numerous studies have linked PM exposure to premature death in people with preexisting heart or lung disease, nonfatal heart attacks, irregular heartbeat, aggravated asthma, decreased lung function, and increased respiratory symptoms. In 2008, CARB estimated that annual PM2.5 emissions for the entire Sacramento metropolitan area[2] cause 90 premature deaths, 20 hospital admissions, 1,200 asthma and lower respiratory symptom cases, 110 acute bronchitis cases, 7,900 lost workdays, and 42,000 minor restricted activity days (Sacramento Metropolitan Air Quality Management District et al. 2013:1–2). Depending on its composition, both PM10 and PM2.5 can also affect water quality and acidity, deplete soil nutrients, damage sensitive forests and crops, affect ecosystem diversity, and contribute to acid rain (U.S. Environmental Protection Agency 2021c).

Ambient Concentrations

Ambient air quality refers to the concentration of pollutants in the air. CARB collects ambient air quality data through a network of air monitoring stations throughout the state. Table 3.2-3 summarizes data for criteria pollutant levels from the Folsom-Natoma Street monitoring station for the last 3 years for which complete data was available (2018 through 2020). Because the Folsom-Natoma Street Station does not monitor for PM10 or CO, data for these pollutants are from the next

[2] The Sacramento metropolitan area includes Sacramento and Yolo Counties and portions of Placer, Solano, and El Dorado Counties.

closest station, which is the Sacramento-Del Paso Manor Station. The Folsom-Natoma Street Station is approximately 3.5 miles northwest of the northern border of the project site. The Sacramento-Del Paso Manor Station is approximately 13 miles northwest.

Table 3.2-3. Ambient Criteria Air Pollutant Monitoring Data (2018–2020) from the Folsom-Natoma Street Station and Sacramento-Del Paso Manor Station

Pollutant Standards	2018	2019	2020
Ozone (O_3)			
Maximum 1-hour concentration (ppm)	0.105	0.087	0.038
Maximum 8-hour concentration (ppm)	0.093	0.072	0.036
Number of days standard exceeded[a]			
CAAQS 1-hour standard (> 0.09 ppm)	5	0	0
NAAQS/CAAQS 8-hour standard (> 0.070 ppm)	19	2	0
Carbon Monoxide (CO) (data from the Del Paso Manor Station)			
Maximum 8-hour concentration (ppm)	3.8	1.2	2.1
Maximum 1-hour concentration (ppm)	3.9	1.6	2.5
Number of days standard exceeded[a]			
NAAQS/CAAQS 8-hour standard (≥ 9 ppm/≥ 9.0 ppm)	0	0	0
NAAQS/CAAQS 1-hour standard (≥ 35 ppm/≥ 20 ppm)	0	0	0
Nitrogen Dioxide (NO_2)			
State maximum 1-hour concentration (ppb)	29	15	*
State second-highest 1-hour concentration (ppb)	26	15	*
Annual average concentration (ppb)	3	*	*
Number of days standard exceeded			
CAAQS 1-hour standard (0.18 ppm)	0	0	0
Particulate Matter (PM10) (data from the Del Paso Manor Station)			
National[b] maximum 24-hour concentration (μg/m^3)	212.0	53.0	188.0
National[b] second-highest 24-hour concentration (μg/m^3)	166.0	50.0	120.
State[c] maximum 24-hour concentration (μg/m^3)	224.0	110.4	190.0
State[c] second-highest 24-hour concentration (μg/m^3)	176.0	59.2	120.0
National annual average concentration (μg/m^3)	23.4	20.2	30.5
State annual average concentration (μg/m^3)[d]	24.5	*	*
Number of days standard exceeded[e]			
NAAQS 24-hour standard (>150 μg/m^3)	12	0	6
CAAQS 24-hour standard (>50 μg/m^3)	12	5	17
Particulate Matter (PM2.5)			
National[b] maximum 24-hour concentration (μg/m^3)	104.5	25.4	19.6
National[b] second-highest 24-hour concentration (μg/m^3)	87.0	20.6	19.3
State[c] maximum 24-hour concentration (μg/m^3)	104.5	25.4	21.5
State[c] second-highest 24-hour concentration (μg/m^3)	87.0	20.6	19.6
State annual average concentration (μg/m^3)[d]	10.2	*	*
Number of days standard exceeded[e]			
NAAQS 24-hour standard (> 35 μg/m^3)	9	0	0

Pollutant Standards	2018	2019	2020
Sulfur Dioxide (SO_2)			
No data			

Sources: California Air Resources Board 2021a; U.S. Environmental Protection Agency 2021d.

ppm = parts per million; ppb = parts per billion; NAAQS = national ambient air quality standards; CAAQS = California ambient air quality standards; µg/m^3 = micrograms per cubic meter; * = data not available.

[a] An exceedance is not necessarily a violation.

[b] National statistics are based on standard conditions data. In addition, national statistics are based on samplers using federal reference or equivalent methods.

[c] State statistics are based on local conditions data, except in the South Coast Air Basin, for which statistics are based on standard conditions data. In addition, state statistics are based on California-approved samplers.

[d] State criteria for ensuring that data are sufficiently complete for calculating valid annual averages are more stringent than the national criteria.

[e] Mathematical estimate of how many days concentrations would have been measured as higher than the level of the standard had each day been monitored. Values have been rounded.

Table 3.2-3 shows the Folsom-Natoma Street Station experienced violations of the state and/or federal ozone and PM2.5 standards, and the Sacramento-Del Paso Manor Station experienced violations of the state and federal PM10 standards. The state standards for CO and NO_2 were not exceeded. Existing violations of the ozone and PM ambient air quality standards indicate that certain individuals exposed to this pollutant may experience certain health effects, including increased incidence of cardiovascular and respiratory ailments.

Regional Attainment Status

Local monitoring data are used to designate areas as nonattainment, maintenance, attainment, or unclassified for the ambient air quality standards.

- **Nonattainment.** Assigned to areas where monitored pollutant concentrations consistently violate the standard in question.
- **Maintenance.** Assigned to areas where monitored pollutant concentrations exceeded the standard in question in the past but are no longer in violation of that standard.
- **Attainment.** Assigned to areas where pollutant concentrations meet the standard in question over a designated period.
- **Unclassified.** Assigned to areas where data are insufficient to determine whether a pollutant is violating the standard in question.

Table 3.2-4 summarizes the current attainment status of Sacramento and El Dorado Counties with respect to the CAAQS and NAAQS.

Table 3.2-4. Federal and State Ambient Air Quality Attainment Status for Sacramento and El Dorado Counties

	Sacramento County		El Dorado County	
Pollutant	Federal Designation	State Designation	Federal Designation	State Designation
O_3 (8-hour)[a]	Serious nonattainment/ Severe 15 nonattainment[b]	Nonattainment	Serious nonattainment[c]/ Severe 15 nonattainment[b, c]	Nonattainment
CO	Attainment	Attainment	Attainment	Unclassified

	Sacramento County		El Dorado County	
Pollutant	Federal Designation	State Designation	Federal Designation	State Designation
PM10	Moderate maintenance	Nonattainment	Attainment	Nonattainment
PM2.5	Moderate nonattainment	Attainment	Moderate nonattainment[b]	Unclassified
NO_2	Attainment	Attainment	Attainment	Attainment
SO_2	Attainment	Attainment	Attainment	Attainment
Lead	Attainment	Attainment	Attainment	Attainment

Sources: California Air Resources Board 2021b; U.S. Environmental Protection Agency 2021e.

CO = carbon monoxide; PM10 = particulate matter less than 10 microns in diameter; PM2.5 = particulate matter less than 2.5 microns in diameter; NO_2 = nitrogen dioxide; SO_2 = sulfur dioxide.

[a] Federal designations listed for the 2015 standard/2008 standard.

[b] Areas classified as Severe 15 must attain the national ambient air quality standards within 15 years of the effective date of the nonattainment designation.

[c] Designation applies to the portion of the El Dorado County in which mobile source emissions associated with the project are expected to occur.

Emissions Inventory

An emissions inventory is a quantification of all emissions within a selected physical or economic boundary. Sources of criteria pollutants and precursor emissions are commonly grouped into the following categories for the purposes of emissions inventorying.

- **Area sources**. Includes emissions from architectural coatings, consumer products, hearths and fireplaces, and landscaping equipment. Architectural coatings (i.e., painting) can result in evaporative organic gases (e.g., ROG) from solvents contained in paints, varnishes, primers, and other surface coatings. Consumer products include but are not limited to detergents, cleaning compounds, polishes, and personal care products. Many of these products contain organic compounds, like ROG, which can be unintentionally or intentionally released during normal use. Hearths and fireplaces that combust wood generate PM and ROG. Finally, landscaping equipment (e.g., lawnmowers, blowers, and trimmers) generates criteria pollutants and precursors from fuel combustion.
- **Energy sources**. Natural gas is often used in buildings for space heating and cooking. Criteria pollutants and precursors are generated by the consumption and combustion of this gas.[3] Certain types of stationary sources, including emergency diesel generators, boilers, and turbines, may also be grouped with energy sources, depending on their function.
- **Mobile sources**. Most vehicles are powered by fossil fuels (e.g., gasoline, diesel). Criteria pollutants and precursors are generated by the consumption and combustion of this fuel. Vehicles also generate fugitive dust from tire and brake wear, as well as travel on paved and unpaved roads.

CARB maintains an annual emission inventory for each county and air basin in the state. The inventories for Sacramento and El Dorado Counties consist of data submitted to CARB by SMAQMD and EDCAQMD, plus estimates for certain source categories, which are provided by CARB staff. Based on CARB's 2016 SIP emissions projection data, mobile source emissions represent most of the

[3] Electricity is also used in almost every building. However, criteria pollutants and precursors emitted by electrical-generating facilities are regulated by the California Energy Commission and California Public Utilities Commission. Accordingly, criteria pollutants from offsite generation of electricity are excluded from project-level CEQA analyses.

ROG, NO_X, and CO emissions in the county. Area sources represent the majority of PM10 and PM2.5 emissions (California Air Resources Board 2019).

Toxic Air Contaminants

Although ambient air quality standards have been established for criteria pollutants, no ambient standards exist for TACs. Pollutants are identified as TACs because of their potential to increase the risk of developing cancer or because of their acute or chronic health risks. TACs are usually present in minute quantities in the ambient air; however, their high toxicity or health risk may pose a threat to public health even at low concentrations. For TACs that are known or suspected carcinogens, CARB has consistently found that there are no levels or thresholds below which exposure is risk-free. Individual TACs vary greatly in the risks they present. At a given level of exposure, one TAC may pose a hazard that is many times greater than another. TACs are identified and their toxicity is studied by the California Office of Environmental Health Hazard Assessment (OEHHA). The primary TACs of concern associated with the project are DPM and asbestos. VOCs from remediation activity on the Aerojet General Corporation parcel that borders to the project site are also an existing ambient source of TACs.

DPM is generated by diesel-fueled equipment and vehicles. CARB estimates that DPM emissions are responsible for about 70 percent of the total ambient air toxics risk (California Air Resources Board 2000:8). Exposure to DPM can cause acute irritation (e.g., eye, throat, bronchial), neurophysiological symptoms (e.g., lightheadedness, nausea), and respiratory symptoms (e.g., coughing, phlegm). The International Agency for Research on Cancer (2012:1) has classified diesel engine exhaust as "carcinogenic to humans, based on sufficient evidence that exposure is associated with an increased risk for lung cancer."

Major sources of DPM in the vicinity of the local impact analysis area include roadways, railways, and stationary sources. U.S. Route 50 (US 50) is a heavily traveled freeway immediately adjacent to the northern border of the project site. The annual average daily traffic volume on US 50 at the Sacramento/El Dorado County line is about 106,000 to 108,000 vehicles (California Department of Transportation 2017). The Placerville & Sacramento Valley Railroad scenic rail line runs approximately 0.35 mile east of the eastern border of the project site. Within 1,000 feet of the project site, there is one permitted stationary generator registered with SMAQMD (2017a), which is at a commercial business approximately 500 feet to the north in the Folsom Gateway. According to SMAQMD's risk mapping tool, ambient cancer risk and PM2.5 concentrations measured at the location of the new micro-surgery hospital from vehicle emissions on US 50 and regional railways are 27 cases per million and 0.87 microgram per cubic meter, respectively (Sacramento Metropolitan Air Quality Management District 2021b).

Remediation activity on the Aerojet General Corporation parcel along the western property boundary of the project, which has been classified as a Superfund site, may cause VOC to migrate from groundwater into the ambient air. The primary chemicals of potential concern in the VOC plume include trichloroethene (TCE) and tetrachloroethene (PCE). The EIR for the *Westland Eagle Specific Plan Amendment* to the FPASP reports potential cancer risk levels from TCE and PCE exposure of 0.8 per million and 0.01 per million, respectively. Non-cancer health hazards are less than 0.01 (Ascent Environmental 2015:71).

Asbestos is the name given to several naturally occurring fibrous silicate minerals. Before the adverse health effects of asbestos were identified, asbestos was widely used as insulation and fireproofing in buildings, and it can still be found in some older buildings. It is also found in its

natural state in ultramafic rock (i.e., igneous and metamorphic rock with low silica content) that has undergone partial or complete alteration to serpentine rock (or serpentinite) and often contains chrysotile asbestos. The inhalation of asbestos fibers into the lungs can result in a variety of adverse health effects, including inflammation of the lungs, respiratory ailments (e.g., asbestosis, which is scarring of lung tissue that results in constricted breathing), and cancer (e.g., lung cancer and mesothelioma, which is cancer of the linings of the lungs and abdomen) (U.S. Environmental Protection Agency 2021f). The project does not require demolition of any existing structures. However, according to the California Department of Conservation (2006:43), metamorphic and igneous rocks that are moderately likely to contain naturally occurring asbestos (NOA) are present throughout the project site.

Odors

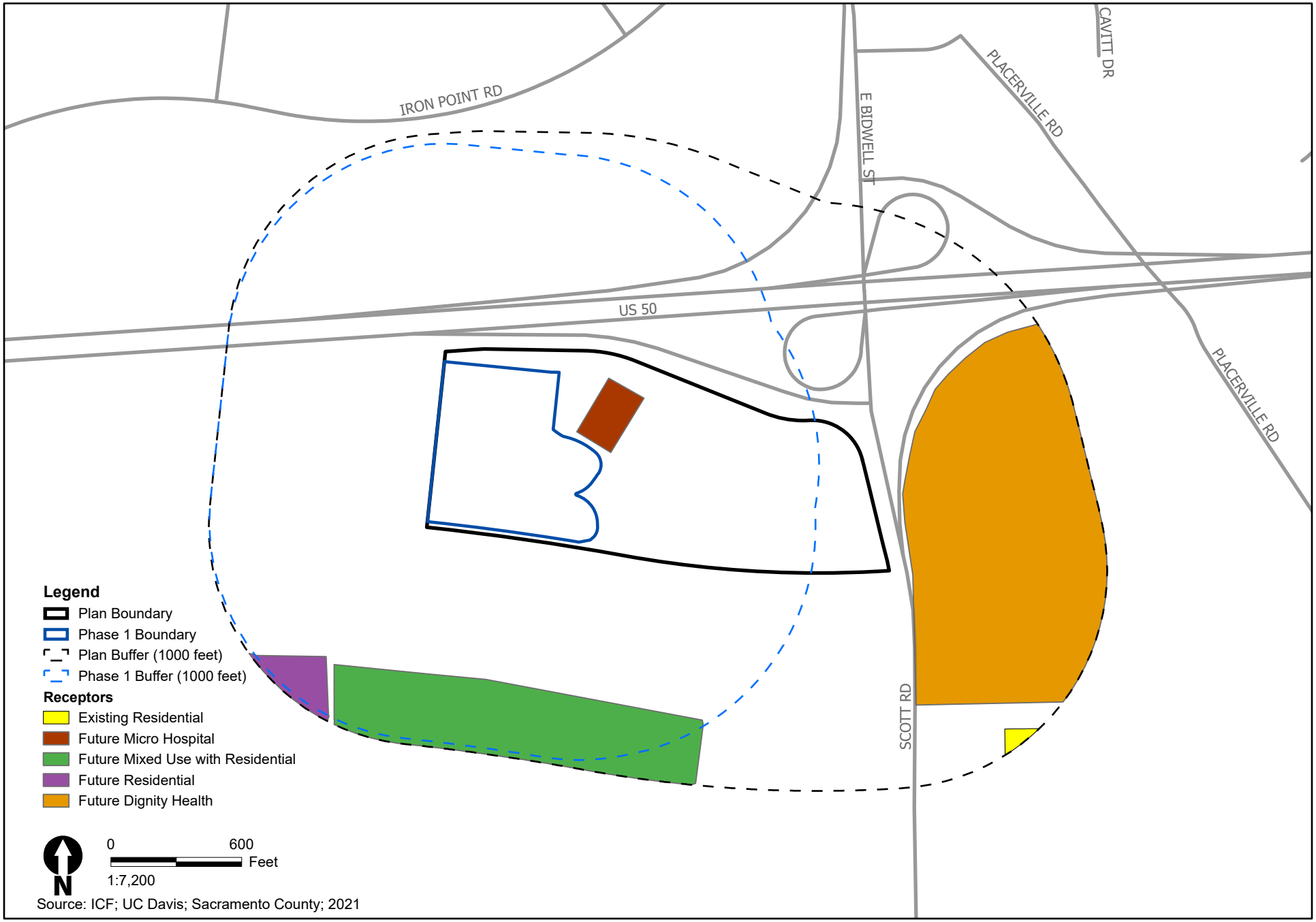
Odors are generally regarded as an annoyance rather than a health hazard. However, a person's reaction to foul odors can range from psychological (e.g., irritation, anger, anxiety) to physiological (e.g., circulatory and respiratory effects, nausea, vomiting, headache). SMAQMD (2021a:7-2) has identified common land use types that typically generate odors, including recommended screening distances beyond which odors are less delectable. Land use types that are major sources of odors include wastewater treatment plants, landfills, composting and recycling facilities, petroleum refineries, chemical manufacturing plants, painting/coating operations, rendering plants, and food packaging facilities (Sacramento Metropolitan Air Quality Management District 2021a:7-2). The project (including Phase 1) does not include any of the land use types identified by SMAQMD as odor sources. The nearest potentially odorous sources are the El Dorado Disposal Recycling Center and El Dorado Hills Wastewater Treatment Facility, which are about 3 miles from the eastern border of the project site.

Sensitive Receptors

SMAQMD (2021a:2-4) defines sensitive receptors as "facilities that house or attract children, the elderly, and people with illnesses or others who are especially sensitive to the effects of air pollutants. Hospitals, schools, convalescent facilities, and residential areas are examples of sensitive receptors." For the purposes of impact assessment, the definition of sensitive receptors is expanded to include recreational facilities.

The project site is bound by US 50 on the north, a currently undeveloped area to the west and south, and East Bidwell Street to the east. There is currently one residential land use within 1,000 feet of the Master Plan, which is approximately 880 feet to the southeast. There are no existing receptors within 1,000 feet of the Phase 1 development. Future development south of US 50 is expected to occur during implementation of the project. Based on General Plan land use zoning, additional residential land uses will be constructed within 1,000 feet of the southern border of the project site. Dignity Health will also be constructed to the east. The micro-hospital under the project would constitute a new onsite medical receptor.

Figure 3.2-2 illustrates the 1,000-foot local study area for the project and Phase 1 development and identifies existing and likely future sensitive receptors within these areas.



Source: ICF; UC Davis; Sacramento County; 2021

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Figure 3.2-2
Existing and Future Sensitive Receptors

3.2.2 Environmental Impacts

This section describes the environmental impacts associated with air quality that would result from the Folsom Center for Health Master Plan, and from Phase 1 development. It describes the methods used to determine the effects of the project and lists the thresholds used to conclude whether an impact would be significant. Measures to mitigate (i.e., avoid, minimize, rectify, reduce, eliminate, or compensate for) any significant impacts are provided, if available.

Methods for Analysis

Air quality impacts associated with construction and operation of the project were assessed and quantified (where applicable) using standard and accepted software tools, techniques, and emission factors. A summary of the methodology is provided below. A full list of assumptions can be found in Appendix E.

Folsom Center for Health Master Plan

As discussed in Chapter 2, *Project Description*, the Master Plan would allow the development of wellness and health care services on the 34.6-acre site over the next 15 to 20 years. At full implementation, the project is expected to include a 110,000-squre-foot (sf) medical office building (MOB), a 114,000-sf ambulatory surgery center (ASC), an 80,000-sf hotel with approximately 100 rooms, an 86,000-sf micro-hospital with an emergency department with up to 30 beds, a central utility plant (CUP), and approximately 1,357 parking stalls. The project would comply with the UC Sustainable Practices Policy through implementation of the *Folsom Center for Health Sustainability Master Plan* (University of California, Davis Health 2021). The evaluation of potential air quality impacts resulting from construction and operation of new land uses developed under the project are assessed pragmatically, as discussed in the following sections.

Construction

Land uses that would be developed under the project would generate construction-related emissions from mobile and stationary construction equipment and vehicles, earthmoving, application of architectural coatings, and paving. Mass grading would not be required as a part of the project because the site would already have been graded as part of development of the subdivision. With an anticipated full implementation year of 2040, development of the various land uses associated with the project is expected to occur over three sequential phases. Following Phase 1 development, the ASC, hotel, and associated parking would be constructed during Phase 2. Construction of the micro-hospital, CUP, and remaining parking would occur during Phase 3. The specific timing of Phases 2 and 3 would depend on factors such as local economic conditions, market demand, and other financing considerations.

Construction emissions from the project were estimated using the California Emissions Estimator Model (CalEEMod), version 2020.4.0. Modeling for Phase 1 development was based on project-specific information (e.g., construction schedule, equipment inventory), as summarized under *Phase 1 Development*. Modeling for Phases 2 and 3 was conducted using CalEEMod defaults, supplemented by scaled assumptions from Phase 1 development. These adjustments were made to forecast anticipated emissions more accurately under future development phases based on detail that is currently known for near-term development. Specifically, defaults for construction phases and durations were adjusted based on the building square footages under Phases 2 and 3, relative to

Phase 1 development. Inputs for material movement (i.e., cubic yards of soil moved) were scaled from Phase 1 development based on the ratio of developed acres under each phase. Inputs for vendor trips were scaled from Phase 1 development using the same building square footage ratios applied to the construction schedule. Defaults for vehicle lengths were updated to match the trip lengths assumed for Phase 1 development.

The construction start dates for Phases 2 and 3 will depend on local economic conditions, market demand, and other financing considerations. Nonetheless, to provide a conservative analysis, the modeling assumed construction of Phase 2 would start the year following Phase 1 development and construction of Phase 3 would start the year following Phase 2. Because the emissions intensity of vehicles and equipment decrease overtime, the emissions estimates presented for Phases 2 and 3 will be a conservative representation of potential air quality impacts if development occurs less rapidly.

Operational Mobile Sources

Air quality impacts from patient, employee, visitor, delivery, and other vehicles associated with the project were evaluated using CARB's EMFAC2021 emissions model. Total daily and annual vehicle trips and VMT at full implementation of the project were provided by Fehr & Peers (Wei pers. comm. A). Because Folsom and El Dorado Hills are the targeted patient service area, vehicle trips and VMT associated with the project are expected to occur within Sacramento and El Dorado Counties. The vehicle trip and VMT estimates were apportioned to the two counties by developing population-weighted distance multipliers for the service area. Each census block tract in the target service area was weighted by its population and distance to the project site, and the resulting products for Sacramento County census block tracts and El Dorado County census block tracts were summed. The vehicle trip and VMT estimates were multiplied by these factors to apportion the data to each county.

Criteria pollutant and precursor emissions from vehicle movement were calculated by multiplying the county VMT estimates by the appropriate emission factors provided by EMFAC2021. These emissions were added to process emissions (i.e., emission from vehicle starts, running losses), which were calculated by multiplying vehicles trips by the appropriate emission factors provided by EMFAC2021. Please refer to Appendix E for the EMFAC2021 emission factors and traffic data utilized in this analysis.

Operational Non-Mobile Source Emissions

Operation of new buildings at the project site would generate criteria pollutant and precursor emissions from area sources.[4] Area sources include landscaping equipment, consumer products, and the routine application of architectural coatings. CalEEMod (version 2020.4.0) default values for the proposed land use types and building square footages were assumed.

Stationary sources that would operate under the project include emergency generators and cooling towers. Up to four 1.2-megawatt (1,609-horsepower) Tier 4 or equivalent emergency diesel generators would be installed to provide backup power to the micro-hospital/CUP and ASC in the

[4] Pursuant to the UC Sustainable Practices Policy, the site will be all electric, and no natural gas service will be provided. No research labs, hearths, or onsite fueling stations are proposed.

event of an emergency.[5] These generators would be tested monthly for up to 30 minutes each. Resulting criteria pollutant and precursor emissions were quantified using emission factors from CARB (2017:D-11). Three cooling towers are required to support the micro-hospital/CUP. PM and ROG emissions from operation of these towers were quantified using emissions data from the cooling towers on the UC Davis Sacramento Campus (University of California, Davis Health 2020).

Receptor Exposure to Toxic Air Contaminants

While mass emissions generated during construction of the project are estimated, the potential for construction DPM emissions to expose sensitive receptors to substantial health risks was evaluated qualitatively based on the types of DPM-generating equipment (e.g., heavy-duty equipment) expected during project construction. Accurately quantifying DPM concentrations and predicting associated health risks (e.g., excess cancer cases) requires detailed site-specific information on the locations of specific construction activity. Given the preliminary level of design at this time, the inventory of construction-generated DPM was prepared based on generalized project information (scaled from Phase 1) and model defaults. Specific details on the timing and locations of individual equipment and vehicles are currently unavailable, and thus, it is not possible to develop a refined and accurate HRA. Thus, in the absence of the necessary construction information required to provide an informative and meaningful analysis, the evaluation of potential construction-related health risks resulting from the Master Plan is conducted qualitatively in this EIR.

Full implementation of the project includes up to four emergency diesel-generators, three of which would be located at the CUP and one at the ASC. Diesel-powered delivery trucks would also generate DPM. Because operating characteristics of the diesel generators and the onsite delivery circulation route are known, an operational HRA of these sources was performed using EPA's AERMOD (version 21112) and OEHHA (2015) guidance. The operational HRA consists of three parts.

Diesel Particulate Matter Inventory

The operational DPM inventory is based on the emissions calculations for diesel PM10 generated by the onsite emergency generators (discussed above) and diesel-fueled delivery trucks. Emissions from delivery vehicles were extracted from the larger mobile source emissions analysis based on 15 daily trips to each loading dock at the micro-hospital and ASC.

Air Dispersion Modeling

The HRA used EPA's AERMOD model (version 21112) to model annual average DPM concentrations at nearby receptors. Modeling inputs, including emissions rates (in grams per second) and source characteristics (e.g., release height, stack diameter, plume width), are based on guidance provided by OEHHA (2015). Meteorological data were obtained from CARB for the Sacramento Executive Airport.

Emissions from delivery trucks and generators were assumed to occur at any time during a year. To account for plume rise from delivery trucks, the initial vertical dimension of the area and line/area sources was modeled at 3.16 meters (U.S. Environmental Protection Agency 2011). Source release parameters associated with generators are found in Appendix F.

[5] Emergency generators maintained on the project site would comply with emission standards for non-emergency and mobile generators sets.

To allow AERMOD to incorporate algorithms to evaluate pollutant downwash on point-source dispersion, dimensions and locations of all buildings proposed under the project were incorporated into the modeling domain. The direction-specific building downwash dimensions were determined using the latest version (04274) of the Building Profile Input Program, PRIME.

Where existing and future sensitive receptor locations were identified within and surrounding the project site, discrete receptors were placed at 20-meter intervals. Refer to Figure 3.2-2. A receptor height of 1.8 meters was assumed.

Risk Calculations

The risk calculations incorporate OEHHA's age-specific factors that account for increased sensitivity to carcinogens during early-in-life exposure. The approach for estimating cancer risk from long-term inhalation and exposure to carcinogens calculates a range of potential doses and multiplies those doses by cancer potency factors in units corresponding to the inverse dose. For cancer risk, the risk for each age group was calculated using the appropriate daily breathing rates, age sensitivity factors, and exposure durations. The cancer risks calculated for individual age groups were summed to estimate the cancer risk for each receptor. Chronic cancer and hazard risks were calculated using Equations 5.4.1 and 8.2.4a and Section 8.3.1, respectively, from OEHHA's (2015) guidance.

Phase 1 Development

The Phase 1 development includes a 110,000-sf MOB and 525 parking stalls. The evaluation of potential air quality impacts resulting from construction and operation of the MOB are assessed at the project level, as discussed in the following sections.

Construction

Construction emissions would originate from off-road equipment exhaust, vehicle exhaust (on-road vehicles), earth movement, application of architectural coatings, and paving. Each of these sources was considered in the construction analysis. Construction activities would take place over seven phases between February 2023 and January 2025. Jacobs Engineering, under contract to UC Davis, provided the anticipated construction schedule, off-road equipment inventory, number of daily construction personnel, number of vendor and haul truck trips, and the amount of exported and imported material for each phase (Massey pers. comm.). These assumptions were input into CalEEMod (version 2020.4.0) to quantify expected construction emissions.

Operational Mobile Sources

Air quality impacts from vehicles associated with Phase 1 development were evaluated using CARB's EMFAC2021 emissions model and the methodology described above for the Master Plan.

Operational Non-Mobile Source Emissions

Operation of Phase 1 would generate criteria pollutant and precursor emissions from area sources (i.e., landscaping equipment, consumer products, and the routine application of architectural coatings).[6] CalEEMod (version 2020.4.0) default values for a 110,000-sf MOB were assumed to quantify expected operational emissions.

[6] Pursuant to the UC Sustainable Practices Policy, no natural gas service will be provided. The MOB does not include wood-burning sources (e.g., hearths) or research labs.

Receptor Exposure to Toxic Air Contaminants

As discussed in Section 3.2.1, *Existing Conditions*, there are no existing receptors within 1,000 feet of Phase 1 development. Future residential land uses are proposed south of Phase 1 development, but these would be developed after Phase 1 is fully constructed. While there are no receptors proximate to the construction site, residences are located along East Bidwell Street and north of US 50, which would be used as construction haul routes. Accordingly, an HRA was conducted to assess receptor exposure to DPM emissions generated by construction haul trucks. The HRA was performed using the diesel PM10 emissions estimated by CalEEMod (discussed above), AERMOD (version 21112), and the risk assessment methodology described for the Master Plan.

Operation of Phase 1 development does not include any substantial sources of TAC emissions (e.g., generators). Accordingly, there are no potential health risk impacts associated with operation.

Correlation of Criteria Pollutants to Potential Human Health Consequences

The California Supreme Court's decision in *Sierra Club v. County of Fresno* (6 Cal. 5th 502) (hereafter referred to as the Friant Ranch Decision) reviewed the long-term, regional air quality analysis contained in the EIR for the proposed *Community Plan Update* and *Friant Ranch Specific Plan* (Friant Ranch Project). The Friant Ranch Project is a 942-acre master-plan development in unincorporated Fresno County within the SJVAB, an air basin currently in nonattainment under the NAAQS and CAAQS for ozone and PM2.5. The Court found that the EIR's air quality analysis was inadequate because it failed to provide enough detail "for the public to translate the bare [criteria pollutant emissions] numbers provided into adverse health impacts or to understand why such a translation is not possible at this time." The Court's decision clarifies that environmental documents must attempt to connect a project's regional air quality impacts to specific health effects or explain why it is not technically feasible to perform such an analysis.

Potential health effects associated with criteria pollutants generated by the project were estimated using SMAQMD's *Guidance to Address the Friant Ranch Ruling for CEQA Projects in the Sac Metro Air District* (Ramboll 2020). The guidance provides two Excel calculators that were developed from photochemical and health effects modeling of hypothetical projects throughout the Sacramento Federal Nonattainment Area (SFNA). The Minor Project Health Screening Tool provides insights on the health effects that may result from projects emitting NO_X, ROG, and PM2.5 at levels at or below 82 pounds per day, which corresponds to the highest daily emissions threshold of all SFNA air districts. The Strategic Area Project Health Screening Tool estimates health effects that may result from projects emitting NO_X, ROG, and PM2.5 at levels between 164 and 656 pounds per day and located within one of five strategic growth areas. The Rancho Cordova strategic growth area is the nearest strategic growth area to the project site.

Importantly, outputs from SMAQMD's tools only include health effects of NO_X, ROG, and PM2.5 that have been researched sufficiently to be quantifiable (Ramboll 2020). These include the following health endpoints.

- Mortality (all causes)
- Hospital admissions (respiratory, asthma, cardiovascular)
- Emergency room visits (asthma/respiratory)
- Acute myocardial infarction (nonfatal)

As noted in SMAQMD's guidance, research has identified other health effects for both PM2.5 and ozone precursors (ROG and NO_X) (Ramboll 2020). For example, exposure to PM2.5 at certain concentrations can alter metabolism, leading to weight gain and diabetes; cause cognitive decline, brain inflammation, or reduced brain volume; and affect gestation, resulting in low birthweight or preterm birth (Ramboll 2020). Likewise, at high enough doses, exposure to ozone can increase lung permeability, increasing susceptibility to toxins and microorganisms (Ramboll 2020). These and other effects (refer to Table 3.2-2) have been documented, but a quantitative correlation to project-generated emissions cannot be accurately established based on published studies (Ramboll 2020). Accordingly, these *potential* health effects of project-generated air pollution are qualitatively documented and disclosed Table 3.2-2 and under Impact AQ-3.

Thresholds of Significance

In accordance with Appendix G of the CEQA Guidelines, the project would be considered to have a significant effect if it would result in any of the following conditions.

- Conflict with or obstruct implementation of the applicable air quality plan.
- A cumulatively considerable net increase of any criteria pollutant for which the project region is a nonattainment area for an applicable federal or state ambient air quality standard.
- Exposure of sensitive receptors to substantial pollutant concentrations.
- Other emissions (such as those leading to odors) affecting a substantial number of people.

According to CEQA Guidelines Section 15064.7, the significance criteria established by the applicable air quality management or air pollution control district may be relied on to make significance determinations for potential impacts on environmental resources. SMAQMD and EDCAQMD are responsible for ensuring that state and federal ambient air quality standards are not violated within Sacramento and El Dorado Counties, respectively. The following sections summarize the local air district thresholds (where applicable) for each of the four impact criteria.

Plan Consistency

Projects that propose development that is consistent with the growth anticipated by the SACOG and local plans would be consistent with the Sacramento Regional OAP. SMAQMD's CEQA Guide (2021a:9-5) for plan-level analyses specifically recommends that analyses consider the following factors.

- The plan's consistency with the air quality plan and the MTP/SCS growth projections.
- The relationship between the plan's projected VMT and population growth (i.e., whether the two projections are proportional, or whether the VMT increases at a slower rate than population, indicating a successful mode shift).
- The extent to which the plan implements adopted transportation control measures.

SMAQMD's (2021a:9-4 and 9-5) CEQA Guide further recommends that construction and operational emissions be compared to the district's thresholds for ROG, NO_X, PM10, or PM2.5. SMAQMD's mass emission thresholds are discussed further below.

While the project does not propose new development in El Dorado County, a portion of vehicle trips and associated mobile source emissions would occur in the county. Like SMAQMD, EDCAQMD

(2002) considers projects consistent with the Sacramento Regional OAP if they satisfy the following criteria.

- Does not require a change in the existing land use designation, such as through a general plan amendment or rezone (not applicable to the project, which does not propose development in El Dorado County).
- Does not exceed EDCAQMD mass emissions thresholds.
- Implements applicable Sacramento Regional OAP emission control measures.
- Complies with all applicable district rules and regulations.

Cumulatively Considerable Net Increase in Criteria Pollutants

This analysis evaluates the impacts of criteria pollutants generated by the Master Plan and Phase 1 development using a two-tiered approach that considers both project- and plan-level guidance recommended by SMAQMD in their CEQA Guide. The analysis also uses EDCAQMD thresholds to evaluate mobile source emissions generated in El Dorado County.

First, this analysis considers whether the project would conflict with the Sacramento Regional OAP, consistent with SMAQMD guidance for programmatic analyses, as described above under *Plan Consistency*. Second, calculated criteria pollutants and precursors in Sacramento County are compared to SMAQMD's project-level thresholds. SMAQMD thresholds consider whether a project's emissions would result in a cumulatively considerable adverse contribution to existing air quality conditions, which do not currently attain the federal ozone, PM2.5, or PM10 standards. If a project's emissions would be less than these levels, the project would not be expected to result in a cumulatively considerable contribution to the significant cumulative impact. Accordingly, emissions generated by project and Phase 1 development would result in a significant impact if any of the thresholds summarized in Table 3.2-5 are exceeded.

Table 3.2-5. SMAQMD's Cumulative Criteria Pollutant Mass Emission Thresholds

Pollutant	Construction	Operation
ROG	None	65 pounds per day
NO_X	85 pounds per day	65 pounds per day
PM10	80 pounds per day and 14.6 tons per year if all feasible BACT and BMPs are applied	Same as construction
PM2.5	82 pounds per day and 15.0 tons per year if all feasible BACT and BMPs are applied	Same as construction

Source: Sacramento Metropolitan Air Quality Management District 2020a
BACT = best available control technology; BMP = best management practices; NO_X = nitrogen oxide; PM10 = particulate matter 10 microns or less in diameter; ROG = reactive organic gases

SMAQMD's ROG and NO_X thresholds are based on emissions reduction targets that were set for new development projects in consideration of regional ozone attainment goals. The PM thresholds align with the new source review permit offset levels, which are designed to prevent new emission sources from affecting attainment progress. SMAQMD thresholds therefore represent maximum emissions levels for new development required to support attainment of the NAAQS and CAAQS.

EDCAQMD (2002:3-5) has adopted an 82-pound-per-day ozone precursor (ROG and NO_X) threshold to assist the Sacramento area in reaching attainment status with the federal and state ozone standards. EDCAQMD (2002:3-6) considers operational CO and PM emissions significant if they would cause or contribute to violations of the CAAQS or NAAQS.

Receptor Exposure to Substantial Pollutant Concentrations

All criteria pollutants that would be generated by the project are associated with some form of health risk (e.g., lower respiratory problems). Criteria pollutants can be classified as either regional or localized pollutants. Regional pollutants can be transported over long distances and affect ambient air quality far from the emissions source. Localized pollutants affect ambient air quality near the emissions source. The primary pollutants of concern generated by the project are ozone precursors (ROG and NO_X), PM, and TACs. The following sections discuss thresholds and analysis considerations for regional and local project-generated pollutants with respect to their human health implications.

Regional Pollutants (Ozone Precursors and Regional Particulate Matter)

Adverse health effects induced by regional criteria pollutant emissions generated by the project (ozone precursors and PM) are highly dependent on a multitude of interconnected variables (e.g., cumulative concentrations, local meteorology and atmospheric conditions, the number and character of exposed individuals [e.g., age, gender]). For these reasons, ozone precursors (ROG and NO_X) contribute to the formation of groundborne ozone on a regional scale. Emissions of ROG and NO_X generated in one area may not equate to a specific ozone concentration in that same area. Similarly, some types of PM pollution may be transported over long distances or formed through atmospheric reactions. As such, the magnitude and locations of specific health effects from exposure to increased ozone or regional PM concentrations are the product of emissions generated by numerous sources throughout a region, as opposed to a single individual project. Moreover, exposure to regional air pollution does not guarantee that an individual will experience an adverse health effect because there are large individual differences in the intensity of symptomatic responses to air pollutants. These differences are influenced, in part, by the underlying health condition of an individual, which cannot be known.

Nonetheless, emissions generated by the project could increase photochemical reactions and the formation of tropospheric ozone and secondary PM which, at certain concentrations, could lead to increased incidence of specific health consequences, such as various respiratory and cardiovascular ailments. As discussed previously, air districts develop region-specific CEQA thresholds of significance in consideration of existing air quality concentrations and attainment designations under the NAAQS and CAAQS. The NAAQS and CAAQS are informed by a wide range of scientific evidence that demonstrates there are known safe concentrations of criteria pollutants. Accordingly, the project would expose receptors to substantial regional pollution if any of the thresholds summarized above are exceeded.

Localized Pollutants (Particulate Matter and Toxic Air Contaminants)

Localized pollutants generated by a project are deposited and potentially affect population near the emissions source. Because these pollutants dissipate with distance, emissions from individual projects can result in direct and material health impacts on adjacent sensitive receptors. The localized pollutants of concern associated with the project are PM and TACs (including NOA). Following are the applicable thresholds for each pollutant.

Particulate Matter

As shown in Table 3.2-5, SMAQMD has adopted PM thresholds of significance to evaluate whether construction- and operations-generated PM would result in an air quality impact. SMAQMD (2020a) also recommends BMPs to reduce dust emissions and associated localized health impacts.

Asbestos

SMAQMD (2021a:5-6) considers a project that involves earth-distributing construction activity located in an area moderately likely to contain NOA to result in a potentially significant asbestos impact. SMAQMD (2021a:5-10) recommends a site investigation to reduce potentially significant asbestos impacts to a less-than-significant level.

Other Toxic Air Contaminants

SMAQMD has adopted incremental cancer and hazard thresholds to evaluate receptor exposure to single sources of TACs. The "substantial" TAC threshold defined by SMAQMD is any exposure of a sensitive receptor to an individual emissions source resulting in an excess cancer risk level of more than 10 in 1 million or a non-cancer (i.e., chronic or acute) hazard index (HI) greater than 1.0. These threshold levels should be used to determine whether a project's TAC emissions are cumulatively considerable. SMAQMD (2021a:9-7) also recommends area plans consider buffer zones around existing and proposed land uses that emit TACs. Such buffer zones should consider CARB (2005) guidance and be included in plan policies, land use maps, and implementing ordinances.

Odors Emissions

SMAQMD (2021a:2-9) does not have an explicit odor threshold but has established recommended odor screening distances. The air district recommends odor analyses consider the types of odors associated with a project, general locations of sensitive receptors, site meteorology, and prior odor complaints. Area plans that include odor-generating facilities should also consider buffer zones around those land uses, consistent with SMAQMD's recommended screening distances.

Impacts and Mitigation Measures

Impact AQ-1: Conflict with or obstruct implementation of the applicable air quality plan (less than significant with mitigation)

Summary of Impact AQ-1 by Component

Component	Level of Significance before Mitigation	Mitigation Measures Required	Level of Significance after Mitigation
Folsom Center for Health Master Plan	S	AQ-2a AQ-2b	LTS
Phase 1, Medical Office Building	S	AQ-2a AQ-2b	LTS

NI = no impact; LTS = less than significant; S = significant; SU = significant and unavoidable

Folsom Center for Health Master Plan

The federal CAA requires that an air quality attainment plan be prepared for areas with air quality violating the NAAQS. The air quality attainment plan sets forth the strategies and pollution control measures that states will use to attain the NAAQS by the earliest practical date. The Sacramento Regional OAP is based, in part, on regional population and employment (and thus VMT) growth projections from SACOG. Thus, a project's conformance with SACOG's MTP/SCS that was considered in the preparation of the Sacramento Regional OAP would demonstrate that the Master Plan would not conflict with or obstruct implementation of plans.

According to SMAQMD's CEQA Guide (2021a:9-5), the determination of air quality attainment plan consistency should consider the following factors for plan-level analyses. These criteria are consistent with EDCAQMD (2002) guidance for the assessment of air quality plan consistency.

- The plan's consistency with air quality plans and the MTP/SCS growth projections.
- The relationship between the plan's projected VMT and population growth (i.e., whether the two projections are proportional, or whether the VMT increases at a slower rate than population, indicating a successful mode shift).
- The extent to which the plan implements adopted transportation control measures.

SMAQMD (2021a:9-4 and 9-5) also recommends that construction and operational emissions be considered relevant to the district's mass emission thresholds.

Each of these items is addressed below for the Master Plan.

Consistency with MTP/SCS Growth Projections

SACOG's current MTP/SCS, the 2020 MTP/SCS, was adopted in November 2019. While the 2020 MTP/SCS is SACOG's most current planning document, the Sacramento Regional OAP, which was prepared in 2017, was informed by SACOG's prior 2016 MTP/SCS. Growth projections for SACOG's 2016 MTP/SCS were based on state-of-the-art data, analysis, and local planning data that were available at the time of the 2016 MTP/SCS, including the FPASP and the Folsom General Plan. SMAQMD is required to prepare an air quality attainment plan to address the EPA's 2015 ozone NAAQS by August 2022. Once adopted, this plan will guide future ozone attainment planning efforts in the Sacramento region.

UC Davis anticipates the project to generate a maximum of 524 jobs. As discussed in Section 3.12, *Population and Housing*, the FPASP EIR/EIS calculated that the FPASP would result in 13,210 new employees. Using the same factors used in the FPASP EIR/EIS analysis, the project site land use designation under the Specific Plan (SP-RC-PD) would generate a maximum of approximately 1,200 employees. The 524 new employees anticipated to result from the project are greatly below the estimate in the FPASP. Moreover, because the employment associated with the project would not result in a demand for additional housing beyond that planned in the area (refer to Section 3.12), the new employees would be part of the population anticipated by the Folsom General Plan. Accordingly, the project would not result in the creation of substantial unplanned employment or population and is thus consistent with MTP/SCS growth projections.

Relationship between Plan VMT and Population Growth

As discussed in Section 3.2.1, *Existing Conditions*, SB 743 was adopted in 2013 to integrate and better balance the needs of congestion management, infill development, active transportation, and greenhouse gas emissions reduction. There is a direct relationship between VMT and vehicle emissions, and thus reducing VMT achieves greenhouse gas and criteria pollutant emissions reductions.

Because the project would build out an undeveloped portion of land, it is not possible to directly evaluate the relationship between the plan's projected VMT and population growth (VMT and population under existing conditions are zero). One of the goals of SB 743 and SACOG's MTP/SCS is to reduce per capita and per employee ("work-tour") VMT of both existing and new development. Comparing the anticipated work-tour VMT of the project to existing local and regional work-tour VMT rates provides a mechanism to evaluate how the project may influence future VMT. The project would support successful regional mode shift if the work-tour VMT is less than existing rates (i.e., declines overtime).

SACOG (2021) has mapped base year (2016) work-tour VMT throughout the SACOG region. Results are presented using HEX geography, which displays work VMT per job over a hexagon grid. The project is in Hex EV-130. Table 3.2-6 presents the work-tour VMT for the SACOG region, City of Folsom, and Hex-130, which is the hexagon in which the project is located. Data are presented under the SACOG base year (2016) and 2025, 2030, and 2040 future conditions. The existing data reflect conditions without the project or the FPASP and other local and regional projects. The future year data reflect local and regional conditions with additional planned development, including the project.

Table 3.2-6. Daily Work-Tour VMT Near the Project Site

Condition	SACOG Region	City of Folsom	Hex EV-130	Hex EV-130 % Below SACOG Region (base year)
2016 (SACOG base year)	21.30	19.27	19.00	10.8%
2025	20.70	18.98	18.50	13.2%
2030	20.37	18.82	18.22	14.5%
2040	19.71	18.50	17.66	17.1%

Source: Wei pers. comm. B

As shown in Table 3.2-6, work-tour VMT in Hex EV-130 was 10.8% below the regional average of 21.30 under the 2016 SACOG base year. Over time, with implementation of the project and FPASP, Hex EV-130 and surrounding area will mature and contain a mixture of residential, commercial, retail, and recreational uses. Densification and diversity of land use types contributes to shorter vehicle trips and more vehicle trips made by alternative modes of transportation. This is illustrated in Table 3.2-6 through the increasing percent reduction in work-tour VMT relative to base year conditions that is projected for Hex EV-130 overtime. The project will serve local patients and employees, thereby reducing vehicle trip lengths and facilitating mode shift.

Implementation of Adopted Transportation Control Measures

Transportation control measures are strategies used by SMAQMD to reduce motor vehicle emissions. The Sacramento Regional OAP identifies 24 transportation control measures that were previously included in its 2013 ozone attainment plan. All measures except the Spare the Air

Program were completed before 2020. The Spare the Air Program will continue to be implemented by SMAQMD through 2024. Spare the Air is a year-round public education program with an episodic ozone reduction element during the summer ozone season, plus general awareness throughout the rest of the year.

The project does not include any elements that would conflict with or impede successful implementation of SMAQMD's Spare the Air Program. Rather, the UC Sustainable Practices Policy and Green Commuter Program, which provides incentives for carpooling, vanpooling, biking, walking, and using transit, support the Spare the Air Program by raising awareness about mode shifting and reducing mobile source emissions. The Folsom Sustainability Plan also includes the following mobility objectives, which will support ongoing and future regional transportation control measures.

- As part of Leadership in Energy and Environmental Design (LEED) Building Design and Construction (BD+C) Silver certification, consider the following mobility related credits (Objective M-1):
    - LT Credit Reduced Parking Footprint
    - IN Credit Inclusive Design
- As part of SITES Gold certification, consider the following mobility related credits (Objective M-2):
    - HHWB Credit 6.5: Support physical activity
    - HHWB Credit 6.9: Encourage fuel-efficient and multimodal transportation, including short-term and long-term bicycle parking
    - HHWB Credit 6.2: Provide optimum site accessibility, safety, and wayfinding
    - Context Credit 1.7: Connect to multimodal transit networks
- Develop a transportation demand management strategy to optimize transportation efficiency, including strategies addressing commute platforms, daily parking, incentives, carpool/vanpool programs, transit/shuttles, active transportation, transportation network companies, and telecommuting programs (Objective M-3).
- Plan multimodal connections to and throughout the site and to surrounding communities, including direct connections to bicycle/pedestrian network (Objective M-8). The project includes a planned pull-out bus stop along Innovation Drive to facilitate future public transit. UC Davis will partner with Sacramento Regional Transit and/or Folsom Stage Lines to extend its bus routes and add a dedicated bus stop at the project.
- Comply with the UC Sustainable Practices Policy requiring that by 2050, no more than 40 percent of employees shall commute to the location by single occupancy vehicles (Objective M-9). The UC Sustainable Practices Policy also requires a 10 percent in single occupancy vehicle (SOV) community by 2025.
- Install electric vehicle supply equipment based on evolving state requirements and standards (Objective HPSI-9).

Together, these UC Davis programs will lessen the severity of growth-oriented criteria pollutants by minimizing growth in VMT, encouraging transit, fostering bicycle and pedestrian infrastructure, and supporting decarbonization of the transportation sector.

Exceedances of Air District Emission Thresholds

As described under Impact AQ-2, the project would not exceed SMAQMD's emissions thresholds with Mitigation Measures AQ-2a and AQ-2b. Likewise, operational emissions at full implementation would not exceed SMAQMD's or EDCAQMD's thresholds.

Conclusion

Based on the above analysis, the project is consistent with regional growth projections and would not disrupt or hinder implementation of adopted transportation control measures. The project and surrounding land uses would reduce vehicle trip lengths and facilitate mode shift. However, the project would result in NO_X and PM10 emissions above SMAQMD's thresholds, resulting in a significant impact before mitigation. SMAQMD also requires BMPs to control fugitive dust emissions. Mitigation Measures AQ-2a and AQ-2b would reduce NO_X and PM10 emissions below SMAQMD's thresholds and control fugitive dust emissions consistent with SMAQMD guidance. Accordingly, the project would not conflict with air quality attainment plans, and this impact is **less than significant with mitigation**.

Phase 1, Medical Office Building

The employment supported by Phase 1 is consistent with the growth projections of the MTS/SCS, Folsom General Plan, and FPASP. Phase 1 is likewise consistent with the planning and development characteristics of the project site, as envisioned under the FPASP and Folsom General Plan. Also, as discussed below under Impact AQ-2, neither construction nor operation of Phase 1 would exceed SMAQMD's or EDCAQMD's thresholds of significance with Mitigation Measures AQ-2a and AQ-2b. Accordingly, Phase 1 would not conflict with air quality attainment plans, and this impact is **less than significant with mitigation.**

Mitigation Measures

Mitigation Measure AQ-2a: Reduce heavy-duty off-road equipment exhaust emissions

Refer to measure description under Impact AQ-2.

Mitigation Measure AQ-2b: Reduce construction-generated fugitive dust

Refer to measure description under Impact AQ-2.

Impact AQ-2: Cumulatively considerable net increase of any criteria pollutant for which the project region is a nonattainment area for an applicable federal or state ambient air quality standard (less than significant with mitigation)

Summary of Impact AQ-2 by Component

Component	Level of Significance before Mitigation	Mitigation Measures Required	Level of Significance after Mitigation
Folsom Center for Health Master Plan	S	AQ-2a AQ-2b	LTS
Phase 1, Medical Office Building	S	AQ-2a AQ-2b	LTS

LTS = less than significant; S = significant

Folsom Center for Health Master Plan

Construction

The predominant pollutants associated with the project are fugitive dust (PM10 and PM2.5) from earthmoving activities and combustion pollutants, particularly NO_X from heavy equipment and trucks. ROG would also be generated from paving activities and application of architectural coatings. Table 3.2-7 presents the estimated construction emissions from construction activities under the project. As discussed above, emissions associated with Phase 1 development were modeled using project-specific engineering details. Potential emissions generated by future Phases 2 and 3 were estimated using model defaults, supplemented by relevant information from the Phase 1 development engineering data. Table 3.2-7 compares maximum daily and annual emissions to SMAQMD's NO_X, PM10, and PM2.5 thresholds. Although SMAQMD does not recommend ROG thresholds, estimates of construction-generated ROG emissions, which are an ozone precursor, are shown for information purposes only. Refer to Appendix E for a detailed summary of the modeling assumptions, inputs, and outputs.

Table 3.2-7. Estimated Unmitigated Construction Criteria Pollutants and Precursors for the Project

	Maximum Daily Emissions (lb/day)				Annual Emissions (tpy)	
Phase and Year	ROG[a]	NO_X	PM10	PM2.5	PM10	PM2.5
Phase 1 Development						
2023	9	86	142	25	7.5	1.3
2024	5	39	55	8	3.2	0.6
2025	108	1	<1	<1	<0.1	<0.1
Phase 2[b]						
Year 1	8	77	200	27	18.0	2.7
Year 2	7	66	138	21	4.9	0.9
Year 3	6	44	83	12	5.1	0.9
Year 4	105	1	<1	<1	<0.1	<0.1
Phase 3[b]						
Year 1	6	42	78	14	4.6	0.9
Year 2	103	25	32	5	1.1	0.2
SMAQMD Threshold [c]	–	85	80[d]	82[d]	14.6[d]	15.0[d]

Source: ICF modeling.

Note: Underlined results indicate an exceedance of SMAQMD's threshold.

ROG = reactive organic gases; NO_X = nitrogen oxides; PM10 = particulate matter less than 10 microns in diameter; PM2.5 = particulate matter less than 2.5 microns in diameter; lb/day = pounds per day; tpy = tons per year

[a] Although SMAQMD does not recommend ROG thresholds, estimates of construction-generated ROG emissions, which are an ozone precursor, are shown for information purposes only.

[b] The analysis conservatively assumes construction of Phase 2 would begin the year after the Phase 1 development and construction of Phase 3 would begin the year after Phase 2. The actual timing of Phases 2 and 3 will depend on factors such as local economic conditions, market demand, and other financing considerations. Because the emissions intensity of vehicles and equipment decrease over time, the emissions estimates presented for Phases 2 and 3 will be a conservative representation of potential air quality impacts if development occurs less rapidly.

[c] In developing these thresholds, SMAQMD considered levels at which project emissions are cumulatively considerable. Consequently, exceedances of project-level thresholds would be cumulatively considerable.

[d] With application of best management practices.

Estimated construction emissions associated with the project would exceed SMAQMD's NO_X and PM10 thresholds. Thus, this impact would be significant before mitigation. Mitigation Measure AQ-2a requires implementation of SMAQMD's enhanced onsite exhaust controls. Mitigation Measure AQ-2b is required to reduce fugitive dust emissions, pursuant to SMAQMD's basic and enhanced construction emission control practices. Mitigation Measures AQ-2a and AQ-2b reflect SMAQMD's (2021a) current best practices, as outlined in their CEQA Guide. These measures are consistent with FPASP Mitigation Measure 3A.2-1a.

Table 3.2-8 shows modeled emissions with Mitigation Measures AQ-2a and AQ-2b. Additional reductions would be achieved by Mitigation Measure AQ-3b, but these are not quantifiable because the extent to which future contractors will use advanced and electrified engines is not currently known. Likewise, as discussed further below under Impact AQ-3, recently adopted and likely forthcoming local and state air quality regulations will reduce the future emissions intensity of equipment and vehicles, independent of project-level mitigation. Accordingly, the emissions presented in Table 3.2-8 are a conservative representation of air quality impacts.

Table 3.2-8. Estimated Mitigated Construction Criteria Pollutants and Precursors for the Project[a]

	Maximum Daily Emissions (lb/day)				Annual Emissions (tpy)	
Phase and Year	ROG[a]	NO_X[b]	PM10	PM2.5	PM10	PM2.5
Phase 1 Development						
2023	9	81	66	12	3.7	0.7
2024	5	36	31	6	2.1	0.5
2025	108	1	<1	<1	<0.1	0.0
Phase 2[c]						
Year 1	8	73	67	13	5.9	1.1
Year 2	7	64	54	11	2.9	0.7
Year 3	6	42	36	7	2.9	0.7
Year 4	105	1	<1	<1	<0.1	<0.1
Phase 3[c]						
Year 1	6	42	29	7	2.0	0.5
Year 2	103	25	16	4	0.7	0.2
SMAQMD Threshold[d]	–	85	80[e]	82[e]	14.6[e]	15.0[e]

Source: ICF modeling.

Note: Underlined results indicate an exceedance of SMAQMD's threshold.

ROG = reactive organic gases; NO_X = nitrogen oxides; PM10 = particulate matter less than 10 microns in diameter; PM2.5 = particulate matter less than 2.5 microns in diameter; lb/day = pounds per day; tpy = tons per year

[a] Although SMAQMD does not recommend ROG thresholds, estimates of construction-generated ROG emissions, which are an ozone precursor, are shown for information purposes only.

[b] Analysis applies a 10 percent reduction in off-road equipment NO_X emissions through Phase 2, year 3, pursuant to Mitigation Measure AQ-2a.

[c] The analysis conservatively assumes construction of Phase 2 would begin the year after the Phase 1 development and construction of Phase 3 would begin the year after Phase 2. The actual timing of Phases 2 and 3 will depend on factors such as local economic conditions, market demand, and other financing considerations. Because the emissions intensity of vehicles and equipment decrease overtime, the emissions estimates presented for Phases 2 and 3 will be a conservative representation of potential air quality impacts if development occurs less rapidly.

[d] In developing these thresholds, SMAQMD considered levels at which project emissions are cumulatively considerable. Consequently, exceedances of project-level thresholds would be cumulatively considerable.

[e] With application of best management practices.

As shown in Table 3.2-8, Mitigation Measures AQ-2a and AQ-2a would reduce NO_X and PM10 emissions below SMAQMD's thresholds and control fugitive dust emissions consistent with SMAQMD guidance. Accordingly, the impact would be **less than significant with mitigation**. Because mitigated NO_X emissions would not exceed SMAQMD's threshold, FPASP Mitigation Measure 3A.2-1b, which requires NO_X offsets for emissions above SMAQMD's threshold, is not needed for the project.[7]

Operation

The project would result in new stationary, area, and mobile sources of criteria pollutant and precursor emissions, as discussed further in *Methods for Analysis*. Mobile sources of air pollutants would occur in both Sacramento and El Dorado Counties.

The operational emissions analysis for the project includes quantifiable emissions benefits that will be achieved by the UC Sustainable Practices Policy. As discussed further in Section 3.7, the UC Sustainable Practices Policy includes a comprehensive set of strategies that will improve energy efficiency, increase renewable energy generation, reduce water consumption and waste generation, and encourage alternative transportation and low emissions vehicles. The following policies were quantified and included in the project operational analysis.

- Prohibition of natural gas infrastructure and attainment of LEED BD+C Silver certification for all buildings.
- Regional factors accounted for in SACOG's travel model that reduce project-related VMT, such as job accessibility, job/housing density, and job/housing mix and balance.

The UC Sustainable Practices Policy would achieve additional criteria pollutant reductions through support for active transportation, EVs, and carpooling. However, these policies were not quantified because of constraints associated with the forecast method or because the exact number of affected vehicle trips is currently unknown. Operational emissions from the project will therefore likely be lower than those quantified in this analysis. Additionally, the VMT modeling conducted for the project does not account for the potential redistribution of existing vehicle trips. The project will locate medical services proximate to the Folsom and El Dorado Hills market, thereby reducing the need to commute to the UC Davis Sacramento Campus or other regional hospitals. Quantifying changes in commute patterns and associated VMT would require sophisticated regional travel demand modeling that is beyond the scope of this analysis. To the extent the project reduces vehicle trip lengths, mobile source emissions will be lower than what are presented in this analysis.

Table 3.2-9 presents the estimated operational emissions in Sacramento County with the project in 2040. Table 3.2-10 summarizes the estimated mobile source emissions associated with the project that would occur in El Dorado County. These emissions are compared to EDCAQMD thresholds.

[7] The FPASP EIR/EIS also identifies Mitigation Measure 3A.2-1c, which requires PM10 dispersion modeling. Pursuant to SMAQMD current CEQA Guide (2021a:3-7), "PM10 and PM2.5 emissions generated by construction projects that meet the screening criteria or are less than the mass emission thresholds for PM10 and PM2.5 are considered to have a less-than-significant impact." Dispersion modeling is recommended for projects that do not meet this standard or could substantially impact receptors. As shown in Table 3.2-8, PM10 emissions would not exceed SMAQMD's thresholds with Mitigation Measures AQ-2a and AQ-2b. There are no receptors within 1,000 feet of the Phase 1 development. While future receptors are anticipated within 1,000 feet of Phases 2 and 3, they are limited in numbers and not directly adjustment to the site. Accordingly, the project would not expose receptors to substantial PM10 concentrations, and dispersion modeling is not required. This is discussed further under Impact AQ-3.

Table 3.2-9. Estimated Operational Criteria Pollutants and Precursors for the Project in Sacramento County

	Daily Emissions (lb/day)				Annual Emissions (tpy)	
Source	ROG	NO_X	PM10	PM2.5	PM10	PM2.5
Mobile	5	7	20	5	3.48	0.88
Area	10	<1	<1	<1	<0.01	<0.01
Stationary	<1	12	5	5	0.95	0.95
Total [a]	15	18	26	11	4.43	1.84
SMAQMD threshold [b]	65	65	80	82	14.6	15.0

Source: ICF modeling.
lb/day = pounds per day; NO_X = nitrogen oxides; PM10 = particulate matter less than 10 microns in diameter; PM2.5 = particulate matter less than 2.5 microns in diameter; ROG = reactive organic gases; tpy = tons per year
[a] Sums may not total correctly due to rounding.
[b] In developing these thresholds, SMAQMD considered levels at which project emissions are cumulatively considerable. Consequently, exceedances of project-level thresholds would be cumulatively considerable.

Table 3.2-10. Estimated Operational Mobile Source Criteria Pollutants and Precursors for the Project in El Dorado County

	Daily Emissions (lb/day)	
	ROG	NO_X
Mobile	13	14
EDCAQMD threshold [a]	82	82

Source: ICF modeling.
lb/day = pounds per day; NO_X = nitrogen oxides; ROG = reactive organic gases; tpy = tons per year.
[a] In developing these thresholds, EDCAQMD considered levels at which project emissions are cumulatively considerable. Consequently, exceedances of project-level thresholds would be cumulatively considerable.

As shown in Tables 3.2-9 and 3.2-10, operational emissions resulting from the project would not exceed SMAQMD or EDCAQMD thresholds. Accordingly, this impact would be **less than significant.** While not required to achieve a less-than-significant finding, the project would comply with applicable measures in the FPASP AQMP, pursuant to FPASP Mitigation Measure 3A.2-2. The AQMP includes, among others, measures designed to provide bicycle parking, an integrated pedestrian/bicycle path network, transit stops, and energy efficient buildings. Many of the measures required by the UC Sustainable Practices Policy directly correlate to measures outlined in the FPASP AQMP.

Phase 1, Medical Office Building

Construction

As shown in Table 3.2-7, estimated NO_X and PM10 emissions from construction of the Phase 1 development would exceed SMAQMD thresholds. This impact would be significant before mitigation. Mitigation Measures AQ-2a and AQ-2b would reduce NO_X and PM10 emissions to below SMAQMD's threshold level, as shown in Table 3.2-8. Thus, this impact would be **less than significant with mitigation**.

Operation

Operation of Phase 1 would generate criteria pollutants and precursors from mobile (e.g., vehicle trips) and area (e.g., landscaping equipment) sources. Emissions from these sources were calculated using the methods detailed under *Methods for Analysis*. Tables 3.2-11 and 3.2-12 summarize the modeled operation-related emissions of criteria air pollutants and precursors for the Phase 1 development in 2025. Table 3.2-11 compares emissions generated in Sacramento County to SMAQMD thresholds and Table 3.2-12 compares mobile source emissions generated in El Dorado County to EDCAQMD thresholds.

Table 3.2-11. Estimated Operational Criteria Pollutants and Precursors for Phase 1 Development in Sacramento County

	Daily Emissions (lb/day)				Annual Emissions (tpy)	
Source	ROG	NO_X	PM10	PM2.5	PM10	PM2.5
Mobile	3	6	8	2	1.43	0.37
Area	3	<1	<1	<1	<0.01	<0.01
Total [a]	6	6	8	2	1.43	0.37
SMAQMD threshold [b]	65	65	80	82	14.6	15.0

Source: ICF modeling.

lb/day = pounds per day; NO_X = nitrogen oxides; PM10 = particulate matter less than 10 microns in diameter; PM2.5 = particulate matter less than 2.5 microns in diameter; ROG = reactive organic gases; tpy = tons per year

[a] Sums may not total correctly due to rounding.

[b] In developing these thresholds, SMAQMD considered levels at which project emissions are cumulatively considerable. Consequently, exceedances of project-level thresholds would be cumulatively considerable.

Table 3.2-12. Estimated Operational Mobile Source Criteria Pollutants and Precursors for Phase 1 Development in El Dorado County

	Daily Emissions (lb/day)	
	ROG	NO_X
Mobile	9	17
EDCAQMD threshold [a]	82	82

Source: ICF modeling.

lb/day = pounds per day; NO_X = nitrogen oxides; ROG = reactive organic gases; tpy = tons per year

[a] In developing these thresholds, EDCAQMD considered levels at which project emissions are cumulatively considerable. Consequently, exceedances of project-level thresholds would be cumulatively considerable.

As shown in Tables 3.2-11 and 3.2-12, operational emissions generated by the Phase 1 development would not exceed SMAQMD or EDCAQMD thresholds. Accordingly, this impact would be **less than significant.**

Mitigation Measures

Mitigation Measure AQ-2a: Reduce heavy-duty off-road equipment exhaust emissions

UC Davis will provide a plan for approval by SMAQMD that demonstrates the heavy-duty off-road vehicles (50 horsepower or more) to be used 8 hours or more during the construction project will achieve a project-wide fleet-average 10 percent NO_X reduction compared to the most recent CARB fleet average. Acceptable options for reducing emissions may include use of

cleaner engines (e.g., Tier 4 equipment), low-emission diesel products, alternative fuels or renewable diesel (Mitigation Measure AQ-3a), engine retrofit technology, after-treatment products, and other options as they become available. The plan will have two components: an initial report submitted before construction and a final report submitted at the completion.

UC Davis will submit the initial report at least 4 business days prior to construction activity using the SMAQMD's Construction Mitigation Tool. The report must provide project and construction company information and include the equipment type, horsepower rating, engine model year, projected hours of use, and the CARB equipment identification number for each piece of equipment in the plan. The report will incorporate all owned, leased and subcontracted equipment to be used. UC Davis will submit the final report at the end of the job, phase, or calendar year, as pre-arranged with SMAQMD staff and documented in the approval letter, to demonstrate continued project compliance.

SMAQMD may conduct periodic site inspections to determine compliance. Nothing in this mitigation will supersede other air district, state or federal rules or regulations. This mitigation will sunset on the later of January 1, 2028, or the date when full implementation of the CARB In Use Off-Road Regulation is expected.

Mitigation Measure AQ-2b: Reduce construction-generated fugitive dust

UC Davis will require all construction contractors to implement the following measures to reduce construction-generated fugitive dust. Control of fugitive dust is required per SMAQMD Rule 403 and enforced by SMAQMD staff. The list of required measures was informed by SMAQMD's basic and enhanced construction emission control practices.

- Water exposed soil with adequate frequency to prevent fugitive dust and particulates from leaving the project site. However, do not overwater to the extent that sediment flows off the site. Exposed surfaces include, but are not limited to soil piles, graded areas, and unpaved parking areas,
- Suspend excavation, grading, and/or demolition activity when sustained wind speeds exceed 25 miles per hour.
- Install wind breaks (e.g., plant trees, solid fencing) on the average dominant windward side(s) of construction areas. For purposes of implementation, chain-link fencing with added landscape mesh fabric adequately qualifies as solid fencing.
- For dust control in disturbed but inactive construction areas, apply soil stabilization measures adequate to mitigate airborne particulates as soon as possible.
- Use wet power vacuum street sweepers to remove any visible trackout mud or dirt onto adjacent public roads at least once a day. Use of dry power sweeping is prohibited.
- Treat site accesses from the paved road with a 6- to 12-inch layer of wood chips, mulch, gravel, or other approved method to reduce generation of road dust and road dust carryout onto public roads.
- Cover or maintain at least 2 feet of free board space on haul trucks transporting soil, sand, or other loose material on the site. Any haul trucks that would be traveling along freeways or major roadways should be covered.

- Establish a 15-mile-per-hour speed limit for vehicles driving on unpaved portions of project construction sites. Water all unpaved roads at least twice daily.
- Post a publicly visible sign with the telephone number and person to contact at the lead agency regarding dust complaints. This person will respond and take corrective action within 48 hours. The phone number of the SMAQMD will also be visible to ensure compliance.

UC Davis will ensure that the implementation of this mitigation measure is consistent with the UC Davis stormwater program and does not result in offsite runoff as a result of watering for dust control purposes.

Impact AQ-3: Exposure of sensitive receptors to substantial pollutant concentrations (less than significant with mitigation)

Summary of Impact AQ-3 by Component

Component	Level of Significance before Mitigation	Mitigation Measures Required	Level of Significance after Mitigation
Folsom Center for Health Master Plan	S	AQ-2a AQ-2b AQ-3a AQ-3b	SU
Phase 1, Medical Office Building	S	AQ-2a AQ-2b AQ-3a AQ-3b AQ-3c	LTS

LTS = less than significant; S = significant

Folsom Center for Health Master Plan

Regional Criteria Pollutants

SMAQMD and EDCAQMD develop region-specific CEQA thresholds of significance in consideration of existing air quality concentrations and attainment or nonattainment designations under the NAAQS and CAAQS. Recognizing that air quality is a cumulative problem, the air districts typically consider projects that generate criteria pollutants and ozone precursor emissions that are below the thresholds to be minor in nature. Such projects would not adversely affect air quality or exceed the NAAQS or CAAQS. Moreover, photochemical and health risk modeling conducted by SMAQMD demonstrates that projects generating emissions below SMAQMD thresholds "do not on [their] own lead to sizeable health effects" (Ramboll 2020:19).

As described under Impact AQ-2, neither construction nor operation of land uses for the project would generate criteria pollutants or precursors above SMAQMD or EDCAQMD thresholds with Mitigation Measures AQ-2a and AQ-2b. Beyond these measures, the project would be designed around the core goal of protecting human health and cultivating health-promoting environments. New built environments that include pavements, roofs, and roads can absorb and retain heat during the day, increasing ambient temperatures (also known as the urban heat island effect). Higher air temperatures can increase the formation of ozone and induce heat-related health stresses. The

Folsom Sustainability Plan includes the following objectives that would help reduce this project's contribution to the urban heat island effect.

- Aspire to achieve LEED Soil+Veg credits 4.8 (Optimize biomass) and 4.9 (Reduce urban heat island effects) (Objective HPE-2).
- Optimize ecosystem services performance and maximize human connection to the natural environment through biophilic design (Objective HPE-3).
- Conduct iterative EcoCharrettes for Health Promoting Environments in collaboration with the multidisciplinary stakeholder team (Objective HPE-4).
- Restore and establish native and climate-appropriate landscape communities (Objective HPE-8).

Collectively, these objectives use vegetated features (green roofs, bioactive walls, with high lead surface for shading and transpiration) and landscaped areas to improve air quality, temperature regulation, and energy consumption. The project would also follow a low-impact development approach incorporating permeable pavement and shaded walking corridors that weave through the site. Solar canopies over surface parking would also be installed to reduce surface and car temperatures. Finally, the hardscape design for the project includes selection of light-colored materials and materials with an initial solar reflectance value of at least 0.33, where possible. If an initial solar reflectance value is not available, a 3-year aged solar reflectance value of minimum 0.28 is required.

The project would not be expected to contribute a significant level of air pollution that would degrade regional air quality within the SVAB or MCAB. This impact is **less than significant with mitigation**.

Consistent with the Friant Ranch Decision, Table 3.2-13 provides a conservative estimate of potential health effects associated with regional criteria pollutants generated by construction and operation of the project. Because construction emissions would not exceed SMAQMD's thresholds with Mitigation Measures AQ-2a and AQ-2b, and long-term operational emissions are below all air district thresholds, this analysis was conducted using SMAQMD's Minor Project Health Screening Tool (version 2). The results presented in Table 3.2-13 are conservative because they are based on a source generating 82 pounds per day of ROG, NO_X, and PM2.5 during each day of the year. As shown in Table 3.2-8, maximum daily emissions during construction are well below 82 pounds per day. Likewise, operational emissions resulting from the project are well below 82 pounds per day. For these reasons, any increase in regional health risks associated with project-generated emissions would be less than those presented in Table 3.2-13, which are already very small increases over the background incident health effect.

While the project would contribute to future air pollution, it is important to consider the magnitude of project-generated emissions and potential health risks relative to ambient conditions. The increased health effects potentially associated with the project (Table 3.2-13) are very small relative to the background regional incident health effect. The California Department of Public Health (2021) reported an annual average of 11,941 deaths in Sacramento County and 1,592 deaths in El Dorado County from all causes between 2017 and 2019. The estimated two deaths for a project with emissions at or below air district thresholds (Table 3.2-13) are less than 0.02 percent of the total Sacramento and El Dorado County deaths.

Table 3.2-13. Conservative Estimate of Increased Regional Health Effect Incidence Resulting from Implementation of the Folsom Center Project (cases per year)

Health Endpoint	Age Range[a]	Annual Mean Incidences (model domain and 5-District Region)[b]	% of Background Incidence (and 5-District Region)[c]	Total # of Health Incidence (and 5-District Region)[d]
PM2.5 Emissions, Respiratory				
Emergency Room Visits, Asthma	0–99	1	<1%	18,419
Hospital Admissions, Asthma	0–64	<1	<1%	1,846
Hospital Admissions, All Respiratory	65–99	<1	<1%	19,644
PM2.5 Emissions, Cardiovascular				
Hospital Admissions, All Cardiovascular[e]	65–99	<1	<1%	24,037
Acute Myocardial Infarction, Nonfatal	18–24	<1	<1%	4
Acute Myocardial Infarction, Nonfatal	25–44	<1	<1%	308
Acute Myocardial Infarction, Nonfatal	45–54	<1	<1%	741
Acute Myocardial Infarction, Nonfatal	55–64	<1	<1%	1,239
Acute Myocardial Infarction, Nonfatal	65–99	<1	<1%	5,052
PM2.5 Emissions, Mortality				
Mortality, All Cause	30–99	2	<1%	44,766
ROG and NO_X Emissions, Respiratory				
Hospital Admissions, All Respiratory	65–99	<1	<1%	19,644
Emergency Room Visits, Asthma	0–17	<1	<1%	5,859
Emergency Room Visits, Asthma	18–99	<1	<1%	12,560
ROG and NO_X Emissions, Mortality				
Mortality, Non-Accidental	0–99	<1	<1%	30,386

Source: Sacramento Metropolitan Air Quality Management District 2020b.

Note: Since emissions would be generated by multiple sources, the analysis point at the center of the project was selected (38.641081, -121.118832).

EPA = Environmental Protection Agency; NO_X = nitrogen oxides; PM2.5 = particulate matter less than 2.5 microns in diameter; ROG = reactive organic gases; SMAQMD = Sacramento Metropolitan Air Quality Management District

[a] Affected age ranges are shown. Other age ranges are available, but the endpoints and age ranges shown here are the ones used by the EPA in their health assessments. The age ranges are consistent with the epidemiological study that is the basis of the health function.

[b] Health effects are shown in terms of incidences of each health endpoint and how it compares to the base (2035 base year health effect incidences, or "background health incidence") values. Health effects are across the Northern California model domain and five-air-district region (rounded values are equivalent).

[c] The percent of background health incidence uses the mean incidence. The background health incidence is an estimate of the average number of people that are affected by the health endpoint in a given population over a given period of time. In this case, these background incidence rates cover the 5-air-district region (estimated 2035 population of 3,271,451 persons). Health incidence rates and other health data are typically collected by the government as well as the World Health Organization. The background incidence rates used here are obtained from BenMAP, as reported in SMAQMD's Minor Project Health Screening Tool, version 2.

[d] The total number of health incidences across the five-air-district region is calculated based on modeling data, as reported in SMAQMD's Minor Project Health Screening Tool, version 2. The information is presented to assist in providing overall health context.

[e] Less myocardial infarctions.

While the estimated health effects shown in Table 3.2-13 and the proportion of those effects relative to the regional and county background incidence are low, the model does not take into account population subgroups with greater vulnerabilities to air pollution, except in the analysis of age ranges for certain endpoints. As noted in SMAQMD's guidance, "the health effects of increased air pollution emissions may occur disproportionately in areas where the population is more susceptible to health effects from air pollution" (Ramboll 2020:20). The five determinants for increased susceptibility, as reported by the Centers for Disease Control and Prevention (2019), are genetics, behavior, environmental and physical influences, medical care, and social factors. The Public Health Alliance of Southern California has developed a Healthy Places Index to characterize local community conditions, including several of these determinants. These data can be used to compare the overall relative health vulnerability of geographic areas. Based on the Healthy Places Index, communities within the target service area for the project have relatively high levels of health-promoting community conditions (Public Health Alliance of Southern California 2022).

Ultimately, Sacramento and El Dorado Counties do not attain the ozone and PM ambient air quality standards (Table 3.2-4). Certain individuals residing in areas that do not meet the ambient air quality standards could be exposed to pollutant concentrations that cause or aggravate acute and/or chronic health conditions (e.g., asthma, lost work days, premature mortality), regardless of the project.

Localized Particulate Matter

During earthmoving activities required for construction, localized fugitive dust would be generated. The amount of dust generated by a project is highly variable and dependent on the size of the disturbed area at any given time, the amount of activity, soil conditions, and meteorological conditions. Despite this variability in emissions, SMAQMD (2021a:3-7) acknowledges that there are numerous control measures that can significantly reduce construction fugitive dust emissions. Mitigation Measure AQ-2b requires regular watering, covering of materials, and other practices that will reduce construction-related fugitive dust emissions by up to 75 percent, depending on the source. Depending on the strategies selected (e.g., advanced engine tiers), Mitigation Measure AQ-2a may also reduce exhaust related particulate matter. With Mitigation Measures AQ-2a and AQ-2b, neither PM2.5 nor PM10 emissions would exceed SMAQMD's thresholds of significance (see Table 3.2-8). Accordingly, localized PM emissions would be **less than significant with mitigation** and would not expose receptors to substantial pollutant concentrations or risks.

Asbestos

According to the California Department of Conservation (2006:43), metamorphic and igneous rocks that are moderately likely to contain NOA are present throughout the project site. Earthmoving activities required to construct land uses proposed under the project could therefore disturb NOA and expose nearby receptors to substantial pollutant concentrations. This is a significant impact before mitigation. Mitigation Measure AQ-3a is required to reduce impacts associated with the generation of fugitive dust that potentially contains NOA. Pursuant to the measure, if a site investigation determines that NOA is present on the project site, an asbestos dust mitigation plan would be prepared and implemented. Mitigation Measure AQ-3a is consistent with FPASP Mitigation Measure 3A.2-5, which requires an NOA assessment of the entire specific plan area. SMAQMD (2021a:5-10) guidance indicates that Mitigation Measure AQ-3a would reduce significant NOA exposure impacts to a less-than-significant level. Accordingly, this impact would be **less than significant with mitigation**.

Other Toxic Air Contaminants

Construction

Equipment and vehicles used during construction would generate DPM, potentially resulting in the exposure of nearby existing and future sensitive receptors to increased pollutant concentrations. Similarly, the micro-hospital constructed during Phase 2 may be exposed to DPM generated during implementation of Phase 3. The primary driver of health risk from DPM and all TACs is the concentration of a substance (i.e., the pollutant) and the duration of exposure. Cancer health risks associated with exposure to DPM are typically associated with chronic (long-term) exposure, in which a 30-year exposure period is assumed. In addition, DPM concentrations, and thus cancer health risks typically dissipate as a function of distance from the emissions source (California Air Resources Board 2005).

As discussed above in *Sensitive Receptors*, there is currently one residential land use approximately 880 feet southeast of the project site. Future development south of US 50 is expected to occur during project construction. Based on General Plan land use zoning, additional residential land uses will be constructed within 1,000 feet of the southern border of the master plan. Dignity Health will also be constructed to the east.

Air quality management agencies recognize that many variables, such as duration of the construction period, types of construction equipment, and the amount of onsite diesel-generated PM exhaust, can influence DPM concentrations and the potential for a project to result in increased health risk. Accurately quantifying DPM concentrations and predicting associated health risks requires detailed site-specific information on these and other parameters that are currently unavailable given the preliminary level of design for this programmatic analysis. Based on the mass emission results, the greatest potential for DPM emissions would occur during Phase 1 development and Phase 2 (Appendix E). As discussed further below for the Phase 1 development, construction activities during this phase would occur more than 1,000 feet from the nearest sensitive receptor and would therefore not expose receptors to substantial health risks. DPM generated during Phases 2 and 3, which would occur within 1,000 feet of residential and medical receptors, would be spread throughout 23.3 acres, as opposed to concentrated at a single location. However, depending on specific characteristics of Phases 2 and 3, along with their construction schedule and proximity to future receptors, there may be instances where DPM emissions could result in cancer or non-cancer health risks that exceed SMAQMD's thresholds, resulting in a potentially significant impact.

Mitigation Measure AQ-3b is required to reduce receptor exposure to construction-generated DPM during project construction. The measure includes restrictions on vehicle idling time and requires construction equipment be located as far as possible from receptors. The measure likewise encourages use of newer haul trucks and alternatively fueled equipment, as well as renewable diesel, pursuant to Measure T-6 in the City of Folsom's (2018) *Greenhouse Gas Emission Reduction Strategy*. Depending on the selection of strategies, Mitigation Measure AQ-2a may also achieve reductions in DPM and corresponding health risks. Finally, consistent with FPASP Mitigation Measure 3A.2-4a, Mitigation Measure AQ-3c is required. This measure requires UC Davis perform project-level construction HRAs for Phases 2 and 3 and develop a plan to reduce receptor exposure to DPM concentrations if health risks are predicted to exceed SMAQMD thresholds.

Project construction is expected to occur over a period of up to 20 years. Current local and state air quality regulations will substantially reduce the emissions intensity of equipment and vehicles over that time period (e.g., the Advanced Clean Truck Regulation requires all new sales of medium- and

heavy-duty trucks be zero-emission by 2045). Future regulations mandating engine electrification, alternative fuels, and other zero-emission strategies are expected given California's long-term carbon neutrality and climate change goals.[8] These regulations, coupled with Mitigation Measures AQ-2a, AQ-3b, and AQ-3c, will significantly reduce receptor exposure to DPM emissions generated by the project.

Despite these considerations, there may be instances where specific conditions over the 20-year construction of the project preclude the reduction of health risks below adopted thresholds. Therefore, health impacts from receptor exposure to construction-generated DPM are considered **significant and unavoidable**.

Operation

The project would maintain up to four emergency diesel generators. Loading docks that may be accessed by diesel-powered delivery trucks are proposed at the micro-hospital and ASC. An HRA was conducted to evaluate potential receptor exposure to DPM emissions from routine firing of backup emergency generators for testing and delivery vehicles. Potential risks were estimated at existing and future onsite and offsite receptors, as shown in Figure 3.2-2.

Table 3.2-14 presets the maximum estimated health risks at receptor locations from exposure to operational DPM emissions.

Table 3.2-14. Estimated Maximum Cancer and Hazard Risks from Operations-Generated DPM for the Project

Receptor Type	Cancer Risk (per million)	HI (unitless)
Existing		
Residential	<1	<1
New		
Residential	<1	<1
Medical (onsite, micro-surgery)	<1	<1
Medical (offsite, Dignity)	<1	<1
SMAQMD Threshold	10	1

Source: ICF modeling. All values have been rounded to the nearest whole number.
HI = hazard index

As shown in Table 3.2-14, operational sources of DPM emissions associated with the project are not predicted to result in cancer or non-cancer health risks above SMAQMD thresholds. While not required to achieve a less-than-significant finding, the project would comply with FPASP Mitigation Measure 3A.2-4b. The measure requires, among other things, idle reduction strategies and signage at commercial loading docks to reduce health risks from onsite diesel exhaust.

The micro-hospital developed under the project constitutes a new medical receptor that would be exposed to project-generated DPM (see Table 3.2-14) and ambient pollution. According to SMAQMD's (2021b) risk mapping tool, ambient cancer risk and PM2.5 concentrations measured at the proposed location of the new micro-hospital from vehicle emissions on US 50 and regional

[8] For example, Executive Order N-79-20 directs CARB to develop and propose strategies to achieve 100 percent zero-emission off-road vehicles and equipment operations by 2035.

railways are 27 cases per million and 0.87 microgram per cubic meter, respectively. The mapping tool does not account for emissions reductions achieved by vegetative buffers or building filtration (Sacramento Metropolitan Air Quality Management District 2020c:8). As shown in Figure 2-2, the project includes a dense oak woodland buffer along US 50. According to SMAQMD (2020c:13), vegetative buffers can alter pollutant transport, acting as a natural barrier to exposure. Installation of a landscaping buffer and use of oak trees is consistent with SMAQMD's (2017b) *Landscaping Guidance for Improving Air Quality near Roadways*. As a medical facility, the micro-hospital would maintain high-efficiency HVAC filters, which would substantially reduce inhalation exposure to ambient DPM. For example, modeling by Dillion and Dillion (2019:24) demonstrates an outdoor air filtration efficacy of 80 percent for hospital uses. Applying this factor to the ambient risk of 27 cases per million yields an adjusted risk of 5.4 per million, which is below SMAQMD's threshold. As discussed under *Environmental Setting*, VOCs from remediation activity on the nearby Aerojet General Corporation are also an existing ambient source of TACs. However, potential cancer and non-cancer risk levels from pollutant exposure are estimated at less than 1 per million and less than 0.01 HI (Ascent Environmental 2015:71).

Based on the above analysis, operation of the project would neither generate substantial TAC concentrations nor site new receptors in a location with existing ambient health risk concerns. Accordingly, this impact would be **less than significant**.

Phase 1, Medical Office Building

Regional Criteria Pollutants

As described under Impact AQ-2, neither construction nor operation of the Phase 1 development would generate criteria pollutants or precursors above SMAQMD or EDCAQMD thresholds with Mitigation Measures AQ-2a and AQ-2b. Phase 1 development would implement the sustainability principles described above for the project, which will reduce the project's contribution to the urban heat island effect. As such, Phase 1 development would not be expected to contribute a significant level of air pollution that would degrade regional air quality within the SVAB or MCAB. This impact is **less than significant with mitigation**.

Table 3.2-13 provides a conservative estimate of potential health effects associated with regional criteria pollutants generated by the project, inclusive of construction and operational emissions associated with Phase 1 development.

Localized Particulate Matter

During earthmoving activities required for construction, localized fugitive dust would be generated. Because PM concentrations emitted from low-level emission sources, such as grading and site disturbance, regularly decline as a function of distance from the emission source, actual concentrations at receptor locations, which are more than 1,000 feet from Phase 1 development, would be substantially reduced. Moreover, pursuant to SMAQMD guidance, UC Davis will implement Mitigation Measures AQ-2a and AQ-2b to control and reduce PM exhaust and fugitive dust emissions during construction. With Mitigation Measures AQ-2a and AQ-2b, neither PM2.5 nor PM10 emissions would exceed SMAQMD's thresholds of significance (see Table 3.2-12). Accordingly, localized PM emissions would be **less than significant with mitigation** and would not expose receptors to substantial pollutant concentrations or risks.

Asbestos

Metamorphic and igneous rocks that are moderately likely to contain NOA are present in the Phase 1 development area. Earthmoving activities required to construct Phase 1 could therefore disturb NOA and expose nearby receptors to substantial pollutant concentrations. This is a significant impact before mitigation. Mitigation Measure AQ-3a is required to reduce impacts associated with the generation of fugitive dust that potentially contains NOA. SMAQMD (2021a:5-10) guidance indicates that Mitigation Measure AQ-3a would reduce significant NOA exposure impacts to a less-than-significant level. Accordingly, this impact would be **less than significant with mitigation**.

Other Toxic Air Contaminants

As discussed in *Sensitive Receptors*, there are no existing receptors within 1,000 feet of the Phase 1 development. Future residential land uses are proposed south of the Phase 1 development, but these would be developed after Phase 1 is fully constructed. Analyses performed by CARB indicate that providing a separation of at least 1,000 feet from diesel sources and high-traffic areas would reduce exposure to air contaminants and decrease associated health impacts (California Air Resources Board 2005:8–10). This CARB study demonstrates that diesel concentrations and resultant health effects decline as a function of distance from the emission source. Because there are no receptors within 1,000 feet of the Phase 1 development, onsite construction activities would not expose receptors to substantial health risks.

While there are no receptors proximate to the construction site, residences are located along East Bidwell and north of US 50, which will be used as construction haul routes. Accordingly, an HRA was conducted to assess receptor exposure to DPM emissions generated by construction haul trucks. Table 3.2-15 presents the maximum estimated health risks predicted by this analysis.

Table 3.2-15. Estimated Maximum Cancer and Hazard Risks from DPM Generated by Offsite Construction Hauling for Phase 1 Development

Receptor Type	Cancer Risk (per million)	HI (unitless)
Residential	<1	<1
SMAQMD Threshold	10	1

Source: ICF modeling. All values have been rounded to the nearest whole number.
HI = hazard index; SMAQMD = Sacramento Metropolitan Air Quality Management District

As shown in Table 3.2-15, DPM emissions generated by haul trucks used during construction of the Phase 1 development are not predicted to result in cancer or non-cancer health risks above SMAQMD thresholds. Operation of the Phase 1 development does not include any substantial sources of TAC emissions (e.g., generators). Accordingly, this impact would be **less than significant.**

Mitigation Measures

Mitigation Measure AQ-2a: Reduce heavy-duty off-road equipment exhaust emissions

Refer to measure description under Impact AQ-2.

Mitigation Measure AQ-2b: Reduce construction-generated fugitive dust

Refer to measure description under Impact AQ-2.

Mitigation Measure AQ-3a: Perform a site investigation for naturally occurring asbestos

A site investigation will be performed to determine whether and where NOA is present in the soil and rock on the project site and/or areas that would be disturbed by the project. The site investigation will include the collection of soil and rock samples (three per acre) by a California registered geologist. If the site investigation determines that NOA is not present on the project site then UC Davis will submit a geologic exemption as allowed under Title 17, Section 93105, Asbestos Airborne Toxic Control Measure for Construction, Grading, Quarrying, and Surface Mining (Asbestos ATCM). If the site investigation determines that NOA is present on the project site, then UC Davis will submit an asbestos dust mitigation plan including but not limited to control measures required by the Asbestos ATCM for approval by SMAQMD. UC Davis will submit the plan to SMAQMD for review and approval before beginning any ground disturbance activity. SMAQMD approval of the plan must be received before ground disturbance occurs in any "areas moderately likely to contain NOA," as determined by the map in California Geological Survey's report titled *Relative Likelihood for the Presence of Naturally Occurring Asbestos in Eastern Sacramento County, California*. Upon approval of the asbestos dust mitigation plan by SMAQMD, UC Davis will ensure that construction contractors implement the terms of the plan throughout the construction period. This measure will be fully funded by UC Davis.

Mitigation Measure AQ-3b: Reduce receptor exposure to construction-generated diesel particulate matter

Buildings constructed under the project will require the prime construction contractor to implement the following measures to reduce receptor exposure to DPM concentrations and associated health risks.

- Use renewable diesel fuel in all heavy-duty off-road diesel-fueled equipment. Renewable diesel must meet the most recent American Society of Testing and Materials D975 specification for ultra low sulfur diesel and have a carbon intensity no greater than 50 percent of diesel with the lowest carbon intensity among petroleum diesel fuels sold in California.
- Minimize idling time either by shutting equipment off when not in use or reducing the time of idling to 5 minutes (13 CCR Sections 2449(d)(3) and 2485). Provide clear signage that posts this requirement for workers at the entrances to the site.
- Provide current certificate(s) of compliance for CARB's In-Use Off-Road Diesel-Fueled Fleets Regulation (13 CCR Sections 2449 and 2449.1).
- Maintain all construction equipment in proper working condition according to manufacturer's specifications. The equipment must be checked by a certified mechanic and determined to be running in proper condition before it is operated.
- Locate operation of diesel-powered construction equipment as far away from sensitive receptors as possible.
- Establish staging areas for the construction equipment that are as distant as possible from offsite and onsite receptors.
- Where feasible, use haul trucks with on-road engines instead of off-road engines even for onsite hauling.

- Use electric, compressed natural gas, or other alternatively fueled construction equipment instead of the diesel counterparts, where available.

Mitigation Measure AQ-3c: Prepare a health risk assessment for future development located within 1,000 feet of sensitive receptors

UC Davis will conduct a project-level construction HRA for Phases 2 and 3 if sensitive receptors (as defined by SMAQMD) are determined to be within 1,000 feet of the construction activity. The HRA for construction of Phase 3 must consider potential health risks to the onsite ambulatory surgery center, which will be constructed during Phase 2. If the HRA demonstrates, to the satisfaction of the University, that the health risk exposures to receptors will be less than SMAQMD's thresholds, then additional mitigation would be unnecessary. However, if the HRA demonstrates that health risks would exceed SMAQMD's thresholds, additional feasible onsite (e.g., mandates for engine electrification) and offsite (e.g., financial assistance for high-efficiency air filters) mitigation will be analyzed by UC Davis to help reduce risks to the greatest extent practicable. The HRAs will be submitted to the University for review and approval before the approval of any grading.

Impact AQ-4: Other emissions (such as those leading to odors) adversely affecting a substantial number of people (less than significant)

Summary of Impact AQ-4 by Component

Component	Level of Significance before Mitigation	Mitigation Measures Required	Level of Significance after Mitigation
Folsom Center for Health Master Plan	LTS	None	N/A
Phase 1, Medical Office Building	LTS	None	N/A

LTS = less than significant; N/A = not applicable

Folsom Center for Health Master Plan

SMAQMD (2021a:7-2) considers wastewater treatment plants, landfills, composting and recycling facilities, petroleum refineries, chemical manufacturing plants, painting/coating operations, rendering plants, and food packaging facilities as potential odor-emitting facilities. The project does not include any of these facilities. Accordingly, buffer zones or facility-specific odor minimization policies are not needed.

Construction activities as part of the project would require the use of diesel-fueled equipment, architectural coatings, and asphalt paving, all of which can have an associated odor. However, these odors are generally not pervasive enough to cause objectionable odors affecting a substantial number of people. Moreover, while construction activities would occur over a relatively long period (i.e., up to 20 years), odors resulting from construction activity would occur in different areas and at different times over the 34.6-acre parcel. As discussed under *Sensitive Receptors*, there is only one existing residential receptor within 1,000 feet of the project, with limited future receptors proposed in the immediate vicinity. Consequently, the project would not cause objectionable odors.

Operational odors related to implementation of the project would be minimal and principally associated with diesel-fueled delivery trucks. Like exhaust-related odors during construction, any

potential odors from delivery trucks would be localized and transitory. The new micro-hospital would not be located near any potentially significant sources of odors. The nearest potentially odorous sources are the El Dorado Disposal Recycling Center and El Dorado Hills Wastewater Treatment Facility, which are more than 3 miles from the micro-hospital.

Based on the above analysis, the project would not cause odor effects or expose receptors to adverse odors. The impact would be **less than significant**. While not required to achieve a less-than-significant finding, the project would comply with FPASP Mitigation Measure 3A.2-5. The measure requires, among other things, idle reduction strategies and signage at commercial loading docks to reduce odors from diesel exhaust.

Phase 1, Medical Office Building

As a MOB, no unique or substantial odors are anticipated as a result of Phase 1 development. There are no sensitive receptors within 1,000 feet of Phase 1 development, and any potential odors generated during construction would be limited in duration and quickly dispersed. The impact would be **less than significant**.

Mitigation Measures

No mitigation is required.

3.3 Biological Resources

This section describes the regulatory and environmental setting for biological resources on the UC Davis Folsom Center for Health Master Plan (project) site and in the project vicinity, analyzes effects on biological resources that would result from the project, and provides mitigation measures, if applicable, to reduce the effects of any significant impacts.

Written comments received on the Notice of Preparation include letters from California Department of Fish and Wildlife (CDFW) and Central Valley Regional Water Quality Control Board (Regional Water Board). The letter from CDFW requests that analysis in the EIR includes assessment of biological resources including habitat types and a recent inventory of rare, threatened, endangered, and other sensitive species; analysis of direct, indirect and cumulative impacts on biological resources; and mitigation measures for impacts on biological resources that consider fully protected species and nesting birds. With reference to biological resources, the letter from the Central Valley Regional Water Board lists potential permitting requirements, including a Construction General Permit for disturbance of one or more acres of soil; Clean Water Act (CWA) Section 401 and 404 permits if the project would place fill in waters of the United States; waste discharge requirements, if the project will place fill in waters of the state; and a National Pollutant Discharge Elimination System (NPDES) permit if project discharges could affect water quality in waters of the state.

3.3.1 Existing Conditions

Regulatory Setting

This section summarizes key University of California (UC), federal, state, and regional and local regulations and laws relevant to biological resources on the project site. The project site is located within the Folsom Plan Area Specific Plan (FPASP) and is part of the Carpenter Ranch Project area and the Westland Eagle Specific Plan area. Permits and authorizations have been issued for the FPASP and Carpenter Ranch Project.

University of California

As noted in Section 3.0.2, *University of California Autonomy*, UC, as a constitutionally created state entity, is not subject to municipal regulations of surrounding local governments for uses on property owned or controlled by UC that are in furtherance of the University's educational purposes. UC Davis may consider, for coordination purposes, aspects of local plans and policies for the communities surrounding the project site when it is appropriate and feasible, but it is not bound by those plans and policies in its planning efforts.

Federal

Federal Endangered Species Act

Pursuant to the federal Endangered Species Act (ESA) (16 United States Code Section 1531 et seq.), the U.S. Fish and Wildlife Service (USFWS) regulates the "taking" of species listed in the ESA as threatened or endangered. USFWS and the U.S. Army Corps of Engineers (USACE) completed Section 7 consultation under the ESA for the FPASP and USFWS issued a Biological Opinion (BO) on April 2,

2014 (File No. 81420-2010-F-0620-1). Conservation measures, including compensatory mitigation, identified in the BO for vernal pool fairy shrimp and vernal pool tadpole shrimp are applicable to the project site. Compensatory mitigation for vernal pool fairy shrimp and vernal pool tadpole shrimp is required to be implemented by the master developer (seller) for the Carpenter Ranch Project, which includes the project site.

Clean Water Act

All projects with a federal component that may affect state water quality (including projects that require federal agency approval, such as a Section 404 permit) must comply with CWA Section 401. Waters of the United States, including wetlands, are protected under Section 404 of the CWA. Any activity that involves a discharge of dredged or fill material into waters of the United States, including wetlands, is subject to regulation by USACE. CWA Section 402 regulates construction-related stormwater discharges to surface waters through the NPDES program and requires an NPDES permit for projects that disturb more than 1 acre of land. The NPDES permitting process requires preparation and implementation of a stormwater pollution prevention plan (SWPPP).

USACE issued a CWA Section 404 Individual Permit for the Carpenter Ranch Project on July 25, 2014, and amended it on July 11, 2019 (SPK-2006-00984), allowing the fill of all federally regulated aquatic resources on the project site. The Central Valley Regional Water Board issued a CWA Section 401 Water Quality Certification for the Carpenter Ranch Project on July 11, 2014 (WDID#5A34CR00533). Compensatory mitigation for the permanent loss of waters of the United States is required to be implemented by the master developer (seller) for the Carpenter Ranch Project, which includes the project site.

Migratory Bird Treaty Act

The Migratory Bird Treaty Act (MBTA) provides that it is unlawful, except as permitted by regulations, to pursue, take, or kill any migratory bird, or any part, nest, or egg of any such bird. Take does not include habitat destruction or alteration, if there is not a direct taking of birds, nests, eggs, or parts thereof. The current list of species protected by the MBTA can be found in Title 50 of the Code of Federal Regulations (CFR), Section 10.13. The list includes nearly all birds that are native to the United States. Mitigation measures in the FPASP EIR/EIS will be implemented prior to and during mass grading to comply with the MBTA. Mitigation measures identified in this EIR will comply with the MBTA during implementation of the project.

State

California Endangered Species Act

Pursuant to the California Endangered Species Act (CESA), a permit from CDFW is required for projects that could result in the take of a plant or animal species that is listed by the state as threatened or endangered. Authorization for take of state-listed species can be obtained through a California Fish and Game Code (CFGC) Section 2081 incidental take permit. No state-listed species are expected to occupy the project site. The project site represents suitable foraging habitat the state-threatened Swainson's hawk and tricolored blackbird, both known to nest within several miles of the project site. Compensatory mitigation for loss of foraging habitat for Swainson's hawk is included in the FPASP EIR/EIS and a plan-wide Swainson's Hawk Mitigation Plan was prepared by ECORP (2017) and approved by the City of Folsom. Subsequent to the final FPASP EIR/EIS and a Master Streambed Alteration Agreement (MSAA) issued by CDFW for the FPASP, tricolored

blackbirds were listed as threatened in 2018. As part of the sub-notification process for individual projects under the MSAA, CDFW has been requiring compensatory mitigation for loss of tricolored blackbird foraging habitat. Compensatory mitigation for Swainson's hawk and tricolored blackbird foraging habitat loss is required to be implemented by the master developer prior to mass grading.

California Fish and Game Code Section 1600

CDFW regulates activities that would interfere with the natural flow of—or substantially alter the channel, bed, or bank of—a lake, river, or stream, including disturbance of riparian vegetation, under CFGC Sections 1600–1616. Under Section 2602, CDFW requires a lake or streambed alteration agreement permit for these activities. An MSAA was issued for the FPASP in 2014 (Notification No. 1600-2012-0198-R2), which requires sub-notifications prior to grading of individual projects in the FPASP. A sub-notification for the Carpenter Ranch Project, which includes the project site, was submitted to CDFW.

California Fish and Game Code Sections 3503 and 3503.5

Section 3503 of the CFGC states that it is unlawful to take, possess, or needlessly destroy the nest or eggs of any bird. Section 3503.5 of the CFGC states that it is unlawful to take, possess, or destroy any raptors (i.e., species in the orders *Falconiformes* and *Strigiformes*), including their nests or eggs. Mitigation measures in the FPASP EIR/EIS will be implemented prior to and during mass grading to comply with Sections 3503 and 3503.5 of the CFGC. Mitigation measures identified in this EIR will comply with the Sections 3503 and 3503.5 of the CFGC during implementation of the project.

Regional and Local

Because the UC is not subject to municipal regulations of surrounding local governments, adherence to the Sacramento County General Plan policies, Sacramento County Swainson's Hawk Ordinance, or City of Folsom General Plan policies would not be required for the project.

Environmental Setting

This section includes the environmental setting relevant to biological resources on the project site.

Methods for Documenting Existing Biological Conditions

To evaluate and describe existing biological resources on the project site and identify potential effects of the project on those resources, ICF biologists reviewed existing databases and species lists for the project site and vicinity. The data reviewed included the following sources.

- CDFW's California Natural Diversity Database (CNDDB) record search within the Clarksville U.S. Geological Survey (USGS) and nine surrounding USGS 7.5-minute quadrangles (California Department of Fish and Wildlife 2021).
- USFWS list of federally endangered, threatened, proposed, or candidate species evaluated for the project, using a database search of the USFWS Information, Planning, and Conservation System for the project site (U.S. Fish and Wildlife Service 2022).
- California Native Plant Society (CNPS) Online Inventory of Rare and Endangered Plants record search for the Clarksville and nine surrounding USGS 7.5-minute quadrangles (California Native Plant Society 2021).

- *Folsom South of U.S. Highway 50 Specific Plan DEIR/DEIS* (AECOM and RMC Water and Environment 2010).
- *Westland Eagle Specific Plan Amendment Addendum and Environmental Checklist* (Ascent Environmental 2015).
- *Due Diligence Review for the UC Davis Property within the Folsom Plan Area Specific Plan* (ECORP Consulting 2021).

Vegetation Communities and Land Cover Types

The 34.6-acre project site is an area of grazed annual grassland that supports several vernal pools and a seasonal wetland swale. The project site is currently vacant, and there are no structures or trees existing on the site. The project site will be mass graded as a part of a separate project approved under the FPASP. Grading of the site will proceed under Section 404 permit SPK-2006-00984, modified on July 11, 2019. Grading will remove the existing vegetation and wetlands. The schedule for site grading is described in Chapter 2, *Project Description*.

Soils

There are two soil map units in the project site: Argonaut-Auburn complex, 3 to 8 percent slopes (107) and Whiterock loam, 3 to 30 percent slopes (237) (Natural Resources Conservation Service 2021). None of these map units is prime farmland, and none of the primary or minor components is hydric. Due to extensive grading of the project site, an intact soil profile may not be present, and topsoil is likely to be absent or highly disturbed. Refer to Section 3.6, *Geology, Soils, and Seismicity*, for further information regarding geologic conditions of the project site.

Aquatic Resources and Sensitive Natural Communities

All aquatic resources and natural communities are described in the FPASP EIR/EIS. The project site supports aquatic resources, including vernal pool and seasonal wetland swale. No sensitive natural communities occur on the project site. The project site will be graded prior to project construction as part of a separate project, which will remove the aquatic resources.

Special-Status Species

Special-status species are plants and animals in the following categories.

- Listed or proposed for listing as threatened or endangered under the ESA (50 CFR Section 17.12 [listed plants] and various notices in the *Federal Register* [proposed species])
- Listed as candidates for possible future listing (84 *Federal Register* 54732, October 10, 2019)
- Listed or candidates for listing by the State of California as threatened or endangered under CESA (14 California Code of Regulations Section 670.5)
- Listed as Fully Protected under the CFGC (Sections 3511 [birds], 4700 [mammals], and 5050 [reptiles and amphibians])
- Animals identified by CDFW as species of special concern on the Special Animals List
- Plants listed as rare under the California Native Plant Protection Act (CFGC Section 1900 et seq.)

- Plants considered to be "rare, threatened, or endangered in California" and assigned a California Rare Plant Rank (CRPR) (California Department of Fish and Wildlife 2021; California Native Plant Society 2021); the CDFW system includes rarity and endangerment ranks for categorizing plant species of concern, which are summarized as follows:
    - CRPR 1A: Plants are presumed to be extinct in California and either rare or extinct elsewhere
    - CRPR 1B: Plants that are rare, threatened, or endangered in California and elsewhere
    - CRPR 2: Plants that are extirpated, rare, threatened, or endangered in California but more common elsewhere
    - CRPR 3: Plants about which more information is needed (a review list)
    - CRPR 4: Plants of limited distribution (a watch list)
- Considered a locally significant species; that is, a species that is not rare from a statewide perspective but is rare or uncommon in a local context such as within a county or region (California Environmental Quality Act [CEQA] Section 15125(c)) or is so designated in local or regional plans, policies, or ordinances (CEQA Guidelines, Appendix G)
- Otherwise meets the definition of rare or endangered under CEQA Sections 15380 (b) and (d)

Lists of special-status species with potential to occur on the project site were compiled based on queries of the CNDDB (California Department of Fish and Wildlife 2021), species lists maintained by USFWS (U.S. Fish and Wildlife Service 2022), and the CNPS Online Inventory of Rare and Endangered Plants (California Native Plant Society 2021).

Special-Status Plants

Queries of the CNDDB and CNPS online rare plant inventory returned records of 31 special-status plant species that occur within the Clarksville and nine surrounding USGS 7.5-minute quadrangles (California Department of Fish and Wildlife 2021; California Native Plant Society 2021). According to the Section 7 consultation information prepared for the Folsom South Project Section 404 individual permit, focused surveys for special-status plants were conducted in May and June 2006 in an area that included the project site and again on the Carpenter Ranch property in April, May, and June 2009 (AECOM and RMC Water and Environment 2010). No special-status plants were found during either of these surveys. As part of CEQA compliance under the FPASP EIR/EIS, the City of Folsom will require updated special-status plant surveys prior to approval of grading plans and any ground disturbance of the project site.

Special-Status Wildlife

Review of existing information including environmental documents prepared for the Carpenter Ranch Project and queries of the CNDDB and USFWS species lists identified the following eight special-status wildlife species that have the potential to occur on the project site based on the presence of suitable habitat and the species current geographical range.

- Vernal pool fairy shrimp (*Branchinecta lynchii*)—federally threatened
- Vernal pool tadpole shrimp (*Lepidurus packardi*)—federally endangered
- Western spadefoot toad (*Spea hammondii*)—species of special concern

- Tricolored blackbird (foraging only) (*Agelaius tricolor*)—state threatened
- Grasshopper sparrow (*Ammodramus savannarum*)—species of special concern
- Swainson's hawk (foraging only) (*Buteo swainsoni*)—state threatened
- Burrowing owl (*Athene cunicularia*)—species of special concern
- American badger (*Taxidea taxus*)—species of special concern

Additionally, grassland habitat on the project site has the potential to support nesting and foraging migratory birds and raptors protected under the MBTA.

Wildlife Movement Corridors

Wildlife corridors are pathways or habitat linkages that connect discrete areas of natural open space otherwise separated or fragmented by topography, changes in vegetation, and other natural or manmade obstacles such as urbanization.

3.3.2 Environmental Impacts

This section describes the environmental impacts associated with biological resources that could result from the Folsom Center for Health Master Plan. It describes the methods used to determine the effects of the project and lists the thresholds used to conclude whether an impact would be significant. Measures to mitigate (i.e., avoid, minimize, rectify, reduce, eliminate, or compensate for) any significant impacts are provided as needed.

Impacts of Site Grading Assessed in Previous EIR

Impacts on biological resources that would result from site preparation and mass grading are discussed under a separate project approved by the City of Folsom and assessed in the FPASP EIR/EIS and the 2015 Westlake Eagle Addendum (SCH No. 2008092051), which are incorporated into this document by reference.

Mitigation for sensitive biological resources, including waters of the United States, waters of the state, vernal pool invertebrates, western spadefoot toad, Swainson's hawk, tricolored blackbird, and other nesting birds and raptors, is required as part of the FPASP is associated with site preparation to the condition described in the development agreement. In order to address potential impacts relative to degradation of habitat for special-status species such as valley elderberry longhorn beetle, and Swainson's hawk, as well as special status plant populations and habitat; the following mitigation measures from the FPASP EIR/EIS and the Westlake Eagle Addendum are required to be implemented prior to this project (refer to Chapter 2 of this EIR):

- FPASP Mitigation Measure 3A.3-1a: Design Stormwater Drainage Plans and Erosion and Sediment Control Plans to Avoid and Minimize Erosion and Runoff to All Wetlands and Other Waters That Are to Remain on the SPA and Use Low Impact Development Features.
- FPASP Mitigation Measure 3A.3-1b: Secure Clean Water Act Section 404 Permit and Implement All Permit Conditions; Ensure No Net Loss of Functions of Wetland, Other Waters of the U.S., and Waters of the State
- FPASP Mitigation Measure 3A.3-2a: Secure Take Authorization for Federally Listed Vernal Pool Invertebrates and Implement All Permit Conditions

- FPASP Mitigation Measure 3A.3-2b: Avoid Direct Loss of Swainson's Hawk and Other Raptor Nests
- FPASP Mitigation Measure 3A.3-2c: Prepare and Implement a Swainson's Hawk Mitigation Plan
- FPASP Mitigation Measure 3A.3-2e: Avoid and Minimize Impacts to Tricolored Blackbird Nesting Colonies
- FPASP Mitigation Measure 3A.3-3: Conduct Special-Status Plant Surveys; Implement Avoidance and Mitigation Measures or Compensatory Mitigation
- FPASP Mitigation Measure 3A.3-4a: Secure and Implement Section 1602 Streambed Alteration Agreement
- Westlake Mitigation Measure 4.4-1: Conduct environmental awareness training for construction employees
- Westlake Mitigation Measure 4.4-2: Conduct preconstruction western spadefoot survey
- Westlake Mitigation Measure 4.4-4: Conduct preconstruction Swainson's hawk and other raptor surveys
- Westlake Mitigation Measure 4.4-5: Prepare and implement and Swainson's hawk mitigation plan
- Westlake Mitigation Measure 4.4-6: Conduct preconstruction burrowing owl survey
- Westlake Mitigation Measure 4.4-7: Preconstruction nesting bird survey

As discussed in the Addendum, additional information became available after certification of the FPASP EIR/EIS, including a BO for the FPASP, one 401 permit, and two 404 permits. The BO and permits include conditions relating to special-status species. These changes were required due to offsite improvements that would be implemented by the California Department of Transportation. Mitigation Measure 3A.3-1a requires the seller (master developer) to create storm water drainage, erosion, and sediment control plans to protect wetland areas. Mitigation Measure 3A.3-1b requires the seller (master developer) to implement the existing Section 401 and 404 permits and certifications and Mitigation Measure 3A.3-4a would require the applicant to amend and implement the Section 1602 MSAA to address potential impacts on riparian habitat. With Mitigation Measures 3A.3-1 a, 3A.3-1b, 3A.3-4a, and 3A.3-4b (which replace EIR/EIS Mitigation Measures 3A.3-1a, 3A.3-1b, and 3 A.3-4a, for the FPASP), the mass grading would have a less-than-significant impact on riparian habitat.

Methods for Analysis

Focus of this EIR Analysis

Based on the types of uses and activities that occur and would occur on the project site under the Master Plan, this analysis focuses on the potential impacts associated with the conversion of undeveloped land to a developed condition and potential additional direct and indirect impacts on species as a result of construction activities.

Impacts on biological resources that would result from site preparation and mass grading are discussed under a separate project approved by the City of Folsom and assessed in the FPASP EIR/EIS and the 2015 Addendum, as discussed above.

Assumptions

As described in Section 1.2, *Relationship to the Folsom South of US 50 Specific Plan and the FPASP EIR/EIS*, of this EIR, UC Davis is acquiring a mass-graded site with accommodations for basic infrastructure as detailed in the FPASP EIR/EIS. Infrastructure improvements are currently underway, and mass grading of the 34.6-acre project site is expected to begin in 2022. The FPASP EIR/EIS required the developer to implement specific mitigation for CEQA impacts as well as the impacts on wetlands and waters of the United States, and these mitigation measures have been implemented for those impacts associated with site preparation. Site preparation is not a part of the project and impacts on biological resources that would result from site preparation and mass grading are being implemented under a separate project. Accordingly, the analysis in this EIR of impacts on biological resources makes the following assumptions.

- Alder Creek Parkway will be constructed on the south side of the project site prior to initiation of project construction.
- No sensitive natural communities or special-status plants will exist on the project site after mass grading has been conducted. All impacts on sensitive natural communities and special-status plants are part of the FPASP and have been addressed and mitigated in the FPASP EIR/EIS and Addendum.
- Impacts on regulated aquatic features are part of the FPASP and have been addressed and mitigated in the FPASP EIR/EIS and Addendum. Development of the project site would not result in additional impacts on regulated aquatic features. Any ephemeral ditches on the project site that remain after the mass grading were excavated in upland habitat, carry only ephemeral flow, are not directly tributary to any creeks, and do not connect to any traditional navigable water; therefore, the ditches are not considered waters of the United States or waters of the state.
- The project would require its own SWPPP for construction activities of all phases of the Master Plan, including the medical office building (MOB).
- Storm drainage onsite would be through a constructed dry creek bed, designed to emulate natural creek beds. The storm drainage plan designs the creek bed to flow under roadways in culverts and under walkways below footbridges. The creek bed widens into pond or basin features at certain locations, which serve to filter and infiltrate stormwater. Overflow at these ponds and basins would be connected to the municipal storm sewer system via underground pipes.

Thresholds of Significance

In accordance with Appendix G of the CEQA Guidelines, the project would be considered to have a significant effect if it would result in any of the conditions listed below.

- A substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the CDFW or USFWS.
- A substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations, or by the CDFW or USFWS.

- A substantial adverse effect on state- or federally protected wetlands or non-wetland waters (e.g., marshes, vernal pools, coastal wetlands) through direct removal, filling, hydrological interruption, or other means.
- Substantial interference with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impedance of the use of native wildlife nursery sites.
- Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance.
- Conflict with the provisions of an adopted habitat conservation plan, natural community conservation plan, or other approved local, regional, or state habitat conservation plan.

Impacts and Mitigation Measures

Impact BIO-1: Potential to result in a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service (less than significant with mitigation)

Summary of Impact BIO-1 by Component

Component	Level of Significance before Mitigation	Mitigation Measures Required	Level of Significance after Mitigation
Folsom Center for Health Master Plan	S	BIO-1a BIO-1b BIO-1c	LTS
Phase 1, Medical Office Building	S	BIO-1a BIO-1c	LTS

LTS = less than significant; S = significant

Folsom Center for Health Master Plan

The FPASP EIR/EIS and Addendum evaluated impacts on special-status plants and special-status wildlife species that could occur within aquatic (vernal pool and seasonal wetland swale) and upland habitats (grassland) on the project site and concluded that special-status species could be substantially affected by the FPASP; however, no special-status species have been previously identified on the project site during species-focused surveys (ECORP Consulting 2021). Site preparation, including mass grading, to support development of the project site would remove or modify potential habitat for up to 13 special-status plants, vernal pool fairy shrimp, vernal pool tadpole shrimp, western spadefoot toad, American badger, burrowing owl, and foraging habitat for Swainson's hawk, tricolored blackbird, and other migratory birds and raptors. As described in Section 1.2, site preparation/mass grading will be performed under a separate project approved by the City of Folsom prior to implementation of the project and is not part of this project.

Potentially significant impacts on special-status plants and wildlife associated with site preparation/mass grading are being mitigated to a less-than-significant level as part of the separate project with applicable measures from the FPASP EIR/EIS and Westlake Eagle Addendum to avoid, minimize, and compensate for impacts on special-status plants, vernal pool fairy shrimp, vernal pool tadpole shrimp, western spadefoot toad, Swainson's hawk, tricolored blackbird, and other nesting

birds and raptors (i.e., FPASP Mitigation Measures 3A.3-2a, 3A.3-2b, 3A.3-2c, 3A.3-3, and Westlake 4.4-1, 4.4-2, and 4.4-7). The separate development project will also comply with all applicable permits issued under the FPASP and for the Carpenter Ranch Project, which overlaps with the project site, including USACE CWA Section 404 permit (SPK-2006-00984, as amended), a USFWS BO (File No. 81420-2010-F-0620-1), RWQCB CWA Section 401 permit (WDID#5A34CR00533), and CDFW MSAA (Notification No. 1600-2012-0198-R2). All required compensatory mitigation associated with applicable permits covering the project site, including mitigation for the loss of vernal pool species habitat, Swainson's hawk foraging habitat, and tricolored blackbird foraging habitat, has been acquired and there are no outstanding compensatory mitigation obligations.

Following site preparation and mass grading of the project site, future development activities associated with the Master Plan would result in new construction of various buildings and facilities, as well as installation of landscaping and drainage systems, throughout the 34.6-acre project site. Development activities associated with the Master Plan would occur in phases over a 20-year period. During the 20-year Master Plan period, undeveloped portions of the project site that remain undisturbed for an extended period could become inhabited by common wildlife and plant species typically found in ruderal and disturbed habitats. Because the project site is part of a larger development plan associated with the FPASP, it is anticipated that these small areas of undeveloped habitat within the project site will abut existing developed areas that will be subject to ongoing disturbances and will be isolated from other natural habitats; therefore, the project site is unlikely to become inhabited by special-status plants and wildlife following mass grading. Therefore, no potentially significant impacts on special-status plants or wildlife from the project are anticipated.

Some species of birds and raptors can become acclimated to human disturbances and noise and nest in patches of ruderal habitat, in landscape vegetation, or on existing built structures (i.e., swallows). Construction activities associated with the project, such as ground disturbance, vegetation removal, modification of existing built structures, construction equipment use, and general presence of active construction crews, could disturb nesting migratory birds and raptors.

Additionally, bird mortality could occur as a result of collisions with newly constructed buildings within a currently undeveloped area as part of the Master Plan. Collisions with glass claim the lives of hundreds of millions of birds each year in the United States (American Bird Conservancy 2015). Birds migrating through or foraging in the vicinity of constructed buildings could see reflections of the surrounding landscape within the building's windows (e.g., sky, clouds, vegetation) causing them to fly into and collide with the windows.

The Master Plan would not be in full compliance with the MBTA and CFGC Sections 3503, 35.03.5 or 3511 if it resulted in construction-related disturbances and installation of new building structures, that result in nest abandonment or failure, or mortality of adults, chicks or eggs of migratory birds and raptors. Loss or disturbance of a large number of migratory birds and raptors would be a significant impact. Mitigation Measures BIO-1a, BIO-1b, and BIO-1c would reduce this impact to a less-than-significant level. Therefore, the impact would be **less than significant with mitigation**.

Phase 1, Medical Office Building

Phase 1 development for the MOB element would be conducted following mass grading activities within 11.6 acres of the overall 34.6-acre project site. Impacts on special-status plants and wildlife associated with mass grading of the project site are part of a separate project and would be subject to all applicable mitigation measures associated with the FPASP EIR/EIS and Westlake Eagle Addendum, as well as all applicable state and federal agency permits. Because all potential habitat

for special-status plants and wildlife would be permanently modified and mitigated by the separate project approved by the FPASP, Phase 1 development is not anticipated to result in significant impacts on special-status plants or wildlife.

Potential impacts on migratory birds and raptors that could nest on or adjacent to the project site or migrate through the project site are similar to those described for the Master Plan for ground- and vegetation-nesting and migratory birds and raptors. No impacts on structure-nesting birds are anticipated because there are no existing structures present within or adjacent to the Phase 1 MOB element. Mitigation Measures BIO-1a and BIO-1c would reduce the potential impacts on migratory birds and raptors from Phase 1 to a less-than-significant level. The impact would be **less than significant with mitigation**.

Mitigation Measures

Mitigation Measure BIO-1a: Conduct preconstruction surveys for ground and vegetation nesting migratory birds and raptors, and establish protective buffers

For any activities under the Folsom Center for Health Master Plan that would require ground disturbance or vegetation removal (i.e., trees, shrubs, and ruderal vegetation) or would result in construction disturbances in the vicinity of suitable nesting habitat, the following measures will be implemented prior to initiation of construction to avoid and minimize impacts on nesting migratory birds and raptors, and to avoid violation of the MBTA and CFGC Sections 3503, 3503.5, and 3511.

- For construction activities that occur during the nesting season for migratory birds and raptors (generally February 1 through August 31), UC Davis will retain a qualified wildlife biologist familiar with the nesting behavior of bird species that occur in the project site to conduct a preconstruction nesting bird survey. The nesting bird surveys will be conducted no less than 14 days prior to vegetation removal or construction disturbance activities near nesting habitat. The survey will include a search of all trees and shrubs, and ruderal or graded areas that provide suitable nesting habitat for birds and raptors in the construction disturbance area. In addition, a 600-foot area around the construction area will be surveyed for nesting raptors and a 100-foot area around the construction area will be surveyed for songbirds.
- If no active bird or raptor nests are detected during the preconstruction surveys, then no additional measures are required. If an active nest is found in the survey area, a no-disturbance buffer will be established to avoid disturbance or destruction of the nest site until the end of the breeding season (generally August 31) or until after a qualified wildlife biologist determines that the young have fledged and moved out of the construction area (this date varies by species). The extent of these buffers will be determined by a qualified biologist in coordination with any applicable agencies (as determined by species) and will depend on the level of noise or construction disturbance taking place, the line of sight between the nest and the disturbance, ambient levels of noise and other non-project disturbances, and other topographical or artificial barriers. Suitable buffer distances may vary between species; however, a minimum of 50 feet for songbirds and 300 feet for raptors is typical. In developed habitats, buffer areas may be adjusted based on presence of existing barriers.

Mitigation Measure BIO-1b: Modify existing structures during the non-breeding season for structure-nesting migratory birds or conduct preconstruction surveys and implement exclusion measures to deter nesting

For any projects under the Master Plan that would modify any existing built structures, the following measures will be implemented prior to initiation of construction to avoid and minimize impacts on structure-nesting migratory birds, and to avoid violation of the MBTA and CFGC Section 3503.

- Conduct building modification activities during the non-breeding season for structure-nesting migratory birds (generally September 1 through January 31). If this is not possible, UC Davis will implement the following avoidance measures.
    - Prior to the start of each phase of construction anticipated to occur during the migratory bird breeding season (generally February through August), UC Davis will retain a qualified wildlife biologist to thoroughly inspect structures that would be modified or disturbed to locate remnant bird nests. It is preferable to perform this survey in the non-breeding season (September 1 through January 31) so that if nests are found and are determined to be inactive, they may be removed.
    - After inactive nests are removed and prior to construction that would occur between February 1 and August 31, known or potential nesting areas on or within the building structure to be modified or demolished will be covered with a suitable exclusion material that will prevent birds from nesting (i.e., 0.5- to 0.75-inch mesh netting, plastic tarp, or other suitable material safe for wildlife). UC Davis will hire a qualified wildlife management specialist experienced with installation of bird exclusion materials to ensure that exclusion devices are properly installed and will avoid inadvertent entrapment of migratory birds. All exclusion devices will be installed before February 1 and will be monitored throughout the breeding season (typically several times a week). The exclusion material will be anchored so that birds cannot attach their nests to the structures through gaps in a net.
    - If exclusion material is not installed on structures prior to February 1 and migratory birds colonize a structure, modification to that portion of the structure may not occur until after August 31, or until a qualified biologist has determined that the young have fledged and the nest is no longer in use.
    - If surveys determine that no active bird nests are present within existing structures to be modified and appropriate steps are taken to prevent migratory birds from constructing new nests as described in the preceding measures, work can proceed at any time of the year.

Mitigation Measure BIO-1c: Design new building facades and structures to minimize bird collisions

Proposed building structures will implement "bird-friendly" design strategies from the American Bird Conservancy's *Bird-Friendly Building Design* (American Bird Conservancy 2015) that provides state-of-the-art guidance on how to meet bird-friendly requirements.

Building specific design considerations to minimize bird collisions include, but are not limited to, the use of:

- Ultraviolet patterned glass, fritted glass, and low reflectance, opaque glass such as spandrel glass
- Window films or solutions applied to interior glass, such as interior window shades, or a combination thereof
- Low-level landscaping adjacent to the building façade
- Exterior shades or fins
- Awnings or overhangs
- Angled glass
- Considerations for interior and site lighting
- Siting of the building

Prior to issuance of plan approval, UC Davis will review the architectural elevations, landscape, and lighting plans to verify compliance with this measure.

After construction, UC Davis will monitor and adjust bird collision reduction strategies. Over time, the combination of the UC Davis bird collision reduction strategies already committed to as part of the project are projected to minimize bird collisions on proposed buildings. To verify the effectiveness of the "bird-friendly" design strategies after construction of Phase 1, UC Davis will monitor bird strikes as described in the *Bird-Friendly Building Design* (American Bird Conservancy 2015) consisting of morning strike surveys conducted weekly over a 24-month period. If bird strike rates during monitoring are increasing, UC Davis will add additional measures such as lighting modifications, window film, or additional landscaping in consultation with CDFW. After the addition of new measures, subsequent ongoing monitoring of collision rates, and as necessary, additional measures and consultation with CDFW will take place to further reduce the impact.

Impact BIO-2: Potential to result in a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service (no impact)

Summary of Impact BIO-2 by Component

Component	Level of Significance before Mitigation	Mitigation Measures Required	Level of Significance after Mitigation
Folsom Center for Health Master Plan	NI	None	N/A
Phase 1, Medical Office Building	NI	None	N/A

NI = no impact; N/A = not applicable

Folsom Center for Health Master Plan

The Master Plan site does not support riparian habitat or any other sensitive natural communities. Therefore, the Master Plan would have **no impact** on riparian habitat or other sensitive natural communities.

Phase 1, Medical Office Building

The Phase 1 MOB site does not support riparian habitat or any other sensitive natural communities. Therefore, construction of the MOB would have **no impact** on riparian habitat or other sensitive natural communities.

Mitigation Measures

No mitigation is required.

Impact BIO-3: Potential to result in a substantial adverse effect on state- or federally protected wetlands or non-wetland waters (e.g., marshes, vernal pools, coastal wetlands) through direct removal, filling, hydrological interruption, or other means (no impact)

Summary of Impact BIO-3 by Component

Component	Level of Significance before Mitigation	Mitigation Measures Required	Level of Significance after Mitigation
Folsom Center for Health Master Plan	NI	None	N/A
Phase 1, Medical Office Building	NI	None	N/A

NI = no impact; N/A = not applicable

Folsom Center for Health Master Plan

The FPASP EIR/EIS and Addendum evaluated impacts on state- and federally protected wetlands and non-wetland waters on the Master Plan site and concluded that these aquatic resources would be adversely affected by the FPASP. Site preparation, including mass grading, to support development of the project site will fill or modify aquatic resources, including vernal pool, seasonal wetland swale, seep, creek/channel, and ditch. As described in Section 1.2 of this EIR, site preparation/mass grading will be performed by a separate project approved by the City of Folsom prior to implementation of the Master Plan and is not part of this project.

Significant impacts on wetlands and non-wetland waters of the United States and waters of the state associated with site preparation and mass grading were required to be mitigated to a less-than-significant level as part of the separate project through applicable measures from the FPASP EIR/EIS to avoid, minimize, and compensate for impacts on waters of the United States and waters of the state (i.e., FPASP Mitigation Measures 3A.3-1a, 3A.3-1b, and 3A.2-4a). The separate project will comply with the Regional Water Board CWA Section 401 certification (WDID#5A34CR00533, July 11, 2014) and USACE CWA Section 404 permit (SPK-2006-00984) issued for the Carpenter Ranch Project, the Section 402 NPDES permit requirements, and the MSAA issued for the FPASP in 2014 (Notification No. 1600-2012-0198-R2), which requires sub-notifications prior to grading individual projects in the FPASP. All required compensatory mitigation associated with applicable permits covering the project site, including mitigation for the loss of state- or federally protected wetlands and non-wetland waters, has been acquired and there are no outstanding compensatory mitigation obligations. Therefore, the Master Plan would have no direct impact on state- and federally protected wetlands or non-wetland waters. The project SWPPP would prevent indirect impacts on offsite wetlands and non-wetland waters. There would be **no impact**.

Phase 1, Medical Office Building

Phase 1 development would be conducted following mass grading activities in 11.6 acres of the overall 34.6-acre project site. As described above for the Master Plan, impacts on state- and federally protected wetlands and non-wetland waters associated with mass grading of the project site are part of a separate project and would be subject to all applicable mitigation measures associated with the FPASP EIR/EIS and Westlake Eagle Addendum, as well as all applicable state and federal agency permits. Because all wetlands and non-wetland waters in the Phase 1 development area would be permanently filled and mitigated by the separate project approved by the FPASP, Phase 1 development is not anticipated to result in significant impacts on state- and federally protected wetlands or non-wetland waters. The project SWPPP would prevent indirect impacts on offsite wetlands and non-wetland waters. There would be **no impact**.

Mitigation Measures

No mitigation is required.

Impact BIO-4: Substantial interference with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impedance of the use of native wildlife nursery sites (less than significant)

Summary of Impact BIO-4 by Component

Component	Level of Significance before Mitigation	Mitigation Measures Required	Level of Significance after Mitigation
Folsom Center for Health Master Plan	LTS	None	N/A
Phase 1, Medical Office Building	LTS	None	N/A

LTS = less than significant; N/A = not applicable

Folsom Center for Health Master Plan

The FPASP EIR/EIS evaluated the impact of development within the entire FPASP area on wildlife movement and concluded that the impact would be less than significant. The Master Plan would construct facilities and buildings within the 34.6-acre project site that would create overland barriers to movement for resident wildlife that currently move across the site. However, the project site is bound by U.S. Route 50 (US 50) to the north and the East Bidwell Street/US 50 interchange to the east, which pose existing barriers to north-south and east-west wildlife movement. Based on the small size of the project site, presence of existing movement barriers, and lack of established wildlife corridors or nursery sites (including stream channels or riparian corridors), the Master Plan is not expected to substantially interfere with the movement of native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors or impede the use of native wildlife nursery sites. This impact would be **less than significant**.

Phase 1, Medical Office Building

Phase 1 development for the MOB element would have similar impacts on wildlife movement as described for the Master Plan. Buildings and facilities constructed during Phase 1 could also introduce barriers to wildlife movement but to a lesser degree than under the Master Plan because Phase 1 activities would only occur in 11.6 acres of the 34.6-acre project site. Therefore, Phase 1 development is not expected to substantially interfere with the movement of native resident or

migratory fish or wildlife species or with established native resident or migratory wildlife corridors or impede the use of native wildlife nursery sites. This impact would be **less than significant**.

Mitigation Measures

No mitigation is required.

Impact BIO-5: Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance (no impact)

Summary of Impact BIO-5 by Component

Component	Level of Significance before Mitigation	Mitigation Measures Required	Level of Significance after Mitigation
Folsom Center for Health Master Plan	NI	None	N/A
Phase 1, Medical Office Building	NI	None	N/A

NI = no impact; N/A = not applicable

Folsom Center for Health Master Plan

Landscaping installed on the Master Plan site could introduce invasive plant species. While UC Davis is not required to comply with Sacramento County or City of Folsom policies on the UC-owned site, the Master Plan landscape plan emphasizes the use of native plant species, and the maintenance plan requires eradication of invasive species. The project would not conflict with any local policies on invasive species, and there would be **no impact**.

The Master Plan site does not support any trees. In addition, UC Davis is not required to comply with local ordinances. Therefore, the project would not conflict with the ordinance, and there would be **no impact**.

Phase 1, Medical Office Building

As part of the Master Plan and as discussed above for the Master Plan, landscaping of the MOB area would avoid use of invasive plant species and require maintenance to eradicate invasive plants. Construction of Phase 1 would not conflict with any local policies on invasive species, and there would be **no impact**.

The MOB area does not support any trees. In addition, UC Davis is not required to comply with local ordinances. Therefore, the project would not conflict with the ordinance, and there would be **no impact**.

Mitigation Measures

No mitigation is required.

Impact BIO-6: Conflict with the provisions of an adopted habitat conservation plan, natural community conservation plan, or other approved local, regional, or state habitat conservation plan (no impact)

Summary of Impact BIO-6 by Component

Component	Level of Significance before Mitigation	Mitigation Measures Required	Level of Significance after Mitigation
Folsom Center for Health Master Plan	NI	None	N/A
Phase 1, Medical Office Building	NI	None	N/A

NI = no impact; N/A = not applicable

Folsom Center for Health Master Plan

The project site is not included in areas covered under any adopted conservation plans. Therefore, there would be **no impact**.

Phase 1, Medical Office Building

As part of the project site, the Phase 1 MOB site is not covered under any adopted conservation plans and there would be **no impact**.

Mitigation Measures

No mitigation is required.

3.4 Archaeological, Historical, and Tribal Cultural Resources

This section describes the regulatory and environmental setting for archaeological, historical, and tribal cultural resources on the UC Davis Folsom Center for Health Master Plan (project) site and in the project vicinity; analyzes effects on archaeological, historical, and tribal cultural resources that would result from implementation of the project; and provides mitigation measures, if applicable, to reduce the effects of any significant impacts.

Written comments received on the Notice of Preparation include a letter from the Native American Heritage Commission (NAHC) recommending consultation with California Native American tribes that are traditionally and culturally affiliated with the geographic area of the project in order to avoid inadvertent discoveries of Native American human remains and best protect tribal cultural resources. The letter goes on to list California Environmental Quality Act (CEQA) requirements for projects pursuant to Assembly Bill (AB) 52. The project's compliance with AB 52, as well as other Native American outreach efforts that were undertaken, are described in Section 3.4.2, *Environmental Impacts*.

3.4.1 Existing Conditions

Regulatory Setting

The term "cultural resources," as used in this document, refers to the "built environment" (e.g., structures, bridges, railroads, water conveyance systems), places of traditional or cultural importance, and archaeological sites (both prehistoric and historic), regardless of significance. Under federal and state laws, cultural resources that meet certain criteria of significance are referred to by various terms, including "historic properties," "historic sites," "historical resources," and "tribal cultural resources." The following subsections describe laws and regulations dealing with cultural resources.

University of California

As noted in Section 3.0.2, *University of California Autonomy*, the University of California (UC), a constitutionally created state entity, is not subject to municipal regulations of surrounding local governments for uses on property owned or controlled by the UC that are in furtherance of its educational purposes. UC Davis may consider, for coordination purposes, aspects of local plans and policies for the communities surrounding the project when it is appropriate and feasible, but it is not bound by those plans and policies in its planning efforts.

Federal

The National Historic Preservation Act (NHPA) of 1966, as amended, sets forth national policy and procedures for historic properties, defined as districts, sites, buildings, structures, and objects included in or eligible for listing in the National Register of Historic Places (NRHP). Section 106 of the NHPA requires federal agencies to take into account the effects of their undertakings on historic properties and to allow the Advisory Council on Historic Preservation (ACHP) the opportunity to

comment on those undertakings, following regulations issued by the ACHP (36 Code of Federal Regulations Part 800).

State

CEQA requires the consideration of cultural resources that are historical resources and tribal cultural resources, as well as "unique" archaeological resources. California Public Resources Code (PRC) Section 5024.1 establishes the California Register of Historical Resources (CRHR) and outlines the necessary criteria for a cultural resource to be considered eligible for listing in the CRHR and, therefore, a historical resource.

Historical Resources

"Historical resource" is a term with a defined statutory meaning (PRC Section 21084.1); determining significant impacts on historical and archaeological resources is described in CEQA Guidelines Sections 15064.5(a) and (b). Under CEQA Guidelines Section 15064.5(a), the following resources are considered historical.

1. A resource listed in, or determined to be eligible by the State Historical Resources Commission for listing in, the CRHR (PRC Section 5024.1) will be presumed to be historically significant.
2. A resource included in a local register of historical resources, as defined in Section 5020.1(k) of the PRC or identified as significant in a historical resource survey meeting the requirements of Section 5024.1(g) of the PRC, will be presumed to be historically or culturally significant. Public agencies must treat any such resource as significant unless the preponderance of evidence demonstrates that it is not historically or culturally significant.
3. Any object, building, structure, site, area, place, record, or manuscript that a lead agency determines to be historically significant or significant in the architectural, engineering, scientific, economic, agricultural, educational, social, political, military, or cultural annals of California may be considered to be a historical resource, provided the lead agency's determination is supported by substantial evidence in light of the whole record. Generally, a resource will be considered by the lead agency to be historically significant if the resource meets the following criteria for listing in the CRHR (PRC Section 5024.1):
    a. Is associated with events that have made a significant contribution to the broad patterns of California's history and cultural heritage
    b. Is associated with the lives of persons important in our past
    c. 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
    d. Has yielded, or may be likely to yield, information important in prehistory or history
4. The fact that a resource is not listed in or determined to be eligible for listing in the CRHR, not included in a local register of historical resources (pursuant to PRC Section 5020.1(k)), or not identified in a historical resources survey (meeting the criteria in PRC Section 5024.1(g)) does not preclude a lead agency from determining that the resource may be a historical resource as defined in PRC Section 5020.1(j) or 5024.1.

Unique Archeological Resources

CEQA also requires lead agencies to consider whether projects will affect unique archaeological resources. PRC Section 21083.2, subdivision (g), states that a unique archaeological resource is an archaeological 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 there is a demonstrable public interest in that information.
2. It has a special and particular quality, such as being the oldest of its type or the best available example of its type.
3. It is directly associated with a scientifically recognized important prehistoric or historic event or person

Historical resources are defined in PRC Section 5020.1(j). In 2014, AB 52 added the term "tribal cultural resources" to CEQA, and AB 52 is commonly referenced instead of CEQA when discussing the process to identify tribal cultural resources (as well as identifying measures to avoid, preserve, or mitigate effects to them). Defined in PRC Section 21074(a), a tribal cultural resource is a CRHR or local register eligible site, feature, place, cultural landscape, or object which has a cultural value to a California Native American tribe. Tribal cultural resources must also meet the definition of a historical resource. Unique archaeological resources are referenced in PRC Section 21083.2.

Tribal Cultural Resources

Tribal cultural resources are defined in CEQA as:

1. Sites, features, places, cultural landscapes, sacred places, and objects with cultural value to a California Native American tribe that are either of the following:
    A. Included in or determined to be eligible for inclusion in the CRHR.
    B. Included in a local register of historical resources as defined in subdivision (k) of Section 5020.1.
2. 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.

AB 52 defines a California Native American tribe as a Native American tribe located in California that is on the contact list maintained by the NAHC (PRC Section 21073). A cultural landscape that meets the criteria of subdivision (a) of PRC Section 21074 is a tribal cultural resource to the extent that the landscape is geographically defined in terms of the size and scope of the landscape. Sacred places can include Native American sanctified cemeteries, places of worship, religious or ceremonial sites, and sacred shrines. Both unique and non-unique archaeological resources, as defined in PRC Section 21083.2, can be tribal cultural resources if they meet the criteria.

California Register of Historical Resources

All properties in California that are listed in or formally determined eligible for listing in the NRHP are eligible for listing in the CRHR. The CRHR is a listing of state of California resources that are significant within the context of California's history. The CRHR is a statewide program with a scope

and criteria for inclusion similar to those used for the NRHP. In addition, properties designated under municipal or county ordinances are also eligible for listing in the CRHR.

A historical resource must be significant at the local, state, or national level under one or more of the criteria defined in the California Code of Regulations (CCR) Title 15, Chapter 11.5, Section 4850 to be included in the CRHR. The CRHR criteria are similar to the NRHP criteria and are tied to CEQA because any resource that meets the criteria below is considered a significant historical resource under CEQA. All resources listed in or formally determined eligible for listing in the NRHP are automatically listed in the CRHR. The CRHR uses four evaluation criteria:

1. It is associated with events or patterns of events that have made a significant contribution to the broad patterns of local or regional history, or the cultural heritage of California or the United States.
2. It is associated with the lives of persons important to local, California, or national history.
3. It embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of a master, or possesses high artistic values.
4. It has yielded, or has the potential to yield, information important to the prehistory or history of the local area, California or the nation.

In addition to one or more of the above criteria, a resource must also retain integrity. Integrity is evaluated with regard to retention of location, design, setting, materials, workmanship, feeling, and association (14 CCR Section 4852(c)).

California Native American Historical, Cultural, and Sacred Sites Act

The California Native American Historical, Cultural, and Sacred Sites Act applies to both state and private lands. The act requires that upon discovery of human remains, construction or excavation activity must cease and the County coroner must be notified. If the remains are of a Native American, the coroner must notify the NAHC, which notifies and has the authority to designate the most likely descendant of the deceased. The act stipulates the procedures the descendants may follow for treating or disposing of the remains and associated grave goods.

Health and Safety Code, Sections 7052 and 7050.5

Section 7052 of the Health and Safety Code states that the disturbance of Native American cemeteries is a felony. Section 7050.5 requires that construction or excavation be stopped in the vicinity of discovered human remains until the coroner can determine whether the remains are those of a Native American. If they are determined to be those of a Native American, the coroner must contact the NAHC.

Public Resources Code, Section 5097

PRC Section 5097 specifies the procedures to be followed if human remains are unexpectedly discovered on nonfederal land. The disposition of Native American burial falls within the jurisdiction of the NAHC. Section 5097.5 of the PRC states:

> No person shall knowingly and willfully excavate upon, or remove, destroy, injure, or deface any historic or prehistoric ruins, burial grounds, archaeological or vertebrate paleontological site, including fossilized footprints, inscriptions made by human agency, or any other archaeological, paleontological or historical feature, situated on public lands, except with the express permission of the public agency having jurisdiction over such lands. Violation of this section is a misdemeanor.

Assembly Bill 52

AB 52, signed by the California governor in September of 2014, establishes a new class of resources under CEQA: "tribal cultural resources." AB 52 (chapter 532, statutes of 2014) established policy 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" under CEQA (PRC Section 21084.2). The legislation acknowledged that CEQA did not previously "directly include California Native American tribes' knowledge and concerns," which resulted in significant impacts on tribal cultural resources and sacred places. To remedy this, AB 52 established a requirement for a formal consultation process with California Native American tribes for projects subject to CEQA. AB 52 took effect on July 1, 2015 and Appendix G of the CEQA Guidelines was updated accordingly. Under AB 52, California Native American tribes must request lead agencies to notify them of proposed projects. A lead agency that receives such a request from a California Native American tribe must notify the requesting tribe of new projects within 14 days of commencing the CEQA process. The tribe must respond to the notice and request consultation within 30 days of receipt, and the lead agency must initiate consultation within 30 days of receiving the request. This process is separate from consultation procedures under other state cultural resources laws.

Regional

Sacramento County General Plan

Relevant objectives and policies pertaining to cultural resources are listed in the Conservation Element of the Sacramento County General Plan (County of Sacramento 2020). The general plan identifies six objectives pertaining to cultural resources.

Objective #1 Comprehensive knowledge of archeological and historic site locations

Objective #2 Attention and care during project review and construction to ensure that cultural resource sites, either previously known or discovered on the project site, are properly protected with sensitivity to cultural and ethnic values of all affected.

Policies:

CO-150. Utilize local, state and national resources, such as the North Central Information Center (NCIC), to assist in determining the need for cultural resources survey during project review.

CO-151. Projects involving an adoption or amendment of a General Plan or Specific Plan or the designation of open space shall be noticed to all appropriate Native American tribes in order to aid in the protection of traditional tribal cultural places.

CO-152. Consultations with Native American tribes shall be handled with confidentiality and respect regarding sensitive cultural resources on traditional tribal lands.

CO-153. Refer projects with identified archeological and cultural resources to the Cultural Resources Committee to determine significance of resource and recommend appropriate means of protection and mitigation. The Committee shall coordinate with the NAHC in developing recommendations.

CO-154. Protection of significant prehistoric, ethnohistoric and historic sites within open space easements to ensure that these resources are preserved in situ for perpetuity.

CO-155. Native American burial sites encountered during preapproved survey or during construction shall, whenever possible, remain in situ. Excavation and reburial shall occur when in situ preservation is not possible or when the archeologic significance of the site merits excavation and recording procedure. On-site reinterment shall have priority. The project

developer shall provide the burden of proof that offsite reinterment is the only feasible alternative. Reinterment shall be the responsibility of local tribal representatives.

CO-156. The cost of all excavation conducted prior to completion of the project shall be the responsibility of the project developer.

CO-157. Monitor projects during construction to ensure crews follow proper reporting, safeguards, and procedures.

CO-158. As a condition of approval of discretionary permits, a procedure shall be included to cover the potential discovery of archaeological resources during development or construction.

CO-159. Request a Native American Statement as part of the environmental review process on development projects with identified cultural resources.

CO-160. County Planning and Environmental Review staff shall take historical and cultural resources into consideration when conducting planning studies and documents in preparation of, including but not limited to, areas plans, corridor plans, community plans, and specific plans.

CO-161. As a condition of approval for discretionary projects, require appropriate mitigation to reduce potential impacts where development could adversely affect paleontological resources.

CO-162. Projects located within areas known to be sensitive for paleontological resources, should be monitored to ensure proper treatment of resources and to ensure crews follow proper reporting, safeguards and procedures.

CO-163. Require that a certified geologist or paleoresources consultant determine appropriate protection measures when resources are discovered during the course of development and land altering activities.

Objective #3 Preserve structures such as buildings, bridges, or other permanent structures with architectural or historical importance to maintain contributing design elements.

Policies:

CO-164. Structures having historical and architectural importance shall be preserved and protected.

CO-165. Refer projects involving structures or within districts having historical or architectural importance to the Cultural Resources Committee to recommend appropriate means of protection and mitigation.

CO-166. Development surrounding areas of historic significance shall have compatible design in order to protect and enhance the historic quality of the areas.

CO-167. When conducting planning studies, County Planning and Environmental Review staff, shall encourage the adaptive reuse of historic resources when the original use is no longer feasible or allowed under proposed area planning efforts.

CO-168. County-owned historic and cultural resources shall be preserved and maintained, such that modifications, alterations, and rehabilitations are conducted in a manner that is consistent with the U.S. Secretary of the Interiors Standards for the Treatment of Historic Properties.

Objective #4 Protect any known cultural resources from vandalism, unauthorized excavation, or accidental destruction.

Policies:

CO-169. Restrict the circulation of cultural resource location information to prevent potential site vandalism. This information is exempt from the "Freedom of Information Act".

CO-170. Cooperate with other agencies to enforce laws and aggressively prosecute illegal collection of artifacts.

CO-171. Design and implement interpretive programs about known archeological or historical sites on public lands or in public facilities. Interpretation near or upon known sites should be undertaken only when adequate security is available to protect the site and its resources.

Objective #5 Properly stored and classified artifacts for ongoing study.

Objective #6 Increase public education, awareness and appreciation of both visible and intangible cultural resources.

Policies:

CO-172. Provide historic and cultural interpretive displays, trails, programs, living history presentations, and public access to the preserved artifacts recovered from excavations.

CO-173. Interpretive elements involving Native American cultural resources shall be located at village sites (provided any unexcavated resources are properly protected) representative of different physical environments found in the County.

CO-174. Promote and support the California Indian Heritage Center.

CO-175. The County shall support efforts to develop Cultural Resources Tourism program within the County as a tool to preserve important cultural resources and in order to encourage economic development of resources within the County.

City of Folsom General Plan 2035

Goal NCR 5.1 Encourage the preservation, restoration, and maintenance of cultural resources, including buildings and sites, to enrich our sense of place and our appreciation of the city's history.

NCR 5.1.1 Historic Buildings and Sites: Whenever feasible, require historic buildings and sites to be preserved or incorporated into the design of new development.

NCR 5.1.2 Cultural Resources Inventory: Maintain an inventory of prehistoric and historic resources, including structures and sites.

NCR 5.1.3 Nominate Additional Cultural Resources: Nominate additional buildings and sites to the City of Folsom Cultural Resources Inventory of locally significant cultural resources.

NCR 5.1.4 Applicable Laws and Regulations: Ensure compliance with City, State, and Federal historic preservation laws, regulations, and codes to protect and assist in the preservation of historic and archeological resources, as listed in the City of Folsom Historic Preservation Master Plan. including the use of the California Historical Building Code as applicable, including, but not limited to, Senate Bill 18, Assembly Bill 52, Appendix G to the CEQA Guidelines, and, where applicable, Section 106 of the National Historic Preservation Act.

NCR 5.1.5 Funding Sources: Strive to obtain Federal, State, and private funding and incentives for maintaining and rehabilitating historic buildings and sites.

NCR 5.1.6 Historic District Standards: Maintain and implement design and development standards for the Historic District.

Environmental Setting

Archaeological Setting

The history of human occupation and use of the Sacramento Valley and northern Sierra Nevada foothills is characterized by a number of related trends taking place throughout the last 10,000 years. Archaeologically visible cultural patterns can be attributed to responses to gradual changes in climate, resource availability, and human population growth. Cultural responses to these changes include technological specialization, resource intensification, sedentism, and the development of

regional economic networks. This section summarizes the prehistory of the project site and surrounding region.

It is probable that humans have inhabited the Sacramento Valley for the last 10,000 years. However, evidence of early occupation is likely deeply buried under alluvial sediments deposited during the late Holocene, although rare archaeological remains of the early period have been identified in and around the Central Valley. Early archaeological manifestations are categorized as the Farmington Complex, which is characterized by core tools and large, reworked percussion flakes.

Later periods are better understood because of more abundant representation in the archaeological record. Fredrickson (1973:7-6) identified three general patterns of cultural manifestations for the period between 4500 B.P. and 2000 B.P.: the Windmiller Pattern (4500–3000 B.P.), the Berkeley Pattern (3500–2500 B.P.), and the Augustine Pattern (2500–2000 B.P.). Windmiller Pattern sites seem to occur with more frequency in or near the Delta, while Berkeley Pattern sites tend to be more prevalent farther north.

Windmiller Pattern origins are believed to be linked to the arrival of Utian peoples (ancestors to the Maidu) from outside California who were adapted to riverine and wetland environments (Moratto 1984). Windmiller sites are concentrated on low rises or knolls within the floodplains of major creeks or rivers with habitation sites in the valley occupied during the winter with population movements into the foothills during the summer (Moratto 1984).

Berkeley Pattern sites are more numerous and more widely distributed than Windmiller sites and tend to be more prevalent farther north. Berkeley Pattern sites are characterized by deep midden deposits, suggesting intensified occupation and a broadened subsistence base. The Berkeley Pattern also has a greater emphasis on the exploitation of the acorn as a staple. Although gathered resources gained importance during this period, the continued presence of projectile points and atlatls (spear-throwers) in the archaeological record indicates that hunting was still an important activity (Fredrickson 1973). Although resources and commodities were being exchanged throughout the region before this period, more extensive and more frequently used economic networks developed during this time. Transported resources likely included foods—trans-Sierra acorn movement is known from later periods (d'Azevedo 1986)—and commodities more visible in the archaeological record, such as shell and lithic materials (Rosenthal et al. 2007:155).

The predominant generalized subsistence pattern from 1200 B.P. to Historic Period is identified as the Augustine Pattern. Archaeological evidence from this period shows a high degree of technological specialization (Fredrickson 1973). Development of the Augustine Pattern was apparently stimulated by the southward expansion of Wintuan populations into the Sacramento Valley and reflects a change in subsistence and land use patterns to those of the ethnographically known people of the historic era. (Moratto 1984). Traits associated with the Augustine Pattern include the introduction of preinterment burning of offerings in a grave pit during a mortuary ritual, increased village sedentism, maintenance of extensive exchange networks, population growth, and an incipient monetary economy in which beads were used as a standard of exchange (Moratto 1984).

Ethnographic Setting

The project is located near the territorial boundary of the Valley Nisenan and the Valley Miwok (Kroeber 1976; Shipley 1978). Nisenan and Miwok settlement locations were chosen based on elevation, exposure, and proximity to water and other resources. Permanent villages usually were

established on low rises along major watercourses such as the American and Sacramento Rivers. Village size ranged from 3 houses to 40 or 50. Larger villages often had semi-subterranean dance houses that were covered in earth and tule or brush and had a central smoke hole at the top and an east-facing entrance. Permanent settlements were established from which specific task groups set out to harvest the seasonal bounty of flora and fauna that the rich valley environment provided (Wilson and Towne 1978). Many Nisenan villages were documented along the length of the American River; the nearest documented Nisenan village to the project is Yokok, located in the vicinity of the Lake Natoma State Recreation Area (Wilson and Towne 1978).

Historic Setting

The project is located on the eastern edge of Sacramento County, which experienced its first influx of American settlers with the Gold Rush beginning in 1848. Mormon Island, a gravel bar set in the American River approximately 8 miles north of the project, was a central gold-mining area in northern California, and by 1853 was a busy center of commerce. Meanwhile, the Folsom area helped supply huge amounts of water for mining operations in the American River Mining District with a series of dams, ditches, and sluice gates built mainly by the Natoma Water and Mining Company. Easily accessible gold deposits located along the major waterways only held out for a few years, and by the late 1850s miners had moved to the interior foothill areas and the mother lode region (Jones & Stokes 1991:12-7, 12-8).

In 1856, the Sacramento Valley Railroad (SVRR) brought modernized transportation to the city of Folsom with stage and freight lines. Ease of transport for both people and goods led to a period of marked growth. Despite the closure of the SVRR in 1869, mining continued in various forms through the 1940s, with placer and drift mining in the late 19th century, and later dredge mining. Dredge mining stopped only during World War II when the U.S. Government put a moratorium on the mining of nonessential metals. The Natomas Company continued dredge mining near Folsom until 1962 (Jones & Stokes 1991:12-7–12-9; Thompson and West 1880).

Parallel to the mining success of Sacramento County was its agricultural growth, with the region producing wine grapes as well as orchard fruits and other agricultural products, including wine. Following World War II, subdivisions, apartments, shopping centers, and industrial facilities took the place of agricultural land. This growth included the 1953 arrival of Aerojet, designer and producer of rockets, fuel, engines, and motors. Aerojet bought over 10,000 acres of land from the Natomas Company, whose dredge mining left huge furrows of earth from dredging; these dredge tailings were well-suited for rocket testing (Allen and Mason 2007:8–11). The 1960–61 build of U.S. Route 50 increased commercial and residential development in the Folsom corridor. The Sacramento Aerojet facility employed more than 20,000 people by 1963, providing important technologies and manufactured items for space exploration, military defense and a multitude of other purposes. In the 1970s and 1980s, Aerojet downsized considerably while merging, cooperating and renting its property to other companies. Today, Aerojet operates as Aerojet Rocketdyne out of multiple locations across the United States (Allen and Mason 2007:8–11).

3.4.2 Environmental Impacts

This section describes the environmental impacts associated with archaeological, historical, and tribal cultural resources that would result from implementation of the Folsom Center for Health Master Plan. It describes the methods used to determine the effects of the project and lists the thresholds used to conclude whether an impact would be significant. Measures to mitigate (i.e.,

avoid, minimize, rectify, reduce, eliminate, or compensate for) any significant impacts are provided, if available.

Methods for Analysis

Due to multiple applicants within the Folsom Plan Area Specific Plan (FPASP), different schedules, nature of cultural resources spanning through multiple properties, the U.S. Army Corps of Engineers (USACE), in consultation with the California Office of Historic Preservation and ACHP, concluded that a Programmatic Agreement was the appropriate method for satisfying its responsibilities under Section 106 of the NHPA. As such, identification, and evaluation efforts under Section 106 of the NHPA also satisfy those required under CEQA, with the exception of tribal consultation (AB 52). As a result of the conditions set forth in the programmatic agreement, the project site has been fully inventoried, evaluated, and impacts related to site disturbance mitigated under studies carried out by ECORP Consulting for the FPASP.

Additionally, site grading has not occurred as of the date of the Notice of Preparation; therefore, there is still the possibility to encounter buried archaeological resources during site grading. Any unanticipated discoveries encountered during mass grading of the parcel are not part of this project and will be addressed in the FPASP EIR/EIS and Addendums.

ECORP Consulting provided a Cultural Resources Due Diligence memo to ICF (ECORP Consulting 2021) which summarizes the cultural resources methods, results, and conditions under the First Amended Programmatic Agreement (FAPA) in the project site and adjacent parcels within the FPASP. A portion of this memo states:

> The UC Davis project area has been fully inventoried, evaluated, and mitigated under the FAPA. The steps taken to identify cultural resources, which are outlined in the FAPA and Historic Properties Management Plan (HPMP), included records searches, literature reviews, consultation with the Native American and historical communities, evaluations of significance using archival research and archaeological investigations, and geoarchaeological studies. All work performed under the FAPA and HPMP was carried out by or under the direction of Principal Investigator Lisa Westwood, Registered Professional Archaeologist (RPA), who exceeds the Secretary of the Interior's Standards for Professional Qualifications for prehistoric and historic archaeology.

Record Search

Records searches and literature reviews were carried out by ECORP Consulting numerous times since 2005 with the NCIC of the California Historical Resources Information System at California State University, Sacramento. The purpose of the records searches was to determine the extent of previous surveys within a 0.5-mile radius of the project location, and whether previously documented prehistoric or historic archaeological sites, architectural resources, or traditional cultural properties exist within this area.

Pedestrian Surveys

As part of field efforts and additional research required in compliance with the FAPA and historic properties management plan (HPMP), the entire project site has been subjected to complete, intensive pedestrian surveys, inventories, and archival research under the guidance of the Secretary of the Interior's Standards for the Identification of Historic Properties (National Park Service 1983). The pedestrian surveys were completed during the following efforts.

- Inventory of the Carpenter Ranch permit area in 2012 (Westwood and Knapp 2012a) which encompasses the majority of the project site.
- Inventory of the Backbone Infrastructure permit area in 2012 (Westwood and Knapp 2012b) which encompasses the eastern edge of the project site.
- Geoarchaeological sensitivity study and focused subsurface sampling in 2011 and 2012 (Windingstad and Homburg 2011, 2012) encompassing isolated sampling locations in the project site.

Evaluation of Eligibility and Determination of Effect and Historic Property Treatment Plans

Evaluations of eligibility of the resources identified during surveys were similarly carried out in a phased manner. These efforts included a combination of archaeological excavation and archival research and include the following:

- Evaluations of Significance of the Carpenter Ranch permit area in 2013 (Knapp et al. 2013)
- Evaluations of Significance of the Backbone Infrastructure permit area in 2013 (Mason et al. 2013)

The cultural resources within these permit areas were subsequently subjected to the criteria for adverse effect and treatment plans were developed and approved as follows:

- Determination of Effect and Historic Property Treatment Plan of the Backbone Infrastructure permit area in 2013 (Westwood and Knapp 2013a, 2013b)
- Determination of Effect and Historic Property Treatment Plan of the Carpenter Ranch permit area in 2013 (Westwood and Knapp 2013c, 2013d)

Native American Outreach Efforts

To assist in the inventory and evaluations of cultural resources within the project area and FPASP, ECORP also contacted the California NAHC numerous times since 2005 to request updated searches of the Sacred Lands Files for the project area. Although the searches all failed to yield information on Native American cultural resources located within or adjacent to the project area, the NAHC provided lists of individuals and organizations in the Native American community that may be able to provide information about unrecorded sites in the project vicinity. Subsequently, as part of individual projects and later, with the development of the Programmatic Agreement and FAPA, numerous project notification letters were sent out to the contacts. Since that time, the USACE has been consulting with tribes throughout the FPASP compliance process (Section 106 Consultation). The United Auburn Indian Community, Shingle Springs Band of Miwok Indians, and Wilton Rancheria were ultimately invited by the USACE to be concurring parties on the FAPA; attended multiple field tours with the applicants, USACE, City of Folsom, and ECORP; and have been sent copies of all technical reports prepared under the FAPA to date. Government-to-government Section 106 consultation between the tribes and USACE is ongoing and will continue throughout the lifetime of the FAPA and any subsequent amendments.

Tribal Cultural Resource Identification through AB 52 Consultation

UC Davis is the CEQA lead agency and is responsible for government-to-government AB 52 consultation. To date, UC Davis has not received requests any from tribes to be notified of projects under AB 52. Accordingly, no correspondence specified under the AB 52 regulations took place.

Summary of Resources

In summary, through the procedures under the FAPA, the resources within the project site include the following:

- Two historic-period sites (prospecting pits and stone fence) that are not historical resources under CEQA or historic properties under NHPA and do not require any mitigation or preservation.

Thresholds of Significance

In accordance with Appendix G of the CEQA Guidelines, the project would be considered to have a significant effect if it would result in any of the conditions listed below.

- A substantial adverse change in the significance of a historical resource pursuant to Section 15064.5.
- A substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5.
- Disturbance of any human remains, including those interred outside of formal cemeteries.
- Potential to cause a substantial adverse change in the significance of a tribal cultural resource, defined in PRC 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 listed or eligible for listing in the CRHR or in a local register of historical resources as defined in PRC Section 5020.1(k).
- Potential to cause a substantial adverse change in the significance of a tribal cultural resource, defined in PRC 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 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.

Impacts and Mitigation Measures

Impact CUL-1: Potential to cause a substantial adverse change in the significance of a historical resource (No Impact)

Summary of Impact CUL-1 by Component

Component	Level of Significance before Mitigation	Mitigation Measures Required	Level of Significance after Mitigation
Folsom Center for Health Master Plan	NI	None	N/A
Phase 1, Medical Office Building	NI	None	N/A

NI = no impact; N/A = not applicable

Folsom Center for Health Master Plan

As a result of the previous inventory and evaluation of cultural resources completed for the FPASP, no historical resources are located within the Folsom Center for Health Master Plan site. The two resources previously documented in the project site were evaluated as not eligible for the CRHR. Therefore, there will be **no impact** on historical resources and no mitigation is required.

Phase 1, Medical Office Building

As described above, as a result of the previous inventory and evaluation of cultural resources completed for the FPASP, no historical resources are known to be located within the Phase 1 site and therefore, there will be **no impact** on historical resources.

Mitigation Measures

No mitigation measures are required.

Impact CUL-2: Potential to cause a substantial adverse change in the significance of an archaeological resource (less than significant with mitigation)

Summary of Impact CUL-2 by Component

Component	Level of Significance before Mitigation	Mitigation Measures Required	Level of Significance after Mitigation
Folsom Center for Health Master Plan	S	CUL-2a, CUL-2b	LTS
Phase 1, Medical Office Building	S	CUL-2a, CUL-2b	LTS

LTS = less than significant; S = significant

Folsom Center for Health Master Plan

As a result of the previous studies, no surface archaeological resources are known to be located within the Folsom Center for Health Master Plan site; however, there is the potential to encounter buried archaeological resources during excavations for utilities or other ground disturbance not associated with the initial grading of the site. If previously unknown archaeological resources are encountered during construction of the project, they could be adversely affected. Mitigation

Measures CUL-2a and CUL-2b would reduce potential impacts on previously unknown archaeological resources to a **less-than-significant** level.

Phase 1, Medical Office Building

As a result of the previous studies, no surface archaeological resources are known to be located within the Phase 1 medical office building parcel; however, there is the potential to encounter buried archaeological resources during excavations for utilities or other ground disturbance not associated with the initial grading of the site. If previously unknown archaeological resources are encountered during construction of the project, they could be adversely affected. Mitigation Measures CUL-2a and 2b would reduce potential impacts on previously unknown archaeological resources to a **less-than-significant** level.

Mitigation Measures

Mitigation Measure CUL-2a: Conduct cultural resources sensitivity training

Prior to any ground disturbance, construction crews will be required to attend a cultural resources sensitivity training. The training will focus on identifying potential archaeological resources as well as human remains. If potential archaeological resources or human remains are encountered, construction crews will be instructed to notify the University immediately.

Mitigation Measure CUL-2b: Discovery of previously unknown archaeological resources

In the event that potential archaeological resources are discovered during project implementation, all earth-disturbing work within 100 feet of the find will be temporarily suspended or redirected until a qualified archaeologist retained by UC Davis can adequately assess the find and determine whether the resource requires further study. If the archaeological resource discovery is potentially significant, UC Davis and any local, state, or federal agency with approval or permitting authority over the project that has requested/required notification will be notified within 48 hours.

For all discoveries known or likely to be associated with Native American heritage (precontact sites and select post-contact historic-period sites), a Tribal Representative from a California Native American tribe that is traditionally and culturally affiliated with a geographic area will be immediately notified and will determine if the find is a tribal cultural resource (PRC Section 21074). If the find is identified as a tribal cultural resource, the Tribal Representative, in consultation with UC Davis and a qualified archaeologist, will develop a treatment plan in any instance where significant impacts cannot be avoided. The treatment plan will be prepared in collaboration with consulting tribes and be submitted to UC Davis and any participating tribe for review and approval prior to its implementation, and additional work in the vicinity of the discovery will not proceed until the plan is in place.

The location of any such finds must be kept confidential, and measures will be taken to secure the area from site disturbance and potential vandalism. Impacts on previously unknown significant archaeological or tribal cultural resources will be avoided through preservation in place, if feasible. Damaging effects on tribal cultural resources will be avoided or minimized following the measures identified in PRC Section 21084.3(b), if feasible, unless other measures are mutually agreed to by the lead archaeologist and culturally affiliated tribes that would be as or more effective.

Impact CUL-3: Disturbance of any human remains, including those interred outside of dedicated cemeteries (less than significant with mitigation)

Summary of Impact CUL-3 by Component

Component	Level of Significance before Mitigation	Mitigation Measures Required	Level of Significance after Mitigation
Folsom Center for Health Master Plan	S	CUL-3	LTS
Phase 1, Medical Office Building	S	CUL-3	LTS

LTS = less than significant; S = significant

Folsom Center for Health Master Plan

No human remains are known to be in or near the project area. However, the possibility always exists that unmarked burials may be unearthed during subsurface construction activities. Consequently, there is the potential for the project to disturb human remains during construction, including those outside of formal cemeteries. This impact is considered potentially significant but would be reduced to a **less-than-significant** level by Mitigation Measure CUL-3.

Phase 1, Medical Office Building

No human remains are known to be in or near the project area. However, the possibility always exists that unmarked burials may be unearthed during subsurface construction activities. Consequently, there is the potential for the project to disturb human remains during construction, including those outside of formal cemeteries. This impact is considered potentially significant but would be reduced to a **less-than-significant** level by Mitigation Measure CUL-3.

Mitigation Measures

Mitigation Measure CUL-3: Unanticipated discovery of human remains

If human remains, including Native American remains or burials are encountered, all provisions provided in California Health and Safety Code Section 7050.5 and PRC Section 5097.98 will be followed. Work will stop within 100 feet of the discovery and the County Coroner will be immediately contacted by the UC Davis onsite construction inspector. If human remains are of Native American origin, the County Coroner will notify the NAHC within 24 hours of this determination, and a most likely descendant will be identified. No work is to proceed in the discovery area until consultation is complete and procedures to avoid or recover the remains have been implemented.

Impact CUL-4: Potential to cause a substantial adverse change in the significance of a tribal cultural resource with cultural value to a California Native American tribe and that is 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) (no impact)

Summary of Impact CUL-4 by Component

Component	Level of Significance before Mitigation	Mitigation Measures Required	Level of Significance after Mitigation
Folsom Center for Health Master Plan	NI	None	N/A
Phase 1, Medical Office Building	NI	None	N/A

NI = no impact; N/A = not applicable

Folsom Center for Health Master Plan

No consultation has been requested under AB 52, and no tribal cultural resources have been identified. Accordingly, there would be **no impact**.

Phase 1, Medical Office Building

No consultation has been requested under AB 52, and no tribal cultural resources have been identified. Accordingly, there would be **no impact**.

Mitigation Measures

No mitigation measures are required.

Impact CUL-5: Potential to cause a substantial adverse change in the significance of a tribal cultural resource with cultural value to a California Native American tribe and that is a resource determined by the lead agency to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1 (no impact)

Summary of Impact TCR-2 by Component

Component	Level of Significance before Mitigation	Mitigation Measures Required	Level of Significance after Mitigation
Folsom Center for Health Master Plan	NI	None	N/A
Phase 1, Medical Office Building	NI	None	N/A

NI = no impact; N/A = not applicable

Folsom Center for Health Master Plan

See Impact CUL-4.

Phase 1, Medical Office Building

See Impact CUL-4.

Mitigation Measures

No mitigation measures are required.

3.5 Energy

This section describes the regulatory and environmental setting for energy on the UC Davis Folsom Center for Health Master Plan (project) site and in the project vicinity, analyzes effects on energy that would result from construction and operation of the project, and provides mitigation measures, if applicable, to reduce the effects of any significant impacts. In response to the Notice of Preparation for this EIR, the Sacramento Municipal Utility District (SMUD) responded that the project should acknowledge any impacts from overhead and underground transmission and distribution line easements, utility line routing, electrical needs/requirements, energy efficiency, climate change, and cumulative impacts, and provide details related to the electrical infrastructure incorporated into the project description.

3.5.1 Existing Conditions

Regulatory Setting

University of California

As noted in Section 3.0.2, *University of California Autonomy*, the University of California (UC), as a constitutionally created state entity, is not subject to municipal regulations of surrounding local governments for uses on property owned or controlled by the UC that are in furtherance of its educational purposes. UC Davis may consider, for coordination purposes, aspects of local plans and policies for the communities surrounding the project when it is appropriate and feasible, but it is not bound by those plans and policies in its planning efforts.

The UC Davis Folsom Center for Health Master Plan (see Section 2.3, *Folsom Center for Health Master Plan*) will guide development of the site and include detailed design guidelines and standards for the design of the site, including structures and buildings.

Sustainable Practices Policy

UC has a systemwide policy regarding sustainability practices and performance goals and targets (University of California 2020). The UC Sustainable Practices Policy, which is regularly updated (most recently in July 2020), is intended to further sustainability within the UC system and covers these ten areas of operational sustainability.

- Green building design
- Clean energy
- Climate protection
- Sustainable transportation
- Sustainable building and laboratory operations for campuses
- Zero waste
- Sustainable procurement
- Sustainable food services

- Sustainable water systems

Of these areas, the most relevant targets for energy use are established in the green building design, clean energy, climate protection, sustainable transportation, and sustainable water systems sections of the policy. In particular, through targets established with respect to green building design, UC Davis is committed to achieving a Leadership in Energy and Environmental Design (LEED) certification of Silver at a minimum but striving for Silver or higher with new construction, including the medical office building (MOB) (LEED BD+C Silver). Specifically, Section III.A.2 says that acute care/hospital facilities and MOBs shall be designed, constructed, and commissioned to outperform American Society of Heating, Refrigerating and Air Conditioning Engineers (ASHRAE) 90.1 2010 by at least 30 percent or meet the whole-building energy performance targets listed in Table 2 in Section V.A.3.

In September 2017, the UC Sustainability Steering Committee approved additional changes to the clean energy section, establishing the following goals and practices.

- 100 percent clean electricity by 2025 (clean electricity is defined as having a residual greenhouse gas [GHG] emission factor that is less than 150 pounds of carbon dioxide [CO_2] per megawatt-hour [MWh]), to be met through a campus-determined mix of onsite and offsite renewables.
- Energy efficiency actions in buildings and infrastructure systems to reduce the location's (campus's) energy use intensity by an average of at least 2 percent annually.
- By 2025, at least 40 percent of the natural gas combusted onsite at each location will be biogas (University of California 2020).

In addition, the policy states the following.

> No new building or major renovation that is approved after June 30, 2019 shall use onsite fossil fuel combustion (e.g., natural gas) for space and water heating (except hospitals which are an exception, and those projects connected to an existing campus central thermal infrastructure). Projects unable to meet the requirement shall document the rationale for that decision (University of California 2020).

The documentation must include a plan to mitigate associated GHG emissions, among other requirements.

As detailed in Section 3.7, *Greenhouse Gas Emissions*, the UC Sustainable Practices Policy on climate protection targets three goals: reduction of GHG emissions to 1990 levels by 2020, achieve climate neutrality for Scope 1 and 2 sources by 2025, and achieve climate neutrality from specific Scope 3 sources by 2050 or sooner. Climate neutrality is defined in the policy as the University having a net zero impact on the earth's climate, which is to be achieved by minimizing GHG emissions as much as possible and purchasing carbon offsets or other measures to mitigate the remaining GHG emissions. A previous climate protection goal to reduce GHG emissions to 2000 levels by 2014 has been removed from the policy, because the goal is in the past, UC Davis exceeded the goal, and the goal has been superseded by the current goal to maintain 1990 levels of emissions.

Folsom Center for Health Sustainability Master Plan

The *Folsom Center for Health Sustainability Master Plan* (Sustainability Master Plan; University of California, Davis Health 2021) is intended to support the Folsom Center for Health Master Plan. The Sustainability Master Plan provides a sustainability framework consisting of guiding principles,

goals, objectives, verification documentation and processes, and strategies for UC Davis Health and future developers, designers, and operators. Throughout the multiphase development of the project, regulations, technologies, best practices, and habits will evolve, but this framework is an aspirational document which provides sustainability standards and processes while allowing the flexibility to further define how they are achieved and ideally exceeded in future design phases. The Sustainability Master Plan also includes a Climate Protection Pathway positioning the project to meet the UC initiative to become carbon neutral for Scope 1 and Scope 2 emissions by 2025.

2009–2010 Climate Action Plan

UC Davis has prepared the *2009–2010 Climate Action Plan* (CAP; University of California, Davis 2010), which includes both the Davis and Sacramento Campuses, as well as outlying facilities such as the project. The CAP describes and addresses policy and regulatory requirements of (1) the UC Sustainable Practices Policy; (2) Assembly Bill (AB) 32, including the California Air Resources Board's (CARB) GHG Mandatory Reporting Program; (3) the American College and University Presidents Climate Commitment; (4) the California Environmental Quality Act (CEQA); and (5) U.S. Environmental Protection Agency (EPA) reporting requirements. The CAP provides documentation of how campus GHG emissions are calculated, a report of 2008 emissions, estimates of past (to 1990) and future emissions (to 2020), a statement of GHG emission reduction goals, a characterization of options and methods to reduce emissions, and a blueprint for future action.

The CAP was written before the UC Carbon Neutrality Initiative was announced and written into the UC Sustainable Practices Policy. The Carbon Neutrality Initiative commits UC to emitting net zero GHGs from its buildings and vehicle fleet by 2025. As such, the CAP uses the 2014 and 2020 targets, rather than UC committing to emitting net zero GHGs from its buildings and fleet by 2025, with an understanding that climate neutrality will require fundamental shifts in global and national energy policy, energy production, and technologies currently using fossil fuels. The CAP focuses on emissions related to campus operations, rather than commuting and business air travel, because the share of operations-related emissions is much larger (three to four times greater) than the share attributable to commuting and air travel or commuting alone, respectively. The CAP provides analysis of commuting and air travel reduction options but does not quantify emissions reductions for those options (University of California, Davis 2010). UC Davis is currently in the process of updating the CAP. UC Davis is also conducting a transportation demand management planning study to determine options for additional GHG reduction related to commuting.

Federal

Energy Policy and Conservation Act

The Energy Policy and Conservation Act of 1975 sought to ensure that all vehicles sold in the United States would meet certain fuel economy goals. Through this act, Congress established the first fuel economy standards for on-road motor vehicles in the United States. Pursuant to this act, the National Highway Traffic and Safety Administration, which is part of the U.S. Department of Transportation (USDOT), is responsible for establishing additional vehicle standards and for revising existing standards. Since 1990, the fuel economy standard for new passenger cars has been 27.5 miles per gallon. Since 1996, the fuel economy standard for new light trucks (gross vehicle weight of 8,500 pounds or less) has been 20.7 miles per gallon. Heavy-duty vehicles (i.e., vehicles and trucks over 8,500 pounds gross vehicle weight) are not currently subject to fuel economy standards. Compliance with federal fuel economy standards is determined based on each

manufacturer's average fuel economy for the portion of its vehicles produced for sale in the United States. The Corporate Average Fuel Economy (CAFE) program, administered by the EPA, was created to determine vehicle manufacturers' compliance with the fuel economy standards. EPA calculates a CAFE value for each manufacturer based on city and highway fuel economy test results and vehicle sales. Based on the information generated under the CAFE program, USDOT is authorized to assess penalties for noncompliance.

Energy Policy Act of 1992

The Energy Policy Act of 1992 (EPAct) was passed to reduce the country's dependence on foreign petroleum and improve air quality. EPAct includes several parts intended to build an inventory of alternative fuel vehicles (AFV) in large, centrally fueled fleets in metropolitan areas. EPAct requires certain federal, state, and local government and private fleets to purchase a percentage of light-duty AFVs each year. In addition, financial incentives are included in EPAct. Federal tax deductions are allowed for businesses and individuals to cover the incremental cost of AFVs. States are also required by the EPAct to consider a variety of incentive programs to help promote AFVs.

Energy Policy Act of 2005

The Energy Policy Act of 2005 was signed into law on August 8, 2005. Generally, the act provides for renewed and expanded tax credits for electricity generated by qualified energy sources, such as landfill gas; provides bond financing, tax incentives, grants, and loan guarantees for a clean renewable energy and rural community electrification; and establishes a federal purchase requirement for renewable energy.

State

Warren-Alquist Act

The 1975 Warren-Alquist Act established the California Energy Resources Conservation and Development Commission, now known as the California Energy Commission (CEC). The act established state policy to reduce wasteful, uneconomical, and unnecessary uses of energy by employing a range of measures. The California Public Utilities Commission (CPUC) regulates privately owned utilities in the energy, rail, telecommunications, and water sectors.

Assembly Bill 2076: Reducing Dependence on Petroleum

Pursuant to AB 2076 (Chapter 936, Statutes of 2000), CEC and CARB prepared and adopted a joint agency report in 2003, *Reducing California's Petroleum Dependence*. Included in this report are recommendations to increase the use of alternative fuels to 20 percent of on-road transportation fuel use by 2020 and to 30 percent by 2030, significantly increase the efficiency of motor vehicles, and reduce per capita vehicle miles traveled (VMT) (California Energy Commission and California Air Resources Board 2003). Further, in response to CEC's 2003 and 2005 *Integrated Energy Policy Reports*, Governor Joseph Graham "Gray" Davis directed CEC to take the lead in developing a long-term plan to increase alternative fuel use. A performance-based goal of AB 2076 was to reduce petroleum demand to 15 percent below 2003 demand by 2020.

Integrated Energy Policy Report

Senate Bill (SB) 1389 (Chapter 568, Statutes of 2002) required CEC to conduct "assessments and forecasts of all aspects of energy industry supply, production, transportation, delivery and

distribution, demand, and prices." It also required CEC to use these assessments and forecasts to "develop energy policies that conserve resources, protect the environment, ensure energy reliability, enhance the state's economy, and protect public health and safety" (Public Resources Code Section 25301(a)). This work culminated in the Integrated Energy Policy Report (IEPR).

CEC adopts an IEPR every 2 years and an update every other year. The 2019 IEPR is the most recent IEPR, which was adopted February 20, 2020. The 2021 IEPR has not yet been adopted as of January 2022. The 2019 IEPR provides a summary of priority energy issues currently facing the state, outlining strategies and recommendations to further the state's goal of ensuring reliable, affordable, and environmentally responsible energy sources. Energy topics covered in the report include progress toward statewide renewable energy targets and issues facing future renewable development; efforts to increase energy efficiency in existing and new buildings; progress by utilities in achieving energy efficiency targets and potential; improving coordination among the state's energy agencies; streamlining power plant licensing processes; results of preliminary forecasts of electricity, natural gas, and transportation fuel supply and demand; future energy infrastructure needs; the need for research and development efforts to support statewide energy policies; and issues facing California's nuclear power plants.

Senate Bill 1078: California Renewables Portfolio Standard Program

SB 1078 (Chapter 516, Statutes of 2002) establishes a Renewables Portfolio Standard (RPS) for electricity supply. The RPS requires that retail sellers of electricity, including investor-owned utilities and community choice aggregators, provide 20 percent of their supply from renewable sources by 2017. The program was accelerated in 2006 under SB 107, which required that the 20 percent mandate be met by 2010. In April 2011, SB 2 (1X) increased the mandate to 33 percent RPS by 2020. In 2015, SB 350 mandated a 50 percent RPS by December 31, 2030. SB 350 also includes interim annual RPS targets with multi-year compliance periods and requires that 65 percent of RPS procurement must be derived from long-term contracts of 10 or more years. In 2018, SB 100 increased the RPS to 60 percent by 2030 and established a goal for 100 percent of the state's electricity to come from renewable and carbon-free resources by 2045 (California Public Utilities Commission 2021).

Senate Bill X1-2: California Renewable Energy Resources Act

SB X1-2 of 2011 required all California utilities to generate 33 percent of their electricity from renewables by 2020. SB X1-2 set a three-stage compliance period requiring all California utilities, including independently owned utilities, energy service providers, and community choice aggregators, to generate 20 percent of their electricity from renewables by December 31, 2013; 25 percent by December 31, 2016; and 33 percent by December 31, 2020. SB X1-2 also required the renewable electricity standard to be met increasingly with renewable energy that is supplied to the California grid from sources within, or directly proximate to, California. SB X1-2 mandates that renewables from these sources make up at least 50 percent of the total renewable energy for the 2011–2013 compliance period, at least 65 percent for the 2014–2016 compliance period, and at least 75 percent for 2016 and beyond.

Senate Bill 350: Clean Energy and Pollution Reduction Act of 2015

The Clean Energy and Pollution Reduction Act of 2015 (SB 350) requires the amount of electricity generated and sold to retail customers per year from eligible renewable energy resources to be increased to 50 percent by December 31, 2030. This act also requires doubling of the energy

efficiency savings in electricity and natural gas for retail customers through energy efficiency and conservation by December 31, 2030.

Energy Action Plan

The first Energy Action Plan emerged in 2003 from a crisis atmosphere in California's energy markets. California's three major energy policy agencies (CEC, CPUC, and the Consumer Power and Conservation Financing Authority [established under deregulation and now defunct]) came together to develop a high-level, coherent approach to meeting California's electricity and natural gas needs. It was the first time that energy policy agencies formally collaborated to define a common vision and set of strategies to address California's future energy needs and emphasize the importance of the impacts of energy policy on the California environment.

In the October 2005 *Energy Action Plan II: Implementation Roadmap For Energy Policies*, CEC and CPUC updated their energy policy vision by adding some important dimensions to the policy areas included in the original Energy Action Plan, such as the emerging importance of climate change, transportation-related energy issues, and research and development activities. CEC adopted an update to the Energy Action Plan II in February 2008 that supplements the earlier Energy Action Plans and examines California's ongoing actions in the context of global climate change.

Assembly Bill 1007: State Alternative Fuels Plan

AB 1007 (Chapter 371, Statutes of 2005) required CEC to prepare a state plan to increase the use of alternative fuels in California. CEC prepared the State Alternative Fuels Plan (SAF Plan) in partnership with CARB and in consultation with other state, federal, and local agencies. The plan presents strategies and actions California must take to increase the use of alternative, nonpetroleum fuels in a manner that minimizes the costs to California and maximizes the economic benefits of in-state production. The State Alternative Fuels Plan assessed various alternative fuels and developed fuel portfolios to meet California's goals to reduce petroleum consumption, increase alternative fuel use, reduce GHG emissions, and increase in-state production of biofuels without causing a significant degradation of public health and environmental quality.

Executive Order S-06-06

Executive Order (EO) S-06-06, signed on April 25, 2006, established targets for the use and production of biofuels and biopower, and directs state agencies to work together to advance biomass programs in California while providing environmental protection and mitigation. The EO established the following targets to increase the production and use of bioenergy, including ethanol and biodiesel fuels made from renewable resources: produce a minimum of 20 percent of its biofuels within California by 2010, 40 percent by 2020, and 75 percent by 2050. The EO also calls for California to meet a target for use of biomass electricity. The 2011 Bioenergy Action Plan identifies those barriers and recommends actions to address them so that the state can meet its clean energy, waste reduction, and climate protection goals. The 2012 Bioenergy Action Plan updated the 2011 plan and provides a more detailed action plan to achieve the following goals.

- Increase environmentally and economically sustainable energy production from organic waste.
- Encourage development of diverse bioenergy technologies that increase local electricity generation, combined heat and power facilities, renewable natural gas, and renewable liquid fuels for transportation and fuel cell applications.

- Create jobs and stimulate economic development, especially in rural regions of the state.
- Reduce fire danger, improve air and water quality, and reduce waste (O'Neill 2012).

As of 2018, 2.35 percent of the total electricity system power in California was derived from biomass (California Energy Commission 2018).

California Building Standards Code

The California Building Standards Code, Title 24 of the California Code of Regulations, contains the regulations that govern the construction of buildings in California. Within the California Building Standards Code, two parts pertain to the incorporation of both energy-efficient and green building elements into land use development. Part 6 is California's Energy Efficiency Standards for Residential and Nonresidential Buildings and Part 11 is the California Green Building Standards (CALGreen). Title 24 was established by CEC in 1978 in response to a legislative mandate to create uniform building codes to reduce California's energy consumption and provide energy efficiency standards for residential and non-residential buildings. The most recent Title 24 standards were updated in 2019 and became effective January 1, 2020. The building efficiency standards are enforced through the local plan check and building permit process. Local government agencies may adopt and enforce additional energy standards for new buildings as reasonably necessary because of local climatologic, geologic, or topographic conditions, provided that these standards exceed those provided in Title 24.

Assembly Bill 32, Climate Change Scoping Plan and Update

In December 2008, CARB adopted its first version of its Climate Change Scoping Plan, which contained the main strategies California will implement to achieve the mandate of AB 32 (2006) to reduce statewide GHG emissions to 1990 levels by 2020. In May 2014, CARB released and subsequently adopted the First Update to the Climate Change Scoping Plan to identify the next steps in reaching the goals of AB 32 (2006) and evaluate the progress made between 2000 and 2012 (California Air Resources Board 2014). After releasing multiple versions of proposed updates in 2017, CARB adopted California's 2017 Climate Change Scoping Plan (2017 Scoping Plan) in December of that same year (California Air Resources Board 2017). The 2017 Scoping Plan indicates that California was on track to achieve the 2020 statewide GHG target mandated by AB 32 of 2006 (California Air Resources Board 2017:9). It also lays out the framework for achieving the mandate of SB 32 of 2016 to reduce statewide GHG emissions to at least 40 percent below 1990 levels by the end of 2030 (California Air Resources Board 2017). The 2017 Scoping Plan identifies the GHG reductions needed by each emissions sector (e.g., transportation, building energy, agriculture). The measures identified in the 2017 Scoping Plan have the co-benefits of reducing California's dependency of fossil fuels and making land use development and transportation systems more energy efficient. More details about the statewide GHG reduction goals and Scoping Plan measures are provided in the regulatory setting of Section 3.7.

Senate Bill 375

SB 375, signed by Governor Arnold Schwarzenegger in September 2008, aligns regional transportation planning efforts, regional GHG emission reduction targets, and land use and housing allocation. SB 375 requires metropolitan planning organizations (MPOs) to adopt a sustainable communities strategy (SCS) or alternative planning strategy, showing prescribed land use allocation in each MPO's regional transportation plan. CARB, in consultation with the MPOs, is to provide each

affected region with reduction targets for GHGs emitted by passenger cars and light trucks in their respective regions for 2020 and 2035. SB 375 has the co-benefit of reducing California's dependency on fossil fuels and making land use development and transportation systems more energy efficient.

The Sacramento Area Council of Governments (SACOG) serves as the MPO for Sacramento, Placer, El Dorado, Yuba, Sutter, and Yolo Counties, excluding those lands located in the Lake Tahoe Basin. The project is in Sacramento County. SACOG adopted its Metropolitan Transportation Plan (MTP)/SCS 2035 in 2012, and completed an update adopted on November 18, 2019 (Sacramento Area Council of Governments 2019). For the 2020 MTP/SCS, CARB assigned SACOG a target of 19 percent per capita GHG reduction. The MTP/SCS forecasted land use development by community types: center and corridor communities, established communities, developing communities, rural residential communities, and lands not identified for development in the MTP/SCS planning period.

Executive Order B-30-15

On April 20, 2015, Governor Edmund G. Brown Jr. signed EO B-30-15 to establish a California GHG reduction target of 40 percent below 1990 levels by 2030. The EO aligns California's GHG reduction targets with those of leading international governments such as the 28-nation European Union, which adopted the same target in October 2014. California's emission reduction target of 40 percent below 1990 levels by 2030 will make it possible to reach the goal of reducing emissions 80 percent below 1990 levels by 2050. This is in line with the scientifically established levels needed in the United States to limit global warming below 2 degrees Celsius, the warming threshold at which major climate disruptions are projected, such as super droughts and rising sea levels.

Executive Order B-48-18: Zero-Emission Vehicles

In January 2018, Governor Brown signed EO B-48-18 requiring all state entities to work with the private sector to put at least 5 million zero-emission vehicles (ZEV) on the road by 2030, as well as install 200 hydrogen fueling stations and 250,000 zero-emissions chargers (10,000 of which to be direct current fast chargers) by 2025. This EO also requires all state entities to continue to partner with local and regional governments to streamline the installation of ZEV infrastructure. The Governor's Office of Business and Economic Development is required to publish a Plug-in Charging Station Development Guidebook and update the 2015 *Hydrogen Station Permitting Guidebook* to aid in these efforts. All state entities are required to participate in updating the 2018 *Zero-Emissions Vehicle Action Plan* to help expand private investment in ZEV infrastructure with focus in low-income and disadvantaged communities (Governor's Interagency Working Group on Zero-Emission Vehicles 2018). Additionally, all state entities are to support and recommend policies and actions to expand infrastructure in homes, through the Low Carbon Fuel Standard, and recommend how these actions can strengthen the economy, create jobs, and ensure affordability and accessibility for all drivers.

Senate Bill 32 and Assembly Bill 197 of 2016

In August 2016, Governor Brown signed SB 32 and AB 197, which extend California's GHG reduction programs beyond 2020. SB 32 amended the Health and Safety Code to include Section 38566, which contains language to authorize CARB to achieve a statewide GHG emission reduction of at least 40 percent below 1990 levels by no later than December 31, 2030. SB 32 codified the targets established by EO B-30-15 for 2030, which set the next interim step in the state's continuing efforts to pursue the long-term target expressed in EOs S-3-05 and B-30-15 of 80 percent below 1990 emissions levels by 2050. Achievement of these goals has the co-benefit of reducing California's

dependency on fossil fuels and making land use development and transportation systems more energy efficient.

Advanced Clean Cars Program

In January 2012, CARB approved the Advanced Clean Cars program, which combines the control of GHG emissions and criteria air pollutants, as well as requirements for greater numbers of ZEVs, into a single package of standards for vehicle model years 2017 through 2025. The new rules strengthen the GHG standard for 2017 models and beyond. This will be achieved through existing technologies, the use of stronger and lighter materials, and more efficient drivetrains and engines. The program's ZEV regulation requires battery, fuel cell, and/or plug-in hybrid electric vehicles to account for up to 15 percent of California's new vehicle sales by 2025. The program also includes a clean fuels outlet regulation designed to support the commercialization of zero-emission hydrogen fuel cell vehicles planned by vehicle manufacturers by 2015 by requiring increased numbers of hydrogen fueling stations throughout the state. The number of stations will grow as vehicle manufacturers sell more fuel cell vehicles. By 2025, when the rules will be fully implemented, the statewide fleet of new cars and light trucks will emit 34 percent fewer global warming gases and 75 percent fewer smog-forming emissions than the statewide fleet in 2016 (California Air Resources Board 2016).

Regional and Local

City of Folsom General Plan

The *Folsom 2035 General Plan* was adopted in August 2018 (City of Folsom 2018). The Land Use and Natural and Cultural Resources elements contains the following policies relevant to energy.

LU 1.1.13 Sustainable Building Practices. Promote and, where appropriate, require sustainable building practices that incorporate a "whole system" approach to designing and constructing buildings that consume less energy, water and other resources; facilitate natural ventilation; use daylight effectively; and, are healthy, safe, comfortable, and durable.

LU 1.1.14 Promote Resiliency. Continue to collaborate with nonprofit organizations, neighborhoods groups, and other community organizations, as well as upstream, neighboring, and regional groups to effectively partner on and promote the issues relating to air quality, renewable energy systems, sustainable land use, adaptation, and the reduction of greenhouse gas (GHG) emissions.

LU 9.1.10 Renewable and Alternative Energy Generation Systems. Require the use of solar, wind, or other on-site renewable energy generation systems as part of the design of new planned developments.

NCR 3.2.3 Greenhouse Gas Reduction in New Development. Reduce greenhouse gas emissions from new development by encouraging development that lowers vehicle miles traveled (VMT), and discouraging auto-dependent sprawl and dependence on the private automobile; promoting development that is compact, mixed-use, pedestrian friendly, and transit oriented; promoting energy-efficient building design and site planning; improving the jobs/housing ratio; and other methods of reducing emissions while maintaining the balance of housing types Folsom is known for.

Folsom Plan Area Specific Plan

The Folsom Plan Area Specific Plan (FPASP) was adopted by the City of Folsom along with a certified programmatic EIR in 2011. This FPASP goes beyond the goals and policies of the general plan and introduces new objectives, policies, standards, and guidelines reflective of the current trends in community and transportation planning. The standards and guidelines contained in the FPASP

provide a comprehensive framework for future growth and development within the plan area while incorporating flexibility to address and accommodate changes in market conditions. Moreover, the FPASP proposes development standards that are unique to the plan area and will guide future construction. The FPASP offers a balanced approach to urban development by preserving the physical beauty of the plan area and satisfying the ongoing needs of the city and its residents.

A Community Design Guidelines document was prepared and adopted by the City of Folsom on May 12, 2015 (Resolution No. 9563). The guidelines are intended to provide the City of Folsom; property owners; planning, design and engineering professionals; and Folsom residents with a vision of the level of design quality expected for "Public Realm" improvements. Planning Principle 6, *sustainable design*, of the guidelines, calls for the use of sustainable design practices intended to reduce GHG emissions, water consumption, and energy use and preserve valuable natural resources.

Environmental Setting

The project site is part of the FPASP, a 3,500-acre master plan, which will include a town center to the south and a mix of multifamily residential housing, schools, offices, hotels, and retail uses in adjacent parcels. The project site is currently vacant, and there are no structures on the site; therefore, there is no energy usage on the site.

Scientists and climatologists have produced evidence that the burning of fossil fuels by vehicles, power plants, industrial facilities, residences, and commercial facilities has led to an increase in the earth's temperature. For an analysis of GHG production and the project's potential impacts on climate change, please see Section 3.7.

3.5.2 Environmental Impacts

This section describes the environmental impacts associated with energy that would result from the project. It describes the methods used to determine the effects of the project and lists the thresholds used to conclude whether an impact would be significant. Measures to mitigate (i.e., avoid, minimize, rectify, reduce, eliminate, or compensate for) any significant impacts are provided, if available.

Methods for Analysis

Construction

During project construction, energy use would come from fuel and electricity. It is assumed that both diesel and gasoline fuels would be used in on-road vehicles for material hauling and worker commute trips, and projected gallons of diesel and gasoline fuels are combined in this analysis. The same assumptions of construction equipment numbers, horsepower ratings, and load factors used to estimate construction CO_2 emissions (Section 3.7) were used to calculate construction-related fuel use. Estimated CO_2 emissions were used to characterize gallons of fuel consumed based on the carbon content of the fuel (Climate Registry 2020). Electricity data projected to be used during construction were obtained using the data and sources described in Section 3.7.

Operations

Energy use associated with project operations would include electricity purchased from SMUD and fuel from transportation sources (diesel and gasoline). No natural gas would be provided.

Transportation fuel use estimates were calculated by applying average fuel usage rates per vehicle mile to VMT data related to the project (Section 3.15, *Transportation and Circulation*, provides an explanation of the assumptions behind the VMT modeling). CARB's EMFAC2017 model includes average fuel usage rates by vehicle class, fuel type (e.g., diesel, gasoline, and electric), speed bin, calendar year, and county. Fuel usage rates from EMFAC2021 representing Sacramento and El Dorado Counties in 2021, 2025 (Phase 1, MOB only), and 2040 were applied to the project's VMT data. Daily VMT were adjusted to annual VMT using a conversion factor of 347, which accounts for holidays and weekday/weekend business operations.

Thresholds of Significance

In accordance with Appendix G of the CEQA Guidelines, the project would be considered to have a significant effect if it would result in any of the conditions listed below.

- Wasteful, inefficient, or unnecessary consumption of energy resources during project construction or operations.
- Conflict with or obstruction of a state or local plan for renewable energy or energy efficiency.

Impacts and Mitigation Measures

Impact EN-1: Wasteful, inefficient, or unnecessary consumption of energy resources during project construction or operation (less than significant)

Summary of Impact EN-1 by Component

Component	Level of Significance before Mitigation	Mitigation Measures Required	Level of Significance after Mitigation
Folsom Center for Health Master Plan	LTS	None	N/A
Phase 1, Medical Office Building	LTS	None	N/A

LTS = less than significant; N/A = not applicable

Folsom Center for Health Master Plan

Construction-Related Energy

Energy would be required for construction associated with the project, including operation and maintenance of construction equipment and transportation of construction materials. The energy expenditure required to construct the buildings and infrastructure associated with the Master Plan would be nonrecoverable. Most energy consumption would result from operation of off-road construction equipment and on-road vehicle trips associated with commutes by construction workers and haul truck trips. An estimated 1,316,527 gallons of diesel and gasoline would be consumed during implementation of the Master Plan. In addition to the liquid fuel, construction would consume approximately 19,421 MWh of electricity. There are no unusual project characteristics that would necessitate the use of construction equipment that would be less energy efficient than the equipment used at comparable construction sites in other parts of the state. Idling of onsite equipment during construction would be limited to no more than 5 minutes in accordance with California Code of Regulations, Title 13, Sections 2449(d)(3) and 2485. Further, onsite construction equipment may include AFVs where feasible. Finally, the selected construction

contractors would use best available engineering techniques, construction and design practices, and equipment operating procedures, ensuring that the wasteful consumption of fuels and use of energy would not occur. Therefore, this impact would be **less than significant**.

Operational Building Energy and Stationary Sources

Development associated with the Master Plan would increase electricity consumption in the project site relative to existing conditions. However, the Master Plan would provide for renewable energy generation, use of reclaimed water, reduced water consumption and waste generation, and encouragement of alternative transportation and low-emissions vehicles would also occur under the Master Plan and according to the UC Sustainable Practices Policy. With respect to stationary sources, the Master Plan would include the operation of diesel emergency generators, electric boilers, or a heat pump hot water system.

Project operations through 2040 would result in the use of approximately 7.4 million MWh of electricity, and consumption of approximately 1.2 million gallons of gas and diesel fuel. Future development under the Master Plan would be subject to attainment at a minimum of LEED Silver standards and would comply with California Code of Regulations Title 24 requirements through the UC Sustainable Practices Policy. Specifically, the MOB, ambulatory surgery center, micro-hospital, hotel, and support facility buildings would be designed, constructed, and commissioned to outperform ASHRAE 90.1 or meet the whole-building energy performance targets listed in Table 2 in Section V.A.3 of the UC Sustainable Practices Policy. In addition, UC Davis would continue to implement the conservation and efficiency programs (e.g., Green Commuter Program, Clean Energy Efforts) identified above, and is committed to meeting the goals of the UC Sustainable Practices Policy that would reduce overall energy use and increase the use of onsite renewable energy. Therefore, this impact would be **less than significant**.

Operational Transportation Energy

Fuel consumption associated with project operations would result in additional vehicle travel in the region generated by the proposed uses. However, the Master Plan proposes a pull-out bus stop along Innovation Drive to facilitate future public transit, walkway corridors throughout the site, and planned regional bikeway and trail along the northern and eastern edges of the site, and the planned bike lane on Innovation Drive. Additionally, the UC Sustainable Practices Policy provides a sustainability framework consisting of guiding principles, goals, objectives, verification documentation and processes, and strategies for UC Davis and future developers, designers, and operators. Energy used for trips generated by operation of uses anticipated under the Master Plan would not be considered inefficient, wasteful, and unnecessary. The project would result in a **less-than-significant impact** related to wasteful, inefficient, or unnecessary consumption of energy resources.

Phase 1, Medical Office Building

Construction-Related Energy

Energy would be required to construct the MOB and related facilities in Phase 1, including operation and maintenance of construction equipment and transportation of construction materials. Most energy consumption would result from operation of off-road construction equipment and haul truck trips. The most intensive construction phases are during the underground tank installation phase and the foundation pouring phase.

Table 3.5-1 shows gallons of gasoline and diesel fuel estimated to be used during construction of the MOB. Gallons of fuel would vary widely by construction year depending on construction activity. The year 2024 would require the most fuel use at 188,933 gallons. In addition to the liquid fuel, construction is estimated to consume approximately 2,950 MWh of electricity in 2024, and 5,900 MWh for total project construction.

Table 3.5-1. Medical Office Building Construction Fuel Use

Year	Gal Gas	Gal Diesel	MWh
2023	24,983	117,638	2,704
2024	76,684	112,249	2,950
2025	78	125	246
Total	101,745	230,012	5,900

Source: ICF modeling.
gal = gallons; MWh = megawatt hours

In accordance with California Code of Regulations, Title 13, Sections 2449(d)(3) and 2485, idling of onsite equipment during construction would be limited to no more than 5 minutes. The construction contractors would use best available engineering techniques, construction and design practices, and equipment operating procedures, ensuring that the wasteful consumption of fuels and use of energy would not occur. Therefore, this impact would be **less than significant**.

Operational Building Energy and Stationary Sources

The MOB would result in electricity use and other fuel consumption. Table 3.5-2 shows the gas and diesel consumption, mostly from vehicle trips, which are described in Section 3.15, electricity use, solid waste generation, and water consumption estimated for the project during operations. SMUD is the electrical utility provider for the project site, but there is currently no existing electrical infrastructure. The project site does not have any existing electrical infrastructure available to extend power out to; therefore, SMUD intends to install three 50-megavolt ampere electric substations to provide electric service to the FPASP area.

Table 3.5-2. Medical Office Building Operational Fuel, Electricity, Waste, and Water Consumption and Use

[Gallons (diesel and gas)	639,839]
Electricity (MWh)	957,796
Waste (tons)	124
Water (gallons)	6,132,000

Source: ICF modeling.
MWh = megawatt hours

The MOB would be designed to comply with the UC Sustainable Practices Policy, which ensures that new projects incorporate energy sustainability. The MOB would be designed using green building principles, including an emphasis on energy efficiency, water conservation, waste reduction, and encouraging alternative transportation, reducing the impacts of development.

The project would attain at a minimum of LEED BD+C Silver standards and would meet or exceed California Code of Regulations Title 24 requirements through the UC Sustainable Practices Policy.

Specifically, the MOB would be designed, constructed, and commissioned to outperform the California Building Standards Code and ASHRAE Standard 90.1 energy efficiency standards.

In summary, the project would be designed to achieve LEED Silver certification, and would be designed, constructed, and commissioned to meet or exceed Title 24 Building Energy Efficiency Standards. The project would also incorporate design measures to meet the UC Sustainable Practices Policy, including obtaining 100 percent clean electricity from SMUD. Therefore, project operations would not result in energy use that is wasteful, inefficient, or unnecessary and this impact would be **less than significant**.

Transportation Energy

Operational fuel consumption associated with the MOB is estimated to be approximately 639,839 gallons of diesel/gasoline per year. There is a planned pull-out bus stop along Innovation Drive to facilitate future public transit, walkway corridors throughout the site, and planned regional bikeway and trail along the northern and eastern edges of the project site, and the planned bike lane on Innovation Drive. These Master Plan elements would further reduce VMT and associated transportation energy. Energy used for trips generated by operation of uses associated with the project would support primary and specialty medical care and would not be considered inefficient, wasteful, and unnecessary. This impact would be **less than significant**.

Mitigation Measures

No mitigation measures are required.

Impact EN-2: Conflict with or obstruction of a state or local plan for renewable energy or energy efficiency (less than significant)

Summary of Impact EN-2 by Component

Component	Level of Significance before Mitigation	Mitigation Measures Required	Level of Significance after Mitigation
Folsom Center for Health Master Plan	LTS	None	N/A
Phase 1, Medical Office Building	LTS	None	N/A

LTS = less than significant; N/A = not applicable

Folsom Center for Health Master Plan

Development under the Master Plan would comply with Title 24 Building Energy Efficiency Standards, which establish minimum efficiency standards related to various building features, including appliances, water and space heating and cooling equipment, building installation and roofing, and lighting. Title 24 standards are anticipated to be met or exceeded by attainment of LEED Silver standards and through the UC Sustainable Practices Policy. In addition, UC Davis would continue to implement the conservation and efficiency programs (e.g., Carbon Neutrality Initiative, Green Commuter Program, Clean Energy Efforts) identified above, and UC Davis is committed to meeting the goals of the UC Sustainable Practices Policy that would result in further reductions in energy use and increased use of onsite renewable energy.

Per the Master Plan, the site would be all electric per UC Sustainable Practices Policy requirements, and no natural gas service would be provided. Federal and state regulations including the Low

Carbon Fuel Standard, Clean Car Standards, and Low Emission Vehicle Program would reduce the transportation fuel demand. Under the Master Plan, design features that reduce energy use, improve energy efficiency, and increase reliance on renewable energy sources would be needed for the project site to meet the goals of the UC Carbon Neutrality Initiative as written into the UC Sustainable Practices Policy. Adherence to the increasingly stringent building and vehicle efficiency standards as well as the Master Plan design features consistent with UC Carbon Neutrality goals would reduce energy consumption to be consistent with applicable plans, policies, and regulations for renewable energy or energy efficiency. Therefore, the impact would be **less than significant**.

Phase 1, Medical Office Building

The project would comply with Title 24 Building Energy Efficiency Standards. Title 24 establishes minimum efficiency standards related to various building features, including appliances, water and space heating and cooling equipment, building installation and roofing, and lighting. Title 24 standards are anticipated to be met or exceeded by attainment of LEED Silver standards and through the UC Sustainable Practices Policy. The project would also outperform ASHRAE 90.1 energy efficiency standards consistent with the UC Sustainable Practices Policy section III.A.2 (Green Building Design). In addition, UC Davis would continue to implement the conservation and efficiency programs (e.g., Carbon Neutrality Initiative, Green Commuter Program, Clean Energy Efforts) identified above, and UC Davis is committed to meeting the goals of the UC Sustainable Practices Policy that would result in further reductions in energy use and increased use of onsite renewable energy.

While the project would increase fuel usage, federal and state regulations including the Low Carbon Fuel Standard, Clean Car Standards, and Low Emission Vehicle Program would reduce the transportation fuel demand. Adherence to the increasingly stringent building and vehicle efficiency standards as well as design features consistent with UC's carbon neutrality goals including LEED Silver certification would reduce energy consumption to be consistent with applicable plans, policies, and regulations for renewable energy or energy efficiency. Therefore, this impact would be **less than significant**.

Mitigation Measures

No mitigation measures are required.

3.6 Geology, Soils, and Seismicity

This section describes the regulatory and environmental setting for geology, soils, and seismicity on the UC Davis Folsom Center for Health Master Plan (project) site and in the project vicinity; analyzes effects on geology, soils, and seismicity that would result from the project; and provides mitigation measures, if applicable, to reduce the effects of any significant impacts. No comments related to geology, soils, and seismicity were received during the scoping period.

3.6.1 Existing Conditions

Regulatory Setting

University of California

As noted in Section 3.0.2, *University of California Autonomy*, the University of California (UC) is a constitutionally created state entity and is not subject to municipal regulations of surrounding local governments for uses on property owned or controlled by the UC that are in furtherance of its educational purposes (Cal. Const. Art. IX, Section 9). UC Davis may consider, for coordination purposes, aspects of local plans and policies for the communities surrounding the campus when appropriate and feasible, but it is not bound by those plans and policies in its planning efforts.

University of California Seismic Safety Policy

The UC Seismic Safety Policy was crafted to provide an acceptable level of earthquake safety for students, employees, and members of the public who occupy UC facilities and leased facilities, to the extent feasible by current earthquake engineering practices. Feasibility is determined by balancing the practicality and the cost of protective measures, depending on the forecasted severity and probability of injury resulting from seismic activity.

UC Davis Environmental Health and Safety

The UC Davis Environmental Health and Safety department provides programs and leadership on campus safety topics including natural and human-made disaster preparedness, fire prevention, personal and workplace safety, and risk management for campus research and other activities.

Federal

National Earthquake Hazards Reduction Act

The National Earthquake Hazards Reduction Act of 1977 is a statute passed to reduce the risks to life and property resulting from earthquakes. The act established the National Earthquake Hazards Reduction Program (NEHRP). The mission of NEHRP includes improved understanding, characterization, and prediction of hazards and vulnerabilities; improved building codes and land use practices; risk reduction through post-earthquake investigations and education; development and improvement of design and construction techniques; improved mitigation capacity; and accelerated application of research results. NEHRP designates the Federal Emergency Management Agency as the lead agency of the program and assigns several planning, coordinating, and reporting

responsibilities. Other NEHRP agencies include the National Institute of Standards and Technology, National Science Foundation, and the U.S. Geological Survey (USGS).

State

Alquist-Priolo Earthquake Fault Zoning Act

The Alquist-Priolo Earthquake Fault Zoning Act of 1972 (Alquist-Priolo Act) (Public Resources Code [PRC] Sections 2621–2630) intends to reduce the risk to life and property from surface fault rupture during earthquakes by regulating construction in active fault corridors and prohibiting the location of most types of structures intended for human occupancy across the traces of active faults. The law addresses only the hazard of surface fault rupture and is not directed toward other earthquake hazards.

Senate Bill (SB) 1953 was introduced on February 25, 1994, signed into law on September 21, 1994, and filed by the Secretary of State on September 22, 1994. SB 1953 was an amendment to and furtherance of the Alfred E. Alquist Hospital Seismic Safety Act of 1983 (Alquist Act). The Alquist Act establishes a program of seismic safety building standards for certain hospitals constructed on and after March 7, 1973. SB 1953 (Chapter 740, 1994) is now chaptered into statute in Sections 130000 through 130070 of the Alquist Act, and part of the California Health and Safety Code. The regulations developed as a result of this statute are deemed to be emergency regulations and became effective upon approval by the California Building Standards Commission and filing with the Secretary of State on March 18, 1998.

Seismic Hazards Mapping Act

The intention of the Seismic Hazards Mapping Act of 1990 (PRC Sections 2690–2699.6) is to reduce damage resulting from earthquakes. While the Alquist-Priolo Act addresses surface fault rupture, the Seismic Hazards Mapping Act addresses other earthquake-related hazards, including ground shaking, liquefaction, and seismically induced landslides. The act's provisions are similar in concept to those of the Alquist-Priolo Act: the state is charged with identifying and mapping areas at risk of strong ground shaking, liquefaction, landslides, and other corollary hazards, and cities and counties are required to regulate development within mapped Seismic Hazard Zones. Under the Seismic Hazards Mapping Act, permit review is the primary mechanism for local regulation of development. Specifically, cities and counties are prohibited from issuing development permits for projects in Seismic Hazard Zones until appropriate site-specific geologic or geotechnical investigations have been carried out and measures to reduce potential damage have been incorporated into the development plans.

California Building Standards Code

The State of California provides minimum standards for building design through the California Building Standards Code (CBSC; California Code of Regulations, Title 24). Where no other building codes apply, Chapter 29 regulates excavation, foundations, and retaining walls. The state earthquake protection law (California Health and Safety Code Section 19100 et seq.) requires that structures be designed to resist stresses produced by lateral forces caused by wind and earthquakes.

The CBSC has been modified from the International Building Code for California conditions with more detailed and/or more stringent regulations. The CBSC identifies seismic factors that must be considered in structural design. Specific minimum seismic safety and structural design

requirements are set forth in Chapter 16 of the CBSC. Chapter 18 of the CBSC regulates the excavation of foundations and retaining walls, while Chapter 18A regulates construction on unstable soils, such as expansive soils and areas subject to liquefaction. Appendix J of the CBSC regulates grading activities, including drainage and erosion control. The CBSC also contains a provision that provides for a preliminary soil report to be prepared to identify "...the presence of critically expansive soils or other soil problems which, if not corrected, would lead to structural defects" (CBSC Chapter 18, Sections 1803.1.1.1–1803.1.1.2).

Regional and Local

City of Folsom General Plan

The *Folsom 2035 General Plan* was adopted in August 2018 (City of Folsom 2018). The subsection titled Geologic and Seismic Hazards under Chapter 9, *Safety and Noise*, contains the following goals are relevant to geology/soils/seismicity.

Goal SN 2.1 Reduce risks and minimize impacts to the community from earthquakes and geologic hazards

SN 2.1.1 Requirements: Develop, maintain, and implement land use planning, building construction, and retrofitting requirements consistent with State standards to reduce risk associated with geologic and seismic hazards

SN 2.1.2 Roads, Bridges, and Utility Lines: Ensure that the design and engineering of new roads, bridges, and utility lines can withstand movement or ground failure associated with the seismic risk in Folsom consistent with State standards

Environmental Setting

Geology and Topography

The project site is located in the city of Folsom, Sacramento County, California. The city of Folsom is located within the Great Valley geomorphic province of California, composed of the Joaquin and Sacramento Valleys. The Great Valley is a flat alluvial plain approximately 50 miles wide and 400 miles long in the central portion of California. The province is generally bounded by the Sierra Nevada Mountains to the east, Coast Ranges to the west, Transverse Ranges to the south, and Klamath Mountains to the north. The region has been determined by the California Division of Mines and Geology as generally being underlain on the west with alluvium, lake, playa, and terrace deposits and on the east with Pliocene or Pleistocene sandstone, shale, and gravel deposits (City of Folsom 2014).

The site is located on the western flank of the Sierra Nevada Mountains along the eastern margin of the California Central Valley. The property is bordered by U.S. Route 50 (US 50) to the north, East Bidwell Street to the east, and vacant land to the south and west (Figures 2-3 and 2-4). The site is part of the Folsom Plan Area Specific Plan (FPASP), an approved 3,500-acre specific plan, which will include a town center to the south and a mix of multifamily residential housing, schools, offices, hotels, and retail uses in adjacent parcels. The project site is an approximately 34.6-acre parcel, which has been graded as a part of development of the subdivision. Elevations within the site range from 433 feet in the northeast portion of the site to 371 feet in the southwest portion of the site. The site is vacant, and there are no structures or trees existing on the site.

Soils

According to a regional geologic map prepared by the California Geological Survey (CGS) (Gutierrez 2011), the site is underlain by Jurassic-aged Gopher Ridge Volcanics and the metamorphic Salt Spring Shale (Figure 3.6-1). The site has undergone extensive grading, and therefore an intact soil profile may not be present. In particular, topsoil is likely to be absent or highly disturbed.

The upper layer of soils at the project site consists of loose to medium dense reddish brown silty sand to sandy silt with gravel and cobble and ranged thickness from 1 to 2.5 feet. The surficial native soils are underlain by dark gray slate bedrock of the Salt Springs Slate in some areas of the site by metavolcanic bedrock of the Gopher Ridge Volcanics in other areas. The bedrock of the Salt Springs Slate exhibited easy to moderate excavation characteristics before encountering practical refusal at depths ranging from 3 to 5 feet below existing grade and was found to be relatively uniform in appearance and excavation characteristics across the site. The metavolcanic bedrock of the Gopher Ridge Volcanics encountered within test pits exhibited moderate to hard excavation characteristics. Soil classification and Atterberg limits indicate that near surface soils have a very low expansion potential.

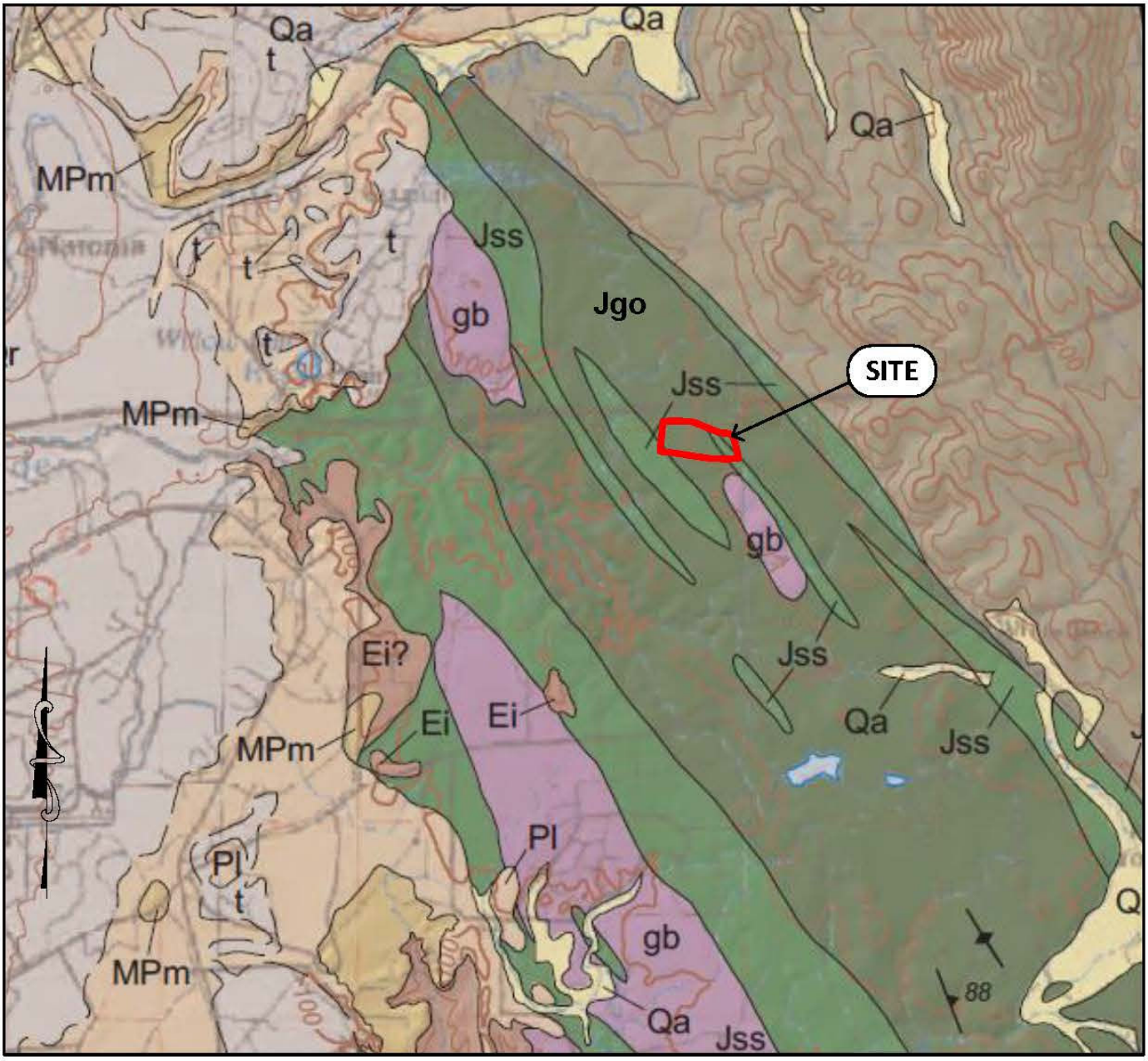
Currently the site is vacant and completely pervious, and there are no structures or trees existing on the site. The project site will be mass graded as a part of a separate project approved under the FPASP. Grading of the site will proceed under Section 404 permit SPK-2006-00984, modified on July 11, 2019. Grading will remove the existing vegetation and wetlands. The schedule for site grading is described in Chapter 2, *Project Description*.

Seismicity

The site is not within the boundaries of an Earthquake Fault Zone for fault-rupture hazard as defined by the Alquist-Priolo Act and no faults are known to pass through the property. The site is therefore not considered subject to surface fault rupture hazard. However, like much of California, it is located in a seismically active area and is therefore subject to other hazards associated with seismicity, discussed in the following paragraphs.

The USGS/CGS Probabilistic Seismic Hazards Assessment Model, revised in April 2003, places Folsom in the second lowest category for seismic shaking potential out of nine zones. The model predicts peak ground acceleration (Pga) based on location and underlying geology. Pga is expressed in fractions of g, the standard acceleration due to Earth's gravity (equivalent to g-force). For Folsom, the model estimates the Pga for three different site conditions: firm rock (0.103 g), soft rock (0.112 g), and alluvium (0.15 g). These levels of ground shaking would equate to a maximum VI intensity earthquake on the Mercalli scale, with strong perceived shaking and light potential damage (City of Folsom 2014).

There have been no historic earthquakes with magnitudes of 5.5 or greater epicentered in the vicinity of the site. The nearest large historic earthquake was the magnitude 6.6 Vacaville earthquake of 1892, which was epicentered about 55 miles southwest of the site. That event occurred prior to the development of seismic monitoring networks, thus its location and magnitude are only approximate. According to the Probabilistic Seismic Hazards Map prepared by CGS, the area encompassing the project site will experience lower levels of shaking less frequently and in most earthquakes, only weaker, masonry buildings would be damaged. However, infrequent earthquakes could cause strong shaking.



REGIONAL GEOLOGIC MAP

Scale: 1 inch ≈ 5000 feet

LEGEND

Jss – Salt Springs Slate

Qa – Alluvium

Gb – Gabbro

Jgo – Gopher Ridge Volcanics

UCDAVIS

Figure 3.6-1
Regional Geologic Map

Potential secondary seismic hazards that can affect land development projects include liquefaction, tsunamis, seiches, seismically induced settlement, seismically induced flooding, and seismically induced landsliding.

Liquefaction occurs when saturated, unconsolidated soils lose their strength and become liquid as a result of ground shaking caused by a seismic event. The possibility of liquefaction is dependent upon grain size, relative density, confining pressure, saturation of the soils, and intensity and duration of ground shaking. In order for liquefaction to occur, three criteria must be met: underlying loose, coarse-grained (sandy) soils, a groundwater depth of less than about 50 feet, and a potential for seismic shaking from nearby large-magnitude earthquakes. Given that the site is underlain by bedrock, soil liquefaction at the site is unlikely. CGS has not yet prepared a Seismic Hazard Zone Map of potential liquefaction hazards for the quadrangle in which the site is located.

Tsunamis are sea waves that are generated in response to large-magnitude earthquakes. When these waves reach shorelines, they sometimes produce coastal flooding. Seiches are the oscillation of large bodies of standing water, such as lakes, that can occur in response to ground shaking. Tsunamis and seiches do not pose hazards due to the inland location of the site and lack of nearby bodies of standing water.

Seismically induced settlement occurs most frequently in areas underlain by loose, granular sediments. Damage as a result of seismically induced settlement is most dramatic when differential settlement occurs in areas with large variations in the thickness of underlying sediments. Settlement caused by ground shaking is often non-uniformly distributed, which can result in differential settlement. Due to the shallow depth to bedrock and that the existing artificial fill and alluvium is to be removed and replaced and engineered fill, it is estimated that seismically induced settlement will be less than 0.25 inch with differential settlement taken as half the total settlement over 30 feet within the engineered fill soils.

The potential for seismically induced flooding and landsliding at the project site is unlikely because the site is not located within a potential dam inundation area, there are no upgradient water reservoirs or dams in close proximity to the site, and the site has a low gradient (City of Folsom 2014). However, CGS has not yet prepared a Seismic Hazard Zone Map of potential earthquake-induced landslide hazards for the site.

3.6.2 Environmental Impacts

This section describes the environmental impacts associated with geology, soils, and seismicity that would result from the Folsom Center for Health Master Plan. It describes the methods used to determine the effects of the project and lists the thresholds used to conclude whether an impact would be significant. Measures to mitigate (i.e., avoid, minimize, rectify, reduce, eliminate, or compensate for) any significant impacts are provided, if available.

Methods for Analysis

To evaluate project impacts, resource conditions that could pose a risk to the project site were identified through the *Geotechnical Investigation for UCDH Folsom Medical Campus* prepared for the project by RMA Group (2021) included in Appendix G, *Geotechnical Investigation*. The investigation included review of documents pertaining to the project site and vicinity. The purpose of the geotechnical investigation was to summarize geotechnical and geologic conditions at the site, to assess their potential impact on the proposed development, and to develop geotechnical and

engineering design parameters. The investigation consisted of office research, field exploration, laboratory testing, review of the compiled data, and preparation of a final report. It was performed in a manner consistent with generally accepted engineering and geologic principles and practices and incorporated applicable requirements of CBSC. Additional sources consulted include previous environmental impact reports, background reports prepared for nearby plans and projects, and published geologic literature. The information obtained from these sources was reviewed and summarized to establish the existing conditions and identify potential environmental hazards. In determining level of significance, the analysis assumes the project would comply with relevant laws, regulations, and guidelines.

Thresholds of Significance

In accordance with Appendix G of the California Environmental Quality Act Guidelines, the project would be considered to have a significant effect if it would result in any of the conditions listed below.

- Potential substantial adverse effects, including the risk of loss, injury, or death involving: (1) 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; (2) strong seismic ground shaking; (3) seismic-related ground failure, including liquefaction; or (4) landslides.
- Substantial soil erosion or the loss of topsoil.
- Placement of project-related facilities on a geologic unit or soil that is unstable or that would become unstable as a result of the project and potentially result in an onsite or offsite landslide, lateral spreading, subsidence, liquefaction, or collapse.
- Placement of project-related facilities on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property.
- Placement of project facilities on soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems in areas where sewers are not available for the disposal of wastewater.
- Direct or indirect destruction of a unique paleontological resource or site or unique geologic feature.

Impacts and Mitigation Measures

Impact GEO-1: Potential substantial adverse effects, including the risk of loss, injury, or death involving: (1) 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; (2) strong seismic ground shaking; (3) seismic-related ground failure, including liquefaction; or (4) landslides (less than significant)

Summary of Impact GEO-1 by Phase

Component	Level of Significance before Mitigation	Mitigation Measures Required	Level of Significance after Mitigation
Folsom Center for Health Master Plan	LTS	None	N/A
Phase 1, Medical Office Building	LTS	None	N/A

LTS = less than significant; N/A = not applicable

Folsom Center for Health Master Plan

The site is not located within the boundaries of an Earthquake Fault Zone for fault-rupture hazard as defined by the Alquist-Priolo Act and no faults are known to pass through the property. Therefore, fault rupture at or near the project site is unlikely.

According to the *Geotechnical Investigation for UCDH Folsom Medical Campus* prepared for the project by RMA Group (2021), there is no potential for seismically induced landsliding, due to the low gradient of the site (Appendix G).

The quadrangle that encompasses the project site has not been evaluated for liquefaction hazards. Consequently, no state liquefaction hazard zones have been established for the site vicinity (Appendix G). The *Geotechnical Investigation for UCDH Folsom Medical Campus* prepared for the project by RMA Group (2021) concluded that, given that the site is underlain by bedrock, soil liquefaction at the site is unlikely.

Adherence to the 2019 CBSC and the design recommendations in the geotechnical report would preclude substantial adverse effects, including the risk of loss, injury, or death involving rupture of a known earthquake fault, strong seismic ground shaking, seismic-related ground failure, or landslides. Therefore, the impact of the project would be **less than significant,** and no mitigation is required.

Phase 1, Medical Office Building

Site conditions as assessed in the *Geotechnical Investigation for UCDH Folsom Medical Campus* do not differ substantially across the site, and therefore adherence to the 2019 CBSC, as required by the UC Facilities Manual, and the design recommendations in the geotechnical report would result in a **less-than-significant impact** for Phase 1.

Mitigation Measures

No mitigation measures are required.

Impact GEO-2: Potential to result in substantial soil erosion or the loss of topsoil (less than significant)

Summary of Impact GEO-2 by Component

Component	Level of Significance before Mitigation	Mitigation Measures Required	Level of Significance after Mitigation
Folsom Center for Health Master Plan	LTS	None	N/A
Phase 1, Medical Office Building	LTS	None	N/A

LTS = less than significant; N/A = not applicable

Folsom Center for Health Master Plan

The project would occur on a 34.6-acre property within the FSASP. Topsoil in the area has already either been removed or extensively altered, or will be altered, in conjunction with mass grading.as a part of a separate project approved under the FPASP. Pursuant to Policy 10.77 in the Specific Plan, topsoil displaced during grading and construction shall be stockpiled for reuse in the plan area; therefore, the project would not result in a significant loss of topsoil. As proposed as a part of the project (and discussed in Section 3.9, *Hydrology and Water Quality*), a stormwater pollution prevention plan (SWPPP) will be developed in accordance with the National Pollutant Discharge Elimination System (NPDES) requirements. The SWPPP would detail measures to control soil erosion and waste discharge from project construction areas. With a SWPPP in place, the impact related to accelerated erosion from construction activities would be **less than significant**.

Additionally, because of the nature of the project components (development of structures with associated hardscape and landscaping and associated infrastructure), the location of the project on a parcel which will have been graded as a part of development under the FPASP, and with NPDES compliance in place, the project is not expected to result in significant long-term (operational) impacts related to accelerated erosion. Therefore, potential impacts resulting in substantial soil erosion or the loss of topsoil would be **less than significant**.

Phase 1, Medical Office Building

Site conditions as assessed in the *Geotechnical Investigation for UCDH Folsom Medical Campus* do not differ substantially across the site, and therefore the SWPPP and NPDES requirements would result in a **less-than-significant impact** for Phase 1.

Mitigation Measures

No mitigation measures are required.

Impact GEO-3: Placement of project-related facilities on a geologic unit or soil that is unstable or that would become unstable as a result of the project and potentially result in an onsite or offsite landslide, lateral spreading, subsidence, liquefaction, or collapse (less than significant)

Summary of Impact GEO-3 by Component

Component	Level of Significance before Mitigation	Mitigation Measures Required	Level of Significance after Mitigation
Folsom Center for Health Master Plan	LTS	None	N/A
Phase 1, Medical Office Building	LTS	None	N/A

LTS = less than significant; N/A = not applicable

Folsom Center for Health Master Plan

As discussed in Impact GEO-1, given that the site is underlain by bedrock and due to the low gradient of the site, the potential for liquefaction and landsliding at the project site is low. Adherence to the 2019 CBSC and the design recommendations in the geotechnical report would preclude impacts that would result in a landslide, lateral spreading, subsidence, liquefaction, or collapse. Therefore, potential impacts resulting from unstable soils would be **less than significant.**

Phase 1, Medical Office Building

Site conditions as assessed in Appendix G do not differ substantially across the site, and therefore adherence to the 2019 CBSC and the design recommendations in the geotechnical report result in a **less-than-significant impact** for Phase 1.

Mitigation Measures

No mitigation measures are required.

Impact GEO-4: Placement of project-related facilities on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property (less than significant)

Summary of Impact GEO-4 by Component

Component	Level of Significance before Mitigation	Mitigation Measures Required	Level of Significance after Mitigation
Folsom Center for Health Master Plan	LTS	None	N/A
Phase 1, Medical Office Building	LTS	None	N/A

LTS = less than significant; N/A = not applicable

Folsom Center for Health Master Plan

As stated in Appendix G, soil classification and Atterberg limits (the measure of the critical water contents of a fine-grained soil) indicate that near surface soils at the project site have a very low expansion potential. There would be a low potential for damage to improperly designed or constructed structures and facilities (RMA Group 2021). With adherence to the provisions in the

CBSC, expansive soils would be addressed consistent with the current engineering standard of care, and the impact of the project would be **less than significant.**

Phase 1, Medical Office Building

Site conditions as assessed in Appendix G do not differ substantially across the site, and therefore with adherence to the provisions in the CBSC, as required by the UC Facilities Manual, expansive soils would be addressed consistent with the current engineering standard of care, and the impact of Phase 1 of the project would be **less than significant.**

Mitigation Measures

No mitigation measures are required.

Impact GEO-5: Placement of project facilities on soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems in areas where sewers are not available for the disposal of wastewater (no impact)

Summary of Impact GEO-5 by Component

Component	Level of Significance before Mitigation	Mitigation Measures Required	Level of Significance after Mitigation
Folsom Center for Health Master Plan	NI	None	N/A
Phase 1, Medical Office Building	NI	None	N/A

NI = no impact; N/A = not applicable

The project site would be connected to the City of Folsom wastewater system and no component of the project would require the installation of a septic system. Therefore, there would be **no impact**.

Mitigation Measures

No mitigation measures are required.

Impact GEO-6: Direct or indirect destruction of a unique paleontological resource or site or unique geologic feature (less than significant)

Summary of Impact GEO-6 by Component

Component	Level of Significance before Mitigation	Mitigation Measures Required	Level of Significance after Mitigation
Folsom Center for Health Master Plan	LTS	None	N/A
Phase 1, Medical Office Building	LTS	None	N/A

LTS = less than significant; N/A = not applicable

Folsom Center for Health Master Plan

Professional standards of practice adopted by the Society of Vertebrate Paleontology (SVP; 2010) offer guidance for control and mitigation of adverse impacts on paleontological resources. Paleontological sensitivity is a qualitative assessment that takes into account the paleontological potential of the stratigraphic units present, the local geology and geomorphology, and any other

local factors that may be germane to fossil preservation and potential yield. According to the SVP, an area is considered to have a high potential (sensitivity) to contain fossils if it is a unit from which "vertebrate or significant invertebrate, plant, or trace fossils have been recovered." Paleontological resources are considered to be older than middle Holocene (i.e., older than approximately 5,000 years) (Society of Vertebrate Paleontology 2010:11). Unlike sensitivity assessments for archaeological resources, paleontological sensitivity is determined by geological units or formations.

The site is underlain by Jurassic-aged Gopher Ridge Volcanics and the metamorphic Salt Spring Shale. These formations consist of Jurassic-aged rocks that formed at depth beneath the earth's surface and have since been deformed and metamorphosed. The University of California Museum of Paleontology (2021) database does not contain any records of vertebrate or plant fossils within these formations. Because of the nature of these rock formations and the lack of previously recorded vertebrate or plant fossil localities, these formations are not considered to be paleontologically sensitive rock units under the Society of Vertebrate Paleontology guidelines. Therefore, impacts of the project on paleontological resources would be **less than significant.**

Phase 1, Medical Office Building

Site conditions as assessed in Appendix G do not differ substantially across the site, and therefore due to absence of paleontologically sensitive rock units, the impact of Phase 1 of the project would be **less than significant.**

Mitigation Measures

No mitigation measures are required.

3.7 Greenhouse Gas Emissions

This section describes the regulatory and environmental setting for greenhouse gas (GHG) emissions in the study area (defined below), analyzes effects on GHG emissions that would result from the UC Davis Folsom Center for Health Master Plan (project) and Phase 1, Medical Office Building (MOB), and provides mitigation measures, if applicable, to reduce the effects of any significant impacts. Appendix E, *Air Quality and Greenhouse Gas Modeling Inputs and Supporting Data*, presents supporting GHG calculations for the impact analysis.

Climate change is a global problem and GHGs are global pollutants, unlike criteria air pollutants such as ozone precursors, which are primarily pollutants of regional and local concern. Given the long atmospheric lifetimes of GHGs, GHGs emitted by many sources worldwide accumulate in the atmosphere. No single emitter of GHGs is large enough to trigger global climate change on its own. Rather, climate change is the result of the individual contributions of countless past, present, and future sources. Thus, GHG impacts are inherently cumulative, and the study area for impacts on GHGs includes the entire state and global atmosphere.

In response to the Notice of Preparation for this EIR, commenters expressed following concerns related to GHG:

- Use of Sacramento Metropolitan Air Quality Management District's (SMAQMD) *Guide to Air Quality Assessment in Sacramento County* (SMAQMD's CEQA Guide) (Sacramento Metropolitan Air Quality Management District 2021a).
- Consistency with the Folsom Plan Area Specific Plan (FPASP) measures to reduce GHG impacts, including the operational Air Quality Mitigation Plan (AQMP) and FPASP Mitigation Monitoring and Reporting Program.
- Consistency with the California Air Resources Board's (CARB) *2017 Climate Change Scoping Plan* (2017 Scoping Plan), Sacramento Area Council of Governments' (SACOG) *2020 Metropolitan Transportation Plan/Sustainable Communities Strategy* (MTP/SCS), the City of Folsom's Greenhouse Gas Emission Reduction Strategy (Folsom GHG Reduction Strategy), and the University of California's (UC) Sustainable Practices Policy (California Air Resources Board 2017a; Sacramento Area Council of Governments 2019; City of Folsom 2018a).
- Provision of all-electric design, electric vehicle (EV) ready spaces, and solar photovoltaic (PV) shade structures.
- Incorporation of measures to reduce the urban heat island effect.
- Compliance with SMAQMD rules and regulations.
- Acknowledgement of potential climate change impacts.

3.7.1 Existing Conditions

Regulatory Setting

There is currently no overarching federal law specifically related to climate change or the reduction of GHG emissions. During the Obama administration, the U.S. Environmental Protection Agency

(EPA) began developing GHG regulations under the federal Clean Air Act; however, no federal law is in effect at this time. At the state level, California has adopted broad statewide legislation to address various aspects of climate change and GHG emissions mitigation.

University of California

As noted in Section 3.0.2, *University of California Autonomy*, the UC, as a constitutionally created state entity, is not subject to municipal regulations of surrounding local governments for uses on property owned or controlled by the UC that are in furtherance of its educational purposes. UC Davis may consider, for coordination purposes, aspects of local plans and policies for the communities surrounding the campus when it is appropriate and feasible, but it is not bound by those plans and policies in its planning efforts.

Sustainable Practices Policy

The UC Sustainable Practices Policy was adopted in 2006. It is regularly updated, with the most recent update occurring in 2020. The policy goals encompass ten areas of sustainable practices: green building design, clean energy, climate protection, sustainable transportation, sustainable building operations, zero waste, sustainable procurement, sustainable food services, and sustainable water systems. Many of the general policies within these ten practice areas are applicable to UC Davis Health facilities. Additionally, Section J, *Sustainability at UC Health*, specifically outlines practices to improve sustainability at UC Davis Health facilities. Policies from the 2020 Sustainable Practices Policy most relevant to the project GHG analysis are excerpted below.

Green Building Design

- Acute care/hospital facilities and medical office buildings shall be designed, constructed, and commissioned to outperform ASHRAE 90.1 - 2010 by at least 30% or meet the whole-building energy performance targets listed in Table 2 in Section V.A.3.
- No new building or major renovation that is approved after June 30, 2019, shall use onsite fossil fuel combustion (e.g., natural gas) for space and water heating (except those projects connected to an existing campus central thermal infrastructure). Projects unable to meet this requirement shall document the rationale for this decision, as described in Section V.A.4.
- All new buildings will achieve a USGBC Leadership in Energy and Environmental Design (LEED) "Silver" certification at a minimum. All new buildings will strive to achieve certification at a USGBC LEED "Gold" rating or higher, whenever possible within the constraints of program needs and standard budget parameters.

Clean Energy

- Install additional on-site renewable electricity supplies and energy storage systems whenever cost-effective and/or supportive of the location's Climate Action Plan or other goals.
- By 2025, each campus and health location will obtain 100% clean electricity.

Climate Protection[1]

- Climate neutrality from scope 1 and 2 sources by 2025 (discussed further below).

[1] Emission scopes are defined below under *Emissions Inventories*. The UC Sustainable Practices Policy requires each campus complete an assessment of Scope 1 emissions from natural gas combustion when the location's major fossil fuel–using infrastructure (e.g., combined heat and power facility) is planned for capital renewable or major repair,

- Climate neutrality from specific scope 3 sources (as defined by Second Nature's Carbon Commitment) by 2050 or sooner.

Sustainable Transportation

- By 2025, each location shall strive to reduce its percentage of employees and students commuting by SOV [single-occupancy vehicle] by 10% relative to its 2015 SOV commute rates.
- By 2050, each location shall strive to have no more 40% of its employees and no more than 30% of all employees and students commuting to the location by SOV.
- By 2050, each location shall strive to have at least 30% of commuter vehicles be ZEV [zero-emission vehicles].

Zero Waste

- The University prioritizes waste reduction in the following order: reduce, reuse, and then recycle and compost. UC Davis Health has the following waste targets:
  - By 2025, at least 40% of total solid waste diverted from landfill and incineration.
  - By 2025, no more than 25 pounds of total solid waste per Adjusted Patient Day.

Sustainable Water Systems

- Each location will develop and maintain a Water Action Plan that identifies long term strategies for achieving sustainable water systems.

The UC Sustainable Practices Policy includes the University Carbon Neutrality Initiative, which commits UC campuses to emitting net zero GHG emissions by 2025 from Scope 1 and 2 sources. UC President Michael Drake reaffirmed this goal in a statement made on January 20, 2021 (University of California Office of the President 2021). In line with this initiative, UC Davis Health and other UC campuses have also committed to achieving net zero GHG emissions from all sources (including on-road mobile) by 2050. The policy requires the UC Davis Health system to aggressively improve energy efficiency in buildings, reduce emissions from the campus fleet and other sources, and increase utilization of renewable energy sources. As part of the University Carbon Neutrality Initiative, internal guidelines have been developed to ensure that any use of offsets to achieve the carbon neutrality targets will result in additional, verified GHG emissions reductions from actions that align, as much as possible, with UC's research, teaching, and public service mission.

University of California Davis Health Green Commuter Program

The UC Davis Health Green Commuter Program, housed within Parking, Transportation, and Fleet Services, is a program designed to help foster environmental stewardship while creating a better work-life balance by offering more sustainable commute modes to employees and students. These programs include carpool matching, transit planning, bicycling, and walking programs as well as telework. These programs include incentives providing benefits to those who choose not to drive alone. A large component of the Green Commuter Program is education and outreach offered throughout the year.

or no later than 2035. The assessment must determine the best pathway to decarbonize 80 percent of Scope 1 emissions through means other than GHG offsets.

University of California Folsom Center Sustainability Master Plan

The *Folsom Center Sustainability Master Plan* (Folsom Sustainability Plan) provides a framework to help prioritize sustainability during early project design and throughout development and operation (University of California, Davis Health 2021). The plan outlines six guiding principles that are supported by five goals and 40 objectives. The objectives include a range of policy and third-party verification criteria, performance targets, and other metrics. Collectively, these process requirements set sustainability goals for the project that align with the UC Sustainable Practices Policy.

Federal

Although currently there is no comprehensive federal law specifically related to the reduction of GHG emissions, in 2021, the United States rejoined the Paris Agreement to reduce national GHG emissions, and the federal government submitted the U.S. Nationally Determined Contribution, which aims to reduce national GHG emissions 50 to 52 percent by 2030 from 2005 levels. Additionally, the EPA has adopted a Greenhouse Gas Reporting Rule for facilities emitting more than 25,000 metric tons (MT) of GHGs, and EPA and the National Highway Traffic Safety Administration (NHTSA) jointly implement fuel efficiency standards that have a direct effect on GHG emissions (e.g., Corporate Average Fuel Economy standards for light-duty vehicles). EPA and NHTSA have also established GHG emission standards for medium- and heavy-duty vehicles through the *Greenhouse Gas Emissions Standards and Fuel Efficiency Standards for Medium- and Heavy-Duty Engines and Vehicles* (76 *Federal Register* 7106).

State

California has established various regulations to address GHG emissions. The following subsections describe the most relevant of these regulations.

Legislative Reduction Targets

Assembly Bill (AB) 32 (Chapter 488, Statutes of 2006), known as the Global Warming Solutions Act of 2006, requires the state to reduce GHG emissions to 1990 levels by 2020. Senate Bill (SB) 32 (passed in 2016) requires the state to reduce emissions to 40 percent below the 1990 level by 2030. The state's plan to reach these targets are presented in periodic scoping plans. CARB adopted the 2017 Scoping Plan in November 2017 to meet the GHG reduction requirement set forth in SB 32 (California Air Resources Board 2017a). It proposes continuing the major programs of the previous Scoping Plan, including cap-and-trade regulation; low carbon fuel standards; more efficient cars, trucks, and freight movement; Renewables Portfolio Standard (RPS); and reducing methane (CH_4) emissions from agricultural and other wastes. The 2017 Scoping Plan articulates a key role for local governments, recommending they establish GHG reduction goals for both their municipal operations and the community consistent with those of the state. CARB is currently working on the 2022 Scoping Plan, which will outline a path to achieve carbon neutrality by mid-century.

Executive Orders

In 2005, Governor Arnold Schwarzenegger signed Executive Order (EO) S-3-05, which established goals to reduce California's GHG emissions to (1) 2000 levels by 2010 (achieved); (2) 1990 levels by 2020; and (3) 80 percent below the 1990 levels by 2050. Governor Jerry Brown signed EO B-18-12 in 2012 requiring state agencies to implement green building practices to improve energy, water

and materials efficiency; improve air quality and working conditions for state employees; reduce costs to the state; and reduce environmental impacts from state operations. In 2018, Governor Brown signed EO B-48-18 requiring all state entities to work with the private sector to have at least 5 million zero-emission vehicles (ZEV) on the road by 2030, as well as install 200 hydrogen fueling stations and 250,000 EV charging stations by 2025. Also in 2018, Governor Brown signed EO B-55-18, which established a state goal to achieve carbon neutrality as soon as possible, and no later than 2045, and to achieve and maintain net negative emissions thereafter. EOs are binding on state government agencies and only some are legally binding on the UC.

Renewables Portfolio Standard

SBs 1078 (2002), 107 (2006), 2 (2011), and 100 (2015) govern California's RPS, under which investor-owned utilities, energy service providers, and Community Choice Aggregators must procure additional retail sales per year from eligible renewable sources. The current goals for renewable sources (as outlined under SB 100 in 2015) are 33 percent by 2020, 40 percent by 2024, 50 percent by 2026, and 60 percent by 2030. SB 100 further requires all electricity come from zero-carbon sources by 2045.

Integrated Waste Management

AB 341 (passed in 2011) directed the California Department of Resources Recycling and Recovery to develop and adopt regulations for mandatory commercial recycling. The resulting Mandatory Commercial Recycling Regulation (2012) requires that after July 1, 2012, certain businesses that generate 4 cubic yards or more of commercial solid waste per week arrange recycling services. AB 341 also established a statewide recycling goal of 75 percent by 2020. In April 2016, AB 1826 passed, requiring businesses that generate 2 cubic yards per week of organic waste (beginning on January 1, 2020) arrange for recycling services for that waste. Diverting organic waste from landfills reduces emissions of CH_4 by reducing anaerobic decomposition of organic waste that are more likely to occur in landfills where organic waste is often buried with inorganic waste. SB 1383 (discussed below) established specific targets for reducing organic waste in landfills and CH_4 emissions from dairy and livestock operations.

Cap and Trade

In 2011, CARB adopted a statewide cap-and-trade regulation covering sources of GHG emissions that emit more than 25,000 MT of carbon dioxide equivalent (CO_2e) per year. The covered sources are refineries, power plants, industrial facilities, and transportation fuels. The cap-and-trade program includes an enforceable statewide emissions cap that declines approximately 3 percent annually. CARB distributes allowances, which are tradeable permits, equal to the emissions allowed under the cap. Sources that reduce emissions more than their limits can auction carbon allowances to other covered entities through the cap-and-trade market. Sources subject to the cap are required to surrender allowances and offsets equal to their emissions at the end of each compliance period. The cap-and-trade program took effect in early 2012 with the enforceable compliance obligation beginning January 1, 2013. The cap-and-trade program was initially slated to sunset in 2020 but the passage of SB 398 in 2017 extended the program through 2030.

Energy Efficiency Standards

The California Green Building Standards Code (Part 11, Title 24), commonly referred to as CALGreen, was adopted as part of the California Building Standards Code (Title 24, California Code

of Regulations [CCR]). Part 11 of Title 24 established voluntary standards that became mandatory under the 2010 edition of the code. These involved sustainable site development, energy efficiency (in excess of California Energy Code requirements), water conservation (e.g., low-flow fixtures), material conservation, and internal air contaminants. The current energy efficiency standards were adopted in 2019 and took effect on January 1, 2020. SB 350, which was signed by Governor Brown in October 2015, also requires a doubling of energy efficiency (electrical and natural gas) by 2030, including improvements to the efficiency of existing buildings.

Vehicle Efficiency Standards and Rules

Additional strengthening of the Pavley I standards (referred to as the "Advanced Clean Cars" measure) was adopted for vehicle model years 2017–2025 in 2012. Together, the two standards are expected to increase average fuel economy to roughly 54.5 miles per gallon in 2025. As discussed in Section 3.2, *Air Quality*, CARB adopted the Advanced Clean Truck Regulation in June 2020 to accelerate a large-scale transition of zero-emission medium- and heavy-duty vehicles. The regulation requires the sale of zero-emission medium-and-heavy-duty vehicles as an increasing percentage of total annual California sales from 2024 to 2035. By 2035, zero-emission truck/chassis sales would need to be 55 percent of Class 2b–3 truck sales, 75 percent of Class 4–8 straight truck sales, and 40 percent of truck tractor sales. By 2045, every new medium- and heavy-duty truck sold in California will be zero emission. This effort is currently in litigation.

Regional Land Use and Transportation Planning to Reduce Vehicle Miles Traveled

SB 375 (passed in 2009) requires the state's 18 Metropolitan Planning Organizations to develop the sustainable communities strategies (SCSs) as part of their regional transportation plans (RTPs) through integrated land use and transportation planning, and to demonstrate an ability to attain the GHG emissions reduction targets. CARB released updated SB 375 targets in March 2018. The revised targets require SACOG to reduce per-capita GHG emissions from passenger vehicles by approximately 19 percent by 2035, compared to 2005 levels (California Air Resources Board 2018).

SB 743 (passed in 2013) requires revisions to the California Environmental Quality Act (CEQA) Guidelines that establish new impact analysis criteria for the assessment of a project's transportation impacts. The intent behind SB 743 and revising the CEQA Guidelines is to integrate and better balance the needs of congestion management, infill development, active transportation, and GHG emissions reduction. The Governor's Office of Planning and Research (OPR) recommends that vehicle miles traveled (VMT) serve as the primary analysis metric, replacing the existing criteria of delay and level of service. In 2018, OPR released a technical advisory outlining potential VMT significance thresholds for different project types. As of July 1, 2020, CEQA requires the use of VMT as well.

Short-Lived Climate Pollutants Reduction Strategy

SB 605 directed CARB, in coordination with other state agencies and local air districts, to develop a comprehensive Short-Lived Climate Pollutants (SLCP) Reduction Strategy. SB 1383 directed CARB to approve and implement the SLCP Reduction Strategy to achieve the following reductions in SLCPs.

- 40 percent reduction in CH_4 from the 2013 level by 2030.
- 40 percent reduction in hydrofluorocarbon (HFC) gases from the 2013 level by 2030.
- 50 percent reduction in anthropogenic black carbon from the 2013 level by 2030.

SB 1383 also establishes the following targets for reducing organic waste in landfills and CH_4 emissions from dairy and livestock operations.

- 50 percent reduction in organic waste disposal from the 2014 level by 2020.
- 75 percent reduction in organic waste disposal from the 2014 level by 2025.
- 40 percent reduction in CH_4 emissions from livestock manure management operations and dairy manure management operations below the dairy sector's and livestock sector's 2013 levels by 2030.

CARB adopted the SLCP Reduction Strategy in March 2017 as a framework for achieving the CH_4, HFC, and anthropogenic black carbon reduction targets set by SB 1383 (California Air Resources Board 2017b). The SLCP Reduction Strategy includes 10 measures to reduce SLCPs, which fit within a wide range of ongoing planning efforts throughout the state. Final regulations to achieve the GHG reduction goals expressed in SB 1383 were codified under the CCR (Title 14, Division 7, Chapters 3 and Title 27, Division 2, Chapters 2, 3, and 4) in November 2020. The regulation took effect on January 1, 2022.

Regional and Local

Sacramento Metropolitan Air Quality Management District

As discussed in Section 3.2, SMAQMD is responsible for air quality planning in Sacramento County. SMAQMD has adopted a construction emissions threshold of 1,100 MT CO_2e and guidance for evaluating operational GHG emissions from land use development projects (Sacramento Metropolitan Air Quality Management District 2020, 2021b). The operational guidance identifies best management practices (BMPs) new development should implement to avoid conflicting with long-term state GHG reduction goals. These BMPs are consistent with guidance from other agencies, such as CARB (2019) and OPR (2018a), and include prohibiting natural gas infrastructure, ensuring projects are EV ready, and achieving VMT reductions consistent with SB 743 (Sacramento Metropolitan Air Quality Management District 2020, 2021b).

El Dorado County Air Quality Management District

As discussed in Section 3.2, the El Dorado County Air Quality Management District (EDCAQMD) is responsible for air quality planning in El Dorado County. EDCAQMD does not currently have GHG thresholds or guidance for assessing GHG emissions in CEQA documents.

Sacramento Area Council of Governments

As discussed in Section 3.2, SACOG is an association of local governments in the Sacramento region that provides transportation planning and funding for the region. The current MTP/SCS, which was adopted by SACOG on November 18, 2019, addresses CARB's per-capita GHG emissions reduction targets set under SB 375.

City of Folsom General Plan and Folsom Plan Area Specific Plan

The City of Folsom adopted the Folsom GHG Reduction Strategy on August 28, 2018 as part of the *City of Folsom General Plan 2035* (General Plan) (City of Folsom 2018a:A-1/A-10). The Folsom GHG Reduction Strategy includes measures designed to reduce communitywide GHG emissions by

40 percent below the 2020 target[2] by 2030; 51 percent below the 2020 target by 2040; and 80 percent below the 2020 target by 2050 (City of Folsom 2018b:6-7). The City has developed a Consistency Checklist to streamline review of new development projects for consistency with the Folsom GHG Reduction Strategy (City of Folsom 2021).

The FPASP was adopted by the City of Folsom in 2011 and provides specific development standards for future growth and development in the plan area, which includes the project site. The programmatic EIR/environmental impact statement (EIS) for the FPASP identifies several mitigation measures relevant to the reduction of GHG emissions. Measures applicable to the project are discussed further in Section 3.7.2, *Environmental Impacts*.

Environmental Setting

This section discusses the environmental setting relevant to GHG emissions in the study area. The study area for GHG emissions consists of the entire state and global atmosphere, because climate change is the result of the individual contributions of countless past, present, and future sources throughout the world.

Global Climate Change

The process known as the "greenhouse effect" keeps the atmosphere near Earth's surface warm enough for the successful habitation of humans and other life forms. The greenhouse effect is created by sunlight that passes through the atmosphere. Some of the sunlight striking Earth is absorbed and converted to heat, which warms the surface. The surface emits a portion of this heat as infrared radiation, some of which is re-emitted back toward the surface by GHGs in the atmosphere, and some of which results in warming of the atmosphere. Human activities that generate GHGs increase the amount of infrared radiation absorbed by the atmosphere, thus enhancing the greenhouse effect, and amplifying the warming of Earth.

Increases in fossil fuel combustion and deforestation have exponentially increased concentrations of GHGs in the atmosphere since the Industrial Revolution (Intergovernmental Panel on Climate Change 2018:4). Rising atmospheric concentrations of GHGs in excess of natural levels, result in increasing global surface temperatures—a process commonly referred to as "global warming". Higher global surface temperatures, in turn, result in changes to Earth's climate system, including increased ocean temperature and acidity, reduced sea ice, variable precipitation, and increased frequency and intensity of extreme weather events (Intergovernmental Panel on Climate Change 2018:7–10). Large-scale changes to Earth's system are collectively referred to as "climate change".

The Intergovernmental Panel on Climate Change (IPCC) was established by the World Meteorological Organization and United Nations Environment Programme to assess scientific, technical, and socioeconomic information relevant to the understanding of climate change, its potential impacts, and options for adaptation and mitigation. The IPCC estimates that human-induced warming reached approximately 1 degree Celsius (°C) above preindustrial levels in 2017, increasing at 0.2°C per decade. Under the current nationally determined contributions of mitigation from each country until 2030, global warming is expected to rise 3°C by 2100, with warming to continue afterward (Intergovernmental Panel on Climate Change 2018:4). Large increases in global

[2] The 2020 target is 15 percent below 2005 baseline levels.

temperatures could have substantial significant impacts on the natural and human environments worldwide and in California.

Greenhouse Gases

The principal anthropogenic (i.e., human-made) GHGs contributing to global warming are carbon dioxide (CO_2), CH_4, nitrous oxide (N_2O), and fluorinated compounds, including sulfur hexafluoride (SF_6), HFCs, and perfluorocarbons (PFCs). Water vapor, the most abundant GHG, is not included in this list because its natural concentrations and fluctuations far outweigh its anthropogenic sources.

The primary GHGs of concern associated with the project are CO_2, CH_4, N_2O, and HFCs (i.e., refrigerants). The following sections discuss principal characteristics of these pollutants. SF_6 and PFCs are not discussed because these gases are primarily generated by industrial and manufacturing processes, which are not anticipated as part of the project.

Methods have been set forth to describe emissions of GHGs in terms of a single gas to simplify reporting and analysis. The most accepted method to compare GHG emissions is the global warming potential (GWP) methodology defined in IPCC reference documents. IPCC defines the GWP of various GHG emissions on a normalized scale that recasts all GHG emissions in terms of CO_2e, which compares the gas in question to that of the same mass of CO_2 (CO_2 has a GWP of 1 by definition).

Table 3.7-1 lists the GWP of CO_2, CH_4, N_2O, and expected refrigerants used by the project. The GWPs are from the IPCC's fourth assessment report, consistent with statewide GHG emissions reporting protocol (California Air Resources Board 2021a).

Table 3.7-1. Global Warming Potentials of Key Greenhouse Gases

Greenhouse Gas	Global Warming Potential (100 years)
CO_2	1
CH_4	25
N_2O	298
R-513a	631

Sources: California Air Resources Board 2021a, 2021b
CH_4 = methane; CO_2 = carbon dioxide; N_2O = nitrous oxide; R = refrigerant

All GWPs used for CARB's GHG inventory and to assess attainment of the state's GHG reduction targets are considered over a 100-year timeframe. However, CARB recognizes the importance of SLCPs and reducing these emissions to achieve the state's overall climate change goals. SLCPs have atmospheric lifetimes on the order of a few days to a few decades, and their relative climate forcing impacts, when measured in terms of how they heat the atmosphere, can be tens, hundreds, or even thousands of times greater than that of CO_2 (California Air Resources Board 2017b:36). Recognizing their short-term lifespan and warming impact, SLCPs are measured in terms of CO_2e using a 20-year time period. The use of GWPs with a time horizon of 20 years better captures the importance of the SLCPs and gives a better perspective on the speed at which SLCP emission controls will affect the atmosphere relative to CO_2 emission controls. The SLCP Reduction Strategy addresses the three primary SLCPs—CH_4, HFC gases, and anthropogenic black carbon. CH_4 has a lifetime of 12 years and a 20-year GWP of 72. HFC gases have lifetimes of 1.4 to 52 years and 20-year GWPs of 437 to 6,350. Anthropogenic black carbon has a lifetime of a few days to weeks and a 20-year GWP of 3,200 (California Air Resources Board 2017b:40).

Carbon Dioxide

CO_2 is the most important anthropogenic GHG and accounts for more than 80 percent of all GHG emissions emitted in California (California Air Resources Board 2021c). Its atmospheric lifetime ensures that atmospheric concentrations of CO_2 will remain elevated for decades even after mitigation efforts to reduce GHG concentrations are promulgated. CO_2 enters the atmosphere through fossil fuels (i.e., oil, natural gas, and coal) combustion, solid waste decomposition, plant and animal respiration, and chemical reactions (e.g., manufacture of cement). CO_2 is also removed from the atmosphere (or sequestered) when it is absorbed by plants as part of the biological carbon cycle.

Methane

CH_4, the main component of natural gas, is the second most abundant GHG and has a GWP of 25 (California Air Resources Board 2021a). Sources of anthropogenic emissions of CH_4 include growing rice, raising cattle, using natural gas, landfill outgassing, and mining coal. Certain land uses also function as a both a source and sink for CH_4 (i.e., they remove CH_4 from the atmosphere). For example, wetlands are a terrestrial source of CH_4, whereas undisturbed, aerobic soils act as a CH_4 sink.

Nitrous Oxide

Anthropogenic sources of N_2O include agricultural processes (e.g., fertilizer application), nylon production, fossil fuel–fired power plants, nitric acid production, and vehicle emissions. N_2O also is used in rocket engines, racecars, and as an aerosol spray propellant. Natural processes, such as nitrification and denitrification, can also produce N_2O, which can be released to the atmosphere by diffusion.

Hydrofluorocarbons

HFCs are human-made chemicals used in commercial, industrial, and consumer products and have high GWPs. HFCs are generally used as substitutes for ozone-depleting substances in air conditioners and refrigeration equipment.

Emissions Inventories

A GHG inventory is a quantification of all GHG emissions and sinks[3] within a selected physical and/or economic boundary. GHG inventories can be performed on a large scale (e.g., for global and national entities) or on a small scale (e.g., for a building or person). Table 3.7-2 outlines the most recent global, national, statewide, and local GHG inventories.

Table 3.7-2. Global, National, State, and Local GHG Emissions Inventories

Emissions Inventory	CO_2e (metric tons)
2010 Global	52,000,000,000
2019 United States	6,558,300,000
2019 California	418,200,000
2014 City of Folsom	657,892

Sources: Intergovernmental Panel on Climate Change 2014:5; U.S. Environmental Protection Agency 2021:ES-4; California Air Resources Board 2021d; City of Folsom 2018c:H-1.

[3] A GHG sink is a process, activity, or mechanism that removes a GHG from the atmosphere.

CO_2e = carbon dioxide equivalent

As shown in Table 3.7-2, California produces about 1 percent of the entire world's GHG emissions and 6 percent of the nation's GHG emissions, with major emitting sources including fossil fuel consumption from transportation (39 percent), industry (21 percent), electricity production (14 percent), commercial and residential (11 percent), agricultural and forestry (8 percent), high GWP (5 percent), and waste (2 percent) (California Air Resources Board 2021d). The California government has put in place programs and legislation to reduce GHG emissions across all sectors of the economy.

Like the federal and state governments, UC Davis conducts annual GHG inventories to assess its progress in reducing emissions and meeting its climate change goals. UC Davis categorizes its emissions into "scopes," and pursuant to the Sustainable Practices Policy, defines Scope 1 and 2 sources per the Climate Registry (TCR) (2016) and Scope 3 sources per Second Nature (2012). The scope definitions are organized around the locational and operational control of emission sources, as shown below. Expected emissions generated by the project by scope type are shown in Table 3.7-3.

- **Scope 1**: All direct GHG emissions (except for direct CO_2 emissions from biogenic sources) from sources controlled by UC Davis (Climate Registry 2016).
- **Scope 2**: Indirect anthropogenic (i.e., human-generated) GHG emissions associated with the consumption of purchased or acquired electricity, steam, heating, or cooling, at facilities controlled by UC Davis (Climate Registry 2016).
- **Scope 3**: Emissions from sources that are not owned or controlled by UC Davis, but that are central to campus operations or activities (e.g., non-fleet transportation, employee/student commuting, air travel paid for by the institution) (Second Nature 2012). UC Davis does not currently report Scope 3 emissions in their verified annual GHG inventories submitted to TCR.
- **Non-Scope**: Emissions from sources associated with activity on a UC Campus, but outside the operational control of the UC system. UC Davis does not currently track non-scope emissions as part of their verified annual GHG inventories, as per the TCR General Reporting Protocol. These sources are not subject to the Sustainable Practices Policy.

Table 3.7-3. Expected Project Greenhouse Gas Emissions Sources by Scope

Scope	Types of GHG Emissions
Scope 1	• Stationary combustion—Emergency diesel generators • Mobile combustion—Grounds maintenance equipment • Fugitive emissions—Refrigerant usage in chillers and HVAC systems
Scope 2	• Purchased electricity—Electricity purchased from SMUD
Scope 3	• Commuting—Employee, patient, and visitor vehicle trips, as well as vendor/delivery trips • Solid waste generation[a]—Decomposition of project-generated waste in local and regional landfills not owned by UC Davis • Water and wastewater use[a]—Treatment, distribution, and conveyance of campus water and wastewater using infrastructure not owned by UC Davis
Non-Scope	• Sources associated with the project, but outside the operational control of the UC system (e.g., construction activities).

HVAC = heating, ventilation, and air conditioning; SMUD = Sacramento Municipal Utility District

[a] Indirect waste and water-related emissions are not included in Second Nature's (2012) definition of Scope 3 sources. Accordingly, these emissions are not covered by University Carbon Neutrality Initiative, which requires Scope 3 emissions from commuting and business air travel be offset to net zero by 2050.

3.7.2 Environmental Impacts

This section describes the environmental impacts associated with GHG emissions that would result from the Folsom Center for Health Master Plan. It describes the methods used to determine the effects of the project and lists the thresholds used to conclude whether an impact would be significant. Measures to mitigate (i.e., avoid, minimize, rectify, reduce, eliminate, or compensate for) any significant impacts are provided, if available.

Methods for Analysis

GHG impacts associated with construction and operation of the project were assessed and quantified using standard and accepted software tools, techniques, and emission factors. This section provides a summary of the methodology. A full list of assumptions can be found in Appendix E.

Folsom Center for Health Master Plan

As discussed in Chapter 2, *Project Description*, the project would allow for the development of wellness and healthcare services on the 34.6-acre site over the next 15 to 20 years. At full implementation, the project is expected to include a 110,000-square-foot (sf) medical office building (MOB), a 114,000-sf ambulatory surgery center (ASC), an 80,000-sf hotel with approximately 100 rooms, an 86,000-sf micro-hospital with an emergency department with up to 30 beds, a central utility plant (CUP), and approximately 1,357 parking stalls. The project will comply with the UC Sustainable Practices Policy. The evaluation of potential GHG impacts resulting from construction and operation of new land uses developed under the project are assessed pragmatically, as discussed in the following sections.

Construction

Construction emissions would originate from off-road equipment exhaust, vehicle exhaust from on-road vehicles, and electricity consumption. Because the site will already have been graded as part of development of the subdivision, the project would not remove any existing trees or vegetated areas, relative to the baseline condition.

GHG emissions (i.e., CO_2, CH_4, and N_2O) from off-road equipment and on-road vehicles were calculated using the California Emissions Estimator Model (CalEEMod) Version 2020.4.0. Emission factors for electricity consumption were obtained from SMAQMD and account for increases in the renewable energy mix due to the RPS and SB 350 (Sacramento Metropolitan Air Quality Management District 2020:Table A-8). Modeling for Phase 1 development was based on project-specific information (e.g., construction schedule, equipment inventory), as summarized under *Phase 1 Development*. As discussed in Section 3.2, modeling for Phases 2 and 3 was conducted using CalEEMod defaults, supplemented by scaled assumptions from Phase 1 development.

Operational Mobile Sources

GHG impacts from patient, employee, visitor, delivery, and other vehicles associated with the project were evaluated using CARB's EMFAC2021 emissions model. As discussed in Section 3.2, annual

vehicle trips and VMT at full implementation were provided by Fehr & Peers (Wei pers. comm.) and apportioned to Sacramento and El Dorado Counties using population-weighted distance multipliers for the project service area. Please refer to Appendix E for the EMFAC2021 emission factors and traffic data used in this analysis.

Operational Non-Mobile Sources

Operation of new buildings at the project site would generate GHG emissions from area sources (i.e., landscaping equipment), stationary sources (i.e., generators), energy sources (i.e., purchased electricity), fugitive sources (i.e., refrigerants), water and wastewater use, and solid waste generation. New trees planted for the project would sequester CO_2 and represent a long-term GHG sink. GHG emissions generated by these sources and CO_2 reductions achieved by new vegetation were calculated using a variety of models and reports, as described below.

- *Area Sources*. CalEEMod default values for the future proposed land use types and building square footages were used to estimate landscaping equipment emissions with the project.
- *Stationary Sources.* Up to four 1.2-megawatt (1,609 horsepower) emergency diesel generators would be installed to provide back-up power to the CUP and ASC in the event of an emergency. These generators would be tested monthly for up to 30 minutes each. Resulting GHG emissions were quantified using emission factors from CalEEMod, as reported in the CalEEMod User Guide (Trinity Consultants 2021).
- *Energy Sources.* The site would be all electric, and no natural gas service would be provided. While electricity would be purchased from the Sacramento Municipal Utility District (SMUD), pursuant to the UC Sustainable Practices Policy, the project is required to obtain 100 percent clean electricity. Accordingly, there would be zero GHG emissions generated by purchased electricity.
- *Fugitive Sources.* Fugitive GHG sources include refrigeration and air conditioning equipment, which can leak high GWP compounds during normal use. Three 500-ton chillers would be installed at the CUP and use R-513a. The average annual leak rate of existing chillers at the UC Davis Sacramento Campus CUP (1.7 percent) was applied to the project CUP chillers to estimate future R-513a losses (University of California, Davis Health 2020:3.7-21). Default values from the California Air Pollution Control Officers Association (2021:C-92/C-98) for the future proposed land use types and building square footages were used to estimate fugitive losses from air conditioning and other refrigeration equipment.
- *Water, Wastewater, and Waste.* Water and wastewater use and solid waste generation for the Project was provided by Jacobs Engineering, under contract to UC Davis (Massey pers. comm.), and input into CalEEMod to quantify expected GHG emissions.
- *Vegetation:* The project includes a robust landscaping plan that details approximately 1,042 new tree plantings. These trees are expected to be predominantly evergreen and deciduous. GHG reductions achieved by new tree planting were calculated using CalEEMod.

Phase 1 Development

Phase 1 development includes a 110,000-sf MOB, 525 parking stalls, landscaping and other improvements. Potential GHG impacts resulting from construction and operation of Phase 1 are assessed at the project level, as discussed in the following sections.

Construction

Construction emissions would originate from off-road equipment exhaust, vehicle exhaust from on-road vehicles, and electricity consumption. Each of these sources was considered in the construction analysis. Construction activities would take place over seven phases between February 2023 and January 2025. Jacobs Engineering provided the anticipated construction schedule, off-road equipment inventory, number of daily construction personnel, number of vendor and haul truck trips, and the amount of exported and imported material for each phase (Massey pers. comm.). These assumptions were input into CalEEMod (version 2020.4.0) to quantify expected construction emissions. Emissions from electric-powered mobile offices and equipment were quantified using RPS-adjusted emission factors for SMUD (Sacramento Metropolitan Air Quality Management District 2020:Table A-8) and the expected amount of annual electricity consumption (Massey pers. comm.).

Operational Mobile Sources

GHG impacts from vehicles associated with Phase 1 development were evaluated using CARB's EMFAC2021 emissions model and the methodology described above for the Master Plan.

Operational Non-Mobile Source Emissions

Operation of Phase 1 development would generate GHG emissions from area sources (i.e., landscaping equipment), fugitive sources (i.e., refrigerants), water and wastewater use, and solid waste generation.[4] New trees planted for Phase 1 development would be a GHG sink. GHG impacts from these sources and sinks were evaluated using the methodology described above for the Master Plan.

Thresholds of Significance

In accordance with Appendix G of the CEQA Guidelines, the project would be considered to have a significant effect if it would result in any of the conditions listed below.

- Generation of GHG emissions, either directly or indirectly, that may have a significant impact on the environment.
- Conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing emissions of GHGs.

The following sections summarize the thresholds used to evaluate the significance of project-generated GHG emissions under each impact criterion.

Generate a Significant Amount of Greenhouse Gas Emissions

The California Supreme Court's decision in *Center for Biological Diversity v. Department of Fish and Wildlife* (62 Cal.4th 204) confirmed that there are multiple potential pathways for evaluating GHG emissions consistent with CEQA. The decision clarified that use of statewide emission reduction targets is a "permissible criterion of significance" so long as substantial evidence and reasoned explanation is provided to relate those goals to project-specific emissions.

[4] Pursuant to the UC Sustainable Practices Policy, no natural gas service would be provided and purchased electricity would originate from carbon free sources.

SMAQMD has adopted a construction threshold of 1,100 MT CO_2e per year. Pursuant to SMAQMD's (2021a:6-12) CEQA Guide, projects that generate construction emissions above this threshold may have a cumulatively considerable contribution to climate change. SMAQMD (2021a:6-13) has also adopted an operational threshold of 10,000 MT CO_2e per year for stationary sources and a small project screening metric for land use development projects. Neither Phase 1 development nor the Master Plan meet the small project screening metric. Projects above the screening metric can demonstrate a less-than-significant near-term (2030) operational GHG impact through compliance with the following BMPs.

- BMP-1: No natural gas
- BMP-2: EV ready
- BMP-3: Regional SB 743 VMT targets

SMAQMD's BMPs are consistent with OPR guidance for the analysis of GHG emissions. Specifically, OPR (2018b:21) specifies that:

> …[a] land use development project that produces low VMT, achieves applicable building energy efficiency standards, uses no natural gas or other fossil fuels, and includes Energy Star appliances where available, may be able to demonstrate a less-than-significant greenhouse gas impact associated with project operation.

After 2030, the state has a reduction goal of carbon neutrality by 2045. This goal has not been codified in law, although CARB is currently working on a path to achieve the goal in the forthcoming *2022 Scoping Plan Update*. Pursuant to SMAQMD's (2021a:6-13) CEQA Guide, projects constructed and operating after 2030 may demonstrate consistency with the state's midcentury climate change goal through elimination of natural gas (BMP-1) or pre-wiring to support future retrofit to all electric. Projects in an area with relatively high per-capita or per-employee VMT would need to provide sufficient electrical capacity to fully support ZEVs for all anticipated project vehicles. Finally, SMAQMD recommends projects qualitatively describe how the project does not otherwise impede the 2045 carbon neutrality goal.

EDCAQMD does not currently have GHG thresholds or guidance for the assessment of GHG emissions in CEQA documents. However, as discussed above, the only emissions generated by the project in El Dorado County are the result of vehicle trips originating in or traveling through the county to reach the project land uses in Sacramento County. SMAQMD's BMP-3 addresses mobile source emissions generated throughout the SACOG region, which includes El Dorado County. There is a nexus between SB 743 and the state's goals to reduce mobile-source GHG emissions; one of the criteria under SB 743 for determining the significance of the transportation impacts of a project is a reduction in GHG emissions. Importantly, CARB (2019:9-10) analysis demonstrates that a 14.3 percent reduction of total VMT per capita and a 16.8 percent reduction of light-duty VMT per capita by 2050 (compared to a 2015–2018 average) would be needed statewide to meet their long-term climate change planning goals. These reduction targets are consistent with OPR (2018a) guidance issued on SB 743 and El Dorado County's (2020) VMT significance threshold, which is 15 percent below existing countywide VMT per capita and per employee. CARB's (2021e:105) recently adopted *2020 Mobile Source Strategy* also assumes attainment of a 15 percent reduction in statewide light-duty VMT by 2050.

Phase 1 development is expected to be operational by 2025. Full implementation of the Master Plan would continue over a likely 20-year period, with all land uses operational by approximately 2040. The state's 2030 GHG target codified by SB 32 marks the next statutory statewide GHG milestone

applicable to the project. Analysis of Phase 1 development and partial implementation of the project focuses on the 2030 target and the plans, policies, and regulations adopted pursuant to achieving 2030 reductions. Emissions generated at full implementation of the Master Plan are used as an indicator for long-term emissions reduction progress and are evaluated as they relate to the project's impacts on the state's midcentury carbon neutrality goal. Consistent with SMAQMD (2021a), CARB (2019), and OPR (2018a, 2018b) guidance, Phase 1 and the Master Plan would result in a significant amount of GHG emissions if the following thresholds are exceeded.

- Generate more than 1,100 MT CO_2e per year during construction.
- Generate more than 10,000 MT CO_2e per year from operational stationary sources (i.e., emergency generators).
- Conflict with SMAQMD's operational GHG BMPs.
    - Projects will be designed and constructed without natural gas infrastructure.
    - Projects will meet the current CALGreen Tier 2 standards, except all EV-capable spaces will instead be EV ready.[5]
    - Projects will achieve consistency with applicable SB 743 targets. Since the project consists of exclusively work-related land uses, the SB 743 target for the project must be characterized in terms of work tour VMT (i.e., VMT per employee). Based on CARB (2019, 2021e) and OPR (2018a) guidance, for the purposes of this analysis, UC Davis defines the SB 743 target for the project as a 15 percent reduction in per employee VMT compared to a 2015–2018 baseline.
- For implementation beyond 2030, fail to provide sufficient electrical capacity to fully support ZEV for all anticipated project vehicles, or otherwise impede the state's ability to achieve its midcentury carbon neutrality goal.

Conflict with Plans, Policies, or Regulations for Reducing Greenhouse Gas Emissions

The following GHG reduction plans, policies, and regulations are evaluated in this analysis. These are the local, regional, and state GHG reduction plans, policies, and regulations most relevant to the project. Consistency of the project (inclusive of Phase 1 development) with these documents is assessed qualitatively.

- UC Sustainable Practices Policy and Climate Action Plan (CAP)
- Folsom GHG Reduction Strategy
- SACOG's MTP/SCS
- 2017 Climate Change Scoping Plan and SB 32 Reduction Target
- Other state GHG regulations (e.g., SB 100)
- EO B-55-18 GHG reduction goal

[5] EV capable includes installation of the electrical panel capacity with a dedicated branch circuit and a continuous raceway from the panel to the future junction box or outlet. EV ready includes EV capable with installation of the junction box or outlet at the terminus of the raceway.

Impacts and Mitigation Measures

Impact GHG-1: Generation of greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment (less than significant with mitigation)

Summary of Impact GHG-1 by Component

Component	Level of Significance before Mitigation	Mitigation Measures Required	Level of Significance after Mitigation
Folsom Center for Health Master Plan	S	AQ-2a AQ-3a GHG-1a GHG-1b	LTS
Phase 1, Medical Office Building	S	AQ-2a AQ-3a GHG-1a GHG-1b	LTS

LTS = less than significant; S = significant

Folsom Center for Health Master Plan

The Master Plan would result in construction and operational GHG emissions that could contribute to climate change on a cumulative basis. Construction emissions would originate from mobile and stationary construction equipment exhaust, employee and haul truck vehicle exhaust, and electricity consumption. Operation of the project would generate GHG emissions from mobile (e.g., employee trips), area (e.g., landscaping equipment), stationary (e.g., emergency generators), fugitive (e.g., refrigerants), water, and waste sources. Emissions from each of these sources were calculated using the methods detailed under *Methods for Analysis*.

The following sections analyze the project's consistency with the construction and operational GHG thresholds described under *Thresholds of Significance*.

Construction Emissions

Table 3.7-4 summarizes the modeled construction GHG emissions for the project. The intensity of annual emissions presented in Table 3.7-4 is conservative because the modeling assumes construction of all phases would occur immediately one after another, yielding a worst-case modeling scenario of nine construction years. It is more likely that implementation of the Master Plan will occur over 20 years, depending on factors such as local economic conditions, market demand, and other financing considerations. The models used to estimate construction-generated GHG emissions also do not fully account for adopted and likely forthcoming state regulations that will reduce the future carbon intensity of equipment and vehicles. Specifically, the Clean Truck Regulation requires the sale of zero-emission medium- and heavy-duty vehicles as an increasing percentage of total annual California sales from 2024 to 2045. EO N-79-20 directs CARB to develop regulations that require 100 percent of in-state sales of new passenger cars and trucks and 100 percent of off-road equipment sales to be zero emission by 2035. Accordingly, state regulation will reduce construction-sector GHG emissions, although the precise amount and impact on project emissions cannot currently be quantified.

Table 3.7-4. Estimated Unmitigated Construction GHG Emissions (MT CO_2e per year)

Phase and Year	CO_2e (Non-Scope)
Phase 1 Development	
2023	1,862
2024	2,277
2025	35
Phase 2 [a]	
Year 1	2,585
Year 2	3,106
Year 3	2,887
Year 4	31
Phase 3 [a]	
Year 1	1,819
Year 2	834
SMAQMD Threshold	1,100

Source: ICF modeling.

Note: Underlined results indicate an exceedance of SMAQMD's threshold.

CO_2e = carbon dioxide equivalent; MT = metric ton

[a] The analysis conservatively assumes construction of Phase 2 would beginning the year after the Phase 1 development and construction of Phase 3 would begin the year after Phase 2. The actual timing of Phases 2 and 3 will depend on factors such as local economic conditions, market demand, and other financing considerations. Because the emissions intensity of vehicles and equipment decrease over time, the emissions estimates presented for Phases 2 and 3 will be a conservative representation of potential GHG impacts if development occurs less rapidly.

As shown in Table 3.7-4, the project is estimated to generate GHG emissions above SMAQMD's 1,100 MT CO_2e threshold during several years of construction. This is a significant impact before mitigation. Mitigation Measure GHG-1a will reduce construction-generated GHG emissions by requiring use of alternative fuels and minimizing vehicle idling time, among other BMPs. This measure is consistent with SMAQMD (2016) guidance for the reduction of construction-generated GHG emissions. Additional commitments for electric-powered or low-emissions equipment, newer haul trucks, and renewable fueled off-road equipment would be pursued through Mitigation Measures AQ-2a and AQ-3a, as described in Section 3.2.

Table 3.7-5 summarizes construction emissions with project-specific mitigation. The table accounts for emissions benefits achieved by procurement of carbon-free electricity, as mandated by Mitigation Measure GHG-1a. Additional GHG reductions will be achieved by other strategies identified in this measure and by Mitigation Measures AQ-2a and AQ-3a, although reductions have not been explicitly quantified because they depend either on program participation (e.g., carpooling) or because details required to support quantification are currently not known as the project is only at the Master Plan approval stage (e.g., technologies selected to achieve the performance standard for Mitigation Measure AQ-2a).

Table 3.7-5. Estimated Mitigated Construction GHG Emissions without GHG Credit Purchases (MT CO_2e per year)

Phase and Year	CO_2e (Non-Scope)
Phase 1 Development	
2023	1,459
2024	1,857
2025	2
Phase 2 [a]	
Year 1	2,210
Year 2	2,746
Year 3	2,547
Year 4	4
Phase 3 [a]	
Year 1	1,519
Year 2	694
SMAQMD Threshold	1,100

Source: ICF modeling.

Note: Underlined results indicate an exceedance of SMAQMD's threshold.

CO_2e = carbon dioxide equivalent; MT = metric ton

[a] The analysis conservatively assumes construction of Phase 2 would beginning the year after the Phase 1 development and construction of Phase 3 would begin the year after Phase 2. The actual timing of Phases 2 and 3 will depend on factors such as local economic conditions, market demand, and other financing considerations. Because the emissions intensity of vehicles and equipment decrease over time, the emissions estimates presented for Phases 2 and 3 will be a conservative representation of potential GHG impacts if development occurs less rapidly.

As shown in Table 3.7-5, Mitigation Measures GHG-1a, AQ-2a, and AQ-3a will reduce construction-generated GHGs, although emissions are still projected to exceed SMAQMD's significance threshold during several years of construction. Mitigation Measure GHG-1b, as described under *Operational Emissions*, is therefore required to purchase GHG credits to reduce construction emissions below SMAQMD's 1,100 MT CO_2e threshold. Mitigation Measure GHG-1b, coupled with Mitigation Measures GHG-1a, AQ-2a, and AQ-3a, ensures that emissions generated by construction of the project would not make a cumulatively considerable contribution to climate change. Accordingly, the impact of construction GHG emissions on the environment is **less than significant with mitigation.**

Operational Emissions

Table 3.7-6 summarizes the modeled operational GHG emissions under full implementation of the project (2040). The analysis includes quantifiable emissions benefits that will be achieved by the UC Sustainable Practices Policy. The UC Sustainable Practices Policy includes a comprehensive set of strategies that will improve energy efficiency, increase renewable energy generation, reduce water consumption and waste generation, and encourage alternative transportation and low-emission vehicles. The following policies were specifically quantified and included in the operational analysis (Table 3.7-6).

- Prohibition of natural gas infrastructure and attainment of Leadership in Energy and Environmental Design (LEED) Building Design and Construction (BD+C) Silver certification for all buildings.
- Procurement of 100 percent zero carbon electricity.

- Regional factors accounted for in SACOG's travel model that reduce project-related VMT, such as job accessibility, job/housing density, and job/housing mix and balance.

The UC Sustainable Practices Policy would achieve additional GHG reductions through support for active transportation, EVs, and carpooling. However, these policies were not quantified because of constraints associated with the forecast method or because the exact number of affected vehicle trips is currently unknown. Likewise, the VMT modeling conducted for the project does not account for the potential redistribution of existing vehicle trips. The project would locate medical services proximate to the Folsom and El Dorado Hills market, thereby reducing the need to commute to the UC Davis Sacramento Campus or other regional hospitals. Quantifying changes in commute patterns and associated VMT would require sophisticated regional travel demand modeling that is beyond the scope of this analysis. To the extent the project reduces vehicle trip lengths, mobile source emissions will be lower than what are presented in this analysis. Additional GHG reductions may also be achieved by future federal and state GHG reduction policies. However, because the long-term climate change policy and regulatory changes to meet the 2045 reduction target expressed under EO B-55-18 are unknown at this time, the extent to which project emissions would be reduced through statewide (and nationwide) changes is not known. The calculation of operational emissions cannot consider future state or federal actions that may be taken to achieve long-term reductions, beyond the Pavley vehicle standards and SB 100. Operational emissions would therefore likely be lower than those presented in Table 3.7-6.

Table 3.7-6. Estimated Operational GHG Emissions for the Project without University Carbon Neutrality Initiative (MT CO_2e per year)

Source	CO_2e
Scopes 1 and 2	
Area	<1
Stationary	15
Fugitive	28
Total [a]	43
Scope 3	
Mobile	10,600
Water	29
Waste	244
Total [a]	10,873
Non-Scope	
Vegetation	-765
Total Project [a]	10,151

Source: ICF modeling.
CO_2e = carbon dioxide equivalent; MT = metric ton
[a] Totals may be rounded.

Operational sources at full implementation (2040) are estimated to result in 10,151 MT CO_2e per year. The UC Sustainable Practices Policy requires carbon neutrality for Scope 1 and 2 emissions by 2025. With the UC Sustainable Practices Policy carbon neutrality initiative, emissions from area (i.e., landscaping equipment), stationary (i.e., emergency generators), and fugitive (i.e., refrigerants)

sources would be reduced to zero beginning in 2025. Resulting total forecasted emissions at full implementation (2040) are estimated to be 10,108 MT CO_2e per year.[6]

The following sections analyze the project's consistency with the operational GHG thresholds described under *Thresholds of Significance*.

Stationary Source Emissions

As shown in Table 3.7-6, emergency generator testing is estimated to result in 15 MT of CO_2e per year. These emissions are well below SMAQMD's 10,000 MT CO_2e stationary source thresholds. Moreover, pursuant to the UC Sustainable Practices Policy carbon neutrality initiative, emissions from emergency generator testing will be reduced or offset to net zero beginning in 2025.

No Natural Gas Infrastructure (SMAQMD BMP-1)

Pursuant to the UC Sustainable Practices Policy, no building constructed after June 30, 2019 will use onsite fossil fuel combustion (e.g., natural gas) for space and water heating. The project complies with this requirement and no natural gas service will be provided. The project therefore meets SMAQMD's BMP-1.

Electric Vehicle Ready (SMAQMD BMP-2)

As discussed in Chapter 2, 10 percent of total parking spaces for the MOB will be EV ready. All future buildings will meet (at a minimum) the current CALGreen Tier 2 EV ready standards for nonresidential development (6 percent of total parking spaces). The project therefore meets SMAQMD's BMP-2.

Regional SB 743 VMT Targets (SMAQMD BMP-3)

As discussed in Section 3.7.1, *Existing Conditions*, SB 743 was adopted to integrate and better balance the needs of congestion management, infill development, active transportation, and GHG emissions reduction. One of the goals of SB 743 is to reduce per-capita and per-employee (work-tour) VMT of both existing and new development. SACOG (2021) has mapped base year (2016) work-tour VMT throughout the SACOG region. Results are presented using Hex geography, which displays work VMT per job over a hexagon grid. The project is in Hex EV-130. Table 3.2-6 in Section 3.2 presents the work-tour VMT for the SACOG region, city of Folsom, and Hex EV-130. As shown in this table, work VMT per employee of the project area (as represented by Hex EV-130) is projected to be 16.95 under 2040 conditions. This value is more than 20 percent below the regional average of 21.30, thereby exceeding the 15 percent SB 743 threshold and meeting SMAQMD's BMP-3. The project directly contributes to the VMT performance of the site by providing medical service and employment opportunities for people in Folsom, El Dorado Hills, and other surrounding communities. The project also includes design features and employee benefits (e.g., transit subsidies) that are expected to reduce sitewide work VMT by 4 percent (refer to Section 3.15 for additional information). While not required to achieve the long-term SB 743 VMT reduction target, Mitigation Measure TRA-1 discussed in Section 3.15 requires VMT surveys and monitoring to support compliance with the UC Sustainability Practices mode split targets. This measure will contribute to further reductions in work-tour VMT.

[6] Equation: 10,151 MT CO_2e per year – 43 MT CO_2e per year from Scope 1 and 2 sources.

Support Statewide Attainment of Long-Term Climate Change Goals

Attainment of the state's long-term climate change goal of carbon neutrality (EO B-55-18) by 2045 will require deep emissions reductions across all sectors. Some of the broad-scale shifts in how energy will be produced and used in the future are outside the control of the project. The changes necessitated by the state's long-term climate policy will require additional policy and regulatory changes, which are unknown at this time. Therefore, the extent to which the project's emissions and resulting impacts would be mitigated through such changes is not known and cannot be known at this time. Furthermore, additional policy and regulatory changes are in the jurisdiction of state-level agencies (e.g., CARB), not UC Davis. However, some measures (e.g., decarbonization, energy efficiency, reduced fossil-fuel-based VMT) can be facilitated, at least to some extent, through specific GHG reduction measures. Under this same rationale, if a project did not implement measures to maximize energy efficiency or decarbonize, the reductions may not be enough for an individual project to meet the aggressive long-term cumulative reduction goals.

As discussed under Impact GHG-2, the project is designed around the concept of sustainability. The *Folsom Sustainability Plan* includes five goals and 40 objectives that will directly and indirectly reduce GHG reductions.

- Goal 1, Deliver High-Performance Buildings, will reduce energy consumption and increase renewable energy generation by encouraging LEED-certified, energy-efficient, and all-electric buildings; generation of onsite renewable energy; and design flexibility to maximize future integration of sustainable technologies and resiliency measures.
- Goal 2, Deliver High-Performing Site Infrastructure, will provide opportunities for renewable energy generation and energy recovery by achieving sitewide LEED certification; developing and implementing landscaping, water action, energy recovery, and solar feasibility plans; and installing EV supply equipment.
- Goal 3, Cultivate Health-Promoting Environments, will expand carbon sequestration by restoring and establishing native and climate-appropriate landscape communities and optimizing carbon sequestration in the landscape design.
- Goal 4, Provide Safe & Pleasant Mobility, will reduce VMT and promote alternative and active transportation by requiring a transportation demand management strategy; planning and designing multimodal connections to and throughout the site and to surrounding communities; and maintaining compliance with the UC Sustainable Practices Policy for reductions in single-occupancy vehicle use.
- Goal 5, Support Sustainable Operations & Programs, will promote sustainable behaviors and programs among patients, staff, visitors, and community members through a sustainability operations and maintenance plan.

Mitigation Measure TRA-1 in Section 3.15 supports implementation of the UC Sustainable Practices Policy through VMT monitoring and reporting. UC Davis' Green Commuter Program, which provides incentives for carpooling, vanpooling, bicycling, walking, and using transit, would also contribute to mobile source GHG emissions reductions by raising awareness about mode shift. These plans and programs are consistent with the strategies recommended by the FPASP AQMP and FPASP Mitigation Measure 3A.4-2a.

Beyond these actions, the UC Sustainable Practices Policy carbon neutrality initiative requires Scope 1 and 2 emissions be offset to net zero beginning in 2025 and Scope 3 mobile source emissions be

offset to net zero beginning in 2050. The offset year of 2050 was selected by the Regents at the time the University Carbon Neutrality Initiative was adopted in 2013 based on careful consideration of recommendations from leading scientists and the state regarding the need to achieve an 80 percent reduction below 1990 emissions levels by 2050. Since then, the goal for global GHG emissions reduction has advanced, with scientific agreement that carbon neutrality must be achieved by midcentury to avoid the most catastrophic consequences of climate change. California's commitment to carbon neutrality by midcentury is articulated under EO B-55-18.

The actions undertaken by UC Davis pursuant to the UC Sustainable Practices Policy will reduce GHG emissions generated by the project and are consistent with the state's framework for achieving its long-term GHG goals. However, as shown in Table 3.7-6, most operational emissions associated with the project are due to mobile sources. While the project at full implementation exceeds the 15 percent VMT target, UC Davis does not have jurisdiction over vehicle trips and the effectiveness of the mobility measures would depend on the cooperation of visitors, employees, patients, and vendors visiting the Folsom Center for Health. Accordingly, this EIR takes the conservative approach in its pre-mitigation significance finding and discloses, for CEQA compliance purposes, that the long-term impact (i.e., midcentury) of GHG emissions would be significant before mitigation.

Conclusion

The project meets SMAQMD's stationary source threshold and complies with SMAQMD's BMPs for the reduction of GHGs. Operational emissions generated by the project therefore would not conflict with the state's near-term (2030) SB 32 target. The intensity of GHG emissions from implementation beyond 2030 would continue to decline as the site and surrounding area matures and through the UC Sustainable Practices Policy. While the project does not include any elements that would expressly conflict with the state's climate change reduction trajectory, UC Davis acknowledges the potential for mobile source emissions generated by the project to represent a net positive GHG source beyond 2045. The VMT modeling does not fully capture the benefits of the project on regional commute distances and trip redistribution. The emissions modeling likewise does not account for accelerated electrification of the transportation sector that is likely to be achieved by future strengthening of state and federal regulations. The mobile source emissions estimated for the project are therefore conservative, and the intensity of the impact less than reported in this EIR. Nonetheless, mobile source emissions generated by the project beyond 2045 would be significant before mitigation.

Mitigation Measure GHG-1b is required to ensure the project does not impede the state's ability to achieve its midcentury (i.e., 2045) carbon neutrality goal. This measure identifies actions beyond the current UC Sustainable Practices Policy that will achieve additional GHG reductions for the project. The mitigation also expands UC's carbon neutrality commitments and disclosure requirements for annual voluntary GHG reporting. Specifically, Mitigation Measure GHG-1b and the current UC Sustainable Practices Policy differ in the following important ways.

- Mitigation Measure GHG-1b addresses all emissions associated with the project as defined in this EIR. These include Scope 1, Scope 2, Scope 3 (commuting, solid waste, and water and wastewater), and non-scope (construction) sources. The UC Sustainable Practices Policy addresses Scope 1, Scope 2, and Scope 3 (commuting and business air travel only) sources. Inclusion of project-generated solid waste and water emissions as covered sources reflects UC Davis' commitment to sustainability and recognition of the need to aggressively mitigate potential climate impacts of individual projects. As discussed under *Construction Emissions*, GHG

generated by construction of the project are estimated to exceed SMAQMD's 1,100 MT CO_2e threshold. Mitigation Measure GHG-1b is required to reduce construction emissions below this threshold level.

- Mitigation Measure GHG-1b requires the project offset GHG emissions for Scope 1 and 2 sources in compliance with the UC Sustainable Practices Policy and GHG emissions from Scope 3 (commuting, solid waste, and water and wastewater) sources be offset to achieve carbon neutrality beginning at 2045. The measure also requires construction-generated emissions above 1,100 MT CO_2e be offset to below this level. The UC Sustainable Practices Policy requires Scope 1 and Scope 2 emissions to be reduced or offset to net zero beginning in 2025 and Scope 3 (commuting and business air travel only) emissions to be reduced or offset to net zero beginning in 2050.
- Mitigation Measure GHG-1b outlines a menu of options to achieve the required performance standards, including funding GHG reduction actions throughout the communities surrounding the Folsom Center for Health and in the city of Folsom. While these GHG reduction projects may include actions yielding GHG credits that are tracked through TCR, the mitigation measure does not require emissions reductions achieved by offsite GHG reduction actions be registered through TCR, only that the reduction projects meet the standards outlined in Mitigation Measure GHG-1b. In contrast, the UC Sustainable Practices Policy requires all GHG reductions claimed to achieve the UC carbon neutrality goals be registered and tracked through TCR.
- Mitigation Measure GHG-1b requires the annual GHG inventory for the project to track and report all emissions associated with the project (Scope 1, Scope 2, Scope 3, and non-scope). UC Davis' voluntary GHG inventory tracks and reports emissions generated by Scope 1 and Scope 2 sources.
- Mitigation Measure GHG-1b requires the annual GHG inventory for the project to specify the amount of MT CO_2e reduction achieved by GHG reduction actions implemented pursuant to the mitigation, including (if pursued) offsite GHG reduction actions and GHG credits. UC Davis' voluntary GHG inventory traditionally accounts for only those GHG reductions generated by actions registered and tracked through TCR.
- Mitigation Measure GHG-1b requires an annual report with the project GHG inventory be submitted to the Regents. UC Davis' voluntary GHG inventory is not submitted separately to the Regents.

Given these differences at the current time, Mitigation Measure GHG-1b will be implemented alongside the UC Sustainable Practices Policy, leveraging UC Davis' reporting and tracking requirements where applicable. Additional emissions generated by Scope 3 and non-scope sources at the Folsom Center for Health will be tracked separately, as required by Mitigation Measure GHG-1b. Likewise, any additional GHG reductions that are needed to meet the performance standard that are in advance of UC's carbon neutrality goals will be achieved through the strategies outlined in the mitigation measure. These reductions will be tracked and reported relative to attainment of the measure performance standards, and depending on the types of strategies pursued, may not be reflected in UC Davis' voluntary GHG inventory (which requires all reductions be achieved by actions registered and tracked through TCR).

The annual GHG inventory produced for the project will be used to determine the need for purchasing annual GHG credits to achieve the carbon neutrality standard. A GHG credit enables development projects to compensate for their GHG emissions and associated environmental impacts

by financing reductions in GHG emissions elsewhere. GHG credits are classified as either compliance or voluntary. Compliance credits can be purchased by covered entities subject to the cap-and-trade regulation to meet predetermined regulatory targets. Voluntary offsets are not associated with the cap-and-trade regulation and are purchased with the intent to voluntarily meet carbon neutrality or other environmental obligations. Demand for voluntary credits is driven by companies and individuals that take responsibility for offsetting their own emissions, as well as entities that purchase pre-compliance credits before emissions reductions are required by regulation (Ecosystem Marketplace 2020). Voluntary carbon credits transacted in 2021 reached a total cumulative value of $1 billion globally (Ecosystem Marketplace 2021).

Measures that retain value for the project, such as additional renewable energy projects, will be prioritized over measures that send value offsite, such as purchasing GHG credits. Additionally, options for investing in community-based research or employee engagement projects as alternative or innovative types of credits are being investigated through a UC systemwide initiative. Table 3.7-7 provides a pricing analysis assuming all estimated emissions for the project would be reduced to net zero through the purchase of GHG credits beginning in 2045. The project may achieve carbon neutrality through a combination of additional onsite reductions and GHG credits. Accordingly, the values presented in Table 3.7-7 are a conservative representation of potential costs.

Table 3.7-7. Potential Costs Associated with Reducing Project Emissions to Net Zero by 2045 [a]

Source [b]	Cost [c]
Scope 1 and 2 emissions (MT CO_2e) [d]	$1,600
Scope 3 emissions and operational non-scope (MT CO_2e)	$369,800
Cost to the campus in 2045	$371,400

Sources: ICF modeling

[a] Table reflects the estimated cost to offset operational GHG emissions associated with the project in 2045 based on the emissions analysis presented in this EIR. Costs would continue annually based on the amount of emissions generated by the project (as determined through annual inventorying) and the market cost of voluntary GHG credits (Affiliated Engineers 2019:9-27). The table does not include fees required to offset construction emissions below 1,100 MT CO_2e. Based on the emissions analysis presented in Table 3.7-5, the total estimated cost to mitigate construction GHG emissions using voluntary GHG credits is $186,500.

[b] Refer to Table 3.7-6 (Scope 1 and 2 emissions = 43 MT CO_2e per year; Scope 3 emissions = 10,873 MT CO_2e per year; operational non-scope emissions = -765 MT CO_2e per year).

[c] Costs estimated based on the 2045 estimated market price for voluntary GHG credits (Affiliated Engineers 2019:9-27). All values have been rounded to the nearest hundred.

[d] Emissions reduced to net zero through compliance with the UC Sustainable Practices Policy beginning in 2025.

Because Mitigation Measure GHG-1b will reduce GHG emissions resulting from the project to net zero beginning in 2045, the project would not impede the state's ability to achieve its midcentury (i.e., 2045) carbon neutrality goal. Accordingly, this impact would be **less than significant with mitigation.**

Phase 1, Medical Office Building

Construction Emissions

The sources of construction emissions generated by Phase 1 development would be the same as discussed for the Master Plan. As shown in Table 3.7-4, construction emissions are predicted to exceed SMAQMD's 1,100 MT CO_2e threshold during the first and second years of construction. This would be a significant impact before mitigation. Mitigation Measures GHG-1a, AQ-2a, and AQ-3a are

required and will reduce the severity of the impact, as shown in Table 3.7-5. However, GHG emissions are still predicted to exceed SMAQMD's threshold. Mitigation Measure GHG-1b is therefore required to offset these emissions below SMAQMD's threshold of significance. Accordingly, the impact of construction GHG emissions on the environment is **less than significant with mitigation**.

Operational Emissions

Except for stationary sources, Phase 1 development would generate GHG emissions from the same operational sources as discussed for the Master Plan. Table 3.7-8 presents the estimated operational emissions resulting from Phase 1 development. The operational results are reflective of opening day (i.e., 2025) conditions.

Table 3.7-8. Estimated Operational GHG Emissions for Phase 1 Development without University Carbon Neutrality Initiative (MT CO_2e per year)

Source	CO_2e
Scopes 1 and 2	
Area	<1
Fugitive	<1
Total [a]	<1
Scope 3	
Mobile	5,676
Water	8
Waste	63
Total [a]	5,747
Non-Scope	
Vegetation	-286
Total Phase 1 Development [a]	5,461

Source: ICF modeling.
CO_2e = carbon dioxide equivalent; MT = metric ton
[a] Totals may be rounded.

Operational sources at implementation (2025) are estimated to result in 5,461 MT CO_2e per year. Like the Master Plan, most of the emissions increase is due to mobile sources (Scope 3 emission sources). Pursuant to the UC Sustainable Practices Policy carbon neutrality initiative, emissions from area (i.e., landscaping equipment) and fugitive (i.e., refrigerants) sources would be reduce to zero beginning in 2025. Emissions from these sources are forecasted to be less than 1 MT CO_2e per year and therefore would not materially change the 5,461 MT CO_2e total estimate for Phase 1 development (Table 3.7-8).

Phase 1 development would include no natural gas infrastructure. As discussed above, 10 percent of total parking spaces for the MOB would be EV ready. The project therefore meets SMAQMD's BMP-1 and BMP-2 for the reduction of GHGs. The expected VMT per employee for the project site with Phase 1 development in 2025 is 18.23, which is 14.4 percent below the SACOG regional average, as shown in Table 3.2-6 in Section 3.2. Work-tour VMT is projected to decline over time as the surrounding area matures. The project site, inclusive of Phase 1 development, is projected to achieve a 20.4 percent reduction in per-employee VMT relative to the baseline SACOG regional

average by 2040 (see Table 3.2-5). This exceeds the reduction modeled by CARB as needed to achieve State of California climate goals. While Phase 1 development would not immediately achieve this level of reduction on opening day, neither CARB's statewide GHG modeling nor SACOG's MTP/SCS presume near-term attainment of the SB 743 targets. This is illustrated in CARB's (2019:10) analysis of required VMT reductions, which shows declining VMT rates over time, eventually achieving the requisite reductions by 2050. Based on the modeled curve, the percent reduction in light-duty per-capita VMT relative to baseline conditions is around 5 percent in 2025 (California Air Resources Board 2019:10). The VMT reductions predicted for Phase 1 development exceed this level and would continue to increase over time consistent with the levels required to meet the state's climate goals. Accordingly, Phase 1 development meets SMAQMD's BMP-3.

While Phase 1 development meets SMAQMD's screening criteria and would not conflict with the *2017 Scoping Plan* or attainment of the state's near-term 2030 GHG reduction target, emissions associated with the project would continue annually beyond 2030. Like the Master Plan, Phase 1 development does not include any elements that would expressly conflict with the state's long-term climate change reduction trajectory. And while VMT modeling conducted for the project demonstrates declining levels that are consistent with the state's framework, UC Davis acknowledges the potential for mobile source emissions generated by Phase 1 development to represent a net positive GHG source beyond 2045. Mobile source emissions generated by Phase 1 development beyond 2045 would be significant before mitigation. Mitigation Measure GHG-1b, as described for the Master Plan, is required to ensure Phase 1 development does not impede the state's ability to achieve its midcentury (i.e., 2045) carbon neutrality goal. With this measure, the long-term impact is reduced to **less than significant with mitigation**.

Mitigation Measures

Mitigation Measure GHG-1a. Implement best management practices to reduce construction-generated GHG emissions

Buildings constructed under the project will require its prime construction contractor to implement the following measures to reduce construction-related GHG emissions. The list of required measures was informed by SMAQMD's guidance for construction GHG emissions reduction. Measures required by Mitigation Measure AQ-3a have been removed to avoid duplication.

- Encourage and provide carpools, shuttle vans, transit passes, and secure bicycle parking for construction worker commutes.
- Reduce electricity use in the construction office by using compact fluorescent bulbs, powering off computers every day, and replacing heating and cooling units with more efficient ones. Obtain 100 percent clean electricity.
- Recycle or salvage nonhazardous construction and demolition debris (goal of at least 75 percent by weight).
- Use locally sourced or recycled materials for construction materials (goal of at least 20 percent based on costs for building materials, and based on volume for roadway, parking lot, sidewalk and curb materials). Use wood products certified through a sustainable forestry program, as feasible.
- Minimize the amount of concrete for paved surfaces or utilize a low carbon concrete option.

- Use the proper size of equipment for the job.
- Use SmartWay certified trucks for deliveries where the haul distance exceeds 100 miles and a heavy-duty class 7 or class 8 semi-truck or 53-foot or longer box type trailer is used for hauling. SmartWay certified trucks are outfitted at point of sale or retrofitted with equipment that significantly reduces fuel use and emissions.

Mitigation Measure AQ-2a: Reduce heavy-duty off-road equipment exhaust emissions

Refer to measure description under Impact AQ-2 in Section 3.2.

Mitigation Measure AQ-3a: Reduce receptor exposure to construction-generated diesel particulate matter

Refer to measure description under Impact AQ-3 in Section 3.2.

Mitigation Measure GHG-1b: Implement verifiable actions or activities or purchase the equivalent GHG credits from a CARB-approved registry or a locally approved equivalent program to reduce GHG emissions generated by the project

As part of this mitigation measure, UC Davis is making the following separate, though overlapping, GHG emission reduction commitments: (1) per the UC Sustainable Practices Policy, Scope 1 and Scope 2 GHG emissions generated by the project will, commencing in 2025, be entirely carbon neutral; (2) also per the UC Sustainable Practices Policy, commencing in 2050, Scope 1, Scope 2, and Scope 3 (commuting and air travel) emissions generated by the project will be offset; and (3) UC Davis will undertake additional action to achieve the following GHG reduction performance standards for the project.

- GHG emissions generated by construction of the project will be reduced to below SMAQMD's threshold of 1,100 MT CO_2e per year.
- By 2045 and thereafter, the project will achieve carbon neutrality (i.e., net zero emissions).

GHG emissions from construction and long-term operation of the project at full implementation were quantified as part of this Draft EIR. The emissions quantification yields the following maximum GHG reduction targets for the above performance standards.

Table 3.7-9. GHG Reduction Targets for Mitigation Measure GHG-1b

	MT CO_2e per Year		
Condition	Draft EIR Emissions	Performance Standard	Reduction Target
Construction Period			
Phase 1, 2023	1,459	1,100	359
Phase 1, 2024	1,857	1,100	757
Phase 1, 2025	2	1,100	0
Phase 2, year 1	2,210	1,100	1,110
Phase 2, year 2	2,746	1,100	1,646
Phase 2, year 3	2,547	1,100	1,447
Phase 2, year 4	4	1,100	0
Phase 3, year 1	1,519	1,100	419

	MT CO_2e per Year		
Condition	Draft EIR Emissions	Performance Standard	Reduction Target
Phase 3, year 2	694	1,100	0
Full Implementation Operations			
2045+	10,151	0	10,151

The reduction targets are required to be achieved based on actual emission calculations as completed in the future, as discussed under *Measure Monitoring and Reporting*, and may therefore change over time.

It is possible that some strategies under the below commitments could independently achieve the performance standards of this measure. Various combinations of strategies could also be pursued to optimize total costs or community co-benefits. UC Davis will be responsible for determining the overall mix of strategies necessary to ensure the performance standards to mitigate GHG generated by the project. Each of the measure commitments is described in more detail below.

Compliance with the University of California Sustainable Practices Policy

Compliance with the UC Sustainable Practices Policy for carbon neutrality will be accomplished through reductions in direct emissions, purchase of renewable electricity, and the purchase of GHG credits. UC Davis will purchase voluntary GHG credits as the final action to reach the GHG emission reduction targets outlined in the UC Sustainable Practices Policy. As part of the University Carbon Neutrality Initiative, internal guidelines have been developed to ensure that any use of credits for this purpose will result in additional, verified GHG emissions reductions from actions that align, as much as possible, with the University's research, teaching, and public service mission. Specifically, any voluntary carbon credits used by UC Davis to comply with the UC Sustainable Practices Policy will do the following.

1. Prioritize local (within the Sacramento region) and in-state credits over national credits. Credits will be third-party verified by a major registry recognized by CARB such as the Climate Action Reserve (CAR). If sufficient local and in-state credits are not available, UC Davis will purchase CARB-conforming national credits registered with an approved registry.
2. Be reported publicly and tracked through TCR as required by the UC Sustainable Practices Policy.[7] TCR is a nonprofit organization governed by U.S. states and Canadian provinces and territories. UC Davis TCR reports will be third-party verified and posted publicly.

Additional Greenhouse Gas Reduction Actions

UC Davis will do one or more of the following options to reduce GHG emissions generated by the project to achieve the measure performance standards.

1. Implement onsite GHG reduction actions at the project (Option 1).
2. Implement GHG reduction actions throughout the communities surrounding the Folsom Center for Health in the city of Folsom (Option 2).
3. Purchase CARB-verified GHG credits (Option 3).

[7] Reports can be accessed at: https://cris4.org/.

Each of the options is described in more detail below.

Onsite Greenhouse Gas Reduction Actions

Actions to reduce GHG emissions at the project (Option 1) must exceed or not duplicate activities implemented pursuant to the UC Sustainable Practices Policy. Potential actions may include, but are not limited to, the following.

- **(1)-1**: All UC Davis vehicles that will operate at the Folsom Center for Health will be fuel efficient, low-emission vehicles, ZEV, and/or alternative fueled.
- **(1)-3**: Require use of natural alternatives to HFCs that are feasible and readily available for refrigeration and air conditioning. Natural refrigerants include ammonia, CO_2, or hydrocarbons. UC Davis will require all future development to meet CARB regulations restricting HFCs, if and when adopted.

If UC Davis complies with the performance standards of this measure, as specified above, through onsite GHG reduction actions (Option 1), then no further action will be required. If additional GHG reductions are required to meet the performance standards, they may be achieved through offsite GHG reduction actions (Option 2) or procurement of GHG credits (Option 3).

Offsite GHG Reduction Actions

Actions to reduce GHG emissions throughout the surrounding community (Option 2) may include, but are not limited to, the following.

- **(2)-1:** Develop a residential energy retrofit package in conjunction with SMUD to achieve reductions in natural gas and electricity usage by the surrounding community. The retrofit package may include identification and sealing of dust and air leaks, installation of programmable thermostats, replacement of interior high-use incandescent lamps with compact florescent lamps or light-emitting diodes (LED), replacement of natural gas dryers with electric clothes dryers, replacement of windows with double-pane or triple-pane solar-control low-E argon gas–filled wood frame windows, or other strategies selected by UC Davis in consultation with SMUD.
- **(2)-2:** Develop a commercial energy retrocommissioning package in conjunction with SMUD to improve the energy efficiency of surrounding commercial buildings by at least 15 percent, relative to current (2019) energy consumption levels.
- **(2)-3:** Develop a residential rooftop solar installation program in conjunction with SMUD. The installation program will allow surrounding homeowners to install solar PV systems at zero or minimal up-front cost. All projects installed under this measure must be designed for high performance (e.g., optimal full-sun location, solar orientation) and additive to utility RPS goals.
- **(2)-4:** Develop a commercial rooftop solar installation program in conjunction with SMUD. The installation program will allow surrounding business owners to install solar PV systems at zero or minimal up-front cost. All projects installed under this measure must be designed for high performance (e.g., optimal full-sun location, solar orientation) and additive to utility RPS goals.

- **(2)-5:** Partner with the City of Folsom and SACOG to assess the feasibility of improving high-quality regional transit serving the Folsom Center for Health.

GHG reductions achieved by all offsite projects must be real, permanent, quantifiable, verifiable, enforceable, and additional (per the definition in California Health and Safety Code Section 38562(d)(1)), as defined under Option 3. If UC Davis complies with the performance standards of this measure through offsite GHG reduction actions (Option 2), then no further action will be required. If additional GHG reductions are required to meet the performance standards, they may be achieved through onsite GHG reduction actions (Option 1) or procurement of GHG credits (Option 3).

GHG Credits

All GHG credits must be created through a CARB-approved registry. These registries are currently the American Carbon Registry, CAR, and Verified Carbon Standard (Verra), although additional registries may be accredited by CARB in the future. These registries use robust accounting protocols for all GHG credits created for their exchange, including the six currently approved CARB protocols. This mitigation measure specifically requires GHG credits created for the project originate from a CARB-approved protocol or a protocol that is equal to or more rigorous than CARB requirements under 17 CCR Section 95972. The selected protocol must demonstrate that the reduction of GHG emissions is real, permanent, quantifiable, verifiable, enforceable, and additional. Definitions of these terms from 17 CCR Section 95802(a) are provided below (the original text used the term offset, which has been replaced in the text below with the generic term "GHG credit" as this measure allows for use of both offsets and forecasted mitigation units [FMU]).

- **Real**: GHG reductions or GHG enhancements result from a demonstrable action or set of actions, and are quantified using appropriate, accurate, and conservative methodologies that account for all GHG emissions sources, GHG sinks, and GHG reservoirs in the [GHG credit] project boundary and account for uncertainty and the potential for activity-shifting leakage and market-shifting leakage.
- **Additional**: GHG reductions or removals that exceed any GHG reduction or removals otherwise required by law, regulation, or legally binding mandate, and that exceed any GHG reductions or removals that would otherwise occur in a conservative business-as-usual scenario.
- **Permanent**: GHG reductions and GHG removal enhancements are not reversible, or when GHG reductions and GHG removal enhancements may be reversible, mechanisms are in place to replace any reversed GHG emission reductions and GHG removal enhancements to ensure that all credited reductions endure for at least 100 years.
- **Quantifiable**: The ability to accurately measure and calculate GHG reductions or GHG removal enhancements relative to a project baseline in a reliable and replicable manner for all GHG emission sources, GHG sinks, or GHG reservoirs included in the [GHG credit] project boundary, while accounting for uncertainty and activity-shifting leakage and market-shifting leakage.
- **Verifiable**: A [GHG credit] project report assertion is well documented and transparent such that it lends itself to an objective review by an accredited verification body.

- **Enforceable:** The authority for CARB to hold a particular party liable and to take appropriate action if any of the provisions of this article are violated.

  Note that this definition of enforceability is specific to the cap-and-trade regulation, where CARB holds enforcement authority, but this measure will employ GHG credits from the voluntary market, where CARB has no enforcement authority. Applying the definition to this mitigation measure means that GHG reductions must be owned by a single entity and be backed by a legal instrument or contract that defines exclusive ownership.

GHG credits may be in the form of GHG offsets for prior reductions of GHG emissions verified through protocols or FMUs for future committed GHG emissions meeting protocols. Because emissions reductions from GHG offsets have already occurred, their benefits are immediate and can be used to compensate for an equivalent quantity of project-generated emissions at any time. GHG credits from FMUs must be funded and implemented within 5 years of project GHG emissions to qualify as a GHG credit under this measure (i.e., there can only be a maximum of 5 years lag between project emissions and their real-world reductions through funding a FMU in advance and implementing the FMU on the ground). Any use of FMUs that result in a time lag between project emissions and their reduction by GHG credits from FMUs must be compensated through a pro-rated surcharge of additional FMUs proportional to the effect of the delay. Since emissions of CO_2 in the atmosphere reach their peak radiative forcing within 10 years, a surcharge of 10 percent for every year of lag between project emissions and their reduction through a FMU will be added to the GHG credit requirement (i.e., 1.10 FMUs would be required to mitigate 1 MT of project GHG emissions generated in the year prior to funding and implementation of the FMU).

UC Davis will identify GHG credits in geographies closest to the project first and only go to larger geographies (i.e., California, United States) if adequate credits cannot be found in closer geographies, or the procurement of such credits would create an undue financial burden. UC Davis will provide the following justification for not using credits in closer geographies in terms of either availability or cost prohibition.

- Lack of enough credits available in closer geographies (i.e., Sacramento or El Dorado Counties).
- Prohibitively costly credits in closer geographies, defined as credits costing more than 300 percent the amount of the settlement price of the latest cap-and-trade auction.

UC Davis documentation submitted supporting GHG credit proposals will be verified by an independent verifier accredited by the ANSI National Accreditation Board or CARB, or an expert with equivalent qualifications to the extent necessary to assist with the verification. Following the standards and requirements established by the accreditation board (ANSI National Accreditation Board or CARB), the verifier will certify the following.

- GHG credits conform to a CARB-approved protocol or a protocol that is equal to or more rigorous than CARB requirements under 17 CCR Section 95972. Verification of the latter requires certification that the credits meet or exceed the standards in 17 CCR Section 95972.
- GHG credits are real, permanent, quantifiable, verifiable, enforceable, and additional, as defined in this measure.
- GHG credits were purchased according to the geographic prioritization standard defined in this measure.

Verification of GHG offsets must occur as part of the certification process for compliance with the accounting protocol. Because FMUs are GHG credits that will result from future projects, additional verification must occur beyond initial certification. Verification for FMUs must include initial certification and independent verification every 5 years over the duration of the FMU generating the GHG credits. The verification will examine both the GHG credit realization on the ground and its progress toward delivering future GHG credits. UC Davis will retain an independent verifier meeting the qualifications described above to certify reductions achieved by FMUs are achieved following completion of the future reduction project.

Measure Monitoring and Reporting

UC Davis will implement the UC Sustainable Practices Policy to meet the requirement of carbon neutrality for Scope 1 and 2 emissions by 2025 and carbon neutrality for Scope 3 emissions by 2050. The results of these efforts will be reflected in the UC Davis' annual GHG inventory used to track GHG emissions and sources at the project. As part of the annual GHG inventory for the project, UC Davis will complete a report specifying the annual amount of MT CO_2e reduction achieved by additional GHG reduction actions pursuant to this mitigation (i.e., Option 1, onsite actions, and Option 2, offsite actions). The report must include evidence that these actions are not being used to mitigate GHG for any other project or entity.

GHG reductions achieved by the onsite and offsite actions would be reflected in the project's annual GHG inventory. The estimated annual emissions will then be compared to the measure performance standards to determine the level of additional GHG reductions required (if any). For the identified amount of exceedance of the performance standard(s), UC Davis will purchase GHG credits according to the requirements established under Option 3. As and when the credits are retired, UC Davis will document in its annual report the unique identifier of those credits showing that they have been retired and accepted by TCR.

Impact GHG-2: Conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases (less than significant with mitigation)

Summary of Impact GHG-2 by Component

Component	Level of Significance before Mitigation	Mitigation Measures Required	Level of Significance after Mitigation
Folsom Center for Health Master Plan	S	AQ-3a GHG-1b GHG-2	LTS
Phase 1, Medical Office Building	S	AQ-3a GHG-1b	LTS

LTS = less than significant; S = significant

Folsom Center for Health Master Plan and Phase 1, Medical Office Building

The UC Sustainable Practices Policy, UC Davis CAP, and Folsom GHG Reduction Strategy are the relevant local GHG reduction plans with which to review compliance under this impact analysis. At the regional level, this impact analysis evaluates consistency with SACOG's MTP/SCS. In the state context, consistency with the *2017 Scoping Plan*, relevant GHG regulations, and state reduction targets (SB 32 and EO B-55-18) is assessed.

University of California Sustainability Practices Policy and Climate Action Plan

The UC system is committed to responsible stewardship of resources and leadership in climate protection. Considerable GHG reductions are directly achieved by the UC Sustainable Practices Policy. For example, the project is being designed to outperform ASHRAE 90.1-2010 by at least 30 percent. Natural gas infrastructure is prohibited, and all electricity would also be purchased from zero carbon sources. Any remaining Scope 1 and Scope 2 GHG emissions that need to be reduced to meet UC Davis' GHG reduction targets of their CAP would be abated by additional onsite reductions or verified carbon offset purchases made by UC Davis.

Ultimately, the project would implement the UC Sustainable Practices Policy, which in turn supports the CAP. Therefore, there is no conflict or inconsistency with UC Davis' local GHG reduction plans and policies.

Folsom GHG Reduction Strategy

The City adopted the Folsom GHG Reduction Strategy to reduce community and municipal GHG emissions consistent with the state's 2030 GHG reduction target adopted under SB 32, and to provide a pathway to support attainment of the state's long-term climate change goals. The Folsom GHG Reduction Strategy includes measures to make homes and businesses more energy efficient and increase the amount of locally produced renewable energy. It recommends development patterns that emphasize complete streets that allow people to go about their business on foot, by bicycle, or via public transportation or EVs. It offers ways to conserve water and to reduce waste that would otherwise go to landfills.

As discussed in Section 3.7.1, the City has developed a checklist to streamline review of new development projects for consistency with the Folsom GHG Reduction Strategy. The checklist specifically notes that projects located in and consistent with the FPASP do not have to complete the checklist to demonstrate consistency with the Folsom GHG Reduction Strategy. These projects must, however, address the requirements and applicable GHG mitigation measures from the FPASP EIR/EIS. As discussed under Impact GHG-1, actions that will be implemented by the project through compliance with the UC Sustainable Practices Policy and other programs are consistent with the strategies recommended by the FPASP AQMP and FPASP Mitigation Measure 3A.4-2a. As discussed in Section 3.2 and Section 3.10, *Land Use*, the project is also consistent with growth and land use zoning assumptions of the FPASP.

While the project is not required to complete the checklist, Table 3.7-10 explains how the project meets or exceeds all applicable measures. There are a total of 12 measures in the checklist that are intended to reduce communitywide GHG emissions. Of these, nine measures would apply to the project as they relate to new nonresidential development. As shown in Table 3.7-10, the project's integration of sustainability as a core design principle will support the City's attainment of their near-term (2030) GHG reduction target and facilitate longer-term reductions consistent with the City's 2035 and 2050 GHG goals.

Table 3.7-10. Consistency with Applicable Emission Reduction Measures from the Folsom GHG Reduction Strategy Checklist

Number	Description	Project Consistency
E-1	Meet <u>one</u> of the following criteria: • Exceed requirements of the California Building Energy Efficiency Standards (Title 24, Part 6) by 15% or more. • Comply with Tier 1 or Tier 2 CALGreen. • Register with the USGBC and pursue LEED Silver certification or greater. • Achieve Zero Net Energy (ZNE) and include onsite renewable energy as listed in CALGreen in Appendix A4 (Section A4.203).	**Consistent.** Pursuant to the UC Sustainable Practices Policy, the hospital facilities and medical office building would outperform ASHRAE 90.1 – 2010 by at least 30%. Objective HPB 1 of the *Folsom Sustainability Plan* encourages all new buildings achieve a minimum of LEED BD+C Silver. UC Davis will aspire for LEED BD+C Gold: Healthcare for the micro-hospital and ASC and LEED BD+C Platinum for the MOB and hotel. Pursuant to the UC Sustainable Practices Policy, buildings will be all electric. All purchased electricity must originate from carbon-free sources. Objective HPB-7 of the *Folsom Sustainability Plan* further encourages rooftop- and building-integrated renewable energy generator and energy storage. The Master Plan includes a solar canopy placement analysis that identifies prioritization zones for solar PV.
T-1	Meet <u>one</u> of the following criteria: • Located in a Transit Priority Area (within 0.5 mile of a light rail station) or in the East Bidwell Mixed-Use Overlay and has a mix of uses (e.g., residential, office, commercial) with a minimum density of 20 units per acre or a floor area ratio of 0.75. • Is a mixed-use building with two or more uses (e.g., residential, commercial, office) or if the site is 5 acres or larger there are two or more uses on the site connected by protected pedestrian paths (e.g., sidewalks, elevated walkways) excluding driveways.	**Consistent**. The project includes a planned pull-out bus stop along Innovation Drive to facilitate future public transit. UC Davis will partner with Sacramento Regional Transit and/or Folsom Stage Lines to extend its bus routes and add a dedicated bus stop at the project. This coordination will be facilitated through Objective M-8 of the *Folsom Sustainability Plan*, which encourages multimodal connections to and throughout the site and to surrounding communities, including direct connections to bicycle/pedestrian network. Objective M-2 also encourages connection to multimodal transit networks as a prerequisite to SITES Gold certification. The project will comply with the *UC Davis Health System Regional Location Planning and Design Principles*. Central to these principles is creating robust pedestrian connections throughout development. The "Central Activity Spine" will traverse the project, connecting the core buildings and primary green spaces to the eastern side of the development and the "Bio-Inspired Landscape Spine." The Bio-Inspired Landscape Spine is a regional bikeway & trail located on the northern and eastern edges of the project area. Shaded walking corridors will weave through the site. Additional site elements that enhance pedestrian and cyclist safety and experience include the following: • Ample, safe, and shaded pedestrian circulation through parking aisles and along perimeters of parking lots. • Walkways through scenic landscape areas. • Pedestrian walkways or sidewalks around the entire perimeter of the project area for walking or jogging, which consists of the regional bikeway & trail, Innovation Drive sidewalks, and a sidewalk along the Loop Road on the western edge. This provides perimeter circulation and connections to the greater community and region. • At a minimum, incorporate pedestrian and bikeway signage. • Each building's main entrances will have a direct connection to the bikeway system.

Number	Description	Project Consistency
T-3	Meet <u>one</u> of the following criteria: • Provide 5% more bicycle parking spaces than required in the City's Municipal Code (Section 17.57.090) • Meet the requirements of Section 17.57.050© of the Folsom Municipal Code or install changing/shower facilities in accordance with the voluntary measures under Appendix A5 of CALGreen.	**Consistent**. The project will provide bicycle parking per the SITES Gold certification requirements, which requires parking be provided for at least 7% of the building's total users. Short- and long-term parking will be provided at each main building entrance. Considerations will also be made for buildings to incorporate bicycle storage rooms, lockers, and showers. For example, the MOB design includes changing and shower facilities.
T-5	Meet <u>one</u> of the following criteria: • Reduce total parking spaces by 5% and will comply with the requirements of Section 17.57.050(C) of the Folsom Municipal Code. • Provide one or more of the following: ○ Shared parking agreement with adjacent property owner ○ Use of street parking or compact spaces on site plan. ○ Program to encourage employees to carpool, ride share or use alternate forms of transportation (e.g., employee bus pass program)	**Consistent with mitigation**. As discussed in Chapter 3.15, *Transportation*, UC Davis will develop a transportation demand management (TDM) strategy to optimize transportation efficiency. The TDM may include strategies addressing commute platforms, daily parking, incentives, carpool/vanpool programs, transit/shuttles, active transportation, transportation network companies, telecommuting programs, etc. Mitigation Measure TRA-1 outlines the monitoring and enforcement mechanisms to ensure successful implementation of the TDM strategy. The UC Sustainable Practices Policy further requires that by 2050, no more than 40% of employees commute to the location by single-occupancy vehicles. The UC Davis Health Green Commuter Program will also be offered, which provides incentives for carpooling, vanpooling, biking, walking, and using transit. Finally, objective M-1 of the *Folsom Sustainability Plan* encourages reduced parking for LEED BD+C Silver certification for all buildings.
T-6	Use high-performance diesel (also known as Diesel-HPR or Reg-9000/RHD) for construction equipment.	**Consistent with mitigation.** Mitigation Measure AQ-3a, which is needed to reduce construction generated criteria pollutant emissions, requires use of renewable diesel fuel in all heavy-duty off-road diesel-fueled equipment used during construction.
T-8	Install EV charging stations based on the total number of parking spaces. The Folsom GHG Reduction Strategy requires EV charging stations be provided in 8% of spaces for projects that propose more than 201 spaces.	**Consistent with mitigation**. 10 percent of total parking spaces for the MOB will be EV ready. All future buildings will meet (at a minimum) the current CALGreen Tier 2 EV ready standards for nonresidential development (6% of total parking spaces). Mitigation Measure GHG-2 is required to increase the minimum parking area for project buildings to at least 8% EV ready. The UC Sustainable Practices Policy further encourages at least 30% of commuter vehicles be ZEV by 2050.
SW-1	Diverts to recycle or salvage at least 65% of nonhazardous construction and demolition (C&D) waste generated at the project site in accordance with Appendix A5 (Non-Residential) of CALGreen.	**Consistent.** UC Davis will comply with C&D recycling mandates and divert at least 65% of nonhazardous waste generated by construction activities. UC Sustainable Practices Policy outlines a goal for UC Davis Health of no more than 25 pounds of total solid waste per adjusted patient day. The project will include food waste compost containers or other compost opportunities for each building and area development.

Number	Description	Project Consistency
W-1	Comply with all applicable indoor and outdoor water efficiency and conservation measures required under CALGreen Tier 1, as outlined in CALGreen.	**Consistent.** The UC Sustainable Practices Policy requires UC Davis develop and maintain an integrated and comprehensive water action plan that identifies long-term strategies for achieving sustainable water systems (including water conservation and water efficiency strategies, water usage and reduction strategies, stormwater management, education and outreach, irrigation and landscape). Drought tolerance is one of the top planting considerations for the landscape design, which includes the following: • Native and climate-appropriate plant selection. • Consideration to the future climate conditions when selecting plant species, especially trees. • Minimizing water use and utilizing more efficient irrigation water application methods than overhead sprays. • Applying extensive mulching. • Limiting turf areas. • Conserving water in soil. Objective HPB-1 of the *Folsom Sustainability Plan* also encourages indoor water use reductions for LEED BD+C Silver certification for all buildings.

Sacramento Area Council of Governments MTP/SCS (SB 375/SB 743)

The 2020 MTP/SCS provides a long-range framework to minimize transportation impacts on the environment, improve regional air quality, protect natural resources, and reduce GHG emissions. The 2020 MTP/SCS is consistent with SB 375, which requires SACOG to adopt an SCS that outlines policies to reduce per-capita GHG emissions from passenger vehicles. The SCS policies include a mix of strategies that target smart growth, mixed-used design, alternative transportation, transit, mobility and access, network expansion, and transportation investment.

SACOG's MTP/SCS achieves a 2035 per-capita GHG vehicle emissions rate of 18.9 pounds CO_2e per day (Sacramento Area Council of Governments 2019:8–21). This level is equivalent to 19 percent below 2005 per-capita mobile source GHG emissions, which meets the SB 375 target set by CARB. The project does not include residential land uses. Therefore, a strict per-capita mobile source emissions rate for comparison to the MTP/SCS goal cannot be developed. However, the comparison can be made on the basis of work-tour VMT. As shown in Table 3.2-6 in Section 3.2, the expected VMT per employee for the project site with full implementation of the project (2040) is 16.95. Interpolating the base year (2016) and 2040 modeled results to 2035 conditions yields a per-employee VMT rate of 17.38. This value translates to a GHG emissions rate of 12.63 pounds CO_2e per employee per day, assuming a 2035 GHG intensity of 329.65 grams CO_2e per mile for the SACOG region (as predicted by EMFAC2021).[8] This is below the per-capita emissions rate needed to meet SACOG's MTP/SCS SB 375 GHG reduction target.

Beyond the GHG emissions rate, the project contributes to the basic objectives of SB 375 for local land projects such as adding development in a planned mixed-use growth area where shorter trip lengths to destinations allows for more multimodal choices. Therefore, there is no conflict or inconsistency with SACOG's MTP/SCS.

[8] Equation: (17.38 mile/employee/day * 329.65 grams CO_2e/mile/day) * 0.002205 pounds/gram.

2017 Climate Change Scoping Plan and SB 32 GHG Reduction Target

The state's near-term GHG strategy is defined by SB 32. The *2017 Scoping Plan* identifies specific measures to reduce statewide GHG emissions and achieve the state's 2030 GHG reduction target pursuant to SB 32. The *2017 Scoping Plan* builds on the programs set in place as part of the previous scoping plan that was drafted to meet the 2020 reduction target per AB 32. The *2017 Scoping Plan* proposes meeting the 2030 goal by accelerating the focus on zero and near-zero technologies for moving freight, continued investment in renewables, greater use of low-carbon fuels including electricity and hydrogen, stronger efforts to reduce emissions of SLCP (i.e., CH_4 and fluorinated gases), further efforts to create walkable communities with expanded mass transit and other alternatives to traveling by car, continuing the cap-and-trade program, and ensuring that natural lands become carbon sinks to provide additional emissions reductions and flexibility in meeting the target.

Through the UC Sustainable Practices Policy, the project would be designed around the concept of sustainability. This is manifested through green building principles, including an emphasis on energy efficiency, water conservation, and waste reduction, as well as practices to reduce dependence on fossil fuels. Although the measures included in the *2017 Scoping Plan* are necessarily broad, the project is generally consistent with the goals and desired outcomes of the plan (i.e., increasing energy efficiency, water conservation, waste diversion, and transportation sustainability). Table 3.7-11 analyzes project consistency with the policies in the *2017 Scoping Plan*.

Table 3.7-11. Project Consistency with *2017 Scoping Plan* Policies

Policy	Primary Objective	Project Consistency Analysis
SB 350	Reduce GHG emissions in the electricity sector through the 50% RPS, doubling of energy savings, and other actions as appropriate to achieve GHG emissions reductions planning targets in the Integrated Resource Plan process.	This policy is a state program that requires no action at the project level. Nonetheless, the project would be consistent with the energy-saving objective of this measure. For example, the project is being designed to outperform ASHRAE 90.1-2010 by at least 30% and would obtain 100% zero-carbon electricity. Solar PV canopies would also be installed over surface parking lots. Refer to Table 3.7-10 for additional discussion.
Low Carbon Fuel Standard	Transition to cleaner/less-polluting fuels that have a lower carbon footprint.	This policy is a state program that requires no action at the project level. Nonetheless, the project would support reducing the carbon footprint associated with vehicle travel. Short- and long-term bicycle parking will be provided. Refer to Table 3.7-10 for additional discussion.
Mobile Source Strategy (CTF Scenario)	Reduce GHGs and other pollutants from the transportation sector through transition to ZEVs and low-emission vehicles, cleaner transit systems and reduction of VMT.	This policy is a state program that requires no action at the project level. Nonetheless, the project would support its implementation through compliance with the UC Sustainable Practices Policy, which will support alternative transportation, ZEVs, and overall reductions in vehicle trips. Refer to Table 3.7-10 for additional discussion.

Policy	Primary Objective	Project Consistency Analysis
SB 1383	Approve and implement SLCP strategy to reduce highly potent GHGs.	This policy is a state program that requires no action at the project level. Regulations stemming from the SLCP Reduction Strategy have not yet been developed (Sacramento Metropolitan Air Quality Management District 2020). The project would be required to comply with state regulations for minimizing HFCs that are in place at the time of construction. Pursuant to the UC Sustainable Practices Policy, fugitive emissions of high GWP gases (Scope 1) will be offset to net zero.
California Sustainable Freight Action Plan	Improve freight efficiency, transition to zero-emission technologies, and increase competitiveness of California's freight system.	This policy is a state program that requires no action at the project level, and does not directly apply to the project, which is not a freight project.
Post-2020 Cap-and-Trade Program	Reduce GHGs across largest GHG emissions sources.	This policy applies to covered entities under the state's cap-and-trade program, and does not directly apply to the project, which has no sources subject to cap-and-trade.

CTF = cleaner technology fuels
GHG = greenhouse gas
GWP = global warming potential
RPS = Renewables Portfolio Standard
SLCP = short-lived climate pollutants
VMT = vehicle miles traveled
ZEV = zero-emission vehicle

As shown in Table 3.7-11, the project is consistent with the broad policy objectives of the *2017 Scoping Plan*. Beyond the plan-level goals and actions, the *2017 Scoping Plan* recommends that "projects incorporate design features and GHG reduction measures, to the degree feasible, to minimize GHG emissions" and that "achieving no net additional increase in GHG emissions, resulting in no contribution to GHG impacts, is an appropriate overall objective for new development" (California Air Resources Board 2017a:101). The *2017 Scoping Plan* also recommends "lead agencies prioritize on-site design features that reduce emissions, especially from VMT" (California Air Resources Board 2017a:101).

As described under Impact GHG-1, the UC Sustainable Practices Policy includes a comprehensive set of strategies that will improve energy efficiency, increase renewable energy generation, reduce water consumption and waste generation, and encourage alternative transportation and low-emission vehicles. As a UC Davis Health facility, the project is required to comply with the UC Sustainable Practices Policy, including all applicable policies that will minimize GHG emission through onsite actions. These actions are incorporated into the project design and will reduce the intensity of growth-related GHG emissions, consistent with CARB's recommendation in the *2017 Scoping Plan*. The project design also includes a number of land use and mobility strategies, as outlined by the *Folsom Sustainability Plan*, that will reduce mobile source GHG emissions by enhancing walkability and pedestrian network connectivity, supporting low-emission vehicles and ZEVs and equipment, and facilitating mode shift. These actions are consistent with CARB's recommendation to "promote transit-oriented development, promote street design policies that

prioritize transit, biking, and walking, and increase low carbon mobility choices, including improved access to viable and affordable public transportation, and active transportation opportunities."

Other State Regulations

Outside of the Scoping Plan, the state has adopted several other regulations and programs to achieve future GHG reductions, as described further in Section 3.7.1. Regulations such as the SB 100-mandated 100 percent carbon-free RPS by 2045; the state's SLCP Reduction Strategy, including forthcoming regulations for composting and organics diversion; and future updates to the state's Title 24 standards (including requirements for net-zero-energy buildings), will be necessary to attain the magnitude of reductions required for the state's 2030 GHG target. The project would be required to comply with these regulations in new construction, or would be directly affected by the outcomes (e.g., energy consumption would be less carbon intensive due to the increasingly stringent RPSs). Unlike the *2017 Scoping Plan*, which explicitly calls for additional emissions reductions from local governments and new projects, none of these state regulations identify specific requirements or commitments for new development beyond what is already required by existing regulations or will be required in forthcoming regulation. Therefore, there is no conflict or inconsistency.

Executive Order B-55-18 Reduction Goal

Attainment of the state's long-term climate change goal of carbon neutrality (EO B-55-18) will require deep emissions reductions across all sectors. The project is being designed to outperform ASHRAE 90.1-2010 by at least 30 percent. All electricity will be purchased from zero-carbon sources. While these sustainability initiatives will achieve substantial reductions in energy-related GHG emissions, the project would generate mobile source emissions beyond 2045, although per-employee VMT rates meet state and regional SB 743 targets. This EIR takes the conservative approach in its pre-mitigation significance finding and discloses, for CEQA compliance purposes, that the long-term impact (i.e., midcentury) of GHG emissions would be significant before mitigation.

Mitigation Measure GHG-1b is required to ensure the project does not impede the state's ability to achieve its midcentury (i.e., 2045) carbon neutrality goal. This measure identifies actions beyond the current UC Sustainable Practices Policy that will achieve carbon neutrality for the project beginning in 2045. Because emissions from the project will be reduced with Mitigation Measure GHG-1b, the project would not conflict with the EO B-55-18 GHG reduction goal.

Conclusion

The project would not conflict with local UC Davis plans and policies, the Folsom GHG Reduction Strategy or *2017 Scoping Plan*, SACOG's MTP/SCS, other general state regulations adopted for the purposes of reducing GHG emissions (e.g., SB 100), or the state's ability to achieve its near-term 2030 reduction target under SB 32. Mitigation Measure GHG-1b requires UC Davis offset project GHG emissions to achieve carbon neutrality beginning in 2045, consistent with the state's long-term climate change goal. Accordingly, this impact is **less than significant with mitigation**.

Mitigation Measures

Mitigation Measure AQ-3a: Reduce receptor exposure to construction-generated diesel particulate matter

Refer to measure description under Impact AQ-3 in Section 3.2.

Mitigation Measure GHG-1b: Implement verifiable actions or activities or purchase the equivalent GHG credits from a CARB-approved registry or a locally approved equivalent program to reduce GHG emissions generated by the project

Refer to measure description under Impact GHG-1.

Mitigation Measure GHG-2: Provide electric vehicle ready parking

UC Davis will require the design builder for the project to provide EV-ready parking for at least 8 percent of the total parking spaces. EV ready includes installation of the electrical panel capacity and raceway conduit with termination at a junction box or outlet.

3.8 Hazards and Hazardous Materials

This section describes the regulatory and environmental setting for hazards and hazardous materials on the UC Davis Folsom Center for Health Master Plan (project) site and in the project vicinity, analyzes effects on hazards and hazardous materials that would result from the project, and provides mitigation measures, if applicable, to reduce the effects of any significant impacts.

Written comments received on the Notice of Preparation include a letter from the California Department of Toxic Substances Control (DTSC) requesting that analysis of hazardous materials in the EIR includes the following.

- Potential for historic or future activities to result in the release of hazardous wastes/substances
- Testing for soil samples for lead analysis prior to ground disturbance
- Surveys be conducted for hazardous materials on structures to be demolished
- Investigation of pesticides

3.8.1 Existing Conditions

Regulatory Setting

This section summarizes key federal, state, and regional and local regulations, laws, and policies relevant to hazards and hazardous materials in the plan area.

Federal

The U.S. Environmental Protection Agency (EPA) is the principal federal regulatory agency responsible for the safe use and handling of hazardous materials. This section describes the key federal regulations pertaining to hazardous wastes relevant to the plan area.

Hazardous Materials Transportation Act

The U.S. Department of Transportation, the Federal Highway Administration, and the Federal Railroad Administration are the three entities that regulate the transport of hazardous materials at the federal level. The Hazardous Materials Transportation Act (49 Code of Federal Regulations Part 171(C)) governs the transportation of hazardous materials. These regulations are promulgated by the U.S. Department of Transportation and enforced by EPA.

Resource Conservation and Recovery Act of 1976

The Resource Conservation and Recovery Act (RCRA) (42 United States Code Sections 6901–6987) provides for cradle to grave regulation of hazardous wastes and includes the Hazardous and Solid Waste Amendments of 1984 (HSWA). RCRA and HSWA protect human health and the environment and impose regulations on hazardous waste generators, transporters, and operators of treatment, storage, and disposal facilities. HSWA also requires EPA to establish a comprehensive regulatory program for underground storage tanks. The corresponding regulations in 40 Code of Federal Regulations Parts 260–299 provide the general framework for managing hazardous waste, including requirements for entities that generate, store, transport, treat, and dispose of hazardous waste.

Occupational Safety and Health Standards

Occupational safety standards exist in federal and state laws to minimize worker safety risks from both physical and chemical hazards in the workplace. The Occupational Safety and Health Administration (OSHA) is responsible for assuring worker safety in the workplace.

OSHA regulations contain requirements concerning the use of hazardous materials in the workplace and during construction that mandate employee safety training, safety equipment, accident and illness prevention programs, hazardous substance exposure warnings, emergency action and fire prevention plan preparation, and a hazard communication program. The hazard communication program regulations contain training and information requirements, including procedures for identifying and labeling hazardous substances, and communicating hazard information relating to hazardous substances and their handling. The hazard communication program also requires that material safety data sheets or equivalent safety information be available to employees, and that employee information and training programs be documented. These regulations require preparation of emergency action plans (escape and evacuation procedures, rescue and medical duties, alarm systems, and training in emergency evacuation).

OSHA regulations include special provisions for hazard communication to employees in research laboratories, including training in chemical work practices. Specific, more detailed training and monitoring is required for the use of carcinogens, ethylene oxide, lead, asbestos, and certain other chemicals. Emergency equipment and supplies, such as fire extinguishers, safety showers, and eye washes, must also be provided and maintained in accessible places as the need dictates.

State

California hazardous materials and wastes regulations are equal to or more stringent than federal regulations. EPA has granted the state primary oversight responsibility to administer and enforce hazardous waste management programs. State regulations require planning and management to ensure that hazardous materials are handled, stored, and disposed of properly to reduce risks to human health and the environment.

California Health and Safety Codes

The California Environmental Protection Agency (Cal-EPA) has been granted primary responsibility by EPA for administering and enforcing hazardous materials management plans within California. Cal-EPA, more generally than EPA, defines a hazardous material as a material that, because of its quantity, concentration, or physical or chemical characteristics, poses a significant present or potential hazard to human health and safety or to the environment if released (26 California Code of Regulations [CCR] Section 25501).

Chapter 6.95 of the California Health and Safety Code requires facilities that use, produce, store, or generate hazardous substances or have a change in business inventory to have a hazardous materials management plan or business plan.

State regulations include detailed planning and management requirements to ensure that hazardous materials are properly handled, stored, and disposed of to reduce human health risks. In particular, the state has acted to regulate the transfer and disposal of hazardous waste. Hazardous waste haulers are required to comply with regulations that establish numerous standards, including criteria for handling, documenting, and labeling the shipment of hazardous waste (26 CCR Section 25160 et seq.).

Cortese List

Cal-EPA maintains the Hazardous Wastes and Substances Site (Cortese) List, a planning document used by state and local agencies and developers to comply with California Environmental Quality Act (CEQA) requirements in providing information about the locations of hazardous materials release sites. Per Government Code Section 65962.5, the Cortese List must be updated at least once annually. DTSC, State Water Resources Control Board, and California Department of Resources Recycling and Recovery contribute to the hazardous material release site listings.

Fire Hazard Severity Zones

Government Code Section 51178 requires the California Department of Forestry and Fire Protection (CAL FIRE) to identify fire hazard severity zones (FHSZ) in the state. Government Code Section 51179 requires a local agency to designate, by ordinance, FHSZs in its jurisdiction. Specifically, the state is required to designate Very High FHSZs in local responsibility areas (LRA). LRAs consist of areas where local agencies are responsible for fire suppression rather than the state.

Emergency Services Act

Under the California Emergency Services Act, the state developed an emergency response plan to coordinate emergency services provided by all governmental agencies. The plan is administered by the California Office of Emergency Services. The Office of Emergency Services coordinates the responses of other agencies, including EPA, the Federal Emergency Management Agency, the California Highway Patrol, regional water quality control boards, air quality management districts, and county disaster response offices. Local emergency response teams, including fire, police, and sheriff's departments, provide most of the services to protect public health.

Worker Safety

The California Division of Occupational Safety and Health (Cal-OSHA) is the state agency responsible for assuring worker safety in the workplace. Cal-OSHA assumes primary responsibility for developing and enforcing standards for safe workplaces and work practices within the state. At sites known to be contaminated, a site safety plan must be prepared to protect workers. The site safety plan establishes policies and procedures to protect workers and the public from exposure to potential hazards at the contaminated site.

California Public Resources Code—State Responsibility Area

The California Public Resources Code (PRC) requires the designation of state responsibility areas (SRA), which are identified based on land cover, beneficial water uses, probable erosion damage, and fire risks and hazards. The financial responsibility of preventing and suppressing fires in an SRA is primarily the responsibility of the state. Fire protection in areas outside SRAs are the responsibilities of local or federal jurisdictions and are referred to as LRAs and federal responsibility areas, respectively.

Regional and Local

Certified Uniform Program Agency

Cal-EPA can delegate responsibility for many of its programs to a local government through certification as a certified unified program agency (CUPA). A CUPA is responsible for implementing a

unified hazardous materials and hazardous waste management program. Sacramento County, through its CUPA program, requires any business that handles hazardous materials above certain thresholds to prepare a hazardous materials business plan (HMBP), which must include, in part, a hazardous materials inventory, a site map, emergency response plan, and contact information.

Sacramento County Environmental Management Department

The Sacramento County Environmental Management Department is the CUPA—the agency certified by the California Secretary of Environmental Protection—to implement the Unified Hazardous Waste and Hazardous Materials Management Regulatory Program specified in Health and Safety Code Chapter 6.11 for Sacramento County. As such, the Sacramento County Environmental Management Department administers several programs, including the Hazardous Waste Generator, Hazardous Waste Onsite Treatment (Tiered Permitting), Spill Prevention Control and Countermeasure Plan, and Underground Storage Tank programs.

City of Folsom General Plan 2035

Relevant goals and policies pertaining to hazards and hazardous materials are listed in the Safety and Noise and Public Facilities and Services elements of the *Folsom General Plan 2035* (City of Folsom 2018).

Goal SN 1.1: Maintain an effective response to emergencies, provide support and aid in a crisis, and repair and rebuild after a crisis.

Policies:

SN 1.1.1 Emergency Operations Plan. Develop, maintain, and implement an Emergency Operations Plan that addresses life and safety protection, medical care, incident stabilization, property conservation, evacuation, escape routes (including back-up escape routes), mutual aid agreements, temporary housing, and communications.

SN 1.1.4. Multi-Hazard Mitigation Plan. Maintain on-going hazard assessment as part of the Sacramento County Multi-Hazard Mitigation Plan within the city.

Goal SN 5.1: Protect the health and welfare of the residents of Folsom through the management and regulation of hazardous materials in a manner that focuses on preventing problems.

Policies:

SN 5.1.3 Encourage the effective implementation of workplace safety regulations and assure that hazardous material information is available to users and employees.

SN 5.1.4. Strive to protect residents and sensitive facilities from avoidable incidents in the transportation of hazardous materials in the county.

University of California

As noted in Section 3.0.2, *University of California Autonomy*, the University of California (UC), as a constitutionally created state entity, is not subject to municipal regulations of surrounding local governments for uses on property owned or controlled by UC that are in furtherance of the University's educational purposes. UC Davis may consider, for coordination purposes, aspects of local plans and policies for the communities surrounding the Folsom Center for Health when it is appropriate and feasible, but it is not bound by those plans and policies in its planning efforts.

University of California Medical Waste Management Program

Most biological research conducted at the UC Davis medical facilities involves the use of relatively low-level biohazardous materials. UC Davis has a Medical Waste Management Program based on national standards to ensure that work with biological materials is conducted in a safe, ethical, environmentally sound, and compliant manner using the principles and functions of integrated safety management and work authorization.

Emergency Action & Evacuation Plan

UC Davis Health Education & Research Emergency Action & Evacuation Plan (EAP) (University of California, Davis Health 2021) complies with CCR Title 8, Section 3220. The EAP represents an emergency procedure action plan intended to provide guidance in the initial response to unexpected events and emergency situations. The EAP includes contact information, emergency protocols for notification and evacuation, assigned job responsibilities, and actions in the event of emergencies related but not limited to fire, power failure, earthquakes, flooding, fumes and toxic spills, bomb threats and disruptive behavior, riots, injuries, and evacuations. In addition to the EAP for UC Davis Health Education and Research, the Continuity of Operations Plan (COOP) is maintained by the Emergency Management Committee and serves as an all-hazards plan to guide preparations, response, and recovery efforts to emergencies and disasters for the entirety of UC Davis Health.

UC Davis Health's Continuity of Operations Plan

This plan applies to the hospital, all associated accredited clinic and care buildings, and staff and physicians working at those locations. The COOP is an all-hazards plan to guide preparations, response, and recovery to emergencies and disasters. It is supplemented by specific policies and procedures that are cited throughout the plan and by reference materials. Policies and procedures that support the COOP are reviewed either in annual, biannual, or triennial cycles.

UC Davis Environmental Health and Safety

The UC Davis Office of Environmental Health and Safety (EH&S) provides programs and leadership on injury prevention, environmental health concerns, chemical safety, management of hazardous and medical waste and regulatory compliance.

Environmental Setting

Hazardous Materials Sites

A Phase I Environmental Site Assessment (Phase I ESA) was conducted for the Master Plan area (RMA Group 2021). The Phase I ESA included a records search. The purpose of the search was to identify recognized environmental conditions[1] (RECs) that are listed in government databases. The search included REC sites within 1 mile of the plan area.

[1] "Recognized environmental conditions" means the presence or likely presence of any hazardous substances or petroleum products in, on, or at a property due to release to the environment, under conditions indicative of a release to the environment, or under conditions that pose a material threat of a future release to the environment. The term is not intended to include *de minimis* conditions that generally do not present a threat to human health and would not be the subject of an enforcement action if brought to the attention of appropriate governmental agencies.

Various agencies issue operating permits or regulate the handling, movements, storage, and disposal of hazardous materials and require mandatory reporting. Therefore, inclusion of properties in search results does not imply that a REC exists presently in the search area or has in the past.

A total of eight sites were identified. The first, identified as Proposed Mangini Ranch Elementary School, is 1 mile south of the plan area and is listed as part of an investigation for a prospective use as a public school site. The status is listed as "no action required."

Seven of the sites are within 0.25 mile of the plan area in Folsom Gateway Shopping Mall on the north side of U.S. Route 50 (US 50) and west of East Bidwell Street (REI, Staples, Best Buy, Ulta Beauty, Sam's Club, Bed Bath & Beyond, and Petsmart). Four of these sites are listed as either hazardous waste generators or handlers with no violations. The REI listing includes a violation for failure to list hazardous materials properly. This violation was noted and closed in 2017. The Petsmart listing includes a violation for not sending a legible waste manifest and not properly disposing of waste. This violation was noted and closed in 2017. The Sam's Club site includes several violations, the most recent in 2020. However, the listed violations do not include leaks or spills of fuel at the site.

The governmental records search did not identify any RECs within the plan area.

Land Uses in the Plan Area

The plan area is in an undeveloped area in the southern portion of the city of Folsom. The Phase I ESA included a site reconnaissance on June 10 and 11, 2021 and consisted of walking the plan area and nearby publicly accessible areas. Land uses noted during the site visit for the Phase I ESA, include predominantly vacant land to the immediate south and west of the site. Extensive residential development activities were underway in surrounding areas but not on any adjoining parcels during the site visit. The plan area is bounded by US 50 to the north and East Bidwell Street to the east. No hazardous land uses or conditions were observed during the site visit.

Aerial photographs and topographic maps indicate that US 50 was constructed sometime between 1940 and 1952. East Bidwell Street appears on topographic maps between 1973 and 1975. The 1893 topographic map shows a road crossing through the southwest corner of the project site and a railroad crossing the eastern portion of the project site.

Development on the north side of US 50 appeared in the 1990s. Development of property (i.e., residential development) to the southeast and south of the site began in 2018.

The plan area is a part of the Folsom Plan Area Specific Plan (FPASP). As described in the Draft EIR/environmental impact statement (EIS) for that project, the Aerojet Superfund Site and historic mining tailings are over 1.5 miles west of the plan area and therefore would not pose a threat to human health or the environment as a result of the project (AECOM and RMC Water and Environment 2010).

No indication of past agricultural land uses (e.g., row crops, orchards, farm buildings) were visible on historic aerials or topographic maps of the plan area. As such, it is unlikely that pesticide contamination exists in soil or groundwater.

Aerially Deposited Lead

Aerially deposited lead (ADL) is attributed to the historic use of leaded gasoline. Areas of primary concern are soils along routes that have had high vehicle emissions from large traffic volumes or congestion during the time when leaded gasoline was in use (generally prior to 1986).

Emissions from vehicles using leaded gasoline while traveling on US 50 and East Bidwell Road may have resulted in an accumulation of ADL.

Railroad Tracks

Soils next to railroad tracks have typically been affected by heavy metals, total petroleum hydrocarbons as diesel, fuel oil, and polychlorinated biphenyls. Soils along railroad tracks may be affected by locomotives (total petroleum hydrocarbons as diesel), railroad ties (polynuclear aromatics) or slag ballast used to set the ties (heavy metals). As a result, it is possible that soil and groundwater in the immediate area of the railroad lines are contaminated.

One historic railroad alignment appears to traverse the project site from north to south along the eastern boundary. The railroad alignment appears on historic topographic maps as early as 1893 and disappears sometime after 1941.

Hazardous Chemicals

Facilities such as the medical office building (MOB), ambulatory surgery center, and micro-hospital would utilize various chemical and radioactive materials. EH&S maintains an inventory of hazardous chemical materials stored onsite at its facilities.

Radioactive Materials and Waste

“Radioactive materials” contain atoms with unstable nuclei that spontaneously emit ionizing radiation to increase their stability. “Radioactive wastes” are radioactive materials that are discarded, including waste in storage, or abandoned. Radioactive materials that could be used during implementation of the project include diagnostic applications and patient treatment. These activities involve handling relatively small quantities of radioactive materials. Radioactive materials are also monitored by EH&S in accordance with the federal Radiation Control Law and by the California Department of Public Health (CDPH). Radioactive materials are monitored closely by EH&S in accordance with the federal Radiation Control Law and by the CDPH.

Biohazardous Materials and Wastes

“Biohazardous materials” are materials that contain certain infectious agents (microorganisms, bacteria, molds parasites, viruses) that normally cause or significantly contribute to increased human mortality, or organisms that are capable of being communicated by invading and multiplying in body tissues. As a health care facility, biohazardous waste could be produced and disposed of frequently. Biohazardous materials commonly used at health care facilities include infectious agents, parasites, and other biological agents.

Schools

Hazardous emissions and accidental release or combustion of hazardous materials near existing schools could result in health risks or other dangers to students. The closest schools to the plan area

are Gold Ridge Elementary School (735 Halidon Way, Folsom), approximately 0.7 mile northwest, and Mangini Ranch Elementary School (4640 Sparrow Drive, Folsom), approximately 1 mile south of the plan area.

Schools proposed as part of the FPASP include five elementary schools, a middle school, and a high school. The closest proposed school to the plan area is approximately 0.45 mile southeast (City of Folsom 2011:Figure 11.1)

Airports

Airport-related hazards are generally associated with aircraft accidents, particularly during takeoff and landing. Airport operation hazards include incompatible land uses, power transmission lines, wildlife hazards (e.g., bird strikes), and tall structures that penetrate the imaginary surfaces surrounding an airport. The closest airport is the Cameron Park Airpark, approximately 7.5 miles northeast of the plan area. Mather Airport is more than 10 miles southwest of the plan area. Neither the plan area nor the MOB is located within the airport land use compatibility plan (ALUCP) for Cameron Park Airpark or Mather Airport.

Evacuation and Emergency Routes

Emergency response for most of the plan area is under the jurisdiction of the Sacramento County Office of Emergency Services (SacOES). SacOES is responsible for alerting and notifying appropriate agencies when disaster strikes, coordinating all agencies that respond, ensuring resources are available and mobilized in times of disaster, developing plans and procedures in response to and recovery from disasters, and developing and providing preparedness materials for the public (County of Sacramento 2020). SacOES is responsible for coordinating plans for all types of emergencies including emergency evacuations.

SacOES operates the Emergency Operation Center (EOC), located at McClellan Air Park. The EOC provides overall coordination of county resources, staff, policy application, and public information (County of Sacramento 2018). Emergency evacuations would be implemented by local jurisdictions according to local laws, policies, and authority. The decision to evacuate would depend on the nature, scope, and severity of the emergency, as well as the number of people affected and what actions are necessary to protect the public. Local jurisdictions would activate their own resources and EOCs for an evacuation of their communities based on the local situation (County of Sacramento 2018).

Fire-Related Hazards

Much of the project is adjacent to or near urbanized areas. The remainder is undeveloped and covered in short grasses. Topography is the project site is primarily flat.

PRC Sections 4201–4204 and Government Code Sections 51175–51189 require identification of FHSZs within the state of California. The areas where the state has financial responsibility for wildland fire protection are designated as SRAs and CAL FIRE provides fire protection in SRAs. These lands are identified as SRAs based on land ownership, population density, and land use.

The plan area is in an SRA designated as a moderate FHSZ. The nearest very high FHSZ is approximately 8 miles east near Cameron Park (California Department of Forestry and Fire Protection 2017).

See Section 3.17, *Wildfire*, for a discussion of wildfire risks associated with pollutants, infrastructure, downstream flooding, and slope instability.

3.8.2 Environmental Impacts

This section describes the environmental impacts associated with hazards and hazardous materials that would result from the project. It describes the methods used to determine the effects of the project and lists the thresholds used to conclude whether an impact would be significant. Measures to mitigate (i.e., avoid, minimize, rectify, reduce, eliminate, or compensate for) any significant impacts are provided, if available.

Methods for Analysis

Analysis regarding listed hazardous materials sites and current and historic land uses were derived from the *Phase I Environmental Site Assessment for UCDH Folsom Medical Campus SW/Corner of Highway 50 and East Bidwell Street/Scott Road Folsom, CA Lot 1 of APN #072-3190-030* prepared for the plan area (RMA Group 2021)(Appendix H, *Phase I Environmental Site Assessment*).

The baseline for hazards and hazardous materials includes the hazards and hazardous materials that currently exist in the plan area and that are identified in Section 3.8.1, *Existing Conditions*. This section provides a qualitative discussion of the potential risks involving hazards and hazardous materials as a result of the project.

Thresholds of Significance

In accordance with Appendix G of the CEQA Guidelines, the project would be considered to have a significant effect if it would result in any of the conditions listed below.

- Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials.
- 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.
- Result in hazardous emissions or involve handling hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school.
- Place project-related facilities on a site that is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and resulting creation of a significant hazard to the public or the environment.
- Place project-related facilities within an airport land use plan area or, where such a plan has not been adopted, within 2 miles of a public airport or public use airport, resulting in a safety hazard or excessive noise for people residing or working in the project area.
- Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan.
- Expose people or structures, either directly or indirectly, to a significant risk of loss, injury, or death involving wildland fires.

Impacts and Mitigation Measures

Impact HAZ-1: Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials (less than significant)

Summary of Impact HAZ-1 by Component

Component	Level of Significance before Mitigation	Mitigation Measures Required	Level of Significance after Mitigation
Folsom Center for Health Master Plan	LTS	None	N/A
Phase 1, Medical Office Building	LTS	None	N/A

LTS = less than significant; N/A = not applicable

Folsom Center for Health Master Plan

Hazardous Materials Use during Construction

The Master Plan would include construction of facilities that could result in the routine transport, use, or disposal of hazardous materials. Construction of these facilities would involve small quantities of commonly used materials, such as fuels and oils, to operate construction equipment. Accidental releases of small quantities of these substances could contaminate soils and degrade the quality of surface water and groundwater, or be released into the air, resulting in a potential public safety hazard. However, consistent with applicable laws and regulations, as discussed above in *Regulatory Setting* in Section 3.8.1, the transportation, handling, and disposal of these materials would comply with regulations enforced by CUPA and Cal-OSHA. In addition, standard best management practices under the stormwater pollution prevention plan (SWPPP) (see Section 3.9, *Hydrology and Water Quality*, for a discussion of SWPPPs) would further reduce the potential of accidental release or exposure. This impact would be **less than significant**.

Hazardous Materials Use during Operation

Operation of the Master Plan would involve the routine transport, use, storage, and disposal of hazardous materials but would not create a significant hazard to the public or environment under routine or reasonably foreseeable upset and accident conditions.

The types of hazardous materials used would be comparable to those currently used in other ambulatory surgery centers and hospitals (e.g., chemicals, biohazardous and radioactive materials and wastes). The Master Plan would comply with all applicable federal and state regulations and standards. These standards would include measures such as preparation of a spill prevention, control, and countermeasure plan. HMBPs, as required by DTSC, would be developed for the project. The HMBPs list the names and quantities of all hazardous chemical materials found on campus in quantities per building greater than 55 gallons for liquids, 500 pounds for solids, or 200 cubic feet for gases. These measures would reduce the potential for hazardous materials release during the routine transport, use, or disposal of such materials. Therefore, impacts relating to the use and disposal of hazardous materials during project operation would be **less than significant**.

Biohazardous Materials

The types of biohazardous materials to be used under the Master Plan would be similar to those currently in use under other surgery centers and hospital facilities. Biohazardous materials (e.g.,

medical waste, cell plates, absorbents, needles) are regulated and handled under the Medical Waste Management Program which ensures safe handling and disposal of biohazardous and medical waste.

Medical wastes generated at the surgery center or hospital could include blood and blood products, tissues and specimens, needles, and infectious items. These materials along with pharmaceutical and chemotherapy wastes and surgery specimens, would be transported offsite for treatment by a licensed medical waste treatment vendor.

All applicable federal and state regulations and standards would be implemented under the Master Plan. Impacts relating to the use and disposal of biohazardous materials would be **less than significant**.

Radioactive Materials

As discussed in Section 3.8.1, radioactive materials used for patient treatment would be regulated and monitored by the EH&S in accordance with the federal Radiation Control Law and by the CDPH. The project would follow the Radiation Safety Program, providing protective measures against exposure and direction for disposal. Because the Master Plan would comply with existing safety controls, plans, and procedures, the potential to expose the public to substantial health or safety risks is low. This impact would be **less than significant**.

Hazardous Materials Transport

All hazardous materials would be transported by a licensed hazardous waste contractor. Adherence to existing regulations and compliance with the safety procedures mandated by applicable federal, state, university, and local laws and regulations would minimize the risks resulting from the routine transportation, use, storage, or disposal of hazardous materials or hazardous wastes associated with operation of the Master Plan.

Based on the above analysis, the Master Plan would not create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials. The impact would be **less than significant**.

Phase 1, Medical Office Building

Construction of Phase 1, MOB would result in the same potential impacts as discussed for the Master Plan. The same type of hazardous materials commonly used for construction (e.g., fuels, oils) would be used. Accidental releases of these substances during construction could contaminate soils and degrade the quality of surface water and groundwater, or be released into the air, resulting in a potential public safety hazard. However, consistent with applicable laws and regulations, transportation, handling, and disposal of these materials would comply with regulations enforced by CUPA and Cal-OSHA. Standard best management practices under the SWPPP would further reduce the potential for accidental release or exposure. This impact would be **less than significant**.

Under Phase 1, the primary and specialty care clinics and the drive-through testing facility could result in the same type of impacts as discussed for the Master Plan. As a medical facility, biohazardous and radioactive materials (e.g., medical waste, cell plates, absorbents, needles) would be present and improper handling or disposal of these materials could result in a public health hazard. However, MOB operations would comply with all applicable federal and state regulations and standards that would be implemented under the Master Plan. Biohazardous materials would be regulated and handled under the Medical Waste Management Program, which ensures safe handling

and disposal of biohazardous materials. Pharmaceutical and chemotherapy wastes and surgery specimens would be transported offsite for treatment by a licensed medical waste treatment vendor. Radioactive materials would be regulated and monitored by the EH&S in accordance with the federal Radiation Control Law and by the CDPH. These laws, policies, and regulations would reduce the potential for accidental release or exposure during operation of the MOB facilities. This impact would be **less than significant**.

Mitigation Measures

No mitigation measures are required.

Impact HAZ-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 (less than significant with mitigation)

Summary of Impact HAZ-2 by Component

Component	Level of Significance before Mitigation	Mitigation Measures Required	Level of Significance after Mitigation
Folsom Center for Health Master Plan	S	HAZ-2	LTS
Phase 1, Medical Office Building	S	HAZ-2	LTS

LTS = less than significant; S = significant

Folsom Center for Health Master Plan

Hazardous Materials Sites

Current investigations identified eight potential hazardous materials sites within 1 mile of the plan area. The closest of these sites are within 0.25 mile and located at the Folsom Gateway Shopping Mall on the north side of US 50. Listed violations were either closed or did not involve leaks or spills of hazardous materials and are listed as "returned to compliance." There are no known RECs in the plan area that pose a threat to the public or the environment.

Current and Past Land Uses

Based on the review of historic aerials and topographic maps, the plan area has been mostly vacant and there is no indication of past agricultural land uses (e.g., row crops, orchards, farm buildings).

No aspect of the project would involve alteration or demolition of structures containing lead-based paint or asbestos-containing materials; therefore, impacts would be less than significant.

Hazardous land uses include historic vehicle use along US 50 and East Bidwell Road. Both roads were constructed and in use before 1986, when leaded gasoline was still in use. Concentrations of ADL may be encountered in the surface and near-surface soils near the northern and eastern boundaries of the project site.

One historic railroad alignment appears to traverse through the project site from north to south along the eastern boundary. The railroad alignment appears on historic topographic maps as early as 1893 and disappears sometime after 1941. Soils next to railroad tracks or former railroad alignments could be affected by heavy metals, total petroleum hydrocarbons as diesel, fuel oil, and

polychlorinated biphenyls. As a result, it is possible that soil and groundwater in the immediate area of the railroad lines are contaminated.

Potential exposure of construction workers to contaminated soils is considered to be a significant impact because of the possible threat to human health from the handling of these materials during ground-disturbing construction activities. However, Mitigation Measure HAZ-2 will require preliminary soil testing before construction, which would reduce the potential for worker exposure to contaminated soils.

Phase 1, Medical Office Building

Construction of the MOB would result in the same potential impacts as discussed for the Master Plan. The MOB and associated parking area that would be constructed under Phase 1 are near US 50, where the potential for surface and near surface soils to be contaminated with ADL. Potential exposure of construction workers to soils contaminated with ADL is considered to be a significant impact because of the possible threat to human health from the handling of these materials during ground-disturbing construction activities. However, Mitigation Measure HAZ-2 will require preliminary soil testing before construction, which would reduce the potential for worker exposure to contaminated soils.

Mitigation Measures

Mitigation Measure HAZ-2: Conduct a preliminary investigation and screening for hazardous materials in soils

Construction contract specifications will provide that if soils adjacent to US 50 and East Bidwell Road are to be disturbed, UC Davis or its contractors will conduct a preliminary investigation and screening for ADL, heavy metals, total petroleum hydrocarbons as diesel, fuel oil, and polychlorinated biphenyls of the surface and near-surface soils along the project alignment. If soils contain hazardous materials in excess of established thresholds, soils will be handled in a manner compliant with the Sacramento County CUPA regulatory requirements and disposed of properly.

If, during construction, soil or groundwater contamination is suspected, construction activities in the vicinity of the discovery will cease and appropriate health and safety procedures will be implemented, including the use of appropriate personal protective equipment (e.g., respiratory protection, protective clothing, helmets, goggles).

Impact HAZ-3: Result in hazardous emissions or handling of hazardous or acutely hazardous materials, substances, or waste within 0.25 mile of an existing or proposed school (no impact)

Summary of Impact HAZ-3 by Component

Component	Level of Significance before Mitigation	Mitigation Measures Required	Level of Significance after Mitigation
Folsom Center for Health Master Plan	NI	None	N/A
Phase 1 – Medical Office Building	NI	None	N/A

NI = no impact; N/A = not applicable

Folsom Center for Health Master Plan

Accidental release or exposure of hazardous materials during construction or operation of the Folsom Center for Health within 0.25 mile of a school could expose people to hazardous materials. However, there are no existing or planned schools within 0.25 mile of the plan area. Schools proposed as part of the FPASP include five elementary schools, a middle school, and a high school. The closest proposed school to the plan area is approximately 0.45 mile southeast. Therefore, the Master Plan would not emit hazardous emissions or handle hazardous materials within 0.25 mile of an existing or proposed school, and there would be **no impact**.

Phase 1, Medical Office Building

As described above, there are no schools within 0.25 mile of the plan area and/or MOB. Therefore, construction and operation of the MOB would not emit hazardous emissions or handle hazardous materials within 0.25 mile of an existing or proposed school, and there would be **no impact**.

Mitigation Measures

No mitigation measures are required.

Impact HAZ-4: Place project-related facilities on a site that is included on a list of hazardous materials sites, and resulting in creation of a significant hazard to the public or the environment (no impact)

Summary of Impact HAZ-4 by Component

Component	Level of Significance before Mitigation	Mitigation Measures Required	Level of Significance after Mitigation
Folsom Center for Health Master Plan	NI	None	N/A
Phase 1, Medical Office Building	NI	None	N/A

NI = no impact; N/A = not applicable

Folsom Center for Health Master Plan

Project construction would include ground-disturbing activities and, in some cases, dewatering. If these activities were to occur in contaminated media, workers and the public could be exposed to contaminants harmful to human health.

Current investigations identified eight potential hazardous materials sites within 1 mile of the plan area. The closest of these sites are within 0.25 mile and located at the Folsom Gateway Shopping Mall on the north side of US 50. Listed violations were either closed or did not involve leaks or spills of hazardous materials and are listed as "returned to compliance." There are no known hazardous materials sites or facilities listed within the plan area. Therefore, the project would not occur on or near a listed hazardous materials site and there would be **no impact**.

Phase 1, Medical Office Building

As described above, there are no known hazardous materials sites or facilities listed in the plan area. Therefore, the MOB would not occur on or near a listed hazardous materials site and there would be **no impact**.

Mitigation Measures

No mitigation measures are required.

Impact HAZ-5: Place project-related facilities within an airport land use plan area or, where such a plan has been adopted, within 2 miles of a public airport or public use airport, resulting in a safety hazard or excessive noise for people residing or working in the project area (no impact)

Summary of Impact HAZ-5 by Component

Component	Level of Significance before Mitigation	Mitigation Measures Required	Level of Significance after Mitigation
Folsom Center for Health Master Plan	NI	None	N/A
Phase 1, Medical Office Building	NI	None	N/A

NI = no impact; N/A = not applicable

Folsom Center for Health Master Plan

Airspace safety hazards occur when project components, such as buildings or construction equipment, encroach on the airspace of an airport runway. The closest airport is the Cameron Park Airpark approximately 7.5 miles northeast of the plan area. Mather Airport is over 10 miles southwest of the plan area. As such, the project would not be located within the ALUCP for Cameron Park Airpark or Mather Airport or within 2 miles of an airport and would not result in airport safety hazards or excessive noise. There would be **no impact**.

Phase 1, Medical Office Building

As discussed above, there are no airports or airport land use plans within 2 miles of the MOB. Therefore, construction and operation of the MOB would not result in airport safety hazards or excessive noise and there would be **no impact**.

Mitigation Measures

No mitigation measures are required.

Impact HAZ-6: Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan (no impact)

Summary of Impact HAZ-6 by Component

Component	Level of Significance before Mitigation	Mitigation Measures Required	Level of Significance after Mitigation
Folsom Center for Health Master Plan	NI	None	N/A
Phase 1, Medical Office Building	NI	None	N/A

NI = no impact

Folsom Center for Health Master Plan

Construction activities could include crews of construction workers onsite during standard workdays and times. As most construction crews carpool, commuting workers are not anticipated to affect the operation of local roadways. The Master Plan could result in short-term, temporary impacts on street traffic because of potential extension of construction activities into the right-of-way. This could result in a reduction in the number of lanes or temporary closure of certain road segments. This would occur only during construction activities adjacent to roads.

However, it is not anticipated that project construction would cause any changes in emergency access. Existing City of Folsom requirements for construction projects require signage and an access plan to ensure continued emergency access during construction (City of Folsom 2020:GP-98, GP-99). Provisions for maintaining traffic during construction would require the preparation of a traffic control plan that would ensure there is no interference with emergency vehicles and services or response and evacuation plans. Accordingly, there would be **no impact**.

Phase 1, Medical Office Building

Impacts on emergency vehicles and evacuation routes would be similar to those described for the Master Plan. Potential impacts could occur on adjacent roads during construction and staging. However, construction of the MOB would be required to comply with the same construction traffic controls as described above, which would ensure continued emergency and evacuation access. There would be **no impact**.

Mitigation Measures

No mitigation measures are required.

Impact HAZ-7: Expose people or structures, either directly or indirectly, to a significant risk of loss, injury, or death involving wildland fires (less than significant)

Summary of Impact HAZ-7 by Component

Component	Level of Significance before Mitigation	Mitigation Measures Required	Level of Significance after Mitigation
Folsom Center for Health Master Plan	LTS	None	N/A
Phase 1, Medical Office Building	LTS	None	N/A

LTS = less than significant; N/A = not applicable

Folsom Center for Health Master Plan

Construction of Master Plan facilities would involve the presence of personnel and equipment, both of which could inadvertently cause a fire (e.g., smoking, sparks from equipment). However, no portion of the project is in or near an area designated as a high or very high FHSZ. To further prevent the potential for fire, standard fire prevention measures would be implemented (e.g., spark arrestors on construction equipment, maintaining appropriate fire suppression equipment).

Project operation could also involve the use of flammable materials such as fuels and solvents, which could be inadvertently ignited by sparks from equipment or machinery. However, use of flammable materials would comply with regulations enforced by CUPA and Cal-OSHA. In addition, all standard

fire safety and prevention measures would be implemented, and emergency fire prevention procedures as described in the EAP would further reduce fire risks.

This impact would be **less than significant** because conditions do not exist near the project that would result in exposure of people or structures to significant risk of exposure to wildfire, and standard fire safety and prevention measures would be implemented.

Phase 1, Medical Office Building

Construction and operation of the MOB would involve the presence of personnel and equipment, both of which could inadvertently cause a fire. However, like the Master Plan discussed above, the MOB is not in or near an area designated as a high or very high FHSZ. The same fire prevention measures used for the Master Plan (e.g., spark arrestors on construction equipment) would apply to the MOB. In addition, emergency fire prevention procedures as described in the EAP would further reduce fire risks. Therefore, the potential for the MOB to result in exposure of people or structures to significant fire risks is **less than significant**.

Mitigation Measures

No mitigation measures are required.

3.9 Hydrology and Water Quality

This section describes the regulatory and environmental setting for hydrology and water quality on the UC Davis Folsom Center for Health Master Plan (project) site and in the project vicinity, analyzes effects on hydrology and water quality that would result from the project, and provides mitigation measures, if applicable, to reduce the effects of any significant impacts.

Comments related to hydrology and water quality received during the scoping period include the need to consider relevant policies and regulations to protect the quality of surface and groundwater.

3.9.1 Existing Conditions

Regulatory Setting

This section summarizes key University of California (UC), federal, state, and regional and local regulations, laws, and policies relevant to hydrology and water quality on the Folsom Campus.

University of California

As noted in Section 3.0.2, *University of California Autonomy*, UC, as a constitutionally created state entity, is not subject to municipal regulations of surrounding local governments for uses on property owned or controlled by UC that are in furtherance of the University's educational purposes. UC Davis may consider, for coordination purposes, aspects of local plans and policies for the communities surrounding the campus when it is appropriate and feasible, but it is not bound by those plans and policies in its planning efforts.

As a constitutionally created state entity, UC is generally exempt from compliance with local land use regulations, including general plans, zoning, and ordinances.

Federal

Clean Water Act

The federal Clean Water Act (CWA) was enacted with the primary purpose of restoring and maintaining the chemical, physical, and biological integrity of the nation's waters. The CWA directs states to establish water quality standards for all "waters of the United States" and to review and update such standards on a triennial basis.

The U.S. Environmental Protection Agency (EPA) has delegated responsibility for implementation of portions of the CWA, including water quality control planning and control programs, such as the National Pollutant Discharge Elimination System (NPDES) program (discussed below), to the State Water Resources Control Board (State Water Board) and the Regional Water Quality Control Boards (Regional Water Boards). The State Water Board establishes statewide policies and regulations for the water quality control programs mandated by federal and state water quality statutes and regulations. The Regional Water Boards develop and implement water quality control plans (basin plans) that identify the beneficial uses of surface and ground waters, water quality characteristics, and water quality problems.

Section 303(d) and Total Maximum Daily Loads. The CWA contains two strategies for managing water quality. One is a technology-based approach that includes requirements for states to maintain a minimum level of pollutants using the best available technology. The other is a water quality–based approach that relies on evaluating the condition of surface waters and setting limitations on the amount of pollution that the water can be exposed to without adversely affecting the beneficial uses of those waters. Section 303(d) of the CWA bridges these two strategies. Section 303(d) requires that states make a list of waters that are not attaining standards after the technology-based limits are put into place. For waters on this list (and where the EPA administrator deems they are appropriate), states develop total maximum daily loads (TMDL). TMDLs are established at the level necessary to implement the applicable water quality standards. The CWA does not expressly require the implementation of TMDLs. However, federal regulations require that an implementation plan be developed along with the TMDL and Sections 303(d) and 303(e), and their implementing regulations require that approved TMDLs be incorporated into basin plans. EPA has established regulations (40 Code of Federal Regulations Part 122) that require that NPDES permits be revised to be consistent with any approved TMDL.

Section 401—Water Quality Certification. Section 401 of the CWA requires that an applicant pursuing a federal permit to conduct an activity that may result in a discharge of a pollutant obtain a Water Quality Certification (or waiver). A Water Quality Certification requires the evaluation of water quality considerations associated with dredging or placement of fill materials into waters of the United States. Water Quality Certifications are issued by one of the nine geographically separated Regional Water Boards in California. Under the CWA, the Regional Water Board must issue or waive a Section 401 Water Quality Certification for a project to be permitted under CWA Section 404.

Section 402—National Pollutant Discharge Elimination System. The 1972 amendments to the federal Water Pollution Control Act established the NPDES permit program to control discharges of pollutants from point sources (Section 402). The 1987 amendments to the CWA created a new section of the CWA devoted to stormwater permitting (Section 402(p)). EPA has granted the State Water Board and Regional Water Boards primacy in administering and enforcing the provisions of CWA and NPDES. NPDES is the primary federal program that regulates point-source and nonpoint-source discharges to waters of the United States.

NPDES General Permit for Construction Activities. Most construction activities that disturb 1 acre of land or more are required to obtain coverage under the NPDES General Permit for Construction Activities (Construction General Permit). The State Water Board has issued a statewide Construction General Permit (Order No. 2009-0009-DWQ, NPDES No. CAR000002, as amended by 2010-0014-DWQ and 2012-0006-DWQ), adopted September 2, 2009. Construction activities subject to the NPDES Construction General Permit include clearing, grading, and disturbances to the ground, such as stockpiling or excavation, that result in soil disturbances of at least 1 acre of total land area. The NPDES Construction General Permit requires the applicant to file a notice of intent to discharge stormwater and to prepare and implement a stormwater pollution prevention plan (SWPPP). The SWPPP includes a site map and a description of construction activities, along with a demonstration of compliance with relevant local ordinances and regulations, and an overview of the best management practices (BMP) that would prevent soil erosion and discharge of other construction-related pollutants that could contaminate nearby water resources. Permittees are further required to conduct annual monitoring and reporting to ensure that BMPs are correctly implemented and effective in controlling the discharge of stormwater-related pollutants.

National Flood Insurance Program

The Federal Emergency Management Agency (FEMA) is responsible for determining, based on U.S. Army Corps of Engineers studies, flood elevations, and floodplain boundaries. FEMA is also responsible for distributing the Flood Insurance Rate Maps, which are used in the National Flood Insurance Program. These maps identify the locations of special flood hazard areas, including the 100-year floodplain. FEMA allows non-residential development in the floodplain; however, construction activities are restricted within the flood hazard areas, depending on the potential for flooding within each area.

State

Porter-Cologne Water Quality Control Act

The Porter-Cologne Water Quality Control Act (Porter-Cologne Act) is established and implemented by the State Water Board and nine Regional Water Boards. Waters of the state are defined more broadly than waters of the United States; they are defined as any surface water or groundwater, including saline waters, within the boundaries of the state. This includes waters in both natural and artificial channels. The act requires projects that are discharging, or proposing to discharge, wastes that could affect the quality of the state's water to file a waste discharge report with the appropriate Regional Water Board. The Porter-Cologne Act also requires that the State Water Board or a Regional Water Board adopt basin plans for the protection of water quality. The *Water Quality Control Plan for the Sacramento River Basin and the San Joaquin River Basin* (Basin Plan) specifies region-wide and waterbody-specific beneficial uses and sets numeric and narrative water quality objectives for several substances and parameters in numerous surface waters in its region (Central Valley Regional Water Quality Control Board 2018). The Basin Plan also establishes beneficial water uses for groundwater basins within the region. The project is in the jurisdiction of the Central Valley Regional Water Board. The Basin Plan was last updated in 2018.

Antidegradation Policy

All wastewater discharges must comply with the Antidegradation Policy (State Water Board Resolution 68-16) and the Antidegradation Implementation Policy contained in the Basin Plan. In part it states: "Any discharge of waste to high quality waters must apply best practicable treatment or control not only to prevent a condition of pollution or nuisance from occurring, but also to maintain the highest water quality possible consistent with the maximum benefit to the people of the State." The antidegradation analysis is a mandatory element in the NPDES and land discharge waste discharge requirements (WDR) permitting processes. The environmental review document should evaluate potential impacts to both surface and groundwater quality.

Sustainable Groundwater Management Act

The Sustainable Groundwater Management Act of 2014 (SGMA) is a comprehensive three-bill package that Governor Jerry Brown signed into California state law in September 2014. The SGMA provides a framework for sustainable management of groundwater supplies by local authorities, with a limited role for state intervention only if necessary to protect the resource. The SGMA is intended to ensure a reliable groundwater water supply for California for years to come. The SGMA requires the formation of local Groundwater Sustainability Agencies, which are required to adopt groundwater sustainability plans (GSP) to manage the sustainability of groundwater basins. Groundwater Sustainability Agencies for all high- and medium-priority basins, as identified by the

California Department of Water Resources (DWR), must adopt a GSP, or submit an alternative to a GSP. SGMA also requires governments and water agencies of high- and medium-priority basins to halt overdraft and bring groundwater basins into balanced levels of pumping and recharge. Due to underlying geological formations, the project is not within a recognized groundwater subbasin, and no GSP applies to the project site.

Regional and Local

Sacramento Municipal Separate Storm Sewer Systems

Phase I Municipal Separate Storm Sewer Systems (MS4) regulations cover municipalities with more than 100,000 residents, certain industrial processes, or construction activities that disturb an area of 5 acres or more. Phase II "small" MS4 regulations require stormwater management plans (SWMP) to be developed by municipalities with fewer than 100,000 residents and construction activities that disturb 1 or more acres of land.

MS4 permits require cities and counties to develop and implement programs and measures, including management practices, control techniques, system design and engineering methods, and other measures, as appropriate, to reduce the discharge of pollutants in stormwater discharges to the maximum extent possible. As part of permit compliance, permit holders create SWMPs, also known as stormwater quality improvement programs (SQIP), for their respective locations. These plans outline the requirements for municipal operations, industrial and commercial businesses, construction sites, and planning and land development. The requirements may include multiple measures to control pollutants in stormwater discharges. During implementation of specific projects under the program, project applicants are required to follow the guidance contained in the SWMPs/SQIPs, as defined by the permit holder in that location. Sacramento County is considered a Phase I MS4 permittee under the State Water Board's WDRs for stormwater discharges (NPDES Order R5-2016-0040; NPDES No. CAS0085324).

General Waste Discharge Requirements/NPDES Permit for Limited Threat Discharges to Surface Waters

The Central Valley Regional Water Board is no longer accepting applications for coverage under the Low Threat General Order. New applicants must apply for coverage under the Limited Threat General Order (General WDRs/NPDES Permit for Limited Threat Discharges to Surface Waters, Order R5-2016-0076/NPDES Permit No. CAG995002; amended by Order R5-2018-0002).

Discharges of the following wastewaters may obtain authorization under this General Order. To obtain authorization for discharges to surface water, Dischargers must submit a complete notice of intent.

- Tier 1A: Relatively clean discharges of less than 0.25 million gallons per day (mgd) and/or less than 4 months in duration.
- Tier 1B: Relatively clean discharges greater than or equal to 0.25 mgd and/or greater than or equal to 4 months in duration.
- Tier 2: Discharges that may contain toxic organic constituents, volatile organic compounds, pesticides, inorganic constituents, chlorine, and/or other chemical constituents that require treatment prior to discharge.
- Tier 3: Discharges of wastewater from hard rock mines.

Central Valley Flood Protection Act of 2008 (Senate Bill 5)

As mandated by the Central Valley Flood Protection Act of 2008, DWR prepared the Central Valley Flood Protection Plan (CVFPP) and the Central Valley Flood Protection Board, after public hearings and review, adopted the CVFPP on June 29, 2012. The CVFPP provides a comprehensive framework for system-wide management and flood risk reduction planning for the Sacramento and San Joaquin River Basins. The adopted plan must be updated every 5 years beginning in 2017.

Folsom Plan Area Specific Plan

UC is exempted by the state constitution from compliance with local land use regulations, including general plans and zoning, whenever using property under its control in furtherance of its educational mission, and therefore references to the Folsom Plan Area Specific Plan (FPASP) are only to provide context for the impact analysis. Relevant goals and policies pertaining to water quality, hydrology, and floodplains are listed in the Resource Management and Sustainable Design Element and the Utilities Element of the FPASP (City of Folsom 2011).

Objective 10.7: Protect and enhance existing water quality in the Plan Area through storm water best management practices and low impact development measures.

Policy 10.25: Natural drainage courses within the Plan Area along Alder, Carson, Coyote, and Buffalo Creeks and their tributaries shall be preserved as required by state and federal regulatory agencies and incorporated into the overall storm water drainage system.

Policy 10.26: Trails located within open space corridors and areas shall be designed to include soil erosion control measures to minimize sedimentation of nearby creeks and maintain the natural state of drainage courses.

Policy 10.27: Public recreational facilities (e.g., picnic areas and trails) located within open space corridors or areas shall be subject to urban storm water best management practices, as defined in Section 10.3 – Sustainable Design.

Policy 10.28: Best management practices shall be incorporated into construction practices to minimize the transfer of water borne particulates and pollutants into the storm water drainage system in conformance with FMC Chapters 8.70 – Stormwater Management & Discharge Control and 14.29 – Grading as well as current NPDES permit requirements and State Water Resources Control Board's Construction General Permit requirements.

Policy 10.29: All mitigation specified in the FPASP EIR/EIS shall be implemented.

Policy 10.30: Preference shall be given to biotechnical or non-structural alternatives, over alternatives involving revetments, bank regrading or installation of stream training structures.

Policy 10.34: New drainage outfalls within or near Alder Creek, or improvements to existing outfalls, shall be designed and constructed utilizing low impact development (LID) practices in conformance with the most current National Pollutant Discharge Elimination (NPDE) regulations. Consistent with these practices, storm water collection shall be decentralized, its quality improved and its peak flow contained in detention facilities that will slowly release it back into the creek drainage outfalls and improvements shall be unobtrusive and natural in appearance (refer to Section 12.6 – Stormwater).

Policy 10.42: Adhere to the recommendations and policies of the Alder Creek Watershed Management Action Plan where feasible.

Objective 10.11: Incorporate low-impact development design strategies and techniques into the overall storm water drainage and water quality systems in the FPASP.

Policy 10.52: Site specific development projects shall incorporate LID design strategies that include:

10.52a Minimizing and reducing the impervious surface of site development by reducing the paved area of roadways, sidewalks, driveways, parking areas, and roof tops;

10.52b Breaking up large areas of impervious surface area and directing stormwater flows away from these areas to stabilized vegetated areas;

10.52c Minimizing the impact of development on sensitive site features such as streams, floodplains, wetlands, woodlands, and significant on-site vegetation;

10.52d Maintaining natural drainage courses; and

10.52e Provide runoff storage dispersed uniformly throughout the site, using a variety of LID detention, retention, and runoff techniques that may include:

• Bioretention facilities and swales (shallow vegetated depressions engineered to collect, store, and infiltrate runoff); and

• Landscape buffers, parkways, parking medians, filter strips, vegetated curb extensions, and planter boxes containing grass or other low-growing vegetation planted between polluting sources (such as a roadway or site development) and downstream receiving water bodies).

Policy 12.4: Utilize Best Management Practices (BMPs) where feasible and appropriate.

Policy 12.5: Urban runoff will be treated prior to discharging to a water of the state (i.e. creeks, wetlands) in accordance with the city's most current Municipal Stormwater Permit requirements for new developments.

Policy 12.6: Employ Low Impact Development (LID) practices, as required by the City of Folsom, in conformance with the city's stormwater quality development standards.

City of Folsom Stormwater Ordinances

The City of Folsom developed a Stormwater Ordinance (Folsom Municipal Code 8.70) to protect the quality of water in the storm drain system. Discharging many kinds of pollutants into storm drains, detention basins, creeks, and rivers is illegal. The purpose of the stormwater ordinance is to reduce the discharge of pollutants in stormwater to the maximum extent practicable; prohibit non-stormwater discharges into the city stormwater conveyance system; and to fully implement the city's comprehensive stormwater management program as described in the current edition of the stormwater quality improvement plan approved by the Regional Water Board.

The Grading Ordinance (Folsom Municipal Code 14.29) establishes standards for the preparation of sites and construction activities. The ordinance defines the rules and regulations to control excavation, grading and earthwork construction, establishes the administrative procedure for issuance of permits, and provides for approval of plans and inspection of grading construction.

Sacramento Stormwater Quality Partnership

The City of Folsom actively participates in the Sacramento Stormwater Quality Partnership (SSQP). The SSQP is multi-jurisdictional program including Sacramento County and the incorporated cities of Sacramento, Citrus Heights, Elk Grove, Folsom, Galt, and Rancho Cordova. Among the goals and responsibilities of the SSQP are the following: educate and inform the public about urban runoff pollution, work with industries and businesses to encourage pollution prevention, require construction activities to reduce erosion and pollution, and require developing projects to include pollution controls that will continue to operate after construction is complete.

University of California Sustainable Practices Policy

There are no policies related to water quality and hydrology. However, relevant procedures pertaining to water quality and stormwater are listed in the UC Sustainable Practices Policy (University of California 2020).

> **Sustainable Water Systems – Water Action Plans**: Each Water Action Plan will include a section on Water Usage and Reduction Strategies that describes the applicable types of water comprising water systems, including but not limited to potable water, non-potable water, industrial water, sterilized water, reclaimed water, stormwater, and wastewater. Each Water Action Plan will include a section on Stormwater Management developed in conjunction with the location stormwater regulatory specialist that: a) Addresses stormwater management from a watershed perspective in a location-wide, comprehensive way that recognizes stormwater as a resource and aims to protect and restore the integrity of the local watershed(s); b. References the location's best management practices for preventing stormwater pollution from activities that have the potential to pollute the watershed (e.g., construction; trenching; storage of outdoor equipment, materials, and waste; landscaping maintenance; outdoor cleaning practices; vehicle parking); c. Encourages stormwater quality elements such as appropriate source control, site design (low impact development), and stormwater treatment measures to be considered during the planning stages of projects in order to most efficiently incorporate measures to protect stormwater quality.

Environmental Setting

Surface and Ground Water Hydrology

The project is within the Alder Creek sub-basin of Lower American River Watershed (Hydrologic Unit Code 18020111) in the Northern Sierra Foothills. Alder Creek and the American River are less than 1 mile and approximately 5 miles east of the site, respectively. The American River begins at Folsom Dam and flows 30 miles to its confluence with the Sacramento River near downtown Sacramento. Groundwater is not pumped as part of public water supply in the city. Water supply for the project site is sourced from the Sacramento River surface water supply, as further described in Section 3.16, *Utilities and Service Systems*.

Currently the site is vacant and completely pervious, and there are no structures or trees existing on the site. The project site will be mass graded as a part of a separate project approved under the FPASP. Grading of the site will proceed under Section 404 permit SPK-2006-00984, modified on July 11, 2019. Grading will remove the existing vegetation and wetlands. The schedule for site grading is described in Chapter 2, *Project Description*. There is no stormwater infrastructure onsite; however, existing stormwater infrastructure is present on East Bidwell Street immediately east of the site. Generally, surface flow at the site is from northeast to southwest following naturally occurring drainage courses. Because of the underlying regional geology, the site is not within a recognized DWR groundwater basin. Due to the shallow depth of bedrock at the site, groundwater beneath the is site is not expected (RMA Group 2021).

Water Quality

Stormwater flows are conveyed to Alder Creek, and ultimately drain to the Lower American River via Lake Natoma. Alder Creek is not 303(d)-listed as impaired; however, the Lower American River is 303(d)-listed for impairments of bifenthrin, indicator bacteria, mercury, polychlorinated biphenyls, pyrethroids, and toxicity (State Water Resources Control Board 2021). Beneficial uses of the American River include municipal and domestic water supply, agriculture (irrigation only), industrial service supply, power, contact and non-contact recreation, warm and cold freshwater

habitat, warm and cold migration, warm and cold spawning, and wildlife habitat (Central Valley Regional Water Quality Control Board 2018).

Flood Hazards

The project is outside of the 100-year floodplain, within FEMA Zone X (Federal Emergency Management Agency 2012). FEMA Zone X (unshaded) is an area of minimal flood hazard, usually depicted on Flood Insurance Rate Maps as above the 500-year flood level. The area west of the campus is within FEMA Zone X (shaded), base floodplains areas with reduced flood risk due to levee protection. The campus is approximately 96 miles northeast of the Pacific Ocean. Therefore, the project is not subject to inundation by a tsunami. No large waterbodies are near the area; therefore, the project would not be prone to inundation by a seiche.

3.9.2 Environmental Impacts

This section describes the environmental impacts associated with hydrology and water quality that would result from the Folsom Center for Health Master Plan. It describes the methods used to determine the effects of the project and lists the thresholds used to conclude whether an impact would be significant. Measures to mitigate (i.e., avoid, minimize, rectify, reduce, eliminate, or compensate for) any significant impacts are provided, if available.

Methods for Analysis

Impacts associated with the project were analyzed by comparing baseline conditions, as described in Section 3.9.1, *Existing Conditions*, to conditions during construction and operations. Evaluation of potential hydrologic and water quality impacts is based on a review of existing documents and studies that address water resources in the vicinity of the project. The analysis focuses on issues related to surface hydrology, groundwater supply, surface water and groundwater quality, and flood hazards. The key construction-related impacts were identified and evaluated qualitatively based on the physical characteristics of the project and the magnitude, intensity, location, and duration of activities.

Thresholds of Significance

In accordance with Appendix G of the California Environmental Quality Act Guidelines, the project would be considered to have a significant effect if it would result in any of the conditions listed below.

- Violation of any water quality standards or WDRs or other substantial degradation of surface or groundwater quality.
- Substantial decrease of groundwater supplies or substantial interference with groundwater recharge such that the project may impede sustainable groundwater management of the basin.
- Substantial alteration of the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner that would result in substantial erosion or siltation onsite or offsite.
- Substantial alteration of the existing drainage pattern of the site or area that would increase the rate or amount of surface runoff in a manner that would result in flooding onsite or offsite.

- Creation of or contribution to runoff water that would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff.
- Alteration of the existing drainage pattern in a manner that would impede or redirect flood flows.
- In flood hazard, tsunami, or seiche zones, risk of release of pollutants as a result of project inundation.
- Conflict with or obstruction of implementation of a water quality control plan or sustainable groundwater management plan.

Impacts and Mitigation Measures

Impact WQ-1: Violation of any water quality standards or waste discharge requirements or other degradation of surface or groundwater quality (less than significant with mitigation for construction)

Summary of Impact WQ-1 by Component

Component	Level of Significance before Mitigation	Mitigation Measures Required	Level of Significance after Mitigation
Folsom Center for Health Master Plan	S	WQ-1	LTS
Phase 1, Medical Office Building	S	WQ-1	LTS

LTS = less than significant; S = significant

Folsom Center for Health Master Plan

Construction

The Folsom Center for Health Master Plan would include construction activities such as grading related to project construction, stockpiling of spoil materials, and other construction-related earth-disturbing activities that could result in short-term water quality impacts associated with soil erosion and subsequent sediment transport to adjacent properties, roadways, or watercourses via storm drains. Sediment transport to local drainage facilities such as drainage inlets, culverts, and storm drains could result in reduced storm flow capacity, resulting in localized ponding or flooding during storm events. Construction activities could also generate dust, settlement, litter, oil, and other pollutants that could temporarily contaminate water runoff from project sites.

Project construction would also involve use of motorized heavy equipment including trucks and dozers that require fuel, lubricating grease and other fluids. Accidental chemical release or spill from a vehicle or equipment could affect surface water. These construction activities could also generate dust, settlement, litter, oil and other pollutants that could temporarily contaminate water runoff from the project site. Mitigation Measure WQ-1 would reduce this impact to a less-than-significant level.

Mitigation Measure WQ-1 will include the preparation and implementation of a SWPPP and participation with the Construction General Permit. The SWPPP will contain site-specific BMPs implemented to control pollutants in stormwater discharge.

Construction activities would comply with UC sustainability practices and procedures for stormwater management, which contain standards to ensure that water quality is not degraded. Erosion control measures could include de-silting basins, silt fences, hay bales, fabric and sand filters, and/or swales. As a performance standard, BMPs to be selected would represent the best available technology that is economically achievable and best conventional pollutant control technology to reduce pollutants.

Other potential water quality impacts include chemical spills into storm drains or groundwater aquifers if proper minimization measures are not implemented. However, the Master Plan requires project-specific measures and BMPs during construction to minimize impacts on surface water quality. Required BMPs would reduce pollutants in stormwater and other nonpoint-source runoff. Measures range from source control to treatment of polluted runoff. BMPs can include watering active construction areas to control dust generation during earthmoving activities; and installing erosion control measures (e.g., staked straw bales/wattles, silt/sediment basins and traps, check dams, geofabric, sandbag dikes) to prevent silt runoff to public roadways, storm drains, or waterways. As appropriate, disturbed soil would be revegetated as soon as possible with the appropriate selection and schedule of plants.

No disturbed surfaces would be left without erosion control measures in place during the rainy season, which generally occurs between October 15 and April 15. In addition to compliance with the NPDES Construction General Permit, Master Plan construction would also be required to comply with local stormwater and construction site runoff ordinances. These requirements involve development and implementation of an erosion and sedimentation control plan specific to the construction site to minimize water quality impacts. In addition, construction would not involve dredge and fill activities.

Mitigation Measure WQ-1 and associated requirements would ensure that construction activities do not result in a violation of water quality standards or WDRs, or otherwise result in water quality degradation. Potential impacts on water quality from construction activities would be **less than significant with mitigation**.

No major dewatering is expected. In the event that dewatering for an individual building site is required, the SWPPP would include a dewatering plan, which would establish measures to prevent/minimize sediment and contaminant releases into groundwater during excavation. Projects associated with the Master Plan would comply with Central Valley Regional Water Board dewatering requirements to prevent potential water quality impacts on surface waters or ensure proper treatment measures are implemented prior to discharge. Although small amounts of construction-related dewatering are covered under the NPDES Construction General Permit, the Central Valley Regional Water Board also has regulations related to dewatering activities (Order R5-2016-0076/NPDES Permit No. CAG995002; amended by Order R5-2018-0002). In the event of dewatering during construction activities or before dewatering to surface water via a storm drain, the contractor would obtain coverage under the NPDES Construction General Permit from the Central Valley Regional Water Board. Coverage under the NPDES Construction General Permit typically includes dewatering activities as authorized non-stormwater discharges, provided that dischargers prove the quality of water to be adequate and not likely to affect beneficial uses. All requirements of dewatering would be met to ensure that water quality is not affected. This impact would be **less than significant**.

Operation

The Master Plan would result in an increase of impervious surface area with a total impervious cover for both Phase 1 and 2 of 11.96 acres (521,011 square feet). Impervious surfaces associated with Phase 2 only totals 7.04 acres (306,565 square feet). This would increase peak runoff flows from the project site. Stormwater runoff may carry pollutants to receiving waters, including the Lower American River. Runoff from impervious surfaces can generate nonpoint-source pollutants such as organic materials, solids, pathogens, sediment from erosion, chemical fertilizers, and other pollutants. However, all project-related development would comply with applicable federal, state, and local requirements discussed in *Regulatory Setting*. Consistent with MS4 permit requirements and City requirements such as stormwater Municipal Code requirements, stormwater runoff from future phases of the project would be treated through low-impact development (LID) methods. A goal of the Master Plan is to foster deep environmental sensitivity through environmentally sensitive design, water conservation measures and drought-tolerant planting, and sustainable stormwater management features. The project would be designed to protect water quality through the management of stormwater runoff via a naturalized stormwater infrastructure demonstration feature and other LID design features.

The creek bed is a naturalized stormwater infrastructure demonstration feature that would be integrated throughout the central activity spine and other parts of the site where desired. The creek bed widens into pond or basin features at certain locations, which serve to filter and infiltrate stormwater. Where the creek intersects pavements, its continuity could be maintained by applying a different surface treatment to the pavement. Most features of the creek bed will be in the form of dry creeks, swales that are lined with rocks and low-density plants, which provide varying degrees of infiltration and treatment. The creek bed will also include basins designed to retain stormwater during heavy rain. Basins would be vegetated and contain boulders and other rock materials that encourage infiltration and provide stormwater treatment. Basins would be placed intermittently along swale pathways to provide sedimentation control and reduce flow velocity and mitigate the effects of surface runoff. Other LID features include functional stormwater management elements such as bioretention basins, a wetland pond for filtering, treating, and storing stormwater at the Oval space, and elements from the creek bed such as basins and natural swales at the promenade.

To manage stormwater throughout the site, large spans of impervious areas would be broken up with permeable vegetated areas. The bio-inspired landscape spine along the northern and eastern edges of the plan area would also manage stormwater. Performance landscapes may be incorporated to manage stormwater quality, advance ecosystem services, and reduce dependence on gray infrastructure. Using a variety of native and climate-adapted trees and groundcover throughout the site would aid the absorption of stormwater. Green roofs would be incorporated where possible. Stormwater design at building perimeters includes a mix of low-impact stormwater management facilities such as bioretention, bioswale, cistern, and subsurface storage and infiltration. Further, pervious pavement for parking areas such as porous concrete or pavers and bioswales, bioretention, and/or stormwater planters in between parking stalls to break up impervious surfaces would also be incorporated. Drainage design would comply with applicable state and city requirements, and runoff discharged offsite would comply with water quality and quantity standards from the City of Folsom (University of California, Davis 2021). LID treatment methods and compliance with stormwater management requirements would be applied to subsequent phases of the project. Development within the plan area would also be required to comply with the applicable federal, state and local requirements regarding stormwater discharge.

The project would be designed and maintained in accordance with local and Central Valley Regional Water Board water quality requirements, such as the MS4 permit, UC sustainability practices and procedures for stormwater management, and the FPASP. The project would comply with the Construction General Permit and would implement a SWPPP and other erosion control measures that incorporate stormwater treatment areas such as bioretention and stormwater treatment areas. The project would not violate any water quality standards or otherwise result in water quality degradation during operation. Therefore, project impacts on water quality during operation would be **less than significant.**

Phase 1, Medical Office Building

Construction

Like the Master Plan, Phase 1 must comply UC sustainability practices and procedures for stormwater management, and obtain a grading permit if required for construction-related grading. In addition, Mitigation Measure WQ-1 requires a SWPPP be prepared to identify standard erosion control measures and BMPs to be implemented during construction to reduce sedimentation of waterways. Temporary BMPs would control soil erosion and sediment, restrict non-stormwater discharges, provide pollutant control, and reduce or limit surface runoff. For the reasons stated above in the project analysis, Phase 1 impacts on surface water quality during construction would be **less than significant with mitigation**.

Operation

Phase 1 would result in an increase of impervious surface area with a total of 4.92 acres of impervious cover (214,446 square feet) including concrete walkways and parking areas. This would increase peak runoff flows from the Phase 1 area. Incorporation of sustainable site design features such as surface landscaped areas and bioretention areas would reduce stormwater runoff flows and associated pollutants. Stormwater features would connect to the storm drain in the street. Further, Phase 1 would comply with applicable federal, state and local requirements regarding stormwater discharge. Stormwater runoff from Phase 1 would be managed according to the provisions of the MS4 and would not violate any water quality standards or otherwise result in water quality degradation. Therefore, Phase 1 impacts on water quality would be **less than significant.**

Mitigation Measures

Mitigation Measure WQ-1: Prepare and implement a stormwater pollution prevention plan

Project construction will be required to implement a site-specific SWPPP that is consistent with the NPDES Construction General Permit. The SWPPP will include project construction features designed to protect the quality of stormwater runoff, known as BMPs. As part of the NPDES Construction General Permit, standard erosion control measures and BMPs will be identified in a SWPPP and will be implemented during construction to reduce sedimentation of waterways and loss of topsoil. The SWPPP is required to be submitted before a grading permit is issued. Construction BMPs could include, but not be limited to, the following:

- Minimization of disturbed areas to the portion of the project site necessary for construction
- Stabilization of exposed or stockpiled soils and cleared or graded slopes

- Establishment of permanent revegetation or landscaping as early as is feasible
- Removal of sediment from surface runoff before it leaves the project site by silt fences or other similar devices around the site perimeter
- Protection of all storm drain inlets on site or downstream of the project site to eliminate entry of sediment
- Prevention of tracking soils and debris off site through use of a gravel strip or wash facilities, which would be located at all construction exits from the project site
- Proper storage, use, and disposal of construction materials, such as solvents, wood, and gypsum
- Continual inspection and maintenance of all BMPs through the duration of construction
- Treatment requirements and operating procedures to control site runoff, spillage or leaks, sludge or waste disposal, or drainage from material storage

The SWPPP will also contain a site map(s) showing the construction perimeter, existing and proposed buildings, stormwater collection and discharge points, general pre- and post-construction topography, drainage patterns across the site, and adjacent roadways; a visual monitoring program; a chemical monitoring program for "non-visible" pollutants; and a sediment monitoring plan, should the site discharge directly into a waterbody listed on the 303(d) list for sediment. Section A of the Construction General Permit lists all elements that must be contained in a SWPPP. Once grading begins, the SWPPP must be kept on site and updated as needed while construction progresses.

Impact WQ-2: Substantial decrease of groundwater supplies or substantial interference with groundwater recharge such that the project may impede sustainable groundwater management of the basin (less than significant)

Summary of Impact WQ-2 by Component

Component	Level of Significance before Mitigation	Mitigation Measures Required	Level of Significance after Mitigation
Folsom Center for Health Master Plan	LTS	None	N/A
Phase 1, Medical Office Building	LTS	None	N/A

LTS = less than significant; N/A = not applicable

Folsom Center for Health Master Plan

Groundwater beneath the site is not expected. As a result, no major dewatering is anticipated. In the event dewatering is required during construction activities, it would be conducted on a one-time or temporary basis during the construction phase and would not result in a loss of quantities of water that would deplete groundwater supplies and would be subject to further geotechnical investigation of the parcel. In addition, water supply for construction activities (e.g., dust control, concrete mixing, material washing) would come from nearby hydrants or existing surface supplies to the site and/or be trucked to the site.

Groundwater is not a planned source of water supply in the plan area. Therefore, the project would not substantially deplete groundwater supplies because it would not increase groundwater demand.

The Master Plan would result in an increase in impervious surface area, and associated decrease in groundwater recharge potential at the Master Plan site. However, the project design includes pervious areas such as vegetated areas and stormwater features including bioswales, subsurface infiltration, and pervious pavement for parking areas. These landscape and hydromodification features would allow increased groundwater infiltration. Vegetation would stabilize native soils, and new vegetation zones would slow water flow, allowing it to percolate into the ground and thus provide increased benefits for groundwater recharge.

Therefore, there would be no potential for reducing the volume of water in the local aquifer table, and construction and operation impacts on groundwater supplies and recharge from the Master Plan would be **less than significant**.

Phase 1, Medical Office Building

Like the Master Plan, no major dewatering is anticipated during construction of Phase 1. Should dewatering occur, it would be conducted on a one-time or temporary basis during the construction phase and would not deplete groundwater supplies. Phase 1 impacts on surface water quality during construction would be **less than significant**.

Groundwater supplies would not be used during construction or operation because groundwater is not a planned source of water supply in the Phase 1 area. Although Phase 1 would result in an increased impervious surface area, the project design includes pervious areas such as landscape and vegetated areas and bioswales. These landscape and hydromodification features would allow increased groundwater infiltration. Vegetation would stabilize native soils, and new vegetation zones would slow water flow, allowing it to percolate into the ground and thus provide increased benefits for groundwater recharge.

Therefore, construction and operational impacts on groundwater supply and recharge associated with Phase 1 would be **less than significant**.

Mitigation Measures

No mitigation measures are required.

Impact WQ-3: Substantial alteration of existing drainage patterns in a manner that would result in substantial erosion or siltation onsite or offsite; substantial increase in the amount of surface runoff in a manner that would result in flooding onsite or offsite; creation of or contribution to runoff water that would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; obstruction or redirection of flood flows caused by drainage modifications (less than significant)

Summary of Impact WQ-3 by Component

Component	Level of Significance before Mitigation	Mitigation Measures Required	Level of Significance after Mitigation
Folsom Center for Health Master Plan	LTS	None	N/A
Phase 1, Medical Office Building	LTS	None	N/A

LTS = less than significant; N/A = not applicable

Folsom Center for Health Master Plan

Construction

During construction, stormwater drainage patterns could be temporarily altered. However, the project would implement BMPs, required in the SWPPP, to minimize the potential for erosion or siltation in nearby storm drains and temporary changes in drainage patterns during construction. Implementation of an erosion and sediment control plan is also required. Construction BMPs would capture and infiltrate small amounts of sheet flow[1] into the ground such that offsite runoff from the construction site would not increase, ensuring that drainage patterns are not significantly altered. Measures required by the NPDES Construction General Permit would also limit site runoff during construction and would not alter stormwater drainage patterns. BMPs would control construction site runoff, ensure proper stormwater control and treatment, and reduce the discharge of pollution to the storm drain system. In addition, the Water Action Plan would provide practices to prevent stormwater pollution during construction activities, as required by UC sustainability practices and procedures for stormwater management. Therefore, construction would not substantially alter the existing drainage pattern of the area in a manner that would result in substantial erosion or siltation or increase the rate or amount of surface runoff in a manner that would result in flooding onsite or offsite. Project construction would not result in an exceedance of drainage system capacities and the associated impact would be **less than significant**.

Operation

The main drainage feature of the proposed site design is the creek bed that winds through open spaces between parking and buildings, from northeast to southwest, following the slope of the site. This feature will be a major organizing element and focus of the landscape design. This drainage feature will be via a constructed dry creek bed, designed to emulate natural creek beds, which are common in the surrounding foothill areas, and is proposed to be a continuous water course. It is envisioned to flow under roadways via culverts and under walkways via footbridges. The creek bed widens into pond or basin features at certain locations, which serve to filter and infiltrate stormwater. Overflow at these ponds and basins will be connected to the municipal storm sewer system via underground pipes. Portions of the pipe system within the City of Folsom's right-of-way will be provided in accordance with the City's requirements for pipe design.

The creek bed is a naturalized stormwater infrastructure demonstration feature that would be integrated throughout the central activity spine and other parts of the site where desired. The creek would follow the natural drainage direction of the site. Where the creek intersects pavements, its continuity could be maintained by applying a different surface treatment to the pavement. Most features of the creek bed will be in the form of dry creeks, swales that are lined with rocks and low-density plants that provide varying degrees of infiltration and treatment. The creek bed will also include basins, which are typically dry but designed to retain stormwater during heavy rain. Basins would be vegetated and contain boulders and other rock materials that encourage infiltration and provide stormwater treatment. Basins would be placed intermittently along swale pathways to provide sedimentation control and reduce flow velocity and mitigate the effects of surface runoff. Other creek bed components include permanent open water ponds and runnels. The creek bed flowline would be deep enough below the surrounding finished grade to allow flow under roads

[1] "Sheet flow" is an overland flow or downslope movement of water taking the form of a thin, continuous film over relatively smooth soil or rock surfaces and is not concentrated into channels.

through culverts. Drainage from the parking lots, rooftops, and other impervious surfaces would be directed to daylight into the path wherever possible. Additional vegetated swales or other stormwater elements may be added to the site if draining into the path is infeasible.

Existing hydrology patterns in and around the study area have been and are expected to be altered by development and ongoing roadway and building improvements. As a result, impervious surfaces and runoff velocities are expected to increase. However, LID would improve site conditions. The community arrival space includes functional stormwater management elements. Functional stormwater management elements include a sunken bioretention basin that is paved or lined with stone slabs to provide space for use during wet and dry periods and use of runnels in the urban orchard plaza or areas with frequent foot traffic instead of natural swales. The bioretention basin within the community arrival space features a dry basin that retains and infiltrates water during rain events, a natural swale, and a small plaza. The bioretention basin is an element along the creek bed. The Oval space incorporates elements from the creek bed and includes a wetland pond for filtering, treating, and storing stormwater. The promenade also incorporates elements from the creek bed such as basins and natural swales.

Large spans of impervious areas would be broken up with permeable vegetated areas and vegetated areas would be designed throughout the site to manage stormwater. The bio-inspired landscape spine along the northern and eastern edges of the Master Plan area would also manage stormwater. A bioretention basin would be located at the western end of the street frontage spine, at the lowest elevation point across the site and the terminus of the creek bed. Onsite drainage would connect to the municipal stormwater drainage system at this location. Curb cuts would direct rainwater into tree wells for infiltration, retention, and irrigation of these trees. Minor grading would be developed during final design to accommodate drainage and circulation. Stormwater would be managed through gray infrastructure, with stormwater drain pipes installed within Innovation Drive. Performance landscapes may be incorporated to manage stormwater quality, advance ecosystem services, and reduce dependence on gray infrastructure. Based on the Folsom Plan Area Storm Drainage Master Plan, although the plan area has a regional basin, the project must implement stormwater management measures. Drainage design would also comply with applicable state and city requirements, and runoff discharged off site would comply with water quality and quantity standards from the City of Folsom (University of California, Davis 2021).

Stormwater design at building perimeters includes draining stormwater away from buildings and using a mix of low-impact stormwater management facilities such as bioretention, bioswale, cistern, and subsurface storage and infiltration elements to reduce the need for conveyance pipes and large detention/retention ponds. Using a variety of native and climate-adapted trees and groundcover throughout the site would aid the absorption of stormwater. Green roofs would be incorporated where possible. Further, pervious pavement for parking areas such as porous concrete or pavers and bioswales, bioretention, and/or stormwater planters between parking stalls to break up impervious surfaces would also be incorporated.

All project-related development would comply with applicable federal, state, and local requirements discussed in *Regulatory Setting,* including requirements for water quality, flood control, and stormwater management. Based on the analysis above, neither alteration of existing drainage patterns at the project site nor changes in stormwater runoff rates or volumes would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or impede or redirect floodflows, and this impact would be **less than significant** related to stormwater treatment and capacity.

Phase 1, Medical Office Building

Construction

Like the project, stormwater drainage patterns under Phase 1 could be temporarily altered. Implementation of BMPs, identified in the required project SWPPP, and an erosion and sediment control plan would minimize the potential for erosion or siltation in nearby storm drains and temporary changes in drainage patterns during construction. Measures required by the Construction General Permit would also limit site runoff during construction and would not alter stormwater drainage patterns. Temporary BMPs would control construction site runoff, ensure proper stormwater control and treatment, and reduce the discharge of pollution to the storm drain system. Discharges of stormwater to the stormwater system during construction would not provide an additional source of polluted runoff because all discharges would be in accordance with the NPDES Construction General Permit. Phase 1 construction would not substantially alter the existing drainage pattern of the site in a manner which would result in substantial erosion or flooding; create or contribute runoff which would exceed the capacity of existing or planned stormwater drainage systems; provide substantial additional sources of polluted runoff; or impede or redirect floodflows. The impact would be **less than significant**.

Operation

As discussed previously, Phase 1 would result in an increase in impervious area, adding a total of 4.92 acres of new impervious cover. As a result, there would also be an increase in the estimated peak flow runoff. However, planned storm drain improvements within the Phase 1 site include incorporation of sustainable site design features such as surface landscaped areas and bioretention areas, which would reduce stormwater runoff flows. Stormwater features would connect to the storm drain in the street. In addition, Phase 1 would comply with applicable federal, state, and local requirements regarding stormwater discharge. Stormwater runoff from Phase 1 would be managed according to the provisions of the MS4. The impact associated with drainage systems would be **less than significant**.

Mitigation Measures

No mitigation measures are required.

Impact WQ-4: Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan (less than significant)

Summary of Impact WQ-4 by Component

Component	Level of Significance before Mitigation	Mitigation Measures Required	Level of Significance after Mitigation
Folsom Center for Health Master Plan	LTS	None	N/A
Phase 1, Medical Office Building	LTS	None	N/A

LTS = less than significant; N/A = not applicable

Folsom Center for Health Master Plan

Commonly practiced BMPs would control construction site runoff and to reduce the discharge of pollutants to storm drain systems from stormwater and other nonpoint-source runoff. As part of

compliance with permit requirements during ground-disturbing construction activities, water quality control measures and BMPs would ensure that water quality standards would be achieved, including the water quality objectives that protect designated beneficial uses of surface and groundwater, as defined in the Basin Plan. Construction runoff would also comply with the appropriate water quality objectives for the region. The NPDES Construction General Permit also requires stormwater discharges not to contain pollutants that cause or contribute to an exceedance of any applicable water quality objectives or water quality standards, including designated beneficial uses. As stated in Impact WQ-1, incorporation of sustainable site design features such as the creek bed including bioretention basins, swales, pervious pavement, and surface landscaping design would also reduce stormwater runoff flows and associated pollutants. In addition, the appropriate FPASP policies require the protection and enhancement of water quality.

No major dewatering is anticipated during the construction phase. Further, groundwater supplies would not be used during operation. The amount of impervious area within the project site would increase upon project completion. The creek bed, bioretention basin, and other landscape features throughout the project site would treat runoff and allow groundwater infiltration and groundwater recharge. Because the Master Plan is not within a recognized groundwater subbasin, no sustainable groundwater management plan applies to the project site.

Thus, construction and operation of the Master Plan would not conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan. Construction- and operation-related impacts associated with the project would be **less than significant**.

Phase 1, Medical Office Building

Like the Master Plan, Phase 1 must comply with the NPDES Construction General Permit. A SWPPP is required and would identify standard erosion control measures and water quality BMPs to be implemented during construction to reduce stormwater discharges that contain pollutants that cause or contribute to exceedances of any applicable water quality objectives or water quality standards, including designated beneficial uses. Sustainable site design features such as surface landscaped areas and bioretention areas would also reduce stormwater runoff flows and associated pollutants. Similar to the Master Plan, there is no applicable sustainable groundwater management plan. Therefore, it is not anticipated that Phase 1 construction or operation would obstruct implementation of a sustainable groundwater management plan or a water quality control plan.

Construction-related and operational hydrology and water quality impacts associated with Phase 1 would be **less than significant**.

Mitigation Measures

No mitigation measures are required.

3.10 Land Use and Planning

This section describes the regulatory and environmental setting for land use and planning on the UC Davis Folsom Center for Health Master Plan (project) site and in the project vicinity, analyzes effects on land use and planning that would result from the project, and provides mitigation measures, if applicable, to reduce the effects of any significant impacts.

Written comments received on the Notice of Preparation did not raise land use concerns.

3.10.1 Existing Conditions

Regulatory Setting

University of California

As noted in Section 3.0.2, *University of California Autonomy*, the University of California (UC), as a constitutionally created state entity, is not subject to municipal regulations of surrounding local governments for uses on property owned or controlled by the UC that are in furtherance of its educational purposes. UC Davis may consider, for coordination purposes, aspects of local plans and policies for the communities surrounding the project when it is appropriate and feasible, but it is not bound by those plans and policies in its planning efforts.

The UC Davis Folsom Center for Health Master Plan would guide development of the site and include detailed design guidelines and standards for the design of the site, including structures and buildings (Appendix A, *Folsom Center for Health Master Plan*). Section 1.2, *Relationship to the Folsom South of US 50 Specific Plan and the FPASP EIR/EIS*, of this EIR describes the Development Agreement (DA) (as amended) between the Regents and the City of Folsom and the fact that UC has autonomy to exercise its land use authority. The DA proscribes the responsibilities and obligations of the City of Folsom and the seller prior to the purchase of the property by the Regents. The DA also details the responsibilities of the purchaser (the Regents) to adhere to the City's building and zoning codes, unless otherwise specified by the DA, and to implement applicable mitigation from the Folsom Plan Area Specific Plan (FPASP) EIR/environmental impact statement (EIS).

Federal

There are no federal plans or policies addressing land use and planning that pertain to the project.

State

There are no state plans or policies addressing land use and planning that pertain to the project.

Regional and Local

City of Folsom General Plan

The City of Folsom 2035 General Plan was adopted on August 28, 2018. The 2035 General Plan was designed to protect and enhance Folsom's assets, guide Folsom's growth in the area south of U.S. Route (US 50), strengthen existing neighborhoods, and provide a cohesive vision for the Folsom in

the year 2035. The General Plan includes the following elements: Land Use, Mobility, Economic Prosperity, Housing, Natural and Cultural Resources, Public Facilities and Services, Parks and Recreation, and Safety and Noise. Each element contains the goals and policies that are used by the City of Folsom to guide future land use, development, and environmental protection decisions. The project site is on land designated Regional Commercial Center, which provides for highway-oriented, large-scale regional retail, entertainment, business, lodging, and public uses. Uses in this district serve the entire region. The current General Plan land use designation for the project site is Regional Commercial Center and the zoning is Specific Plan – Regional (SP-RC).

Folsom Plan Area Specific Plan

The FPASP was adopted by the City of Folsom along with a certified programmatic EIR in 2011. The FPASP goes beyond the goals and policies of the General Plan and introduces new objectives, policies, standards, and guidelines reflective of the current trends in community and transportation planning. The standards and guidelines contained in the FPASP provide a comprehensive framework for future growth and development within the plan area while incorporating flexibility to address and accommodate changes in market conditions. Moreover, the FPASP proposes development standards that are unique to the plan area and will guide future construction. The FPASP offers a balanced approach to urban development by preserving the physical beauty of the plan area and satisfying the ongoing needs of the city and its residents.

A Community Design Guidelines document was prepared and adopted by the City of Folsom on May 12, 2015 (Resolution No. 9563). The guidelines are intended to provide the City of Folsom, property owners, planning, design and engineering professionals and Folsom residents with a vision of the level of design quality expected for "public realm" improvements. The guidelines are written as a series of performance-based objectives and policies. The guidelines do not address the placement of buildings, architectural details, colors, grading, landscaping, and lighting for specific development parcels, the details of which are subject to the provisions of Folsom Ranch Parcel 61 and 77 Commercial Design Guidelines (May 28, 2021) to be included as part of a tentative subdivision map submittal, as more fully described in FPASP Section 13.2.4. The guidelines define each of the public realm components, including such items as gateways, enhanced intersections, neighborhood entries, traffic calming features, lighting, signs, public art, street furniture, walls, fences, landscaping bikeways, sidewalks, and trails.

Environmental Setting

The project site is 25 miles northeast of Sacramento in the city of Folsom. The site is in the southern part of the city of Folsom, west of the city of El Dorado Hills (Figure 2-3). The project site is bounded by US 50 (i.e., El Dorado Freeway) to the north and East Bidwell Street to the east. The site is part of the proposed FPASP, a 3,500-acre master plan, which will include a town center to the south and a mix of multifamily residential housing, schools, offices, hotels, and retail uses in adjacent parcels. The project site is an approximately 34.6-acre parcel, which is vacant, and there are no structures or trees existing on the site.

Existing Land Uses

The project site is currently vacant and undeveloped and composed of slightly rolling grassland. The site includes an 18-foot-wide public access easement along the proposed Innovation Drive along the

southern boundary (0.87 acre). Outside of the project site, there is a 25-foot-wide public access easement for a planned bicycle trail along the northern and eastern boundaries.

Surrounding Land Uses

Land uses surrounding the project site consist primarily of residential neighborhoods composed of single-family homes and some commercial and urban development. Existing development is concentrated north of US 50, including the residential neighborhoods, Folsom Gateway Mall, and Folsom Ambulatory Surgery Center. East Bidwell Street is on the east of the project site, and the planned Innovation Drive, previously called Street B, is on the south. The existing conditions of the surrounding properties are vacant and graded, approved and ready for development. Planned land uses around the project site include multifamily housing, including lands directly to the west of the project site, offices, a town center, retail, and a hotel as part of the Folsom Ranch development. The future town center will be located to the south of, but not directly adjacent to, the project site.

Existing residential uses are more than 1,800 feet to the north, on the other side of the freeway from the project site. Single-family housing is under construction as a part of the specific plan development and is to the southeast, more than 500 feet from the eastern boundary of the project site. Specifically, between 2018 and 2021, a total of 1,606 permits were issued with approximately 900 homes occupied. These homes include Mangini Ranch Phase 1 and Phase 2 neighborhoods, Russell Ranch Phase 1 neighborhoods, Carr Trust and White Rock Springs Ranch neighborhoods, and Toll Brothers at Folsom Ranch neighborhoods.

3.10.2 Environmental Impacts

This section describes the environmental impacts associated with land use and planning that would result from implementation of the UC Davis Folsom Center for Health Master Plan. It describes the methods used to determine the effects of the project and lists the thresholds used to conclude whether an impact would be significant. Measures to mitigate (i.e., avoid, minimize, rectify, reduce, eliminate, or compensate for) any significant impacts are provided, if available.

Methods for Analysis

This analysis is based on review of documents pertaining to the project site and the relationship of project elements with existing and planned land uses near the project site. Local planning documents and land use plans were reviewed to determine whether the project would conflict with any plans adopted for the purpose of avoiding or mitigating an environmental effect. In determining the level of significance, this analysis assumes that the project would comply with relevant local City of Folsom General Plan policies and FPASP policies, where feasible.

Thresholds of Significance

In accordance with Appendix G of the California Environmental Quality Act Guidelines, the project would be considered to have a significant land use and planning effect if it would result in any of the conditions listed below.

- Physically divide an established community.
- Cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect.

Impacts and Mitigation Measures

Impact LU-1: Physically divide an established community (no impact)

Summary of Impact LU-1 by Component

Component	Level of Significance before Mitigation	Mitigation Measures Required	Level of Significance after Mitigation
Folsom Center for Health Master Plan	NI	None	N/A
Phase 1, Medical Office Building	NI	None	N/A

NI = no impact; N/A = not applicable

Folsom Center for Health Master Plan and Phase 1, Medical Office Building

The project site is within the boundaries of the city of Folsom and is currently vacant, undeveloped, and composed of slightly rolling grassland. The project would not physically divide an established community; therefore, there would be **no impact**.

Mitigation Measures

No mitigation measures are required.

Impact LU-2: Cause a significant environmental impact due to a conflict with any applicable land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect (no impact)

Summary of Impact LU-2 by Component

Component	Level of Significance before Mitigation	Mitigation Measures Required	Level of Significance after Mitigation
Folsom Center for Health Master Plan	LTS	None	N/A
Phase 1, Medical Office Building	LTS	None	N/A

LTS = less than significant; N/A = not applicable

Folsom Center for Health Master Plan and Phase 1, Medical Office Building

The FPASP implements the General Plan's vision for the "South of 50" area of Folsom and, pursuant to state law, the FPASP must be consistent with the General Plan. Absent the project, the current General Plan (and FPASP) land use designation for the project site is Regional Commercial Center and the zoning is SP-RC. The Master Plan, if adopted, would become the land use plan for the Folsom Center for Health site. Due to UC's constitutional autonomy (Section 3.0.2), UC Davis is the only agency with land use jurisdiction over subsequent projects within the Folsom Center for Health site, in furtherance of UC's educational, research, public service, and health care mission.

As described in *Regulatory Setting*, the City of Folsom 2035 General Plan governs all land uses surrounding the Folsom Center for Health site. The 2035 General Plan emphasizes the protection and enhancement of Folsom's assets, guiding Folsom's growth in the area south of US 50, strengthening existing neighborhoods, and providing a cohesive vision for Folsom. The project site is on land designated Regional Commercial Center, which provides for highway-oriented, large-scale

regional retail, medical services, health care facilities, entertainment, business, lodging, and public uses which serve the entire region. While the project is not subject to the Folsom General Plan, it would nevertheless be consistent with the General Plan and FPASP's goals and objectives because it would provide a regionally important public use along a major highway. Therefore, while the Folsom Center for Health site is not subject to the General Plan, the FPASP, or municipal zoning provisions, the project would not conflict with existing plans and policies for the purposes of reducing or mitigating environmental impacts, nor would it result in land use conflicts. The impact would be **less than significant**.

Mitigation Measures

No mitigation measures are required.

3.11 Noise

This section describes the regulatory and environmental setting for noise on the UC Davis Folsom Center for Health Master Plan (project) site and in the project vicinity, analyzes effects on noise that would result from the project, and provides mitigation measures, if applicable, to reduce the effects of any significant impacts. No comments pertaining to noise were received in response to the Notice of Preparation for this EIR.

3.11.1 Fundamentals of Environmental Noise and Vibration

Overview of Noise and Sound

"Noise" is commonly defined as unwanted sound that annoys or disturbs people and potentially causes an adverse psychological or physiological effect on human health. Because noise is an environmental pollutant that can interfere with human activities, an evaluation of noise is necessary when considering the environmental impacts of a proposed project.

"Sound" is mechanical energy (vibration) transmitted by pressure waves over a medium such as air or water. Sound is characterized by various parameters, including the rate of oscillation of sound waves (frequency), the speed of propagation, and the pressure level or energy content (amplitude). In particular, the sound pressure level is the most common descriptor for characterizing the loudness of an ambient (existing) sound level. Although the decibel (dB) scale, a logarithmic scale, is used to quantify sound intensity, it does not accurately describe how sound intensity is perceived by human hearing. The human ear is not equally sensitive to all frequencies in the entire spectrum, so noise measurements are weighted more heavily for frequencies to which humans are sensitive in a process called "A-weighting," written as "dBA" and referred to as "A-weighted decibels." Table 3.11-1 defines sound measurements and other terminology used in this section, and Table 3.11-2 summarizes typical A-weighted sound levels for different noise sources.

In general, human sound perception is such that a change in sound level of 1 dB cannot typically be perceived by the human ear, a change of 3 dB is barely noticeable, a change of 5 dB is clearly noticeable, and a change of 10 dB is perceived as doubling or halving the sound level as it increases or decreases, respectively.

Different types of measurements are used to characterize the time-varying nature of sound. These measurements include the equivalent sound level (L_{eq}), the minimum and maximum sound levels (L_{min} and L_{max}), percentile-exceeded sound levels (such as L_{10}, L_{20}), the day-night sound level (L_{dn}), and the community noise equivalent level (CNEL). L_{dn} and CNEL values differ by less than 1 dB. As a matter of practice, L_{dn} and CNEL values are considered to be equivalent and are treated as such. These measurements are defined in Table 3.11-1.

Table 3.11-1. Noise and Vibration Terminology

Sound Measurements	Definition
Decibel (dB)	A unitless measure of sound on a logarithmic scale that indicates the squared ratio of sound pressure amplitude with respect to a reference sound pressure amplitude. The reference pressure is 20 micropascals.
A-Weighted Decibel (dBA)	An overall frequency-weighted sound level in decibels that approximates the frequency response of the human ear.
Maximum Sound Level (L_{max})	The maximum sound level measured during the measurement period.
Minimum Sound Level (L_{min})	The minimum sound level measured during the measurement period.
Equivalent Sound Level (L_{eq})	The equivalent steady-state sound level that in a stated period of time would contain the same acoustical energy.
Percentile-Exceeded Sound Level (L_{xx})	The sound level exceeded X% of a specific time period. L_{10} is the sound level exceeded 10% of the time, and L_{90} is the sound level exceeded 90% of the time. L_{90} is often considered to be representative of the background noise level in a given area.
Day-Night Sound Level (L_{dn})	The energy average of the A-weighted sound levels occurring during a 24-hour period, with 10 dB added to the A-weighted sound levels occurring during the period from 10:00 p.m. to 7:00 a.m.
Community Noise Equivalent Level (CNEL)	The energy average of the A-weighted sound levels occurring during a 24-hour period, with 5 dB added to the A-weighted sound levels occurring during the period from 7:00 p.m. to 10:00 p.m. and 10 dB added to the A-weighted sound levels occurring during the period from 10:00 p.m. to 7:00 a.m.
Vibration Velocity Level (or Vibration Decibel Level, VdB)	The root-mean-square velocity amplitude for measured ground motion expressed in dB.
Sound Exposure Level (SEL)	SEL is similar to the L_{eq} in that the total sound energy is averaged over the measurement period. The difference is that L_{eq} is averaged over the measurement period, whereas SEL is averaged over a reference duration of 1 second. For example, a noise level of 90 dBA lasting 1 second would have a SEL of 90 dBA, but if the event lasted 2 seconds the SEL would be 93 dBA.
Peak Particle Velocity (Peak Velocity or PPV)	A measurement of ground vibration, defined as the maximum speed (measured in inches per second) at which a particle in the ground is moving relative to its inactive state. PPV is usually expressed in inches per second.
Frequency: Hertz (Hz)	The number of complete pressure fluctuations per second above and below atmospheric pressure.

Table 3.11-2. Typical A-Weighted Sound Levels

Common Outdoor Activities	Noise Level (dBA)	Common Indoor Activities
	—110—	Rock band
Jet flyover at 1,000 feet		
	—100—	
Gas lawnmower at 3 feet		
	—90—	
Diesel truck at 50 feet at 50 mph		Food blender at 3 feet
	—80—	Garbage disposal at 3 feet
Noisy urban area, daytime		
Gas lawnmower at 100 feet	—70—	Vacuum cleaner at 10 feet
Commercial area		Normal speech at 3 feet
Heavy traffic at 300 feet	—60—	
		Large business office
Quiet urban daytime	—50—	Dishwasher in next room
Quiet urban nighttime	—40—	Theater, large conference room (background)
Quiet suburban nighttime		
	—30—	Library
Quiet rural nighttime		Bedroom at night, concert hall (background)
	—20—	
		Broadcast/recording studio
	—10—	
	—0—	

Source: Federal Transit Administration 2018
dBA = A-weighted decibels; mph = miles per hour

For a point source, such as a stationary compressor or a piece of construction equipment, sound attenuates (i.e., lessens in intensity) based on geometry at a rate of 6 dB per doubling of distance. For a line source, such as free-flowing traffic on a freeway, sound attenuates at a rate of 3 dB per doubling of distance perpendicular to the source (California Department of Transportation 2020). Atmospheric conditions, including wind, temperature gradients, and humidity, can change how sound propagates over distance and can affect the level of sound received at a given location. The degree to which the ground surface absorbs acoustical energy also affects sound propagation. Sound that travels over an acoustically absorptive surface such as grass attenuates at a greater rate than sound that travels over a hard surface such as pavement. The increased attenuation is typically in the range of 1 to 2 dB per doubling of distance. Barriers such as buildings or topographic features that block the line of sight between a source and receiver also increase the attenuation of sound over distance.

Community noise environments are generally perceived as quiet when the 24-hour average noise level is below 45 dBA, moderate in the 45 to 60 dBA CNEL range, and loud above 60 dBA CNEL. Very noisy urban residential areas are usually around 70 dBA CNEL. Along major thoroughfares, roadside noise levels are typically between 65 and 75 dBA CNEL. Incremental changes of 3 to 5 dB in the

existing 1-hour L_{eq}, or the CNEL, are commonly used as thresholds for an adverse community reaction to a noise increase. However, there is evidence that incremental thresholds in this range may not be sufficiently protective in areas where noise-sensitive uses are located and CNEL is already high (i.e., above 60 dBA). In these areas, limiting noise increases to 3 dB or less is recommended (Federal Transit Administration 2018).

Noise from Multiple Sources

Because the measurement of sound pressure levels in dB is based on a logarithmic scale, dB cannot be added or subtracted in the usual arithmetical way. Adding a new noise source to an existing noise source, with both producing noise at the same level, does not double the noise level. For instance, if two identical noise sources each produce noise levels of 50 dBA, the combined sound level would be 53 dBA, not 100 dBA. Table 3.11-3 demonstrates the result of adding noise from multiple sources.

Table 3.11-3. Rules for Combining Sound Levels by Decibel Addition

When two decibel values differ by…	…add the following amount to the higher decibel value	Example
0 to 1 dB	3 dB	60 dB + 61 dB = 64 dB
2 to 3 dB	2 dB	60 dB + 63 dB = 65 dB
4 to 9 dB	1 dB	60 dB + 69 dB = 70 dB
10 dB or more	0 dB	60 dB + 75 dB = 75 dB

Source: California Department of Transportation 2020

Overview of Groundborne Vibration

"Vibration" is an oscillatory motion through a solid medium in which the motion's amplitude can be described in terms of displacement, velocity, or acceleration. Construction-related vibration primarily results from the use of impact equipment such as pile drivers (both impact and vibratory), hoe rams, vibratory compactors, and jack hammers, although heavily loaded vehicles may also result in substantial groundborne vibration. Operations-related vibration results primarily from the passing of trains, buses, and heavy trucks. Vibration is measured by peak particle velocity (PPV), defined as the maximum instantaneous peak of the vibration signal in inches per second (in/sec). PPV is the metric typically used to describe vibration from sources that may result in structural stresses in buildings (Federal Transit Administration 2018). Groundborne vibration can also be quantified by the root-mean-square velocity amplitude, which is useful for assessing human annoyance. The root-mean-square amplitude is expressed in terms of VdB, a metric that is sometimes used in evaluating human annoyance resulting from groundborne vibration. Vibration traveling through typical soil conditions may be estimated at a given distance by the following formula, where LV_{ref} is the reference VdB vibration level at 25 feet and D is the distance at which the vibration level is being estimated (Federal Transit Administration 2018).

$$LV_{(distance)} = LV_{ref} - 30 \times \log (D/25)$$

The operation of heavy construction equipment, particularly pile drivers and other heavy-duty impact devices (such as pavement breakers), creates seismic waves that radiate along the surface of the ground and downward. These surface waves can be felt as ground vibration and result in effects that range from annoyance for people to damage to structures. Groundborne vibration generally attenuates rapidly with distance from the source of the vibration. This attenuation is a complex

function of how energy is imparted into the ground as well as the subsurface soil and/or rock conditions through which the vibration is traveling. Variations in geology can result in different vibration levels, with denser soils generally resulting in more rapid attenuation over a given distance. The effects of groundborne vibration on buildings include movement of building floors, rattling of windows, shaking of items on shelves or hanging on walls, and rumbling sounds. Groundborne noise is the rumbling sound generated by the vibration of building surfaces such as floors, walls, and ceilings that radiate noise from the motion of the room surfaces. Groundborne noise can also occur because of the low-frequency components from a specific source of vibration, such as a rail line.

Vibration traveling through typical soil conditions may be estimated at a given distance by the following formula, where PPV_{ref} is the reference PPV at 25 feet (Federal Transit Administration 2018).

$$PPV = PPV_{ref} \times (25/distance)^{1.5}$$

The background vibration velocity level in residential areas is usually 50 VdB or lower. The vibration velocity level of perception for humans is approximately 65 VdB, and human response to vibration is not usually substantial unless the vibration exceeds 70 VdB. Most perceptible indoor vibration is caused by sources within buildings, such as the operation of mechanical equipment, the movement of people, or the slamming of doors. Typical outdoor sources of perceptible groundborne vibration are heavy construction equipment, steel-wheeled trains, and vehicular traffic on rough roads. Groundborne noise and vibration are the most significant problems for tunnels that are under residential areas or other noise-sensitive structures.

3.11.2 Existing Conditions

Regulatory Setting

Federal

The U.S. Environmental Protection Agency (EPA) Office of Noise Abatement and Control was originally established to coordinate federal noise control activities. After its inception, EPA's Office of Noise Abatement and Control issued the Federal Noise Control Act of 1972, establishing programs and guidelines to identify and address the effects of noise on public health, welfare, and the environment. In 1981, EPA administrators determined that subjective issues such as noise would be better addressed at more local levels of government. Consequently, in 1982 responsibilities for regulating noise control policies were transferred to state and local governments. However, noise control guidelines and regulations contained in EPA rulings in prior years remain in place by designated federal agencies where relevant.

Federal Transit Administration

Noise

Although Federal Transit Administration (FTA) policies for construction-related noise and vibration are intended for federally funded mass-transit projects, the impact assessment procedures and criteria included in FTA's *Transit Noise and Vibration Impact Assessment Manual* (Federal Transit Administration 2018) are routinely used to evaluate a variety of projects proposed by local jurisdictions, not merely transit projects. FTA has developed the following general assessment

criteria for analyzing construction noise. This assessment is based on simultaneous operation of the noisiest pieces of equipment expected to be operating concurrently during a single subphase of construction. The general assessment criteria for construction noise limits are summarized in Table 3.11-4.

Table 3.11-4. Federal Transit Administration General Assessment Criteria for Construction Noise

	One-hour L_{eq} (dBA)	
Land Use	Day	Night
Residential	90	80
Commercial	100	100
Industrial	100	100

Source: Federal Transit Administration 2018

In addition, the FTA construction noise criteria include an assessment of whether or not an increase in the ambient noise level greater than 10 dB would occur with operation of the combined noise from the two noisiest pieces of equipment. A 10-dB increase in the ambient noise level would represent a doubling of loudness and is often used as the threshold to determine if an increase in noise would be considered substantial.

Vibration

FTA also provides guidance on evaluating effects of vibration levels on humans from various vibration-inducing events, including construction activities and vibration from railroads. The impact criteria are based on receptor categories and frequency of events occurring in one day. Table 3.11-5 summarizes the FTA vibration impact criteria.

Table 3.11-5. Federal Transit Administration Groundborne Vibration Impact Criteria

	GBV Impact Levels (VdB re 1 micro-inch/sec)		
Land Use Category	Frequent Events[a]	Occasional Events[b]	Infrequent Events[c]
Category 1: Buildings where vibration would interfere with interior operations	65 VdB[d]	65 VdB	65 VdB
Category 2: Residences and buildings where people normally sleep	72 VdB	75 VdB	80 VdB
Category 3: Institutional land uses with primarily daytime use	75 VdB	78 VdB	80 VdB

Source: Federal Transit Administration 2018

GBV = groundborne vibration; VdB = vibration decibels

[a] "Frequent Events" is defined as more than 70 vibration events of the same source per day. Most rapid transit projects fall into this category.

[b] "Occasional Events" is defined as between 30 and 70 vibration events of the same source per day. Most commuter trunk lines have this many operations.

[c] "Infrequent Events" is defined as fewer than 30 vibration events of the same kind per day. This category includes most commuter rail branch lines.

[d] This criterion limit is based on levels that are acceptable for most moderately sensitive equipment such as optical microscopes. For equipment that is more sensitive, a detailed vibration analysis must be performed.

State

The State of California has adopted noise standards in areas of regulation not preempted by the federal government. State standards regulate noise levels of motor vehicles, sound transmission through buildings, occupational noise control, and noise insulation.

California Code of Regulations

The California Noise Insulation Standards found in the California Code of Regulations, Title 24, Section 1207.4 establish requirements for new residential units that may be subject to relatively high levels of exterior noise. In this case, the noise insulation criterion is 45 dB L_{dn}/CNEL inside noise-sensitive spaces.

California Department of Transportation

The California Department of Transportation (Caltrans) provides guidelines regarding vibration associated with construction and operation of transportation infrastructure. Table 3.11-6 provides Caltrans' vibration guidelines for potential damage to different types of structures.

Table 3.11-6. Caltrans Vibration Guidelines for Potential Damage to Structures

	Maximum Peak Particle Velocity (PPV, in/sec)	
Structure Type and Condition	Transient Sources	Continuous/Frequent Intermittent Sources
Extremely fragile historic buildings	0.12	0.08
Fragile buildings	0.2	0.1
Historic and some old buildings	0.5	0.25
Older residential structures	0.5	0.3
New residential structures	1.0	0.5
Modern industrial/commercial buildings	2.0	0.5

Source: California Department of Transportation 2020

PPV = peak particle velocity; in/sec = inches per second

Note: Transient sources create a single, isolated vibration event (e.g., blasting or drop balls). Continuous/frequent intermittent sources include impact pile drivers, pogo-stick compactors, crack-and-seat equipment, vibratory pile drivers, and vibratory compaction equipment.

Groundborne vibration and noise can also disturb people, who are generally more sensitive to vibration during nighttime hours when sleeping than during daytime waking hours. Numerous studies have been conducted to characterize the human response to vibration. Table 3.11-7 provides guidelines from Caltrans regarding vibration annoyance potential (expressed here as PPV).

Table 3.11-7. Caltrans Guidelines for Vibration Annoyance Potential

	Maximum PPV (in/sec)	
Human Response	Transient Sources	Continuous/Frequent Intermittent Sources
Barely perceptible	0.04	0.01
Distinctly perceptible	0.25	0.04
Strongly perceptible	0.9	0.10
Severe	2.0	0.4

Source: California Department of Transportation 2020

PPV = peak particle velocity; in/sec = inches per second

Note: Transient sources create a single, isolated vibration event (e.g., blasting or drop balls). Continuous/frequent intermittent sources include impact pile drivers, pogo-stick compactors, crack-and-seat equipment, vibratory pile drivers, and vibratory compaction equipment.

Regional and Local

University of California

As noted in Section 3.0.2, *University of California Autonomy*, the University of California (UC), as a constitutionally created state entity, is not subject to municipal regulations of surrounding local governments for uses on property owned or controlled by the UC that are in furtherance of its education purposes. As a state entity, UC Davis is exempt under the state constitution from compliance with local land use regulations, including general plans, zoning, and ordinances whenever using property under its control in furtherance of its educational purposes. UC Davis may consider, for coordination purposes, aspects of local plans and policies for the communities surrounding the project when it is appropriate and feasible, but it is not bound by those plans and policies in its planning efforts. The Folsom Center for Health would be in the city of Folsom. The following subsection summarizes policies contained in Folsom's General Plan regarding noise, as well as the City of Folsom Noise Ordinance.

City of Folsom Municipal Code

The City of Folsom has established exterior noise level standards for daytime (7:00 a.m. to 10:00 p.m.) and nighttime (10:00 p.m. to 7:00 a.m.) hours in Chapter 8.42.040 of the Municipal Code, as shown in Table 3.11-8. Noise is limited to the thresholds found in Table 3.11-8 when measured at a receiving sensitive land use. Specifically, the Municipal Code states:

> A. It is unlawful for any person at any location within the incorporated area of the city to create any noise, or to allow the creation of any noise, on property owned, leased, occupied or otherwise controlled by such person which causes the exterior noise level when measured at any affected single- or multiple-family residence, school, church, hospital or public library situated in either the incorporated or unincorporated area to exceed the noise level standards as set forth in [Table 3.11-8].

Table 3.11-8. City of Folsom Exterior Noise Level Standards

Category	Cumulative number of minutes in any **1-hour time period**	Daytime Hours dBA (7:00 a.m. to 10:00 p.m.)	Nighttime Hours dBA (10:00 p.m. to 7:00 a.m.)
1	30	50	45
2	15	55	50
3	5	60	55
4	1	65	60
5	0	70	65

B. In the event the measured ambient noise level exceeds the applicable noise level standard in any category above, the applicable standard shall be adjusted so as to equal the ambient noise level.

C. Each of the noise level standards specified above shall be reduced by 5 dB(A) for simple tone noises, noises consisting primarily of speech or music, or for recurring noises.

D. If the intruding noise source is continuous and cannot reasonably be discontinued or stopped for a time period whereby the ambient noise level can be measured, the noise level measured while the source is in operation shall be the noise level standards as specified above. (Ord. 764 § 3 (part), 1993)

The Municipal Code also identifies noise source exemptions in Section 8.42.060. Applicable exemptions may include the following.

B. Any mechanical device, apparatus or equipment used, related to or connected with emergency activities or emergency work;

C. Noise sources associated with construction, provided such activities do not take place before 7:00 a.m. or after 6:00 p.m. on any day except Saturday or Sunday, or before 8:00 a.m. or after 5:00 p.m. on Saturday or Sunday;

In addition, Section 8.42.070 of the City of Folsom Municipal Code discusses noise regulations with respect to air conditioning and refrigeration. It states that exterior noise levels shall not exceed 50 dBA as measured at the nearest noise-sensitive uses.

City of Folsom General Plan

The Safety and Noise Element of Folsom's 2035 General Plan includes various goals, policies, and criteria related to noise in the city. The following policies from the City of Folsom General Plan Safety and Noise Element are relevant to the project.

Goal SN 6.1: Protect the citizens of Folsom from the harmful effects of exposure to excessive noise and to protect the economic base of Folsom by Preventing the encroachment of incompatible land uses within areas affected by existing noise-producing uses.

- **Policy SN 6.1.1:** Noise Mitigation Strategies. Develop, maintain, and implement strategies to abate and avoid excessive noise exposure in the city by requiring that effective noise mitigation measures be incorporated into the design of new noise-generating and new noise-sensitive land uses.
- **Policy SN 6.1.2:** Noise Mitigation Measures. Require effective noise mitigation for new development of residential or other noise sensitive land uses to reduce noise levels as follows:
    1. For noise due to traffic on public roadways, railroad line operations, and aircraft: achieve compliance with the performance standards within Table SN-1 [Table 3.11-9 in this report].
    2. For non-transportation-related noise sources: achieve compliance with the performance standards contained within Table SN-2 [Table 3.11-10 in this report].

3. If compliance with the adopted standards and policies of the Safety and Noise Element will not be achieved even with feasible mitigation measures, a statement of overriding considerations for the project must be provided.

Table 3.11-9. Noise Compatibility Standards

Land Use	Exterior Noise Level Standard for Outdoor Activity Areas [a] L_{dn}/CNEL, dB	Interior Noise Level Standard L_{dn}/CNEL, dB	Interior Noise Level Standard L_{eq}, dB [b]
Residential (Low Density Residential, Duplex, Mobile Homes)	60 [c]	45	N/A
Residential (Multi-Family)	65 [d]	45	N/A
Transient Lodging (Motels/Hotels)	65 [d]	45	N/A
Mixed-Use Developments	70	45	N/A
Schools, Libraries, Churches, Hospitals, Nursing Homes, Museums	70	45	N/A
Theaters, Auditoriums	70	N/A	35
Playgrounds, Neighborhood Parks	70	N/A	N/A
Golf Courses, Riding Stables, Water Recreation, Cemeteries	75	N/A	N/A
Office Buildings, Business Commercial and Profession	70	N/A	45
Industrial, Manufacturing, and Utilities	75	N/A	45

Where a proposed use is not specifically listed on this table, the use shall comply with the noise exposure standards for the nearest similar use as determined by the Community Development Department.

[a] Outdoor activity areas for residential developments are considered to be the backyard patios or decks of single-family residential units, and the patios or common areas where people generally congregate for multifamily development. Outdoor activity areas for nonresidential developments are considered to be those common areas where people generally congregate, including outdoor seating areas. Where the location of outdoor activity areas is unknown, the exterior noise standard shall be applied to the property line of the receiving land use.

[b] As determined for a typical worst-case hour during periods of use.

[c] Where it is not possible to reduce noise in outdoor activity areas to 60 dB, L_{dn}/CNEL or less using a practical application of the best-available noise reduction measures, an exterior level of up to 65 dB, L_{dn}/CNEL may be allowed provided that available exterior noise level reduction measures have been implemented and interior noise levels are in compliance with this table.

[d] Where it is not possible to reduce noise in outdoor activity areas to 65 dB, L_{dn}/CNEL or less using a practical application of the best-available noise reduction measures, an exterior level of up to 70 dB, L_{dn}/CNEL may be allowed provided that available exterior noise level reduction measures have been implemented and interior noise levels are in compliance with this table.

Table 3.11-10. Noise Level Standards from Stationary Sources.

Noise Level Descriptor	Daytime (7:00 a.m. to 10:00 pm.)	Nighttime (10:00 p.m. to 7:00 a.m.)
Hourly L_{eq}, dB	55	45
Maximum level, dB	70	65

Noise levels are measured at the property line of the noise-sensitive use.

- **Policy SN 6.1.3:** Acoustical Analysis. Require an Acoustical Analysis prior to approval of proposed development of residential or other noise-sensitive land uses in a noise-impacted area.

- **Policy SN 6.1.4:** Noise and Project Review. Develop, maintain, and implement procedures to ensure that requirements imposed pursuant to the findings of an acoustical analysis are implemented as part of the project review and building permit processes. The appropriate time for requiring an acoustical analysis would be as early in the project review process as possible so that noise mitigation may be an integral part of the project design.
- **Policy SN 6.1.7:** Noise Barriers. If noise barriers are required to achieve the noise level standards contained within this Element, the City shall encourage the use of these standards:
    1. Noise barriers exceeding six feet in height relative to the roadway should incorporate an earth berm so that the total height of the solid portion of the barrier (such as masonry or concrete) does not exceed six feet.
    2. The total height of a noise barrier above roadway elevation should normally be limited to 12 feet.
    3. The noise barriers should be designed so that their appearance is consistent with other noise barriers in the project vicinity.
- **Policy SN 6.1.8:** Vibration Standards. Require construction projects and new development anticipated to generate a significant amount of vibration to ensure acceptable interior vibration levels at nearby noise sensitive uses based on Federal Transit Administration criteria as shown in Table SN-3 [Table 3.11-11 in this report] (Groundborne Vibration Impact Criteria for General Assessment).

Table 3.11-11. Groundborne Vibration Impact Criteria for General Assessment

	Impact Levels (VdB)		
Land Use Category	Frequent Events [a]	Occasional Events [b]	Infrequent Events [c]
Category 1: Buildings where vibration would interfere with interior operations	65 [d]	65 [d]	65 [d]
Category 2: Residences and buildings where people normally sleep	72	75	80
Category 3: Institutional land uses with primarily daytime uses	75	78	83

Source: Federal Transit Administration 2018

Vibration levels are measured in or near the vibration-sensitive use.

[a] "Frequent Events" is defined as more than 70 vibration events of the same source per day.

[b] "Occasional Events" is defined as between 30 and 70 vibration events of the same source per day.

[c] "Infrequent Events" is defined as fewer than 30 vibration events of the same source per day.

[d] This criterion limit is based on levels that are acceptable for most moderately-sensitive equipment such as optical microscopes. Vibration-sensitive manufacturing or research will require detailed evaluation to define the acceptable vibration levels.

Environmental Setting

Regional and Local Setting

Project Site and Surrounding Land Uses

The 34.6-acre project site in the city of Folsom is bounded by U.S. Route 50 (US 50) to the north and East Bidwell Street to the east. Existing commercial and hotel land uses are located north of the

project site, and north of US 50. In addition, the Dignity Health campus is currently under construction east of the project site, and single-family residences are currently under construction southeast of the project site. There are no existing or under-construction land uses directly west or south of the project site.

Characterization of Ambient Noise Levels

Existing noise sources in the project vicinity include roadway traffic and active construction for development located east of East Bidwell Street from the Master Plan area. The main sources of roadway traffic include vehicles along US 50 (north of the site) and East Bidwell Street (east of the site).

To characterize existing ambient noise levels in the project vicinity, a noise field survey was conducted in the project vicinity between Thursday, December 2, 2021, and Monday, December 6, 2021. Five long-term (approximately 24-hour) and four short-term (15-minute) noise measurements were taken to estimate the existing ambient noise levels at the noise-sensitive land uses east and southeast of the project site. Long-term measurements were made using Piccolo II Type 2 sound level meters, and short-term measurements were conducted using a Larson Davis LXT and a Larson Davis 831 Type 1 sound level meters. Refer to Figure 3.11-1 for the noise measurement locations.

Average 24-hour (L_{dn}) noise levels from the long-term noise measurements were in the range of approximately 53 and 73 dBA L_{dn}, noting that some measurement locations were near active construction sites. Long-term measurement data collected and calculated also includes the lowest and highest daytime and nighttime 1-hour L_{eq} noise levels, and a 12-hour daytime noise level for each measurement location. Refer to Table 3.11-12 for a summary of the long-term noise measurements; refer to Appendix I, *Measured Noise Dataset*, for additional data from the long-term measurements.

Measured L_{eq} noise levels during the 15-minute short-term measurements ranged from approximately 53 to 68 dBA L_{eq}. Some of the short-term measurement locations were also near active construction sites. Refer to Table 3.11-13 for a summary of the short-term noise measurements; refer to Appendix I for additional data from the short-term measurements.

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Figure 3.11-1
Noise Measurement Locations

Table 3.11-12. Long-Term Noise Level Measurements in the Project Vicinity

Site	Site Description	Time Period	Friday L_{dn}	Saturday L_{dn}	Peak L_{eq}[a] Time of Occurrence	Friday 12-Hour L_{eq}	Saturday 12-Hour L_{eq}	Primary Noise Sources
LT-1	Southbound Westwood Drive, ~30 feet north of Old Ranch Way	12/03/2021 – 12/04/2021	60.5	53.2	68.5 12/03/2021, 9:00 a.m.	63.0	54.6	Roadway traffic, active construction
LT-2	Southbound Westwood Drive, ~65 feet south of Alder Creek Parkway	12/03/2021 – 12/04/2021	61.4	58.6	67.2 12/04/2021, 12:00 p.m.	61.8	60.2	Active construction, roadway traffic
LT-3	Eastbound Old Ranch Way, ~120 feet east of East Bidwell Street	12/03/2021 – 12/04/2021	65.6	65.9	69.8 12/03/2021, 7:00 a.m.	65.3	64.0	Roadway traffic, active construction
LT-4	Northwest corner of Needlegrass Drive loop	12/03/2021 – 12/04/2021	55.5	54.1	59.1 12/03/2021, 7:00 a.m.	54.7	52.5	Roadway traffic
LT-5	Eastbound Alder Creek Parkway, ~320 feet east of East Bidwell Street.	12/03/2021 – 12/04/2021	72.9	71.0	75.2 12/03/2021, 7:00 a.m.	73.2	71.7	Active Construction, Roadway traffic

Data collected from Thursday December 2 to Sunday December 5, 2021.
Refer to Appendix I for the complete measurement data.
LT = long-term (48-hour) ambient noise measurement.
All noise levels are reported in A-weighted decibels (dBA).
[a] Peak L_{eq} is the highest 1-hour L_{eq} noise level observed during the 48-hour measurement period.

Table 3.11-13. Short-Term Noise Level Measurements in and around the Project Vicinity

Site	Site Description	Measurement Start Time	L_{eq}	L_{max}	L_{min}	Dominant Noise Source
ST-1	Southbound East Bidwell Street, ~300 feet south of Alder Creek Parkway	12/02/2021 10:40 a.m.	67.8	79.7	55.7	Roadway traffic noise primarily from East Bidwell Street
ST-2	Northwest corner of Westwood Drive and Old Ranch Way	12/02/2021 12:41 p.m.	53.2	65.1	47.2	Stop-and-go traffic at intersection
ST-3	Bike path, ~35 feet west of Needlegrass Drive	12/02/2021 11:35 a.m.	67.8	79.7	55.7	Heavy excavation/dirt hauling across E Bidwell Street
ST-4	Old Ranch Way, ~140 feet east of East Bidwell Street	12/06/2021 11:56 a.m.	58.7	78.8	41.2	Roadway traffic primarily from Old Ranch Way

Refer to Appendix I for the complete measurement data.
ST = short-term (15-minute) ambient noise measurement.
All noise levels are reported in A-weighted decibels (dBA).

3.11.3 Environmental Impacts

This section describes the environmental impacts associated with noise that would result from the project. It describes the methods used to determine the effects of the project, and lists the thresholds used to conclude whether an impact would be significant. Measures to mitigate (i.e., avoid, minimize, rectify, reduce, eliminate, or compensate for) significant impacts are provided, if available. In general, noise and vibration impacts expected to result from the Master Plan are analyzed at a program level, and impacts expected to result from Phase 1 development are evaluated at a project level.

Methods for Analysis

Construction Noise

Folsom Center for Health Master Plan

Implementation of the Master Plan would result in construction noise during the construction of future development phases at the UC Davis Folsom Center for Health. The Master Plan construction noise analysis assesses potential noise impacts from equipment that would likely be used for future development with implementation of the Master Plan.

Construction noise levels from development under the Master Plan were estimated based on reference emission levels, and usage factors from the Federal Highway Administration (FHWA) *Road Construction Noise Model User's Guide* (Federal Highway Administration 2006). The methodology for the analysis of construction noise contained in FTA's *Transit Noise and Vibration Impact Assessment Manual* (Federal Transit Administration 2018) was used to evaluate potential combined construction noise levels generated during various construction phases. Estimated levels were then compared to applicable construction noise standards. A programmatic construction noise analysis was conducted by calculating the noise levels of the three loudest pieces of equipment typically used for each construction phase for typical construction projects of the size and scale expected under the Master Plan.

Estimated daytime construction noise levels from future development under the Master Plan are evaluated in the context of the City of Folsom Municipal Code regulations pertaining to construction noise (e.g., conformance with allowable hours in the city). In addition, an evaluation is conducted to determine if a 10-dB increase (per FTA guidance), perceived as a doubling of loudness, would be expected to occur at nearby noise-sensitive land uses during daytime hours.

In addition, limited construction outside of the standard daytime hours in the city of Folsom would likely be required. Specifically, occasional concrete pour activities may start as early as 5:00 a.m. for future development under the Master Plan. Since these would occur outside of the City Municipal Code's exempt hours for construction, construction noise is compared to the noise thresholds presented in Chapter 8.42.040 of the City of Folsom Municipal Code (Table 3.11-10). In addition, estimated concrete pour noise levels are compared to existing measured noise levels during the hours of 5:00 a.m. to 7:00 a.m. weekdays and 5:00 a.m. to 8:00 a.m. Saturdays to determine if a substantial temporary increase in noise would occur during these time periods.

Haul truck noise for the Master Plan is also evaluated based on information provided by UC Davis to determine if a 3-dB increase in noise, considered to be "barely perceptible," would be expected to occur at any noise-sensitive land uses along project haul routes.

Phase 1, Medical Office Building

Estimated construction noise levels for Phase 1 are predicted using project-specific construction information provided by UC Davis, and the construction noise evaluation methods and source data described previously for the Master Plan analysis. Similar to the Master Plan analysis, estimated daytime construction noise levels are evaluated in the context of the City of Folsom Municipal Code regulations pertaining to construction noise. In addition, an evaluation is conducted to determine if a 10-dB increase (per FTA guidance), perceived as a doubling of loudness, would be expected to occur at nearby noise-sensitive land uses during daytime hours.

Estimated noise levels from limited nighttime concrete pour activities proposed to occur outside of the standard daytime hours in the city of Folsom (i.e., starting as 5:00 a.m.) are compared to the noise thresholds presented in Chapter 8.42.040 of the City of Folsom Municipal Code (Table 3.11-10). In addition, these estimated noise levels are compared to existing measured noise levels during the hours of 5:00 a.m. to 7:00 a.m. weekdays and 5:00 a.m. to 8:00 a.m. Saturdays to determine if a substantial temporary increase in noise would occur during these time periods.

Haul truck noise for Phase 1 is also evaluated based on information provided by UC Davis to determine if a 3-dB increase in noise, considered to be "barely perceptible," would be expected to occur at any noise-sensitive land uses along project haul routes.

Operational Noise

Folsom Center for Health Master Plan and Phase 1, Medical Office Building

Mechanical Equipment

Mechanical equipment noise from the project is evaluated to determine if exceedances of local applicable thresholds would occur. Potential noise impacts from central utility plant (CUP) equipment under the Master Plan and rooftop mechanical equipment under both the Master Plan and Phase 1 are evaluated based on information about the types of equipment expected to be installed (as provided by UC Davis, and based on commonly accepted source noise data). Because specific design features that may result in noise attenuation have not been selected, calculations of noise levels at various distances are conservatively based on the point-source attenuation of 6 dB per doubling of distance, and do not account for additional noise reductions from shielding or other methods.

Emergency Generator Testing

Although the makes and models of generators proposed for the Master Plan are not known with certainty at this time, the evaluation of noise from Master Plan emergency generator testing was based on information provided by UC Davis, and readily available source data for generators of similar capacity to those proposed for the project. Note that no emergency generators would be installed under Phase 1 of the project.

Noise from operation of emergency generators during an emergency is considered exempt from local ordinances. However, testing of emergency generators must comply with local noise limits

for operational and equipment noise. Estimated emergency generator noise levels during testing are compared to local applicable thresholds to determine if significant noise impacts would occur.

Loading Dock Activity

Loading dock noise is analyzed based on the expected number of loading and unloading activities per day, as provided by UC Davis, to determine if loading activity at the Master Plan loading docks and Phase 1 loading and receiving area would result in substantial increases in the ambient noise levels at the nearest offsite sensitive land uses.

Operational Traffic

Project traffic noise effects along nearby roadway segments resulting from project development were quantitatively modeled using average daily traffic, posted speeds, and existing vehicle-mix assumptions (i.e., the proportion of automobiles, trucks, buses, and other vehicles) provided by the project traffic engineer (Fehr & Peers). Traffic volumes were provided for baseline, baseline plus Phase 1, and baseline plus Master Plan scenarios. Quantitative modeling of traffic noise from the project was conducted using a spreadsheet that was based on the FHWA Traffic Noise Model, version 2.5. The spreadsheet calculates the traffic noise level at a fixed distance from the centerline of a roadway (50 feet for this analysis) according to the traffic volume, roadway speed, and vehicle mix predicted to occur under each condition.

Traffic noise was evaluated in terms of how project-related noise increases could affect existing noise-sensitive land uses along the major project traffic access roadways. Should a 3-dB increase in traffic noise, considered to be "barely perceptible," result from the project along any evaluated roadway segment, traffic noise impacts would be considered significant.

Amplified Music and Sound

The potential for amplified music or speech at events resulting from the project to exceed applicable noise limits is analyzed based on information about expected future events provided by UC. Specifically, the potential for amplified noise from events at the project courtyards to result in noise exceedances at nearby sensitive uses is evaluated based on the expected types and sizes of future events, and measured noise levels from similar events or gatherings.

Outdoor Gathering Area Noise

The potential for noise from persons gathering and socializing in project courtyards is assessed to determine if crowd noise could result in excessive noise levels at nearby noise-sensitive uses.

Construction Vibration

Folsom Center for Health Master Plan and Phase 1, Medical Office Building

Vibration from construction activities associated with the Master Plan is evaluated based on equipment that would likely be used for future development at the project site and based on source vibration levels for construction equipment provided by Caltrans and FTA. Vibration-related damage impacts are evaluated based on the estimated PPV vibration levels for equipment expected to be used and based on a comparison to the applicable Caltrans criteria for building damage shown in Table 3.11-6. Vibration-related annoyance impacts are evaluated based on the estimated VdB vibration levels for equipment expected to be used and based on a comparison to the applicable FTA

general assessment criteria for groundborne vibration (Table 3.11-5), as recommended in the City of Folsom General Plan.

Vibration from construction activities associated with the construction of Phase 1 is evaluated based on the construction equipment list provided by the University and based on PPV and VdB source vibration levels from Caltrans and FTA. As with the Master Plan analysis, vibration-related damage impacts from Phase 1 are evaluated based on the estimated PPV vibration levels for equipment expected to be used and based on a comparison to the applicable Caltrans criteria for building damage shown in Table 3.11-6. Vibration-related annoyance impacts from Phase 1 are evaluated based on the estimated VdB vibration levels for equipment expected to be used and based on a comparison to the applicable FTA general assessment criteria for groundborne vibration (Table 3.11-5), as recommended in the City of Folsom General Plan.

Thresholds of Significance

In accordance with Appendix G of the California Environmental Quality Act Guidelines, the project would be considered to have a significant effect if it would result in any of the conditions listed below.

- Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies.
- Generation of excessive groundborne vibration or groundborne noise levels.
- Exposure of people residing or working in the project area to excessive noise levels from aircraft activity for a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within 2 miles of a public airport or public use airport.

Impacts and Mitigation Measures

Impact NOI-1: Generation of increased ambient noise levels in the project vicinity in excess of applicable standards during project construction (significant and unavoidable)

Summary of Impact NOI-1 by Component

Component	Level of Significance before Mitigation	Mitigation Measures Required	Level of Significance after Mitigation
Folsom Center for Health Master Plan	S	NOI-1a, NOI-1b	SU
Phase 1, Medical Office Building	LTS	None	N/A

LTS = less than significant; S = significant; SU = significant and unavoidable; N/A = not applicable

Folsom Center for Health Master Plan

Construction for the project would involve the use of heavy equipment and would generate construction noise in the project vicinity. Construction noise would fluctuate depending on the particular type of construction equipment, the number of pieces of equipment being used, and duration of use. Noise levels associated with construction activities occurring during the more noise-sensitive evening and nighttime hours are of increased concern.

The specific construction equipment used for Master Plan construction would vary day to day depending on the particular phase or subphase of construction and the specific activities occurring. Although final construction equipment proposed for use has not yet been selected for all development under the Master Plan, noise levels of equipment expected to be used during project construction are shown in Table 3.11-14. This table shows estimated individual equipment dBA L_{max} and L_{eq} noise levels at a distance of 50 feet, along with the standard utilization factors for the equipment. The utilization factor is the percentage of time each piece of construction equipment is typically operated at full power over the specified time period and is used to estimate L_{eq} values from L_{max} values. For example, the L_{eq} value for a piece of equipment that operates at full power over 50 percent of the specified time period is 3 dB less than the L_{max} value (Federal Highway Administration 2006). As shown in this table, noise levels from individual pieces of construction equipment at 50 feet are typically in the range of 76 dBA to 101 dBA L_{max} and 70 to 95 dBA L_{eq}.

Table 3.11-14. Construction Equipment Noise Levels

Construction Equipment	L_{max} Noise Level at 50 Feet (dBA, L_{max})	Acoustical Usage/ Utilization Factor	L_{eq} at 50 Feet (dBA, L_{eq})[a]
Air compressor	78	40%	74
Auger drill rig	84	20%	77
Crane	81	16%	73
Compactor	83	20%	76
Concrete mixer truck	79	40%	75
Concrete pump truck	81	20%	74
Concrete saw	90	20%	83
Dozer	82	40%	78
Excavator	81	40%	77
Forklift[b]	84	40%	80
Front end loader	79	40%	75
Generator	81	50%	78
Gradall	83	40%	79
Grader	85	40%	81
Impact Pile Driver	101	20%	94
Jackhammer	89	20%	82
Man lift	75	20%	68
Mounted impact hammer (hoe ram)	90	20%	83
Paver	77	50%	74
Roller	80	20%	73
Scraper	84	40%	80
Tractor	84	40%	80
Trencher	80	50%	77
Vibratory Pile Driver	101	20%	94
Water truck[c]	76	40%	72
Welder	74	40%	70
Dump truck/haul truck[c]	76	40%	72

Source: Federal Highway Administration 2006
dBA = A-weighted decibels; L_{max} = maximum sound level.

[a] These values represent the loudest noise levels generated by each equipment type at 50 feet.
[b] Represented by Tractor from Federal Highway Administration 2006.
[c] Represented by Dump Truck from Federal Highway Administration 2006.

The standard construction work hours for the Master Plan would be 7:00 a.m. to 6:00 p.m., Monday through Friday, and 8:00 a.m. to 5:00 p.m. on Saturdays. These hours align with the City of Folsom's established allowable work hours for construction from Chapter 8.42.060(C) of the City Municipal Code. In addition to daytime construction activities, limited concrete pour activities for the Master Plan would occur occasionally during the early morning hours of 5:00 a.m. to 7:00 a.m., Monday through Friday; 5:00 a.m. to 8:00 a.m., Saturdays. The following subsections analyze noise from daytime and early morning (considered to be "nighttime") construction activities.

Daytime Construction Noise

Although the specific equipment proposed for use is not finalized for the complete Master Plan at this time, it is expected that construction for the Master Plan would require typical construction equipment, similar to that required for Phase 1. In addition, development generally involves similar construction subphases and the use of similar equipment during those subphases. For example, most development projects require site preparation, grading, building construction, paving, and architectural coating phases. These phases are also very similar to the phases proposed for Phase 1 construction. Reasonable worst-case construction noise levels can be estimated for typical construction phases and approximate construction noise levels near a given development.

Table 3.4-15 shows estimated noise levels from a variety of construction activities or phases that could occur for a typical project (and assuming typical equipment usage) at a fixed distance of 100 feet. These estimated combined noise levels at 100 feet are calculated by combining noise from the loudest three pieces of equipment typically used for each type of construction activity (in accordance with the FHWA recommendation for analyzing combined construction noise).

Table 3.4-15. Typical Construction Activity Noise Levels

Construction Activity[a]	Assumes the Following Equipment	Combined L_{max} at 100 Feet	Combined L_{eq} at 100 Feet
Site Preparation, including pile driving	2 Tractors, Pile Driver	95	88
General Site Preparation	Excavator, Dump Truck, Backhoe	78	74
Grading	Dozer, Grader, Compactor	82	78
Building and Utilities	Crane, Forklift, Concrete Pump	81	76
Architectural Coating	2 Air Compressors	75	71
Paving	2 Pavers, Roller	77	72

Source: Federal Highway Administration 2006.
[a] Includes three of the loudest pieces of equipment typically used for each type of activity.

As shown in Table 3.4-15, combined noise levels from construction activities at a distance of 100 feet could be in the range of approximately 71 to 88 dBA L_{eq}, depending on the construction phase and the equipment used. Two estimated combined noise levels are presented for site preparation, including one scenario with pile driving and one without pile driving. Pile driving would only be

required in the footprint of project buildings under the Master Plan, so not all site preparation activities would involve pile driving.

The nearest offsite receptor to the project is the Dignity Health Hospital building (approximately 350 feet east of the project site, and 400 feet east of the hotel). Residential land uses currently under construction are slightly further away, approximately 900 feet from the Master Plan site and 1,000 feet from the footprint of the hotel. Combined construction noise by phase from Table 3.4-15 above is adjusted to provide estimated combined noise levels at these nearby noise-sensitive use (Table 3.4-16).

Table 3.4-16. Construction Noise Levels at Nearby Noise-Sensitive Uses

Construction Activity[a]	Combined L_{eq} at 350 Feet	Combined L_{eq} at 400 Feet	Combined L_{eq} at 500 Feet	Combined L_{eq} at 900 Feet	Combined L_{eq} at 1,000 Feet
Site Preparation, including pile driving	N/A	76	N/A	N/A	68
General Site Preparation	63	62	60	55	54
Grading	67	66	64	59	58
Building and Utilities	65	64	62	57	56
Architectural Coating	60	59	57	52	51
Paving	61	60	58	53	52

Source: Federal Highway Administration 2006

a Includes the three of the loudest pieces of typical equipment typically used for each type of activity.

N/A = not applicable. Pile driving would occur at distances of approximately 400 feet from the Dignity Health Hospital and 1,000 feet from the nearest residences; noise levels from pile driving at 350 feet, 500 feet, and 900 feet are not presented.

As shown in Table 3.4-16, Master Plan construction could result in estimated combined noise levels of 60 to 67 dBA L_{eq} at the nearby Dignity Health Hospital building during phases without pile driving, and up to 76 dBA L_{eq} during phases involving pile driving. At the nearest residential land uses, Master Plan construction could result in estimated combined noise levels of 53 to 59 dBA L_{eq} during phases without pile driving, and up to 68 dBA L_{eq} during phases involving pile driving.

The primary proposed hours for project construction align with the standard construction hours established in the City of Folsom Municipal Code. According to the Municipal Code, noise from construction activities is exempt from numerical noise limits during these standard daytime hours. However, estimated combined construction noise is compared to the existing ambient noise level at the nearest sensitive uses to assess the potential for a substantial temporary increase in noise to occur. The FTA-recommended 10-dB increase in ambient noise level, perceived as a doubling of loudness, is often used as the threshold to determine if a substantial temporary increase in noise would occur due to construction activities.

During daytime hours, the existing 12-hour daytime ambient noise was measured near the Dignity Health Hospital and residential land uses east and southeast of the project site (e.g., at LT-5). Recorded noise was in the range of 72 to 73 dBA L_{eq}. However, the lowest daytime (7:00 a.m. to 6:00 p.m.) 1-hour L_{eq} noise levels recorded on Thursday, Friday, and Saturday at this location were approximately 66 dBA L_{eq}, 65 dBA L_{eq}, and 62 dBA L_{eq}.

Based on the existing and predicted with-construction noise levels, Master Plan construction noise in the range of 60 to 79 dBA L_{eq} may result in a 10-dB or greater increase over the ambient noise level, depending on the activities proposed, the equipment used, and the location of construction. Therefore, although construction noise would not conflict with the applicable City Municipal Code regulations, Master Plan construction may result in a substantial temporary increase in noise at the nearest noise-sensitive land uses, Master Plan construction noise impacts during daytime hours would be considered significant.

Mitigation Measure NOI-1a, which includes measures to reduce noise from construction activity, would reduce this significant impact related to daytime construction noise. Although this mitigation measure may reduce construction noise effects, it may not be possible to reduce construction noise to less-than-significant levels because it is not feasible, in all cases and during all construction activities, to ensure that noise levels would not result in excessive noise increases (e.g., a 10-dB increase, or perceived doubling of loudness). For example, temporary construction noise barriers such as constructed wood barriers or noise control blankets supported on frames or fences would be installed, which would reduce noise from construction activity. However, unless the complete line of sight between the receptor and source is blocked (which would not be feasible when construction occurs at higher elevations, or at second- or third-story receptors at nearby sensitive uses such as the hospital), these barriers may not be effective in reducing noise. In addition, even if the line of sight is fully blocked, these barriers may only reduce noise by approximately 5–10 dB. Although such barriers will be installed, these walls and barriers would not be expected to reduce noise from activities to below significance thresholds. Further, final construction equipment has not yet been selected for all future development under the Master Plan, so precise noise levels from specific construction cannot be estimated with certainty.

For these reasons, and because proposed noise control measures may not reduce the construction noise increases over ambient noise to less-than-significant levels, construction noise impacts during daytime hours would be **significant and unavoidable** with Mitigation Measure NOI-1a.

Nighttime Construction Noise

Occasional concrete pour activities for the Master Plan may take place prior to the start of the standard daytime hours for construction in the city (i.e., prior to 7:00 a.m. weekdays and 8:00 a.m. on Saturdays). According to the University, up to 30 instances of early morning concrete pours may be required for Master Plan construction. Early morning concrete pour activities could start as early as 5:00 a.m. during summer months. These early morning concrete pours would not occur on consecutive days (i.e., they would be spread out over the duration of concrete placement activities).

Since these activities would occur outside of the City Municipal Code's exempt hours for construction, construction noise is compared to the noise thresholds presented in Chapter 8.42.040 of the City of Folsom Municipal Code (Table 3.11-10). During the nighttime hours of 10:00 a.m. to 7:00 a.m., the Municipal Code limits noise to 45 dBA L_{eq}. The Municipal Code also states that in the event that ambient noise levels are higher than applicable thresholds, such as 45 dBA for nighttime hours, the standard shall be adjusted to equal the ambient noise level. In addition, estimated concrete pour noise levels are compared to existing measured noise levels during the hours of 5:00 a.m. to 7:00 a.m. weekdays and 5:00 a.m. to 8:00 a.m. Saturdays to determine if a substantial temporary increase in noise would occur during these time periods.

As with combined daytime construction noise levels, combined noise levels from concrete pour activities were estimated using the calculation methodology and equipment source noise levels from

FHWA's Roadway Construction Noise Model. During concrete pour activities, the loudest three pieces of equipment expected to be used concurrently would be two concrete pump trucks and a concrete mixer truck. Table 3.11-17 provides the construction noise modeling results for early morning concrete pours.

Table 3.11-17. Combined Concrete Pour Noise Levels at Various Distances (L_{max} and L_{eq})

Source Data:	Maximum Sound Level (dBA)	Utilization Factor	L_{eq} Sound Level (dBA)
Construction Condition: Site Preparation			
Source 1: Concrete Pump Truck - Sound level (dBA) at 50 feet =	81	20%	74.0
Source 2: Concrete Pump Truck - Sound level (dBA) at 50 feet =	81	20%	74.0
Source 3: Concrete Mixer Truck - Sound level (dBA) at 50 feet =	79	40%	75.0
Calculated Data:			
All Sources Combined – L_{max} sound level (dBA) at 50 feet =			85 L_{max}
All Sources Combined – L_{eq} sound level (dBA) at 50 feet =			79 L_{eq}

Distance between Source and Receiver (feet)	Geometric Attenuation (dB)	Calculated L_{max} Sound Level (dBA)	Calculated L_{eq} Sound Level (dBA)
50	0	85	79
100	-6	79	73
200	-12	73	67
350	**-17**	**68**	**62**
400	-18	67	61
500	-20	65	59
900	**-25**	**60**	**54**
1,200	-28	58	52
1,600	**-30**	**55**	**49**
2,000	-32	53	47
2,500	-34	51	45
3,000	-36	50	44
3,500	-37	48	42

Source: Federal Highway Administration 2006

Notes:

- Geometric attenuation based on a 6 dB per doubling of distance.
- This calculation does not include the effects, if any, of local shielding or ground attenuation from walls, topography, or other barriers that may reduce sound levels further.
- Noise levels are based on source noise levels from the FHWA Roadway Construction Noise Model.

Bold denotes distance and sound levels from the project site that are discussed in the analysis below the table.

Assuming that concrete pour activities could take place anywhere on the Master Plan site, this activity could occur as close as 350 feet from the nearby Dignity Health hospital and 900 feet from the nearby residences to the southeast. As shown in Table 3.11-17, concrete pour activities could result in noise levels of up to 62 dBA L_{eq} at a distance of 350 feet and 54 dBA L_{eq} at a distance of 900 feet.

Although the Municipal Code limits noise to 45 dBA L_{eq} from 10:00 p.m. to 7:00 a.m., it also allows this threshold to be increased if existing ambient noise levels are greater than this level. During the noise measurement survey, the lowest recorded weekday 1-hour L_{eq} noise level from the hours of 5:00 a.m. to 7:00 a.m. was approximately 64 dBA L_{eq}, and the lowest recorded Saturday 1-hour L_{eq} noise during this time was 61 dBA L_{eq}. Therefore, based on the early morning noise levels measured at nearby noise-sensitive uses, Master Plan concrete pour noise of up to 62 dBA L_{eq} at the nearest sensitive land uses could exceed the existing ambient noise level, and therefore could exceed the allowable Municipal Code limits. If concrete pour activities took place more than 350 feet from the nearest sensitive use, the applicable threshold may not be exceeded.

Regarding the potential for concrete pours to result in substantial temporary increases in ambient noise levels, Master Plan concrete pour activities would not be expected to result in increases in ambient noise of 10 dB or greater at the nearest noise-sensitive land use (Dignity Health), or at other sensitive uses further from Master Plan construction areas.

Although early morning Master Plan concrete pour activities would not result in a substantial temporary increase in noise, they could result in noise levels in excess of the City Municipal Code regulations. Master Plan construction noise impacts during early morning hours would be considered significant.

Mitigation Measure NOI-1b, which includes measures to reduce noise from early morning or nighttime construction activity, would reduce this significant impact related to nighttime construction noise. Nighttime construction noise impacts would be **less than significant with mitigation.**

Onsite Construction Noise

Because the Master Plan would be implemented in phases, earlier phases of development may be complete and occupied while later phases of development are under construction. Specifically, Phase 1 of the project, which includes the medical office building (MOB), would be completed first, followed by the ambulatory surgery center (ASC) and hotel under Phase 2. The micro-hospital and CUP would be constructed under Phase 3.

The hotel under Phase 2 and the hospital with overnight beds under Phase 3 would both be considered sensitive to noise. However, because the micro-hospital is in Phase 3, it is not expected to be occupied during construction of earlier Master Plan phases (Phase 1 and Phase 2). As a result, the only onsite noise-sensitive receptor that would be occupied during Master Plan construction is the Phase 2 hotel land use.

The hotel would be approximately 500 feet or more, from Phase 3 construction activities, and approximately 1,000 feet from the micro-hospital, where pile driving may occur. At a distance of 500 feet, noise from non-pile-driving activities would be in the range of 57 to 64 dBA L_{eq}, as shown in Table 3.4-16. In addition, at a distance of 1,000 feet, noise from construction activities including pile driving could be up to 68 dBA.

Because the standard daytime hours for construction in the city are 7:00 a.m. to 6:00 p.m., typical construction days are often approximately 12 hours in duration. A 12-hour daytime L_{eq} (average) noise level can be calculated based on the 24-hour noise measurements and can provide an ambient noise level to which construction noise can be compared. During daytime hours, the existing 12-hour daytime ambient noise was measured near the Dignity Health Hospital and residential land uses east and southeast of the project site (e.g., at LT-5). These areas are relatively representative of

the future hotel location east of East Bidwell Street in the southeast corner of the Master Plan site. Recorded noise at this location was in the range of 72 to 73 dBA L_{eq}. However, the lowest daytime (7:00 a.m. to 6:00 p.m.) 1-hour L_{eq} noise levels recorded on Thursday, Friday, and Saturday at this location were approximately 66 dBA L_{eq}, 65 dBA L_{eq}, and 62 dBA L_{eq}.

Based on the existing and predicted construction noise levels, Master Plan construction noise in the range of 57 to 64 dBA L_{eq} at this location would be unlikely to result in a 10-dB or greater increase over the ambient noise level, depending on the activities proposed, the equipment used, and the location of construction.

Regarding nighttime or early morning construction, concrete pour activities for Phase 3 could take place as close as 500 feet from the project hotel. As shown in Table 3.11-17, concrete pour activities could result in noise levels of up to 59 dBA L_{eq} at a distance of 500 feet.

Although the Municipal Code limits noise to 45 dBA L_{eq} from 10:00 p.m. to 7:00 a.m., it also allows this threshold to be increased if existing ambient noise levels are greater than this level. During the noise measurement survey, the lowest recorded weekday 1-hour L_{eq} noise level in the vicinity of the future hotel from 5:00 a.m. to 7:00 a.m. was approximately 64 dBA L_{eq}, and the lowest recorded Saturday 1-hour L_{eq} noise during this time was 61 dBA L_{eq}. Therefore, based on the early morning noise levels measured at this future use, Phase 3 concrete pour noise of up to 59 dBA L_{eq} in this area would not be expected to exceed the existing ambient noise level, and would therefore not exceed the allowable Municipal Code limits.

Regarding the potential for concrete pours to result in substantial temporary increases in ambient noise levels, Master Plan concrete pour activities would also not be expected to result in increases in ambient noise of 10 dB or greater at the onsite hotel.

Because most construction activities would not conflict with the applicable City Municipal Code regulations (limiting construction to standard daytime hours), and because activities that may take place outside of standard daytime hours (i.e., early morning Phase 3 concrete pour activities) would not result in a substantial temporary increase in noise or in noise level in excess of the applicable thresholds, Master Plan construction noise impacts on onsite land uses would be **less than significant.**

Construction Haul Truck Noise

The temporary addition of haul trucks on local roadways can result in temporary increases in noise at nearby sensitive land uses. Based on the information provided by UC Davis, Master Plan construction would involve up to 200 one-way truck trips on a worst-case day. During many construction days, there would be fewer than 200 truck trips. However, haul truck noise from a reasonable worst-case day is analyzed to provide a conservative assessment. At this time, haul truck routes have not been finalized by the UC Davis. To ensure a conservative assessment, this analysis assumes that haul trucks would travel on main roadway segments in the project vicinity to access the nearest freeway on-ramps. Therefore, haul trucks were assumed to travel along East Bidwell Street, north of Alder Creek Parkway, to access US 50.

The temporary addition of 200 one-way haul truck trips per day on this roadway segment was evaluated to determine if hauling activity would result in substantial increases to the ambient noise levels at nearby noise-sensitive land uses. The City of Folsom Municipal Code does not specify noise thresholds pertaining to construction haul truck noise. Therefore, anticipated daily haul truck noise

was assessed to determine if a 3-dB increase, or a barely perceptible increase in noise over existing traffic noise levels, would occur at nearby sensitive land uses.

Modeling was conducted to estimate average daily traffic noise levels with and without the addition of project haul truck trips (e.g., a comparison of noise from baseline to baseline plus project haul truck trips). Should noise increases related to haul truck activity be predicted, additional analysis would be conducted based on the actual distances between roadway centerlines and the nearest noise-sensitive land use along a given segment. Table 3.11-18 estimates traffic noise along the roadway segment under baseline and baseline plus project haul truck conditions based on the assumptions described above.

Table 3.11-18. Existing and Existing plus Haul Truck Noise Levels

Roadway	Segment a	Truck Trips on Segment (per day)	Modeled Distance	Modeled Baseline Traffic Noise Level (dBA Ldn)	Baseline plus Project Haul Truck Trip Noise Level (dBA Ldn)	Delta dBA Ldn
East Bidwell Street	Between US 50 and Alder Creek Parkway	200	50	70.5	70.7	0.2

Haul truck routes have not been identified by UC Davis. The segment shown above is likely to be used as a haul truck route.

[a] Average daily traffic data for East Bidwell Street, South of Alder Creek Parkway was used for this analysis because there is currently no baseline development along East Bidwell between US 50 and Alder Creek Parkway.

As shown in Table 3.11-18, noise increases due to haul truck activity would not be expected to result in a greater than 3-dB, or barely perceptible, increase in traffic noise along the analyzed segment. The increase in noise from hauling activity was modeled to be 0.2 dB. In addition, the distance to the nearest residential land use along this segment is more than the 50-foot screening distance used in this assessment; therefore, actual haul truck noise levels would likely be lower than those presented above. Because project haul truck activity would result in a less than 3-dB increase in noise along the analyzed segment, project haul truck noise impacts would be **less than significant.**

Phase 1, Medical Office Building

Construction of Phase 1 would consist of multiple subphases, including site preparation, grading, utilities installation, asphalt laying, building construction, and architectural coating. The construction period for Phase 1 is estimated to be approximately 23 months. Standard construction work hours would be 7:00 a.m. to 6:00 p.m., Monday through Friday, and 8:00 a.m. to 5:00 p.m. on Saturdays (consistent with the City of Folsom allowable hours for construction defined in the Municipal Code). A list of construction equipment proposed for use during each subphase of Phase 1 construction was provided by the UC Davis. Refer to Appendix I for the full list of construction equipment proposed for use.

A screening analysis was conducted to determine which subphases of Phase 1 construction would require the loudest equipment and would therefore result in the highest combined construction noise levels during daytime hours. In addition to daytime construction activities, limited concrete pour activities for Phase 1 would occur occasionally during the early morning hours of 5:00 a.m. to 7:00 a.m., Monday through Friday; and 5:00 a.m. to 8:00 a.m., Saturdays. The following subsections analyze noise from daytime and early morning (considered to be nighttime) construction activities.

Daytime Construction Noise

The preliminary screening analysis indicated that the site preparation subphase would be the loudest phase proposed during daytimes hours. Refer to Appendix I for the full list of construction equipment proposed for use by phase. To provide a reasonable worst-case analysis of potential combined noise levels, this analysis assumes that the three loudest pieces of equipment proposed for use during the site preparation subphase would operate concurrently and in the same general location on the Phase 1 site. Combined construction noise levels were estimated using the calculation methodology and equipment source noise levels from FHWA's Roadway Construction Noise Model. The three loudest equipment proposed for use during site preparation include two tractors and an impact pile driver. Table 3.11-19 provides the construction noise modeling results for this phase.

Table 3.11-19. Combined Site Preparation Noise Levels at Various Distances (L_{max} and L_{eq})

Source Data:	Maximum Sound Level (dBA)	Utilization Factor	L_{eq} Sound Level (dBA)
Construction Condition: Site Preparation			
Source 1: Tractor - Sound level (dBA) at 50 feet =	84	40%	80.0
Source 2: Tractor - Sound level (dBA) at 50 feet =	84	40%	80.0
Source 3: Pile Driver - Sound level (dBA) at 50 feet =	101	20%	94.0
Calculated Data:			
All Sources Combined – L_{max} sound level (dBA) at 50 feet =			101 L_{max}
All Sources Combined – L_{eq} sound level (dBA) at 50 feet =			94 L_{eq}

Distance between Source and Receiver (feet)	Geometric Attenuation (dB)	Calculated L_{max} Sound Level (dBA)	Calculated L_{eq} Sound Level (dBA)
50	0	101	94
100	-6	95	88
200	-12	89	82
400	-18	83	76
800	-24	77	70
1,200	-28	74	67
1,600	-30	71	64
1,800	**-31**	**70**	**63**
2,000	-32	69	62
2,200	**-33**	**66**	**59**
3,000	-36	65	58

Source: Federal Highway Administration 2006

Notes:

- Geometric attenuation based on a 6 dB per doubling of distance.
- This calculation does not include the effects, if any, of local shielding or ground attenuation from walls, topography, or other barriers that may reduce sound levels further.
- Noise levels are based on source noise levels from the FHWA Roadway Construction Noise Model.

Bold denotes distance and sound levels from the project site that are discussed in the analysis below.

Site preparation activities involving the use of a pile driver would take place more than 1,800 feet from the nearby Dignity Health Hospital, and more than 2,200 feet from the nearest residential land uses. At these distances, combined noise from a pile driver and two tractors could be up to 63 dBA L_{eq} and 59 dBA L_{eq}, respectively.

Regarding non-pile-driving construction activities, the grading subphase would result in the next loudest combined construction noise levels and would occur closer to offsite sensitive uses than the site preparation activities with pile drivers. Grading for Phase 1 could take place as close as 1,600 feet from the nearby Dignity Health Hospital building, and 2,000 feet from the nearest residences (currently under construction to the southeast). Table 3.11-20 estimates combined construction noise levels during the grading subphase.

Table 3.11-20. Combined Grading Noise Levels at Various Distances (L_{max} and L_{eq})

Source Data:	Maximum Sound Level (dBA)	Utilization Factor	L_{eq} Sound Level (dBA)
Construction Condition: Grading			
Source 1: Grader - Sound level (dBA) at 50 feet =	85	40%	81.0
Source 2: Tractor- Sound level (dBA) at 50 feet =	84	40%	80.0
Source 3: Scraper - Sound level (dBA) at 50 feet =	84	40%	80.0
Calculated Data:			
All Sources Combined – L_{max} sound level (dBA) at 50 feet =			89 L_{max}
All Sources Combined – L_{eq} sound level (dBA) at 50 feet =			85 L_{eq}

Distance between Source and Receiver (feet)	Geometric Attenuation (dB)	Calculated L_{max} Sound Level (dBA)	Calculated L_{eq} Sound Level (dBA)
50	0	89	85
100	-6	83	79
200	-12	77	73
400	-18	71	67
800	-24	65	61
1,200	-28	62	58
1,600	**-30**	**59**	**55**
2,000	**-32**	**57**	**53**
2,500	-34	55	51
3,000	-36	54	50
3,500	-37	52	48

Source: Federal Highway Administration 2006

Notes:

- Geometric attenuation based on a 6 dB per doubling of distance.
- This calculation does not include the effects, if any, of local shielding or ground attenuation from walls, topography, or other barriers that may reduce sound levels further.
- Noise levels are based on source noise levels from the FHWA Roadway Construction Noise Model.

Bold denotes distance and sound levels from the project site that are discussed in the analysis below.

As shown in Table 3.11-20, grading activities could result in combined noise levels at distances of 1,600 feet and 2,000 feet of 55 dBA L_{eq} and 53 dBA L_{eq}, respectively.

All construction activities besides limited early morning concrete pours would take place during daytime hours. During daytime hours, existing 12-hour daytime ambient noise was measured near the under-construction Dignity Health Hospital and residential land uses east and southeast of the project site (e.g., at LT-5) to be in the range of 72 to 73 dBA L_{eq}. Because some construction activities from nearby project sites were audible during this measurement, ambient noise levels from LT-3 (further south of the project), are also considered. At LT-3, the daytime 12-hour L_{eq} noise level was measured to be 64 to 65 dBA L_{eq}. These 12-hour L_{eq} ambient noise levels provide a baseline by which to compare project construction noise levels.

The FTA-recommended 10-dB increase in ambient noise level, perceived as a doubling of loudness, is often used as the threshold to determine if a substantial temporary increase in noise would occur due to construction activities. Therefore, based on the existing (as shown above) and predicted with-construction noise levels, Phase 1 construction noise in the range of 53 to 63 dBA at nearby receptors would not constitute a substantial temporary increase in noise. In addition, the primary hours for project construction align with the standard construction hours established in the City of Folsom Municipal Code. According to the Municipal Code, noise from construction activities is considered exempt from numerical noise limits during these standard daytime hours.

Because construction noise would not conflict with the applicable City Municipal Code regulations and would not result in a substantial temporary increase in noise at the nearest noise-sensitive land uses, construction noise impacts during daytime hours would be **less than significant.**

Nighttime Construction Noise

Occasional concrete pour activities for the project may take place prior to the start of the standard daytime hours for construction in the city (i.e., prior to 7:00 a.m. weekdays and 8:00 a.m. on Saturdays). According to the University, up to 10 instances of early morning concrete pours may be required for Phase 1. Early morning concrete pour activities could start as early as 5:00 a.m. during summer months. However, these early morning concrete pours would not occur on consecutive days (i.e., they would be spread out over the duration of concrete placement activities). Since these would occur outside the City Municipal Code's exempt hours for construction, construction noise is compared to the noise thresholds presented in Chapter 8.42.040 of the City of Folsom Municipal Code (Table 3.11-10). During the nighttime hours of 10:00 a.m. to 7:00 a.m., the Municipal Code limits noise to 45 dBA L_{eq}. The Municipal Code also states that in the event that ambient noise levels are higher than applicable thresholds, such as 45 dBA for nighttime hours, the standard shall be adjusted to equal the ambient noise level. In addition, estimated concrete pour noise levels are compared to existing measured noise levels during the hours of 5:00 a.m. to 7:00 a.m. weekdays and 5:00 a.m. to 8:00 a.m. Saturdays to determine if a substantial temporary increase in noise would occur during these time periods.

As with combined daytime construction noise levels, combined noise levels from concrete pour activities were estimated using the calculation methodology and equipment source noise levels from FHWA's Roadway Construction Noise Model. During concrete pour activities, the loudest three pieces of equipment expected to be used concurrently would be two concrete pump trucks and a concrete mixer truck. Table 3.11-21 provides the construction noise modeling results for these early morning concrete pours.

Table 3.11-21. Combined Concrete Pour Noise Levels at Various Distances (L_{max} and L_{eq})

Source Data:	Maximum Sound Level (dBA)	Utilization Factor	L_{eq} Sound Level (dBA)
Construction Condition: Site Preparation			
Source 1: Concrete Pump Truck - Sound level (dBA) at 50 feet =	81	20%	74.0
Source 2: Concrete Pump Truck - Sound level (dBA) at 50 feet =	81	20%	74.0
Source 3: Concrete Mixer Truck - Sound level (dBA) at 50 feet =	79	40%	75.0
Calculated Data:			
All Sources Combined – L_{max} sound level (dBA) at 50 feet =			85 L_{max}
All Sources Combined – L_{eq} sound level (dBA) at 50 feet =			79 L_{eq}

Distance between Source and Receiver (feet)	Geometric Attenuation (dB)	Calculated L_{max} Sound Level (dBA)	Calculated L_{eq} Sound Level (dBA)
50	0	85	79
100	-6	79	73
200	-12	73	67
400	-18	67	61
800	-24	61	55
1,200	-28	58	52
1,600	**-30**	**55**	**49**
2,000	-32	53	47
2,500	-34	51	45
3,000	-36	50	44
3,500	-37	48	42

Source: Federal Highway Administration 2006

Notes:

- Geometric attenuation based on a 6 dB per doubling of distance.
- This calculation does not include the effects, if any, of local shielding or ground attenuation from walls, topography, or other barriers that may reduce sound levels further.
- Noise levels are based on source noise levels from the FHWA Roadway Construction Noise Model.

Bold denotes distance and sound levels from the project site that are discussed in the analysis below.

Phase 1 concrete pour activities could occur as close as 1,600 feet from the nearby Dignity Health Hospital and 2,000 feet from the nearby residences to the southeast. As shown in Table 3.11-21, concrete pour activities could result in noise levels of up to 49 dBA L_{eq} at 1,600 feet and 47 dBA L_{eq} at 2,000 feet.

Although the Municipal Code limits noise to 45 dBA L_{eq} from 10:00 p.m. to 7:00 a.m., it also allows this threshold to be increased if existing ambient noise levels are greater than this level. Outside the standard daytime hours for construction (i.e., 7:00 a.m. to 6:00 p.m.), the daytime 12-hour L_{eq} noise level does not provide a reasonable baseline noise level for early morning or nighttime hours. During these non-standard hours for construction, the lowest recorded L_{eq} can be used to establish baseline noise levels.

During the noise measurement survey, the lowest recorded weekday 1-hour L_{eq} noise level from 5:00 a.m. to 7:00 a.m. was approximately 64 dBA L_{eq}, and the lowest recorded Saturday 1-hour L_{eq}

noise during this time was 61 dBA L_{eq}. Therefore, based on the early morning noise levels measured at nearby noise-sensitive uses, Phase 1 concrete pour noise in the range of 47 to 49 dBA L_{eq} would not be expected to exceed the allowable Municipal Code limits. In addition, regarding the potential for concrete pours to result in substantial temporary increases in ambient noise levels, Phase 1 concrete pour activities would not be expected to result in increases in ambient noise of 10 dB or greater.

Because early morning Phase 1 concrete pour activities would not conflict with the applicable City Municipal Code regulations and would not result in a substantial temporary increase in noise at the nearest noise-sensitive land uses, construction noise impacts during early morning hours would be **less than significant.**

Construction Haul Truck Noise

Similar to the Master Plan, temporarily adding haul trucks to local roadways can result in temporary increases in noise at nearby sensitive land uses. Phase 1 construction could involve up to 200 one-way truck trips on a worst-case day. As is the case for the overall Master Plan, the temporary increase in haul truck traffic on the local roadway network could result in noise increases of up to 0.2 dB. Because project haul truck activity would result in a less than 3-dB increase in noise along the analyzed roadway segment, Phase 1 haul truck noise impacts would be **less than significant.**

Mitigation Measures

Mitigation Measure NOI-1a: Implement daytime construction noise reduction measures

UC Davis will implement or incorporate the following noise reduction measures into the project construction specifications for contractor(s) implementation during project construction.

1. Construction activities will be limited to the daytime hours of 7:00 a.m. and 6:00 p.m. Monday through Saturday and between 9:00 a.m. and 6:00 p.m. on Sunday, when feasible.
2. All construction equipment will be equipped with suitable exhaust and intake silencers in good working order. All construction equipment will be properly maintained and equipped with intake silencers and exhaust mufflers and/or engine shrouds, in accordance with manufacturer recommendations. Equipment engine shrouds, if used, will be closed during equipment operation.
3. All construction equipment and equipment staging areas will be located as far as possible from nearby noise-sensitive land uses, and/or located such that existing or constructed noise attenuating features (e.g., temporary noise wall, blankets) block the line of sight between affected noise-sensitive land uses and construction staging areas, to the extent feasible.
4. Individual operations and techniques will be replaced with quieter procedures (e.g., welding instead of riveting, mixing concrete offsite instead of onsite) where feasible and consistent with building codes and other applicable laws and regulations.
5. Stationary noise sources such as generators or pumps will be located as far as feasible from noise-sensitive land uses.
6. Maintain all construction equipment to minimize noise emissions.

7. No less than 1 week prior to the start of construction activities, notification will be provided to residential or noise-sensitive uses within 500 feet of the construction site.
8. Install temporary noise barriers as close as possible to the noise source or the receptor and within the direct line-of-sight path between the noise source and nearby sensitive receptor(s), along the eastern perimeter of the project site. The barrier should be constructed of material that has a surface weight of at least 1 pound per square foot and has an acoustical rating of at least 25 Sound Transmission Class. This can include a temporary barrier constructed with plywood supported on a wood frame, sound curtains supported on a frame, or other comparable material.
9. Use "quiet" gasoline-powered compressors or electrically powered compressors as well as electric rather than gasoline- or diesel-powered forklifts for small lifting, where feasible.
10. Prohibit idling of inactive construction equipment for prolonged periods (i.e., more than 5 minutes).

Mitigation Measure NOI-1b: Develop and implement construction noise control plan to reduce noise outside standard construction hours in the city of Folsom

The University will develop a construction noise control plan to reduce noise levels and comply with municipal nighttime noise standards in the city of Folsom. The plan will demonstrate that noise from construction activities that occur daily between 10:00 p.m. and 7:00 a.m. weekdays will comply with the applicable City of Folsom noise limit of 45 dBA, or equal to the existing ambient noise level (whichever is higher), at the nearest noise-sensitive land uses. Measures to reduce noise from construction activity during non-standard construction hours will be incorporated into this plan and may include, but are not limited to, the following.

- Plan for the noisiest construction activities to occur during daytime hours when people are less sensitive to noise.
- Require all construction equipment be equipped with mufflers and sound control devices (e.g., intake silencers, noise shrouds) that are in good condition (at least as effective as those originally provided by the manufacturer) and appropriate for the equipment.
- Maintain all construction equipment to minimize noise emissions.
- Locate construction equipment as far as feasible from adjacent or nearby noise-sensitive receptors.
- Conduct all early morning concrete pour activities at least 500 feet from the nearest offsite noise-sensitive land use.
- Require all stationary equipment be located to maintain the greatest possible distance to the nearby existing buildings, where feasible.
- Install noise-reducing sound walls or fencing (e.g., temporary fencing with sound blankets) around noise-generating equipment during nighttime/non-standard daytime hours.
- Prohibit idling of inactive construction equipment for prolonged periods during nighttime/non-standard hours (i.e., more than 2 minutes).
- Conduct additional noise measurements during the specific hours and times that early morning or nighttime construction is proposed to set an appropriate threshold for construction noise during these times.

- Provide the name and telephone number of an onsite construction liaison through onsite signage and on the notices mailed/delivered to surrounding land uses. If early morning or nighttime construction noise is found to be intrusive to the community (i.e., if complaints are received), the construction liaison will take reasonable efforts to investigate the source of the noise and require that reasonable measures be implemented to correct the problem.

Impact NOI-2: Generation of increased ambient noise levels in the project vicinity in excess of applicable standards during project operations (less than significant with mitigation)

Summary of Impact NOI-2 by Component

Component	Level of Significance before Mitigation	Mitigation Measures Required	Level of Significance after Mitigation
Folsom Center for Health Master Plan	S	NOI-2a	LTS
Phase 1, Medical Office Building	S	NOI-2a	LTS

LTS = less than significant; S = significant

Folsom Center for Health Master Plan

Mechanical Equipment Noise

Central Utility Plant Mechanical Equipment

Most noise-generating mechanical equipment included in the Master Plan would be in the project's CUP, which would be located along the northern perimeter of the Master Plan site. The CUP would house most of the project's emergency generators (analyzed separately below) and would include mechanical heating and cooling equipment to serve the micro-hospital. Equipment would include heat recovery chillers, water cooled chillers, air cooled chillers, heat pumps, water pumps, air handling units, and cooling towers, among other equipment. Most of this equipment would be inside the CUP building. However, some equipment includes air compressors or exhaust systems that require equipment to be outdoors. In addition, the specific makes, models, and sizes/capacity of all equipment have not yet been finalized.

In general, air handling units can produce sound levels in the range of about 70 to 75 dBA at 50 feet, depending on the size of the unit (Hoover and Keith 2000). With regard to cooling towers, a typical 100-horsepower propeller-driven cooling tower generates a noise level of approximately 74 dBA at 50 feet. Depending on cooling capacity, a chiller generates a sound power level of 97 to 103 dBA, which equates to a noise level of 65 to 71 dBA at 50 feet (Hoover and Keith 2000). Pumps generate noise levels at 50 feet of approximately 81 dBA (Federal Highway Administration 2006).

Based on a preliminary analysis assuming up to three cooling towers, three chillers, six chilled water and cooling water pumps, combined equipment noise at a distance of 50 feet would be approximately 86 dBA L_{eq}, based on the equipment source noise levels cited above. The CUP would be more than 1,700 feet from the Dignity Health Hospital building currently under construction, which is the nearest noise-sensitive land use. At this distance, the combined noise level from the equipment cited above would be reduced to approximately 55 dBA L_{eq}.

The University, as a constitutionally created state entity, is not subject to municipal regulations of surrounding local governments for uses on property owned or controlled by the UC that are in furtherance of its education purposes. However, the UC seeks to develop its property to minimize

potential conflicts with land use policies and plans of local jurisdictions to the extent feasible. As a result, combined equipment noise levels from the CUP are compared to the City of Folsom's Noise Level Standards from Stationary Sources (Table 3.11-10). Accordingly, noise levels from CUP equipment should be limited to 55 dBA L_{eq} during the daytime hours of 7:00 a.m. to 10:00 p.m. and 45 dBA L_{eq} during the nighttime hours of 10:00 p.m. to 7:00 a.m.

Although exact makes, models, and sizes for the mechanical equipment are not known at this time, the modeled example case of reasonably foreseeable combined noise levels demonstrates that operational equipment noise at the CUP could exceed the allowable 45 dBA limit during nighttime hours. In addition, the daytime limit of 55 dBA L_{eq} could also be exceeded, depending on the final equipment selected and attenuation features included in the CUP design. Further, the City Municipal Code includes a stipulation that noise from air conditioning and refrigeration units be limited to 50 dBA at the nearest noise-sensitive uses. This noise limit could also be exceeded. For these reasons, noise from mechanical equipment at the CUP under the Master Plan would be considered significant.

Mitigation Measure NOI-2a would reduce this potentially significant impact related to mechanical equipment noise to a less-than-significant level by ensuring that equipment operations would not result in noise levels above thresholds. This impact would be **less than significant with mitigation**.

Rooftop Mechanical Equipment

In addition to the CUP mechanical equipment, individual project buildings under the Master Plan may include the installation of rooftop mechanical equipment (e.g., heating, cooling, ventilation equipment). Rooftop mechanical equipment may include air handling units (potentially variable air volume units), direct outside air system air handling units, packaged direct expansion (Dx) air handling units, air- and water-cooled chillers, heat recovery pumps, and other heating, cooling, and ventilation equipment.

In general, air handling units can produce sound levels in the range of about 70 to 75 dBA at 50 feet, depending on the size of the unit (Hoover and Keith 2000). With regard to cooling towers, a typical 100-horsepower propeller-driven cooling tower generates a noise level of approximately 74 dBA at 50 feet. Depending on cooling capacity, a chiller generates a sound power level of 97 to 103 dBA, which equates to a noise level of 65 to 71 dBA at 50 feet (Hoover and Keith 2000). Pumps generate noise levels at 50 feet of approximately 81 dBA, and exhaust/ventilation fans generate noise levels at 50 feet of approximately 79 dBA (Federal Highway Administration 2006).

The nearest Master Plan building to offsite sensitive receptors (the Dignity Health Hospital building) is the hotel, which would be approximately 400 feet from this sensitive receptor once construction is complete. At a distance of 400 feet, an air handling unit could result in noise of 52 to 57 dBA L_{eq}. Multiple air handling units would likely be installed relatively close to one another on the hotel roof, which would result in louder overall noise levels. At a distance of 400 feet, a single cooling tower could result in a noise level of approximately 56 dBA L_{eq}, and a pump could result in a noise level of up to 58 dBA L_{eq}. In general, noise levels would increase by approximately 3 dB for each additional piece of equipment installed. For example, one cooling tower would result in a noise level of approximately 56 dBA L_{eq} at 400 feet, while two operating simultaneously and close to one another would result in 59 dBA L_{eq} at 400 feet.

Although exact makes, models, and sizes for the rooftop mechanical equipment for the hotel and other Master Plan buildings are not known at this time, reasonably foreseeable combined noise levels from rooftop mechanical equipment could exceed the allowable 45 dBA L_{eq} limit during

nighttime hours and 55 dBA L_{eq} limit during daytime hours, depending on the final equipment selected and attenuation features included in the designs. Further, the City Municipal Code includes a stipulation that noise from air conditioning and refrigeration units be limited to 50 dBA at the nearest noise-sensitive uses. This noise limit could also be exceeded. Rooftop mechanical equipment noise impacts under the Master Plan would be considered significant.

Mitigation Measure NOI-2a would reduce the potentially significant impact of mechanical equipment noise to a less-than-significant level by ensuring that equipment operations would not result in noise levels in excess of thresholds. This impact would be **less than significant with mitigation**.

Emergency Generator Testing

Emergency generators included in the project could generate audible noise during testing. Noise from emergency generators during an emergency is typically exempt from local ordinances. However, though testing of emergency generators is typically a short-term (i.e., less than 1 hour) and intermittent process (usually once or twice per month), noise resulting from generator testing must comply with local noise limits for operational and equipment noise.

The project would include up to four emergency generators, including three generators at the CUP and one potentially located at the ASC. Testing would be conducted once per month for a period of 30 minutes.

Noise from emergency generator testing would be subject to the requirements of the City of Folsom Municipal Code (Section 8.42.040), which limits noise at the nearest sensitive land use to 50 dBA L_{eq} during daytime hours and 45 dBA L_{eq} during nighttime hours (for noise lasting 30 minutes in any 1-hour period). Should emergency generator testing result in noise levels greater than the allowable levels described in Section 8.42.040 of the City Municipal Code, noise impacts from emergency generator testing would be considered significant.

Although the precise makes and models of the 1,200-kilowatt (kW) emergency generators have not been finalized, noise levels from a Cummins DQGAE 1,250-kW generator can be used to approximate generator noise levels during testing. A Cummins 1,250-kW DQGAE generator can produce an estimated unattenuated noise level of up to 103 dBA at 50 feet (when considered combined exhaust and engine noise). This noise level does not account for any attenuation that may result from mufflers or weather and/or sound enclosures, since attenuation features for project generators have not yet been identified (Cummins 2017).

Based on the currently available site plans, the CUP generators would be more than 1,700 feet from the Dignity Health main hospital building (currently under construction). In addition, the generator for the ASC would be at least 1,350 feet from this offsite sensitive use. At 1,700 feet, testing noise from a 1,250-kW generator would be approximately 72 dBA. At 1,350 feet, testing noise from a 1,250-kW generator would be approximately 74 dBA. Therefore, based on the unattenuated noise levels, short-term emergency generator testing could result in noise levels above the applicable local thresholds.

Additional noise attenuation could be achieved through weather enclosures, exhaust mufflers, or shielding. Most likely, generators would be inside buildings or weather enclosures; these features reduce engine noise during generator testing. In addition, generators often include exhaust mufflers or silencers that reduce exhaust noise. However, specific details of generator shielding and attenuation features for the generators are not known at this time. Therefore, though the testing of emergency generators would be short in duration (30 minutes per occurrence) and

intermittent (approximately once per month), testing noise from emergency generators under the project would be considered significant.

Mitigation Measure NOI-2b would reduce this potentially significant impact related to emergency generator testing noise to a less-than-significant level by ensuring that emergency generator testing noise would not result in noise levels in excess of the applicable criteria. This impact would be **less than significant with mitigation**.

Ambulance Activity

The Master Plan would include the development of a micro-hospital in Phase 3. This micro-hospital would lead to an increase in ambulance activity in the vicinity of the project. Specifically, the University estimates that there would be approximately five emergency response ambulances per peak day once the micro-hospital is operational, but most ambulances would not be Code 3 transports, and would not travel along the roadway segments near the hospital with sirens on. The University estimates that up to one ambulance per week would be a Code 3 transport and involve the use of siren noise. Up to five vehicles per day without siren noise would not result in substantial vehicular noise increases in the project site. In addition, although siren noise can be loud, it is typically only audible in a given location for a short period of time. The duration of the siren exposure at a given location is generally less than 30 seconds.

Since only one ambulance per week would be expected to operate with siren noise, temporary and periodic noise from the ambulance activity would be **less than significant.**

Loading Dock Activity

The analysis of loading dock noise during project operations is conducted qualitatively based on the expected number of daily loading activities at loading docks near residential uses and the potential for loading activity noise to result in substantial noise increases in the vicinity of sensitive receptors.

All Master Plan buildings would likely include loading docks or receiving areas. The Phase 1 MOB is anticipated to have a receiving area for small packages but is not anticipated to have a loading dock. The micro-hospital and ASC would be expected to have loading docks. Up to 15 truck trips per day are expected to occur at each project loading dock. All project loading docks would be more than 1,400 feet from the nearest noise-sensitive land use (the Dignity Health main hospital building east of the project). Some of these trucks may be medium-size trucks (FedEx, UPS, U.S. Postal Service, and other local carriers); the delivery of packages via medium-sized trucks does not generally involve long-term or highly noisy unloading activities. In addition, these types of trucks would use curbside or temporary loading areas during business hours, with short-duration stops. In general, the temporary loading and unloading activities at the project buildings (up to 15 trucks per day at each loading dock) would typically be short term and intermittent throughout the day, occurring only during daytime hours when people are less sensitive to noise.

Loading dock noise from a single medium-sized truck (two-axle truck with four wheels on the rear axle) unloading was measured at the UC Davis Sacramento Campus. The truck had an approximate length of 35 feet with a vertical sliding bay door to access cargo in the rear. During the measurement interval, loading activities from this truck included the truck pulling into the loading dock, back-up beeps as the truck maneuvered to the docks, hydraulic breaks, truck idling noise, other banging, and clanging noises. At approximately 150 feet from the center of the truck, the estimated L_{eq} noise level for the duration of the activity was approximately 64 dBA L_{eq}. Conservatively assuming loading

noises such as those described above could occur for 30 minutes out of a given hour (which is unlikely, considering most unloading activities are short-term, and only 15 trucks per day would access each dock), the estimated hourly L_{eq} noise level would be 61 dBA L_{eq}. Refer to Appendix I for this loading dock noise measurement data.

The nearest offsite sensitive land use to project loading docks would be the Dignity Health Hospital, which would be an estimated 1,400 feet from the closest project loading dock (associated with the ASC). At 1,400 feet, the loading activity noise level cited above would be reduced to 42 dBA L_{eq}, without accounting for shielding from intervening buildings, which could reduce noise.

Regarding the potential for loading dock noise to result in a substantial increase over the ambient level at nearby land uses, the existing 12-hour daytime ambient noise was measured near the Dignity Health Hospital and residential land uses east and southeast of the project site (e.g., at LT-5). Recorded noise was in the range of 72 to 73 dBA L_{eq}. The lowest daytime (7:00 a.m. to 6:00 p.m.) 1-hour L_{eq} noise levels recorded on Thursday, Friday, and Saturday at this location were approximately 66 dBA L_{eq}, 65 dBA L_{eq}, and 62 dBA L_{eq}. The estimated loading dock noise would be well below these hourly and 12-hour average daytime noise levels.

For these reasons, temporary and short-term increases in noise from project loading activity would not be considered substantial. Impacts related to loading dock noise from the Master Plan would be **less than significant.**

Operational Traffic

The Master Plan would result in an increase in traffic in the project vicinity. Traffic data, including average daily traffic volumes and vehicle mix percentages (i.e., the proportion of automobiles, trucks, buses, and other vehicles) were provided by Fehr & Peers. Modeling was conducted for baseline and baseline plus Master Plan conditions to estimate traffic noise increases resulting from the Master Plan along surrounding roadway segments. Traffic noise increases greater than 3 dB, which is considered to be barely perceptible, are considered to be significant. Traffic noise modeling was conducted using a spreadsheet based on the FHWA Traffic Noise Model, version 2.5. This spreadsheet calculates the traffic noise level at a fixed distance from the centerline of a roadway (50 feet), based on the traffic volume, roadway speed, and vehicle mix that is predicted to occur under each condition. Traffic noise was evaluated in terms of how Master Plan traffic noise increases could affect existing noise-sensitive land uses in near the Master Plan. Table 3.11-22 provides the traffic noise modeling results.

Table 3.11-22. Modeled Traffic Noise Levels for the Master Plan

Roadway	Segment Location	Baseline dBA L_{dn}	Baseline plus Master Plan Buildout dBA L_{dn}	Change (dB)
Broadstone Parkway	North of Cavitt Drive	64.7	65.1	0.3
Broadstone Parkway	South of Palladio Parkway	67.5	67.7	0.2
East Bidwell Street	East of Oak Avenue	73.0	73.3	0.4
East Bidwell Street	North of Iron Point Drive	73.1	73.5	0.4

Roadway	Segment Location	Baseline dBA L_{dn}	Baseline plus Master Plan Buildout dBA L_{dn}	Change (dB)
East Bidwell Street	South of Alder Creek Parkway	70.5	70.8	0.4
Iron Point Drive	East of Cavitt Drive	69.2	69.4	0.1
Iron Point Road	West of Broadstone Parkway	69.1	69.5	0.4
White Rock Road	East of East Bidwell Street	67.2	67.5	0.3
White Rock Road	West of East Bidwell Street	70.0	70.1	0.2

Refer to Appendix I for the complete traffic noise modeling results.
Note: Modeled noise levels at a fixed distance of 50 feet from the roadway centerline.

Modeling results in Table 3.11-22 demonstrate that noise levels along the adjacent segments would increase by a maximum of 0.4 dB as a result of the Master Plan. A 3-dB increase is considered barely noticeable; a noise increase of 0.4 dB or less would not constitute a significant increase in noise. Therefore, project-related traffic noise impacts would be **less than significant.**

Amplified Music and Sound

The potential for amplified music or speech at events resulting from the Master Plan to exceed applicable noise limits was also analyzed based on information about expected future events provided by UC Davis. Although most of the campus area would not have large gatherings or events, the community arrival area and Central Green area would potentially have weekly and quarterly gatherings. Specifically, these areas may have weekly farmers markets, and quarterly concerts and small fairs. Amplified music associated with intermittent events in the Master Plan courtyards is evaluated to determine if noise impacts may occur on nearby noise-sensitive land uses.

According to the City of Folsom Municipal Code, Section 8.42.040, noise that occurs for 30 minutes or more of a given 1-hour time period is limited to 50 dBA at the nearest noise-sensitive receptor during the daytime hours of 7:00 a.m. to 10:00 p.m. During the nighttime hours of 10:00 p.m. to 7:00 a.m., noise is limited to 45 dBA at the nearest noise-sensitive receptor. These noise standards are reduced by 5 dB for simple tone noises, such as noises consisting primarily of speech or music.

Noise levels from smaller events where amplified speech would occur would be generally lower than noise levels from amplified live or recorded music. For example, noise from human speech being amplified by a single loudspeaker has been measured in the range of approximately 56 to 58 dBA L_{eq} at 100 feet,[1] whereas noise from a small live band, which included a guitar and vocalists, with a single amplifier has been measured to be approximately 65 dBA L_{eq} at 100 feet.[2] Larger concert-type events could generate higher noise levels.

[1] Wedding Noise: Noise measured at approximately 140 feet from an individual officiating over a wedding (single speaker) was measured to be between approximately 55 and 56 dBA L_{eq}, equating to a noise level of 58 to 59 dBA L_{eq} at 100 feet.

[2] Acoustic Band Noise: Noise measured at approximately 73 feet from a small live band with a single amplifier that included a guitar and vocals was measured to be 67.5 dBA L_{eq}, equating to 64.8 dBA L_{eq} at 100 feet.

Noise measurements were obtained from a previous study involving an outdoor live music venue.[3] A blues band with full amplification performed at the venue; it is anticipated that this would be representative of the louder events that may occur at the Master Plan courtyards. Noise levels were measured at 200 feet from the front of the center of the stage during the live performance and found to be approximately 79.1 dBA L_{eq}. This equates to approximately 85 dBA at 100 feet.

The project courtyards are more than 1,600 feet from the nearby Dignity Health Hospital building east of the project site, and more than 2,000 feet from the nearest residential land uses southeast of the project site (both currently under construction). At these distances, the noise level from a large concert cited above would be reduced to 61 dBA and 59 dBA, respectively, without attenuation from intervening buildings. Smaller events including quieter amplified noise, such as the noise levels cited for a loudspeaker and small live band, would result in lower noise levels at nearby receptors. Noise from a single loudspeaker would be reduced to 30 to 32 dBA at distances of 2,000 feet and 1,600 feet, respectively. In addition, noise from a small live band would be reduced to 39 to 41 dBA at these distances. Some shielding may be provided by the future ASC building east of these Master Plan courtyards. However, specific attenuation cannot be precisely calculated at this time, so unattenuated noise levels are presented to ensure a conservative assessment.

Most events with amplified music or speech would be limited to daytime hours. Noise from amplified music and speech occurring at entertainment events or concerts is limited by the City of Folsom Municipal Code to approximately 45 dBA between the hours of 7:00 a.m. and 10:00 p.m. for tonal noises such as amplified speech or music (5 dB lower than non-tonal noises). Even though amplified music or speech would generate noise in the project vicinity, events would be limited to daytime hours and required to comply with the stipulations of the event permit and City Municipal Code. Noise impacts from amplified music or speech would be **less than significant.**

Outdoor Gathering Area Activity

As shown in Figure 2-2 in Chapter 2, *Project Description*, the Master Plan would include a number of courtyards where people may gather. The primary courtyards that may include larger gatherings or events are the community arrival area and Central Green area. These courtyards would generally have people gathering for lunch, kids playing, etc., but may also have weekly farmers markets and quarterly concerts and small fairs. Noise from persons talking or gathering in these areas is assessed to determine if substantial increases in noise would occur at nearby noise-sensitive uses.

With regard to noise from persons conversing and recreating at outdoor courtyard areas, noise from a person talking normally is in the range of 57 dBA at a distance of 1 meter, which equates to approximately 33 dBA at 50 feet (Harris 1979). The Central Green and the community arrival area may each involve events with an estimated maximum of 300 persons at a given time. Assuming that estimated maximum capacity of the space was met and 300 persons (located relatively close to one another) were socializing at a given time, crowd noise can be estimated. This assessment assumes approximately half of the 300 individuals are talking at a given moment. Based on these assumptions, estimated combined noise from people's voices would be approximately 55 dBA at a distance of 50 feet. At greater distances, noise would be reduced. For example, at the nearest offsite noise-sensitive land use (the Dignity Health Hospital) more than 1,600 feet from the gathering areas, this noise level would be reduced to 25 dBA L_{eq} without attenuation from intervening building

[3] Measurements were obtained at the Irvine Regional Park Amphitheater, which has a permanent band shell for live music or entertainment.

shielding. At 2,000 feet (the distance to the nearest residences), noise would be reduced to 23 dBA L_{eq} without attenuation from building shielding. These noise levels are well below the measured ambient noise levels in the vicinity of the nearby sensitive receptors. For example, LT-5 (near both the nearest residences and Dignity Health Hospital building) had a measured 12-hour daytime L_{eq} noise level ranging from 72 to 73 dBA L_{eq}. Therefore, audible crowd noise at the nearest receptors would be nearly 50 dB below the existing ambient noise level. Based on this analysis, noise from human speech at outdoor gathering areas would not result in significant noise impacts on nearby sensitive uses. The impact would be **less than significant**.

Phase 1, Medical Office Building

Mechanical Equipment Noise

Phase 1 of the project would include rooftop mechanical equipment that would generate noise. Similar to the Master Plan, rooftop mechanical equipment for Phase 1 may include air handling units (potentially variable air volume units), direct outside air system air handling units, packaged Dx air handling units, air- and water-cooled chillers, heat recovery pumps, and other heating, cooling, and ventilation equipment.

Individual equipment noise from air handling units, cooling towers, chillers, and pumps can produce sound levels in the range of about 65 to 79 dBA L_{eq} at a distance of 50 feet (Federal Highway Administration 2006). The nearest offsite sensitive receptor to the Phase 1 building is the Dignity Health Hospital building, which would be more than 1,700 feet from the MOB once fully constructed. At 1,700 feet, individual equipment noise levels could be reduced to 34 to 45 dBA L_{eq}. However, multiple equipment could combine to result in greater overall noise levels. Because the specific number, makes, models, and sizes for the rooftop mechanical equipment for Phase 1 development are not known at this time, it is possible that combined noise levels from rooftop mechanical equipment at this building could exceed the allowable 45 dBA L_{eq} limit during nighttime hours and 55 dBA L_{eq} limit during daytime hours at the nearest sensitive use. Rooftop mechanical equipment noise under Phase 1 would be considered significant.

Mitigation Measure NOI-2a would reduce this potentially significant impact related to mechanical equipment noise to a less-than-significant level by ensuring that equipment operations would not result in noise levels in excess of thresholds. This impact would be **less than significant with mitigation** for Phase 1.

Emergency Generator Testing

No emergency generator would be installed under Phase 1; all emergency generators for the Master Plan would be installed during later development phases. Therefore, there would be **no impact** related to emergency generator testing for Phase 1.

Loading Dock Activity

As described for the Master Plan, loading and unloading activities at the Phase 1 building would be temporary and intermittent through a given day. In addition, there would be no loading dock associated with Phase 1; rather, a receiving or loading area would be included in the project design. Up to six deliveries may take place on a given day, and vehicles accessing the site would be mostly medium trucks as opposed to heavy trucks. The Phase 1 building is more than 1,700 feet from the nearest noise-sensitive land use (the Dignity Health Hospital building currently under construction);

at this distance, intermittent and temporary noise from approximately six loading activities per day would not result in substantial temporary increases in noise. Impacts related to loading noise from Phase 1 would be **less than significant.**

Operational Traffic

In addition to the assessment of Master Plan–related traffic noise impacts included above, Phase 1 traffic noise was modeled to determine if project-related traffic noise increases would result in significant traffic noise impacts. Table 3.11-23 provides traffic noise modeling results for Phase 1.

Table 3.11-23. Modeled Traffic Noise Levels for Phase 1

Roadway	Segment Location	Baseline dBA L_{dn}	Baseline plus Project dBA L_{dn}	Change (dB)
Broadstone Parkway	North of Cavitt Drive	64.7	64.9	0.1
Broadstone Parkway	South of Palladio Parkway	67.5	67.6	0.1
East Bidwell Street	East of Oak Avenue	73.0	73.1	0.1
East Bidwell Street	North of Iron Point Drive	73.1	73.3	0.2
East Bidwell Street	South of Alder Creek Parkway	70.5	70.6	0.2
Iron Point Drive	East of Cavitt Drive	69.2	69.3	0.1
Iron Point Road	West of Broadstone Parkway	69.1	69.2	0.2
White Rock Road	East of East Bidwell Street	67.2	67.4	0.2
White Rock Road	West of East Bidwell Street	70.0	70.0	0.1

Refer to Appendix I for the complete traffic noise modeling results.
Note: Modeled noise levels at a fixed distance of 50 feet from the roadway centerline.

As shown in Table 3.11-23, modeling demonstrated that noise levels along the adjacent segments would increase by a maximum of 0.2 dB as a result of project implementation. A 3-dB increase is considered barely noticeable; a noise increase of 0.2 dB or less would not constitute a significant increase in traffic noise based on the thresholds defined previously. Therefore, project-related traffic noise increases would be considered **less than significant** for Phase 1.

Amplified Music and Sound

The potential for amplified music or speech at events resulting from Phase 1 to exceed applicable noise limits was also analyzed above under the Master Plan analysis; the courtyard areas that would include events under the Master Plan are the same as the courtyard areas that would include events under Phase 1. As described previously, noise impacts from amplified music for events within the plan area would be **less than significant**.

Outdoor Gathering Area Activity

The potential for crowd noise at courtyard gatherings at Phase 1 courtyards to result in noise impacts on nearby sensitive uses was analyzed above under the Master Plan; the courtyard areas that would include events under the Master Plan are the same as the courtyard areas that would include events under Phase 1. As described previously, noise impacts from persons talking or socializing at Phase 1 courtyard areas would be **less than significant**.

Mitigation Measures

Mitigation Measure NOI-2a: Mechanical equipment noise reduction plan (all phases)

To reduce potential noise impacts resulting from project mechanical equipment, including heating, cooling, and ventilation equipment, the University will conduct a noise analysis to estimate noise levels of project-specific mechanical equipment based on the final selected equipment models and design features, and create a noise reduction plan to ensure noise levels of equipment, once installed, are below the applicable criteria. The noise reduction plan will include any necessary noise reduction measures required to reduce project-specific mechanical equipment noise to a less-than-significant level. The plan will also demonstrate that with the inclusion of selected measures, noise from equipment would be below the significance thresholds.

Feasible noise reduction measures to reduce noise below the significance threshold include, but are not limited to, selecting quieter equipment, utilizing silencers and acoustical equipment at vent openings, siting equipment farther from the roofline, and enclosing all equipment in a mechanical equipment room designed to reduce noise. This analysis will be conducted, and the results and final noise reduction plan will be provided to the University prior to the issuance of building permits for each phase.

The noise analysis and noise reduction plan will be prepared by persons qualified in acoustical analysis and/or engineering. The noise reduction plan will demonstrate with reasonable certainty that noise from mechanical equipment selected for the project, including the attenuation features incorporated into the project design, will not exceed the City of Folsom's threshold of 55 dBA during daytime hours or 45 dBA during nighttime hours for nearby sensitive (hospital or residential) uses.

The University will incorporate all feasible methods to reduce noise identified above and any other feasible recommendations from the acoustical analysis and noise reduction plan into the building design and operations as necessary to ensure that noise sources meet applicable requirements of the respective noise ordinances at receiving properties.

Mitigation Measure NOI-2b: Emergency generator noise reduction plan

Prior to approval of building permits, the University will conduct a noise analysis to estimate noise levels from the testing of project-specific emergency generators and create a noise reduction plan to ensure noise levels of generator testing are below the applicable criteria. This analysis will be conducted, and the noise reduction plan will be created, based on the analysis results. The analysis will account for proposed noise attenuation features, such as specific acoustical enclosures and mufflers or silences, and the final noise reduction plan will demonstrate with reasonable certainty that proposed generator(s) will not exceed the City of Folsom noise limits of 50 dBA during daytime hours at the nearest noise-sensitive uses. Acoustical treatments may include, but are not limited to, the following.

- Enclosing generator(s)
- Installing relatively quiet model generator(s)
- Orienting or shielding generator(s) to protect noise-sensitive receptors to the greatest extent feasible

- Installing exhaust mufflers or silencers
- Increasing the distance between generator(s) and noise-sensitive receptors
- Placing barriers around generator(s) to facilitate the attenuation of noise

In addition, all project generator(s) will be tested only between the hours of 7:00 a.m. and 8:00 p.m.

The University will incorporate all recommendations from the acoustical analysis into the building design and operations to ensure that noise sources meet applicable requirements of the noise ordinance.

Impact NOI-3: Generation of excessive groundborne vibration or groundborne noise levels (less than significant)

Summary of Impact NOI-3 by Component

Component	Level of Significance before Mitigation	Mitigation Measures Required	Level of Significance after Mitigation
Folsom Center for Health Master Plan	LTS	None	N/A
Phase 1, Medical Office Building	LTS	None	N/A

LTS = less than significant; N/A = not applicable

Folsom Center for Health Master Plan

The Master Plan would not include the development of land uses that generate high vibration levels during operations, such as manufacturing, mining, or railroad tracks. Therefore, the analysis of potential project-related vibration effects is limited to project construction activities.

Vibration-Related Damage

Impacts on Offsite Uses

Although the specific construction equipment for Master Plan construction has not been finalized, construction would require equipment that could generate groundborne vibration. Pile driving would also likely be required within the footprint of Master Plan (and Phase 1) structures. The potential for vibration-related damage impacts to occur at nearby structures is assessed based on the assumption that pile driving may occur on the project site for structures, and other typical construction equipment (e.g., vibratory rollers, excavators, bulldozers) may be used anywhere on the project site.

Caltrans has adopted vibration-related damage guidelines and criteria that are routinely used for projects proposed by local jurisdictions throughout the state of California. Table 3.11-24 shows typical PPV vibration levels associated with heavy-duty construction equipment at a reference distance of 25 feet and other distances.

Table 3.11-24. Peak Particle Velocity Vibration Source Levels for Typical Construction Equipment

Equipment	PPV at 25 Feet	PPV at 100 Feet	PPV at 200 Feet	PPV at 250 Feet	PPV at 500 Feet
Pile driver (impact, typical)	0.644	0.081	0.028	0.020	0.007
Vibratory Roller	0.210	0.026	0.009	0.007	0.002
Auger Drill	0.089	0.011	0.004	0.007	0.001
Large bulldozer [a]	0.089	0.011	0.004	0.003	0.001
Loaded trucks	0.076	0.010	0.003	0.002	0.001
Jackhammer	0.035	0.004	0.002	0.001	0.000
Small bulldozer [b]	0.003	0.000	0.000	0.000	0.000

Source: Federal Transit Administration 2018; California Department of Transportation 2020

[a] Representative of an excavator or other similarly sized earth-moving equipment

[b] Representative of a concrete mixer truck, concrete pump truck, front-end loader, small backhoe, or other similarly sized small earth-moving equipment.

The nearest offsite structures to the Master Plan site are the proposed (and currently under construction) Dignity Health Hospital buildings east of the project. Although the Dignity Health campus would be as close as 150 feet from the project site, the nearest Dignity Health structure to the project site would be the central plant more than 200 feet east of the project site. This building would be slightly further (approximately 250 feet) from the nearest Master Plan structure (the hotel), where pile driving may be required. In addition, the main hospital building for Dignity Health would be approximately 350 feet east of the project site and approximately 400 feet from the Master Plan hotel. The Dignity Health Hospital buildings would be most similar to the "modern industrial/commercial building" category included in the Caltrans vibration guidelines for structural damage, with an applicable damage threshold of 0.5 PPV in/sec.

The most vibration-intensive equipment expected to be used anywhere on the project site is a vibratory roller. Should a vibratory roller be used within 200 feet of the Dignity Health central plant, the estimated vibration at this location would be 0.009 PPV in/sec. Should pile driving occur within 250 feet of this building (for the hotel), the estimated vibration level at the Dignity Health central plant would be 0.020 PPV in/sec. These vibration levels are both below the applicable Caltrans damage threshold for modern industrial/commercial buildings of 0.5 PPV in/sec.

Structures further from the project site, such as the main hospital building at Dignity Health (an estimated 350 feet from the project site, 400 feet from the hotel) would experience lower levels of vibration. In addition, the residences currently under construction south of Alder Creek Parkway and east of East Bidwell Street would be exposed to even lower levels of construction-related vibration than the levels cited above. These new residential structures (approximately 900 feet from the project site and 1,000 feet from the hotel) would also have an applicable Caltrans damage criterion of 0.5 PPV in/sec. At 900 feet, the PPV vibration level from a vibratory roller would be 0.001 PPV in/sec. At 1,000 feet, the PPV vibration level from an impact pile driver would be approximately 0.003 PPV in/sec.

Because vibration from construction equipment proposed for use under the Master Plan would result in vibration levels below the applicable damage thresholds at nearby offsite uses, vibration damage impacts at offsite structures would be **less than significant.**

Impacts on Onsite Uses

Construction activities for later phases of the Master Plan would take place after structures from earlier Master Plan phases are complete. Therefore, the Phase 1 MOB could be exposed to vibration from Phase 2 and Phase 3 construction, and the Phase 2 ASC and hotel could be exposed to vibration from construction of Phase 3.

Regarding the distances between construction activities for later Master Plan phases and onsite Master Plan structures completed in earlier phases, structures from earlier phases would be at least 25 feet from future phase construction activities. In addition, pile driving for later phases would generally take place at least 100 feet from structures completed during early phases of Master Plan construction.

The Master Plan buildings would likely be most similar to the "modern industrial/commercial buildings" Caltrans vibration-related damage category. At a distance of 25 feet, the vibration levels from all non-pile-driving equipment (i.e., 0.003 to 0.21 PPV in/sec) would be below the applicable Caltrans damage threshold of 0.5 PPV in/sec. In addition, at a distance of 100 feet, the vibration level from pile driving activity (estimated to be 0.081 PPV in/sec, as shown in Table 3.11-24) would also be below the 0.5 PPV in/sec damage threshold. Therefore, vibration-related damage impacts on onsite structures would be **less than significant.**

Vibration-Related Annoyance

Impacts on Offsite Uses

The City of Folsom General Plan states that the guidelines developed by the FTA are appropriate for the assessment of vibration effects pertaining to human annoyance in the city. Specifically, Policy SN 6.1.8 of the General Plan states that the City will require construction projects anticipated to generate a significant amount of vibration to ensure acceptable interior vibration levels at nearby vibration-sensitive uses based on FTA criteria.

Table 3.11-25 shows typical VdB vibration levels associated with heavy-duty construction equipment at a reference distance of 25 feet, and other distances.

Table 3.11-25. VdB Vibration Source Levels for Typical Construction Equipment

Equipment	VdB at 25 Feet	VdB at 150 Feet	VdB at 350 Feet	VdB at 400 feet	VdB at 500 feet	PPV at 900 Feet	PPV at 1,000 Feet	PPV at 1,700 Feet
Pile driver (impact, typical)	104	81	70	68	65	57	56	49
Vibratory roller	94	71	60	58	55	47	46	39
Auger drill rig	87	64	53	51	48	40	39	32
Large bulldozer [a]	87	64	53	51	48	40	39	32
Loaded trucks	86	63	52	50	47	39	38	31
Jackhammer	79	56	45	43	40	32	31	24
Small bulldozer [b]	58	35	24	22	19	11	10	3

[a] Representative of an excavator or other similarly sized earth-moving equipment.

[b] Representative of a concrete mixer truck and concrete pump truck, front-end loader, small backhoe, or other similarly sized small earth-moving equipment.

The nearest existing or under-construction land uses to the project site are the Dignity Health Hospital buildings. Although the Dignity Health Campus would be approximately 150 feet from the Master Plan footprint (across East Bidwell Street), the nearest structure that would be considered sensitive to vibration is the hospital building 350 feet from the project site, and approximately 400 feet from the hotel. The Dignity Health central plant (slightly closer to the project site) would not be considered susceptible to vibration-related annoyance impacts.

The Dignity Health Hospital would be most similar to a Category 3 (institutional land use with primarily daytime uses) or Category 2 (residences or buildings where people normally sleep) land use, because inpatient and overnight care may occur at this facility. The applicable frequent event vibration threshold for Category 2 land uses is 72 VdB, and the applicable threshold for Category 3 land uses is 75 VdB.

The most vibration-intensive equipment proposed for use in the overall Master Plan footprint is a vibratory roller. Should a vibratory roller operate at the perimeter of the Master Plan footprint, it could be as close as 350 feet from the nearby Dignity Health main hospital building. At 350 feet, the estimated vibration level from a vibratory roller would be approximately 60 VdB. This vibration level is well below the applicable frequent event threshold for both Category 2 (72 VdB) and Category 3 (75 VdB) land uses.

Pile driving would take place slightly further from this offsite sensitive use. Specifically, pile driving for the hotel would take place approximately 400 feet or more from the Dignity Health main hospital bulling. As shown in Table 3.11-25, pile driving activity could result in a vibration level of up to 68 VdB at a distance of 400 feet. This vibration level is below the Category 2 and Category 3 FTA vibration criteria of 72 and 75 VdB, respectively. Therefore, during daytime hours, Master Plan construction would not result in vibration levels in excess of the applicable criteria at the nearby Dignity Health Hospital.

The nearby residential land uses currently under construction south of Alder Creek Parkway and east of East Bidwell Street are approximately 900 feet from the project site and at least 1,000 feet from the hotel, where pile driving may occur. At 900 feet, the vibration level from a vibratory roller would be approximately 47 VdB. This vibration level is well below the Category 2 vibration threshold defined by FTA for residences or places where people sleep. At 1,000 feet, the estimated vibration level from pile driving activity would be up to 64 VdB. This is also below the applicable threshold of 72 VdB for Category 2 uses. Therefore, vibration-related annoyance impacts on the nearest residences during daytime hours would be less than significant.

Most construction activities would be limited to daytime hours, when people are considered less sensitive to vibration. Concrete pour activities may occasionally be required during nighttime hours. Specifically, these activities could occur during early morning hours (5:00 a.m. to 7:00 a.m., Monday through Friday; 5:00 a.m. to 8:00 a.m., Saturday). However, these activities do not typically involve ground-disturbing equipment and associated groundborne vibration levels are generally low.

The most vibration-intensive equipment proposed for use during these early morning or nighttime hours would be a concrete mixer trucks and concrete pump trucks. This equipment would result in vibration levels similar to that of a small bulldozer. Should this equipment be used near the eastern project perimeter, it could be as close as 350 feet from the Dignity Health Hospital building. At a distance of 350 feet, a small bulldozer could generate a vibration level of up to 24 VdB, as shown in Table 3.11-25. This vibration level is well below the FTA Category 2 criterion of 72 VdB for places

where people sleep. Therefore, nighttime construction from the Master Plan would result in less-than-significant vibration-related annoyance impacts at nearby sensitive uses.

Because construction-related vibration levels at nearby sensitive uses are estimated to be below the applicable FTA criteria during both daytime and nighttime hours, vibration-related annoyance impacts would be **less than significant**.

Impacts on Onsite Uses

The only onsite sensitive receptor that would be occupied during Master Plan construction is the Phase 2 hotel land use. The project hotel would be approximately 500 feet or more from Phase 3 construction activities, and approximately 1,000 feet from the micro-hospital, where pile driving may occur. At 500 feet, the VdB vibration level from non-pile-driving activities would be up to 55 VdB (Table 3.11-25). At 1,000 feet, VdB vibration levels would be approximately 56 VdB (Table 3.11-25). These vibration levels are well below the applicable frequent event threshold for Category 2 land uses (72 VdB). Therefore, vibration-related annoyance impacts on onsite land uses would be **less than significant**.

Phase 1, Medical Office Building

Vibration-Related Damage

As described under the Master Plan, project construction would require heavy equipment that can result in groundborne vibration. Phase 1 construction activities would be further from offsite existing structures than Master Plan construction activities. For example, the nearest future Dignity Health building east of the project site (central plant) would be more than 1,400 feet from Phase 1 construction areas but could be as close as 250 feet from Master Plan construction areas. Commercial buildings north of the Phase 1 site and north of US 50 would be more than 500 feet from Phase 1 construction areas, but would be an estimated 400 feet from Master Plan construction areas. Therefore, because all Phase 1 construction activities would occur further from offsite structures than Master Plan construction activity, and because Master Plan construction was determined to result in less-than-significant vibration-related damage impacts on offsite structures, vibration-related damage impacts for Phase 1 would also be **less than significant.**

Vibration-Related Annoyance

Phase 1 construction activities would be further from offsite existing structures than Master Plan construction activities, resulting in lower vibration levels at nearby offsite sensitive uses. The future Dignity Health Hospital building east of the project site would be more than 1,700 feet from Phase 1 construction areas but could be as close as 350 feet from Master Plan construction areas. As shown in Table 3.11-25, the vibration level from an impact pile driver would be approximately 49 VdB at a distance of 1,700 feet; in addition, the vibration level from a vibratory roller would be approximately 39 VdB at this distance. These vibration levels are both well below the annoyance thresholds for Category 2 and Category 3 uses of 72 and 75 VdB, respectively.

Commercial buildings north of the Phase 1 site and north of US 50 would be more than 500 feet from Phase 1 construction areas. At a distance of 500 feet, the VdB vibration level from pile driving would be approximately 65 VdB. This is below the FTA vibration threshold for Category 3 land uses.

In addition, annoyance-related vibration impacts are typically considered more substantial if they take place during nighttime hours, when people typically sleep. Most construction activities for the

project would take place during daytime hours, with the exception of occasional concrete pour activities. Should concrete pouring be required outside of the standard daytime hours for construction defined in the City Municipal Code, they would generally be limited to the early morning hours of 5:00 a.m. to 7:00 a.m. weekdays and 5:00 a.m. to 8:00 a.m. Saturdays.

The most vibration-intensive equipment proposed for use during these early morning or nighttime hours would be a concrete mixer trucks and concrete pump trucks. This equipment generally results in vibration levels similar to that of a small bulldozer. At 1,700 feet (the distance to the Dignity Health buildings), the estimated vibration level from a small bulldozer would be 3 VdB. This vibration level would be well below all thresholds of perception. Therefore, nighttime construction activities for Phase 1 would not result in sleep disturbance at the nearest offsite Category 2 land uses during nighttime hours.

Because construction activities during daytime and nighttime hours would result in vibration levels below the applicable Category 2 and Category 3 FTA thresholds at offsite land uses, vibration-related annoyance impacts from Phase 1 would be **less than significant.**

Mitigation Measures

No mitigation measures are required.

Impact NOI-4: Placement of project-related activities in the vicinity of a private airstrip or an airport land use plan or within 2 miles of a public airport or public use airport, resulting in exposure of people residing or working in the project area to excessive noise levels (less than significant)

Summary of Impact NOI-4 by Component

Component	Level of Significance before Mitigation	Mitigation Measures Required	Level of Significance after Mitigation
Folsom Center for Health Master Plan	LTS	None	N/A
Phase 1, Medical Office Building	LTS	None	N/A

LTS = less than significant; N/A = not applicable

Folsom Center for Health Master Plan

The closest public airport to the project site is the Cameron Park Airport, which is approximately 7.4 miles northeast of the project site. Sacramento Mather Airport is approximately 10.2 miles southwest of the project site. The Folsom Ranch Dignity Health Hospital, currently under construction east of the project site, would include a helipad for occasional emergency helicopter operations. However, according to the environmental documentation for the Dignity Health project, only two helicopter arrivals and two helicopter departures per week would be expected. According to the Helicopter Noise Technical Report for the Folsom Ranch Medical Center, the 60 CNEL contour for this helipad would extend out about 200 feet from the center of the pad and would be contained within the Dignity Health Campus (Crawford Murphy & Tilly 2021). It would not extend west of the campus or include East Bidwell Street or the project site. According to the California Airport Noise Standards, an acceptable level of aircraft noise for persons living in the vicinity of airports is a 65 dB CNEL. Overnight patients at the micro-hospital and guests at the hotel affiliated with the project

would therefore not be exposed to CNEL noise levels in excess of the typical allowable levels for residences. Aircraft noise impacts for the Master Plan would be **less than significant.**

Phase 1, Medical Office Building

Because the Phase 1 site is within the Master Plan area and further from the Dignity Health emergency helipad than the overall project site, impacts for Phase 1 would be the same as those for the Master Plan. Aircraft noise impacts for Phase 1 would be **less than significant.**

Mitigation Measures

No mitigation measures are required.

3.12 Population and Housing

This section describes the regulatory and environmental setting for population and housing on the UC Davis Folsom Center for Health Master Plan (project) site and in the project vicinity, analyzes effects on population and housing that would result from the project, and provides mitigation measures, if applicable, to reduce the effects of any significant impacts.

Written comments received on the Notice of Preparation did not raise population and housing concerns.

3.12.1 Existing Conditions

Regulatory Setting

University of California

As noted in Section 3.0.2, *University of California Autonomy*, the University of California (UC), as a constitutionally created state entity, is not subject to municipal regulations of surrounding local governments for uses on property owned or controlled by the UC that are in furtherance of its educational purposes. UC Davis may consider, for coordination purposes, aspects of local plans and policies for the communities surrounding the campus when it is appropriate and feasible, but it is not bound by those plans and policies in its planning efforts.

Federal

There are no federal regulations related to population and housing that pertain to the project.

State

There are no state plans or policies addressing population and housing that pertain to the project.

Regional and Local

Sacramento Area Council of Governments

The Sacramento Area Council of Governments (SACOG) is an association of local governments in the Sacramento region that provides transportation planning and funding for the region to advance the goals of economic prosperity, connected communities, and vibrant places. SACOG is responsible for providing current population, employment, travel, and congestion projections for regional air quality planning efforts. SACOG is designated by the federal government as the Metropolitan Planning Organization for the Sacramento region, which requires SACOG to prepare the Metropolitan Transportation Plan/Sustainable Communities Strategy (MTP/SCS) for the Sacramento region, which provides a planning framework that links land use, air quality, and transportation needs to the goals of improving transportation availability and reducing greenhouse gas emissions.

City of Folsom General Plan

The *Folsom 2035 General Plan* was adopted in August 2018 and contains the following guiding principles related to population and housing (City of Folsom 2018).

Guiding Principle #1: Maintain a close-knit, neighborly, family-friendly city with a small-town feel.

Guiding Principle #11: Provide a range of housing choices for all generations.

Guiding Principle #18: Celebrate Folsom's cultural diversity.

The housing element of the General Plan was updated in 2021 and contains the following goals and policies related to population and housing (City of Folsom 2021).

Goal H-1: Adequate Land Supply for Housing. To provide an adequate supply of suitable sites for the development of a range of housing types to meet the housing needs of all segments of the population.

Policy H-1.1: The city shall ensure that sufficient land is designated and zoned in a range of residential densities to accommodate the city's regional share of housing.

Policy H-1.2: The city shall endeavor to designate future sites for higher density housing near transit stops, commercial services, and schools where appropriate and feasible.

Goal H-3: Facilitating Affordable Housing. To facilitate affordable housing opportunities to serve the needs of people who live and work in the community.

Policy H-3.1: The city shall encourage residential projects affordable to a mix of household incomes and disperse affordable housing projects throughout the city to achieve a balance of housing in all neighborhoods and communities.

Goal H-5: Housing for Special Needs Groups. To provide a range of housing services for Folsom residents with special needs, including seniors, persons with disabilities, single parents, large families, the homeless, and residents with extremely low incomes.

Goal H-6: Equal Opportunity and Fair Housing. To ensure equal housing opportunities for all Folsom residents regardless of race, color, religion, sex, sexual orientation, marital status, national origin, ancestry, familial status, disability, or source of income.

Policy H-6.1: The City shall promote housing opportunities for all persons regardless of race, color, ancestry, religion, national origin, sex, sexual orientation, age, disability/medical condition, familial status, marital status, source of income, or other barriers that prevent housing choice.

Policy H-6.3: The City shall encourage residential projects affordable to a mix of household incomes and disperse affordable housing projects throughout the city, including the Folsom Plan Area, to achieve a balance of housing in all neighborhoods and communities.

Goal H-7: Residential Energy Conservation and Sustainable Development. To reduce greenhouse gas emissions and promote energy conservation in residential development.

Policy H-7.2: The City shall encourage "smart growth" that accommodates higher density residential uses near transit, bicycle-, and pedestrian-friendly areas of the city that encourage and facilitate the conservation of resources by reducing the need for automobile use.

Environmental Setting

Study Area

The project site is approximately 25 miles northeast of Sacramento in the city of Folsom, in Sacramento County. The site is in the southern part of the city of Folsom, west of the city of El Dorado Hills (Figures 2-3 and 2-4). The project site is bounded by U.S. Route 50 (US 50) (i.e., El Dorado Freeway) to the north and East Bidwell Street to the east. The site is part of the

proposed Folsom Plan Area Specific Plan (FPASP), a 3,500-acre master plan, which will include a town center to the south and a mix of multifamily residential housing, schools, offices, hotels, and retail uses in adjacent parcels. The project site is an approximately 34.6-acre parcel, which has been graded as a part of development of the subdivision. The site is vacant, and there are no structures or trees existing on the site. The anticipated patient service area includes Folsom, El Dorado Hills, Rancho Cordova, Sacramento, and parts of Fair Oaks, Orangevale, Placerville, and other communities, with Folsom and El Dorado Hills serving as the target patient service area.

Population

Regional Population

In the 2020 MTP/SCS (Forecast Period 2016–2040), SACOG states that the six-county Sacramento metropolitan area—which consists of Sacramento, Yolo, Sutter, Yuba, El Dorado, and Placer Counties—had a population of 2,376,311 in 2016 and is expected to grow to 2,996,832 by 2040, an increase of approximately 26 percent (Sacramento Area Council of Governments 2019). In 2020, Sacramento County had an estimated population of approximately 1,558,537 as estimated by the California Department of Finance (CDOF) (California Department of Finance 2021). Table 3.12-1 shows the expected growth in population from 2020 to 2040. By 2040, Sacramento County is expected to grow by approximately 250,000 people, an increase of approximately 17 percent (California Department of Finance 2021).

Table 3.12-1. Sacramento County Existing and Projected Population

	Population		
	2020	2040	Growth 2020–2040
Sacramento County	1,558,537	1,808,307	249,770

Source: California Department of Finance 2021

City of Folsom Population

In 2021, the city of Folsom had an estimated population of approximately 82,303 residents as determined by the DOF (California Department of Finance 2021). Growth is expected to continue for the region and the city (Appendix A, *Folsom Center for Health Master Plan*). Based on a study completed by Claritas, the Folsom and El Dorado Hills market is anticipated to grow from a population of 164,153 to 172,540 by 2025, a 5 percent growth rate (Appendix A).

Table 3.12-2. City of Folsom Population

Year	City of Folsom Population
2011	72,506
2012	73,041
2013	72,567
2014	74,391
2015	75,340
2016	76,260
2017	77,050
2018	77,598

Year	City of Folsom Population
2019	78,666
2020	81,106
2021	82,303

Source: California Department of Finance 2021.

Housing

Regional Housing

Housing options throughout the Sacramento region are typical of a large metropolitan area with a wide variety of prices and attributes. The DOF estimated that in 2020, Sacramento County had 579,115 total housing units with a 5.4 percent vacancy rate (California Department of Finance 2019). Additionally, SACOG states in the 2020 MTP/SCS that the six-county Sacramento metropolitan area is estimated to have approximately 1,181,251 housing units by 2040 (Sacramento Area Council of Governments 2019).

DOF estimated that in 2020, Folsom had 28,775 total housing units with a 3.3 percent vacancy rate (California Department of Finance 2019). Single-family detached homes account for 70 percent of the city's total units, higher than the state average (City of Folsom 2014). The approved 3,500-acre Folsom Ranch community will add another 11,000 housing units in the future (Folsom Health Master Plan 2020).

3.12.2 Environmental Impacts

This section describes the environmental impacts associated with population and housing that would result from the Folsom Center for Health Master Plan. It describes the methods used to determine the effects of the project and lists the thresholds used to conclude whether an impact would be significant. Measures to mitigate (i.e., avoid, minimize, rectify, reduce, eliminate, or compensate for) any significant impacts are provided, if available.

Methods for Analysis

The effects of population growth are evaluated below by comparing the population growth that would be induced through the project to the existing regional population and planned population in Folsom.

Thresholds of Significance

In accordance with Appendix G of the California Environmental Quality Act Guidelines, the project would be considered to have a significant effect on population and housing if it would result in any of the conditions listed below.

- Induce substantial unplanned population growth in an area, either directly (e.g., by proposing new homes and businesses) or indirectly (e.g., through extension of roads or other infrastructure).
- Displacement of a substantial number of existing people or housing, necessitating the construction of replacement housing elsewhere.

Impacts and Mitigation Measures

Impact POP-1: Creation of substantial unplanned population growth either directly or indirectly (less than significant)

Summary of Impact POP-1 by Component

Component	Level of Significance before Mitigation	Mitigation Measures Required	Level of Significance after Mitigation
Folsom Center for Health Master Plan	LTS	None	N/A
Phase 1, Medical Office Building	LTS	None	N/A

LTS = less than significant; N/A = not applicable

Folsom Center for Health Master Plan

The Master Plan would not result in a direct increase in population because no housing is proposed as a part of the project.

A total of 524 new employees are anticipated to result from full buildout of the Master Plan, as shown in Table 2-1 in Chapter 2, *Project Description*.

The FPASP EIR/environmental impact statement (EIS) (City of Folsom 2011:3A.13-9) calculated that the FPASP would result in 13,210 new employees in commercial land uses. Using the same factors used in the FPASP EIR/EIS analysis, the project site land use designation under the Specific Plan (SP-RC-PD) would generate a maximum of approximately 960 employees. The 524 new employees anticipated to result from the buildout of the Master Plan is greatly below the estimate in the FPASP.

In addition, with the substantial amount of housing planned to be developed in Folsom, especially in the FPASP area within which the project is located, over the implementation of the Master Plan, sufficient housing should be available for these employees, even if all of the new employees were people who moved to Folsom from other areas for these jobs. Because, as described above, the employment associated with the Master Plan would not result in a demand for additional housing beyond that planned in the area, the new employees would be part of the population planned for in the Folsom General Plan. Therefore, the Master Plan would not result in the creation of substantial unplanned population growth. The impact would be **less than significant**.

Phase 1, Medical Office Building

For Phase 1 development, as with the entire Master Plan, implementation would not result in a direct increase in population because no housing is proposed as a part of the project.

A total of 116 new employees are anticipated to result from Phase 1 development, as shown on Table 2-1. With the substantial amount of housing planned to be developed in Folsom, especially in the FPASP area within which the project is located, over the implementation of the Master Plan, sufficient housing should be available for these employees, even if all of the new employees were people who moved to Folsom from other areas for these jobs. The approved 3,500-acre Folsom Ranch community will add another 11,000 housing units.

Because the employment associated with Phase 1 development would not result in a demand for additional housing beyond that planned in the area, the new employees would be part of the population planned for in the Folsom General Plan. Therefore, Phase 1 development would not result in the creation of substantial unplanned population growth. The impact would be **less than significant**.

Mitigation Measures

No mitigation measures are required.

Impact POP-2: Directly displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere (no impact)

Summary of Impact POP-2 by Component

Component	Level of Significance before Mitigation	Mitigation Measures Required	Level of Significance after Mitigation
Folsom Center for Health Master Plan	NI	None	N/A
Phase 1, Medical Office Building	NI	None	N/A

NI = no impact; N/A = not applicable

The project site is vacant. Development of the project would not result in any displacement of people or housing. There would be **no impact**.

Mitigation Measures

No mitigation measures are required.

3.13 Public Services

This section describes the regulatory and environmental setting for public services on the UC Davis Folsom Center for Health Master Plan (project) site and in the project vicinity, analyzes effects on public services that would result from the project, and provides mitigation measures, if applicable, to reduce the effects of any significant impacts. No comments related to public services were received during the scoping period.

3.13.1 Existing Conditions

Regulatory Setting

University of California

As noted in Section 3.0.2, *University of California Autonomy*, the University of California (UC), as a constitutionally created state entity, is not subject to local land use regulations whenever using property under its control in furtherance of its educational mission. UC Davis may consider, for coordination purposes, aspects of local plans and policies for the communities surrounding the site when it is appropriate and feasible, it is not bound by those plans and policies in its planning efforts. There are no UC regulations specifically related to public services that apply to the project.

Federal

There are no federal plans or policies addressing public services that pertain to the project.

State

Uniform Fire Code

The Uniform Fire Code with the State of California Amendments contains regulations relating to construction, maintenance, and use of buildings. Topics addressed in the California Fire Code (CFC) include fire department access, fire hydrants, automatic sprinkler systems, fire alarm systems, fire and explosion hazards safety, hazardous materials storage and use, provisions intended to protect and assist fire responders, industrial processes, and many other general and specialized fire-safety requirements for new and existing buildings and the surrounding premises. The CFC, Part 9 of Title 24 of the California Code of Regulations, contains specialized technical regulations related to fire and life safety. The CFC is revised and published every 3 years by the California Building Standards Commission.

California Health and Safety Code

State fire regulations are set forth in Section 13000 et seq. of the California Health and Safety Code. The code includes regulations for building standards (as also set forth in the California Building Standards Code [CBSC]), fire protection and notification systems, fire protection devices such as extinguishers and smoke alarms, high-rise building and childcare facility standards, and fire suppression training.

California Occupational Safety and Health Administration

In accordance with California Code of Regulations, Title 8, Section 1270, the California Occupational Safety and Health Administration has established minimum standards for fire suppression and emergency medical services. The standards include guidelines for the handling of highly combustible materials, fire hose sizing requirements, restrictions on the use of compressed air, access roads, and the testing, maintenance and use of all firefighting and emergency medical equipment.

California Code of Regulations

California Code of Regulations, Title 5, governs all aspects of education in the state.

California Building Code

The State of California provides minimum standards for building design through the CBSC, which is located in Part 2 of Title 24 of the California Code of Regulations. The CBSC 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 CBSC. Typical fire safety requirements of the CBSC 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.

Strategic Fire Plan for California

The Strategic Fire Plan for California is the state's "road map" for reducing the risk of wildfire. The Strategic Fire Plan reflects the California Department of Forestry and Fire Protection's focus on (1) fire prevention and suppression activities to protect lives, property, and ecosystem services, and (2) natural resource management to maintain the state's forests as a resilient carbon sink to meet California's climate change goals and to serve as important habitat for adaptation and mitigation (California Department of Forestry and Fire Protection 2018).

Regional and Local

City of Folsom General Plan

The following goals and policies of the City of Folsom 2035 General Plan are applicable to the project.

Public Facilities and Services Element

Goal PFS 6.1: Maintain a high level of police service as new development occurs to protect residents, visitors, and property.

PFS 6.1.1 Adequate Facilities. Strive to provide law enforcement facilities, equipment and vehicles, and services to adequately meet the needs of existing and future development.

PFS 6.1.7 Development Review. Continue to include the Police Department in the review of development proposals to ensure that projects adequately address crime and safety, and promote the implementation of Crime Prevention through Environmental Design principles.

Goal PFS 7.1: Prevent loss of life, injury, and property due to wildland and structural fires, while ensuring an adequate level of fire protection service is maintained for all.

PFS 7.1.1 Adequate Facilities and Services. Strive to provide fire department facilities, equipment and vehicles, and services to adequately meet the needs of existing and future development.

PFS 7.1.2 Fire Response Standards. Maintain adequate fire suppression response capabilities in all areas of the city consistent with the Fire Service Delivery Plan.

PFS 7.1.5 Fire Flow Requirements. Ensure that adequate water fire-flow capability is provided throughout the city that conforms to the fire flow requirements of the California Fire Code.

PFS 7.1.7 Built-In Fire Suppression. Minimize dependence on fire department staff and equipment and improve fire safety by requiring installation of built-in fire suppression equipment in all new buildings in accordance with the California Fire Code.

PFS 7.1.8 New Development. Require that new development provides all necessary water service, fire hydrants, and roads consistent with Fire Department standards.

PFS 7.1.9 Fire Access Design and Building Materials. Ensure that fire equipment access is integrated into the design of new developments, as well as the use of fire-resistant landscaping and building materials.

Parks and Recreation Element

Goal PR 1.1: Develop and maintain quality parks that support the diverse needs of the community.

PR 1.1.5 Bicycle and Pedestrian Plan Consistency. Require parks and recreation facilities be consistent with Folsom's Bikeway Master Plan and Pedestrian Master Plan and connect to the bikeway system whenever possible.

PR 1.1.7 Universal Access. Require new parks and open spaces be easily accessible to the public, including providing disabled access.

PR 1.1.8 Shade and Hydration. Ensure water fountains, trees, pavilions, arbors, and canopies are provided in Folsom's parks and playgrounds, as well as along bike paths, trails, and other active transportation corridors, where appropriate and feasible, to provide important safeguards on hot days.

Environmental Setting

Fire Protection and Emergency Services

The City of Folsom Fire Department (FFD) provides primary fire response and prevention, natural disaster response, hazardous materials incident response, and emergency medical service to the project site. The nearest fire station, Station 37, is approximately 1.1 miles north of the project site at 70 Clarksville Road. FFD has an annual operating budget of $21.1 million and is staffed by 69 fire-suppression, 3 fire prevention, and 5 administration personnel. Its five fire stations include four fire engines, one fire truck, three ambulances, one command vehicle, two rescue boats, and one air unit. Additionally, all fire stations have cross-staffed fire engines capable of mitigating vegetation fires. In calendar year 2019, FFD responded to 9,443 emergency incidents and transported 5,375 patients to local hospitals (City of Folsom Fire Department 2020).

On January 23, 2007, the City of Folsom City Council adopted Resolution 7979, which established an FFD response time standard for emergency incidents (6 minutes for emergency medical services [EMS] incidents and 7 minutes for fire incidents). These standards closely mirror the national

standard set by the National Fire Protection Association. In 2019, FFD's EMS response time was 6 minutes, 35 seconds and 6 minutes, 33 seconds for fires (City of Folsom Fire Department 2020).

Police Protection

University of California, Davis

The UC Davis Police Department (UCDPD) provides police services for all buildings and facilities either owned or leased by UC Davis Health. They handle a wide variety of duties including responding to emergencies, investigating crimes and filing reports, checking out suspicious persons and vehicles, conducting traffic accident investigations, and enforcing all traffic laws. The Folsom Center for Health location is too distant from the Sacramento resources to be provided direct support by the UCDPD. However, the UCDPD has mutual aid agreements with other law enforcement agencies in Sacramento County, including the City of Sacramento, and will work to develop a memorandum of understanding with the City of Folsom for emergency response situations (City of Folsom 2020).

City of Folsom

The City of Folsom Police Department (FPD) provides primary police protection services to Folsom. FPD is headquartered at 46 Natoma Street, approximately 3.6 miles northwest of the project site. FPD is a full service agency with Operations, Administration, and Investigations Divisions. The Patrol Bureau of the Operations Division consists of patrol, traffic, canines, bicycles, SWAT, and school resource officers. The Investigations Bureau investigates persons, property, juvenile services and narcotics. FPD employs approximately 79 sworn officers in 5 beats, and 30 civilian personnel (City of Folsom Police Department 2021). The police are augmented by a reserve officer program, an explorer scout program, and Citizen's Assisting Public Safety. FPD handled 44,742 calls for service in 2019 (City of Folsom Police Department 2019). These calls for service involved criminal investigations, traffic collisions and suspicious circumstances, domestic violence cases, driving under the influence of alcohol, alarms at residential and commercial buildings, and medical aid calls.

One important measurement of service delivery is response time to emergency calls for service. The Police Department Service Delivery Plan calls for emergency call response within 5 minutes or less for Priority One calls. A Priority One call is a violent crime against a person or an emergency requiring an immediate response to save a life.

The City of Folsom has development impact and permit fees applicable to the project site. They can be found on the city's website at https://www.folsom.ca.us/Home/ShowDocument?id=472 (City of Folsom 2020). Police is included in the FPASP Fees table at $0.59 per square foot. The University would pay all development fees associated with the FPASP including police.

California Highway Patrol

The California Highway Patrol (CHP) is responsible for providing patrols on all interstate freeways and highways in California. CHP has numerous offices throughout California and can be contacted directly to report accidents, hazards, and other traffic related inquiries. The project site is located within the Valley Division, which oversees Interstate 80, Interstate 5, U.S. Route 50 (US 50), and State Route 99. The Valley Division oversees a total of 20 commands, one commercial vehicle enforcement facility, and three communications centers that encompass ten different counties within California (California Highway Patrol 2021).

Schools

The project site is located in the Folsom Cordova Unified School District (FCUSD). Located in eastern Sacramento County, the district covers 95 square miles. The FCUSD boundaries encompass the cities of Folsom and Rancho Cordova. FCUSD currently operates 22 elementary schools, 4 middle schools, 3 high schools, 6 alternative schools, and 1 charter school (Folsom Cordova Unified School District 2021). FCUSD's total number of students was approximately 21,621 for the 2019–2020 school year (Education Data Partnership 2020). Future FCUSD schools include Mangini Ranch Elementary in Folsom Ranch, Middle School #1 in Folsom Ranch, Morrison Creek Middle School in Rio Del Oro, High School #1 in Folsom Ranch, and Mather High in Rio Del Oro (Folsom Cordova Unified School District 2021).

Library Services

The Sacramento Public Library has 28 branches throughout Sacramento County. The Sacramento Public Library offers physical books, e-books, audiobooks, resources for parents and children to increase literacy, music labs and music events, and general community gathering spaces. The closest library branch location to the project site is the Folsom Public Library, approximately 3.7 miles northwest of the project site. The El Dorado Hills Branch library in El Dorado County is approximately 3.6 miles to the northeast.

3.13.2 Environmental Impacts

This section describes the environmental impacts associated with public services that would result from the UC Davis Folsom Center for Health Master Plan. It describes the methods used to determine the effects of the project and lists the thresholds used to conclude whether an impact would be significant. Measures to mitigate (i.e., avoid, minimize, rectify, reduce, eliminate, or compensate for) any significant impacts are provided, if available.

Methods for Analysis

This analysis evaluates the potential for adverse physical impacts to occur as a result of the provision of new or altered public service facilities under the project, including facilities or facility expansions needed to accommodate increases in demand for services and service personnel, or to enable service providers to maintain level of service standards. Increased demand for public services that would result from the project is determined by considering projected employee growth resulting from the project with existing public services identified for each service to determine whether there would be a need to increase public services including expansion of facilities. Parks are analyzed in Section 3.14, *Recreation*, of this EIR.

Thresholds of Significance

In accordance with Appendix G of the California Environmental Quality Act Guidelines, the project would be considered to have a significant effect if it would result in any of the conditions listed below.

Substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities or creation of a need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain

acceptable service ratios, response times, or other performance objectives for any of the following public services:

- Fire protection
- Police protection
- Schools
- Parks
- Other public facilities

Impacts and Mitigation Measures

Impact PS-1: Creation of a need for new or physically altered governmental facilities to maintain acceptable service ratios, response times, or other performance objectives for fire protection facilities (less than significant)

Summary of Impact PS-1 by Component

Component	Level of Significance before Mitigation	Mitigation Measures Required	Level of Significance after Mitigation
Folsom Center for Health Master Plan	LTS	None	N/A
Phase 1, Medical Office Building	LTS	None	N/A

LTS = less than significant; N/A = not applicable

Folsom Center for Health Master Plan

The project site was envisioned for development of Regional Commercial uses in the FPASP and included in the FPASP EIR/environmental impact statement (EIS). Development associated with the Master Plan would not result in a demand for additional fire protection services beyond that already planned in the area. Therefore, the Master Plan would not result in the need for new or physically altered governmental facilities to maintain acceptable service ratios, response times, or other performance objectives for fire protection facilities. The impact would be **less than significant**.

Phase 1, Medical Office Building

The project would not increase the service area of the FFD because the new building would be located within the existing FFD service area. Furthermore, the MOB would be designed, plan-checked, and built to be consistent with all applicable codes, including the CBSC, which include fire prevention and suppression measures to reduce the risk of fire.

Phase 1 development, as with the entire Master Plan, would not result in a direct increase in population, which could affect fire protection services because project site was envisioned for development of Regional Commercial uses in the FPASP and included in the FPASP EIR/EIS. The project is not anticipated to increase the demand for additional fire protection facilities nor increase emergency response times or other performance objectives. Therefore, Phase 1 development would not result in the need for new or physically altered governmental facilities to maintain acceptable service ratios, response times, or other performance objectives for fire protection facilities. The impact would be **less than significant**.

Mitigation Measures

No mitigation measures are required.

Impact PS-2: Creation of a need for new or physically altered governmental facilities to maintain acceptable service ratios, response times, or other performance objectives for police protection facilities (less than significant)

Summary of Impact PS-2 by Component

Component	Level of Significance before Mitigation	Mitigation Measures Required	Level of Significance after Mitigation
Folsom Center for Health Master Plan	LTS	None	N/A
Phase 1, Medical Office Building	LTS	None	N/A

LTS = less than significant; N/A = not applicable

Folsom Center for Health Master Plan

The Master Plan would not result in a direct increase in population, which could affect police protection services because no housing is proposed as a part of the project. A total of 524 new employees are anticipated to result from full implementation of the Master Plan, as shown on Table 2-1. With the substantial amount of housing planned to be developed in Folsom, especially in the FPASP area within which the project is located, over the implementation period of the Master Plan, sufficient police protection services should be available for these employees, even if all of the new employees were people who moved to Folsom from other areas for these jobs. Because the employment associated with the Master Plan would not result in a demand for additional police protection services beyond that already planned in the area, the new employees would be part of the population planned for in the Folsom General Plan and FPASP. Therefore, the Master Plan would not result in the need for new or physically altered governmental facilities to maintain acceptable service ratios, response times, or other performance objectives for police protection facilities. The impact would be **less than significant**.

Phase 1, Medical Office Building

Phase 1 development, as with the entire Master Plan, would not result in a direct increase in population, which could affect police protection services because no housing is proposed as a part of the project. A total of 116 new employees are anticipated to result from Phase 1 development, as shown on Table 2-1. With the substantial amount of housing planned to be developed in Folsom, especially in the FPASP area within which the project is located, over the implementation of the Master Plan, sufficient police protection services should be available for these employees, even if all of the new employees were people who moved to Folsom from other areas for these jobs. Housing associated with FPASP development is under construction near the project site at this time.

Because the employment associated with Phase 1 development would not result in a demand for additional housing beyond that planned in the area, which could affect police protection services, the new employees would be part of the population planned for in the Folsom General Plan and FPASP. The project is not anticipated to result in an increase in demand for additional police protection facilities or to increase emergency response times or other performance objectives. Therefore, Phase 1 development would not result in the need for new or physically altered

governmental facilities to maintain acceptable service ratios, response times, or other performance objectives for police protection facilities. The impact would be **less than significant**.

Mitigation Measures

No mitigation measures are required.

Impact PS-3: Creation of a need for new or physically altered governmental facilities to maintain acceptable service ratios, response times, or other performance objectives for school facilities (less than significant)

Summary of Impact PS-3 by Component

Component	Level of Significance before Mitigation	Mitigation Measures Required	Level of Significance after Mitigation
Folsom Center for Health Master Plan	LTS	None	N/A
Phase 1, Medical Office Building	LTS	None	N/A

LTS = less than significant; N/A = not applicable

Folsom Center for Health Master Plan and Phase 1, Medical Office Building

The project would result in an additional 116 part-time and full-time employees. These new employees could already reside throughout the Sacramento metropolitan region, and some of the new employees could relocate to the area, including in the neighborhoods near the project site. The population affiliated with the 116 new jobs at the MOB would reside throughout the Sacramento metropolitan region in areas already served by schools.

Consequently, the project would not result in a substantial increase in enrollment in any one school district. Because the project would result in 116 new employees who would reside in various locations throughout the Sacramento metropolitan region, the project would not result in a substantial increase in enrollment in any one school district and no new facilities would be needed. Therefore, this impact would be **less than significant**.

Mitigation Measures

No mitigation measures are necessary.

Impact PS-4: Creation of a need for new or physically altered governmental facilities to maintain acceptable service ratios, response times, or other performance objectives for other public facilities (less than significant)

Summary of Impact PS-4 by Component

Component	Level of Significance before Mitigation	Mitigation Measures Required	Level of Significance after Mitigation
Folsom Center for Health Master Plan	LTS	None	N/A
Phase 1, Medical Office Building	LTS	None	N/A

NI = no impact; LTS = less than significant; N/A = not applicable

Folsom Center for Health Master Plan and Phase 1, Medical Office Building

The Folsom Public Library's 24,000 sq. ft. building was constructed in 2007 and contains 27 public access computers and a collection of over 97,000 items. While the Folsom Public Library does not have a numeric standard ratio for library facilities to population, it does have the objective to provide adequate library services to meet public demand. The project would result in 116 new employees who would likely reside throughout the Sacramento metropolitan region, which is served by existing public libraries. Because the project would not substantially affect population levels in the Folsom area, substantial increased demand for library services in Folsom is not anticipated to the extent that new library facilities would be necessary, and this impact would be **less than significant**.

Mitigation Measures

No mitigation measures are necessary.

3.14 Recreation

This section describes the regulatory and environmental setting for recreation on the UC Davis Folsom Center for Health Master Plan (project) site and in the project vicinity, analyzes effects on recreation that would result from the project, and provides mitigation measures, if applicable, to reduce the effects of any significant impacts.

No comments related to recreation were received during the scoping period.

3.14.1 Existing Conditions

Regulatory Setting

As noted in Section 3.0.2, *University of California Autonomy*, as a constitutionally created state entity, the University of California (UC) is not subject to municipal regulations of surrounding local governments for uses on property owned or controlled by UC that are in furtherance of its educational purposes. UC Davis may consider, for coordination purposes, aspects of local plans and policies for the communities surrounding the campus when it is appropriate and feasible, but it is not bound by those plans and policies in its planning efforts. There are no UC regulations specifically related to recreation that apply to the project.

Federal

There are no federal plans or policies addressing recreation that pertain to the project.

State

Quimby Act

The Quimby Act (California Government Code Section 66477) preserves open space and parkland in urbanizing areas of the state by authorizing local governments to establish ordinances requiring developers of new subdivisions to dedicate land for parks, pay an in-lieu fee, or perform a combination of the two. The Quimby Act provides two standards for the dedication of land for use as parkland. If the existing amount of parkland in a community is 3 acres or more per 1,000 persons, then the community may require dedication based on a standard of 5 acres per 1,000 persons residing in the subdivision. If the existing amount of parkland is less than 3 acres per 1,000 persons, then the community may require dedication based on a standard of only 3 acres per 1,000 persons residing in the subdivision. The Quimby Act requires a city or county to adopt standards for recreational facilities in its general plan's recreation element if it is to adopt a parkland dedication/fee ordinance.

The amount of land dedicated, or fees paid, is based upon the residential density, which is determined based on the approved or conditionally approved tentative map or parcel map and the average number of persons per household. UC Davis is not subject to Quimby Act requirements because it is not a local government entity. Accordingly, the Quimby Act standards are used as a guide and not a requirement in the analysis.

Regional and Local

City of Folsom General Plan

The Folsom General Plan 2035 was adopted in August 2018, amended in August 2021, and contains the following goals and policies in the Parks and Recreation element that are relevant to recreation.

Goal PR 1.1: Develop and maintain quality parks that support the diverse needs of the community.

Policy PR 1.1.2, Complete System: Develop and maintain a robust system of parks, recreation, facilities, and open space areas throughout Folsom that provide opportunities for both passive and active recreation.

Policy PR 1.1.3, Park Design: Develop well-design parks that enrich and delight park users through innovative and context appropriate design.

Policy 1.1.4, Park Acreage Service Level Goal: Strive to develop and maintain a minimum of five acres of neighborhood and community parks and other recreational facilities/sites per 1,000 population.

Goal PR 2.1: Develop, maintain, and implement quality recreation activities that meet the diverse needs of the community (City of Folsom 2021).

City of Folsom Parks and Recreation Master Plan

The City of Folsom's (City) Parks and Recreation Master Plan was adopted in 1996. The plan provides guidance for the provision of parks, recreation, and related community services and identifies goals for city decision makers. The plan was most recently updated in 2015 through th*e Parks and Recreation Master Plan 2015 Update*, which identified community-wide park and recreation needs, as well as incorporated the Folsom Plan Area for the parks and park development programming in the Folsom Plan Area south of U.S. Route 50 (US 50) (City of Folsom 2015).

Folsom Municipal Code, Title 4, Chapter 4.10

Under Folsom Municipal Code, Title 4, Parks and Recreation, Chapter 4.10, *Park Improvement Fee*, the City established a parkland acquisition fee and a park construction fee applicable to qualifying development projects in furtherance of providing sufficient funding to achieve the City's goal of maintaining park service levels and providing adequate parks and recreational services and facilities to residents of the city. Per Section 4.10.020, the purpose of the park improvement fee is to mitigate the impact of development projects by collecting sufficient funds to acquire property in the city and provide 5 acres of parkland per 1,000 population in the city. The park fee applicable to the project is $0.25 per square foot of commercial or industrial building area.

Environmental Setting

The approximately 34.6-acre project site is located 25 miles northeast of Sacramento in the southern part of the city of Folsom, west of the city of El Dorado Hills. The project site is bounded by US 50 (i.e., El Dorado Freeway) to the north, East Bidwell Street to the east, and undeveloped land to the south and west. The project site is vacant, and there are no existing recreational resources onsite. This section provides a discussion of the existing conditions related to parks and recreation in the vicinity of the project site, inclusive of Phase 1.

The City of Folsom Parks and Recreation Department manages more than 48 developed parks, and over 50 miles of paved recreational trails, which includes approximately 340 developed acres of

parkland, 500 acres of open space, 35 miles of Class I bicycle trails, a sports complex, a three-pool aquatic center, community center, community clubhouse, bicycle track and skate park, cross-country course, and zoo sanctuary (City of Folsom 2015, 2021). The City established goals in the *Parks and Recreation Master Plan 2015 Update* for providing open space and park facilities within the city based on population levels (City of Folsom 2015). A summary of the City's standards and projections of parkland and open space is shown in Table 3.14-1. Based on a combined total of 840 acres of parkland and open space, and a current population of 81,328 people (U.S. Census Bureau 2021), the City currently provides a ratio of 10.3 acres of parkland and open space per 1,000 people.[1]

Table 3.14-1. City of Folsom Buildout Parkland and Open Space Projection

	Current Population[a]	Current Acreage[b]	Acreage/1,000 People	Build-out Population	Build-out Acreage[c]	Acreage/1,000 People
Parkland	66,605	364.3	5.47	94,400	586.6	6.21
Open Space	66,605	499.3	7.50	94,400	1,659.6	17.58

Source: City of Folsom 2015

[a] The current population represents the total population of the city of Folsom at the time the master plan update was published.

[b] Includes all parkland, open space, and bike trails within the Parks and Recreation Department's jurisdiction.

[c] Includes estimated future parks and open space that the Parks and Recreation Department would provide upon buildout.

The Parks and Recreation Master Plan has not been updated since 2015. However, in recent years, the Parks and Recreation Department has undertaken planning efforts to identify locations for additional parks throughout the city. Two of these future parks, Benevento Family Park and Neighborhood Park #3, would be close to the project site. Neighborhood Park #3 is still undergoing planning and design efforts, but would be located next to Mangini Ranch Elementary School (approximately 1.2 miles from the project), and would likely include a play structure, tennis courts, basketball courts, baseball/softball field, sand volleyball courts, and grass areas (City of Folsom 2021). The approximately 19-acre Benevento Family Park would be located at the intersection of Broadstone Parkway and Carpenter Hill Road (approximately 1.25 miles from the project) and would include amenities such as play areas, basketball courts, picnic areas, sports fields, and walking paths. Other regional municipalities conduct similar planning efforts for new facilities and are expected to construct new park facilities as the regional population increases.

In addition, the FPASP, within which the project site is located, has planned more than 130 acres of public parks, including multiple smaller neighborhood or local parks and two larger community parks. Several of these parks would be located within close proximity to the project site. Further, over 1,000-acres of the Plan Area is designated as permanently protected open space, and will include approximately 30 miles of bike paths, trails, and picnic areas for people to enjoy (City of Folsom 2022).

The nearest parks to the project site are shown in Table 3.14-2.

[1] 840 acres of parkland and open space/ (81,328 people/1,000) = 10.3 acres of parkland and open space.

Table 3.14-2. Parks near the Project Area

Facility	Location	Distance from Project Site	Amenities
John Kemp Community Park	1322 Bundrick Drive	0.9 mile	Barbeque, baseball field, concession stand, lacrosse field, open play area, pavilion, picnic tables, play structure, restrooms, soccer field, softball field, volleyball courts, and a water feature
Handy Family Park	1560 Cavitt Drive	0.6 mile	Barbeque, baseball field, pavilion, picnic tables, play structure, restrooms, and a soccer field
Andy Morin Sports Complex	66 Clarksville Road	0.9 mile	Batting cages, pitching mound/hitting tunnel, indoor and outdoor basketball courts, indoor and outdoor soccer fields, indoor pickleball courts, and indoor volleyball courts
Pond and Picnic area	Located between buildings at 2295 and 2365 Iron Point Road	0.3 mile	Picnic tables, benches, and large pond

3.14.2 Environmental Impacts

This section describes the environmental impacts associated with recreation that would result from the Folsom Center for Health Master Plan. It describes the methods used to determine the effects of the project and lists the thresholds used to conclude whether an impact would be significant. Measures to mitigate (i.e., avoid, minimize, rectify, reduce, eliminate, or compensate for) any significant impacts are provided, if available.

Methods for Analysis

The following analysis assesses the environmental effects of the project with respect to the existing or currently planned recreation uses and facilities in the project vicinity and in Folsom. This analysis is based on review of existing documents, policies, ordinances, and other regulations pertinent to recreation.

Thresholds of Significance

In accordance with Appendix G of the California Environmental Quality Act Guidelines, the project would be considered to have a significant effect if it would result in any of the conditions listed below.

- Increased use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated.
- Construction or expansion of recreational facilities that might have an adverse physical effect on the environment.

Impacts and Mitigation Measures

Impact REC-1: Substantially increase the use of existing recreational facilities or result in substantial physical deterioration (less than significant)

Summary of Impact REC-1 by Component

Component	Level of Significance before Mitigation	Mitigation Measures Required	Level of Significance after Mitigation
Folsom Center for Health Master Plan	LTS	None	N/A
Phase 1, Medical Office Building	LTS	None	N/A

LTS = less than significant; N/A = not applicable

Folsom Center for Health Master Plan

Construction

Construction of the project would create construction jobs on the project site. The number of construction workers onsite would vary according to the stage of construction. Site workers may utilize nearby parks and open spaces during breaks. The nearest recreational facilities to the project site that construction workers would most likely use include: the pond and picnic area immediately north of US 50, and the Handy Family Park, which is accessible from East Bidwell Street. However, use of these facilities and other nearby parks would most likely be modest given the number of workers associated with the project and the typical durations of lunch and rest breaks. Therefore, although construction of the project could incrementally increase demand for park services for the duration of construction, project construction would not result in substantial physical deterioration of park facilities. The impact would be **less than significant**.

Operation

The project does not include any residential uses and as such, would not increase the number of permanent residents in the area. The project's generation of up to approximately 524 new employees and 938 patients and/or visitors could increase the use of the existing neighborhood parks and other recreational facilities described in Table 3.14-2**.** However, employees and visitors on the project site may choose to visit the new facilities that would be provided within the project site, which include, but are not limited to, the green space at the main entry (community arrival), the central green, and the promenade. This could reduce the rate of deterioration of existing parks and recreational facilities near the project site. Furthermore, the increased population associated the project would not substantially increase the use of park or recreational facilities in any one community because the population would likely reside in various communities across the city of Folsom, and the larger Sacramento area, and therefore, would not affect any one park facility.

Although the number of park users is expected to increase as a result of the project, such an increase in and of itself would not cause substantial physical deterioration of existing facilities or a need for new facilities to be constructed. Given the variety of existing nearby open space and recreational facilities, planned future parkland, and the project's incorporation of onsite open space features, the increased usage of any one park by new employees or visitors at the project site would not be substantial. Therefore, the impacts related to the use of existing parks and recreational facilities would be **less than significant**.

Phase 1, Medical Office Building

Because Phase 1 is a component of the overall project, for the reasons stated above in the project analysis, construction and operation of Phase 1 would not result in substantial physical deterioration of park facilities. The impact would be **less than significant**.

Mitigation Measures

No mitigation measures are required.

Impact REC-2: Construction or expansion of recreational facilities that might have an adverse physical effect on the environment (less than significant)

Summary of Impact REC-2 by Component

Component	Level of Significance before Mitigation	Mitigation Measures Required	Level of Significance after Mitigation
Folsom Center for Health Master Plan	LTS	None	N/A
Phase 1, Medical Office Building	LTS	None	N/A

LTS = less than significant; N/A = not applicable

Folsom Center for Health Master Plan

The project would create new landscape and open space features which would consist of a continuous network of new and enhanced sidewalks and pathways, open space landscaped areas with native plants, and outdoor meeting and gathering spaces. The project would feature a green space at the main entry (community arrival), which would include an urban orchard that produces food, or a grove of native or adapted ornamental trees, a formal lawn for larger events, and functional stormwater features that would offer public recreational and educational opportunities. Gatherings such as farmers markets, or small fairs or concerts, could occur at this location. Another recreational feature would be the central green, which would provide areas for visitors and employees to enjoy food. The central green would also include a water feature and gatherings such as weekly farmers markets or small fairs or concerts. Further, the project would include the promenade, which would be a landscaped walkway from the east side of the project site, where the hotel would be located, to the oval, another landscaped space near the micro-hospital and the ambulatory surgery center (ASC). Additional details pertaining to the project's open space areas are described in Section 2.3.1, *Project Elements*, of this EIR. These open space elements are evaluated as part of the project's construction throughout this EIR (e.g., Section 3.2, *Air Quality*, Section 3.9, *Hydrology and Water Quality*, and Section 3.11, *Noise*). Overall, the project would improve an existing, undeveloped area with limited access for walking and other outdoor activities with features that would enhance and expand open space opportunities.

Any potential adverse effects from the incorporation of these open space features as part of the project would result from the construction of the open space, such as noise or air quality impacts (e.g., site preparation, emissions of dust and other pollutants). These potential impacts are addressed throughout Chapter 3, *Existing Environmental Setting, Impacts, and Mitigation*, of this EIR as part of the analysis of construction impacts for the project as a whole, with mitigation measures provided as necessary. Overall, no significant physical effect on the environment associated with construction of these open space area is anticipated beyond any impacts already disclosed

elsewhere in this EIR, and no long-term effects from physical operation of these facilities are anticipated. Therefore, construction of these recreational facilities in connection with the project would have a **less-than-significant** impact on the environment.

Phase 1, Medical Office Building

Phase 1 would include open space and landscaped areas as described in Section 2.4, *Phase 1 Development*, of this EIR. Like the project, Phase 1 would be developed in an undeveloped area with limited access to recreational opportunities. The open space and landscaping elements included in Phase 1 are evaluated as part of the project's construction throughout this EIR. Potential adverse effects from construction of these spaces, such as noise or air quality impacts (e.g., site preparation, emissions of dust and other pollutants) are addressed throughout Chapter 3 of this EIR (e.g., Sections 3.2, 3.9, and 3.11). Therefore, the expansion of recreational facilities resulting from Phase 1 would have a **less-than-significant** impact on the environment.

Mitigation Measures

No mitigation measures are required.

3.15 Transportation and Circulation

This section describes the regulatory and environmental setting for evaluating the UC Davis Folsom Center for Health Master Plan's (project) transportation effects, followed by an analysis of those effects to determine their significance and potential mitigation measures. For any significant impacts, feasible mitigation measures are proposed to reduce impact significance.

In response to the Notice of Preparation for this EIR, two transportation-related comments were submitted. The California Highway Patrol responded that the project would likely place a greater strain on limited public safety resources with the expected increase in vehicular traffic on U.S. Route 50 (US 50), and the surrounding roadways in unincorporated Sacramento County and the city of Folsom. Civic Thread also responded recommending Class II bike lanes, sidewalk connections, bicycle parking, and healthy food options onsite. To the extent that these comments are relevant to transportation impacts of the project, they are addressed in the impact analysis section.

3.15.1 Existing Conditions

Regulatory Setting

This section summarizes key University of California (UC), federal, state, and regional and local regulations, laws, and policies relevant to evaluating the project's potential impacts on transportation and circulation in the vicinity.

University of California

As noted in Section 3.0.2, *University of California Autonomy*, UC, as a constitutionally created state entity, is not subject to local land use regulations whenever using property under its control in furtherance of its educational mission. UC Davis may consider, for coordination purposes, aspects of local plans and policies for the communities surrounding the site when it is appropriate and feasible, but it is not bound by those plans and policies in its planning efforts. There are no UC regulations specifically related to transportation that apply to the project.

The University of California Policy on Sustainable Practices

UC established the UC Sustainable Practices Policy (University of California 2020) effective July 24, 2020 that applies to all campuses and contains the following goal related to reducing vehicle travel.

- The University recognizes that single-occupant vehicle (SOV) commuting is a primary contributor to commute GHG emissions and localized transportation impacts.
    - By 2025, each location shall strive to reduce its percentage of employees and students commuting by SOV by 10 percent relative to its 2015 SOV commute rates.
    - By 2050, each location shall strive to have no more than 40 percent of its employees and no more than 30 percent of all employees and students commuting to the location by SOV.

Federal

No federal plans, policies, regulations, or laws related to transportation and circulation apply to the analysis of project transportation impacts.

State

The State of California has enacted several pieces of legislation that outline the state's commitment to encourage land use and transportation planning decisions and investments that reduce vehicle miles traveled (VMT) and contribute to reductions in greenhouse gas (GHG) emissions in line with state climate goals. This legislation includes:

- Assembly Bill (AB) 32 (2006)
- Senate Bill (SB) 375 (2008)
- SB 743 (2013)

Assembly Bill 32

AB 32 establishes regulatory, reporting, and market mechanisms to achieve quantifiable reductions in GHG emissions and a cap on statewide GHG emissions. AB 32 requires that statewide GHG emissions be reduced to 1990 levels by 2020. AB 32 also requires that "(a) the statewide GHG emissions limit shall remain in effect unless otherwise amended or repealed; (b) it is the intent of the Legislature that the statewide GHG emissions limit continues in existence and be used to maintain and continue reductions in emissions of GHGs beyond 2020; (c) the CARB shall make recommendations to the Governor and the Legislature on how to continue reductions of GHG emissions beyond 2020."

While AB 32 does not contain specific expectations related to individual land use projects, it does set statewide expectations for GHG reduction that have influenced VMT reduction expectations from land development projects as part of SB 375 and SB 743.

Senate Bill 375

SB 375 requires metropolitan planning organizations (MPO) to prepare a sustainable communities strategy (SCS) as part of their regional transportation plans (RTP). The SCS demonstrates how the region could meet its GHG reduction targets through integrated land use, housing, and transportation planning. Specifically, the SCS must identify land use and transportation strategies that combined with the RTP project list will reduce GHG emissions from automobiles and light trucks in accordance with targets set by the California Air Resources Board (CARB).

Senate Bill 743

SB 743 creates or encourages several statewide changes to the evaluation of transportation and traffic impacts under the California Environmental Quality Act (CEQA). First, it directs the Governor's Office of Planning and Research (OPR) to amend the CEQA Guidelines to establish new metrics for determining the significance of transportation impacts of projects within transit priority areas (TPA) and allows OPR to extend use of the new metrics beyond TPAs. In the amended CEQA Guidelines, OPR selected automobile VMT as the preferred transportation impact metric and applied their discretion to recommend its use statewide. The California Natural Resources Agency certified and adopted the amended CEQA Guidelines in December 2018. The amended CEQA Guidelines state that "generally, VMT is the most appropriate measure of transportation impacts" and the provisions requiring the use of VMT apply statewide as of July 1, 2020. The amended CEQA Guidelines further state that land use "projects within 0.5 mile of either an existing major transit stop or a stop along an existing high quality transit corridor should be presumed to cause a less-than-significant transportation impact."

SB 743 establishes that aesthetic and parking impacts of residential, mixed-use residential, or employment center projects on an infill site within a TPA are not considered significant impacts on the environment. SB 743 added Section 21099 to the California Public Resources Code, which states that automobile delay, as described by level of service or similar measures of vehicular capacity or traffic congestion, is not considered a significant impact on the environment upon certification of the CEQA Guidelines by the California Natural Resources Agency. Since the amended CEQA Guidelines were certified in December 2018, level of service or similar measures of vehicular capacity or traffic congestion are not considered a significant impact on the environment.

Lastly, SB 743 establishes a new CEQA exemption for a residential, mixed-use, and employment center project: (a) within a TPA, (b) consistent with a specific plan for which an environmental impact report has been certified, and (c) consistent with an SCS. This exemption requires further review if the project or circumstances changes significantly.

Technical Advisory on Evaluating Transportation Impacts in CEQA

To aid in SB 743 implementation, OPR released a *Technical Advisory on Evaluating Transportation Impacts in CEQA* (Technical Advisory) in December 2018. The Technical Advisory provides advice and recommendations to CEQA lead agencies on how to implement SB 743 changes. This includes technical recommendations regarding the assessment of VMT, thresholds of significance, VMT mitigation measures, and screening thresholds for certain land use projects. Lead agencies may consider and use these recommendations at their discretion.

The Technical Advisory identifies screening thresholds to quickly identify when a project is expected to cause a less-than-significant impact without conducting a detailed study. The Technical Advisory suggests that projects meeting one or more of the following criteria should be expected to have a less-than-significant impact on VMT.

- Small projects—Projects consistent with an SCS and local general plan that generate or attract fewer than 110 trips per day.
- Projects near major transit stops—Certain projects (residential, retail, office, or a mix of these uses) proposed within 0.5 mile of an existing major transit stop or an existing stop along a high-quality transit corridor.
- Affordable residential development—A project consisting of a high percentage of affordable housing may be a basis to find a less-than-significant impact on VMT.
- Local-serving retail—Local-serving retail development tends to shorten trips and reduce VMT. The Technical Advisory encourages lead agencies to decide when a project will likely be local-serving, but generally acknowledges that retail development including stores larger than 50,000 square feet might be considered regional-serving. The Technical Advisory suggests lead agencies analyze whether regional-serving retail would increase or decrease VMT (i.e., not presume a less-than-significant impact).
- Projects in low-VMT areas—Residential and office projects that incorporate similar features (i.e., density, mix of uses, transit accessibility) as existing development in areas with low VMT will tend to exhibit similarly low VMT.

The Technical Advisory also identifies recommended numeric VMT thresholds for residential, office, and retail projects, as described below.

- Residential development that would generate vehicle travel exceeding 15 percent below existing residential VMT per capita may indicate a significant transportation impact. Existing VMT per capita may be measured as a regional VMT per capita or as city VMT per capita.
- Office projects that would generate vehicle travel exceeding 15 percent below existing regional VMT per employee may indicate a significant transportation impact.
- Retail projects that result in a net increase in total VMT may indicate a significant transportation impact.

For mixed-use projects, the Technical Advisory suggests evaluating each component independently and applying the significance threshold for each project type included.

The Technical Advisory also provides guidance on impacts on transit. Specifically, the Technical Advisory suggests that lead agencies generally should not treat the addition of new transit users as an adverse impact. As an example, the Technical Advisory suggests that "an infill development may add riders to transit systems and the additional boarding and alighting may slow transit vehicles, but it also adds destinations, improving proximity and accessibility. Such development also improves regional vehicle flow by adding less vehicle travel onto the regional network."

California Department of Transportation

The California Department of Transportation (Caltrans) is responsible for planning, designing, constructing, operating, and maintaining the State Highway System (SHS). As part of these responsibilities, Caltrans reviews local development projects subject to CEQA to assess potential impacts on the SHS based on the following technical guidance.

- *Vehicle Miles Traveled-Focused Transportation Impact Study Guide* (VMT TISG) (California Department of Transportation 2020a)
- *Traffic Safety Bulletin 20-02-R1: Interim Local Development Intergovernmental Review Safety Review Practitioners Guidance* (Caltrans Safety Impact Guidance) (California Department of Transportation 2020b)

Vehicle Miles Traveled-Focused Transportation Impact Study Guide

The VMT TISG outlines how Caltrans will review land use projects with a focus on supporting state land use goals, state planning priorities, and GHG emissions reduction goals. The VMT TISG endorses OPR's Technical Advisory as the basis for transportation impact analysis methodology and thresholds including the use of screening to streamline qualified projects because they help achieve the state's VMT reduction and mode shift goals.

Caltrans Safety Impact Guidance

The Caltrans Safety Impact Guidance provides technical instructions on how to evaluate potential safety impacts on the SHS. This guidance largely focuses on the actions of Caltrans district staff in performing the analysis and providing relevant impact information to lead agencies. The interim guidance recommends that safety analyses include a review of three primary elements related to transportation safety—design standard compliance, collision history, and collision risk (consistent with the Federal Highway Administration's Systemic Approach to Safety). The interim guidance does not establish specific analysis methods or significance thresholds for determining safety impacts

under CEQA. Additionally, Caltrans notes that local agencies may use the interim guidance at their own discretion as a guide for review of local facilities.

Regional and Local

Sacramento Area Council of Governments

The Sacramento Area Council of Governments (SACOG) is the MPO governing the six-county Sacramento region consisting of El Dorado, Placer, Sacramento, Sutter, Yolo, and Yuba Counties and their 22 cities. SACOG is responsible for the RTP/SCS, as explained above under SB 375. The current SACOG RTP/SCS is entitled *2020 Metropolitan Transportation Plan/Sustainable Communities Strategy* (MTP/SCS) (Sacramento Area Council of Governments 2019).

The SACOG 2020 MTP/SCS provides the basis for air quality conformity findings related to the federal Clean Air Act and determinations of whether the region is complying with GHG reduction targets for automobiles and light trucks established under SB 375. Major projects that are inconsistent with the plan could jeopardize the plan's effectiveness for air pollution and GHG reduction. Consequently, consistency with the MTP/SCS is a potential basis for determining adverse impacts related to these environmental topics.

City of Folsom General Plan

The City of Folsom General Plan 2035 was adopted on August 28, 2018. The 2035 General Plan was designed to protect and enhance Folsom's assets, guide Folsom's growth in the area south of US 50, strengthen existing neighborhoods, and provide a cohesive vision for Folsom in the year 2035. The General Plan includes the following elements: land use, mobility, economic prosperity, housing, natural and cultural resources, public facilities and services, parks and recreation, and safety and noise. Each element contains the goals and policies that are used by the City to guide future land use, development, and environmental protection decisions. The project site is on land designated Regional Commercial Center, which provides for highway-oriented, large-scale regional retail, entertainment, business, lodging, and public uses. Uses in this district serve the entire region.

Folsom Plan Area Specific Plan

The Folsom Plan Area Specific Plan (FPASP) was adopted by the City of Folsom along with a certified programmatic EIR in 2011. The FPASP goes beyond the goals and policies of the General Plan and introduces new objectives, policies, standards, and guidelines reflective of the current trends in community and transportation planning. The standards and guidelines contained in the FPASP provide a comprehensive framework for future growth and development in the plan area while incorporating flexibility to address and accommodate changes in market conditions. Moreover, the FPASP proposes development standards that are unique to the plan area and will guide future construction.

A Community Design Guidelines document was prepared and adopted by the City of Folsom on May 12, 2015 (Resolution No. 9563). The guidelines are intended to provide the City of Folsom; property owners; planning, design, and engineering professionals; and Folsom residents with a vision of the level of design quality expected for "Public Realm" improvements. The guidelines are written as a series of performance-based objectives and policies. The guidelines do not address the placement of buildings, architectural details, colors, grading, landscaping, and lighting for specific development parcels, the details of which are subject to the provisions of Project Level Design Guidelines to be

included as part of a tentative subdivision map submittal, as more fully described in FPASP Section 13.2.4. The guidelines define each of the public realm components, including such items as gateways, enhanced intersections, neighborhood entries, traffic calming features, lighting, signs, public art, street furniture, walls, fences, landscaping bikeways, sidewalks, and trails. Planning Principle 4 (*Transportation*) of the guidelines calls for a public transportation system: a network of "Complete Streets" with bike lanes, sidewalks, planting and transit stops and comprehensive system of Class I bike paths, sidewalks, and pedestrian paths.

Environmental Setting

Roadway System

The project site is located within the FPASP, southwest of the US 50/East Bidwell Street interchange. Access to the project site is provided by US 50, East Bidwell Street, and White Rock Road, as shown in Figure 3.15-1. Use of these and other study area roadways for environmental impact analysis purposes focuses on how the project affects VMT.

Regional Roadways

Regional access to the project site is provided by US 50. Local freeway access is primarily provided by the US 50 interchange at East Bidwell Street. US 50 is a cross-country east–west highway that provides access to the Sacramento region. Locally, US 50 connects the area to Sacramento and Yolo Counties to the west and El Dorado County to the east. In the project vicinity, US 50 is a limited-access freeway. West of East Bidwell Street, US 50 generally consists of six travel lanes (two mixed-flow lanes and one high-occupancy vehicle [HOV] lane in each direction). East of East Bidwell Street, US 50 consists of three travel lanes (two mixed-flow lanes and one HOV lane) in the westbound direction and four travel lanes (three mixed-flow lanes and one HOV lane) in the eastbound direction.

Local Roadways

East Bidwell Street is a north–south roadway in the vicinity of the project. East Bidwell Street is a major arterial road that traverses the entire city of Folsom, connecting the Historic District around Sutter Street, the Central Commercial District between Coloma Street and Blue Ravine Road, and White Rock Road south of the FPASP. Near the project, East Bidwell Street is a two-lane roadway with a posted speed limit of 45 miles per hour. Although East Bidwell Street has a sidewalk, it is currently cut off from the project site by a Caltrans fence.

Alder Creek Parkway is an east–west divided roadway with a posted speed limit of 45 miles per hour. Under existing conditions, Alder Creek Parkway has three lanes between East Bidwell Street and Westwood Drive (two eastbound lanes and one westbound lane) and two lanes east of Westwood Drive. As development in the FPASP occurs, Alder Creek Parkway will be constructed between East Bidwell and Prairie City Road and provide access to Wellness Way.

Wellness Way is a planned north–south roadway to be located south of the project and will connect the project with Alder Creek Parkway. Wellness Way would provide access to the project site for vehicles, pedestrians, and bicyclists.

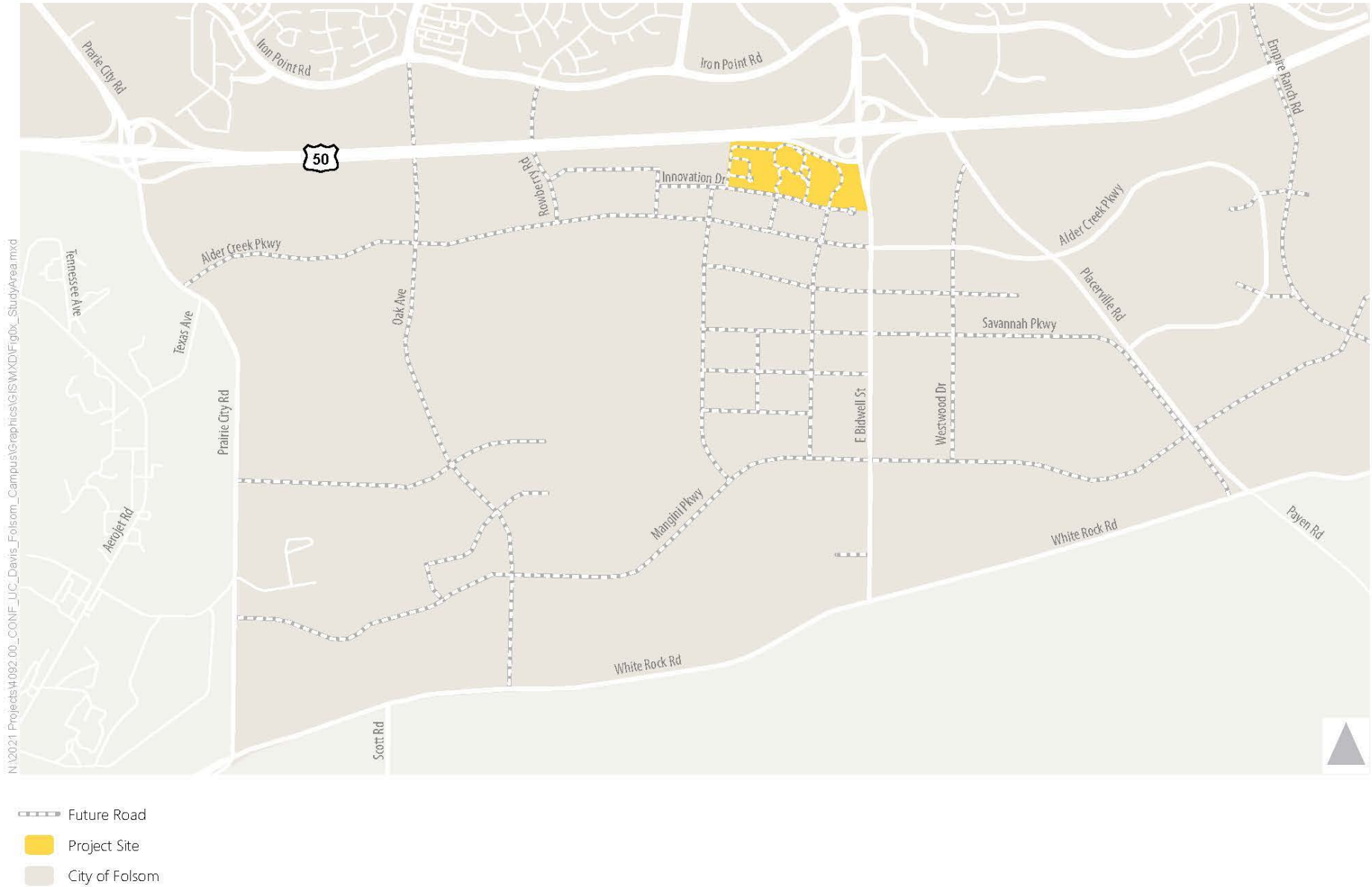

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Figure 3.15-1
Study Area and Existing (2022) Roadway System

Innovation Drive is a planned east–west roadway to be located directly south of the project. Innovation Drive would provide access to the project site for vehicles, pedestrians, and bicyclists. Innovation Drive is planned to terminate into a cul-de-sac near the eastern border of the project.

Vehicle Miles Traveled

To evaluate potential project impacts on VMT, work VMT per employee estimated by the SACOG travel demand model is used. Work VMT per employee is described in map and text form in Table 3.15-1.

Table 3.15-1. Vehicle Miles Traveled Metric Definition and Visualization

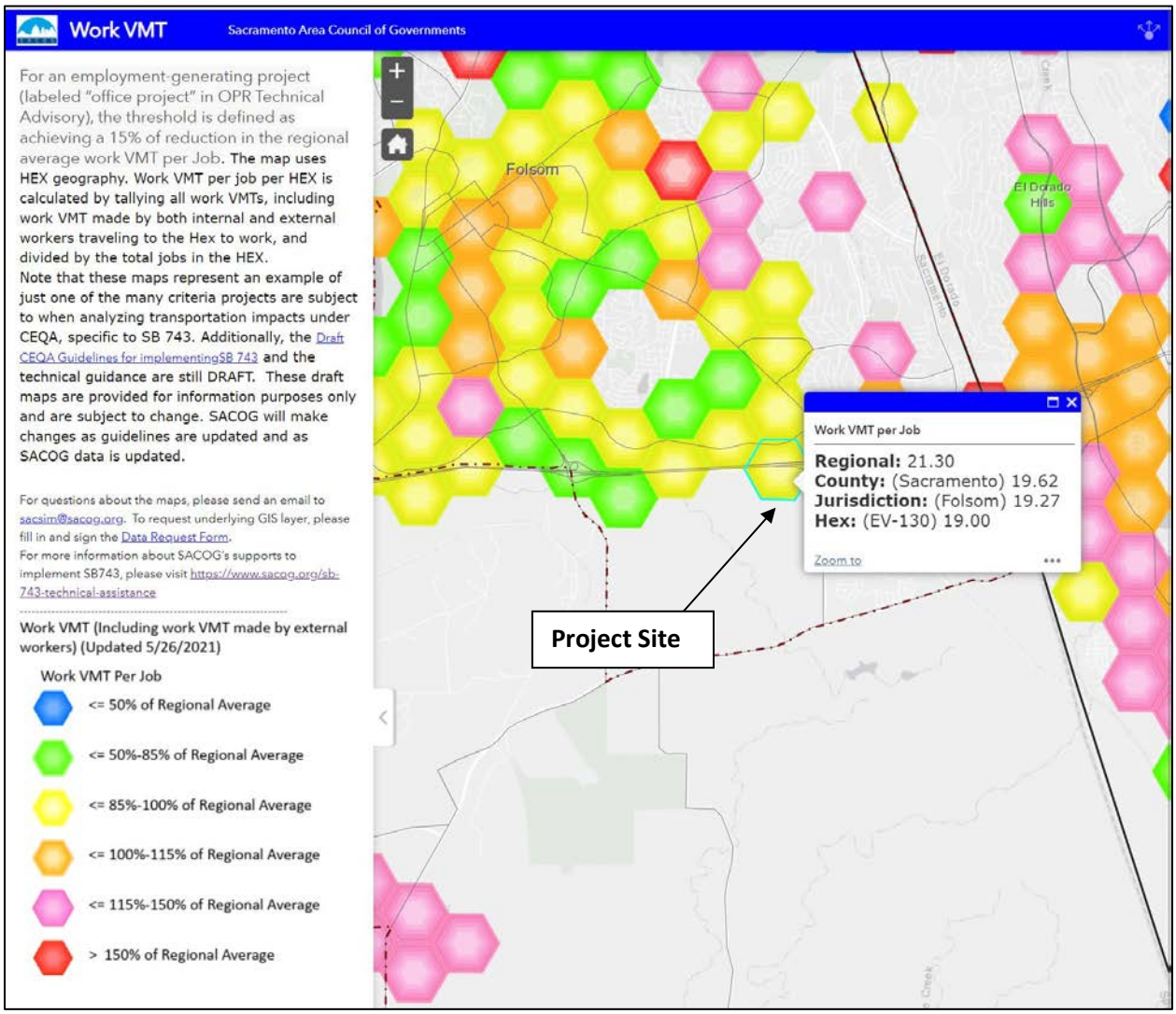
Metric	Definition	Visualization
Work VMT per employee	All automobile trips made by the employee that are part of home-work tours or work-based tours are counted. A tour starts and ends at the work location.	

The SACOG model is known as SACSIM19 and produces 2016 VMT estimates and 2040 VMT forecasts based on the 2020 MTP/SCS.[1] The SACSIM model is an activity/tour-based model that simulates individuals' daily travel, accounting for land use, transportation, and demographic factors that influence travel behavior. SACOG recently updated SACSIM as part of its 2020 MTP/SCS. As part of this update, SACOG conducted a validation and calibration of the SACSIM 2016 base year travel model that included using household travel surveys, transit boarding data, on-board transit surveys, traffic count data, and VMT estimates from annual Highway Performance Monitoring Systems data to verify the SACSIM model reasonably replicated observed travel behavior.

To aid local jurisdictions in their VMT impact analysis, SACOG developed web-based maps from the model's 2016 estimates of work VMT per employee. The map presents 2016 baseline VMT data using hexagon-shaped tiles (referred to as hex geography), across the SACOG region. The SACOG maps present work VMT per employee for each hex in the region. The maps also present the region, county, and jurisdiction averages for work VMT per employee. The map uses a range of colors to compare the VMT characteristics of each hex to the regional average, with cooler colors (i.e., blue, green, and yellow) representing VMT values that are below the regional average and warmer colors (i.e., orange, pink, and red) representing VMT values that are above the regional average. Figure 3.15-2 shows the relevant hex map data for the study area.

[1] https://www.sacog.org/travel-model-documentation

Figure 3.15-2. Work Vehicle Miles Traveled per Employee Hex Mapping



Source: Sacramento Area Council of Governments 2021

The project is largely located within hex EV-130 as depicted in Figure 3.15-2, which contains the area immediately west of the US 50/East Bidwell Street interchange. The hex contains land uses both north and south of US 50, including parts of the Folsom Gateway shopping plaza and the western portion of the project site. Table 3.15-2 presents the work VMT per employee for the applicable hex (hex EV-130), city of Folsom, and SACOG region.

Table 3.15-2. SACOG MTP/SCS 2016 Baseline Work VMT per Employee

Geography	Baseline Work VMT per employee (2016)	Compared to Baseline Regional Average
SACOG Region	21.3	-
City of Folsom	19.7	-7.5%
Project Vicinity (hex EV-130)	19.0	-10.7%

Source: Sacramento Area Council of Governments 2021

Bicycle Facilities

The *California Highway Design Manual* (California Department of Transportation 2019) identifies four primary types of bicycle facilities: Class I bicycle paths (including shared use paths), Class II bicycle lanes, Class III bicycle routes, and Class IV separated bikeways. These bicycle facilities are briefly described below.

- Class I (Bicycle Path)—A facility with exclusive right-of-way with cross flows by vehicles minimized. Motor vehicles are prohibited from bicycle paths. Unless adjacent to an adequate pedestrian facility, Class I facilities are for the exclusive use of bicycles and pedestrians.
- Class II (Bicycle Lane)—A dedicated facility for bicyclists adjacent to motor vehicle traffic on streets. They are identified with striping, pavement markings, and signage. The striping on Class II bicycle lanes is intended to delineate the right-of-way assigned to bicyclists and motorists and to provide for more predictable movements by each.
- Class III (Bicycle Route)—On-street bicycle routes where bicycles and motor vehicles share the road. They are identified with signage and may also be indicated with pavement markings (e.g., "sharrows"). Class III facilities are intended to provide continuity to other bicycle facilities (usually Class II bikeways) or designate preferred routes through high-demand corridors. These routes are typically assigned to low-volume and/or low-speed streets.
- Class IV (Separated Bikeway)—Facility for the exclusive use of bicycles that is separated from adjacent vehicular traffic. The separation may include grade separation, flexible posts, inflexible barriers, or on-street parking. Also referred to as protected bicycle lanes or cycle tracks.

Bicycle activity is facilitated by both on- and off-street bicycle facilities. Figure 3.15-3 shows the existing bicycle facilities in the vicinity of the project. Existing bicycle facilities in the project vicinity consists of Class II bicycle lanes along Iron Point Road, East Bidwell Street north of Iron Point Road, and Alder Creek Parkway east of East Bidwell Street. A Class I bikeway and trail is present along Placerville Road between Iron Point Road and Mangini Parkway.

The FPASP includes plans for an extensive bicycle facility network in the plan area, including a regional Class I bikeway and trail along the project's northern and eastern frontage. In addition, Class II bike lanes are proposed along East Bidwell Street south of Iron Point Road, Alder Creek Parkway west of East Bidwell Street, Innovation Drive, and Wellness Way.

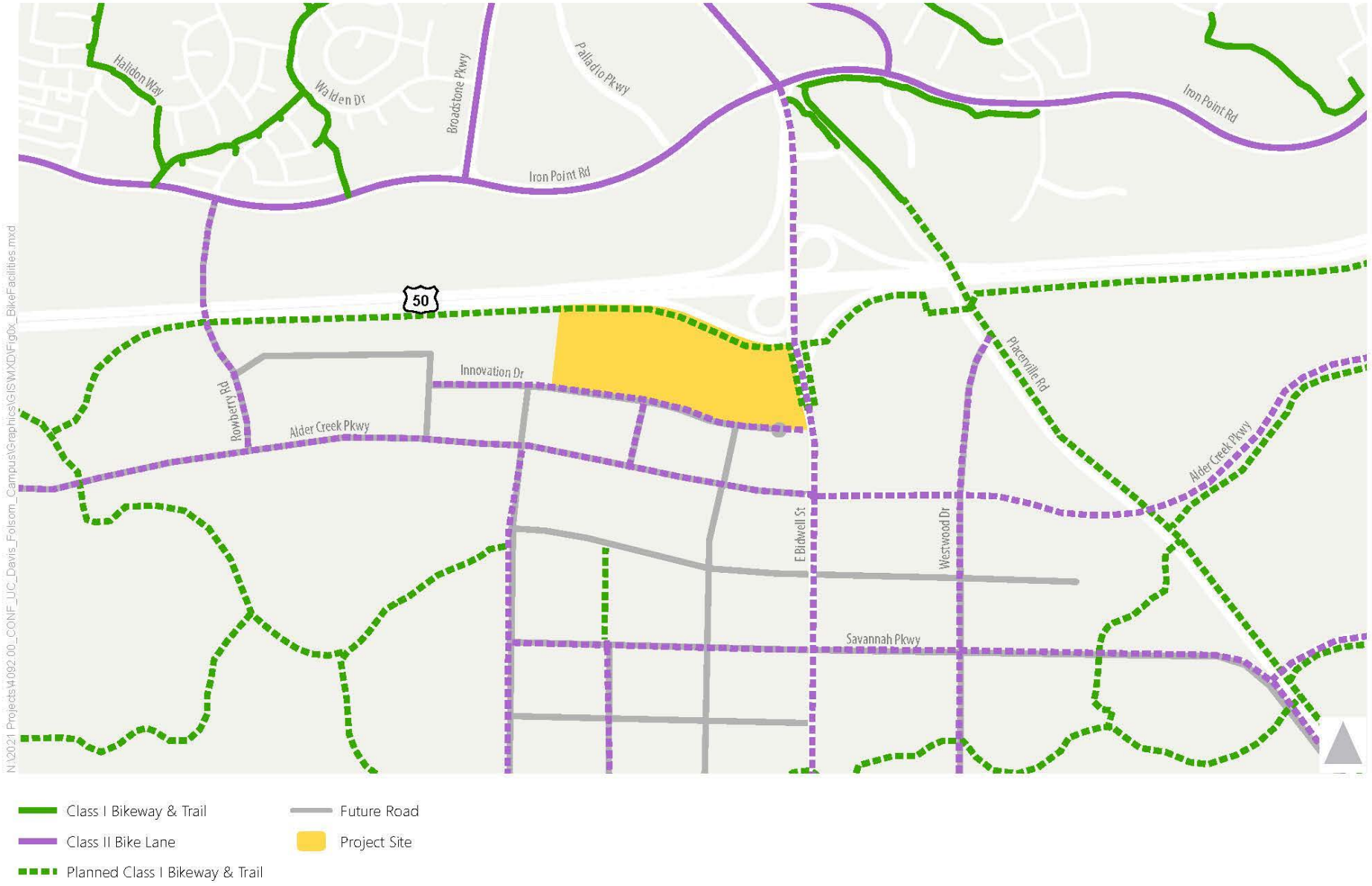


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Figure 3.15-3
Existing (2022) Bikeway System

Pedestrian Facilities

Figure 3.15-4 shows the existing pedestrian facilities in the vicinity of the project. As shown, sidewalk is present on one or both sides of the road along Iron Point Road, East Bidwell Street, Placerville Road, and Alder Creek Parkway east of East Bidwell Street. Although East Bidwell Street has a sidewalk, it is currently cut off from the project by a Caltrans fence.

Marked crosswalks and traffic control devices facilitate pedestrian movements across roadways within the immediate project vicinity. Marked crosswalks are currently present at the signalized intersections at Iron Point Road/East Bidwell Street, East Bidwell Street/US 50 westbound off-ramp (southbound approach and westbound approach only), and East Bidwell Street/US 50 eastbound off-ramp (northbound approach only).

Near the project, sidewalk and pedestrian access points are proposed along Innovation Drive and Wellness Way. Marked crosswalks and traffic control devices will be constructed as part of the Folsom Ranch Dignity Health hospital, currently under construction to the east of the project site, at appropriate locations to facilitate pedestrian travel.

Transit Services and Facilities

Figure 3.15-5 shows existing transit services and facilities in the project vicinity. Sacramento Regional Transit District (SacRT) operates the Folsom Stage Line bus service in the city of Folsom. Folsom Stage Line Route 10 operates between 5:25 a.m. and 7:55 p.m. on weekdays with 1-hour headways. The nearest bus stop is Iron Point Road & Shopping Center approximately 1 mile away north of US 50. In addition, SacRT operates weekday SmaRT Ride on-demand shuttle service within the city of Folsom.

El Dorado Transit operates the Route 50X: 50 Express route with multiple stops in the city of Folsom. Route 50X operates between 6 a.m. and 7 p.m. on weekdays with 1- to 2-hour headways. The nearest bus stop is the Broadstone Parkway & Palladio Parkway stop approximately 2 miles away north of US 50.

The FPASP Transit Master Plan was approved by the City of Folsom on July 12, 2011 (Resolution No. 8870). The Transit Master Plan proposes an east-west transit corridor along Alder Creek Parkway and associated fixed route bus service that provides connection to plan area destinations.

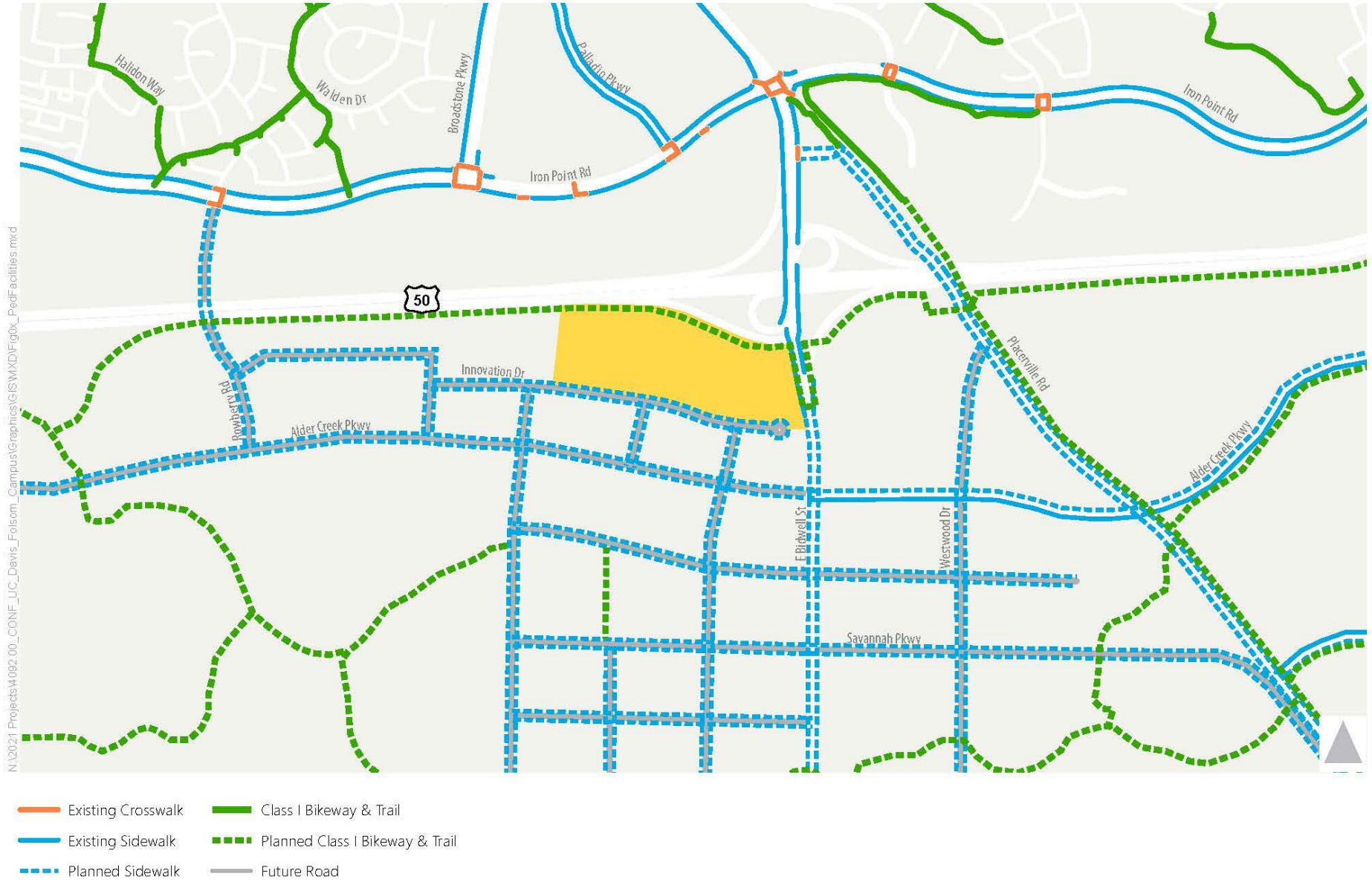

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Figure 3.15-4
Existing (2022) Pedestrian System

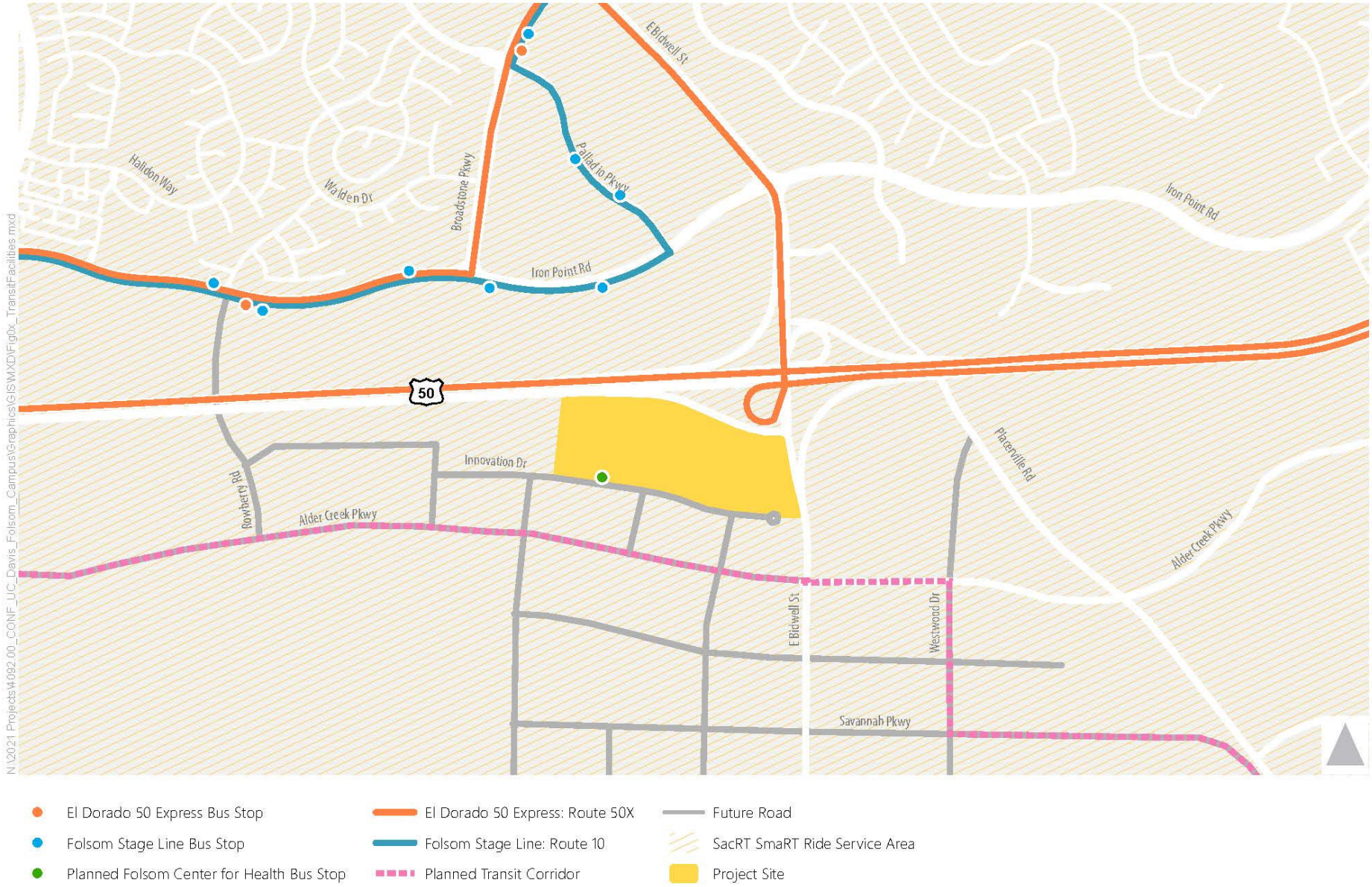

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Figure 3.15-5
Existing (2022) Transit System

Emerging Transportation Technology and Travel Options

Transportation and mobility are being transformed through several forces ranging from new technologies, different personal preferences, and the unique effects of the COVID-19 pandemic, the combination of which could alter traditional travel demand relationships in the near term and long term. These disruptive trends increase uncertainty in forecasting future travel conditions, especially considering that new technologies such as automated vehicles (AVs) may operate on future transportation networks once all phases of the project are complete and operational. Information about how technology is affecting and will affect travel is accumulating over time.

Furthermore, the COVID-19 pandemic and subsequent actions by federal, state, and local governments to curtail mobility and encourage physical distancing (i.e., limit in-person economic and social interactions) has temporarily but profoundly changed travel conditions. While travel activity will likely stabilize after the pandemic has subsided, it is possible that some of these temporary changes will influence people's travel choices into the future, including either accelerating or diminishing some of the emerging trends in transportation that were already underway prior to the pandemic. Some of the emergent changes already influencing travel behavior that could accelerate in the future include the following.

- Substituting internet shopping and home delivery for some shopping or meal-related travel.
- Substituting participating on social media platforms for social/recreational travel.
- Substituting telework for in-office work/commute travel.
- Substituting telemedicine appointments for eligible in-person medical appointments.
- Using new travel modes and choices. Transportation network companies such as Uber and Lyft, car sharing, bicycle/scooter sharing, and on-demand micro-transit services have increased the options available to travelers in the Sacramento area, and have contributed to changes in traditional travel demand relationships. For example, combined bus and rail ridership on SacRT declined by approximately 19 percent between 2016 and 2019. The SACSIM model was calibrated to 2016 conditions and may not fully capture all the factors influencing transit ridership declines today or in the future.
- Automation of vehicles. Both passenger vehicles and commercial vehicles and trucks are evolving to include more automation. Research, development, and deployment testing is proceeding on AVs; AVs do not require an operator and navigate roadways autonomously. Forecasts of how quickly research, development, and deployment testing will transition to full deployment and marketing of AVs vary widely both on the pace of the transition and the market acceptance of fully automated operation. More uncertainty exists around the behavioral response to AVs. In terms of VMT impacts on the transportation system and the environment, the worst-case scenario would be one in which AVs are privately owned, as they are now, but the automated function of AVs would cause them to be used more as described below.
- AVs could be repositioned to serve different members of a household (e.g., have an AV drop a worker at their workplace, then drive back home empty to serve another trip such as taking a student to school). The repositioning of AVs could add significantly to traffic volumes and VMT.
- AVs could reduce the value travelers place on time spent in a vehicle, resulting in an increase in willingness to make longer trips. For example, if a person could read or work in an AV instead of focusing on driving, they might be willing to commute longer distances to work. Conversely, a

worker who would prefer to live in a rural area but is unwilling to drive far enough to act on that preference in a conventional vehicle may be willing to do so using an AV.

- AVs could increase willingness to drive more to avoid parking costs or tolls. For example, a person going to a sporting event in an area that charges for parking might use an AV to be dropped off at the venue, and then re-position and park the AV in an area that does not charge for parking.
- Connected vehicles can communicate wirelessly with their surroundings, including other vehicles, bicyclists, pedestrians, roadway infrastructure (i.e., traffic signals, toll facilities, and traffic management facilities), and the internet. The influence that connected vehicles may have is still speculative but includes potential for reductions in collisions and congestion and greater overall network performance optimization.

Safety

The City of Folsom and Caltrans are the owners and operators of the transportation network in the immediate study area. Both agencies have developed their transportation networks consistent with applicable design standards and monitor collision data to address safety concerns. Design standards are used to provide consistent expectations and experiences for transportation network users to help minimize potential conflicts that could contribute to collisions.

The City of Folsom's safety approach includes collision investigations and community involvement through the City's Traffic Safety Committee, which meets monthly to evaluate traffic needs in the community. In April 2021, the City of Folsom released the final draft of the City's first comprehensive Local Roadway Safety Plan (LRSP). The LRSP utilizes collision database and creates a framework to identify and address traffic safety-related issues. The LRSP aims to reduce fatal and severe injury collisions. Goals of the LRSP include the following.

Goal 1: Systematically identify and analyze roadway safety problems and recommend improvements.

Goal 2: Improve the safety of pedestrians and bicyclists by using proven effective countermeasures.

Goal 3: Ensure coordination of key stakeholders to implement roadway safety improvements & response within Folsom.

Goal 4: Continually seek funding for safety improvements.

Goal 5: Ensure that safety improvements are made in a fair and equitable manner for all Folsom residents.

As described in *Regulatory Setting*, Caltrans approaches safety through three primary elements—design standard compliance, collision history, and collision risk. The agency has standardized traffic safety investigations and is responsible for safety of US 50 and the interchange with East Bidwell Street in the study area.

3.15.2 Environmental Impacts

This section describes the environmental impacts associated with transportation and circulation that would result from the project. It describes the methods used to determine the effects of the project and lists the thresholds used to conclude whether an impact would be significant. Measures to mitigate (i.e., avoid, minimize, rectify, reduce, eliminate, or compensate for) significant impacts are provided, if applicable.

Thresholds of Significance

The project would have a significant impact if it would result in any of the conditions listed below.

Vehicle Miles Traveled

UC Davis has not formally adopted guidance or thresholds related to VMT impact analysis (i.e., tailored screening criteria, preferred metrics and calculation methods, and use-specific thresholds). Therefore, this analysis relies on guidance from the OPR Technical Advisory. Per the Technical Advisory, the project would result in a significant VMT impact if it would cause the following.

- Generate vehicle travel exceeding 15 percent below baseline regional work VMT per employee for employment uses.

A separate VMT metric, total VMT, which accounts for all vehicle trips generated by the project and their associated trip lengths, is used as an input into the air quality, GHG, and energy analyses to determine the impact of the project's mobile emissions, as described in Section 3.2, *Air Quality*, Section 3.5, *Energy*, and Section 3.7, *Greenhouse Gas Emissions*. Readers should refer to those resource sections for more information about how the project's travel characteristics affect those specific topics. Because each section is focused on a specific environmental effect with its own specific metrics, thresholds, or significance criteria, it is possible to have a different conclusion for transportation impacts than other resource topics that also reference project-related travel.

Transit, Bicycle, and Pedestrian

The project would result in a significant transportation impact if it would do any of the following.

- Physically disrupt an existing bicycle facility, pedestrian facility, or transit service/facility.
- Interfere with implementation of a planned bicycle facility, pedestrian facility, or transit service/facility.

Safety Impacts

The project would result in a significant transportation impact if it would do any of the following.

- Result in a geometric design feature that is inconsistent with applicable design standards.

Emergency Access Impacts

The project would result in a significant transportation impact if it would result in roadway and transportation facilities that impede access for emergency response vehicles.

Construction Impacts

The project would result in a significant transportation impact if construction-related activity would disrupt existing travel patterns of vehicles, bicyclists, pedestrians, or transit users that increase baseline VMT or create new conflicts between these modes.

Methods for Analysis

The transportation impact analysis methodology includes a combination of quantitative and qualitative evaluations of the transportation system. The specific analysis methods are described below.

Analysis Scenarios

The transportation analysis was conducted for the following scenarios.

- **Baseline** conditions represent the existing setting based on transportation and land use data collected primarily in December 2021, except for VMT impact analysis. Baseline conditions for VMT are taken from 2016 estimates developed by SACOG for the 2020 MTP/SCS. Project changes are measured against baseline conditions to determine potential impacts.
- **Baseline Plus Phase 1 Medical Office Building** conditions reflect baseline land use and transportation conditions with the construction and operation of Phase 1.
- **Baseline Plus Master Plan** conditions reflect baseline land use and transportation conditions with the construction and operation of the full project Phase 1, Phase 2, and Phase 3.
- **Cumulative** conditions reflect 2040 land use forecasts and transportation conditions based on the SACOG 2020 MTP/SCS. The 2040 growth allocation in the project site accounts for the full development of project Phase 1, Phase 2, and Phase 3.

Project Travel Characteristics

The project is expected to be developed in phases as shown in Table 3.15-3. The project site and circulation plan is shown in Figure 3.15-6.

Table 3.15-3. Project Summary Land Use by Phase

Phase	Gross Square Feet	Employees
Phase 1, Medical Office Building	110,000	116
Phase 2, Ambulatory Surgery Center with Outpatient Services and Hotel	194,000	264
Phase 3, Central Utility Plan and Micro-Hospital	96,000	144
Total	**400,000**	**524**

Source:
1. UC Davis Folsom Center for Health Master Plan, Environmental Impact Report, Table 2-2

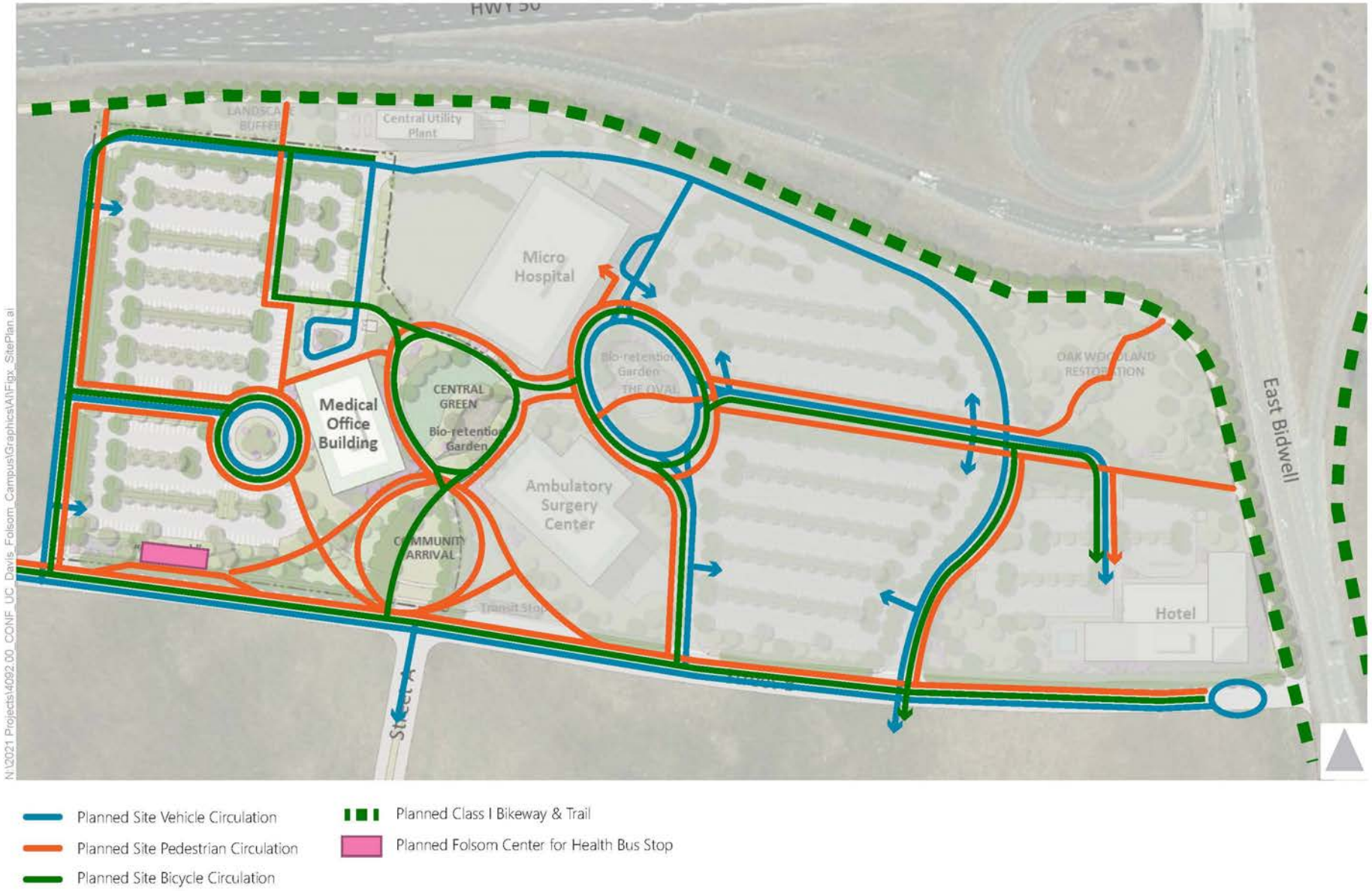

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Figure 3.15-6
Project Site and Circulation Plan

Phase 1, Medical Office Building

The Phase 1 medical office building (MOB) would enable UC Davis to relocate and expand existing UC Davis medical offices in Folsom, which primarily serves patients and employees in the city of Folsom and surrounding area.

The operation of Phase 1 would generate approximately 3,801 new daily vehicle trips to and from the project site. Vehicle trip generation estimates were prepared using the Fehr & Peers MXD+ mixed-use project trip generation tool. This tool uses vehicle trip rates from the *Trip Generation Manual, 11th Edition* (Institute of Transportation Engineers 2021) and adjustments based on the built environment variables such as land use density, land use diversity, street design, destination accessibility, transit proximity, and scale of development. Detailed calculations are available in Appendix J.

Folsom Center for Health Master Plan

In addition to the Phase 1 MOB, the complete Master Plan will include an ambulatory surgery center (ASC), a micro-hospital, a hotel, and support facilities. The anticipated patient service area includes Folsom, El Dorado Hills, and other surrounding communities such as Rancho Cordova, Sacramento, and Placerville (University of California, Davis 2021). The Master Plan also includes a hotel, which would serve both the hospital population and general market demand.

While hotel uses do not generate new travel demand in themselves, they would result in a redistribution of existing and future demand for lodging and redistribute vehicle traffic.

At full implementation of the Master Plan, the project would generate approximately 9,303 daily vehicle trips. Vehicle trip estimates were prepared using the Fehr & Peers MXD+ mixed-use project trip generation tool. Detailed calculations are available in Appendix J.

Vehicle Miles Traveled Impact Assessment

The VMT impact assessment relies on guidance provided in the Technical Advisory. Specifically, this analysis considers the following.

- Does the project meet one or more of the screening thresholds identified in the Technical Advisory such that a detailed analysis is not necessary?
    - If so, what information or data are available to support the conclusion that the project meets the screening threshold and should be considered to have a less-than-significant transportation impact?
- If the project does not meet one or more of the screening thresholds, this analysis would proceed to a detailed analysis of the project's VMT impact. This includes quantifying the project's VMT generation rate and determining whether it would exceed the recommended thresholds of significance in the Technical Advisory (i.e., 15 percent below existing regional VMT per capita/employee).

Vehicle Miles Traveled Impact Screening

The Technical Advisory identifies screening thresholds to quickly identify, without conducting a detailed study, when a project should cause a less-than-significant transportation impact. As described in *Regulatory Setting*, the Technical Advisory suggests the following projects should have a less-than-significant impact on VMT.

- Small projects
- Projects near major transit stops
- Affordable residential development
- Local-serving retail
- Projects in low-VMT areas

Of these project types, only the criterion for projects near major transit stops is codified in the updated CEQA Guidelines. The remaining criteria for small projects, affordable residential development, local-serving retail, or projects in low-VMT areas are suggested in the OPR Technical Advisory.

The project does not qualify as a small project, an affordable residential development, or local-serving retail for screening purposes, nor is the project in a low-VMT area or near a high-quality transit station. However, the project's hotel use is similar to local-serving retail. The hotel by itself does not generate new demand for hotel night stays. It simply increases the supply of hotel rooms in the area available to visitors in a convenient location near a freeway interchange. The inclusion of the hotel will also help reduce the VMT generation of the project site. Visitors to the project site that need to stay overnight would otherwise have to travel to other hotel locations much further away.

Vehicle Miles Traveled Analysis

Since the project consists of work-related land uses, the SACOG 2016 work-tour VMT per-employee hex map data was used to identify the project's VMT generation rate.[2] Per the SACOG data, work-tour VMT per employee of Hex EV-130 under 2016 conditions was used to represent the project and compared against the regional VMT threshold. For cumulative (2040) conditions, SACSIM19 model output was processed to forecast work VMT per employee for Hex EV-130. The SACSIM19 model is a sophisticated activity-based model that predicts the travel demand and travel patterns for residents, workers, students, visitors, and commercial vehicles throughout the SACOG region. The model requires inputs such as population and employment to represent the land use and transportation network associated with each scenario. The work VMT per employee of Hex EV-130 under baseline (2016) and cumulative (2040) conditions is summarized in Table 3.15-4.

Table 3.15-4. Hex EV-130 Work VMT per Employee

Scenario	Work VMT per employee	Compared to Baseline Regional Average
SACOG Baseline (2016) Region Average[1]	21.30	-
Hex EV-130 Base Year 2016[1]	19.00	-10.8%
Hex EV-130 Cumulative 2040[2]	17.66	-17.1%

Sources: Sacramento Area Council of Governments 2021

Phase 1 and full project implementation would include transportation demand management (TDM) strategies to reduce work-related VMT. The TDM strategies include design features and employee benefits. The *Handbook for Analyzing Greenhouse Gas Emission Reductions, Assessing Climate Vulnerabilities, and Advancing Health and Equity* (GHG Handbook) (California Air Pollution Control

[2] https://www.arcgis.com/apps/webappviewer/index.html?id=d2338e53b7524c21aa19001e677f2b82&extent=-13567654.7115%2C4600993.0408%2C-13330394.1757%2C4791168.3671%2C102100

Officers Association 2021) was used to evaluate the effectiveness of these strategies and adjust the project's work VMT per employee.

The project would include three strategies that are identified in the GHG Handbook to have quantifiable effect on reducing work-related VMT.

- Offering employee transit subsidies (GHG Handbook Strategy T-9-B)
- Providing indoor bike locks and showers to support commute by active modes (GHG Handbook Strategy T-10)
- Participation in the 50 Corridor Transportation Management Association. The Transportation Management Association provides a variety of TDM strategies designed to reduce single-occupancy vehicle travel and qualifies as a voluntary commute trip reduction program as defined by GHG Handbook Strategy T-5.

The first two strategies are part of the Master Plan, while the last strategy was a commitment made by UC Davis as part of its development agreement with the City of Folsom.[3] In general, participation in a commute trip reduction program is inclusive of the first two strategies. As such, the expected VMT reduction from the combination of these strategies would be controlled by the maximum achievable under Strategy T-5. The first two strategies are estimated to reduce the project's work VMT per employee by 2.7 percent, while T-5 has a maximum reduction of 4 percent. This maximum reduction in work VMT per employee is applied to the baseline plus Phase 1, baseline plus Master Plan, and cumulative scenarios as summarized in Table 3.15-5.

Table 3.15-5. Project Work VMT per Employee

Scenario	Work VMT per Employee after Project VMT Reduction Adjustment	Compared to Baseline Regional Average
SACOG Baseline (2016) Region Average	21.30	-
Baseline Plus Phase 1	18.24	-14.4%
Baseline Plus Master Plan	18.24	-14.4%
Cumulative (2040)	16.95	-20.4%

Bicycle and Pedestrian Facilities

The impact assessment for bicycle and pedestrian travel considers existing and planned bicycle and pedestrian facilities and reviews the project to determine whether it would physically disrupt an existing facility or interfere with a planned facility. This assessment also considers whether the project would increase conflicts between bicyclists and pedestrians and other modes of travel.

Transit Service and Facilities

The impact assessment for transit considers existing and planned transit facilities and services and reviews the project to determine whether it would physically disrupt an existing service or facility or interfere with a planned service or facility.

[3] Email from Lance Unverzagt (ICF) to Ron Milam and Albee Wei (Fehr & Peers), February 16, 2022.

Other Impacts

Potential transportation impacts related to safety, emergency access, and construction activity are based on a review of project changes to the transportation network and a qualitative assessment of whether those changes would conflict with impact threshold expectations.

Impacts and Mitigation Measures

Impact TRA-1: Change in work vehicle miles traveled per employee (less than significant with mitigation)

Summary of Impact TRA-1 by Analysis Scenario

Component	Level of Significance before Mitigation	Mitigation Measures Required	Level of Significance after Mitigation
Baseline Plus Phase 1, Medical Office Building	S	TRA-1	LTS
Baseline Plus Master Plan	S	TRA-1	LTS
Cumulative	LTS	None	N/A

LTS = less than significant; S = significant; N/A = not applicable

Baseline Plus Phase 1, Medical Office Building

The Phase 1 MOB would replace and expand existing UC Davis medical offices in Folsom, which primarily serves patients and employees in the city of Folsom and surrounding area. The Phase 1 MOB would continue to serve local patients and employees.

The Phase 1 MOB would generate new trips to and from the project site. The expected work VMT per employee is 18.24, which is 14.4 percent below the baseline regional average as shown in Table 3.15-5. The limited development around the project site contributes to this VMT performance. The project's work VMT per employee is projected to decrease over time as the site and surrounding area continue to develop and provide more complementary land uses, as discussed under *Cumulative*.

Because work VMT per employee is less than 15 percent below baseline regional average, the project's VMT impact is significant under baseline plus Phase 1 conditions. Mitigation Measure TRA-1 would require UC Davis to monitor and adjust VMT reduction strategies over time and would serve to reduce the impact to less-than-significant levels. Therefore, this impact would be **less than significant with mitigation**.

Baseline Plus Master Plan

The complete project would provide medical service and employment opportunities for people in Folsom, El Dorado Hills, and other surrounding communities. For these communities, the project would serve as a local alternative to the UC Davis Medical Center in Sacramento. However, the projected work VMT per employee would be similar to baseline plus Phase 1 conditions (18.24) until more development occurs in the surrounding area (see *Cumulative*).

Because work VMT per employee is less than 15 percent below baseline regional average, the project's VMT impact is significant under baseline plus Master Plan conditions. Mitigation Measure TRA-1 would require UC Davis to monitor and adjust VMT reduction strategies over time and would

serve to reduce the impact to less-than-significant levels. Therefore, this impact would be **less than significant with mitigation**.

Cumulative

The project is in the FPASP and proposes development that is consistent with the mixed-use land use pattern and multimodal transportation network of the larger FPASP area. As the project and the community develop over time, work VMT per employee in the vicinity of the project is projected to decrease. The density and mix of land uses in the FPASP will provide complementary residential and retail uses near the project. Under the cumulative scenario, work VMT per employee of the project area (as represented by Hex EV-130) is projected to be 17.66. The VMT reduction strategies in the Master Plan will reduce work VMT per employee by 4 percent to 16.95. This value is more than 20 percent below the baseline regional average (refer to Tables 3.15-4 and 3.15-5).

Because the project would generate work VMT per employee more than 15 percent below baseline regional average, the project's VMT impact is **less than significant** under cumulative conditions.

Additional VMT Considerations

Emerging Trends and SACSIM Model Limitations

This analysis concludes that the project would have a less-than-significant impact on VMT under cumulative conditions. This conclusion relies on data, estimates, and forecasts prepared by SACOG based on data from the SACSIM19 travel forecasting model. While the SACSIM model represents state of the practice or advance practice, travel behavior and the transportation systems are changing quickly in response to emerging trends, new technologies, and different preferences, as noted in *Environmental Setting*. These changes combined with the current effects of the COVID-19 pandemic increase uncertainty about how VMT generation rates may change for land use projects over time.

The trajectory of deployment, market acceptance, and government regulation of these new travel options and technologies is difficult to predict, and these elements directly influence the inputs and algorithms for the SACSIM19 model. As such, SACSIM19 as a travel forecasting model has limitations in the ability to capture the full range of potential travel effects from emerging travel options and technologies. Some model inputs related to the 2020 MTP/SCS, especially when forecasting 2040 conditions, may also be more speculative than probable. Growing evidence shows critical differences between SCS forecasts and actual VMT and GHG per-capita trends.

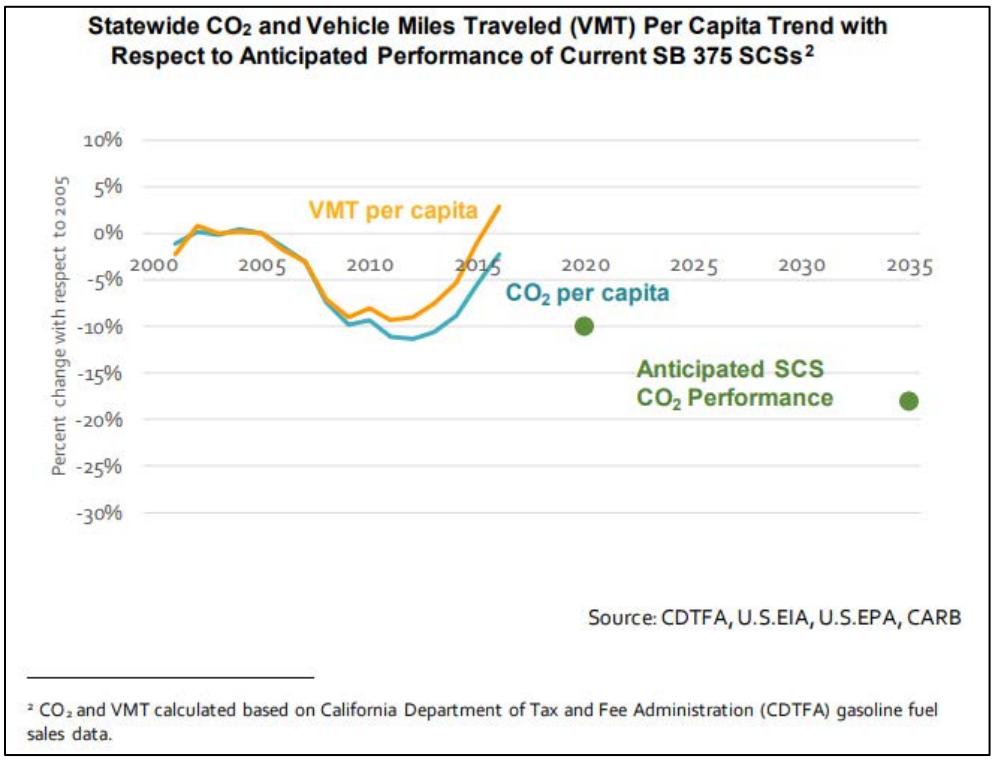
Historical VMT Trends

As a result of the uncertainties discussed above, when making a final VMT impact determination, other available evidence related to VMT trends should be considered. This analysis identified the following two relevant studies.

- *2018 Progress Report, California's Sustainable Communities and Climate Protection Act* (Progress Report) (California Air Resources Board 2018).
- *California Air Resources Board Improved Program Measurement Would Help California Work More Strategically to Meet Its Climate Change Goals* (Audit Report) (Auditor of the State of California 2021).

The Progress Report measures the effect of SB 375, revealing that VMT and GHG per capita increased in California between 2010 and 2016 and are trending upward (Figure 3.15-7).

Figure 3.15-7. 2018 Progress Report VMT/Capita Trends



Source: California Air Resources Board 2018

The Audit Report is a more recent assessment of CARB's GHG reduction programs, which also found that VMT and associated GHG emissions were trending upward through 2018. Per the audit, the state is not on track to achieve 2030 GHG reduction goals, and emissions from transportation have not been declining. The *2020 Mobile Source Strategy* (California Air Resources Board 2021) also acknowledges the challenge of VMT reduction and states, "Without additional policy intervention, VMT may continue to rise."

The evidence above does not refute the project's VMT impact finding but does suggest greater action on the part of the state may be needed to achieve the state's GHG reduction goals. The project contributes to the basic objectives of SB 743 for local land projects such as adding development in a planned mixed-use growth area where shorter trip lengths to destinations allows more multimodal choices. The monitoring of state performance indicates that the state may need to take further action to discourage vehicle travel (i.e., increasing the cost of driving or making it less convenient) while reducing the barriers or constraints that prevent more efficient use of vehicles and greater use of transit, walking, and bicycling. If these types of actions are taken, employees, patients, and visitors of the project would have multiple travel options to further reduce their vehicle use.

Effects of COVID-19 Pandemic

The COVID-19 pandemic decreased VMT because of government orders that curtailed mobility and suppressed economic activity. VMT trends have rebounded through 2021 and early 2022 but it is uncertain what long-term effects the COVID-19 pandemic will have on travel behavior. By necessity,

sizable portions of the public adapted to a notable increase in teleworking, distance learning, telemedicine, internet shopping, and home delivery. The current physical distancing recommendations have also reduced demand for mass transit and shared mobility options. The combination of these effects could result in increased or decreased VMT per-capita levels in the future, depending on how permanent these behavioral changes become.

University of California Sustainable Practices Policy

The UC Sustainable Practices Policy applies to all campuses and contains the following goal related to reducing vehicle travel.

- The University recognizes that single-occupant vehicle (SOV) commuting is a primary contributor to commute GHG emissions and localized transportation impacts.
    - By 2025, each location shall strive to reduce its percentage of employees and students commuting by SOV by 10 percent relative to its 2015 SOV commute rates.
    - By 2050, each location shall strive to have no more than 40 percent of its employees and no more than 30 percent of all employees and students commuting to the location by SOV.

The project will not be able to benchmark its single-occupancy vehicle performance against 2015 commute rates because no existing development exists on the project site so the second part of the goal will be most relevant to the policy's effect on campus-generated work VMT. Achieving the 2050 mode split target would produce work VMT per employee under cumulative conditions that is below the VMT impact significance threshold used in this impact study.

Mitigation Measures

Mitigation Measure TRA-1: Monitor and adjust VMT reduction strategies

Over time, the combination of the UC Davis VMT reduction strategies already committed to as part of the project and the development of the FPASP are projected to produce work VMT per employee below the significance threshold. To minimize the amount of time that the project generates VMT above the threshold of 18.1 (i.e., 15 percent below the regional baseline average) after construction of Phase 1, UC Davis will monitor work VMT per employee to verify performance against the VMT significance threshold. During Phase 1's first year of operation and every 2 years thereafter, UC Davis will survey and record work VMT per employee by all employees at the Folsom Center for Health. The first survey will establish an observed baseline work VMT per employee and benchmark future VMT reductions. This survey should be coordinated with any similar assessment necessary for compliance with the UC Sustainable Practices Policy mode split targets. Surveys will continue until substantial evidence is sufficient to demonstrate that the project performs below the VMT threshold and is likely to remain at or better than this level. In any survey period where work VMT per employee is not below the threshold, UC Davis will implement additional VMT reduction strategies either from those identified in the GHG Handbook or that emerge over time from new research sufficient to reduce work VMT per employee below the threshold.

Impact TRA-2: Disrupt existing, or interfere with planned, transit, roadway, bicycle, and pedestrian facilities (less than significant)

Summary of Impact TRA-2 by Analysis Scenario

Component	Level of Significance before Mitigation	Mitigation Measures Required	Level of Significance after Mitigation
Baseline Plus Phase 1, Medical Office Building	LTS	None	N/A
Baseline Plus Master Plan	LTS	None	N/A
Cumulative	LTS	None	N/A

LTS = less than significant; N/A = not applicable

Baseline Plus Phase 1, Medical Office Building

Bicycle and Pedestrian Travel

The Phase 1 MOB is in an undeveloped area with no existing bicycle or pedestrian facilities or other land uses adjacent to the project site. Therefore, the project would not disrupt any existing bicycle or pedestrian facilities, nor would it disrupt bicycle or pedestrian travel. Therefore, this impact would be **less than significant**.

Transit

The Phase 1 MOB is in an undeveloped area with no transit service serving its immediate surroundings. Therefore, the project would not disrupt any existing transit service. This impact would be **less than significant**.

Baseline Plus Master Plan

Bicycle and Pedestrian Travel

The project is in an undeveloped area with no bicycle or pedestrian facilities or other land uses adjacent to the project site. Therefore, the Master Plan would not disrupt any existing bicycle or pedestrian facilities, nor would it disrupt bicycle or pedestrian travel. This impact would be **less than significant**.

Transit

The project is in an undeveloped area with no transit service serving its immediate surroundings. Therefore, the Master Plan would not disrupt any existing transit service. This impact would be **less than significant**.

Cumulative

Bicycle and Pedestrian Travel

Planned bicycle and pedestrian facilities surrounding the project site include a regional Class I bikeway and trail, as well as Class II bike lanes and sidewalks along Innovation Drive and Wellness Way (Figures 3.15-3 and 3.15-4). According to the Master Plan, UC Davis would provide a 25-foot easement along the site's northern and eastern frontages to allow construction of the bikeway and trail. All planned bicycle and pedestrian facilities would be constructed as part of the Folsom Ranch

Development. The project would not interfere with a planned bicycle or pedestrian facility; rather, it would integrate into the network by providing bicycle and pedestrian access points around its perimeter.

The project would include new employment and medical uses, which would result in increased vehicular, bicycle, and pedestrian trips on local roadways such as Innovation Drive and Wellness Way. With dedicated bicycle and pedestrian facilities along these local roadways and the extensive active transportation network identified in the FPASP, future bicycle and pedestrian facilities would generally be capable of accommodating increases in bicycle and pedestrian demand associated with the project. Therefore, this cumulative impact would be **less than significant**.

Transit

The FPASP envisions a future bus service or bus rapid transit corridor along Alder Creek Parkway (Figure 3.15-5). The project is not directly adjacent to Alder Creek Parkway and would not interfere with the right-of-way or potential design features of the future transit corridor. The project includes a planned transit stop on Innovation Drive to facilitate future local transit service. Therefore, this cumulative impact would be **less than significant**.

Mitigation Measures

No mitigation measures are required.

Impact TRA-3: Result in changes to the transportation system that would affect safety or emergency access (less than significant)

Summary of Impact TRA-3 by Analysis Scenario

Component	Level of Significance before Mitigation	Mitigation Measures Required	Level of Significance after Mitigation
Baseline Plus Phase 1, Medical Office Building	LTS	None	N/A
Baseline Plus Master Plan	LTS	None	N/A
Cumulative	LTS	None	N/A

LTS = less than significant; N/A = not applicable

Baseline Plus Phase 1, Medical Office Building

The Phase 1 MOB will include modifications to the planned local transportation network to accommodate vehicle, bicycle, and pedestrian access to the site. In addition, the project will add new vehicle, bicycle, and pedestrian trips to the network. All proposed network modifications will be constructed to applicable design standards of the City of Folsom. Specific to emergency vehicles accessing the project site, the Master Plan includes a vehicular circulation plan to accommodate fire truck movements. Further, the planning and design of the transportation network in the FPASP anticipates a mix of traffic types and has included facilities to accommodate changes in travel demand over time.

During construction of the Phase 1 MOB, construction vehicles would use Wellness Way to access the project site. Given the abundant vacant space on the project site (i.e., space reserved for Phase 2 and Phase 3 development) that may be used for construction staging, road closure is not anticipated. In addition, the City of Folsom Standard Construction Specifications (City of Folsom 2020) states

that in the event of street closures, the contractor shall maintain public access for vehicles, bicycles, and pedestrians and prepare to make access available during the day to emergency vehicles. Therefore, this impact would be **less than significant**.

Baseline Plus Master Plan

As the project develops, more modifications will be made to the transportation network to accommodate expanded access to the site. Like Phase 1, changes to the network will be consistent with applicable design standards and the anticipated changes in travel demand over time have been accounted for in the FPASP transportation network planning. All phases of the project include the fire truck routing noted above, while Phase 3 also includes ambulance routing for the planned micro-hospital. The emergency vehicle routing is designed to minimize conflicts between ambulances/fire trucks and patient/employee/visitor circulation.

During construction of Phase 2 and Phase 3, construction vehicles would use Wellness Way and Innovation Drive to access the project site. Given the abundant vacant space (i.e., space reserved for parking areas) that may be used for construction staging, road closure is not anticipated, and emergency access to the Phase 1 development area would be maintained. In addition, the City of Folsom Standard Construction Specifications (City of Folsom 2020) states that in the event of street closures, the contractor shall maintain public access for vehicles, bicycles, and pedestrians and prepare to make access available during the day to emergency vehicles. Therefore, this impact would be **less than significant**.

Cumulative

By the cumulative year of 2040, the project and much of the FPASP are expected to be at or close to full implementation. Modifications to the transportation network that occur over time from the project and FPASP will be consistent with applicable design standards and the anticipated changes in travel demand over time have been accounted for in the FPASP transportation network planning. Therefore, this impact would be **less than significant**.

Mitigation Measures

No mitigation measures are required.

Impact TRA-4: Result in construction activity that could disrupt existing travel patterns or cause new conflicts between travel modes

Summary of Impact TRA-4 by Analysis Scenario

Component	Level of Significance before Mitigation	Mitigation Measures Required	Level of Significance after Mitigation
Baseline Plus Phase 1, Medical Office Building	LTS	None	N/A
Baseline Plus Master Plan	LTS	None	N/A
Cumulative	LTS	None	N/A

LTS = less than significant; N/A = not applicable

Baseline Plus Phase 1, Medical Office Building

Construction of the Phase 1 MOB will generate passenger and commercial vehicle trips to and from the project site like the ongoing construction activity associated with the FPASP. Projects under construction are required to comply with traffic control plan requirements of the City of Folsom as specified in Section 10.05 and 10.06 of the City of Folsom Construction Specifications (City of Folsom 2020). These plans are designed to minimize disruptions to traffic and conflicts between modes so work in the public right-of-way is done in an expeditious manner and causes as little inconvenience to the traveling public as possible. Further, all public traffic will be permitted to pass through the work areas with the least obstruction and inconvenience and all modes must be allowed to pass at all times except during an emergency closure. Therefore, this impact would be **less than significant.**

Baseline Plus Master Plan

All the construction traffic control requirements identified for Phase 1 would apply under baseline plus Master Plan conditions. Therefore, this impact would be **less than significant.**

Cumulative

All the construction traffic control requirements identified for Phase 1 would apply under cumulative conditions. Therefore, this impact would be **less than significant.**

Mitigation Measures

No mitigation measures are required.

3.16 Utilities and Service Systems

This section describes the regulatory and environmental setting for utilities and service systems on the UC Davis Folsom Center for Health Master Plan (project) site and in the project vicinity, analyzes effects on utilities and service systems that would result from the project, and provides mitigation measures, if applicable, to reduce the effects of any significant impacts.

Written comments received on the Notice of Preparation include a letter from Sacramento Municipal Utility District (SMUD) describing existing SMUD facilities near the project site, and requirements for an interconnection assessment and an amendment to the Special Facilities Agreement SMUD has with the UC Davis Medical Center.

3.16.1 Existing Conditions

Regulatory Setting

This section summarizes key University of California (UC), federal, state, and regional and local regulations, laws, and policies relevant to utilities and service systems serving the project site.

University of California

As noted in Section 3.0.2, *University of California Autonomy*, UC is a constitutionally created state entity and is not subject to municipal regulations of surrounding local governments for uses on property owned or controlled by the UC that are in furtherance of its educational purposes. UC Davis may consider, for coordination purposes, aspects of local plans and policies for the communities surrounding the project site when it is appropriate and feasible, but it is not bound by those plans and policies in its planning efforts.

UC Sustainable Practices Policy

The UC adopted the UC Sustainable Practices Policy in 2006. It covers ten areas of operational sustainability: green building design, clean energy, climate protection, sustainable transportation, sustainable procurement, sustainable building operations, recycling and waste management, sustainable food services, and sustainable water systems. The UC Sustainable Practices Policy is frequently updated. The most recent changes were formally issued in July 2020 The policy changes include extensive revisions to the goals and practices of the Zero Waste section (University of California 2020).

The Zero Waste section sets forth the following goals and practices:

- The University will achieve zero waste through prioritizing waste reduction waste reduction in the following order: reduce, reuse, and then recycle and compost.
- The University supports the integration of waste, climate and other sustainability goals, including the reduction of embodied carbon in the supply chain through the promotion of a circular economy and the management of organic waste to promote atmospheric carbon reduction. In support of this goal, waste reporting will include tracking estimated scope 3 greenhouse gas emissions.

- The University will reduce per capita total municipal solid waste generation at all locations other than medical centers as follows:
    - Reduce waste generation by 25 percent per capita from FY2015/16 levels by 2025
    - Reduce waste generation by 50 percent per capita from FY2015/16 levels by 2030
- Minimum compliance for zero waste is 90 percent diversion of municipal solid waste from landfills.
- By 2020, the University will prohibit the sale, procurement or distribution of Expanded Polystyrene (EPS) other than that utilized for laboratory supply or medical packaging and products. The University seeks to reduce, reuse and find alternatives for packaging foam used for laboratory and medical packaging products.
- No EPS will be used in foodservice facilities for takeaway containers.

The Sustainable Water Systems section calls for the following goals and practices:

- Reduce growth-adjusted potable water consumption 20 percent by 2020 and 36 percent by 2025, when compared to a three-year average baseline of FY 2005-06, FY 2006-07, and FY 2007-08.
- Develop and maintain a water Action Plan that identifies long-term strategies for achieving sustainable water systems, including quantification of turf areas.
- Identify existing single-pass cooling systems and constant-flow lab equipment and develop a place for replacement and avoid once-through or single-pass cooling systems for soft-plumbed systems (University of California 2020).

Federal

Clean Water Act

The Clean Water Act (CWA) employs a variety of regulatory and non-regulatory tools to reduce direct pollutant discharges into waterways, finance municipal wastewater treatment facilities, and manage polluted runoff. The U.S. Environmental Protection Agency (EPA) established primary drinking water standards in Section 304 of the CWA. States are required to ensure that the public's potable water meets these standards.

Section 402 of the CWA creates the National Pollutant Discharge Elimination System (NPDES) regulatory program. Point sources must obtain a discharge permit from the proper authority (usually a state, sometimes EPA, a tribe, or a territory). NPDES permits cover various industrial and municipal discharges, including discharges from storm sewer systems in larger cities, stormwater associated with numerous kinds of industrial activity, runoff from construction sites disturbing more than 1 acre, and mining operations. All so-called "indirect" discharges are not required to obtain NPDES permits. "Indirect" dischargers send their wastewater into a public sewer system, which carries it to the municipal sewage treatment plant, through which it passes before entering a surface water.

State

Assembly Bill 939

In 1989, Assembly Bill (AB) 939 established the current organization, structure, and mission of the California Integrated Waste Management Board. The purpose was to direct attention to the increasing waste stream and decreasing landfill capacity, and to mandate a reduction of waste being disposed. Jurisdictions were required by AB 939 to meet diversion goals of 25 percent by 1995 and 50 percent by the year 2000. Each city and county was required to submit a plan (i.e., Source Reduction and Recycling Element) that describes how they would meet the waste reduction mandates. UC is not subject to this act. However, sustainability is a central element of the project and the UC Sustainable Practices Policy sets waste diversion goals of 75 percent by June 2012 and zero waste by 2020 (University of California 2020).

California Universal Waste Law

The California Universal Waste Law went into effect February 2006 (California Code of Regulations, Title 22, Division 4.5, Chapter 23). Universal wastes are a wide variety of hazardous wastes such as batteries, fluorescent tubes, and some electronic devices, that contain mercury, lead, cadmium, copper, or other substances hazardous to human and environmental health. Universal waste may not be discarded in solid waste landfills, but instead is recyclable and (to encourage recycling and recovery of valuable metals) can be managed under less stringent requirements than those that apply to other hazardous wastes.

California Green Building Standards Code

The State of California historically establishes progressive standards that serve as models for other states and even the federal government. With the adoption of the 2010 California Green Building Standards Code (CALGreen), California became the first state to incorporate green building strategies into its building code. This section comprises Part 11 of the California Building Standards Code in Title 24 of the California Code of Regulations. CALGreen outlines mandatory and voluntary requirements for new residential and nonresidential buildings (e.g., retail, offices, public schools, hospitals) throughout the state beginning on January 1, 2011.

The CALGreen Code aims to: (1) reduce greenhouse gas (GHG) emissions from buildings; (2) promote environmentally responsible, cost-effective, healthier places to live and work; (3) reduce energy and water consumption; and (4) respond to directives by the Governor. Pursuant to the California Global Warming Solutions Act of 2000 (AB 32), CALGreen provides strategies to reduce building-related sources of GHG to attain California's 2020, 2030, and 2045 goals.

The provisions of CALGreen include both voluntary and mandatory measures for green building. Buildings and communities that have obtained the CALGreen title have met the minimum requirements of the code; these include: (1) reduction in water consumption, (2) diversion of construction waste from landfills, (3) installation of low-emitting materials, and (4) commission of new buildings over 10,000 square feet (sf).

CALGreen also includes appendices that consist of voluntary measures designed to be adopted by local governments. This gives local jurisdictions the power to decide which measures they wish to pursue. Tier 1 communities must comply with the provisions of Section A4.601.4.2 of CALGreen. This includes compliance with all mandatory measures, improvements in efficiency and reduction of waste, as well as the adoption of at least eight additional measures from five categories: planning

and design, energy efficiency, water efficiency and conservation, material conservation and resource efficiency, and environmental quality. Tier 2 rated communities must exceed the Tier 1 standard by adoption of at least 12 voluntary measures and establish even more stringent efficiency policies.

The measures apply to residential and nonresidential projects that include new construction, demolition, and/or additions and alterations. Upon submission of an application, projects must provide plans to comply with the Tier 1 standards set forth by CALGreen.

In implementing a statewide baseline for green building strategies, California recognized the adverse effects of anthropogenic climate change. CALGreen serves as a tool for California to reduce GHG emissions and physical waste, increase energy efficiency, and achieve water conservation and water efficiency.

The standards included in the 2019 CALGreen Code became effective on January 1, 2017. The CALGreen Code was developed to enhance the design and construction of buildings, and the use of sustainable construction practices.

California Water Code, Water Supply Wells, and Groundwater Management

The California Water Code is enforced by California Department of Water Resources (DWR). DWR's mission is "to manage the water resources of California in cooperation with other agencies, to benefit the State's people, and to protect, restore, and enhance the natural and human environments." DWR is responsible for promoting California's general welfare by ensuring beneficial water use and development statewide. The laws regarding groundwater wells are described in California Water Code Division 1, Article 2 and Articles 4.300 through 4.311; and Division 7, Articles 1 through 4. Further guidance is provided by bulletins published by DWR, such as bulletins 74-81 and 74-90 related to groundwater well construction and abandonment standards.

Groundwater Management is outlined in the California Water Code, Division 6, Part 2.75, Chapters 1 through 5, Sections 10750 through 10755.4. The Groundwater Management Act was first introduced in 1992 as AB 3030, and has since been modified by Senate Bill (SB) 1938 in 2002, AB 359 in 2011, and AB 1739 in 2014. The intent of the Groundwater Management Act is to encourage local agencies to work cooperatively to manage groundwater resources within their jurisdictions and to provide a methodology for developing a Groundwater Management Plan.

Water Supply Assessment

The State of California adopted SB 610 effective January 1, 2002. SB 610 requires cities and counties, when evaluating large development and redevelopment projects, to request an assessment of the availability of water supplies from the water supply entity that will provide water to a project. The Water Supply Assessment (WSA) is performed in conjunction with the land use approval process associated with a project and to assess long-term reliability of water supplies. These requirements do not apply to UC Davis because the UC is a constitutionally created state entity and is not a city or county. The City of Folsom provides water to the project and completed a WSA as part of SB 610 requirements for the Folsom Plan Area Specific Plan (FPASP) (City of Folsom 2011). *Methods for Analysis* in Section 3.16.2, *Environmental Impacts*, provides a description of the WSA prepared for the FPASP Draft EIR/EIS.

Sustainable Groundwater Management Act of 2014

The Sustainable Groundwater Management Act of 2014 (SGMA) became law on January 1, 2015, and applies to all groundwater basins in the state (Water Code Section 10720.3). By enacting the SGMA, the legislature intended to provide local agencies with the authority and the technical and financial assistance necessary to cooperatively manage groundwater within their region in a sustainable manner (Water Code Section 10720.1). The SGMA is a follow up to SB X7-6, adopted in November 2009, which mandated a statewide groundwater elevation monitoring program to track seasonal and long-term trends in groundwater elevations in California's groundwater basins. In accordance with this amendment to the Water Code, DWR developed the California Statewide Groundwater Elevation Monitoring program.

Pursuant to the SGMA, any local agency that has water supply, water management or land use responsibilities within a groundwater basin may elect to be a "groundwater sustainability agency" for that basin (Water Code Section 10723). Cities, counties, and water agencies within that basin had until January 1, 2017, to elect to become or form a groundwater sustainability agency. In the event a basin is not within the management area of a groundwater sustainability agency, the county within which the basin is located was presumed to be the groundwater sustainability agency for the basin. However, the county may decline to serve in this capacity (Water Code Section 19724).

The SGMA also requires DWR to categorize each groundwater basin in the state as high, medium, low, or very low priority (Water Code Sections 10720.7, 10722.4). All basins designated as high- or medium-priority basins must be managed by a groundwater sustainability agency under a groundwater sustainability plan that complies with Water Code Section 10727 et seq. If required to be prepared, groundwater sustainability plans must be prepared by January 31, 2020, for all high- and medium-priority basins that are subject to critical conditions of overdraft, as determined by DWR, or by January 31, 2022, for all other high- and medium-priority basins. In lieu of preparation of a groundwater sustainability plan, a local agency may submit an alternative that complies with the SGMA no later than January 1, 2017 (Water Code Section 10733.6).

California Integrated Waste Management Act of 1989

The California Integrated Waste Management Act (CIWMA) of 1989 created the California Integrated Waste Management Board, now known as the California Department of Resources Recycling and Recovery (CalRecycle). CalRecycle is the agency designated to oversee, manage, and track California's 92 million tons of waste generated each year. CalRecycle provides grants and loans to help cities, counties, businesses, and organizations meet the state's waste reduction, reuse, and recycling goals. CalRecycle promotes a sustainable environment in which these resources are not wasted but can be reused or recycled. In addition to many programs and incentives, CalRecycle promotes the use of new technologies to divert resources away from landfills. CalRecycle is responsible for ensuring that waste management programs are carried out primarily through local enforcement agencies.

The CIWMA is the result of two pieces of legislation, AB 939 and SB 1322. The CIWMA was intended to minimize the amount of solid waste that must be disposed of through transformation and land disposal by requiring all cities and counties to divert 25 percent of all solid waste from landfill facilities by January 1, 1995, and 50 percent by January 1, 2000.

The 50 percent diversion requirement is measured in terms of per-capita disposal expressed as pounds per day per resident and per employee. The per capita disposal and goal measurement

system uses an actual disposal measurement based on population and disposal rates reported by disposal facilities, and it evaluates program implementation efforts.

Assembly Bill 1826 (Chapter 727, Statutes of 2014)

AB 1826 requires a business that generates 4 cubic yards or more of organic waste per week to arrange for recycling services for that organic waste in a specified manner. The bill also requires a business that generates 4 cubic yards or more of commercial solid waste per week, on and after January 1, 2019, to arrange for organic waste recycling services and, if CalRecycle makes a specified determination, decrease that amount to 2 cubic yards, on or after January 1, 2020. The bill requires each jurisdiction to report to CalRecycle on its progress in implementing the organic waste recycling program, and CalRecycle is required to review whether a jurisdiction is complying with this act.

AB 1826 requires CalRecycle to identify and recommend actions to address permitting and siting challenges and to encourage the continued viability of the state's organic waste processing and recycling infrastructure, in partnership with the California Environmental Protection Agency and other specified state and regional agencies. The bill also requires the department to cooperate with local jurisdictions and industry to aid with increasing the feasibility of organic waste recycling and to identify certain state financing mechanisms and state funding incentives and post this information on its website.

Regional and Local

City of Folsom General Plan 2035

Relevant goals and policies pertaining to utilities and service systems are listed in the Public Facilities and Services element of the *Folsom General Plan 2035* (City of Folsom 2018). UC Davis is not subject to the General Plan or its goals and policies.

Goal PFS 3.1: Maintain the City's water system to meet the needs of existing and future development while improving water system efficiency.

Policies:

PFS 3.1.6 Ensure the provision of healthy, safe water for all users in Folsom through facilities, policies, programs, and regulations.

PFS 3.1.10 Achieve a 20 percent reduction in per-capita water use by 2020 consistent with the State's 20x2020 Water Conservation Plan, Senate Bill SB X7-7 2009, and the City of Folsom Urban Water Management Plan.

Goal PFS 4.1: Maintain an adequate wastewater system to meet the needs of the community.

Policies:

PFS 4.1.1 Ensure the local wastewater network is built and maintained to provide cost-effective wastewater service.

Goal PFS 5.1: Ensure adequate flood control and stormwater drainage.

Policies:

PFS 5.1.1 Develop and maintain an adequate storm drainage system.

PFS 5.1.3 Strive to reduce the amount of urban runoff and seek to capture and treat runoff before it enters streams, lakes, and rivers, applicable only to new development.

Goal PFS 9.1: Reduce the amount of waste entering regional landfills through an effective waste management program.

Policies:

PFS 9.1.2 Support efforts to reduce the amount of waste disposed of in landfills through reusing, reducing, and recycling solid waste; and using conversion technology if appropriate.

PFS 9.1.4 Provide green waste collection and offer compost education to divert organic material from local landfills.

Environmental Setting

The project site is an approximately 34.6-acre parcel, which is vacant, and there are no structures or trees existing on the site. The project would require utility extensions into the site and may also require some offsite utility extensions.

Utility services, including potable and recycled water, wastewater, solid waste, and recycling, will be provided for all facilities by the City of Folsom.

Potable and Non-Potable Water

Potable water would be supplied to the project by the City of Folsom's domestic water system. Water serving the project would be used for domestic, fire protection, central utility plant (CUP), and irrigation uses. Projected demand for the project is approximately 151,511 gallons per day (gpd) on average with a peak volume of 230,511 gpd.

Water supply for the FPASP is secured by the City of Folsom though securing an assignment of a Sacramento River surface water supply from the Natomas Central Mutual Water Company (NCMWC) pursuant to NCMWC's Central Valley Project (CVP) settlement contract with the United States Bureau of Reclamation (USBR). The water supply to be assigned is considered a long-term "project water" supply. The permanent assignment is for no more than 8,000 acre-feet per year of CVP contract entitlement water from the NCMWC to the City of Folsom (City of Folsom 2011:33). This amount is equivalent to 7,141,940 gpd for 365 days.

Currently, there is no non-potable water supply for the project site. It is expected that project pipelines would extend to existing reclaimed water infrastructure near the intersection of East Bidwell Street and Alder Creek Parkway. The project would consider supplemental water supply via rainwater harvesting, recycled water from cooling towers, and graywater source from buildings.

Wastewater/Stormwater Drainage

The City of Folsom manages and maintains the City's wastewater collection system, which ultimately discharges into the Sacramento Regional County Sanitation District (SRCSD) interceptor sewer system and is treated at the Sacramento Regional Wastewater Treatment Plant (SRWTP).

Sanitary sewer service for the project site would be provided by SRCSD and would provide offsite interceptor conveyance and sanitary sewer treatment and disposal for the FPASP (AECOM and RMC Water and Environment 2010:3A.16-1). Wastewater flows collected from the SRCSD interceptors are ultimately transported into the SRWTP. The SRWTP receives and treats an average of 181 million gallons per day (mgd) for average dry weather flow and 392 mgd under wet weather conditions (Sacramento Regional County Sanitation District 2021:2).

Future wastewater capacity needs are based on the wastewater flow and load projections. Beyond the 20-year planning period, flows (and loads) can be expected to continue to increase above the projected 181 mgd average dry weather flow for the year 2020 (County of Sacramento 2012:15). Construction of the EchoWater Project is underway for a project to rehabilitate the older facilities at the SRWTP to increase capacity, and when the project is complete, estimated to occur in 2023, the SRWTP will be the largest advanced wastewater treatment facility in the United States (Sacramento Regional County Sanitation District 2019).

The Sacramento Regional Wastewater Treatment Plant 2020 Master Plan provides for the expansion of the SRWTP based on expected growth rates in Sacramento County (Sacramento Regional Wastewater Treatment Plant 2008). The plan also provides a phased program of recommended wastewater treatment facilities and management programs to accommodate planned growth and to meet existing and anticipated regulatory requirements through the year 2020. The master plan addresses both public health and environmental protection issues while ensuring reliable service at affordable rates for SRCSD customers (County of Sacramento 2012).

Stormwater would be managed through gray infrastructure, with stormwater drainpipes planned to be installed near Innovation Drive. Based on the Folsom Plan Area Storm Drainage Master Plan, although the project site has a regional basin, the project must implement stormwater management measures. Drainage design and runoff discharge for the project would comply with applicable state and city requirements, including water quality and quantity standards. Catch basins and storm drain inlets convey surface water runoff from rainfall to the storm drain system, where it is eventually delivered to local creeks and rivers. Basins would be vegetated and contain boulders and other rock materials that encourage infiltration and provide stormwater treatment. Section 3.9, *Hydrology and Water Quality*, provides additional analysis related to wastewater and stormwater facilities.

Solid Waste and Recycling

Collection and disposal of both solid waste and recycling is provided by the City of Folsom Solid Waste Division. The City's Solid Waste Division also accepts commercial hazardous waste. Waste is transported to the Kiefer Landfill which is owned and operated by Sacramento County and serves as the main solid waste disposal for the County. Kiefer Landfill is a Class III solid waste facility located on 1,084 acres near the intersection of Kiefer Boulevard and Grant Line Road.

Kiefer Landfill is permitted to accept a maximum of 10,815 tons per day. Over the past 5 years, inbound tonnage has averaged 630,000 tons per year, or 1,730 tons per day (County of Sacramento 2012:8). The permitted capacity is 117,400,400 tons with a remaining capacity of 112,900,000 tons. The estimated closure date for Kiefer Landfill is 2064 (California Department of Resources Recycling and Recovery 2019a).

Solid waste would be separated into appropriate waste streams. Medical waste and hazardous chemical and radioactive waste would be packaged and labeled and categorized for transport and collected by a contract service provider specializing in this type of waste for appropriate offsite disposal. Medical waste and hazardous chemical and radioactive waste disposal and handling are discussed in Section 3.8, *Hazards and Hazardous Materials*.

Electricity

Electric power would be provided by SMUD. SMUD is a locally controlled not-for-profit municipal utility district agency with more than 75 years of experience as an energy provider. SMUD

generates, transmits, and distributes electric power to serve an approximately 900-square-mile service territory area that includes most of Sacramento County, including the project site.

Planned improvements to serve the FPASP will provide power to the location of the project site. On site improvements include new power lines along the southern boundary of the project site and running along roadways and driveways to serve the proposed buildings.

The project includes a CUP that would serve the hospital buildings, provide storage space and generator space, as well as centralized chillers for cooling. The non-hospital buildings are proposed to have localized, standalone mechanical and electrical systems that would be designed and installed as part of the phased development. SMUD would provide separate electrical service to each building, and the hot water and steam systems would be localized.

The project is precluded from utilizing natural gas per UC Sustainable Practices Policy and the UC Carbon Neutrality Initiative. Therefore, natural gas options are not considered for the Master Plan.

Telecommunications

AT&T would provide telecommunication services to the project. AT&T has existing infrastructure near East Bidwell Street and Alder Creek Parkway and would extend to the new project site. A new splice box just outside of the property line near the southeastern corner of the project site would be installed by AT&T connecting to the new campus underground infrastructure to deliver services to each building.

3.16.2 Environmental Impacts

This section describes the environmental impacts associated with utilities and service systems that would result from project implementation. It describes the methods used to determine the effects of the project and lists the thresholds used to conclude whether an impact would be significant. This section also includes mitigation measures required to reduce the significant impacts to the greatest extent feasible, where applicable.

Methods for Analysis

This analysis evaluates the potential for adverse physical impacts to occur as a result of the provision of new utilities and service systems due to the project. This analysis is based on review of existing policies, ordinances, and other regulations pertinent to utilities and service systems.

Water Supply

The water supply analysis is based on the 3.16-9AS prepared for the FPASP by Tully & Young (City of Folsom 2011). The WSA, which was approved by the City of Folsom Board of Directors in 2011 (amended 2018), assesses the availability and sufficiency of the City's water supplies to meet the estimated water demands for the FPASP.

The WSA determined that the City of Folsom water supply agreements would secure adequate water supply for the FPASP. In December 2012, the city entered into a water supply agreement with the landowners to provide a portion of the surplus water supply to the FPASP to meet the demand estimated at 5,600 acre-feet annually. The City determined that the allocation of 5,600 acre-feet per

year to the FPASP would not cause a reduction in the water supplies designated for water service users north of U.S. Route 50.

The WSA analyzed the total estimated annual water demands by land use category. The project is within the FPASP-designated land use of Regional Commercial (RC). Methods used to evaluate water supply for the Master Plan include a comparison of FPASP baseline demand factors for the land use designation of RC and application of those factors to the projected water demands of the project to determine the sufficiency of the water supply.

Table 2-9 of the WSA identifies a water demand for Regional Commercial of approximately 181 acre-feet in an average precipitation year and approximately 366 acre-feet in a dry year.

Wastewater

Wastewater analysis uses current capacities of the SRCSD and projected capacities of the project. Future capacity needs are based on the wastewater flow and load projections. Therefore, to analyze potential impacts on wastewater facilities, the SRWTP growth rate projections for the region were reviewed together with wastewater projections for the project. Currently, the SRWTP treats 181 mgd. The project is anticipated to generate approximately 63,000 to 256,920 gpd for average and peak demand. This represents approximately 0.02 to 0.14 percent of the amount the SRWTP currently treats. Infrastructure improvements that would be required are planned for in the FPASP. SRWTP infrastructure capacity was determined by reviewing the FPASP EIR/EIS and the SRWTP Master Plan.

Solid Waste

The solid waste analysis uses current capacities and projected capacity limits of the Kiefer Landfill. Quantitative data on projected solid waste from project implementation are not available. Therefore, to analyze potential impacts on solid waste facilities, the California Integrated Waste Management Board solid waste projections for specific business types in Sacramento County were reviewed along with the projected daily population for the project.

Thresholds of Significance

In accordance with Appendix G of the California Environmental Quality Act Guidelines, the project would be considered to have a significant effect if it would result in any of the conditions listed below.

- Relocation or construction of new or expanded water, wastewater treatment, stormwater drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects.
- Creation of a need for new or expanded entitlements or resources for sufficient water supply available to serve the project and reasonably foreseeable future development during normal, dry, and multiple dry years.
- A determination by the wastewater treatment provider that serves or may serve the project that it does not have adequate capacity to serve the project's projected demand in addition to the provider's existing commitments.
- Generation of solid waste in exceedance of state or local standards or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals.

- Failure to comply with federal, state, and local management and reduction statutes and regulations related to solid waste.

Impacts and Mitigation Measures

Impact UT-1: Relocation or construction of new or expanded water, wastewater treatment, stormwater drainage, electric power, natural gas, or telecommunications facilities, with the potential to cause significant environmental effects (less than significant)

Summary of Impact UT-1 by Component

Component	Level of Significance before Mitigation	Mitigation Measures Required	Level of Significance after Mitigation
Folsom Center for Health Master Plan	LTS	None	N/A
Phase 1, Medical Office Building	LTS	None	N/A

LTS = less than significant; N/A = not applicable

Folsom Center for Health Master Plan

Potable and Non-Potable Water:

The project would require water for domestic uses and fire suppression. Implementation of the Master Plan would require approximately 151,511 gpd on average with a peak volume of 230,511 gpd. Assuming a worse-case scenario of peak demand, the project could require up to 230,511 gpd. Table 3.16-1 shows the projected water demands for each project component during normal and peak demand (University of California, Davis Health 2021).

Table 3.16-1. Project Water Demand

Building/Component	Gross Square feet	# of Beds	Average Demand (gpd)	Peak Demand (gpd)
MoB	110,000		31,500	63,000
Ambulatory Surgery Center	114,000		59,500	119,000
Micro-Hospital	86,000	28	8,400	16,800
Central Utility Plant	10,000		7,711	7,711
Hotel	80,000	100	12,000	24,000
Total	400,000	128	151,511	230,511

The maximum total demand for the project (230,511 gpd) converts to approximately 0.71 acre-feet. This total is multiplied by 365 days to represent one calendar year: (0.71 x 365) to equal 259.15 acre-feet per year.

The WSA projected a maximum demand of 366 acre-feet for the RC designation under dry year conditions. The 259.15 acre-feet projected for the project under peak demand is well below this projection. The project site is 34.6 acres of the 100.8-acre RC designated area. In addition, it is not likely that the project would require the maximum demand every day for 365 days of every year. Project water demand would likely be much lower than the worst-case scenario of 259.15 acre-feet per year.

Table 3.16-2. Water Demand

Utility	Projected demand for RC designated area in FPASP	Projected Demand for Master Plan	Difference
Potable and Non-Potable water (acre-feet per year)	366	259.15	106.85

Water demand with the project would not exceed projections for the RC land use in the FPASP. The existing water infrastructure in the City of Folsom would provide the distribution infrastructure necessary to provide water service and has sufficient supply to meet the demand associated with project.

Future construction of water infrastructure would adhere to existing laws and regulations, and the water conveyance infrastructure would be appropriately sized for each site-specific development, which includes potable water, domestic irrigation, and fire flow demands. These improvements would occur on the project site and are not anticipated to disturb neighboring communities or result in other significant environmental effects. Impacts related to grading and other construction activities are addressed in other sections of this EIR, including Section 3.2, *Air Quality*, Section 3.3, *Biological Resources*, Section 3.4, *Archaeological, Historical, and Tribal Cultural Resources*, and Section 3.11, *Noise*.

The planned water supply system would provide the distribution infrastructure necessary for the project. This impact would be **less than significant.**

Wastewater and Stormwater

The City of Folsom manages and maintains the City's wastewater collection system, which ultimately discharges into the SRCSD interceptor sewer system and is treated at the SRWTP.

The project would connect sanitary sewer services and service mains to the planned public sewer within Innovation Drive. The onsite system would terminate at the existing roadway right-of-way and discharge to the planned City of Folsom public sewer system in Innovation Drive.

Table 3.16-3. Sanitary Sewer Demand

Building/Component	Gross Square Feet	# of Beds	Average Demand (gpd)	Peak Demand (gpd)
Medical Office Building	110,000	0	16,800	63,840
Ambulatory Surgery Center	114,000	0	23,800	90,440
Micro-Hospital	86,000	28	8,400	37,760
Central Utility Plant	10,000		2,000	18,080
Hotel	80,000	100	12,000	46,800
Total	400,000	128	63,000	256,920

As discussed above, the SRWTP has planned expansion based on expected growth rates in Sacramento County, including the FPASP at full implementation. Currently, the SRWTP treats 181 mgd. The project is anticipated to generate approximately 63,000 to 256,920 gpd for average and peak demand. This represents approximately 0.02 to 0.14 percent of the amount the SRWTP currently treats, and it is reasonable to assume that the SRWTP infrastructure would be significantly improved at the time of project construction.

The project would create impervious surface where currently there is none. However, stormwater facilities and capacity for the FPASP were considered in the 2010 EIR/EIS. The storm drainage system for the FPASP would be designed to direct runoff flows into onsite detention basins (and one offsite basin west of Prairie City Road) and would incorporate water quality treatment (AECOM and RMC Water and Environment 2010:4-42). The EIR/EIS found that by incorporating low-impact development principles and conforming with applicable state and local regulations regulating surface water runoff, long-term impacts from changes in drainage and runoff patterns in the FPASP would not be significant (AECOM and RMC Water and Environment. 2010:4-42).

Stormwater would be managed through gray infrastructure, with stormwater drainpipes planned to be installed near Innovation Drive. Based on the Folsom Plan Area Storm Drainage Master Plan, although the project site has a regional basin, the project must implement stormwater management measures. Drainage design and runoff discharge for the project would comply with applicable state and city requirements, including water quality and quantity standards. Catch basins and storm drain inlets convey surface water runoff from rainfall to the storm drain system, where it is eventually delivered to local creeks and rivers. Basins would be vegetated and contain boulders and other rock materials that encourage infiltration and provide stormwater treatment. Section 3.9 provides additional analysis related to wastewater and stormwater facilities.

The environmental effects of constructing the project is addressed in other sections of this EIR, including but not limited to Section 3.2, Section 3.3, Section 3.4, and Section 3.11. Connections of wastewater/stormwater systems would occur primarily along roadways or other areas that would be already developed or disturbed.

The project would require improvements on the project site to connect to planned wastewater and stormwater infrastructure. However, SRCSD has designed and constructed the Folsom East Interceptor to serve the FPASP, which includes the project, and that facility would be adequate to serve wastewater generated by the project. Therefore, impacts related to both onsite and offsite wastewater and stormwater would be **less than significant.**

Electricity

The project includes a CUP that would serve the hospital buildings, provide storage space and generator space, as well as centralized chillers for cooling. The non-hospital buildings are proposed to have localized, standalone mechanical and electrical systems that would be designed and installed as part of the phased development. SMUD would provide separate electrical service to each building, and the hot water and steam systems would be localized.

Energy use associated with project operations would include electricity purchased from SMUD. No natural gas would be provided. Although the project would increase electrical demand, this demand was accounted for in the EIR/EIS for the FPASP. In that document, SMUD identified proposed electrical utility improvements and determined that a minimum of three distribution substations would be required and SMUD would extend lines and construct facilities to serve the FPASP (AECOM and RMC Water and Environment 2010:3A.16-34). The project would coordinate with and meet the requirements of SMUD regarding the extension and locations of onsite infrastructure. All project utility improvements would comply with all City and SMUD requirements. Because SMUD would meet the electrical needs of the FPASP, it is determined that SMUD has adequate electrical infrastructure and capacity to serve the project. Impacts on electrical infrastructure and demand would be **less than significant**.

Telecommunications

AT&T has existing infrastructure near East Bidwell Street and Alder Creek Parkway and would extend to the new project site. A new splice box just outside of the property line near the southeastern corner of the project site would be installed by AT&T connecting to the new campus underground infrastructure to deliver services to each building.

Comcast would provide cable television service and infrastructure to the FPASP. Comcast would improve or relocate hub sites as the need arises to meet customer demand. Comcast would extend service to the FPASP through existing facilities.

As part of the purchase of the 34.6-acre property, UC Davis is acquiring a mass-graded pad with accommodations for basic infrastructure as anticipated in the FPASP EIR/EIS. The FPASP EIR/EIS concluded that AT&T and Comcast would be able to provide the necessary telecommunications services and infrastructure without affecting their existing customers and that any project-related impacts from increased demand for communications and cable television services is less than significant. Therefore, new telecommunication facilities for the project would not result in substantial physical changes. This impact would be **less than significant**.

Phase 1, Medical Office Building

Potable and Non-Potable Water:

The MOB, site utilities, landscaping, and parking facilities would require approximately 31,500 gpd of water on average with a peak volume of 63,000 gpd (Table 3.16-1). Assuming a worst-case scenario of peak demand, the project could require up to 63,000 gpd. For the same reasons described above for the project, the maximum total demand under the RC designation under dry year conditions would not exceed projections for the RC land use in the FPASP. The existing water infrastructure in the city of Folsom would provide the distribution infrastructure necessary to provide water service and has sufficient supply to meet the demand associated with project, including the MOB. All water infrastructure related to the MOB would adhere to existing laws and regulations, and be appropriately sized for the MOB, which includes potable water, domestic irrigation, and fire flow demands. These improvements would occur on the project site and are not anticipated to disturb neighboring communities or result in other significant environmental effects. Impacts related to grading and other construction activities required for new water infrastructure are addressed in other sections of this EIR, including Section 3.2, Section 3.3, Section 3.4, and Section 3.11. The planned water supply system would provide the distribution infrastructure necessary for the MOB. This impact would be **less than significant**.

Wastewater and Stormwater

The project would connect sanitary sewer services and service mains to the planned public sewer within Innovation Drive which includes the MOB. The onsite system would terminate at the existing roadway right-of-way and discharge to the planned City of Folsom public sewer system in Innovation Drive.

The SRWTP has planned expansion based on expected growth rates in Sacramento County, including the FPASP at full implementation. Currently, the SRWTP treats 181 mgd. The MOB is anticipated to generate approximately 16,800 to 63,840 gpd for average and peak demand (Table 3.16-3). Just as for the project, it is reasonable to assume that the SRWTP infrastructure would be significantly improved at the time of project construction and would not necessitate unplanned construction or

expansion of wastewater facilities. Construction of the EchoWater Project is underway for a project to rehabilitate the older facilities at the SRWTP to increase capacity and when the project is complete around 2023, the SRWTP will be the largest advanced wastewater treatment facility in the United States.

The MOB would create impervious surface where currently there is none. However, stormwater facilities and capacity for the FPASP were considered in the 2010 EIR/EIS. The storm drainage system for the FPASP would be designed to direct runoff flows into onsite detention basins and would incorporate water quality treatment. Drainage design and runoff discharge during construction and operation of the MOB would comply with applicable state and city requirements, including water quality and quantity standards. Catch basins and storm drain inlets convey surface water runoff from rainfall to the storm drain system, where it is eventually delivered to local creeks and rivers. Basins would be vegetated and contain boulders and other rock materials that encourage infiltration and provide stormwater treatment.

Construction of the MOB would require improvements on the project site to connect to planned wastewater and stormwater infrastructure, just as for the project overall. However, SRCSD facilities would be adequate to serve wastewater generated by the MOB. Therefore, impacts related to both onsite and offsite wastewater and stormwater would be **less than significant**.

Electricity

The project includes a CUP that would serve the hospital buildings, provide storage space and generator space, as well as centralized chillers for cooling. SMUD would provide separate electrical service to each building, and the hot water and steam systems would be localized.

Energy use associated with project operations for the MOB would include electricity purchased from SMUD. No natural gas would be provided. The electrical demand for the MOB would not significantly increase electrical demand overall, and this demand was accounted for in the FPASP EIR/EIS. Proposed electrical utility improvements would be implemented by SMUD to accommodate electrical needs of the FPASP. All utility improvements associated with the MOB would comply with all City and SMUD requirements. Because SMUD would meet the electrical needs of the FPASP, it is determined that SMUD has adequate electrical infrastructure and capacity to serve the needs of the MOB. Impacts on electrical infrastructure and demand would be **less than significant**.

Telecommunications

The MOB would be served by AT&T and Comcast. AT&T has existing infrastructure near East Bidwell Street and Alder Creek Parkway and would extend to the new project site. Comcast would extend service to the FPASP through existing facilities. The FPASP EIR/EIS concluded that AT&T and Comcast would be able to provide the necessary telecommunications services and infrastructure without affecting their existing customers and that any project-related impacts from increased demand for communications and cable television services is less than significant. Therefore, new telecommunication facilities for the MOB would not result in substantial physical changes. This impact would be **less than significant**.

Mitigation Measures

No mitigation measures are required.

Impact UT-2: Creation of a need for new or expanded entitlements or resources for sufficient water supply to serve the project and reasonably foreseeable future development during normal, dry, and multiple dry years (less than significant)

Summary of Impact UT-2 by Component

Component	Level of Significance before Mitigation	Mitigation Measures Required	Level of Significance after Mitigation
Folsom Center for Health Master Plan	LTS	None	N/A
Phase 1, Medical Office Building	LTS	None	N/A

LTS = less than significant; N/A = not applicable

Folsom Center for Health Master Plan

Water supply for the FPASP is secured by the City of Folsom though securing an assignment of a Sacramento River surface water supply from NCMWC pursuant to NCMWC's CVP settlement contract with USBR. The water supply to be assigned is considered a long-term "project water" supply. The permanent assignment is for no more than 8,000 acre-feet per year of CVP contract entitlement water from the NCMWC to the City of Folsom (City of Folsom 2011:33).

The domestic water system in the project vicinity is owned and operated by the City of Folsom, within the City's Water Pressure Zone 3. Zone 3 is served by a series of storage tanks and booster pumps. Per agreement with the City of Folsom, 0.12 mgd of water has been allocated to the project and the project cannot exceed this allocated water cap. Water demand projections for the project are shown above in Table 3.16-1.

The Master Plan would require approximately 151,511 gpd on average with a peak volume of 230,511 gpd. Assuming a worst-case scenario of peak demand, the project could require up to 230,511 gpd. The maximum total demand for the project (230,511 gpd) converts to approximately 0.71 acre-feet. This total is multiplied by 365 days to represent one calendar year (0.71 x 365) to equal 259.15 acre-feet per year.

As described under Impact UT-1, water demand under the project would not exceed projections for the RC land use in the FPASP. The WSA projected a maximum demand of 366 acre-feet for the RC designation under dry year conditions. The 259.15 acre-feet projected for the project under peak demand is well below this projection. In addition, it is not likely that the project would require the maximum demand every day for 365 days of every year. Project water demand would likely be much lower than the worst-case scenario of 259.15 acre-feet per year.

In addition, per the UC Sustainable Practices Policy and the UC Davis Drought Response Action Plan, strategies are in place to minimize campus water consumption, including water-efficient landscaping, use of reclaimed water, efficient fixtures in new buildings, education, and energy conservation initiatives that would minimize water use. These practices would be implemented within the design and operation of the Folsom Center for Health.

Because the City has sufficient water supply to meet future demand, and because the project would incorporate strategies to minimize water consumption as described in the UC Sustainable Practices Policy, the increased water demand from the project would not result in the need for the City of Folsom to obtain additional entitlements to serve the project. The impact would be **less than significant**.

Phase 1, Medical Office Building

As described above for the Master Plan, water supply for the FPASP is secured by the City of Folsom though securing an assignment of surface water supply from the NCMWC. The water supply to be assigned is considered a long-term "project water" supply. This permanent assignment meets the needs of the FPASP and, therefore, would meet water demands for the MOB.

The MOB, site utilities, community arrival and central green area, landscaping, and parking facilities would require approximately 31,500 gpd on average with a peak volume of 63,000 gpd (Table 3.16-1). Assuming a worst-case scenario of peak demand, the project could require up to 63,000 gpd. For the same reasons described above for the project, the maximum total demand under the RC designation under dry year conditions would not exceed projections for the RC land use in the FPASP.

In addition, per the UC Sustainable Practices Policy and the UC Davis Drought Response Action Plan, strategies are in place to minimize campus water consumption, including water-efficient landscaping, use of reclaimed water, efficient fixtures in new buildings, education, and energy conservation initiatives that would minimize water use. These practices would be implemented within the design and operation of the MOB.

Because the City has sufficient water supply to meet future demand, and because the MOB would incorporate strategies to minimize water consumption as described in the UC Sustainable Practices Policy, the increased water demand from the MOB would not result in the need for the City of Folsom to obtain additional entitlements to serve the project. The impact would be **less than significant**.

Mitigation Measures

No mitigation measures are required.

Impact UT-3: Project-related exceedance of existing wastewater treatment capacity (less than significant)

Summary of Impact UT-3 by Component

Component	Level of Significance before Mitigation	Mitigation Measures Required	Level of Significance after Mitigation
Folsom Center for Health Master Plan	LTS	None	N/A
Phase 1, Medical Office Building	LTS	None	N/A

LTS = less than significant; N/A = not applicable

Folsom Center for Health Master Plan

As discussed under Impact UT-1, the SRWTP has planned expansion based on expected growth rates in Sacramento County, including the FPASP at full implementation. Currently, the SRWTP treats 181 mgd. The project is anticipated to generate approximately 63,000 to 256,920 gpd for average and peak demand. This represents approximately 0.02 to 0.14 percent of the amount the SRWTP currently treats, and because of the EchoWater Project improvements currently underway, it is reasonable to assume that the SRWTP infrastructure would be significantly improved at the time of

project construction. New sewer pipes and sewer mains would be added to serve the project but would not require an increase in capacity.

Wastewater from the project would be treated at the SRWTP. The Central Valley Regional Water Quality Control Board would regulate the quality and quantity of effluent discharged from SRWTP. The project would comply with the discharge requirements of SRWTP. As described under Impact WQ-1, operational activities associated with the project would not contribute pollutants in wastewater that is discharged into the sanitary sewer system that could cause a violation of waste discharge requirements of the SRWTP and thereby require any substantial infrastructure improvements at the SRWTP. The project would not require any infrastructure improvements to the SRWTP. This impact would be **less than significant**.

Phase 1, Medical Office Building

As discussed under Impact UT-1, the SRWTP has planned expansion based on expected growth rates in Sacramento County, including the FPASP at full implementation. Currently, the SRWTP treats 181 mgd. The MOB, including site utilities, community arrival and central green area, landscaping, and parking facilities, is anticipated to generate approximately 16,800 to 63,840 gpd for average and peak demand, respectively. This represents approximately 0.009 to 0.035 percent of the amount the SRWTP currently treats, and it is reasonable to assume that the SRWTP infrastructure would be significantly improved at the time of project construction. New sewer pipes and sewer mains would be added to serve the project and would not necessitate unplanned construction or expansion of wastewater facilities, nor would implementation of the MOB exceed existing SRWTP capacity. This impact would be **less than significant**.

Mitigation Measures

No mitigation measures are required.

Impact UT-4: Project-related exceedance of state or local solid waste standards or of the capacity of local infrastructure, or other impediments to attaining solid waste reduction goals (less than significant)

Summary of Impact UT-4 by Component

Component	Level of Significance before Mitigation	Mitigation Measures Required	Level of Significance after Mitigation
Folsom Center for Health Master Plan	LTS	None	N/A
Phase 1, Medical Office Building	LTS	None	N/A

LTS = less than significant; N/A = not applicable

Folsom Center for Health Master Plan

Solid waste would be separated into appropriate waste streams. Nonrecycled and nonhazardous wastes would be disposed of by the City of Folsom. Medical waste and hazardous chemical and radioactive waste would be packaged and labeled and categorized for transport and collected by a contract service provider specializing in this type of waste for appropriate offsite disposal. Medical waste and hazardous chemical and radioactive waste disposal and handling are discussed in Section 3.8.

All non-recyclable solid waste generated during operation of the project would be disposed of at Kiefer Landfill. Kiefer Landfill has a permitted capacity of 117 million cubic yards with a remaining capacity of 113 million cubic yards. According to current disposal rates, Kiefer Landfill has approximately 40+ years of remaining capacity.

Analysis in the FPASP EIR/EIS determined that implementation of the FPASP would not result in significant impacts on solid waste facilities. Using solid waste generation rates for various residential, business, and industrial types, the FPASP was estimated to generate solid waste at approximately 32,539 tons per year (89.1 tons per day). The estimated 89.1 tons per day of solid waste generated by the FPASP would be approximately 0.8 percent of the 10,800 maximum tons per day that could be received at Kiefer Landfill.

For the project, the data used are based on a projected population of 524 employees and 938 transient visitors/patients per day, for a total daily population of 1,462 at the Folsom Center for Health (University of California, Davis Health 2021).

The California Integrated Waste Management Board provides an average per-capita solid-waste disposal rate for different business types in Sacramento County. Medical and health business types dispose of approximately 34,461 tons of solid waste per year. The Medical and Health business type[1] was used to calculate solid waste generation rates for the MOB, ambulatory surgery center, and micro-hospital. The Hotels and Lodging business type was used to calculate solid waste generation rates for the hotel.

Hotels in Sacramento County dispose of approximately 5,740 tons of solid waste per year. (California Department of Resources Recycling and Recovery 2019b). The amount of solid waste generated for each business type for the project can be extrapolated by multiplying the projected population for the project by the generation rate per employee in Sacramento County for each business type.

Table 3.16-4. Solid Waste Generation Rates According to Business Type

Solid Waste Disposed of for Business Type (tons per year)	Number of Sacramento County Employees for each Business Type	Solid Waste Disposed of per Employee (tons per year)	Solid Waste Disposed of per Employee (tons per day)	Projected Daily Population for the Project (Employees and Visitors/ Patients)	Projected Solid Waste Generated by the Project (tons per year)	Projected Solid Waste Generated by the Project (tons per day)
Medical and Health (34,461)	60,462	0.57	0.002	5,740	3,272	11.48
Hotels and Lodging (5,740)	4,087	1.40	0.004	200	280	0.8
Total						12.28

[1] Defined as "hospitals, nursing and residential facilities, dentists and doctor's offices, as well as medical and diagnostic laboratories and home health care services."

Based on these generation rates (Table 3.16-4), the project would generate approximately 3,552 tons of waste per year or 12.28 tons per day.

Generation rates for the project would be low at first with gradual increases in rates as development progresses. As described above, solid waste would be disposed of at the Kiefer Landfill, which is permitted to accept 10,800 maximum tons per day of solid waste. The estimated 12.28 tons per day of solid waste generated by the project would be approximately 0.1 percent of the 10,800 maximum tons per day that could be received at the landfill. Therefore, this landfill has sufficient permitted capacity to accommodate solid-waste disposal needs for the project.

Although it is not subject to CIWMA, UC has adopted the UC Sustainable Practices Policy, which sets goals to reduce waste generation. As such, the Folsom Center for Health would establish a waste reduction goal. The UC Sustainable Practices Policy also encourages recycling of construction waste, and the Folsom Center for Health would implement a recycling program. Together these policies would minimize the amount of solid waste that would go to Kiefer Landfill.

In addition, the project would comply with the City of Folsom's Construction and Demolition Recycling Ordinance (Title 8, Chapter 8.30). During construction, contractors are required to complete a waste management plan that identifies the types of materials that would be generated from the project and note at which facility those materials would be recycled, reused, or disposed of. The project applicant must ensure the contractor recycles or reuses (salvages) a minimum of 65 percent of the debris generated from the project.

The amount of solid waste generated by construction and operation of the project would not exceed the estimated rates for the FPASP and would not exceed the maximum tons per day that could be received at Kiefer Landfill. The City of Folsom's Construction and Demolition Recycling Ordinance together with compliance with the UC Sustainable Practices Policy would continue to reduce landfill contributions. The impact would be **less than significant.**

Phase 1, Medical Office Building

Construction of the MOB, site utilities, community arrival and central green area, landscaping, and parking facilities, during Phase 1 would generate construction debris and waste. However, Phase 1 development, as with the entire Master Plan, would not exceed solid waste solid waste standards or the capacity of local solid waste infrastructure. The FPASP EIR/EIS found that construction activities for the 19-year buildout of the FPASP, would result in less-than-significant impacts on solid waste and that there is sufficient capacity at Kiefer Landfill to account for the increase in construction-related wastes.

There is adequate capacity available at the Kiefer Landfill to serve the MOB. The City of Folsom's Construction and Demolition Recycling Ordinance together with compliance with the UC Sustainable Practices Policy would continue to reduce landfill contributions. The impact would be **less than significant**.

Mitigation Measures

No mitigation measures are required.

Impact UT-5: Inconsistency with federal, state, and local management and reduction statutes and regulations related to solid waste (no impact)

Summary of Impact UT-5 by Component

Component	Level of Significance before Mitigation	Mitigation Measures Required	Level of Significance after Mitigation
Folsom Center for Health Master Plan	NI	None	N/A
Phase 1, Medical Office Building	NI	None	N/A

NI = no impact; N/A = not applicable

Folsom Center for Health Master Plan

Information on hazardous waste is in Section 3.8. As discussed in Impact UT-4, the solid waste generated by the project is anticipated to be disposed of at the Kiefer Landfill in Sacramento. According to current disposal rates, Kiefer Landfill has approximately 40+ years of remaining capacity. UC has adopted the UC Sustainable Practices Policy, which sets ambitious waste reduction targets that are consistent with the requirements of CIWMA, AB 341, SB 1374, and AB 1826. Medical centers are exempt from these waste reduction targets.

As noted in Section 3.16.1, UC, a constitutionally created state entity, is not subject to municipal regulations of surrounding local governments for uses on property owned or controlled by the UC that are in furtherance of the University's educational purposes.

Although UC is not subject to state and local regulations related to solid waste, development associated with the project would comply with the UC Sustainable Practices Policy, which encourages waste reduction and diversion programs and is consistent with the management and reduction regulations related to solid waste, such as CIWMA, AB 341, SB 1374, and AB 1826. Therefore, the project would not be inconsistent with federal, state, or local management and reduction statutes and regulations related to solid waste. There would be **no impact**.

Phase 1, Medical Office Building

Information on hazardous waste is in Section 3.8. Phase 1 development, as with the entire Master Plan, is not subject to state and local regulations related to solid waste. However, like the Master Plan, development associated with implementation of the MOB, including site utilities, community arrival and central green area, landscaping and parking facilities, would comply with the UC Sustainable Practices Policy, which encourages waste reduction and diversion programs and is consistent with the management and reduction regulations related to solid waste. Therefore, the MOB would not be inconsistent with federal, state, or local management and reduction statutes and regulations related to solid waste. There would be **no impact**.

Mitigation Measures

No mitigation measures are required.

3.17 Wildfire

This section describes the regulatory and environmental setting for wildfire on the UC Davis Folsom Center for Health Master Plan (project) site and in the project vicinity, analyzes effects on wildfire that would result from the project, and provides mitigation measures, if applicable, to reduce the effects of any significant impacts.

No comments related to wildfire were received during the scoping period.

3.17.1 Existing Conditions

Regulatory Setting

As noted in Section 3.0.2, *University of California Autonomy*, the University of California (UC), as a constitutionally created state entity, is not subject to municipal regulations of surrounding local governments for uses on property owned or controlled by UC that are furtherance of its educational purposes. UC Davis may consider, for coordination purposes, aspects of local plans and policies for the communities surrounding the campus when it is appropriate and feasible, but it is not bound by those plans and policies in its planning efforts.

Emergency Action & Evacuation Plan

UC Davis Health Education & Research Emergency Action & Evacuation Plan (EAP) (University of California, Davis Health 2021) complies with the California Code of Regulations, Title 8, Section 3220. The EAP represents an emergency procedure action plan intended to provide guidance in the initial response to unexpected events and emergency situations. The EAP includes contact information, emergency protocols for notification and evacuation, assigned job responsibilities, and actions in the event of emergencies related but not limited to fire, power failure, earthquakes, flooding, fumes and toxic spills, bomb threats and disruptive behavior, riots, injures, and evacuations.

Federal

Disaster Mitigation Act of 2000

The Disaster Mitigation Act of 2000 provides the legal basis for the Federal Emergency Management Agency's (FEMA) mitigation planning requirements for state, local, and tribal governments as a precursor to mitigation grant assistance. The Disaster Mitigation Act of 2000 requires that local governments prepare a local hazard mitigation plan that must be reviewed by the State Mitigation Officer, approved by FEMA, and renewed every 5 years. The plan must include a planning process, a risk assessment, a mitigation strategy, and plan maintenance and updating procedures to identify the natural hazards, risks, and vulnerabilities of the area under the jurisdiction of the government. Natural hazards include, but are not limited to, earthquakes, tsunamis, tornadoes, hurricanes, flooding, and wildfires.

Senate Bill 1241 (Statutes of 2012, Kehoe)

Senate Bill 1241 revised the safety element requirements for state responsibility areas (SRA) and very high fire hazard severity zones (FHSZ). The Senate Bill requires that any revisions of general plans' housing elements after January 2014 must include the revision and updating of the safety element, as necessary, to address the risk of fire in SRAs and very high FHSZs.

State

California Building Standards Code

The State of California's minimum standards for structural design and construction are provided in the California Building Standards Code (CBSC) (24 California Code of Regulations). The standards set forth in the CBSC are based on the International Building Code, which is used widely throughout the United States (generally adopted on a state-by-state or district-by-district basis) and has been modified for California conditions with numerous more detailed or more stringent regulations. The CBSC provides standards for various aspects of construction, including but not limited to excavation, grading, and earthwork construction. In accordance with California law, certain aspects of the project would be required to comply with all provisions of the CBSC. The CBSC requires certain building requirements to adhere to the Fire Code (Part 9).

Local agencies must ensure that development in their jurisdictions comply with guidelines contained in the CBSC. Cities and counties can, however, adopt building standards beyond those provided in the CBSC.

Public Resources Code Section 4291

Section 4291 of the California Public Resources Code defines and describes fire protection measures and responsibilities for mountainous, forest, brush, and grass-covered lands. These measures include, but are not limited to, the following.

- Maintenance of defensible space of 100 feet from each side and from the front or rear of a structure, but not beyond the property line.
- Removal of a portion of a tree that extends within 10 feet of the outlet of a chimney or stovepipe.
- Maintenance of a tree, shrub, or other plant adjacent to or overhanging a building free of dead or dying wood.
- Construction or rebuilding of a structure must comply with all applicable state and local building standards.

State Responsibility Areas (Public Resources Code Section 4102)

SRAs are defined by California Public Resources Code Section 4102 as areas of the state in which the California Department of Forestry and Fire Protection (CAL FIRE) has determined that the financial responsibility for preventing and suppressing fires lies with the State of California. SRAs are lands in California where CAL FIRE has legal and financial responsibility for wildfire protection. SRA lands typically are unincorporated areas of a county, are not federally owned, have wildland vegetation cover, have housing densities lower than three units per acre, and have watershed or range/forage value. Where SRAs contain built environment or development, the local government agency assumes responsibility for fire protection.

Local responsibility areas (LRA) include lands that do not meet criteria for SRAs or federal responsibility areas, or are lands in cities, cultivated agricultural lands, and nonflammable areas in the unincorporated parts of a county. LRAs can include flammable vegetation and wildland-urban interface areas. LRA fire protection is provided by the local fire departments, fire protection districts, county fire departments, or by contract with CAL FIRE.

Very High Fire Hazard Severity Zones (Government Code Section 51177)

Very high FHSZs are defined by Government Code Section 51177 as areas designated by the Director of Forestry and Fire Protection as having the highest possibility of having wildfires. These zones are based on consistent statewide criteria and the severity of fire hazard that is expected to prevail in those areas. The zones are also based on fuel loading, slope, fire weather, and other factors, such as wind, that have been identified by CAL FIRE as a major cause of the spreading of wildfires. FHSZ maps are produced and maintained for each county.

2019 California Strategic Fire Plan

CAL FIRE's Strategic Fire Plan provides an overall vision for a built and natural environment that is more fire resilient through the coordination and partnerships of local, state, federal, tribal, and private entities. First developed in the 1930s, the Strategic Fire Plan is periodically updated; the current plan was prepared in 2019. The plan analyzes and addresses the effects of climate change, overly dense forests, prolonged drought, tree mortality, and increased severity of wildland fires through goals and strategies. The following goal and objectives of the 2019 Strategic Fire Plan are applicable to the project.

- Goal 1: Improve our core capabilities
    - Objective 2: Evaluate and improve existing emergency response capabilities.
    - Objective 3: Expand forestry and fire prevention through effective natural resource management programs, education, inspections, and land use planning.
- Goal 2: Enhance Internal Operations
    - Objective 3: Review and update communication processes to all external stakeholders.
- Goal 3: Ensure health and safety
    - Objective 2: Promote the safety of Department employees, partners, and the public.

Regional and Local

Sacramento County Draft Local Hazard Mitigation Plan Update

The Sacramento County 2021 Multi-Jurisdictional Local Hazard Mitigation Plan Update (County of Sacramento 2021) serves as a guide to hazard mitigation planning to better protect property and residents of Sacramento County, including the city of Folsom, from the effects of hazard events, including wildfires. Hazard mitigation is the use of long- and short-term strategies to reduce the loss of life, personal injury, and property damage that can result from a disaster. It involves planning efforts, programs, and other activities that can mitigate the impacts of hazards. Chapter 5 of the current plan outlines mitigation measures for hazards, including but not limited to floods, wildfire, landslides, and earthquakes. The following goals are from the 2021 Plan Update.

- Goal 1: Minimize risk and vulnerability of the Sacramento County community to the impacts of natural hazards, including consideration of the exacerbation of natural hazards and unique hazards due to climate change; and protect lives and reduce damages and losses to property, public health, economy, and the environment.
- Goal 2: Provide protection for critical facilities, infrastructure, utilities, and services from hazard impacts, to include hardening and other efforts to establish redundancy and reliability, to prevent or minimize loss, and to facilitate recovery.
- Goal 3: Enhance public outreach, education, awareness, and preparedness for all hazards to minimize hazard related losses and to include effective strategies for reaching underserved communities and vulnerable populations.
- Goal 4: Increase community capabilities and leverage interagency and public-private coordination and resources to mitigate losses and to be prepared for, respond to, and recover from a disaster event.
- Goal 5: Assure conformance to federal and state hazard mitigation initiatives and maximize potential for mitigation implementation.

City of Folsom General Plan

The Folsom General Plan 2035 was adopted in August 2018, amended in August 2021, and contains the following goals and policies in the Safety and Noise element that are relevant to wildfire.

Goal SN 1.1: Maintain an effective response to emergencies, provide support and aid in a crisis, and repair and rebuild after a crisis.

Policy SN 1.1.1, Emergency Operations Plan: Develop, maintain, and implement an Emergency Operations Plan that addresses life and safety protection, medical care, incident stabilization, property conservation, evacuation, escape routes (including back-up escape routes), mutual aid agreements, temporary housing, and communications.

Policy SN 1.1.2, Community Emergency Response Team: Support the Community Emergency Team program to train and prepare residents to mobilize in the event of a disaster.

Policy SN 1.1.3, Cooperation: Coordinate with emergency response agencies, school districts, utilities, relevant nonprofits, and business interests to ensure a coordinated response to and recovery from a disaster.

Policy SN 1.1.4, Multi-Hazard Mitigation Plan: Maintain an on-going hazard assessment as part of the Sacramento County Multi-Hazard Mitigation Plan within the city

Goal SN 4.1: Minimize the adverse impacts resulting from wildfires.

Policy SN 4.1.1, Defensible Space: Require development in the urban-wildland interface to use "defensible space" design and maintenance to protect lives and property rom the risk associated with wildfires. Defensible space techniques include planting less flammable species around buildings, such as fire resistant native and adapted species, and the use of mulch to prevent erosion on bare soil.

Policy SN 4.1.2, Coordination: Coordinate with fire protection and emergency service providers to assess wildfire hazards before and after wildfire events. Providers should coordinate efforts to effectively address any wildfire threat.

Policy SN 4.1.3, Community Wildfire Preparedness Plan: Maintain the City of Folsom Community Wildfire Preparedness Plan (CWPP) to help reduce the risk of catastrophic wildfires in the community.

Policy SN 4.1.4, Wildland Fire Risk Reduction: To reduce the risk of wildland fire, continue to implement Wildland-Urban Interface Building Standards, vegetative fuels management, evacuation planning, and public education.

City of Folsom Municipal Code

City of Folsom Municipal Code Chapter 8.36, *Folsom Fire Code*, provides fire hazard regulations in Sacramento County. The article includes specifications on required fuel modification plans, maintaining defensible space within developed and undeveloped areas, as well as requirements for burn permits.

City of Folsom Evacuation Plan/Emergency Operations Plan

The *City of Folsom Evacuation Plan* (City of Folsom 2020a) mirrors the information located in the City of Folsom Emergency Operations Plan (City of Folsom 2020b), but updates it to reflect changes to the notification methods. The evacuation plan provides guidance for the evacuation and movement of people during any disaster, or any type of major call/critical incident that may occur within the city. The plan also describes the organization and responsibilities for conducting evacuation operations.

City of Folsom Community Wildfire Protection Plan

The purpose of the *City of Folsom Community Wildfire Protection Plan* (City of Folsom 2013) is to protect human life and reduce loss of property, critical infrastructure, and natural resources due to wildfire. The plan helps agencies, communities, and local homeowners define, plan, and prioritize types of actions that will limit the damage associated with the inevitable wildfire event. The plan includes the following actions to reduce the risk of an extensive fire event.

1. Increased collaborative planning and cooperative actions that will build useful relationships between communities and agencies.
2. Reduction of hazardous fuels in the wildland-urban interface.
3. Creation and maintenance of defensible space for structures and properties.
4. Reduction of structural ignitability hazards.
5. Planning of evacuation protocols and drills.

Environmental Setting

Wildfire

The term “wildfire” refers to an unplanned, unwanted, wildland fire, including unauthorized human-caused fires, escaped wildland fire use events, escaped prescribed fire projects, and all other wildland fires where the objective is to extinguish the fire (California Government Code Section 51177). Wildfire characteristics depend on the circumstances where the fire is burning. Brush fires, which burn both natural vegetation and dry-farmed grain, typically burn fast and very hot, and often threaten homes in the area and lead to serious destruction of vegetation. Woodland fires are relatively cool under natural conditions; however, if a brush fire spreads to a woodland, it could generate a destructive hot crown fire. Currently, no suitable management technique of reasonable cost has been devised to reduce the risk of these fires. However, these fires can typically be controlled relatively quickly and easily if they are reachable by fire equipment.

Short-term effects of wildfires include destruction of timber or agriculture, and loss of wildlife habitat, scenic vistas, and watersheds, as well as immediate impacts on human health (e.g., wheezing, coughing, sore eyes and throat, shortness of breath) and loss of human life or injury (U.S. Environmental Protection Agency 2021). Long-term effects of wildfires include smaller timber harvests, reduced access to recreational areas, and destruction of community infrastructure and cultural or economic resources. Wildfires also increase the area's vulnerability to secondary impacts such as flooding, landslides, and increased runoff. Wildfire damage to life and property is generally greatest in areas designated as wildland-urban interface, where development is in close proximity to densely vegetated areas.

Fire hazards pose a considerable risk to people, vegetation, and wildlife habitats throughout the City of Folsom, and the larger County of Sacramento. Specifically, there are numerous areas throughout the city, that are composed of natural vegetation that are extremely flammable during dry seasons, from May to October. With the closest occurrence of wildfire to the city being the 2014 King Fire in the neighboring El Dorado County, there is no history of wildfires in the city of Folsom (County of Sacramento 2021). However, fuel loads in the city, along with geographical features, natural weather conditions common to the area, including periods of drought accompanied with high temperatures, low humidity, and wind, can result in frequent and catastrophic fires. As the city continues to expand, and the wildland-urban interface grows, the risk and opportunity for wildfires to ignite will also grow.

Additionally, climate change is expected to contribute to significant changes in fire regimes. Fire is a natural component of many ecosystems and natural community types, including forest land. For each of these natural communities, fire frequency and intensity influence community regeneration, composition, and extent. It is highly likely that wildfire frequency, size, and intensity would increase over time throughout the city as a result of climate change.

According to CAL FIRE, the project site is located within a moderate FHSZ under the jurisdiction of an SRA (California Department of Forestry and Fire Protection 2007). The nearest very high FHSZ is approximately 8 miles east of the project site adjacent to Cameron Park (California Department of Forestry and Fire Protection 2021).

Section 3.8, *Hazards and Hazardous Materials*, provides a discussion of wildland fire risks.

Emergency Response

The Sacramento County Office of Emergency Services (SacOES) provides emergency management services throughout the county, including the city of Folsom, in coordination with local cities, special districts, and fire and law enforcement. SacOES prepares emergency and contingency plans including, but not limited to, evacuation plans and emergency operations plans, and provides resources necessary for first responders to protect the community in the event of an emergency, such as wildland fires or storm events. SacOES operates the Emergency Operation Center (EOC) at McClellan Air Park. The EOC provides overall coordination of county resources, staff, policy application, and public information (County of Sacramento 2022).

In addition, the City of Folsom Community Emergency Response Team provides preparedness and disaster response training to volunteers in the community. The Community Emergency Response Team provides volunteers with skills related to basic disaster response, including fire safety, light search and rescue, team organization, and disaster medical operations.

3.17.2 Environmental Impacts

This section describes the environmental impacts associated with wildfire that would result from the Folsom Center for Health Master Plan. It describes the methods used to determine the effects of the project and lists the thresholds used to conclude whether an impact would be significant. Measures to mitigate (i.e., avoid, minimize, rectify, reduce, eliminate, or compensate for) any significant impacts are provided, if available.

Methods for Analysis

This section describes the methods for analyzing the impacts of implementing the project. Criteria from Appendix G of the California Environmental Quality Act (CEQA) Guidelines were used to determine whether the project would have a significant impact related to wildfire. Impacts related to wildfire were assessed based on review of applicable documents such as the City of Folsom General Plan and environmental impact report as well as other local planning documents.

Thresholds of Significance

In accordance with Appendix G of the CEQA Guidelines, the project would be considered to have a significant effect if it would result in any of the following conditions.

- Substantial impairment of an adopted emergency response plan or emergency evacuation plan.
- As a result of slope, prevailing winds, or other factors, the exacerbation of risks of and exposure of project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire.
- Installation or maintenance of project-associated infrastructure (e.g., roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts on the environment.
- Exposure of people or structures to significant risks such as downslope or downstream flooding or landslide as a result of runoff, post-fire slope instability, or drainage changes.

Impacts and Mitigation Measures

Impact WF-1: Substantially impair an adopted emergency response plan or emergency evacuation plan (less than significant)

Summary of Impact WF-1 by Component

Component	Level of Significance before Mitigation	Mitigation Measures Required	Level of Significance after Mitigation
Folsom Center for Health Master Plan	LTS	None	N/A
Phase 1, Medical Office Building	LTS	None	N/A

LTS = less than significant; N/A = not applicable

Folsom Center for Health Master Plan

As described on page 3A.8-18 of the Folsom Plan Area Specific Plan (FPASP) EIR/environmental impact statement, the project area is not located in an area with significant risk related to wildland

fires. The project would not include any changes to existing public roadways that provide emergency access to the site or surrounding area. The project would construct 400,000 square feet (sf) of building space for wellness and healthcare services, including a 110,000-sf medical office building (MOB), a 114,000-sf ambulatory surgery center, an 80,000-sf hotel, an 86,000-sf micro-hospital, and 1,357 surface parking stalls. Existing access to the project site from East Bidwell Street would be retained under the project. During project construction, traffic levels would increase, but are not expected to degrade traffic operations, as traffic control measures would be implemented as needed: signage would be installed, and coordination with the appropriate agencies (i.e., fire department, police department) would occur as necessary to reduce impacts related to interference with emergency response or emergency evacuation plans as a result of the project. Furthermore, the project would not result in the construction of any facilities that would interfere with emergency vehicle access to the site and surrounding area. If needed, alternate routes would be established before any temporary closure and routes for evacuation, in case of emergency, would be established and remain open.

In addition to the new network of internal access streets the project would provide, it would improve access to the project site by providing two new key streets referred to as Innovation Drive and Loop Road. Innovation Drive would serve as the primary access to the site, and would be a public roadway with vehicular and bike lanes, as well as sidewalks. Loop Road would connect to Innovation Drive on both the eastern and western ends of the site, and would serve as the main vehicular circulation route. Emergency vehicle access to the project site would be provided through Loop Road, which would minimize interactions with the adjacent parking facilities. Also, the project would be designed to comply with the California Fire Code and the EAP requirements that require onsite access for emergency vehicles and prevent impairment or disruption of emergency response or evacuation plans. The impact would be **less than significant**.

Phase 1, Medical Office Building

Phase 1 would include the construction and operation of the 110,000-sf MOB. Impacts on emergency response plans or emergency evacuation plans would be similar to those described above for the project. Potential impacts could occur on adjacent roadways during construction and staging, however, construction of Phase 1 would be required to implement the same traffic control measures as described above, which would ensure that emergency response and evacuations plans would not be impaired during construction. Further, Phase 1 would include the construction of Innovation Drive and a portion of Loop Road, which would provide emergency access to the Phase 1 site during project operations. Construction and operation of Phase 1 would not result in substantial impairment of an adopted emergency response plan or emergency evacuation plan. The impact would be **less than significant**.

Mitigation Measures

No mitigation measures are required.

Impact WF-2: Exacerbation of wildfire risks associated with pollutant concentrations or uncontrolled spread of wildfire (less than significant)

Summary of Impact WF-2 by Component

Component	Level of Significance before Mitigation	Mitigation Measures Required	Level of Significance after Mitigation
Folsom Center for Health Master Plan	LTS	None	N/A
Phase 1, Medical Office Building	LTS	None	N/A

LTS = less than significant; N/A = not applicable

Folsom Center for Health Master Plan

Development in moderate fire zones could expose people to increased pollutant concentrations from wildfire. However, current activities undertaken by state and local agencies, such as prescribed burning and construction, are expected to follow fire management goals and policies set forth by the City of Folsom General Plan, requirements of the CBSC and California Fire Code, and all other applicable fire and safety policies or regulations set forth in the *Regulatory Setting* section, in order to minimize risk of wildfire. Compliance with these established goals, policies, and requirements would reduce potential impacts related to wildfire risks and the pollutants associated with wildfire. In addition, the project site and buildings would be separated by paved parking areas, landscaping, and building setbacks that would reduce wildfire risks. Lastly, the project site is relatively flat and landscaping would be properly irrigated and maintained, which would also reduce the risk of wildfire. Therefore, there would be a **less-than-significant** impact with respect to exposing project employees or visitors to pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire.

Phase 1, Medical Office Building

Impacts related to the exacerbation of wildfire risks under Phase 1 would be similar to those described above for the project. Like the project, the Phase 1 site would not be located on or near an area designated as a high or very high FHSZ. Phase 1 would be subject to the same fire management policies listed above to minimize risk of wildfire. In addition, the Phase 1 site, as a component of the overall project site, is relatively flat and would be properly irrigated and maintained to reduce the risk of wildfire further. Therefore, construction and operation of Phase 1 would not result in the exacerbation of wildfire risks associated with pollutant concentrations or the uncontrolled spread of wildfire. The impact would be **less than significant**.

Mitigation Measures

No mitigation measures are required.

Impact WF-3: Project-related installation or maintenance of associated infrastructure that may exacerbate fire risk or result in temporary or ongoing environmental impacts (less than significant)

Summary of Impact WF-3 by Component

Component	Level of Significance before Mitigation	Mitigation Measures Required	Level of Significance after Mitigation
Folsom Center for Health Master Plan	LTS	None	N/A
Phase 1, Medical Office Building	LTS	None	N/A

LTS = less than significant; N/A = not applicable

Folsom Center for Health Master Plan

The project would not require the installation or maintenance of any infrastructure that would exacerbate fire risk. Existing utilities would be used to the greatest extent possible, and new onsite facilities would be connected to new services through the installation of new, localized connections. Expansion or an increase in capacity of offsite infrastructure would occur as required by SMUD or the City of Folsom (refer to Section 2.6, *Public Services and Utilities*, for more details). The project, including infrastructure upgrades, would be completed in conformance with the CBSC, and would maintain defensible space throughout all construction and operation activities to reduce potential fire hazards. Therefore, impacts of the project related to the installation or maintenance of facilities and associated wildfire risk and environmental impacts would be **less than significant**.

Phase 1, Medical Office Building

Impacts related to wildfire risk and ongoing environmental impacts from project-related installation or maintenance of infrastructure under Phase 1 would be similar to those described above for the project. Phase 1 would include the installation of utilities to support the MOB. However, like the project, existing utilities would be used to the greatest extent possible, all infrastructure upgrades would be completed in conformance with the CBSC, and defensible space would be maintained throughout all of Phase 1 construction and operation activities to reduce potential fire hazards. Therefore, project-related installation or maintenance of associated infrastructure would not exacerbate fire risk or result in temporary or ongoing environmental impacts. The impact would be **less than significant**.

Mitigation Measures

No mitigation measures are required.

Impact WF-4: Exposure of people or structures to significant risks such as downslope or downstream flooding or landslide as a result of runoff, post-fire slope instability, or drainage changes (no impact)

Summary of Impact WF-4 by Component

Component	Level of Significance before Mitigation	Mitigation Measures Required	Level of Significance after Mitigation
Folsom Center for Health Master Plan	NI	None	N/A
Phase 1, Medical Office Building	NI	None	N/A

NI = no impact; N/A = not applicable

Folsom Center for Health Master Plan

The City of Folsom has adopted safety restrictions for grading from the CBSC, as well as General Plan policies and other regulations to control construction in landslide-prone areas in order to minimize the exposure of people and structures to these risks. As discussed in more detail in Section 3.6, *Geology, Soils, and Seismicity*, and Section 3.9, *Hydrology and Water Quality*, General Plan policies require specific design requirements to minimize risk of exposure to geologic and hydrologic hazards, including flooding, landslides, runoff, and drainage changes. Furthermore, the City of Folsom is a participating agency in the preparation and implementation of the Sacramento County Local Hazard Mitigation Plan prepared by SacOES, which includes strategies to reduce the loss of life, personal injury, and property damage that can result from disasters, including wildfire.

The topography of the project site and surrounding area is relatively flat; therefore, the project would not expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of post-fire slope instability or drainage changes and there would be **no impact**.

Phase 1, Medical Office Building

Impacts related to secondary wildfire effects under Phase 1 would be similar to those described above for the project. The Phase 1 site, as a component of the overall project site, is relatively flat, and would not expose people or structures to significant risks, including downslope or downstream flooding or landslides as a result of post-fire slope instability or drainage changes. In addition, Phase 1 would be subject to the same General Plan policies and CBSC safety restrictions adopted for the purpose of minimizing the exposure of people and structures to these risks. Therefore, Phase 1 would not result in the exposure of people or structures to significant risks such as downslope or downstream flooding or landslide as a result of runoff, post-fire slope instability, or drainage changes. There would be **no impact**.

Mitigation Measures

No mitigation measures are required.

Chapter 4
Cumulative Impacts

4.1 California Environmental Quality Act Requirements

The California Environmental Quality Act (CEQA) Guidelines (California Code of Regulations [CCR] Section 15130) require that an EIR discuss the cumulative impacts of a project. A project's contribution to a cumulative impact is considered significant when the project's incremental effect is "cumulatively considerable." The definition of cumulatively considerable is provided in CCR Section 15065(a)(3) as follows.

> "Cumulatively considerable" means that 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.

According to the CEQA Guidelines (CCR Section 15130(b)),

> The discussion of cumulative impacts shall reflect the severity of the impacts and their likelihood of occurrence, but the discussion need not provide as great detail as is provided for the effects attributable to the project alone. The discussion should be guided by standards of practicality and reasonableness, and should focus on the cumulative impact to which the identified other projects contribute rather than the attributes of other projects which do not contribute to the cumulative impact.

For purposes of this EIR, the project would have a significant cumulative effect if it meets either one of the following criteria.

- The cumulative effects of related projects (past, current, and probable future projects) without the project are not significant but the project's incremental impact is substantial enough, when added to the cumulative effects, to result in a significant impact.
- The cumulative effects of related projects (past, current, and probable future projects) without the project are already significant and the project represents a considerable contribution to the already significant effect. The standards used herein to determine "considerable contribution" are that the impact either must be substantial or must exceed an established threshold of significance.

Mitigation measures are to be developed and applied, where feasible, to reduce the project's contribution to cumulative effects such that the contribution is not considerable. Analysis presented in this chapter determines whether, after adoption of mitigation, the residual impacts of the project would cause a cumulatively significant impact or would contribute considerably to existing or anticipated (without the project) cumulatively significant effects.

4.2 Scope of the Cumulative Analysis

The geographic area that could be affected by development of the project varies depending on the type of environmental resource being considered. The general geographic area associated with various environmental effects of project construction and operation defines the boundaries of the area used for compiling the list of projects or the projections considered in the cumulative impact analysis. Table 4-1 lists the general geographic areas associated with the different resources addressed in this EIR and lists those evaluated during cumulative analysis. As described in Chapter 1, *Introduction*, there would be no impacts on agricultural and forestry resources or mineral resources; therefore, the project would not contribute to any cumulative impact on these resources. These resources are not included in Table 4-1 and are not analyzed further in this chapter.

Table 4-1. Geographic Scope of Cumulative Impacts

Resource Issue	Geographic Area
Aesthetics	Project site and surrounding public viewpoints (where views of the project and views of other projects may overlap)
Air quality	Sacramento Metropolitan Air Quality Management District (to account for pollutant emissions that have regional effects) Immediate vicinity (in consideration of pollutant emissions that are highly localized, such as carbon monoxide)
Archaeological, historical, and tribal cultural resources	Immediate vicinity (to account for highly localized impacts and cultural resources with defined boundaries)
Biological resources	Regional and areawide (to account for local impacts and broader population-level impacts)
Energy	Citywide (in consideration of local jurisdiction that has the most direct control over development that consumes energy)
Geology, soils, and seismicity	Immediate vicinity (to account for highly localized impacts)
Greenhouse gas emissions	Global (to account for impacts of climate change)
Hazards and hazardous materials	Immediate vicinity (to account for highly localized impacts)
Hydrology and water quality	Regional and local (in consideration of localized impacts as well as watershed connectivity)
Land use and planning	City of Folsom (in consideration of land use planning within the local jurisdiction that governs land use)
Noise	Immediate vicinity (to account for highly localized impacts)
Population and housing	City of Folsom (in consideration of population growth in the local jurisdiction that plans for population growth)
Public services	Local service areas (in consideration of provider service areas)
Recreation	Project vicinity (in consideration of where recreational resources may be used)
Transportation and circulation	Regional (in consideration of vehicle miles traveled measured on a regional level)
Utilities and service systems	Local service areas (in consideration of provider service areas)
Wildfire	Immediate vicinity (in consideration of potential to contribute to local wildfire conditions)

As noted in Table 4-1, the potential geographic scope of some cumulative effects is more localized than others. To account for both regional and localized cumulative impacts, this EIR uses regional growth projections to assess regionally cumulative impacts and the list method to assess more localized cumulative impacts. Table 4-2 lists past, present, and future development projects near the project that are considered in the analysis of cumulative impacts. This list does not include all projects in the region; rather, it identifies projects constructed, approved, or under review within approximately 1 mile of the project site that have some relation to the environmental impacts of construction and operation of the project. Projects from the following jurisdictions and organizations were reviewed and considered in assembling the list in Table 4-2: City of Folsom, California Department of Transportation District 3, Sacramento Municipal Utility District, and Sacramento County.

Table 4-2. Cumulative Projects List

Project Name (Jurisdiction/ Organization)	Approximate distance to project	Description/Size	Project Status
Folsom South of US 50 Specific Plan (City of Folsom)	Within and adjacent to project site (south, west, east)	The Folsom Plan Area covers approximately 3,500 acres and consists of several planned neighborhoods. Current neighborhoods closest to the project include Broadstone Estates, Mangini Ranch, and Russell Ranch. The plan area would contain 11,461 dwelling units at full implementation, as well as commercial and open space area. Additionally, the Dignity Health Folsom Ranch Medical Center is planned immediately east and across East Bidwell Street from the project. The project contains a land component and a water component. The land component contains the Folsom South of US 50 Specific Plan Area and is therefore the portion of the project considered in this analysis.	Some portions are under construction or constructed, and the City continues to process development applications for individual projects.
Broadstone Villas Tentative Parcel Map and Planned Development Permit (City of Folsom)	About 0.5 mile north of project site	This project includes 257 apartment units distributed in 33 three-story buildings. There would also be a clubhouse and other appurtenant uses for a total of about 412,889 square feet of development and a density of 19.63 dwelling units per acre.	Approved by the Planning Commission in November 2021

Sources: City of Folsom 2021a, 2022; City of Folsom Planning Commission 2021; City of Folsom Community Development Department 2021; California Department of Transportation 2022; Governor's Office of Planning and Research 2022; County of Sacramento 2022

4.3 Cumulative Impact Analysis

4.3.1 Aesthetics

The project is part of the Folsom Plan Area Specific Plan (FPASP), which generally covers the viewshed surrounding the project site. The Broadstone Villas project is too far from the project site to be considered part of the same viewshed and is therefore not considered in this analysis.

The FPASP was found to have a significant unavoidable impact due to temporary, short-term degradation of visual character for developed project land uses during construction and due to development of the otherwise undeveloped open space (City of Folsom 2011). This indicates there

would be a significant and unavoidable cumulative impact during construction activities and after FPASP buildout. The project would have a significant impact on a scenic vista during construction due to the potential for fugitive dust and unsightly construction activities. Mitigation Measure AQ-2b, FPASP Mitigation Measure 3A.1-4, and Mitigation Measure AES-1 would require reduction of fugitive dust during construction, screening construction staging areas, and other measures to reduce visual impacts from construction, respectively. These measures would reduce construction impacts to less than significant. They would also ensure control of construction elements that tend to be visible at greater distances through removal of large equipment when no longer needed and minimization of dust generation. The project would also have a significant impact on scenic vistas during operation. While the design of the project would be visually consistent with the FPASP development, the central utility plant (CUP) could still be visible within a scenic vista view and may detract from views at the site. FPASP Mitigation Measure 3.B.1-2a, which requires enhancing exterior appearance of structural facilities, and FPASP Mitigation Measure 3B.1-2b, which requires a landscaping plan, would ensure the CUP is enhanced with aesthetic treatments and landscaping. **The project would therefore not make a cumulatively considerable contribution to the significant cumulative impact during construction or operation (Impact AES-1).**

The FPASP was found to have a significant and unavoidable impact on scenic resources in a designated scenic corridor because it would alter the viewshed for the northern portion of Scott Road (City of Folsom 2011). This portion of Scott Road is about 2 miles southwest of the project and not highly visible from the project site. However, development of the FPASP was found generally to affect scenic vistas, and it was noted that there was high viewer sensitivity because thousands of motorists on U.S. Route 50 (US 50) would see the site (City of Folsom 2011). US 50 is a county-designated scenic corridor. The FPASP was found to have a significant and unavoidable impact on scenic vistas as well as a significant impact during construction more generally (City of Folsom 2011). This would indicate a significant cumulative impact on US 50 as a scenic corridor. The project would also have a significant impact on scenic resources along US 50. Mitigation Measure AQ-2b, FPASP Mitigation Measure 3A.1-4, and Mitigation Measure AES-1 during construction ensure control of construction elements that tend to be visible at greater distances through removal of large equipment when no longer needed and minimization of dust generation. During operation, the CUP could still be visible from US 50 and may detract from views at the site. FPASP Mitigation Measure 3.B.1-2a, which requires enhancing exterior appearance of structural facilities, and FPASP Mitigation Measure 3B.1-2b, which requires preparing and implementing a landscaping plan, would ensure the CUP is enhanced with aesthetic treatments and landscaping. **The project would therefore not make a cumulatively considerable contribution to the significant cumulative impact during construction or operation (Impact AES-2).**

Construction of the project would not conflict with regulations related to scenic quality and would not contribute to a cumulative impact related to conflicts with zoning during construction. Development of the FPASP was found generally to affect scenic vistas, and it was noted that there was high viewer sensitivity because thousands of motorists on US 50 would see the site (City of Folsom 2011). The Sacramento County General Plan has scenic corridor policies to landscape and beautify county freeways (Policies CI-59, CI-60, CI-63) and the City of Folsom General Plan has a policy to maintain scenic corridors (Policy NCR 2.1.1). Therefore, there could be a significant cumulative impact related to conflict with these policies. Although much of the project design would comply with regulations governing scenic quality in an urbanized area, the CUP may still be visible from US 50 and detract from views at the site. FPASP Mitigation Measure 3.B.1-2a, which requires enhancing exterior appearance of structural facilities, and FPASP Mitigation Measure 3B.1-2b, which

requires a landscaping plan, would ensure the CUP is enhanced with aesthetic treatments and landscaping. **The project would therefore not make a cumulatively considerable contribution to the significant cumulative impact during operation (Impact AES-3).**

The FPASP was found to have a significant and unavoidable impact related to new sources of substantial light and glare and new skyglow effects during FPASP buildout (City of Folsom 2011). This indicates that cumulative operational lighting impacts in the FPASP would be significant. It is also probable that other projects in the FPASP would use construction lighting, like the project. Because the project alone would result in significant impacts, it is reasonable to conclude that the cumulative impact of construction lighting could also be significant. For operational lighting and glare, daytime light and glare effects of the project would be minimal due to design features like low-emissivity coatings and new landscaping that would screen street-level views. There would be no substantial sources of daytime glare on the site that could combine with the project sources to result in a considerable impact. For nighttime lighting, the project's interior lighting could result in significant impacts. Mitigation Measure AES-2 would minimize the interior lighting emanating from buildings. Exterior accent lighting would be at a substantial distance from receptors, but exterior overhead lighting for parking lots and access routes would result in significant nighttime lighting impacts. FPASP Mitigation Measure 3A.1-5 would ensure that the project uses directional lighting methods with shielded and cutoff-type light fixtures to minimize glare and upward-directed lighting. Mitigation Measure AES-2 would ensure that blue-rich white light LED lighting is not used at the project site, reducing impacts to a less-than-significant level. Additionally, the project site is adjacent to US 50, which itself is a source of nighttime lighting due to streetlights and vehicle lights. The project site constitutes only 34.6 acres of the approximately 3,500-acre FPASP area, minimizing the project's contribution to the significant cumulative impact. Likewise, temporary construction lighting adjacent to US 50 and on such a small portion of the FPASP indicates the contribution to the significant cumulative impact would be minimal. **The project would therefore not make a cumulatively considerable contribution to the significant cumulative impact during operation (Impact AES-4).**

4.3.2 Air Quality

According to the Sacramento Metropolitan Air Quality Management District's (SMAQMD) CEQA Guide (2021), the determination of air quality attainment plan consistency should consider the following factors for plan-level analyses. These criteria are consistent with El Dorado County Air Quality Management District (EDCAQMD) (2002) guidance for the assessment of air quality plan consistency.

- The plan's consistency with air quality plans and the metropolitan transportation plan (MTP)/sustainable communities strategy (SCS) growth projections.
- The relationship between the plan's projected vehicle miles traveled (VMT) and population growth (i.e., whether the two projections are proportional, or whether the VMT increases at a slower rate than population, indicating a successful mode shift).
- The extent to which the plan implements adopted transportation control measures.

SMAQMD (2021) also recommends that construction and operational emissions be considered relevant to the district's mass emission thresholds. By design, mass emission thresholds consider cumulative impacts within the Districts.

The project would be consistent with air quality plans and the MTP/SCS growth projections; would reduce vehicle trip lengths and facilitate mode shift; and would lessen the severity of growth-oriented criteria pollutants by minimizing growth in VMT, encouraging transit, fostering bicycle and pedestrian infrastructure, and supporting decarbonization of the transportation sector, indicating that the project would not contribute to a cumulative impact related to a conflict with air quality plans through any of these three avenues. Operational emissions at full implementation of the project would not exceed SMAQMD's or EDCAQMD's thresholds. Construction impacts would exceed SMAQMD's emissions thresholds for nitrogen oxides (NO_X) and particulate matter (PM) 10 microns or less in diameter (PM10), resulting in a significant impact. Mitigation Measures AQ-2a and AQ-2b would reduce NO_X and PM10 emissions below SMAQMD's thresholds. **Because significance thresholds are cumulative by design, the project therefore would not make a cumulatively considerable contribution related to plan consistency or cumulatively considerable net increases of any criteria pollutant at the regional level (Impact AQ-1, Impact AQ-2, Impact AQ-3).**

The FPASP was found to have a significant effect related to exposure of receptors to emissions such as mobile source toxic air contaminant emissions, construction toxic air contaminant emissions, and naturally occurring asbestos (NOA) (City of Folsom 2011). This indicates a potentially significant cumulative effect related to exposure of sensitive receptors to substantial pollutant concentrations. Construction and operation of the project would result in an estimated cancer risk from operational diesel particulate matter (DPM) of less than 1 per million and a hazard index of less than 1, far below the SMAQMD threshold, indicating that it would not make a cumulatively considerable contribution to the cumulative impact. The project would result in significant emissions related to localized PM and NOA during construction. Mitigation Measure AQ-2b requires regular watering, covering of materials, and other practices that will reduce construction-related fugitive dust emissions by up to 75 percent, depending on the source. Depending on the strategies selected (e.g., advanced engine tiers), Mitigation Measure AQ-2a may also reduce exhaust-related PM. Reduction by 75 percent is substantial, and there are few receptors near the project site. Mitigation Measure AQ-3a is required to reduce impacts associated with the generation of fugitive dust that potentially contains NOA in accordance with SMAQMD (2021) guidance. The project would also result in significant construction DPM emissions. Several mitigation measures would reduce DPM emissions from project construction emissions. However, there may be instances where specific conditions over the 20-year implementation of the project preclude the reduction of health risks below adopted thresholds. **As a result, the project would make a cumulatively considerable contribution to cumulative DPM emissions during construction of the project (Impact AQ-3).**

The FPASP was found to have a significant effect related to odors based on the potential for development of uses that may generate odors like fast food restaurants, deliveries to commercial uses, and sewer lift stations that could temporarily emit diesel odors (City of Folsom 2011). While the project would not include fast food restaurants or sewer lift stations, it would have deliveries that could emit diesel odors. Therefore, there could be a significant cumulative impact related to diesel odors during operations. The project's contribution to this impact would be localized and transitory. The FPASP was also found to have a significant impact related to odors from the use of construction equipment that generates odorous diesel emissions, but this impact was generally focused in the residential area east of the FPASP, the southwestern corner of the FPASP, and the southern area of the plan area. These areas are distant from the project, which is at the north central part of the FPASP. **Therefore, the project would not make a cumulatively considerable contribution to construction or operation odor impacts (Impact AQ-4).**

4.3.3 Biological Resources

The project is part of the FPASP, which generally covers the wildlife and plant habitat surrounding the project site. The Broadstone Villas project is too far from the project site to be considered connected to the project area. It is also surrounded by development such that any similar biological resources on that site would be isolated. Therefore, the Broadstone Villas project need not be considered in this analysis.

The FPASP was found to have a significant impact on special-status wildlife and plant species and outlined mitigation for impacts on Swainson's hawk, nesting tricolored blackbird, special-status bat roosts, vernal pool habitat, valley elderberry longhorn beetle and habitat, vernal pool invertebrates, and special-status plant species and habitat (City of Folsom 2011). This is indicative of a significant cumulative impact on these resources. The project would result in impacts on nesting birds during construction and operation. Additionally, buildings pose a risk of bird strikes. Mitigation Measures BIO-1a, BIO-1b, and BIO-1c would reduce this impact to less than significant by requiring preconstruction surveys and protective buffers, work on existing structures outside of nesting season or with the use of exclusion measures during nesting season, and designing building façades to minimize collisions, respectively. Additionally, the significant impact identified for the FPASP is principally related to impacts on habitat, such as loss of nesting and foraging habitat for raptors, filling of suitable vernal pool habitat, and loss of suitable plant habitat. These impacts would largely occur as part of site preparation and mass grading, which would occur as a separate project previously approved by the City of Folsom, as explained in Section 1.2, *Relationship to the Folsom South of US 50 Specific Plan and the FPASP EIR/EIS*. **As a result, the project would not make a cumulatively considerable contribution to the cumulative impact on special-status species (Impact BIO-1).**

The project would have no impact on riparian habitat and therefore would not contribute to any related cumulative impact (Impact BIO-2).

The project would have no impact on state and federally protected wetlands and waters and therefore would not contribute to any related cumulative impact (Impact BIO-3).

The FPASP was found to have a less-than-significant impact on wildlife movement (City of Folsom and U.S. Army Corps of Engineers 2010). This would indicate that cumulative wildlife movement impacts would be less than significant (Impact BIO-4).

The project would not conflict with any local policies on invasive species, and there are no trees on the project site. Therefore, the project would not contribute to any related cumulative impact (Impact BIO-5).

The project is not in an area covered by an adopted conservation plan and therefore would not contribute to any related cumulative impact (Impact BIO-6).

4.3.4 Archaeological, Historical, and Tribal Cultural Resources

The project is part of the FPASP, which covers all areas where projects may occur in close proximity to this project. Cultural and historical resources tend to be well defined and limited in size. The Broadstone Villas project is too far from the project site to have the potential to affect the same cultural or historical resource as the project and is therefore not considered in this analysis.

The project would have no impact on historical resources and therefore would not contribute to any related cumulative impact (Impact CUL-1).

The FPASP was found to have a significant effect related to disturbing or destroying previously unknown cultural resources (City of Folsom 2011). This indicates that cumulative impacts are significant. Similarly, the project has the potential to encounter buried and previously unknown buried archeological resources during excavations. Mitigation Measures CUL-2a and CUL-2b would require cultural resources training and following a specific protocol if a resource is discovered. These measures would ensure that workers would be able to identify resources that are uncovered and that any resources discovered are treated appropriately. Additionally, these resources are not currently known, such that these measures are preventive and there may be no impact on undiscovered resources. **Therefore, the project would not have a cumulatively considerable contribution to the cumulative impact (Impact CUL-2).**

The FPASP was found to have a significant impact related to the possible destruction or damage to human remains during construction, although no known burial sites are in the FPASP area (City of Folsom 2011; City of Folsom and U.S. Army Corps of Engineers 2010). This indicates that cumulative impacts are significant. The project was also found to have a potentially significant impact related to the project's potential to disturb human remains during construction, though no human remains are known to be in the project site. Mitigation Measure CUL-3b would also require following appropriate procedures if any are discovered. **Because there are no known burials in the FPASP, including the project site, the project would not have a cumulatively considerable contribution to the cumulative impact (Impact CUL-3).**

The project would have no impact on tribal cultural resources and therefore would not contribute to any related cumulative impact (Impact CUL-4, Impact CUL-5).

4.3.5 Energy

Information about the impacts of the 2035 General Plan is relevant to this analysis because it reflects energy use within the city of Folsom.

The General Plan EIR concluded that there would be potentially significant impacts due to consumption of energy (City of Folsom 2021b). This indicates there would be a potentially significant cumulative impact. The project energy consumption during construction would include fuel and gasoline and electricity consumption. However, efficiency of equipment would be comparable to that used at other construction sites, and construction practices would ensure that energy use would not be wasteful. The development itself would meet LEED Silver standards at a minimum and would meet a variety of other conservation and efficiency standards. The project would accommodate transit, bike, and pedestrian travel and would provide necessary medical care services. Therefore, the project's use of energy would not be inefficient, wasteful, or unnecessary. **The project would not make a cumulatively considerable contribution to the potentially significant cumulative impact related to energy consumption (Impact EN-1).**

The project would have no impact related to conflicts with state or local plans for renewable energy or energy efficiency and would therefore not contribute to any related cumulative impact (Impact EN-2).

4.3.6 Geology, Soils, and Seismicity

The project is part of the FPASP, which covers all areas where projects may occur in close proximity to this project. Geology, soils, and seismicity impacts generally overlap only when occurring in close proximity. The Broadstone Villas project is too far from the project site to have the potential to overlap with impacts of the project and is therefore not considered in this analysis.

The FPASP was found to have a significant impact related to seismic ground shaking (City of Folsom 2011). This indicates there would be a potentially significant cumulative impact. The project was found to have a less-than-significant impact. The site is not in an earthquake zone, there is no potential to seismically induced landsliding, and liquefaction at the site is unlikely. The project would also adhere to recommendations in the geotechnical report. **This would preclude substantial adverse effects, and the project would not make a cumulatively considerable contribution to the cumulative impact (Impact GEO-1).**

The FPASP was found to have a significant impact related to erosion (City of Folsom 2011). This indicates there would be a potentially significant cumulative impact. Erosion from the project would be limited through stockpiling of topsoil and implementation of the stormwater pollution prevention plan. The significant impact associated with the FPASP was largely related to extensive grading across the 3,500-acre FPASP area. These impacts on the project parcel would largely occur as part of site preparation and mass grading, which would occur as a separate project approved by the City of Folsom (Section 1.2). **As a result, the project would not make a cumulatively considerable contribution to the cumulative impact (Impact GEO-2).**

The FPASP was found to have a significant impact related to construction in bedrock and rock outcrops and unstable soils (City of Folsom 2011). This indicates there would be a potentially significant cumulative impact. The project is underlain by bedrock, has a low potential for liquefaction, and would adhere to geotechnical report design recommendations. **This would preclude impacts that would result in a landslide, lateral spreading, subsidence, liquefaction, or collapse, and the project would not make a cumulatively considerable contribution to the cumulative impact (Impact GEO-3).**

The FPASP was found to have a significant impact related to construction in expansive soils (City of Folsom 2011). This indicates there would be a potentially significant cumulative impact. The significant impact was related to most of the FPASP elements being located on soils with a moderate to high shrink-swell potential (City of Folsom 2011). However, near-surface soils at the project site have a very low expansion potential, and the project would adhere to provisions in the California Building Standards Code. **Therefore, the project would not make a cumulatively considerable contribution to the cumulative impact (Impact GEO-4).**

The project would not use septic systems and therefore would not contribute to any related cumulative impact (Impact GEO-5).

The FPASP was found to have a significant impact related to damage or destruction of previously unknown paleontological resources (City of Folsom 2011). This determination was connected to the presence of certain sediments on the western edge of the FPASP area (City of Folsom 2011). The project site, however, has been determined to have formations that are not considered to be paleontologically sensitive. **Therefore, the project would not make a cumulatively considerable contribution to the cumulative impact (Impact GEO-6).**

4.3.7 Greenhouse Gas Emissions

The Folsom GHG Reduction Strategy is considered a qualified plan under CEQA Guidelines Section 15183.5(b) (City of Folsom 2021c). The City of Folsom adopted the Folsom GHG Reduction Strategy on August 28, 2018 as part of the *City of Folsom General Plan 2035* (General Plan) (City of Folsom 2018a). The Folsom GHG Reduction Strategy includes measures designed to reduce communitywide GHG emissions by 40 percent below the 2020 target[1] by 2030; 51 percent below the 2020 target by 2040; and 80 percent below the 2020 target by 2050 (City of Folsom 2018b). The City has developed a Consistency Checklist to streamline review of new development projects for consistency with the Folsom GHG Reduction Strategy (City of Folsom 2021c). Under CEQA Guidelines Section 15183.5(b), "a lead agency may determine that a project's incremental contribution to a cumulative effect is not cumulatively considerable if the project complies with the requirements in a previously adopted plan or mitigation program under specified circumstances." As demonstrated in the discussion for Impact GHG-2, the project meets or exceeds all applicable measures. **Therefore, the project would not make a cumulatively considerable contribution to cumulative GHG impacts (Impact GHG-1, Impact GHG-2).**

4.3.8 Hazards and Hazardous Materials

The project is part of the FPASP, which covers all areas where projects may occur in close proximity to the project. Hazards and hazardous materials impacts generally overlap only when occurring in close proximity. The Broadstone Villas project is too far from the project site to have the potential to overlap with impacts of the project and is therefore not considered in this analysis.

The FPASP was found to have a less-than-significant impact related to accidental spills from routine transport, use, and disposal of hazardous materials (City of Folsom and U.S. Army Corps of Engineers 2010). **This indicates cumulative impacts would be less than significant (Impact HAZ-1).**

There is potential for soil contamination to be present onsite due to the presence of an historic railroad alignment through the project site and due to lead deposition from US 50. Ground disturbance would be limited to the project site and any impacts would not combine with impacts from other activities. **There would be no cumulative impact (Impact HAZ-2).**

The project would not be within 0.25 mile of a school and therefore would not contribute to any related cumulative impact (Impact HAZ-3).

The project would not be located on any known hazardous materials sites or facilities and therefore would not contribute to any related cumulative impact (Impact HAZ-4).

The project would not be located in an airport land use plan or within 2 miles of an airport and therefore would not contribute to any related cumulative impact (Impact HAZ-5).

The project would not interfere with emergency vehicles and services or response and evacuation plans and therefore would not contribute to any related cumulative impact (Impact HAZ-6).

[1] The 2020 target is 15 percent below 2005 baseline levels.

The FPASP area was found not to be in an area of high or extremely high fire hazard severity, and it was determined that FPASP implementation would not expose people or structure to a significant risk associated with wildland fires (City of Folsom 2011). **This indicates that cumulative wildfire impacts would be less than significant (Impact HAZ-7).**

4.3.9 Hydrology and Water Quality

The project is part of the FPASP, which covers all areas where projects may occur in close proximity to this project. Hydrology impacts like water quality and local drainage tend to overlap when occurring in close proximity. However, some impacts such as flooding and groundwater consumption are geographically larger and can overlap with impacts occurring at a greater distance. For those, the Broadstone Villas project is also considered in this analysis.

The FPASP was found to have significant effects on water quality during construction (City of Folsom 2011). This indicates there would be a potentially significant cumulative impact. The project would also have significant impacts on water quality during construction. The FPASP impact was based on construction occurring over 2,500 acres, such as grading and revegetation, potentially resulting in soil erosion and sedimentation as well as the accidental release of pollutants to waters (City of Folsom 2011). The project has the potential to result in sedimentation and accidental release of pollutants to waters. Mitigation Measure WQ-1 would reduce these impacts. Additionally, the impacts from grading on the project parcel would largely occur as part of site preparation and mass grading, which would occur as a separate project approved by the City of Folsom (see Section 1.2). **As a result, the project would not have a cumulatively considerable contribution to the cumulative impact during construction (Impact WQ-1).**

The FPASP was found to have significant impacts on water quality during operation (City of Folsom 2011). This indicates there would be a potentially significant cumulative impact. The project would potentially release pollutants into receiving waters due to an increase in impervious surface areas but would incorporate low-impact development design features. The FPASP significant impact was based on the final design plans and specifications not being submitted, meaning that contaminants from urban runoff may discharge into surface waters; mitigation required development and implementation of best management practices and water quality maintenance plan for development projects requiring a subdivision map (City of Folsom 2011). The project does not require a subdivision map and would be designed and maintained in accordance with local and Central Valley Regional Water Quality Control Board water quality requirements, such as the municipal separate storm sewer system permit, University of California (UC) sustainability practices, and procedures for stormwater management. **As a result, the project would not have a cumulatively considerable contribution to the cumulative impact during operation (Impact WQ-1).**

The FPASP was found to have less-than-significant impacts related to groundwater recharge (City of Folsom and U.S. Army Corps of Engineers 2010). The Broadstone Villas project was also found to have a less-than-significant impact because the amount of new impervious surfaces would be minimal, and because the parcel is not on an area important for groundwater recharge (City of Folsom 2021a). **This indicates that cumulative impacts would be less than significant (Impact WQ-2).**

The FPASP was found to have a significant impact related to the increased risk of flooding and changes to hydrology from increased stormwater runoff (City of Folsom and U.S. Army Corps of Engineers 2011). The Broadstone Villas project was also found to have potentially significant effects

related to runoff from the project site (City of Folsom 2021a). This indicates there would be a potentially significant cumulative impact. The project would also increase impervious surfaces and peak flows. The FPASP's significant impact was based on the increase of impervious surfaces and its increase in the stormwater generated, including from developments north of US 50 that contribute flows to the same watershed (City of Folsom 2011). The FPASP contains mitigation requiring submittal and implementation of final drainage plans (City of Folsom 2011). Additionally, the Broadstone Villas project includes a mitigation measure that requires a drainage plan that limits flows to pre-development levels (City of Folsom 2021a). However, low-impact development would be implemented at the project site, and changes in stormwater runoff rates or volumes would not exceed the capacity of existing or planned stormwater drainage systems, similar to other projects in the city. **As a result, the project would not have a cumulatively considerable contribution to this cumulative impact (Impact WQ-3).**

The project would not conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan and therefore would not contribute to any related cumulative impact (Impact WQ-4).

4.3.10 Land Use and Planning

The project would not physically divide an established community and would therefore not contribute to any related cumulative impact (Impact LU-1).

The project would not conflict with existing plans and policies for the purpose of reducing or mitigating environmental impacts. Therefore, it would not contribute to any related cumulative impact (Impact LU-2).

4.3.11 Noise

The project is part of the FPASP, which covers all areas where projects may occur in close proximity to this project. Noise and vibration impacts generally overlap (or combine to result in more severe impacts on a given receptor) only when occurring in close proximity. The Broadstone Villas project is too far from the project site to have the potential to overlap with impacts of the project and is therefore not considered in this analysis.

The FPASP was found to have significant noise impacts during construction (City of Folsom 2011). This indicates a significant cumulative impact. Although most project construction would occur during daytime hours (when people are generally less sensitive to noise), the project would result in potentially significant construction noise impacts from Master Plan construction during daytime hours, early morning hours, and nighttime hours. Mitigation measures would reduce impacts, but daytime construction noise would remain significant and unavoidable. Construction of Phase 1 would also result in noise generation but it would be less than significant due to the increased distance between construction activity areas and offsite noise-sensitive land uses. Cumulative construction noise impacts typically occur when an individual receptor is located between two construction projects and is therefore exposed to noise from two simultaneous projects as opposed to noise from one project. Because other construction projects are ongoing in the vicinity of the project, and because construction may overlap for multiple projects and expose nearby receptors to greater noise levels than would be experiences from one project alone, cumulative construction noise impacts would be considered significant. **Because the project would have direct construction noise impacts that would not be reduced to less-than-significant levels with**

mitigation during daytime hours, the project contribution to this cumulative impact would be considered cumulatively considerable. Cumulative construction noise impacts during daytime hours would be significant and unavoidable (Impact NOI-1).

The FPASP was found to have a significant impact due to increases in traffic noise and from stationary sources during project operation (City of Folsom 2011). This indicates a significant cumulative operational noise impact. In addition, the project would result in an increase in traffic in the project vicinity. Cumulative traffic noise impacts were assessed, and modeling was conducted for baseline, cumulative no project, and cumulative plus project conditions to estimate traffic noise increases from project development. As described in Section 3.11, *Noise*, a 3-decibel (dB) increase is considered barely noticeable and is the threshold used to determine if a significant traffic noise impact would occur. Refer to Table 4-3 for the traffic noise modeling results.

Table 4-3. Modeled Cumulative Traffic Noise Levels for the Master Plan

Roadway	Segment Location	Baseline dBA L_{dn}	Cumulative dBA L_{dn}	Cumulative plus Project dBA L_{dn}	Baseline to Cumulative plus Project Delta (dB)	Cumulative No Project to Cumulative plus Project Delta (dB)
Broadstone Parkway	North of Cavitt Drive	64.7	65.1	65.4	0.7	0.3
Broadstone Parkway	South of Palladio Parkway	67.5	67.6	67.6	0.1	0.1
East Bidwell Street	East of Oak Avenue	73.0	73.1	73.3	0.3	0.2
East Bidwell Street	North of Iron Point Drive	73.1	74.0	74.2	1.1	0.2
East Bidwell Street	South of Alder Creek Parkway	70.5	67.6	68.4	-2.1	0.8
Iron Point Drive	East of Cavitt Drive	69.2	71.3	71.4	2.1	0.1
Iron Point Road	West of Broadstone Parkway	69.1	70.0	70.2	1.1	0.2
White Rock Road	East of East Bidwell Street	67.2	70.1	70.3	3.1	0.2
White Rock Road	West of East Bidwell Street	70.0	72.5	72.6	2.7	0.1

Refer to Appendix I, *Measured Noise Dataset*, for the complete traffic noise modeling results.
Note: Modeled noise levels at a fixed distance of 50 feet from the roadway centerline.
dB = decibel; dBA = A-weighted decibel; L_{dn} = day-night sound level

As shown in Table 4-3, increases in noise from baseline to cumulative plus project conditions range from -2.1 dB to 3.1 dB. In general, and as described previously, a 3-dB increase (considered to be "barely perceptible") is considered to be significant increase in noise. Only one analyzed roadway segment (White Rock Road East of Bidwell Street) was determined to have a 3-dB or greater increase in noise with implementation of cumulative projects in the project site vicinity (including the Master Plan). Cumulative traffic noise impacts along this segment would be considered significant. However, the project contribution to this cumulative increase (e.g., cumulative no project compared to cumulative plus project conditions) is only 0.2 dB. An increase of 0.2 dB is well below

the threshold of perception and would not be considered substantial. Therefore, the project would not have a cumulatively considerable contribution to cumulative traffic noise impacts.

Regarding amplified sound from the project, amplified sound from events at project courtyards would attenuate to range from imperceptible to above baseline conditions at nearby noise-sensitive land uses. Events with amplified sound would be limited to daytime hours and would be required to comply with stipulations of the applicable event permit and City Municipal Code. In addition, it is very unlikely that other nearby developments would host events with amplified sound that would overlap with project events and would result in greater noise levels at nearby receptors than would occur form project events alone. Cumulative noise impacts from amplified music or speech would be considered less than significant.

The project would have stationary equipment in the CUP and on building rooftops that would generate significant noise levels, though these would be reduced to less-than-significant levels through Mitigation Measure NOI-2a. Emergency generator testing would also result in a significant noise impact, but it would be reduced to a less-than-significant level with Mitigation Measure NOI-2b. The significant impact of the FPASP was associated with noise sources such as heating, venting, and air conditioning equipment; emergency generators; and loading activities. Because unmitigated project-related operational noise from equipment could combine with noise from cumulative projects to expose individual receptors to greater noise levels than they would experience from the project alone, cumulative operational noise impacts would be considered significant. **Therefore, the project would make a cumulatively considerable contribution to this significant impact before mitigation (Impact NOI-2). However, the project contribution would be reduced to less than cumulatively considerable with project-specific mitigation, which would ensure that compliance with the applicable noise standards is achieved.**

The FPASP was found to have a significant vibration impact during construction (City of Folsom and U.S. Army Corps of Engineers 2010). This indicates cumulative impacts related to vibration would be significant. The location of activities on the project site that could cause the higher levels of vibration are at a sufficient distance from structures that vibration levels would not exceed the applicable damage thresholds for buildings. Regarding annoyance, the nearest residential or sensitive (i.e., offsite hospital) land uses are at sufficient distances that vibration levels would be well below the thresholds for annoyance. Vibration-generating activities would also largely occur during the day, when people are less susceptible to disturbance from vibration; the only construction activities proposed for non-daytime hours are concrete pours, which do not involve ground-disturbing equipment (e.g., equipment that imparts energy into the ground). **Therefore, because the project's direct vibration impacts would be less than significant due to distances between construction areas and nearby sensitive uses, the project would not make a cumulatively considerable contribution to construction vibration impacts (Impact NOI-3).**

The FPASP was found to have less-than-significant impacts related to aircraft overflights (City of Folsom and U.S. Army Corps of Engineers 2010). The project would also not result in an increase in aircraft overflights or result in the citing of sensitive uses in areas that currently experience significant aircraft noise. Direct project impacts related to aircraft noise would be less than significant, and the cumulative impact would also be less than significant (Impact NOI-4).

4.3.12 Population and Housing

Information from the 2035 General Plan is relevant to this analysis because it reflects population growth within the city of Folsom. The 2035 General Plan was found not to have growth-inducing impacts (City of Folsom 2021b). **This indicates that cumulative impacts related to unplanned population growth would be less than significant (Impact POP-1).**

The project would have no impact related to displacement of people or housing and would not contribute to any related cumulative impact (Impact POP-2).

4.3.13 Public Services

The project would not result in the need for new or physically altered government facilities for fire protection, police protection, schools, or other public facilities and therefore would not contribute to any related cumulative impact (Impact PS-1, Impact PS-2, Impact PS-3, Impact PS-4).

4.3.14 Recreation

The project is part of the FPASP, which covers areas in close proximity to this project that might experience increased recreational use. The Broadstone Villas project is near the closest parks to the FPASP and is therefore also considered.

The FPASP was found to have less-than-significant impacts on existing recreational facilities because it would include recreational facilities (City of Folsom and U.S. Army Corps of Engineers 2010). The Broadstone Villas project was also determined to have a less-than-significant impact because onsite recreational facilities would reduce some increase in demand for offsite parks (City of Folsom 2021a). **This indicates cumulative impacts would be less than significant (Impact REC-1).**

4.3.15 Transportation and Circulation

Vehicle Miles Traveled

The project is in the FPASP and proposes development that is consistent with the mixed-use land use pattern and multimodal transportation network of the larger FPASP area. As the project and the community develop over time, work VMT per employee in the project vicinity is projected to decrease. The density and mix of land uses in the FPASP will provide complementary residential and retail uses near the project. Under the cumulative scenario, work VMT per employee of the project site (as represented by Hex EV-130) is projected to be 17.66. The VMT reduction strategies in the Master Plan will reduce work VMT per employee by 4 percent to 16.95. This value is more than 20 percent below the baseline regional average (refer to Tables 3.15-4 and 3.15-5).

The project would generate work VMT per employee more than 15 percent below baseline regional average; **the project's cumulative VMT impact would be less than significant**.

Bicycle and Pedestrian Travel

Planned bicycle and pedestrian facilities surrounding the project site include a regional Class I bikeway and trail, as well as Class II bike lanes and sidewalks along Innovation Drive and Wellness

Way (Figures 3.15-3 and 3.15-4). According to the Master Plan, UC Davis would provide a 25-foot easement along the site's northern and eastern frontages to allow construction of the bikeway and trail. All planned bicycle and pedestrian facilities would be constructed as part of the Folsom Ranch Development. The project would not interfere with a planned bicycle or pedestrian facility; rather, it would integrate into the network by providing bicycle and pedestrian access points around its perimeter.

The project would include new employment and medical uses, which would result in increased vehicular, bicycle, and pedestrian trips on local roadways such as Innovation Drive and Wellness Way. With dedicated bicycle and pedestrian facilities along these local roadways and the extensive active transportation network identified in the FPASP, future bicycle and pedestrian facilities would generally be capable of accommodating increases in bicycle and pedestrian demand associated with the project. **Therefore, this cumulative impact would be less than significant**.

Transit

The FPASP envisions a future bus service or bus rapid transit corridor along Alder Creek Parkway (Figure 3.15-5). The project is not directly adjacent to Alder Creek Parkway and would not interfere with the right-of-way or potential design features of the future transit corridor. The project includes a planned transit stop on Innovation Drive to facilitate future local transit service. **Therefore, this cumulative impact would be less than significant**.

Transportation Network

By the cumulative year of 2040, the project and much of the FPASP are expected to be at or close to full implementation. Modifications to the transportation network that occur over time from the project and FPASP will be consistent with applicable design standards and the anticipated changes in travel demand over time have been accounted for in the FPASP transportation network planning. **Therefore, this impact would be less than significant**.

4.3.16 Utilities and Service Systems

The project is part of the FPASP, which covers a broad area of development in the city of Folsom. This development was considered together in determining whether additional utilities were needed and therefore adequately represents the utilities and services system scenario for this cumulative impact analysis.

The FPASP includes an onsite stormwater system to collect and convey 100-year storm events with surface swales, catch basins, drainage inlets, underground pipes, and detention basins (City of Folsom and U.S. Army Corps of Engineers 2010). The FPASP concluded that this system would not necessarily meet all stormwater criteria and standards and could result in a significant impact, and mitigation was defined to demonstrate conformance to applicable standards (City of Folsom 2011). Nonetheless, this indicates a potential cumulative impact. **Drainage design and runoff discharge for the project would comply with applicable state and city requirements, including water quality and quantity standards, indicating it would not make a cumulatively considerable contribution to this cumulative impact (Impact UT-1).** Impacts from constructing these improvements are addressed by topic throughout the EIR.

The FPASP was found to have less-than-significant increased demand for electricity and infrastructure, telecommunications service, and natural gas and infrastructure (City of Folsom and

U.S. Army Corps of Engineers 2010). **Therefore, cumulative impacts related to electric power and natural gas capacity would be less than significant (Impact UT-1).**

The FPASP was found to have sufficient supplies to serve projected water demand but also concluded that there could be a potentially significant impact if no water project is implemented soon enough after approval of the FPASP (City of Folsom 2011). This indicates a potentially significant cumulative impact. The FPASP includes a water supply component, and mitigation required submittal of water supply availability prior to, for example, City approval for nonresidential uses (City of Folsom 2011). **Water demand of the project would not exceed the projections for the Regional Commercial Center (RC) land use in the FPASP, indicating that the project would not make a cumulatively considerable contribution to the cumulative impact (Impact UT-1, Impact UT-2).** Impacts from constructing water distribution improvements are addressed by topic throughout the EIR.

The FPASP was found to have a significant impact related to increased wastewater treatment capacity and infrastructure because there was not an existing wastewater collection system or conveyance system or an offsite main to serve the FPASP and because there was a need for expansion of the Sacramento Regional Wastewater Treatment Plant (SRWTP) (City of Folsom 2011). This indicates a potentially significant impact. Mitigation would require submitting proof of adequate facilities and wastewater treatment capacity prior to issuance of building permits, among other things (City of Folsom 2011). Construction and operation of the expanded SRWTP would result in significant impacts on water quality, hydrology, fisheries, traffic, and noise that could be mitigated to less than significant. Short-term NO_X impacts during construction would be significant and unavoidable. The project would be served by the SRWTP, indicating that it would be part of the reason for the expansion of the SRWTP. **Because the expansion is meant in part to serve the FPASP and the development within it, the project's contribution to the cumulative impact would be cumulatively considerable (Impact UT-1, Impact UT-3).** The project also includes connections to sanitary sewer, the impacts of which are addressed by topic throughout the EIR.

The FPASP was found to have less-than-significant solid waste generation during construction and after implementation, concluding there would be sufficient landfill capacity (City of Folsom and U.S. Army Corps of Engineers 2010). **Therefore, cumulative impacts would be less than significant (Impact UT-4).**

The project would not be inconsistent with federal, state, or local management and reduction statutes and regulations related to solid waste and would not contribute to any related cumulative impact (Impact UT-5).

4.3.17 Wildfire

The project is part of the FPASP, which covers all areas where projects may occur in close proximity to this project. Wildfire impacts generally overlap only when occurring in close proximity. The Broadstone Villas project is too far from the project site and is in a substantially developed area so that its impacts would not have the potential to overlap with impacts of the project.

The FPASP area was found not to be in an area of high or extremely high fire hazard severity, and it was determined that project implementation would not expose people or structure to a significant risk associated with wildland fires (City of Folsom 2011). **This indicates that cumulative wildfire impacts would be less than significant (Impact WF-1, Impact WF-2, Impact WF-3, Impact WF-4).**

Chapter 5
Other CEQA Considerations

Section 15126 of the California Environmental Quality Act (CEQA) Guidelines requires consideration of all project aspects when evaluating a project's impact on the environment, including planning, acquisition, development, and operation. As part of analysis, this EIR must also identify the following.

- Significant environmental impacts that cannot be avoided if the project is implemented.
- Significant irreversible changes that would result from the project.
- Growth-inducing impacts of the project.

Although growth inducement itself is not considered an environmental effect, it could potentially lead to foreseeable physical environmental effects, which are discussed in Section 5.3, *Growth-Inducing Impacts*.

5.1 Significant Unavoidable Impacts

Section 15126.2(c) of the CEQA Guidelines requires that an EIR include a detailed statement setting forth, in a separate section, any significant effect on the environment that cannot be avoided if the project is implemented. Accordingly, this section summarizes the project's significant environmental impacts that cannot be mitigated to a less-than-significant level.

Chapter 3, *Existing Environmental Setting, Impacts, and Mitigation*, describes the potential environmental impacts of the UC Davis Folsom Center for Health Master Plan (project) and identifies mitigation measures to reduce impacts to the extent feasible. Chapter 4, *Cumulative Impacts*, determines whether the incremental effects of the project are significant when viewed in connection with the effects of past projects, other current projects, and reasonably foreseeable future projects. With the recommended mitigation measures, most of the impacts associated with the project are reduced to a less-than-significant level.

The following impacts are considered significant and unavoidable because feasible mitigation is either unavailable or insufficient to reduce the impact to a less-than-significant level. The impacts listed below are analyzed and discussed in Chapter 3.

The project would result in the following significant and unavoidable environmental impacts following all feasible mitigation measures.

- Impact AQ-3: Exposure of sensitive receptors to substantial pollutant concentrations

5.2 Significant Irreversible Environmental Changes

Section 15126.2(d) of the CEQA Guidelines requires discussion of any significant irreversible environmental changes that would occur due to the project. Section 15126.2(d) states the following.

> Uses of nonrenewable resources during the initial and continued phases of the project may be irreversible because a large commitment of such resources makes removal or nonuse thereafter unlikely. Primary impacts and, particularly, secondary impacts (such as highway improvement which provides access to a previously inaccessible area) generally commit future generations to similar uses. Also, irreversible damage can result from environmental accidents associated with the project. Irretrievable commitments of resources should be evaluated to assure that such current consumption is justified.

Generally, a project would result in significant irreversible environmental changes if any of the following were to occur.

- The primary and secondary impacts would generally commit future generations to similar uses.
- The project would involve uses in which irreversible damage could result from any potential environmental accidents associated with the project.
- The project would involve a large commitment of nonrenewable resources.
- The proposed consumption of resources is not justified (e.g., the project involves the wasteful use of energy).

The project would result in the commitment of the project site to medical office, hospital, ambulatory care, hotel, and parking land uses that would irreversibly remove the project site from other potential commercial uses in the FPASP. Resources that would be permanently and continually consumed by the project include water, electricity, natural gas, and fossil fuels. The quantity and rate of consumption of these resources would be reduced through continued and expanded implementation of the UC Sustainable Practices Policy (University of California 2020) and the energy efficiency and conservation programs identified in this EIR. Accordingly, the project would not result in significant environmental impacts related to the unnecessary, inefficient, or wasteful use of resources.

Notwithstanding the project benefits discussed in this EIR, the project's construction and operational activities would result in the irretrievable commitment of nonrenewable energy resources, primarily in the form of fossil fuels such as diesel fuel, fuel oil, natural gas, and gasoline for automobiles and construction equipment. However, during operation, the project would comply with or exceed the requirements of applicable building codes (including Title 24 of the California Code of Regulations). It would also do the following.

- Implement energy efficiency, conservation, and sustainability policies.
- Implement project-specific mitigation measures.
- Ensure natural resources are conserved or recycled to the maximum extent feasible.

Additionally, it is possible that new technologies or systems would emerge or become more cost-effective and would be incorporated into the project's components. This would further reduce the project's reliance on nonrenewable natural resources.

In summary, despite these efforts, consumption of natural resources would increase with implementation of the project as the site is currently vacant.

5.3 Growth-Inducing Impacts

Section 15126.2(e) of the CEQA Guidelines states that an EIR shall discuss the ways that the project could foster economic or population growth or foster construction of additional housing, either directly or indirectly, in the surrounding environment. Analysis must include projects that would remove obstacles to population growth (e.g., expanding a wastewater treatment plant). Increases in population may put pressure on existing public facilities that would require expanded or new public facilities that could cause significant environmental effects. According to the CEQA Guidelines, an EIR should also discuss the characteristics of a project that might encourage or facilitate other activities that could significantly affect the environment either individually or cumulatively. The CEQA Guidelines also state growth in any area should not be assumed beneficial, detrimental, or of little significance to the environment.

Generally, direct growth inducement would result if a project involved constructing new housing. Indirect growth inducement would result if a project resulted in any of the following.

- Substantial new permanent employment opportunities (e.g., commercial, industrial, or governmental enterprises).
- Substantial short-term employment opportunities (e.g., construction employment) that indirectly stimulates the need for additional housing and services to support the new temporary employment demand.
- Removing an obstacle to additional growth and development, such as removing a constraint on a required public utility or service (e.g., constructing a trunk sewer line with excess capacity through an undeveloped area).

The CEQA Guidelines do not distinguish between planned and unplanned growth for purposes of considering whether a project would foster additional growth. Therefore, for purposes of this EIR, to reach the conclusion that a project is growth-inducing as defined by CEQA, the EIR must find that the project would foster (i.e., promote or encourage) growth in economic activity, population, or housing, regardless of whether the growth is already approved by and consistent with local plans, in this case the FPASP. The conclusion does not determine that induced growth is beneficial or detrimental, consistent with CEQA.

Environmental effects resulting from induced growth are defined in CEQA Guidelines Section 15358(a)(2), in its definition of indirect effects. These indirect or secondary effects of growth may result in significant environmental impacts. The CEQA Guidelines do not require that an EIR speculate about the precise location and site-specific characteristics of significant, indirect effects caused by induced growth, but the CEQA Guidelines do require a good-faith effort to disclose what is feasible to assess. Potential secondary effects of growth could include consequences such as increased demand on community and public services and infrastructure, increased traffic and noise, degradation of air and water quality, or degradation or loss of plant and wildlife habitat that are the result of growth fostered by the project.

The following discussion analyzes potential growth-inducing impacts that might occur during implementation of the project in the following areas.

- Population growth
- Indirect effects resulting in the construction of new housing

- Economic growth
- Removal of obstacles to growth by expanding public facilities or infrastructure capacity

The project would result in an increase in the on-campus number of employees (+524) over existing conditions. As discussed in Section 3.2, *Air Quality*, the FPASP EIR/environmental impact statement (EIS) calculated that the FPASP would result in 13,210 new employees. Using the same factors used in the FPASP EIR/EIS analysis, the project site land use designation under the Specific Plan (SP-RC-PD) would generate a maximum of approximately 1,200 employees. The 524 new employees anticipated to result from the project is greatly below the estimate in the FPASP. Moreover, because employment associated with the project would not result in a demand for additional housing beyond that planned in the area (refer to Section 3.12, *Population and Housing*), the new employees would be part of the population anticipated by the Folsom General Plan. Accordingly, the project would not result in the creation of substantial unplanned employment or population and is thus consistent with both the metropolitan transportation plan/sustainable communities strategy growth projections and what was anticipated under the FPASP. The environmental impacts of the project's incremental growth are analyzed and addressed, both individually and cumulatively, in the relevant sections of this EIR.

The project's potential indirect increase in population growth would be partially offset by the other new commercial and residential uses being developed nearby within the FPASP. In relationship to growth occurring in the region, this impact is minimal, and well within regional growth plans. Further, the growth occurring within the FPASP would have access to healthcare within a closer driving distance than without the project. Chapter 4 of this EIR describes the cumulative impacts that are expected and foreseeable at this time. Therefore, while the project could result in growth-inducing impacts off campus beyond those inherent to the project itself as analyzed here, those impacts are not substantial and adequately addressed throughout this EIR, including in Sections 3.12; 3.13, *Public Services*; and 3.14, *Recreation*.

The project would be implemented within the FPASP and pursuant to the Development Agreement (Section 1.2, *Relationship to the Folsom South of US 50 Specific Plan and the FPASP EIR/EIS*, of this EIR), the seller is required to conduct site grading and install backbone infrastructure. As discussed in the preceding paragraphs, the project is less intense than the commercial uses envisioned by the FPASP and would not be considered growth inducing. Therefore, the project would not remove obstacles to growth in population through expanding public facilities or infrastructure capacity; the project does not anticipate growth beyond what was already anticipated to occur and does not anticipate growth beyond what is addressed in this EIR.

Chapter 6
Alternatives

6.1 Introduction

EIRs must consider alternatives to the proposed project that could substantially reduce or avoid significant environmental impacts. Section 15126.6(b) of the California Environmental Quality Act (CEQA) Guidelines states the following.

> Because an EIR must identify ways to mitigate or avoid the significant effects that a project may have on the environment (Pub. Resources Code Section 21002.1), the discussion of alternatives shall focus on alternatives to the project or its location which are capable of avoiding or substantially lessening any significant effects of the project, even if these alternatives would impede to some degree the attainment of the project objectives, or would be more costly.

Section 15126.6(a) of the CEQA Guidelines requires EIRs to describe the following.

> ... a range of reasonable alternatives to the project, or to the location of the project, which would feasibly attain most of the basic objectives of the project but would avoid or substantially lessen any of the significant effects of the project and evaluate the comparative merits of the alternatives. An EIR need not consider every conceivable alternative to a project. Rather it must consider a reasonable range of potentially feasible alternatives that will foster informed decision-making and public participation. An EIR is not required to consider alternatives that are infeasible. The lead agency is responsible for selecting a range of project alternatives for examination and must publicly disclose its reasoning for selecting those alternatives. There is no ironclad rule governing the nature or scope of the alternatives to be discussed other than the rule of reason.

Also see CEQA Guidelines Section 15126.6(f).

The CEQA Guidelines require that an EIR include sufficient information about each alternative to allow meaningful evaluation, analysis, and comparison with the project. If an alternative would cause one or more significant effects in addition to those that would be caused by the project, the significant effects of the alternative must be discussed but in less detail than the significant effects of the project as proposed (CEQA Guidelines Section 15126.6(d)). The CEQA Guidelines further require consideration of a "no project" alternative (CEQA Guidelines Section 15126.6(e)).

In defining "feasibility" (e.g., "... feasibly attain most of the basic objectives of the project ..."), CEQA Guidelines Section 15126.6(f)(1) states, in part, the following.

> Among the factors that may be taken into account when addressing the feasibility of alternatives are site suitability, economic viability, availability of infrastructure, general plan consistency, other plans or regulatory limitations, jurisdictional boundaries (projects with a regionally significant impact should consider the regional context), and whether the proponent can reasonably acquire, control or otherwise have access to the alternative site (or the site is already owned by the proponent). No one of these factors establishes a fixed limit on the scope of reasonable alternatives.

6.2 Project Overview

The UC Davis Folsom Center for Health would provide medical services, research, and educational services to Sacramento and El Dorado Counties and function as a supporting facility to the UC Davis Medical Center in Sacramento.

UC Davis proposes the UC Davis Folsom Center for Health Master Plan (project). The project would consist of approximately 400,000 square feet (sf) of building space for wellness and health care services, which would be built in multiple phases, as shown in Table 2-2. The project is anticipated to include a 110,000-sf medical office building (MOB), a 114,000-sf ambulatory surgery center (ASC), an 80,000-sf hotel with approximately 100 rooms, an 86,000-sf micro-hospital which includes an emergency department with up to 30 beds, a central utility plant (CUP), and approximately 1,357 parking stalls. In addition to the programmatic evaluation of the Folsom Center for Health Master Plan, this EIR provides detailed environmental analysis for Phase 1 development of the project, which is anticipated to include the MOB, parking, and other supporting infrastructure.

The project is located in the city of Folsom, south of U.S. Route 50 (US 50) on East Bidwell Street. The project site is currently an undeveloped parcel within the Folsom Plan Area Specific Plan (FPASP), which was adopted by the City of Folsom along with a certified programmatic EIR in 2011. UC Davis completed the purchase of the 34.6-acre parcel along Bidwell Road near the US 50 interchange in October 2021.

6.2.1 Project Objectives

When determining what alternatives should be considered in an EIR, project objectives must be considered; attainment of most of a project's basic objectives forms one of the tests of whether an alternative is feasible. UC Davis identified the following project objectives as previously described in Chapter 2, *Project Description*.

- Provide quality medical care throughout the Sacramento region.
- Fulfill the University of California (UC) mission of teaching, research, public service, and patient care.
- Increase UC Davis Health public presence and facilities closer to the growing population in eastern Sacramento County and on the US 50 corridor.
- Plan development of the site by UC and its partners as a coherent program meeting the UC vision for the development and built in phases.
- Implement sustainable site design and building design practices to support ongoing implementation of the UC Sustainable Practices Policy.
- Incorporate a holistic approach to building the site, integrating buildings, infrastructure, and landscape as one collective system. Develop a strong public realm and landscape character, providing outdoor spaces to support patient health and family support. Comply with Health Care Access and Information (HCAI) standards and requirements for health care facilities.
- Develop the site for uses that are supportive of patient care and the UC mission, including family lodging.

- Create robust pedestrian connections throughout the development. Provide attractive entries and edges. Create a safe, convenient, and pleasant experience for people navigating to the buildings.
- Provide services to meet current local and regional needs while allowing for future expansion and flexibility over time to serve a growing population.

UC Davis has identified the following objectives for the Phase 1 development.

- Fulfill the UC mission of teaching, public service, and patient care.
- Increase UC Davis Health public presence and facilities closer to the growing population in eastern Sacramento County and on the US 50 corridor.
- Provide in-demand services in the near term and establish UC Davis presence in the US 50 corridor.
- Implement sustainable site design and building design practices to support ongoing implementation of the UC Sustainable Practices Policy.
- Provide outdoor spaces to support patient health and family support.
- Comply with HCAI standards and requirements for health care facilities.
- Provide services to meet current local and regional needs while allowing for future expansion and flexibility over time to serve a growing population.
- Begin development of the site with a project that will stand alone to serve short-term demand while supporting future implementation of the Master Plan.

6.3 Significant and Unavoidable Impacts

According to CEQA Guidelines Section 15126.6, an EIR must describe a range of reasonable alternatives to the project, or the location of the project, which would feasibly attain most of the basic objectives of the project but would avoid or substantially lessen any of the significant effects of the project, and evaluate the comparative merits of the alternatives.

The project would result in significant and unavoidable environmental impacts related to air quality and noise. The following impacts have been identified as significant and unavoidable following all feasible mitigation measures.

- Impact AQ-3: Exposure of sensitive receptors to substantial pollutant concentrations (health impacts from receptor exposure to construction-generated diesel particulate matter—Master Plan).
- Impact NOI-1: Generation of increased ambient noise levels in the project vicinity in excess of applicable standards during project construction (during daytime hours—Master Plan)

6.4 Master Plan Alternatives Considered

A wide range of alternatives were considered and screened for feasibility and for meeting the project objectives of the Master Plan. The alternatives considered were the following.

- No Project (No Build) Alternative

- No Project (Development Consistent with the FPASP) Alternative
- Concentrated Development Alternative
- Replace Hotel with Workforce Housing Alternative
- Alternative Site Locations: Sacramento Campus and Offsite Locations
- Phase 1 (MOB) Only Alternative

6.5 Phase 1 Alternatives Considered

In addition to the alternatives considered for the Master Plan, of which Phase 1 is a part, specific alternatives were considered and screened for feasibility and for meeting the project objectives of Phase 1. The alternatives considered were the following.

- No Project (No Build) Alternative (same as Master Plan Alternative)
- No Project (Development Consistent with the FPASP) Alternative (same as Master Plan Alternative)
- Alternative Site Locations: Sacramento Campus and Offsite Locations (same as Master Plan Alternative)
- Build Entire Master Plan at Once Alternative
- Build the Micro-Hospital First Alternative

6.6 Alternatives Considered but Dismissed

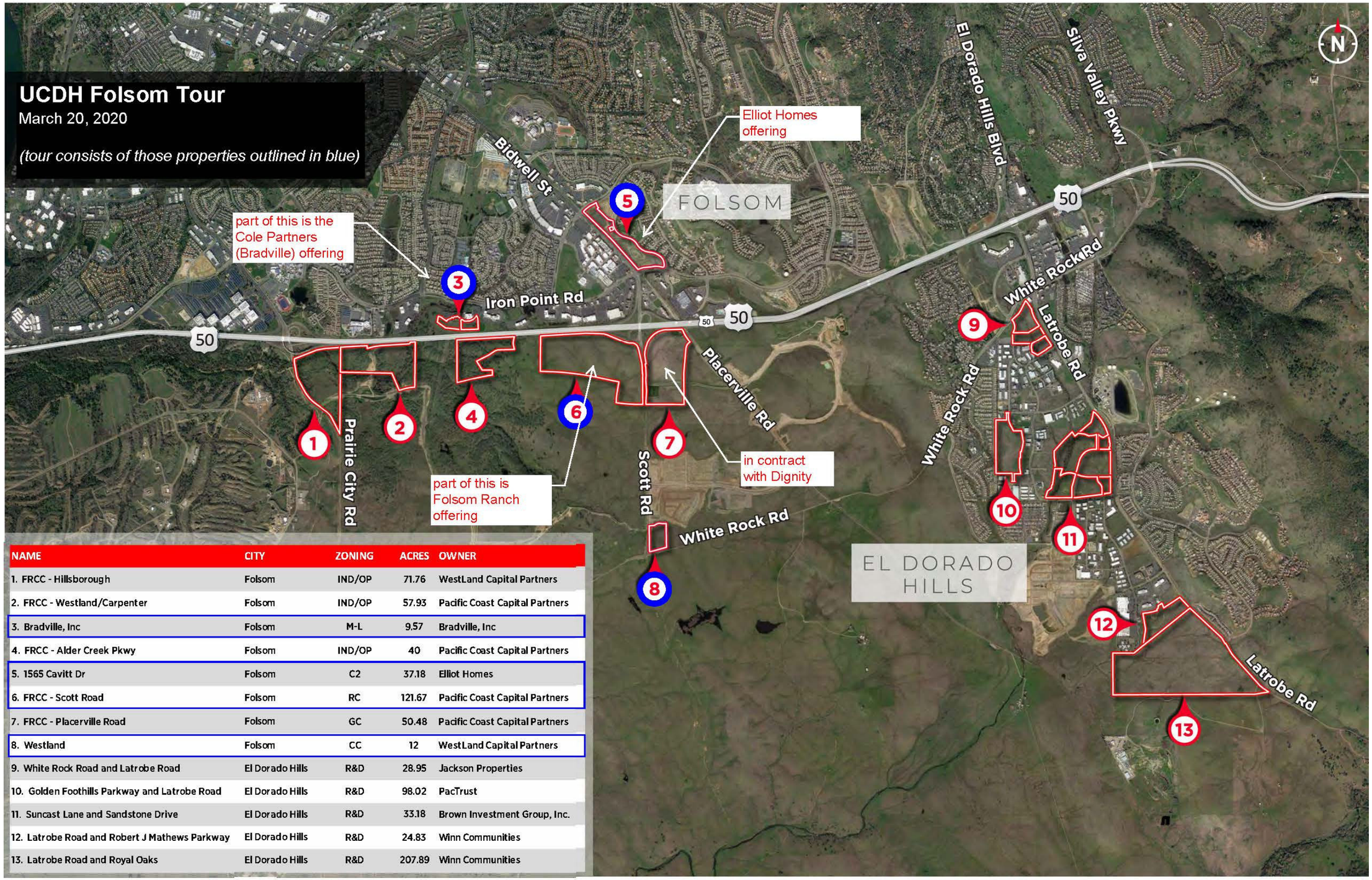
In addition to factors described previously, the CEQA Guidelines state that an EIR should also identify any alternatives that were considered by the lead agency but were rejected during the planning or scoping process and briefly explain the reasons underlying the lead agency's determination. UC Davis developed the range of alternatives described above and screened the alternatives for meeting the project objectives and feasibility, as well as whether those alternatives would address impacts of the project, as required by CEQA Guidelines Section 15126.6(b).

This section addresses alternatives considered but dismissed through the screening process.

6.6.1 Alternative Site

Alternative Site in the Folsom Area

When UC Davis started planning a new facility in the Folsom area, the University undertook a year-long process of evaluating potential sites that would be suitable for the new Center for Health. As shown in Figure 6-1, a total of 13 sites were considered during this process. Local brokers were used to research properties that were currently on sale; and large landholders within the FPASP were also contacted to see if suitable properties could potentially be placed on the market. Additionally, as shown on Figure 6-1, there were five locations within El Dorado Hills that were considered but rejected due to the remote locations. Many of the locations were too small to be suitable or were already in some phase of development for housing construction.



NAME	CITY	ZONING	ACRES	OWNER
1. FRCC - Hillsborough	Folsom	IND/OP	71.76	WestLand Capital Partners
2. FRCC - Westland/Carpenter	Folsom	IND/OP	57.93	Pacific Coast Capital Partners
3. Bradville, Inc	Folsom	M-L	9.57	Bradville, Inc
4. FRCC - Alder Creek Pkwy	Folsom	IND/OP	40	Pacific Coast Capital Partners
5. 1565 Cavitt Dr	Folsom	C2	37.18	Elliot Homes
6. FRCC - Scott Road	Folsom	RC	121.67	Pacific Coast Capital Partners
7. FRCC - Placerville Road	Folsom	GC	50.48	Pacific Coast Capital Partners
8. Westland	Folsom	CC	12	WestLand Capital Partners
9. White Rock Road and Latrobe Road	El Dorado Hills	R&D	28.95	Jackson Properties
10. Golden Foothills Parkway and Latrobe Road	El Dorado Hills	R&D	98.02	PacTrust
11. Suncast Lane and Sandstone Drive	El Dorado Hills	R&D	33.18	Brown Investment Group, Inc.
12. Latrobe Road and Robert J Mathews Parkway	El Dorado Hills	R&D	24.83	Winn Communities
13. Latrobe Road and Royal Oaks	El Dorado Hills	R&D	207.89	Winn Communities

UCDAVIS

Figure 6-1
Alternative Site Locations

UC Davis took tours of four of the properties (as shown highlighted in blue on Figure 6-1): (1) The 1565 Cavitt Drive property, which was one of only two of the properties located north of US 50; (2) the Bradville property, which was also north of US 50 and deemed too small; (3) the Westland property along White Rock Road, which was both too small and not located central to the service area; and (4) the Folsom Ranch offering by Pacific Coast Capital Partners along Bidwell Road. Ultimately, the decision was made to purchase approximately 34.6 acres of the 121.67-acre Folsom Ranch property. This decision was due to a combination of factors, including size, the centralized location immediately south of US 50, and access to major transportation corridors at the intersection of US 50 and Bidwell Road.

Sacramento Campus Expansion

As an alternative to developing the project at the US 50 location, additional facilities could be constructed at the Sacramento campus location. This alternative would provide a site for infill development and would be located in an urban area close to transit. This alternative site location would address some of the vehicle miles traveled (VMT) impacts of the project for these reasons.

This alternative was rejected because it did not meet the objectives of the project as described below.

Increase UC Davis Health public presence and facilities closer to the growing population in eastern Sacramento County and on the US 50 corridor.

This alternative would locate additional facilities at the Sacramento campus, which would not address the project objective to locate services closer to the population in the Folsom area and along the US 50 corridor. UC Davis has identified a substantial number of existing patients in this area, who currently must travel considerable distances to be treated at the Sacramento campus. This alternative would not meet this objective of the project.

Provide services to meet current local and regional needs while allowing for future expansion and flexibility over time to serve a growing population.

Plan development of the site by UC and its partners as a coherent program meeting the UC vision for the development and built in phases.

This alternative would not meet either of these objectives in that no new facilities would be constructed in the Folsom area, and there would be no provision to provide additional facilities in the future. In addition to existing patients, population growth in the area will increase the need for services to people substantial distances from the Sacramento campus.

Because this alternative would not meet the objectives of the project, this alternative was rejected, and not considered further in this EIR.

6.6.2 Phase 1 (MOB) Only Alternative

The Phase 1 (MOB) Only Alternative is an alternative that would develop Phase 1 (MOB) without any future phases of development. All of the Phase 1 components would be developed in the same manner as the project, but there would be no subsequent construction of the hotel, CUP, micro-hospital, or ASC/outpatient services, resulting in 110,000 sf of development.

This alternative would substantially reduce the amount of development on the project site; but would not include master planning for the rest of the project site. This alternative would reduce the overall effects of the project because the amount of development on the project site and the amount of the site subject to development as a part of the project would be greatly reduced.

This alternative would not meet a number of the project objectives.

Incorporate a holistic approach to building out the site, integrating buildings, infrastructure, and landscape as one collective system. Develop a strong public realm and landscape character providing outdoor spaces to support patient health and family support. Comply with HCAI standards and requirements for health care facilities.

Create robust pedestrian connections throughout the development. Provide attractive entries and edges. Create a safe, convenient, and pleasant experience for people navigating to the buildings. Provide services to meet current local and regional needs while allowing for future expansion and flexibility over time to serve a growing population.

Plan development of the site by UC and its partners as a coherent program meeting the UC vision for the development and built in phases.

This alternative would not meet these objectives because there would be no Master Plan for the site. Development of the rest of the site would not take place in an integrated fashion.

Develop the site for uses that are supportive of patient care and the UC mission, including family lodging.

This alternative would not meet this objective because the facilities included in the Master Plan for the site would not be developed, including the hotel.

Because this alternative would not meet many of the objectives of the project, this alternative was rejected, and not considered further in this EIR.

6.6.3 Build Entire Master Plan at Once Alternative

Under this alternative, the entire Master Plan would be built at once, rather than in phases. While this alternative would meet many of the objectives of both the Master Plan and Phase 1, it would mean committing to a very large building project beyond the current demand for services. While the FPASP area has provisions for additional growth within Folsom, much of the growth has not happened yet. UC Davis' plan to construct the project in phases responds to the planned development of the area. There is existing and short-term future need for the services included in Phase 1, but the micro-hospital and other facilities included in the Master Plan are planned in response to regional future growth that has not happened yet. There is not an immediate need to provide additional services to the existing regional population, and existing needs can be met at the UC Davis Sacramento campus hospital and surgery center. The other two buildings, the hotel and CUP, are ancillary to the health care buildings and would not support the objectives of the project if they were constructed in a vacuum.

This alternative would not reduce any impacts of Phase 1 as described in this EIR. Additionally, as discussed in Section 6.7.3, *Alternative 3: Concentrated Development Alternative*, this alternative is very similar to the Concentrated Development Alternative. For these reasons, and because it would

not meet important objectives of the project, this alternative was rejected, and not considered further in this EIR.

6.6.4 Build the Micro-Hospital First Alternative (Phase 1 Project Alternative)

Under this alternative the micro-hospital would be constructed first instead of the MOB. As discussed in Section 6.6.3, *Build Entire Master Plan at Once Alternative*, the Master Plan has been designed to be responsive to the needs of future regional growth. There is an immediate need for the MOB, but the micro-hospital and ASC are not needed in the near term and are planned in response to regional future growth that has not happened yet. The hotel and CUP are ancillary to the other buildings.

This alternative would not reduce any impacts of Phase 1 as described in this EIR and would not meet important objectives of the project. Therefore, for the same reasons as the Build Entire Master Plan at Once Alternative, this alternative was considered but rejected, and not considered further in this EIR.

6.7 Alternatives Considered in Detail in the EIR

Following screening, four alternatives were identified for consideration in the EIR.

1. No Project (No Build) Alternative
2. No Project (Development Consistent with the FPASP) Alternative
3. Concentrated Development Alternative
4. Replace Hotel with Workforce Housing Alternative

These alternatives are further described below.

6.7.1 Alternative 1: No Project (No Build) Alternative

Under Alternative 1, neither Phase 1 nor the rest of the Master Plan would be developed. This alternative assumes the project site would remain vacant. Impacts of Phase 1 as well as full implementation of the Master Plan would not occur under this development. However, the master developer (seller of the site) has begun mass grading of the site under entitlement from the FPASP and associated EIR/EIS and impacts associated with mass grading would occur regardless of whether or not the project is implemented.

This alternative would not meet any of the objectives of the project, but is required to be evaluated by CEQA Guidelines Section 15126.6(e).

6.7.2 Alternative 2: No Project (Development Consistent with the FPASP) Alternative

Under Alternative 2, the project would not be constructed. The FPASP implements the General Plan's vision for the "South of 50" area of Folsom which was recently annexed. Absent the project, the current General Plan (and FPASP) land use designation for the project site is Regional

Commercial Center and the zoning is SP-RC. The City of Folsom 2035 General Plan governs all land uses surrounding the project site and emphasizes the protection and enhancement of Folsom's assets, guiding Folsom's growth in the area south of US 50, strengthening existing neighborhoods, and providing a cohesive vision for Folsom. The project site is on land designated Regional Commercial Center, which provides for highway-oriented, large-scale regional retail, medical services, health care facilities, entertainment, business, lodging, and public uses that serve the entire region. Using the same factors used in the FPASP EIR/EIS analysis, the project site (assuming the Specific Plan SP-RC-PD designation with SP-RC zoning) would be able to accommodate highway-oriented commercial uses with a maximum of approximately 1,200 employees. Under this alternative, the project site would be developed by others consistent with the FPASP and Folsom General Plan land use designations.

This alternative would not meet any of the objectives of the project, but is likely to occur if the project is not approved.

6.7.3 Alternative 3: Concentrated Development Alternative

Under this alternative, development would be concentrated in one or two large buildings on the western portion of the project site and leave the eastern portion as landscaped open space. The micro-hospital, hotel, ASC, and MOB would be combined into one or two buildings. It is possible the CUP would still be a separate building, depending on the design parameters for the equipment. This would have the effect of reducing intensity on the eastern portion of the project site, thereby reducing the potential for noise impacts on the Dignity Health Hospital east of the project site. The one or two large buildings constructed under this alternative would be constructed in a single phase, and the building shell(s) would receive interior improvements as needed by UC Davis. Therefore, this alternative would serve a dual purpose by illustrating the impacts and benefits of the Build Entire Master Plan at Once Alternative discussed above.

This alternative would meet most of the objectives of the project; but would not meet some of the objectives of the project.

Incorporate a holistic approach to building out the site, integrating buildings, infrastructure, and landscape as one collective system. Develop a strong public realm and landscape character providing outdoor spaces to support patient health and family support. Comply with HCAI standards and requirements for health care facilities.

Create robust pedestrian connections throughout the development. Provide attractive entries and edges. Create a safe, convenient, and pleasant experience for people navigating to the buildings.

Development of the site with one or two large buildings would not provide the connectedness between open and green spaces and the buildings as described in the Master Plan.

Because this alternative would meet most of the objectives of the project, and would reduce impacts of the project, it was carried forward for analysis in this EIR.

6.7.4 Alternative 4: Replace the Hotel with Workforce Housing Alternative

This alternative would replace the hotel at the southeastern portion of the site with housing for the hospital workforce. Under this alternative, the 100 rooms in the hotel would be replaced with approximately 100 units of multifamily residential housing in a multistory apartment building.

This alternative would meet most of the objectives of the project, but would not meet the following objective because it would not provide lodging for families of patients.

Develop the site for uses that are supportive of patient care and the UC mission, including family lodging.

Because this alternative would meet most of the objectives of the project, and could reduce impacts of the project, it was carried forward for analysis in this EIR.

6.8 Evaluation of Alternatives

The following analysis presents the comparative impacts of the alternatives to the Folsom Center for Health Master Plan, and Phase 1 development of the project.

6.8.1 Alternative 1: No Project (No Build) Alternative

Aesthetics

The No Project (No Build) Alternative assumes that the project would not be implemented. However, as noted in Section 6.6.1, *Alternative Site*, the master developer (seller of the site) has begun mass grading of the site under entitlement from the FPASP and associated EIR/EIS and impacts associated with mass grading would occur regardless of whether the project is implemented. Therefore, with respect to the aesthetics impact, the site would not remain in an ungraded/undisturbed condition in either case. However, under the No Project Alternative, the site would not be developed as a medical campus and would thereby avoid construction-related visual impacts as well as impacts related to the scenic views from US 50. The aesthetic impacts of this alternative, including impacts on visual character and quality, would be slightly reduced compared to Phase 1 or the Master Plan. (Less impact)

Air Quality

As noted in Section 6.6.1, the master developer (seller of the site) has begun mass grading of the site under entitlement from the FPASP and associated EIR/EIS and impacts associated with mass grading would occur regardless of whether the project is implemented. Subsequent to the end of the mass grading, this alternative assumes no further construction. Therefore, there would be no ground-disturbing or construction activities and thus no potential to generate short-term emissions or expose receptors to substantial pollutant concentrations or health risks. There would be no buildings to generate stationary-source emissions and thus there would also be no long-term operational emissions. There would be no VMT generated by the site and therefore no traffic-related emissions would be generated. The impacts related to air quality under the No Project (No Build) Alternative would be less than those under Phase 1 or the Master Plan. (Less impact)

Biological Resources

The site would be graded by the master developer as part of the approved development project, and these impacts would occur regardless of whether the project went forward. However, under the No Project (No Build) Alternative, the Folsom Center for Health would not be constructed, so construction-related impacts (e.g., bird nesting) and post-construction impacts (e.g., bird strikes) would not occur. Therefore, under this alternative, impacts would be reduced compared to Phase 1 and the Master Plan. (Less impact)

Archaeological, Historical, and Tribal Cultural Resources

Under the No Project (No Build) Alternative, the Folsom Center for Health would not be constructed; however, the site would be graded by the master developer. Therefore, under the No Project Alternative, impacts on archeological, historical, or tribal cultural resources would be the same as for Phase 1 and the Master Plan. (Similar impact)

Energy

While the mass grading being undertaken by the master developer would still occur, the Folsom Center for Health development would not occur. Therefore, there would be no generation of additional VMT and there would be no buildings consuming electricity or natural gas. Therefore, under the No Project (No Build) Alternative, there would be no energy impacts. (Less impact)

Geology, Soils, and Seismicity

Under the No Project (No Build) Alternative, the Folsom Center for Health would not be constructed; however, the site would be graded by the master developer. For the project, geologic and seismic impacts are anticipated to be less than significant and no mitigation is needed. However, due to the fact that no buildings would be constructed under this alternative, impacts related to geology, soils, and seismicity would be reduced compared to Phase 1 and the Master Plan. (Less impact)

Greenhouse Gas Emissions

As noted in Section 6.6.1, the master developer (seller of the site) has begun mass grading of the site under entitlement from the FPASP and associated EIR/EIS and impacts associated with mass grading would occur regardless of whether the project is implemented. Subsequent to the end of the mass grading, this alternative assumes no further construction. Therefore, after completion of the mass grading, there would be no construction or operations associated with this alternative; thus, no potential to generate greenhouse gas (GHG) emissions. There would be no VMT generated by the site and therefore no traffic-related emissions would be generated. The impacts related to GHG emissions under the No Project (No Build) Alternative would be less than those under Phase 1 and the Master Plan. (Less impact)

Hazards and Hazardous Materials

Under the No Project (No Build) Alternative, the Folsom Center for Health would not be constructed. For the project, hazards and hazardous materials impacts are anticipated to be less than significant and no mitigation is needed with the exception of a preliminary investigation and screening for soils potentially contaminated by heavy metals, total petroleum hydrocarbons as diesel, fuel oil, and polychlorinated biphenyls associated with an historic railroad alignment along Bidwell Road.

Though this is a No Project Alternative, the site would still be graded by the master developer. Therefore, impacts would be significant, but mitigated through requirements to conduct a preliminary investigation and screening for hazardous materials in the soils prior to handling of the soils. (Similar impact).

The No Project Alternative would not include construction of additional research facility space that might lead to an increase in the use and transport of hazardous materials. Risks to University staff and the general public of encountering hazardous materials would be slightly less under the No Project Alternative than under the project because there would be fewer facilities requiring transport of hazardous materials. (Less impact)

The No Project Alternative would not require temporary traffic controls, detours, or any change in flightpaths, and would not be expected to result in significant impacts on emergency response or evacuation plans. (Less impact)

Hydrology and Water Quality

Under the No Project (No Build) Alternative, the Folsom Center for Health would not be constructed; however, the site would be graded by the master developer. For the project, hydrology and water quality impacts are anticipated to be less than significant and no mitigation is needed. However, due to the fact that no buildings would be constructed under this alternative, impacts related to hydrology and water quality would be reduced compared to Phase 1 and the Master Plan. (Less impact)

Land Use and Planning

The site would be graded by the master developer under the No Project (No Build) Alternative, and the Folsom Center for Health would not be constructed. As described in Section 3.10, *Land Use*, the project would result in no impacts related to land use. Because the site is on the edge of the FPASP, no impacts related to division of a community would occur as a result of the No Project Alternative. (Similar impact)

Noise

Under the No Project (No Build) Alternative, the Folsom Center for Health would not be constructed; however, the site would be graded by the master developer. After grading, the impacts related to noise and vibration under the No Project Alternative would be less than those under Phase 1 and the Master Plan. There would be no operations-related activities and thus no potential to generate traffic- or stationary equipment–related noise impacts. Therefore, under the No Project Alternative, impacts related to noise and vibration would be reduced. (Less impact)

Population and Housing

Under the No Project (No Build) Alternative, the Folsom Center for Health would not be constructed; however, the site would be graded by the master developer, but no subsequent uses are assumed for this alternative. No housing would be constructed on the project site. Therefore, there would be no impacts related to population and housing under Phase 1, the Master Plan, or the No Project Alternative. (Similar impact)

Public Services

Under the No Project (No Build) Alternative, the Folsom Center for Health would not be constructed. The site would be graded by the master developer, but no subsequent uses are assumed for this alternative. Therefore, there would be a decreased demand for public services compared to Phase 1 and the Master Plan. (Less impact)

Recreation

Under the No Project (No Build) Alternative, the Folsom Center for Health would not be constructed. The site would be graded by the master developer, but no subsequent uses are assumed for this alternative. Therefore, there would be a decreased demand for recreation facilities compared to Phase 1 and the Master Plan. (Less impact)

Transportation and Circulation

Under the No Project (No Build) Alternative, the Folsom Center for Health would not be constructed. The site would be graded by the master developer, but no subsequent uses are assumed for this alternative. There would be no vehicular trips associated with the site, nor would there be any hazards or increased delay in transit services. Therefore, transportation and circulation impacts under this alternative would be reduced compared to Phase 1 and the Master Plan. (Less impact)

Utilities and Service Systems

Under the No Project (No Build) Alternative, the Folsom Center for Health would not be constructed. The site would be graded by the master developer, but no subsequent uses are assumed for this alternative. Therefore, there would be a decreased demand for public utilities compared to Phase 1 and the Master Plan. (Less impact)

Wildfire

Under the No Project (No Build) Alternative, the Folsom Center for Health would not be constructed. The site would be graded by the master developer, but no subsequent uses are assumed for this alternative. Therefore, while impacts associated with the project would be less than significant relative to wildfire, impacts under this alternative would be slightly reduced compared to Phase 1 and the Master Plan. (Less impact)

6.8.2 Alternative 2: No Project (Development Consistent with the FPASP) Alternative

Aesthetics

The No Project (Development Consistent with the FPASP) Alternative assumes that the FPASP would be implemented for the site. The project site is on land designated Regional Commercial Center, which provides for highway-oriented, large-scale regional retail, medical services, health care facilities, entertainment, business, lodging, and public uses that serve the entire region. Under this alternative, the project site would not be developed as a medical campus and would instead be developed by others consistent with the FPASP and Folsom General Plan land use designations. Aesthetics impacts associated with construction, light and glare, and scenic impacts from US 50,

while different because of the different type of land use, would be of roughly the same magnitude as for Phase 1 and the Master Plan. (Similar impact)

Air Quality

The project would result in significant, but mitigable, impacts related to plan consistency, criteria pollutants, and sensitive receptors. At the Master Plan level, construction-related impacts on sensitive receptors are considered to be significant and unavoidable, although Phase 1 impacts would be reduced to less than significant with mitigation. Under the No Project (Development Consistent with the FPASP) Alternative, the project would not be developed but it is likely that others would develop the site consistent with the FPASP. As discussed in Section 6.7.2, *Alternative 2: No Project (Development Consistent with the FPASP) Alternative*, using the same factors used in the FPASP EIR/EIS analysis, the project site (assuming the Specific Plan SP-RC-PD designation with SP-RC zoning) would be able to accommodate highway-oriented commercial uses with a maximum of approximately 1,200 employees. Using these assumptions, this alternative would generate increased air quality emissions during both construction and operation compared to Phase 1 and the Master Plan. (Greater impact)

Biological Resources

Under the No Project (Development Consistent with FPASP) Alternative, the Folsom Center for Health would not be constructed; however, the site would likely be developed by others with land uses that are consistent with the FPASP and zoning. Therefore, under this alternative, impacts on sensitive biological resources would still occur. (Similar impact)

Archaeological, Historical, and Tribal Cultural Resources

Under the No Project (Development Consistent with FPASP) Alternative, the Folsom Center for Health would not be constructed; however, the site would be graded by the master developer and the site would be developed by others with land uses that are consistent with the FPASP and zoning. Therefore, under this alternative, impacts on archeological, historical, or tribal cultural resources would be the same as for Phase 1 and the Master Plan. (Similar impact)

Energy

Under the No Project (Development Consistent with the FPASP) Alternative, the Folsom Center for Health project would not be developed but it is likely that others would develop the site consistent with the FPASP. As discussed in Section 6.7.2, using the same factors used in the FPASP EIR/EIS analysis, the project site (assuming the Specific Plan SP-RC-PD designation with SP-RC zoning) would be able to accommodate highway-oriented commercial uses with a maximum of approximately 1,200 employees. Using these assumptions, the land use types and intensity that could be developed under this alternative (while still less than significant) would use more energy than Phase 1 and the Master Plan. (Greater impact)

Geology, Soils, and Seismicity

Earth-moving activities associated with construction under both the project and this alternative have the potential to affect geology and soils. The types of impacts that could occur from development consistent with the FPASP include geotechnical issues, increased erosion, and

exposure of buildings and people to seismic hazards. Existing regulations and permitting requirements, such as California Building Standards Code (CBSC) requirements, National Pollutant Discharge Elimination System (NPDES) permit conditions, and best management practices (BMPs) would reduce potentially significant impacts to a less-than-significant level. Phase 1, the Master Plan, and this alternative would have less-than-significant impacts. (Similar impact)

Greenhouse Gas Emissions

Under the No Project (Development Consistent with the FPASP) Alternative, the Folsom Center for Health project would not be developed but it is likely that others would develop the site consistent with the FPASP. It is assumed that others would develop the site under this alternative, so the UC Sustainable Practices Policy (University of California 2020) and actions outlined in the *2009–2010 Climate Action Plan* (University of California, Davis 2010), would not be implemented. As discussed in Section 6.7.2, using the same factors used in the FPASP EIR/EIS analysis, the project site (assuming the Specific Plan SP-RC-PD designation with SP-RC zoning) would be able to accommodate highway-oriented commercial uses with a maximum of approximately 1,200 employees. Using these assumptions, this alternative would generate increased GHG emissions during both construction and operation compared to Phase 1 and the Master Plan. (Greater impact)

Hazards and Hazardous Materials

As with the project, construction and operation activities under the No Project (Development Consistent with the FPASP) Alternative would entail the transport, use, and storage of hazardous materials and potential release of hazardous materials. Feasible mitigation measures are available to reduce these impacts to a less-than-significant level. In addition, disruption of area roadways during construction may hinder traffic flow and affect emergency response; however, existing emergency response plans are adequate to prepare, mitigate, and respond to any type of threat or hazard or incident that could affect the demand for services at the Folsom Center for Health. Similar types of impacts would occur under this alternative. (Similar impact)

Hydrology and Water Quality

Earth-moving activities associated with construction under both the project and the No Project (Development Consistent with the FPASP) Alternative have the potential to affect hydrology and water quality in the area. Both would be required to implement a site-specific stormwater pollution prevention plan (SWPPP) that is consistent with the NPDES Construction General Permit. The SWPPP will include project BMPs designed to protect the quality of stormwater runoff. These temporary BMPs would control soil erosion and sediment, restrict nonstormwater discharges, provide pollutant control, and reduce or limit surface runoff. Because a similar level of development would occur under this alternative, hydrology and water quality impacts would be similar to Phase 1 and the Master Plan. (Similar impact)

Land Use and Planning

Under the No Project (Development Consistent with the FPASP) Alternative, the Folsom Center for Health would not be developed but others would develop the site consistent with the currently approved FPASP and existing zoning. As described in Section 3.10, the project would result in no impacts related to land use. Development of the site with other uses also consistent with the

currently approved FPASP and existing zoning would have similar impacts to Phase 1 and the Master Plan. (Similar impact)

Noise

At the Master Plan level, construction-related noise impacts on sensitive receptors are considered significant and unavoidable. Under the No Project (Development Consistent with the FPASP) Alternative, the Folsom Center for Health would not be developed but it is likely that others would develop the site consistent with the FPASP. As discussed in Section 6.7.2, using the same factors used in the FPASP EIR/EIS analysis, the project site (assuming the Specific Plan SP-RC-PD designation with SP-RC zoning) would be able to accommodate highway-oriented commercial uses with a maximum of approximately 1,200 employees. Using these assumptions, noise and vibration impacts would be greater during construction and operation compared to Phase 1 and the Master Plan. (Greater impact)

Population and Housing

Under the No Project (Development Consistent with the FPASP) Alternative, the Folsom Center for Health would not be constructed; instead, land uses would likely develop consistent with the site's Regional Commercial Center designation, which provides for highway-oriented, large-scale regional retail, medical services, health care facilities, entertainment, business, lodging, and public uses that serve the entire region. No housing would be constructed on the project site. Therefore, there would be no impacts related to population and housing under Phase 1, the Master Plan, or this alternative. (Similar impact)

Public Services

Under the No Project (Development Consistent with the FPASP) Alternative, the Folsom Center for Health would not be constructed; instead, land uses would likely develop consistent with the site's Regional Commercial Center designation, which provides for highway-oriented, large-scale regional retail, medical services, health care facilities, entertainment, business, lodging, and public uses that serve the entire region. While it is unknown exactly what mix of land uses would be developed under the FPASP, the maximum intensity would allow up to 1,200 employees on the 34.6-acre project site; therefore, the demand for public services under this alternative would be increased compared to Phase 1 and the Master Plan. (Greater impact)

Recreation

Under the No Project (Development Consistent with the FPASP) Alternative, the Folsom Center for Health would not be constructed; instead, land uses would likely develop consistent with the site's Regional Commercial Center designation, which provides for highway-oriented, large-scale regional retail, medical services, health care facilities, entertainment, business, lodging, and public uses that serve the entire region. While there would not be permanent housing onsite generating population that would directly affect recreational facilities, the employees would likely take advantage of nearby recreational facilities. It is unknown exactly what mix of land uses would be developed under the FPASP, but the maximum intensity would allow up to 1,200 employees on the 34.6-acre project site; therefore, the demand for recreational facilities under this alternative would be incrementally increased compared to Phase 1 and the Master Plan. (Greater impact)

Transportation and Circulation

Under the No Project (Development Consistent with the FPASP) Alternative, the Folsom Center for Health would not be constructed; instead, land uses would likely develop consistent with the site's Regional Commercial Center designation, which provides for highway-oriented, large-scale regional retail, medical services, health care facilities, entertainment, business, lodging, and public uses that serve the entire region. It is unknown exactly what mix of land uses would be developed under the FPASP, but the maximum intensity would allow up to 1,200 employees on the 34.6-acre project site; therefore, VMT would likely be increased for this alternative compared to Phase 1 and the Master Plan. (Greater impact)

Utilities and Service Systems

Under the No Project (Development Consistent with the FPASP) Alternative, the Folsom Center for Health would not be constructed; instead, land uses would likely develop consistent with the site's Regional Commercial Center designation, which provides for highway-oriented, large-scale regional retail, medical services, health care facilities, entertainment, business, lodging, and public uses that serve the entire region. While it is unknown exactly what mix of land uses would be developed under the FPASP, the maximum intensity would allow up to 1,200 employees on the 34.6-acre project site; therefore, the demand for public utilities under this alternative would be increased compared to Phase 1 and the Master Plan. (Greater impact)

Wildfire

Under the No Project (Development Consistent with the FPASP) Alternative, the Folsom Center for Health would not be constructed; instead, land uses would likely develop consistent with the site's Regional Commercial Center designation. Therefore, impacts would be similar to Phase 1 and the Master Plan. (Similar impact)

6.8.3 Alternative 3: Concentrated Development Alternative

Aesthetics

The Concentrated Development Alternative would result in a reduced lot coverage due to the building square footage being consolidated into one or two buildings on the western portion of the site. The eastern portion of the site would be utilized partially for parking, but would remain mostly as landscaped open space. Therefore, while this alternative would have similar construction-related impacts, light and glare impacts, and impacts related to scenic views from US 50, the impacts would be slightly reduced compared to the project due to the reduced acreage of development. The Concentrated Development Alternative would not be built in phases, so Phase 1 would not occur as a separate project. (Less impact)

Air Quality

The project would result in significant, but mitigable, impacts related to plan consistency, criteria pollutants, and sensitive receptors. At the Master Plan level, construction-related impacts on sensitive receptors are considered to be significant and unavoidable. Under the Concentrated Development Alternative the land uses are moved around on the site and concentrated in the western portion, but the overall intensity would remain the same. Because the same square footage

of buildings would be constructed and the VMT generation would be the same as for the project, the overall air quality impacts would be similar to the project. The Concentrated Development Alternative would not be built in phases, so Phase 1 would not occur as a separate project. (Similar impact)

Biological Resources

Under the Concentrated Development Alternative, the eastern portion of the site would be landscaped open space. The site would be graded by the master developer as part of the approved development project, and these impacts would occur regardless of whether the project went forward. Because the Concentrated Development Alternative would result in the construction and operation of structures, impacts on sensitive biological resources would be similar to those identified for the project. The Concentrated Development Alternative would not be built in phases, so Phase 1 would not occur as a separate project. (Similar impact)

Archaeological, Historical, and Tribal Cultural Resources

Under the Concentrated Development Alternative, the eastern portion of the site would be landscaped open space although, as with the project, the master developer would still grade the site as part of the conditions of the sale to UC Davis. The Concentrated Development Alternative would not be built in phases, so Phase 1 would not occur as a separate project. Because there are no known significant cultural resources on the project site, under this alternative, impacts on archeological, historical, or tribal cultural resources would be the same as for the project. (Similar impact)

Energy

Under the Concentrated Development Alternative the land uses would be concentrated in the western portion, but the overall intensity would remain the same. The Concentrated Development Alternative would not be built in phases, so Phase 1 would not occur as a separate project. Because the same square footage of buildings would be constructed and the VMT generation would be the same as for the project, it is anticipated that the overall energy use would be similar to the project and would not result in the wasteful or inefficient use of energy in a manner inconsistent with applicable plans, policies, and regulations pertaining to energy efficiency. (Similar impact)

Geology, Soils, and Seismicity

Earth-moving activities associated with construction under both the project and this alternative have the potential to affect geology and soils. The Concentrated Development Alternative would not be built in phases, so Phase 1 would not occur as a separate project. The types of impacts that could occur from the Concentrated Development Alternative include geotechnical issues, increased erosion, and exposure of buildings and people to seismic hazards. Existing regulations and permitting requirements, such as CBSC requirements, NPDES permit conditions, and BMPs would reduce potentially significant impacts to a less-than-significant level. Both the project and this alternative would have less-than-significant impacts. However, there would be fewer buildings and a smaller building footprint under this alternative; thus, impacts would be incrementally reduced under this alternative. (Less impact)

Greenhouse Gas Emissions

The project would result in significant, but mitigable, impacts related to GHG emissions during both the construction and operation phases and at both the Master Plan and Phase 1 level. Under the Concentrated Development Alternative the land uses would be concentrated in the western portion, but the overall intensity would remain the same. The Concentrated Development Alternative would not be built in phases, so Phase 1 would not occur as a separate project. Because the same square footage of buildings would be constructed and the VMT generation would be the same as for the project, it is anticipated that the overall magnitude of GHG emissions from construction and operation would be similar to the project. (Similar impact)

Hazards and Hazardous Materials

Under both the Concentrated Development Alternative and the project, onsite construction activities would entail the transport, use, and storage of hazardous materials and potential release of hazardous materials. In addition, disruption of area roadways during construction may hinder traffic flow and affect emergency response. However, required traffic control plans, mitigation measures, and regulatory compliance would preclude impacts or reduce these impacts to a less-than-significant level. The Concentrated Development Alternative would not be built in phases, so Phase 1 would not occur as a separate project. While this alternative would have fewer buildings and a smaller development footprint, the types of hazards and hazardous materials impacts described for this alternative would be of similar type and magnitude as the project. (Similar impact)

Hydrology and Water Quality

Earth-moving activities associated with construction under both the project and the Concentrated Development Alternative would have the potential to affect hydrology and water quality in the area. Both would be required to implement a site-specific SWPPP that is consistent with the NPDES Construction General Permit. The SWPPP will include project BMPs designed to protect the quality of stormwater runoff. These temporary BMPs would control soil erosion and sediment, restrict non-stormwater discharges, provide pollutant control, and reduce or limit surface runoff. A similar level of development would occur under this alternative; however, much of the eastern portion of the site would remain undeveloped or developed as landscaped open space. The Concentrated Development Alternative would not be built in phases, so Phase 1 would not occur as a separate project. Therefore, hydrology and water quality impacts would be reduced compared to the project. (Less impact)

Land Use and Planning

The Concentrated Development Alternative would result in a reduced lot coverage due to the building square footage being consolidated into one or two buildings on the western portion of the site. Therefore, because the site would still be developed with the currently proposed uses, albeit in a different configuration, land use impacts would be similar to the project. (Similar impact)

Noise

At the Master Plan level, construction-related noise impacts on sensitive receptors are considered significant and unavoidable. The Concentrated Development Alternative would result in a reduced

lot coverage due to the building square footage being consolidated into one or two buildings on the western portion of the site. The eastern portion of the site would be utilized partially for parking, but would remain mostly landscaped open space. The Concentrated Development Alternative would not be built in phases, so Phase 1 would not occur as a separate project. Therefore, while this alternative would have similar construction-related and vehicular noise–related impacts, the operational noise impacts would be slightly reduced compared to the project due to the increased distance of the buildings from the Dignity Health buildings to the east. (Less impact)

Population and Housing

The Concentrated Development Alternative would result in a reduced lot coverage due to the building square footage being consolidated into one or two buildings on the western portion of the site. The Concentrated Development Alternative would not be built in phases, so Phase 1 would not occur as a separate project. No housing would be constructed under either the project or this alternative. Therefore, there would be no impacts related to population and housing under the project or this alternative. (Similar impact)

Public Services

The Concentrated Development Alternative would result in a reduced lot coverage due to the building square footage being consolidated into one or two buildings on the western portion of the site, but the overall development intensity (square footage) and uses would be the same. The Concentrated Development Alternative would not be built in phases, so Phase 1 would not occur as a separate project. Therefore, the public services impacts associated with this alternative would also be less than significant and similar to those of the project. (Similar impact)

Recreation

The Concentrated Development Alternative would result in a reduced lot coverage due to the building square footage being consolidated into one or two buildings on the western portion of the site, but the overall development intensity (square footage) and uses would be the same. The Concentrated Development Alternative would not be built in phases, so Phase 1 would not occur as a separate project. Therefore, the recreational facilities impacts associated with this alternative would also be less than significant and similar to those of the project. (Similar impact)

Transportation and Circulation

Under the Concentrated Development Alternative, the land uses would be concentrated in the western portion of the site, but the overall intensity would remain the same. The Concentrated Development Alternative would not be built in phases, so Phase 1 would not occur as a separate project. Because the same square footage of buildings would be constructed and the VMT generation would be the same as for the project, the transportation and circulation impacts would be similar to the project. (Similar impact)

Utilities and Service Systems

The Concentrated Development Alternative would result in a reduced lot coverage due to the building square footage being consolidated into one or two buildings on the western portion of the site, but the overall development intensity (square footage) and uses would be the same. The

Concentrated Development Alternative would not be built in phases, so Phase 1 would not occur as a separate project. Therefore, the public utilities impacts associated with this alternative would also be less than significant and similar to those of the project. (Similar impact)

Wildfire

The Concentrated Development Alternative would result in a reduced lot coverage due to the building square footage being consolidated into one or two buildings on the western portion of the site, but the overall development intensity (square footage) and uses would be the same. The Concentrated Development Alternative would not be built in phases, so Phase 1 would not occur as a separate project. Therefore, impacts would be similar to the project. (Similar impact)

6.8.4 Alternative 4: Replace the Hotel with Workforce Housing Alternative

Aesthetics

This alternative would replace the 100 hotel units with 100 multifamily housing units. The multifamily housing units would be built on the eastern portion of the site. While the views would be slightly different, this alternative would still have construction impacts, light and glare impacts, and impacts associated with views from US 50. Because the multifamily uses are likely to occupy a greater portion of the site than the hotel because of the lower density, aesthetics impacts would be slightly increased compared to Phase 1 and the Master Plan. (Greater impact)

Air Quality

The project would result in significant, but mitigable, impacts related to plan consistency, criteria pollutants, and sensitive receptors. At the Master Plan level, construction-related impacts on sensitive receptors are considered to be significant and unavoidable. This alternative would replace the 100 hotel units with 100 multifamily housing units. The multifamily housing units would be built on the eastern portion of the site. The multifamily units have a lower VMT generation rate than the hotel units; therefore, this alternative would be very similar to Phase 1 and the Master Plan with the exception that the multifamily units would generate slightly lower vehicular emissions.
(Less impact)

Biological Resources

Under the Replace the Hotel with Workforce Housing Alternative, the eastern portion of the site would be developed for multifamily housing instead of a hotel. The extent of site development and the sizes of structures would be similar to those under Phase 1 and the Master Plan, and for this reason, similar impacts on sensitive biological resources would occur. (Similar impact)

Archaeological, Historical, and Tribal Cultural Resources

Under the Replace the Hotel with Workforce Housing Alternative, the eastern portion of the site would be developed for multifamily housing instead of a hotel although, as with the project, the master developer would still grade the site. Because there are no known significant cultural resources on the project site, under this alternative, impacts on archeological, historical, or tribal cultural resources would be the same as for Phase 1 and the Master Plan. (Similar impact)

Energy

This alternative would replace the 100 hotel units with 100 multifamily housing units, but all other land uses and intensities would be the same as for the project. The multifamily housing units would be built on the eastern portion of the site. The multifamily units have a lower VMT generation rate than the hotel units; therefore, this alternative would be very similar to Phase 1 and the Master Plan with the exception that the multifamily units would have slightly lower use of fossil fuels due to the incrementally lower VMT generation than the hotel units. (Less impact)

Geology, Soils, and Seismicity

Earth-moving activities associated with construction under both the project and this alternative have the potential to affect geology and soils. The types of impacts that could occur from this alternative include geotechnical issues, increased erosion, and exposure of buildings and people to seismic hazards. Existing regulations and permitting requirements, such as CBSC requirements, NPDES permit conditions, and BMPs would reduce potentially significant impacts to a less-than-significant level. Phase 1, the Master Plan, and this alternative would have less-than-significant impacts and there would be similar levels of development onsite despite some changes in land uses. (Similar impact)

Greenhouse Gas Emissions

The project would result in significant, but mitigable, impacts related to GHG emissions during construction and operation and at both the Master Plan and Phase 1 level. This alternative would replace the 100 hotel units with 100 multifamily housing units. The multifamily housing units would be built on the eastern portion of the site. The multifamily units have a lower VMT generation rate than the hotel units; therefore, this alternative would be similar to Phase 1 and the Master Plan with respect to construction emissions and stationary source emissions. The primary exception is that the multifamily units would generate slightly lower vehicular emissions due to the lower VMT generation rate. (Less impact)

Hazards and Hazardous Materials

Under both the Replace the Hotel with Workforce Housing Alternative and the project, onsite construction activities would entail transport, use, and storage of hazardous materials and potential release of hazardous materials. In addition, disruption of area roadways during construction may hinder traffic flow and affect emergency response. However, required traffic control plans, mitigation measures, and regulatory compliance would preclude impacts or reduce these impacts to a less-than-significant level. The amount of construction and the types of hazards and hazardous materials impacts described for this alternative would be of similar type and magnitude as Phase 1 and the Master Plan. (Similar impact)

Hydrology and Water Quality

Earth-moving activities associated with construction under both the project and the Replace Hotel with Workforce Housing Alternative have the potential to affect hydrology and water quality in the area. Both would be required to implement a site-specific SWPPP that is consistent with the NPDES Construction General Permit. The SWPPP will include project construction BMPs designed to protect the quality of stormwater runoff. These temporary BMPs would control soil erosion and sediment,

restrict nonstormwater discharges, provide pollutant control, and reduce or limit surface runoff. Because a similar level of development would occur under this alternative, hydrology and water quality impacts would also be similar to Phase 1 and the Master Plan. (Similar impact)

Land Use and Planning

The 100 hotel units proposed as part of the project would be replaced with 100 multifamily housing units under this alternative. As described in Section 3.10, Phase 1 and the Master Plan would result in no impacts related to land use. Because housing is an allowed use, this alternative, Phase 1, and the Master Plan would have a similar land use impacts. (Similar impact)

Noise

At the Master Plan level, construction-related impacts on sensitive receptors are considered to be significant and unavoidable. This alternative would replace the 100 hotel units with 100 multifamily housing units. The multifamily housing units would be built on the eastern portion of the site. The multifamily uses would occupy a larger footprint and would likely generate incrementally greater stationary source noise, but would generate less VMT (traffic-related) noise than the hotel units use under the project. Therefore, the overall construction and noise impacts under this alternative would be similar to Phase 1 and the Master Plan. (Similar impact)

Population and Housing

This alternative would replace the 100 hotel units with 100 multifamily housing units. The multifamily housing units would be built on the eastern portion of the site. This alternative is not anticipated to displace additional people or housing. However, due to the multifamily units, this alternative would result in a direct increase in the residential population compared to Phase 1 and the Master Plan. While this increase in residential population would not be considered substantial unplanned growth, it would be an increase in permanent population which would not occur under the project. (Greater impact)

Public Services

This alternative would replace the 100 hotel units with 100 multifamily housing units, but the remaining uses would be the same as for the project. The change from hotel units to multifamily units is a change in land use that could result in slight differences in the demand for public services, but the overall intensity is approximately the same. Therefore, it is anticipated that the public services impacts associated with this alternative would also be less than significant and similar to those of Phase 1 and the Master Plan. (Similar impact)

Recreation

This alternative would replace the 100 hotel units with 100 multifamily housing units, but the remaining uses would be the same as for the project. The change from hotel units to multifamily units is a change in land use that would result in permanent residents that would directly increase the demand for recreational facilities. Therefore, the impacts associated with this alternative, while still being less than significant, would be incrementally greater than those of Phase 1 and the Master Plan. (Greater impact)

Transportation and Circulation

This alternative would replace the 100 hotel units with 100 multifamily housing units. The multifamily housing units would be built on the eastern portion of the site. This alternative would be very similar to Phase 1 and the Master Plan with respect to the VMT generated by the MOB, ASC, and micro-hospital. The primary exception is that the multifamily units would generate slightly lower vehicular emissions due to the lower VMT generation rate. (Less impact)

Utilities and Service Systems

This alternative would replace the 100 hotel units with 100 multifamily housing units, but the remaining uses would be the same as for the project. The change from hotel units to multifamily units is a change in land use that could result in slight differences in the demand for public utilities, but the overall intensity is approximately the same. Therefore, it is anticipated that the public utilities impacts associated with this alternative would also be less than significant and similar to those of Phase 1 and the Master Plan. (Similar impact)

Wildfire

This alternative would replace the 100 hotel units with 100 multifamily housing units, but the remaining uses would be the same as for the project. The change from hotel units to multifamily units is a change in land use that could result in slight differences in the amount of activity on the project site, but the overall intensity is approximately the same. Therefore, impacts would be similar to Phase 1 and the Master Plan. (Similar impact)

6.9 Comparison of Alternatives

Table 6-1 summarizes the environmental analyses provided above for the project and alternatives.

Table 6-1. Comparison of the Environmental Impacts in Relation to the Project

Environmental Topic	Folsom Center for Health Master Plan	Phase 1	Alternative 1 No Project (No Build)	Alternative 2 No Project (Development Consistent with the FPASP)	Alternative 3 Concentrated Development	Alternative 4 Replace Hotel with Workforce Housing
Aesthetics	LTS/M	LTS/M	<	=	<	>
Air quality	SU	LTS/M	<	>	=	<
Biological resources	LTS/M	LTS/M	<	=	=	=
Cultural resources	LTS/M	LTS/M	=	=	=	=
Energy	LTS	LTS	<	>	=	<
Geology, soils, seismicity	LTS/M	LTS/M	<	=	<	=
Greenhouse gases	LTS/M	LTS/M	<	>	=	<
Hazards and hazardous materials	LTS/M	LTS/M	=	=	=	=
Hydrology and water quality	LTS	LTS	<	=	<	=

Environmental Topic	Folsom Center for Health Master Plan	Phase 1	Alternative 1 No Project (No Build)	Alternative 2 No Project (Development Consistent with the FPASP)	Alternative 3 Concentrated Development	Alternative 4 Replace Hotel with Workforce Housing
Land use and planning	LTS	LTS	=	=	=	=
Noise	SU	LTS/M	<	>	<	=
Population and housing	LTS	LTS	=	=	=	>
Public services	LTS	LTS	<	>	=	=
Recreation	LTS	LTS	<	>	=	>
Transportation and circulation	LTS/M	LTS/M	<	>	=	<
Utilities and service systems	LTS	LTS	<	>	=	=
Wildfire	LTS	LTS	<	=	=	=

Impact Status:
LTS = less-than-significant impact
LTS/M = LTS with mitigation
SU = Significant and unavoidable
= – Impacts would be similar to those of the project
< – Impacts would be less than those of the project
> – Impacts would be greater than those of the project

6.10 Environmentally Superior Alternative

CEQA Guidelines Section 15126.6 states that an EIR should identify the "environmentally superior" alternative. "If the environmentally superior alternative is the 'no project' alternative, the EIR shall also identify an environmentally superior alternative among the other alternatives." As shown in the Executive Summary of this EIR, there would be significant and unavoidable impacts associated with the project. These impacts are related to air quality and noise. Three of the four evaluated alternatives would result in lesser environmental impacts than the project on some environmental resources. Under the No Project Alternative, it is assumed that the master developer (seller of the site), who has begun mass grading of the site under entitlement from the FPASP and associated EIR/EIS, would continue grading, and impacts associated with mass grading would occur regardless of whether the project is implemented. Subsequent to the completion of the mass grading, this alternative assumes the site would remain vacant; so the new health care center with micro-hospital and ASC would not be implemented. Therefore, the No Project (No Build) Alternative would not achieve any of the identified project objectives. These include: incorporating a holistic approach to building out the site; developing a strong public realm and landscape character providing outdoor spaces to support patient health and family support; creating robust pedestrian connections throughout the development; providing attractive entries and edges; providing services to meet current local and regional needs while allowing for future expansion and flexibility over time to serve a growing population; plan development of the site by UC and its partners as a coherent program meeting the UC vision for the development and built in phases; and developing the site for uses that are supportive of patient care and the UC mission, including family lodging.

Under the No Project (Development Consistent with the FPASP) Alternative, the Folsom Center for Health would not be constructed. Instead, the project site is likely to be developed by others consistent with the FPASP and Folsom General Plan land use designations. Because the FPASP would allow an intensity (up to 1,200 employees) that is greater than what is proposed for the project, this alternative would have increased impacts on air quality, energy, GHG emissions, noise, public services, traffic, and utilities. This alternative would also not meet any of the key project objectives.

Under the Concentrated Development Alternative, the project's square footage needs would be provided in one or two large buildings on the western portion of the project site and leave the eastern portion as landscaped open space. This would reduce intensity on the eastern portion, thereby reducing the potential for noise impacts on the Dignity Health Center east of the project site. Because of the reduced lot coverage and fewer buildings, this alternative would also incrementally reduce impacts on aesthetics, geology and soils, and hydrology and water quality. This alternative would also meet most of the objectives of the project; but would not meet the following.

> *Incorporate a holistic approach to building out the site, integrating buildings, infrastructure, and landscape as one collective system. Develop a strong public realm and landscape character providing outdoor spaces to support patient health and family support. Comply with HCAI standards and requirements for health care facilities.*
>
> *Create robust pedestrian connections throughout the development. Provide attractive entries and edges. Create a safe, convenient, and pleasant experience for people navigating to the buildings.*

The Replace the Hotel with Workforce Housing Alternative would replace the hotel use at the southeastern portion of the site with housing for the hospital workforce. Under this alternative, the 100 rooms in the hotel would be replaced with approximately 100 units of multifamily residential housing in a multistory apartment building. This alternative would reduce impacts associated with air quality, energy, GHG emissions, and traffic simply due to the fact that multifamily housing units have a lower VMT generation rate than hotel units. This alternative would simultaneously have increased impacts associated with aesthetics, population and housing, and recreation due to the addition of a residential population to the site. This alternative would meet most of the objectives of the project, but would not meet the following objective, as it would not provide lodging for families of patients.

> *Develop the site for uses that are supportive of patient care and the UC mission, including family lodging.*

As described above and shown in Table 6-1, the Concentrated Development Alternative would result in greater impact reductions than the other alternatives due to the reduced lot coverage, which would move uses further from the eastern edge of the site, thereby reducing noise impacts on the Dignity Health Center. Therefore, the Concentrated Development Alternative is considered the environmentally superior alternative. However, while this alternative would have very slightly lesser impacts than the project, it would not allow the fully integrated landscape and structure design envisioned in the Master Plan. Additionally, the Concentrated Development Alternative would not facilitate project phasing to respond to population growth over time, a major goal of the project.

Chapter 7
Preparers

7.1 University of California, Davis

- Matt Dulcich, AICP, Director of Environmental Planning
- Heather Davis, AICP, Environmental Planner
- Alex Tremblay, Assistant Environmental Planner
- Brian Harrington, Associate Director, UC Office of the President
- Ha Ly, Planning Specialist, UC Office of the President
- Creed Kampa, Project Manager, UC Davis Health
- Lisa Hinton, Project Manager, UC Davis Health

7.2 ICF

- Sally Zeff, AICP, Project Director
- Lance Unverzagt, Project Manager
- Christine McCrory, Editor
- Jesse Cherry, Publications Specialist
- Brad Stein, GIS Analyst
- Jennifer Ban, Visual Resources Specialist
- Laura Yoon, Air Quality and Climate Change Specialist
- Darren Trageser, Air Quality Specialist
- Angela Alcala, Biologist
- Lisa Webber, Botanist
- Christiaan Havelaar, Archaeologist
- Steve Pappas, Archaeologist
- Katrina Sukola, Environmental Scientist
- Dave Buehler, Noise Specialist
- Elizabeth Scott Foley, Noise Specialist
- Tina Sorvari, Senior Environmental Planner

7.3 Fehr & Peers

- Albee Wei, Transportation Planner
- Ronald Milam, Senior Transportation Engineer

Chapter 8
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8.0 Executive Summary

None

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8.2 Chapter 2, Project Description

None

8.3 Chapter 3, Existing Environmental Setting, Impacts, and Mitigation

8.3.1 Section 3.0, Introduction to the Analysis

None

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Chapter 9
Acronyms and Abbreviations

Term	Description
°C	degrees Celsius
°F	degrees Fahrenheit
AB	Assembly Bill
ACHP	Advisory Council on Historic Preservation
ADL	aerially deposited lead
AFV	alternative fuel vehicle
Alquist Act	Alfred E. Alquist Hospital Seismic Safety Act of 1983
Alquist-Priolo Act	Alquist-Priolo Earthquake Fault Zoning Act of 1972
ALUCP	airport land use compatibility plan
AQMP	Air Quality Mitigation Plan
Asbestos ATCM	Asbestos Airborne Toxic Control Measure for Construction, Grading, Quarrying, and Surface Mining
ASC	ambulatory surgery center
ASHRAE	American Society of Heating, Refrigerating and Air Conditioning Engineers
ATC	Authority to Construct
AVE	area of visual effect
BACT	best available control technology
BD+C	Building Design and Construction
BMP	best management practice
BO	Biological Opinion
BRWL	blue-rich white light
CAA	Clean Air Act
CAAQS	California ambient air quality standards
CAFE	Corporate Average Fuel Economy
CAL FIRE	California Department of Forestry and Fire Protection
CalEEMod	California Emissions Estimator Model
Cal-EPA	California Environmental Protection Agency
CALGreen	California Green Building Standards Code
Cal-OSHA	California Division of Occupational Safety and Health
CalRecycle	California Department of Resources Recycling and Recovery
Caltrans	California Department of Transportation
CAP	Climate Action Plan
CAR	Climate Action Reserve
CARB	California Air Resources Board
Carl Moyer Program	Carl Moyer Memorial Air Quality Standards Attainment Program
CBSC	California Building Standards Code
CCAA	California Clean Air Act
CCR	California Code of Regulations

Term	Description
CDFW	California Department of Fish and Wildlife
CDOF	California Department of Finance
CDPH	California Department of Public Health
CEC	California Energy Commission
CEQA	California Environmental Quality Act
CESA	California Endangered Species Act
CFC	California Fire Code
CFGC	California Fish and Game Code
CFR	Code of Federal Regulations
CGS	California Geological Survey
CH_4	methane
CHP	California Highway Patrol
City	City of Folsom
CIWMA	California Integrated Waste Management Act
CNDDB	California Natural Diversity Database
CNEL	community noise equivalent level
CNPS	California Native Plant Society
CO	carbon monoxide
CO_2	carbon dioxide
CO_2e	CO_2 equivalent
COOP	Continuity of Operations Plan
CPUC	California Public Utilities Commission
CRHR	California Register of Historical Resources
CRPR	California Rare Plant Rank
CUP	central utility plant
CUPA	certified unified program agency
CVFPP	Central Valley Flood Protection Plan
CVP	Central Valley Project
CWA	Clean Water Act
DA	Development Agreement
dB	decibel
dBA	A-weighted decibel
DPM	diesel particulate matter
DTSC	California Department of Toxic Substances Control
DWR	California Department of Water Resources
EAP	*UC Davis Health Education & Research Emergency Action & Evacuation Plan*
EDCAQMD	El Dorado County Air Quality Management District
EH&S	UC Davis Office of Environmental Health and Safety
EIR	environmental impact report
EIS	environmental impact statement
EMS	emergency medical services
EO	Executive Order

Term	Description
EOC	Emergency Operation Center
EPA	U.S. Environmental Protection Agency
EPAct	Energy Policy Act of 1992
EPS	Expanded Polystyrene
ESA	federal Endangered Species Act
EV	electric vehicle
EWSP	emergency water supply plan
FAPA	First Amended Programmatic Agreement
FCUSD	Folsom Cordova Unified School District
Fed. Reg.	*Federal Register*
FEMA	Federal Emergency Management Agency
FFD	City of Folsom Fire Department
FHSZ	fire hazard severity zone
FHWA	Federal Highway Administration
FMU	forecasted mitigation units
FPASP	Folsom Plan Area Specific Plan
FPD	City of Folsom Police Department
FTA	Federal Transit Administration
GHG	greenhouse gas
gpd	gallons per day
GSP	groundwater sustainability plan
GWP	global warming potential
HCAI	Health Care Access and Information
HFC	hydrofluorocarbon
HMBP	hazardous materials business plan
Hot Spots Act	Air Toxics “Hot Spots” Information and Assessment Act
HPMP	historic properties management plan
HRA	health risk assessment
HSWA	Hazardous and Solid Waste Amendments of 1984
I-	Interstate
IEPR	Integrated Energy Policy Report
in/sec	inches per second
IPCC	Intergovernmental Panel on Climate Change
K	Kelvin
kV	kilovolt
kW	kilowatt
L_{10}, L_{20}, etc.	percentile-exceeded sound levels
L_{dn}	day-night sound level
LED	light-emitting diode
LEED	Leadership in Energy and Environmental Design
L_{eq}	equivalent sound level
LID	low-impact development

Term	Description
L_{min} and L_{max}	minimum and maximum sound levels
LRA	local responsibility area
MBTA	Migratory Bird Treaty Act
MCAB	Mountain Counties Air Basin
mgd	million gallons per day
MOB	medical office building
mpg	miles per gallon
MPO	metropolitan planning organization
MS4	Municipal Separate Storm Sewer Systems
MSAA	Master Streambed Alteration Agreement
MT	metric ton
MTP	metropolitan transportation plan
MWh	megawatt-hour
MY	model year
NAAQS	national ambient air quality standards
NCIC	North Central Information Center
NCMWC	Natomas Central Mutual Water Company
NAHC	Native American Heritage Commission
NEHRP	National Earthquake Hazards Reduction Program
NHPA	National Historic Preservation Act of 1966
NHTSA	National Highway Traffic Safety Administration
NO	nitric oxide
N_2O	nitrous oxide
NO_2	nitrogen dioxide
NOA	naturally occurring asbestos
NOP	Notice of Preparation
NO_X	nitrogen oxides
NPDES	National Pollutant Discharge Elimination System
NRHP	National Register of Historic Places
OEHHA	California Office of Environmental Health Hazard Assessment
OPR	Governor's Office of Planning and Research
OSHA	Occupational Safety and Health Administration
PCE	tetrachloroethene
PFC	perfluorocarbons
Pga	peak ground acceleration
Phase I ESA	Phase I Environmental Site Assessment
PM	particulate matter
PM2.5	particulate matter 2.5 microns or less in diameter
PM10	particulate matter 10 microns or less in diameter
Porter-Cologne Act	Porter-Cologne Water Quality Control Act
PPV	peak particle velocity
PRC	Public Resources Code

Term	Description
project	Folsom Center for Health Master Plan
PTO	Permit to Operate
PV	photovoltaic
RCRA	Resource Conservation and Recovery Act
REC	recognized environmental condition
Regional Water Board	Regional Water Quality Control Board
ROG	reactive organic gases
RPS	Renewables Portfolio Standard
RTP	regional transportation plan
SacOES	Sacramento County Office of Emergency Services
SACOG	Sacramento Area Council of Governments
SB	Senate Bill
SCS	sustainable communities strategy
SEL	sound exposure level
sf	square feet
SF_6	sulfur hexafluoride
SFNA	Sacramento Federal Nonattainment Area
SGMA	Sustainable Groundwater Management Act of 2014
SIP	State Implementation Plan
SJVAB	San Joaquin Valley Air Basin
SLCP	Short-Lived Climate Pollutants
SMAQMD	Sacramento Metropolitan Air Quality Management District
SMUD	Sacramento Municipal Utility District
SO_2	sulfur dioxide
SQIP	stormwater quality improvement program
SR	State Route
SRA	state responsibility area
SRCSD	Sacramento Regional County Sanitation District
SRWTP	Sacramento Regional Wastewater Treatment Plant
SSQP	Sacramento Stormwater Quality Partnership
State Water Board	State Water Resources Control Board
SVAB	Sacramento Valley Air Basin
SVP	Society of Vertebrate Paleontology
SVRR	Sacramento Valley Railroad
SWMP	stormwater management plan
SWPPP	stormwater pollution prevention plan
TAC	toxic air contaminant
Tanner Act	Toxic Air Contaminant Identification and Control Act
TCE	trichloroethene
TCR	The Climate Registry
the Regents	Board of Regents of the University of California
TMDL	total maximum daily load

Term	Description
UC	University of California
UC Davis	University of California, Davis
UCDPD	UC Davis Police Department
US 50	U.S. Route 50
USACE	U.S. Army Corps of Engineers
USBR	U.S. Bureau of Reclamation
USDOT	U.S. Department of Transportation
USFWS	U.S. Fish and Wildlife Service
USGS	U.S. Geological Survey
VdB	vibration decibel
VMT	vehicle miles traveled
VOC	volatile organic compound
WDR	waste discharge requirement
WSA	Water Supply Assessment
ZEV	zero-emission vehicle