5.0 ALTERNATIVES

5.1 INTRODUCTION

This chapter of the Revised Draft EIR presents an analysis of the alternatives to the proposed Student Housing West project ("SHW project" or "proposed project"). As stated in **Chapter 1.0, Introduction**, a large number of comments on the published Draft EIR requested that the University provide a detailed evaluation of additional alternatives to the proposed project, including some of the alternatives that the University had considered but not carried forth for detailed evaluation. CEQA requires that a lead agency consider alternatives put forth by the public and agencies and either evaluate the additional alternatives suggested by the commenters or provide reasons why the alternative should not be evaluated. The University reviewed the suggested alternatives and concluded that some warranted detailed evaluation. In addition, the University noted that conceptual site plans for the alternatives presented in the March 2018 Draft EIR were imprecise in illustrating some proposed buildings for the 13-acre Heller site in areas that provide dispersal habitat for the California red legged frog and are not proposed for development under the proposed project. The University, therefore, decided to prepare an updated alternatives analysis that includes more precise conceptual site plans for the previously evaluated alternatives and includes additional alternatives.

CEQA requires that an EIR describe a range of reasonable alternatives to the proposed project or to the location of the project that could feasibly avoid or lessen any significant impacts while feasibly attaining most of the basic objectives of the proposed project. An EIR should also evaluate the comparative merits of the alternatives. This section sets forth potential alternatives to the proposed project and evaluates them, as required by CEQA.

Key provisions of the State CEQA Guidelines[1] pertaining to the alternatives analysis are summarized below:

- The discussion of alternatives shall focus on alternatives to the project or its location that 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.

- The range of alternatives required in an EIR is governed by a "rule of reason." Therefore, the EIR must evaluate only those alternatives necessary to permit a reasoned choice. The alternatives

[1] California Code of Regulations, Title 14, Division 6, Chapter 3, *California Environmental Quality Act Guidelines*, Section 15126.6.

shall be limited to ones that would avoid or substantially lessen any of the significant effects of the project.

- The No Project alternative shall be evaluated along with its impacts. The analysis of the No Project alternative shall discuss the existing conditions at the time the notice of preparation is published. Additionally, the analysis shall discuss what would be reasonably expected to occur in the foreseeable future if the project were not approved, based on current plans and consistent with available infrastructure and community services.
- For alternative locations, only locations that would avoid or substantially lessen any of the significant effects of the project need be considered for inclusion in the EIR.
- An EIR need not consider an alternative whose effects cannot be reasonably ascertained and whose implementation is remote and speculative.

The range of feasible alternatives should be selected and discussed in a manner intended to foster meaningful public participation and informed decision-making. Among the factors that may be taken into account when addressing the feasibility of alternatives are environmental impacts, site suitability, economic viability, availability of infrastructure, general plan consistency, regulatory limitations, jurisdictional boundaries, and whether the project proponent could reasonably acquire, control, or otherwise have access to an alternative site.[2]

5.2 PROJECT HISTORY AND BACKGROUND

Under the 2008 Comprehensive Settlement Agreement (CSA) between the University and the City and County of Santa Cruz, the University agreed that housing development in the area west of Porter College will be initiated before new bed spaces are developed in the North Campus area. However, the CSA does not place other limits on where the Campus can develop housing. The planning that led to the proposed SHW project was commenced in 2014. UC Santa Cruz retained a consultant to evaluate a large area in the western portion of the campus for the development of additional student housing. The study area encompassed approximately 113 acres reaching from the West Entrance to the North Remote Parking lot, primarily to the west of Heller Drive. The area included the existing Family Student Housing complex, Porter College, Kresge College, the Campus Park, and undeveloped areas west of Porter College.

The results of the evaluation were published in a report entitled UC Santa Cruz Student Housing West, dated July 2015. As noted in that report, the 113-acre study area was evaluated to identify suitable sites for construction of new housing. The site identification process took into consideration a number of factors, including but not limited to, proximity and relationship to existing facilities, general accessibility,

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2 California Code of Regulations, Title 14, Division 6, Chapter 3, *California Environmental Quality Act Guidelines*, Section 15126.6(f)(1).

topography and geology, proximity to utilities, and environmental factors such as habitats and significant landscape features. The evaluation yielded six potential sites (Sites A through F, shown on **Figure 5.0-1, Potential Housing Sites**) which were then narrowed down to three suitable sites (Sites B, C, and E). The study identified a preferred option which would develop a student housing complex south of Kresge College to provide 500 to 600 new student beds; redevelop Kresge College housing buildings to add 100 to 200 additional beds; seek off-campus master lease opportunities to provide additional student housing; and rehabilitate the Family Student Housing (FSH) complex. The study identified an alternative to this option, which would extend development further south into the open grassland area (Porter Meadow) to provide approximately 800 to 900 new student beds and would include regular maintenance at Family Student Housing and Kresge College.

After the UC President announced the President's Housing Initiative in January 2016, the Campus decided to pursue development of student housing in the 50-acre area south of Kresge College utilizing the new system-wide public-private partnership (P3) delivery process. This 50-acre development area included the Kresge parking lot as a development site in the north, a development site to the west of Porter College, and the FSH complex to the south.

The 50-acre development area was provided to three short-listed P3 developer teams in a phase II request for proposals (RFP) to provide master planning and development of 3,000 student beds. In order to allow for east-west wildlife movement, including California red-legged frog (CRLF) dispersal, across the site, the Campus identified two developable areas within the 50-acre site, separated by an undevelopable "Open Space Area."

In response to the RFP, each of the P3 developer teams submitted a plan to provide 3,000 beds on the 50-acre site. The plan submitted by Capstone, the developer team ultimately selected by the Campus as its preferred partner, included the development of 200 graduate beds in two buildings on the Kresge parking lot, some of the needed undergraduate housing in one to two residence hall buildings to the west of Porter College, and the remaining development program on the FSH complex site (**Figure 5.0-2, Prior Project Concept**).

As an appendix to its proposal, the Capstone team offered, as an alternative to its plan for the 50-acre site, the development of the family student housing component of the project on an approximately 13-acre site adjacent to Hagar Drive, called the Hagar site in the Draft EIR and this Revised Draft EIR, using building components manufactured off site. As presented by Capstone, this alternative would result in substantial construction cost savings, allow for a reduction in the scale and density of undergraduate housing, significantly reduce the number of student families who would otherwise be displaced, and locate student families in a neighborhood that would bemore appropriate for families.

Concurrent with the preparation of the Draft EIR, the Campus communicated with U.S. Fish and Wildlife Service (USFWS) regarding the potential for the project to affect federally listed species. Based on these discussions, the Campus determined tthat certain areas may be considered dispersal or upland habitat for CRLF and could not be developed without obtaining a permit and mitigating any potentially affected CRLF habitat. The need to pursue and secure an applicable permit and suitable mitigation had the potential to significantly delay the commencement of project construction. Therefore, it was determined that the project site must be confined to only those areas that do not provide any habitat for the listed species. Based on further communications with USFWS, the project site was redefined to include only the approximately 13-acre area known as the FSH complex. The development site west of Porter College was eliminated as it contained habitat for CRLF. The Kresge parking lot site was eliminated because the proposed graduate housing building would have extended into the adjacent CRLF dispersal habitat and, at eight stories, the proposal generated some concern about compatibility with the adjacent buildings at Kresge College (this is discussed further in **Section 5.4.2** below under alternatives not carried forth for detailed evaluation).

In Fall, 2017, after selecting the Capstone team as its preferred development partner, the Campus conducted a review of options for developing the full 3,000-bed project while working within the newly identified constraints on development on the west campus. This review included an assessment of the potential for other sites throughout the campus to accommodate a portion of the SHW project program, either temporarily or permanently, as well as a review of Capstone's proposal for developing student family housing at the Hagar site. In October 2017, the Campus decided to develop family student housing and the childcare facility on the Hagar site, and the undergraduate and graduate student beds on the Heller site.

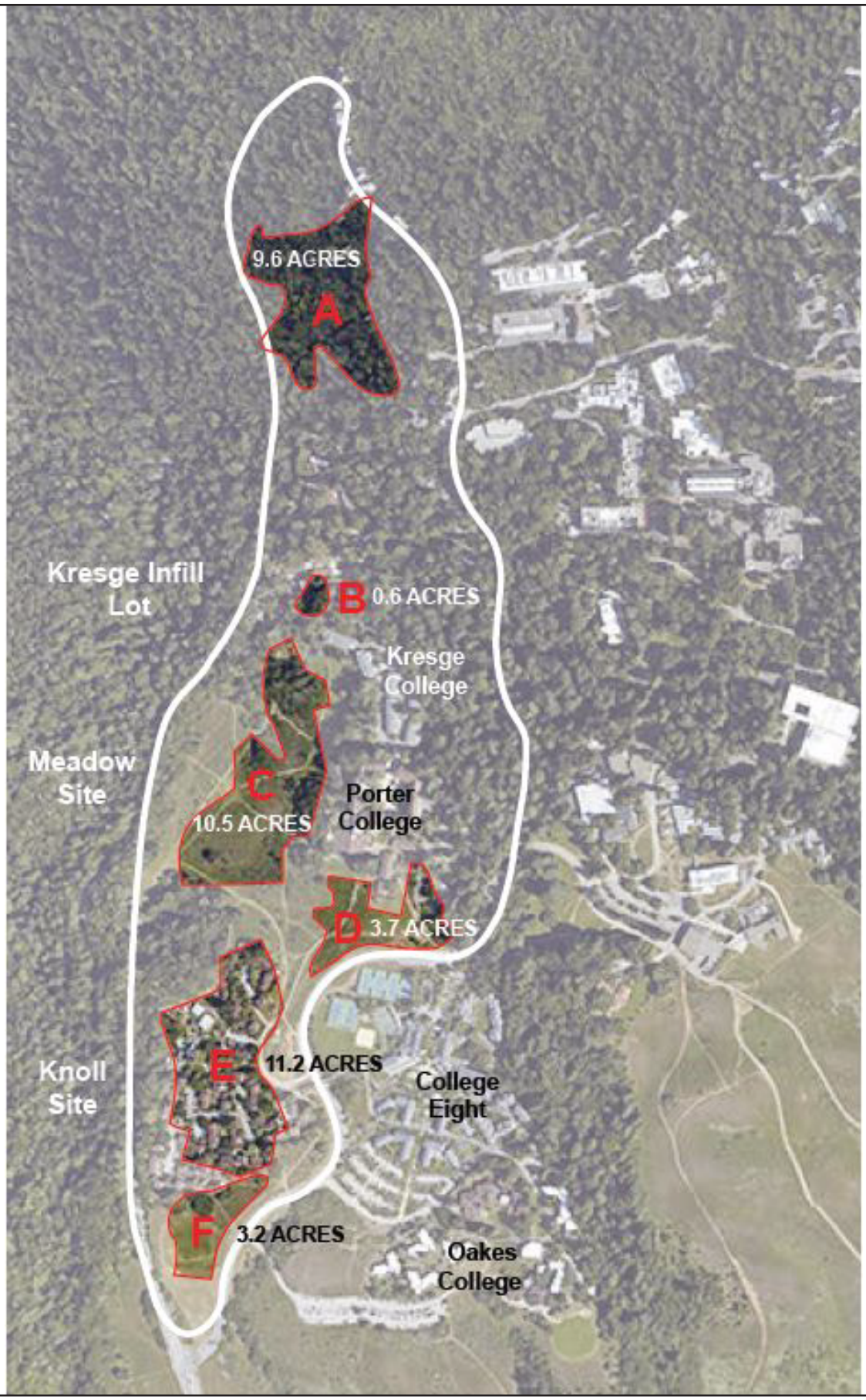
5.3 PROJECT OBJECTIVES AND IMPACTS

To develop and evaluate project alternatives, the University, as Lead Agency, considered the project objectives and reviewed the significant impacts of the proposed project, identified those impacts that could be substantially avoided or reduced through an alternative, and determined the appropriate range of alternatives to be analyzed.

5.3.1 Project Objectives

As stated in **Chapter 3.0, Project Description**, the objectives of the proposed SHW project are to:

- Comply with the University's commitment under the 2008 Comprehensive Settlement Agreement ("Settlement Agreement") to initiate housing development in the area west of Porter College before development of new beds in the North Campus Area;



SOURCE: UCSC, 2017

FIGURE **5.0-1**

IMPACT SCIENCES

Potential Housing Sites

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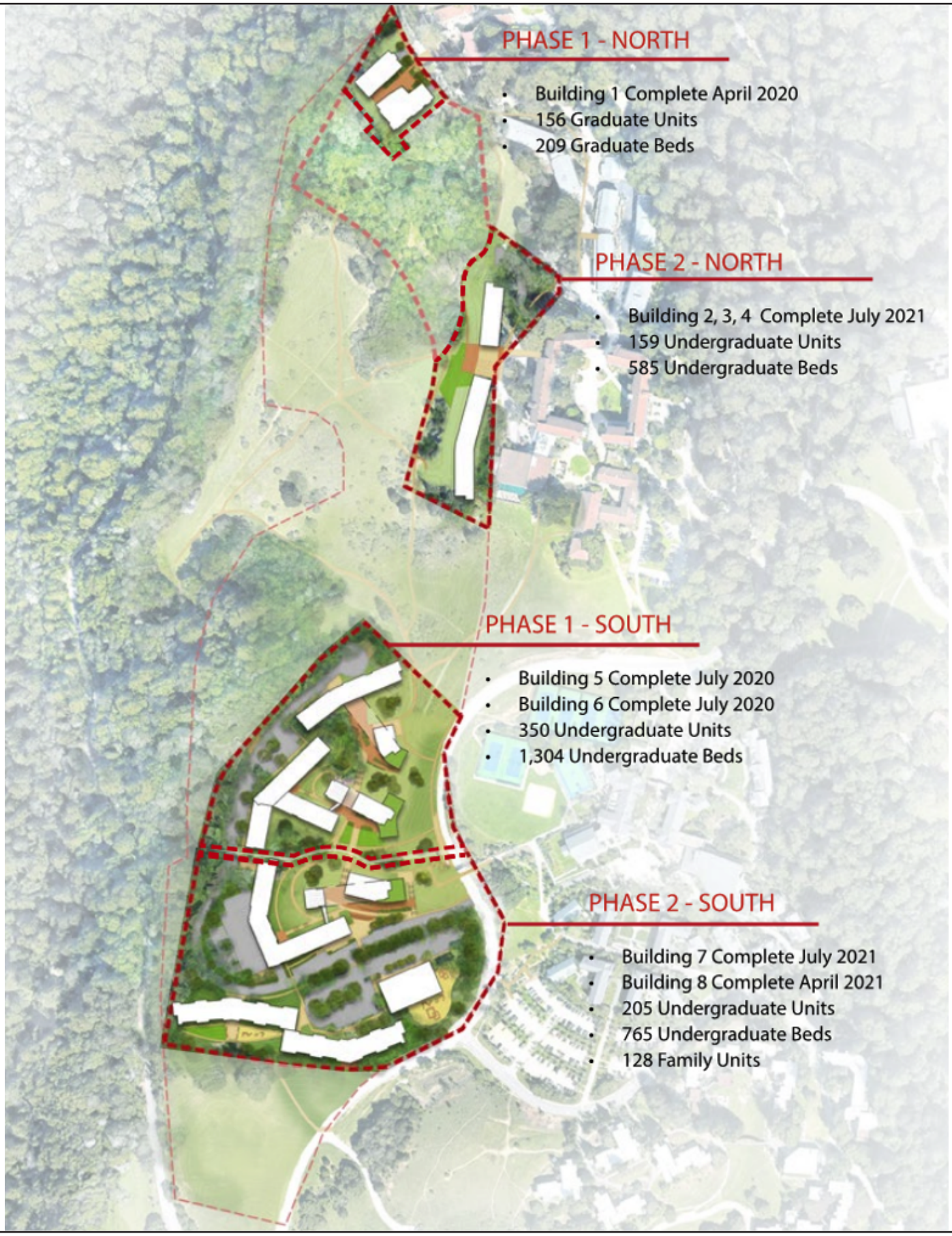
- Support the development of sufficient and affordable, on-campus student housing under the UC President's Housing Initiative;
- Develop additional housing in a timely manner in order to meet the stipulation in the Settlement Agreement;
- Develop new housing while minimizing displacement impacts on students with families;
- Locate undergraduate, graduate, and family student housing on campus in order to facilitate convenient access to classrooms and other learning environments; student services; campus amenities such as retail, restaurants and fitness facilities; and reduce the growth in vehicle trips to the campus by relocating commuting students on campus;
- Incorporate adequate support space needed for students and residential life staff (i.e., social space, recreational space, laundry facilities);
- Provide a childcare facility to serve both students and employees in a location that maximizes its accessibility to families living on and off campus.
- Incorporate design, massing, density, siting, and building footprint strategies to minimize removal of sensitive habitats and environmental impact;
- Develop housing at the highest level of sustainability that the project can afford, with Leadership in Energy and Environmental Design (LEED) Silver certification at a minimum; and
- Provide a reasonable amount of on-site parking to meet basic parking needs of the project while minimizing traffic impacts on campus.

5.3.2 Project Impacts

The analysis of the proposed project's environmental impacts is presented in **Chapter 4.0** of this Revised Draft EIR). The analysis concludes that implementation of the proposed project would result in significant or potentially significant impacts in eight resource areas: aesthetics, air quality; biological resources; cultural resources; geology and soils; hydrology and water quality; transportation and traffic; and utilities. With four exceptions, all of the significant and potentially significant impacts of the proposed project would be reduced to a less than significant level with the incorporation of LRDP and project-specific mitigation measures into the proposed project. The exceptions would be significant and unavoidable project impacts in the area of aesthetics on scenic vistas, scenic resources, and visual character/quality, and a significant and unavoidable impact on water supply. A summary discussion of project impacts under each resource area is presented below based on the analysis in the Revised Draft EIR.



SOURCE: UCSC, 2017

FIGURE **5.0-2**

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Prior Project Concept

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Aesthetics

The analysis in **Section 4.1, Aesthetics**, in this Revised Draft EIR identified potentially significant impacts on scenic vistas at both Heller and Hagar sites (**SHW Impact AES-1**), and significant impacts on scenic resources and visual character at the Hagar site (**SHW Impacts AES-2** and **AES-3**). All three impacts would remain significant even after mitigation. The project's impact on light and glare was determined to be less than significant with mitigation.

Air Quality

The analysis in **Section 4.2, Air Quality**, in this Revised Draft EIR identified a potentially significant impact associated with construction-phase emissions of NOx and ROG (**SHW Impact AIR-1**) and a significant impact associated with the exposure of existing sensitive receptors to construction emissions of toxic air contaminants (TACs) during construction (**SHW Impact AIR-3**). Both impacts would be reduced to a less than significant level with the proposed mitigation. Impacts associated with the proposed project's operational emissions of criteria pollutants and TACs were determined to be less than significant. The analysis in **Section 4.2** in this revised Draft EIR concludes that the odor impact of the proposed project would be less than significant. No significant and unavoidable air quality impacts were identified.

Biological Resources

The analysis in **Section 4.3, Biological Resources**, in this Revised Draft EIR identified potentially significant impacts on sensitive natural communities (**SHW Impact BIO-1**), cave invertebrates (**SHW Impact BIO-4**), California red-legged frog (**SHW Impact BIO-5**), California giant salamander (**SHW Impact BIO-6**), wildlife movement (**SHW Impact BIO-11**), and the potential for new lighting to affect wildlife behavior (**SHW Impact BIO-12**). All of these impacts would be reduced to a less than significant level with the implementation of LRDP and project-specific mitigation measures. All other biological resource impacts were determined to be less than significant. No significant and unavoidable biological resource impacts were identified.

Cultural Resources

The analysis in **Section 4.4, Cultural Resources**, in this Revised Draft EIR concluded that the proposed project could inadvertently affect subsurface cultural resources and result in a potentially significant impact on those resources (**SHW Impact CULT-2**). However, implementation of LRDP and project-specific mitigation would reduce the impact to a less than significant level. All other impacts, including

impacts on paleontological and unique geologic resources, were determined to be less than significant. No significant and unavoidable cultural resource impacts were identified.

Geology and Soils

The analysis in **Section 4.5, Geology and Soils**, in this Revised Draft EIR found that the proposed project would result in the construction of facilities in an area underlain by karst features, which could lead to settlement or collapse beneath the structures (**SHW Impact GEO-3**). However, implementation of the recommendations in the final geotechnical report, in compliance with LRDP Mitigation GEO-1, and **SHW Mitigations GEO-3A** and -**3B** would reduce this impact related to karst hazard to a less than significant level. All other impacts related to geology and soils were determined to be less than significant. No significant and unavoidable impacts related to geology and soils were identified.

Greenhouse Gas Emissions

The analysis in **Section 4.6, Greenhouse Gas Emission**s, in this Revised Draft EIR found that the proposed project would not generate substantial GHG emissions that would have a significant impact on the environment and the project would not conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing GHG emissions. No significant and unavoidable impacts related to GHG emissions were identified.

Hydrology and Water Quality

The analysis in **Section 4.7, Hydrology and Water Quality,** in this Revised Draft EIR found that the proposed project at the Hagar site could result in erosion and sedimentation in Jordan Gulch (**SHW Impact HYD-3**). However, implementation of **SHW Mitigation HYD-3B** and **-3C** would reduce the impact to a less than significant level. All other impacts related to hydrology and water quality were determined to be less than significant. No significant and unavoidable impacts were identified.

Land Use and Planning

The analysis in **Section 4.8, Land Use and Planning**, in this Revised Draft EIR found that the proposed project would not physically divide an established community nor would it conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project adopted for the purpose of avoiding or mitigating an environmental effect. No significant and unavoidable impacts related to land use and planning were identified.

Noise

The analysis in **Section 4.9, Noise**, in this Revised Draft EIR found that the construction and operation of the proposed project would not result in any significant noise impacts. No significant and unavoidable impacts related to noise were identified. (Although the related Porter and Rachel Carson dining facilities expansion project would result in a significant and unavoidable construction noise impact, that impact was adequately analyzed in the 2005 LRDP EIR and was fully addressed in the Findings and Statement of Overriding Considerations adopted by The Regents in connection with its approval of the 2005 LRDP. No conditions have changed and no new information has become available since certification of the 2005 LRDP EIR that would alter the previous analysis.)

Public Services and Recreation

Section 4.10, Public Services and Recreation, in this Revised Draft EIR found that the construction and operation of the proposed project would not result in any significant impacts on public services and recreational facilities. No significant and unavoidable impacts related to public services and recreation were identified.

Transportation and Traffic

The analysis in **Section 4.11, Transportation and Traffic,** in this Revised Draft EIR, found that the proposed project would not conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit nor would it conflict with an applicable congestion management program because the proposed project would not generate net new trips. In fact, the project would reduce trips compared to the previous trip estimate in the 2005 LRDP EIR and compared to the No Project condition, and the traffic impact on existing off-campus and on-campus intersections would be less than significant. However the analysis under **SHW Impact TRA-3** concluded that construction activities associated with the proposed project would have the potential to affect traffic flow, pedestrian and bicycle use, and emergency access in the vicinity of the project sites; mitigation measures set forth in this EIR would reduce the impact to a less than significant level. The analysis of the project's impact related to transit and pedestrian facilities (**SHW Impact TRA-6**) noted that the high volume of pedestrian crossings across Heller Drive near the project could result in transit delays, a potentially significant impact which would be reduced to less than significant with the mitigation measures set forth in this EIR. All other traffic impacts were determined to be less than significant. No significant and unavoidable impacts related to traffic were identified.

Tribal Cultural Resources

The analysis in **Section 4.12, Tribal Cultural Resources**, in this Revised Draft EIR found that with the implementation of LRDP mitigation measures and **SHW Mitigation CULT-2**, the proposed project would result in less than significant impacts on tribal cultural resources (TRCs). No significant and unavoidable impacts related to TRCs were identified.

Utilities and Service Systems

The analysis in **Section 4.13, Utilities and Service Systems**, in this Revised Draft EIR found that the construction and operation of the proposed project would result in the need for on- and off-site utility improvements, the construction of which could result in significant impacts **(SHW Impacts UTIL-1** and **UTIL-3**). However, the impacts would be reduced to a less than significant level by mitigation measures set forth in the Revised Draft EIR. The analysis also found that the proposed project would result in a significant impact on water supply (**SHW Impact UTIL-4**) for which no additional mitigation is feasible. The impact would be significant and unavoidable.

Energy

The analysis in **Section 4.14, Energy**, in this Revised Draft EIR concluded that although the proposed project would increase energy demand, it would not result in a wasteful, inefficient or unnecessary consumption of energy resources, nor require the construction of new energy facilities, and the impacts would be less than significant. No significant and unavoidable impacts related to energy were identified.

Other Resources

As discussed in **Section 4.15, Other Resources**, in the Revised Draft EIR, although some of the trees on the Heller site qualify as timberland under the California Forest Practice Rules, the proposed project would result in a less than significant timberland conversion impact.

5.4 ALTERNATIVES CONSIDERED BUT NOT EVALUATED IN DETAIL

Section 15126.6(c) of the State CEQA Guidelines states that an EIR should briefly describe the rationale for selecting the alternatives to be discussed and the reasons for eliminating alternatives from detailed consideration in an EIR. Among the factors that may be used to eliminate alternatives from detailed consideration in an EIR is failure to meet most of the basic project objectives, infeasibility, or inability to avoid or substantially reduce significant environmental impacts.

The following alternatives were considered by the University but were not carried forth for detailed evaluation because they were determined not to meet most of the project objectives or were found to be infeasible based on economic viability and the lack of infrastructure. Each alternative is described below along with a brief explanation of the reasons for its exclusion.

5.4.1 Heller Site and North Campus Development Alternative

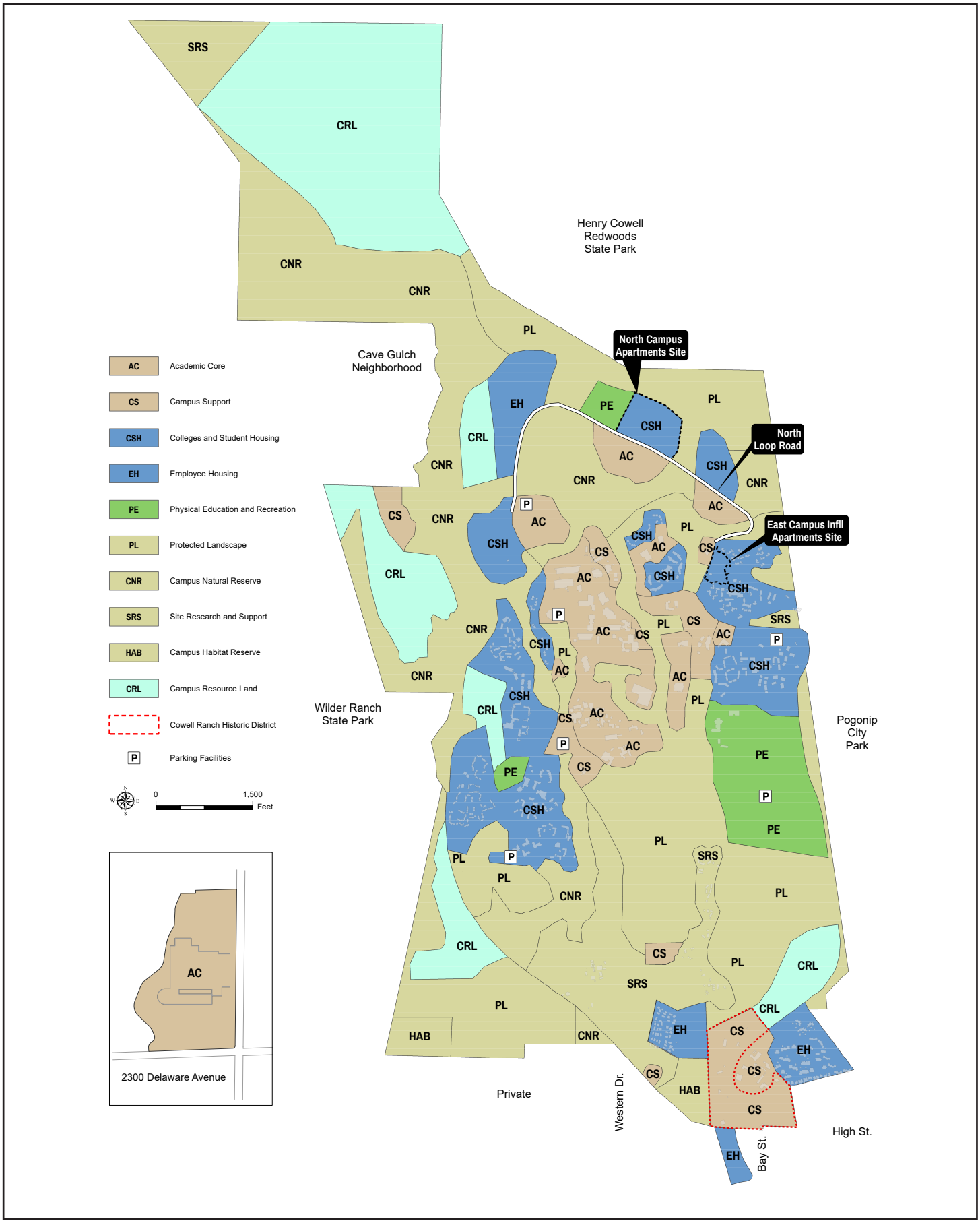
This alternative involves excluding the Hagar site from the proposed project; reducing the number of student beds on the Heller site to approximately 2,482; and providing the remaining 590 beds on a site on the North Campus. The 2005 LRDP land use diagram designated two areas on the North Campus as College and Student Housing (CSH). The larger of the two areas, located about 1,000 feet north of Colleges Nine and Ten, is about 14.6 acres (**Figure 5.0-3, North Campus Sites**). Based on the Housing Capacity Study conducted by the Campus in 2004, at a density of about 40.5 units/acre, this site can accommodate about 592 beds (UCSC 2004). Development on the North Campus site would involve the removal of a large number of trees, and, like the proposed development on the Heller site, would require the preparation and approval of a timber harvest plan. Sensitive natural communities and special-status plant and wildlife species are present in parts of the North Campus and development of housing on the North Campus site would likely require mitigation, potentially including off-site habitat restoration.

This alternative was rejected as infeasible since there is currently no development in this portion of the campus and there are no roads or utility infrastructure anywhere in the vicinity of the site. In order to construct a student housing project in this area, a new roadway (which is shown as the North Campus Loop Road in **Figure 5.0-3**) would need to be constructed. Similarly, utility infrastructure (water, wastewater, and other utilities) would need to be extended to the project site, adding considerably to the cost of the project. In light of the costs and impacts associated with installation of basic infrastructure necesssary to support this alternative, this alternative was determined to be infeasible and was not carried forth for detailed evaluation.

5.4.2 Heller Site and Kresge Lot Development Alternative

Like the Heller Site and North Campus Development Alternative described above, this alternative would exclude the Hagar site from the proposed project. It would reduce development on the Heller site to approximately 2,852 beds (including the units for student families), the childcare facility, other student facilities, and parking and would construct one or more buildings to provide about 220 graduate student beds on a parking lot to the west of Kresge College (see **Figure 5.0-2,** above).

As discussed earlier in this section, the Kresge parking lot was included as a developable area in the developer RFP, and the selected developer team's proposed plan included 200 graduate beds in a seven-



SOURCE: UCSC, 2017

FIGURE **5.0-3**

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North Campus Sites

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story building on this site. However, with the inclusion of pedestrian and vehicle access, parking, and and outdoor amenities, the development would have extended onto adjacent CRLF dispersal habitat. Furthermore, placing this small number of beds on this site would only slightly reduce the visual impacts from developing the undergraduate housing on the Heller site. The alternative was, therefore, determined to be infeasible and was not carried forth for detailed evaluation.

5.4.3 Heller Site and Off-Campus Housing Development Alternative

The Heller Site and Off-Campus Housing Development Alternative would involve construction of approximately 2,732 student beds on the Heller site and about 340 beds at one or more locations in the City of Santa Cruz or in the South County/Watsonville area. This alternative would eliminate the Hagar site from the proposed project.

Providing any of the needed student housing off campus in the South County/Watsonville area under this alternative was determined to be infeasible, as it would not meet several of the project objectives, especially the objectives of developing sufficient and affordable, on-campus student housing under the UC President's Housing Initiative, and providing housing with convenient access to classes and other campus facilities. Such an alternative would be more costly than the proposed project as the University would also incur land acquisition costs, and would also have greater traffic and traffic-related air quality and greenhouse gas emissions impacts than the proposed project.

Providing needed student housing off campus in the City of Santa Cruz under this alternative was likewise determined to be infeasible. According to the terms of the 2008 Comprehensive Settlement Agreement, the number of new off-campus beds created in the City of Santa Cruz by the Campus to meet the housing commitment in the Settlement Agreement cannot exceed 340 (225 new beds and 115 beds to replace beds at the UC Santa Cruz Inn, a hotel downtown which UC Santa Cruz previously leased). Under the Settlement Agreement, the Campus must first obtain the concurrence of the City before building a larger of number of units. Therefore, although the Campus is proposing to provide a larger number of beds under the 2005 LRDP than required under the Settlement Agreement, this number of 340 off-campus beds was used as a reasonable number of beds to be provided off campus as part of this alternative. Based on the City's General Plan, there are areas designated mixed-use medium density (MXMD) development along Mission Street and Ocean Street corridors, and mixed-use-high density (MXHD) areas along the Soquel/Water Street corridor, on east side of Santa Cruz, where the University could consider land aquisition and development of the off-campus student beds. However, even if the University were to provide off-campus student housing in the City of Santa Cruz under this alternative, this alternative would fail to meet the project's key objectives of providing the needed housing on the campus, and would be more costly due to land acquisition costs. Furthermore, such an alternative would

also have the effect of taking away land parcels that could be developed with housing for the general public. For all of these reasons, this alternative was considered infeasible and was not carried forth for detailed evaluation.

5.4.4 Alternative Sites for Family Student Housing Only

A number of comments received on the Draft EIR suggested that the Campus consider building only the new family student housing (FSH) complex, both with and without the childcare center, at other sites on the campus. The suggested sites include: East Remote parking lot, facilities yard (resource recovery yard) near the CASFS Farm, land near West Remote parking lot near Rachel Carson College, West Remote parking lot (with a parking structure to replace parking displaced by the FSH complex), Granary site, Chancellor's house, Crown Merrill parking lot, and the Village. Some suggested that FSH be located on the North Remote site or the East Campus Infill site. Most of these sites were not studied further as potential sites for the FSH complex for a variety of reasons: displacement of other existing uses (newly developed resource recovery yard north of the CASFS Farm, undergraduate living-learning program in the Village; loss of parking at the East and West Remote parking lots); impacts to CRLF habitat (land near the West Remote parking lot); potential impacts to Cowell Lime Works Historic District (Granary site); proximity to undergraduate housing, and/or ease of vehicle access (Crown Merrill parking lot, North Remote and East Campus Infill sites, and Chancellor's House site). The use of the North Remote site and the East Campus Infill site for undergraduate housing are incorporated into alternatives evaluated in detail below.

5.4.5 Infill/Distributed Housing Alternative

A number of comments received on the Draft EIR suggest that the needed number of beds be developed by adding a small number of beds to each college, or by building on infill sites within the colleges. As discussed in **Chapter 3.0, Project Description**, the Campus has already implemented a number of projects to increase the density of occupancy of existing housing and has added beds where feasible by reconfiguring existing space as part of major maintenance/capital renewal projects (e.g., at Crown College, where an additional 22 beds are being added). In addition, about 200 beds are proposed to be added to Kresge College. Note that one of the infill sites, East Campus Infill, is included in the alternatives evaluated in detail below. However, that site is limited in terms of developable area and would provide no more than 600 student beds. A 2004 Student Housing Site Options study identified infill opportunities around the perimeters of Oakes and Rachel Carson Colleges, but the available land areas are too small to accommodate a substantial portion of the SHW beds. The 2004 study identified potential sites for about 200 beds at Rachel Carson College and about 200 beds at Oakes College, assuming buildings at scales similar to those of the existing residential buildings at those colleges.

Therefore, an infill/distributed housing alternative that provides about 3,000 student beds is not feasible.

5.5 ALTERNATIVES EVALUATED IN DETAIL

According to the State CEQA Guidelines, the discussion of alternatives, in addition to considering a "no project" alternative, should focus on alternatives to a project or its location that can avoid or substantially lessen the significant effects of the project, while feasibly attaining most of the basic project objectives. The State CEQA Guidelines indicate that the range of alternatives included in this discussion should be sufficient to allow decision makers to make a reasoned choice. The alternative discussion should provide decision makers with an understanding of the merits and disadvantages of these alternatives.

Alternatives considered for detailed evaluation in this Revised Draft EIR include the mandatory No Project Alternative along with other potential alternate projects that meet most of the project's basic objectives while eliminating or reducing significant environmental impacts of the proposed project. Alternatives considered in this Revised Draft EIR for detailed evaluation include the following:

- No Project Alternative
- Reduced Project Alternative
- Heller Site Development Only Alternative
- Heller Site and North Remote Site Development Alternative
- Heller Site and East Campus Infill Development Alternative
- Heller Site, East Campus Infill, and Delaware Site Development Alternative
- Heller Site, East Campus Infill, and North Remote Site Development Alternative

Table 5.0-1, Summary Description of Project Alternatives, below presents a summary description of these eight alternatives that are evaluated in detail below.

Table 5.0-1
Summary Description of Project Alternatives

Alt #	Alternative Name	Heller Site No. of Beds	Hagar Site No. of Beds	Other Site Beds	Total No. of Beds	Students to be housed off-campus	Parking	Building Heights	Phasing and Temporary Accommodations
--	Proposed Project	2,712 UG 220 GS	140 FSH	0	3,072	0	Heller-219 spaces Hagar – 208 spaces	Heller, 5 to 7 stories; Hagar, 1-2 stories	N/A
Alt. 1	No Project	196 FSH	0	0	196	2,804	N/A	N/A	N/A
Alt. 2	Reduced Project	1,750 UG 220 GS 140 FSH	0	0	2,110	962	Heller-364 spaces; 98 surface spaces ; remainder decked on- or off-site (RCC lot)	Heller, 5 to 7 stories	Student families to be moved off-campus temporarily (location to be determined); childcare center at Granary
Alt. 3	Heller Site Development Only	2,712 UG 220 GS 140 FSH	0	0	3,072	0	Heller-412 spaces; 98 surface spaces; remainder decked on- or off-site (RCC lot)	Heller, 5 to 10 stories	Student families to be moved off-campus temporarily (location to be determined); childcare center at Granary
Alt. 4	Heller Site and North Remote Site Development	1,212 UG 220 GS 140 FSH	0	1,500 UG North Remote	3,072	0	Heller-336 spaces; 170 surface spaces; remainder decked on- or off-site (RCC lot) North Remote-100 spaces	Heller, 5 to 7 stories; North Remote, 6-8 stories	Student families to be moved off-campus temporarily (location to be determined); childcare center at Granary
Alt. 5	Heller Site and East Campus Infill Development	2,118 UG 220 GSH 140 FSH	0	594 UG East Campus Infill	3,072	0	Heller-382 spaces; 98 surface spaces; remainder decked on- or off-site (RCC lot)	Heller, 5 to 7 stories; East Campus Infill, 7-8 stories	Student families to be moved off-campus temporarily (location to be determined); childcare

Alt #	Alternative Name	Heller Site No. of Beds	Hagar Site No. of Beds	Other Site Beds	Total No. of Beds	Students to be housed off-campus	Parking	Building Heights	Phasing and Temporary Accommodations
							East Campus Infill - 100 spaces		center at Granary
Alt. 6	Heller, East Campus Infill, and Delaware Site Development	2,118 UG 140 FSH	0	594 UG East Campus Infill; 220 GS 2300 Delaware Ave.	3,072	0	Heller-338 spaces; 170 surface spaces; remainder decked on- or off-site (RCC lot) East Campus Infill-100 spaces Delaware -44 spaces	Heller, 5 to 7 stories; East Campus Infill, 7-8 stories; Delaware, 4 stories	Student families to be moved off-campus temporarily (location to be determined); childcare center at Granary
Alt. 7	Heller, East Campus Infill, and North Remote Site Development	1,212 UG 220 GS 140 FSH	0	594 UG East Campus Infill 906 UG North Remote	3,072	0	Heller-359 spaces; 170 surface spaces; remainder decked on- or off-site (RCC lot) East Campus Infill-100 spaces North Remote-70 spaces	Heller, 5 to 7 stories, East Campus Infill, 7-8 stories; North Remote, 5 to 7 stories	Student families to be moved off-campus temporarily (location to be determined); childcare center at Granary.

KEY
UG Undergraduate
GS Graduate Student

Alternatives that would meet most of the basic project objectives and would avoid or reduce the project's significant impacts are identified and analyzed in detail below. **Table 5.0-2, Summary Comparison of Project Alternatives**, presented at the end of this section, lists all potentially significant and significant impacts of the proposed project and identifies whether the alternatives would result in comparable, greater or lesser impacts than the proposed project. Some of the alternatives that include the use of the East Campus Infill site would result in additional significant and unavoidable visual and construction noise impacts.

5.6 ALTERNATIVE IMPACT ANALYSIS

5.6.1 Alternative 1: No Project Alternative

The State CEQA Guidelines require the analysis of a No Project Alternative (Section 15126.6(e)). The analysis must discuss existing conditions, as well as what would be reasonably expected to occur in the foreseeable future if the proposed project were not to be approved, based on current plans, site zoning, and consistent with available infrastructure and community services. If a project is a development project on an identifiable site, CEQA Guidelines Section 15126.6(e)(3)(B) provides that the discussion of the No Project Alternative should compare the environmental effects of the site remaining in its existing state against environmental effects which would occur if the project is approved.

However, in light of the Settlement Agreement, the No Project Alternative for this Revised Draft EIR consists of reasonably foreseeable actions that could be taken by the University in the absence of the project to provide as many as possible of the number of beds that are required to meet the requirements of the Settlement Agreement, relieve overcrowding, replace aging beds, and address the UC President's Housing Initiative. With respect to providing the needed student housing beds in the absence of the project, as is discussed in **Chapter 3.0, Project Description**, the Campus has already implemented a number of projects to increase the density of occupancy of existing housing and has added beds where feasible by reconfiguring existing space as part of major maintenance/capital renewal projects (e.g., at Crown College, where an additional 22 beds are being added). More beds cannot be added to the existing colleges on the campus without other major renovation projects or new construction, as is being planned for Kresge College, and therefore the addition of student beds in this manner is not considered reasonably foreseeable. With regard to adding student beds at other locations on the campus, the Campus did complete an environmental review of constructing 600 student beds on the East Campus Infill (ECI) site. Although the project design was approved, based on information available at that time, the Campus determined that construction of the project was infeasible at the time (note that the ECI site is included in some of the alternatives analyzed in detail below). A project to redevelop the Heller site with 400 student beds and a new childcare center was evaluated in 2006 as part of the 2005 LRDP EIR and the EIR was

certified. However, that redevelopment project was not approved and is not anticipated to be implemented. Therefore, the No Project Alternative in this EIR is a no development alternative, under which no development would occur on either project site and no housing would be added to the campus inventory.

Under the No Project Alternative, the Heller site would remain in its current condition, would continue to provide 196 beds for students with families, and would continue to be occupied by student families, and the childcare center would remain in place and would not be expanded. The Hagar site would remain undeveloped at least in the near term because it is designated Campus Resource Land in the 2005 LRDP, a land use designation given to land that is not planned for development under the 2005 LRDP but may be developed in the future. Until a new LRDP is adopted that redesignates the site for development or another development project is put forth under the existing LRDP that includes an LRDP amendment, the Hagar site would remain undeveloped. The impacts of the No Project Alternative are analyzed below.

Aesthetics

Under the No Project Alternative, the existing buildings at the Heller site would remain in their current condition and no buildings would be constructed on the Hagar site. All of the proposed project's visual impacts, including the significant and unavoidable impacts on scenic vistas and visual resources at both the Heller and the Hagar sites would be avoided.

Air Quality

No new construction would occur and therefore no construction emissions would occur and the proposed project's significant construction-phase NOx, ROG, and TAC impacts would be avoided. There would be no change in operational emissions currently emitted from the Heller site FSH complex and the childcare center. All of the proposed project's air quality impacts would be avoided under this alternative. However, under this alternative, most of the additional students who would have been housed on the campus would live off campus and commute to the campus. This would result in increased mobile source emissions compared to the proposed project. However, because of the low trip generation rates of the campus population and the use of transit and other transportation means by the students to travel to and from the campus, the increase in vehicle trips would not be proportional to the increase in the number of students living off campus, and the resulting emissions would not be substantial enough to result in a significant air quality impact.

Biological Resources

Under the No Project Alternative, no ground disturbance would occur and all of the project's biological resource impacts would be avoided.

Cultural Resources

Under the No Project Alternative, no ground disturbance would occur and all of the project's cultural resource impacts would be avoided.

Geology and Soils

Under the No Project Alternative, no construction would occur and all of the project's geology and soils impacts would be avoided.

Greenhouse Gas Emissions

No new construction would occur, and therefore there would be no construction-phase GHG emissions. Furthermore, there would be no change in operational GHG emissions currently emitted from the Heller site FSH complex and the childcare center. However, under this alternative, the additional students who would have been housed on the campus would live off campus and commute to the campus. This would result in an increase in mobile source GHG emissions compared to the proposed project. However the emissions would not be substantial enough to result in a significant GHG impact.

Hydrology and Water Quality

Under the No Project Alternative, no construction would occur and all of the project's significant and less than significant hydrology and water quality impacts would be avoided.

Land Use and Planning

Under the No Project Alternative, no land development activities would occur at either project site. As a result, this alternative would not result in any land use impacts and the project's less than significant land use impacts would be avoided.

Noise

Under the No Project Alternative, no construction activities would occur at either project site. As a result, this alternative would not result in construction noise and vibration and the project's less than significant construction noise and vibration impacts would be avoided. The alternative would also avoid placing any

development on the Hagar site and there would be no increase in traffic in the vicinity of that site and the project's less than significant traffic noise impact would be avoided. However, under this alternative, the additional students who would have been housed on the campus would live off campus and commute to the campus. This would increase the number of daily vehicle trips on roadways leading to and from the campus, compared to the proposed project. It takes a doubling of traffic to result in a 3 decibel increase in traffic noise levels. It is unlikely that enough trips would be added to the roadways such that there would be a significant increase in traffic noise along the affected roadways under this alternative.

Public Services and Recreation

Under the No Project Alternative, no construction activities would occur at either project site and the new beds would not be added to the campus. As a result, this alternative would not result in any public service impacts and the project's less than significant impacts would be avoided.

Transportation and Traffic

Under the No Project Alternative, no construction activities would occur at the project sites and the potentially significant project impacts related to construction traffic and transit service would be avoided. However, under this alternative, the additional students who would have been housed on the campus would live off campus and commute to the campus. This would increase the number of daily vehicle trips on roadways leading to and from the campus compared to the proposed project. However, given the low per person vehicle trip rate of the campus, it is unlikely that enough trips would be added to the roadways under this alternative to result in a significant traffic impact.

Tribal Cultural Resources

Under the No Project Alternative, no construction activities would occur at either project site. As a result, the project's less than significant TRC impacts would be avoided.

Utilities and Service Systems

Under this alternative, the existing buildings at the Heller site would remain. There would be no increase in the use of utilities compared to existing conditions and no impacts would occur. The proposed project's significant and less than significant utility impact would be avoided under this alternative.

However, because the additional students who would be housed on the campus under the proposed project would instead live off campus, with a large number of them within the City's water service area, the No Project Alternative would result in a demand for potable water that would potentially be greater on a per bed basis than that associated with the proposed project because the off-campus housing that the

students would live in would, most likely, not use recycled water for indoor non-potable uses. Therefore, this alternative would not avoid or reduce the project's water supply impact and, in fact, may increase the severity of that impact.

Energy

Under the No Project Alternative, no demolition or construction activities would occur at the Heller site or the Hagar site. The proposed project's energy impacts that would result from construction at the project sites, such as an increase in petroleum-based fuel usage, would be avoided under this alternative. However, under this alternative, the additional students who would have been housed on the campus would live off campus and commute to the campus. This would increase the number of daily vehicle trips to and from the campus compared to the proposed project. However, it is unlikely that enough daily trips would be added to result in a significant energy impact.

Other Resources

The proposed project's less than significant timberland conversion impact would be avoided under the No Project Alternative.

Conclusion and Relationship to Project Objectives

The No Project Alternative would avoid or reduce the proposed project's potentially significant, significant, and significant and unavoidable impacts related to aesthetics, air quality, biological resources, cultural resources, traffic, and utilities, but could potentially result in a more severe impact on water supply.

This alternative would not achieve any of the objectives of the proposed project.

5.6.2 Alternative 2: Reduced Project Alternative

Under the Reduced Project Alternative, only the 13-acre Heller site would be used to provide student housing, expanded childcare, parking and related support facilities. The Heller site would be redeveloped to provide approximately 2,110 student beds, including 1,750 undergraduate beds, 220 graduate beds, and 140 units for students with families; an expanded childcare facility; and student support, dining, and amenity space. The number of undergraduate student beds would be reduced by about 902 beds. The Hagar site would not be developed as part of this alternative.

As undergraduates, graduates, students with families, and the childcare center would all be accommodated on the project site, it would be necessary to provide adequate separation between the

three student communities. **Figure 5.0-4, Reduced Project Alternative,** presents the conceptual site plan under this alternative. As the figure shows, undergraduate student beds would be provided in four buildings (Buildings 1 through 4) in the northern and central portions of the site. The buildings would be five to seven stories high. Housing for graduate students would be provided in Building 5 located to the south of the undergraduate student housing. Building 5 would be five to seven stories high and would include 220 graduate student beds and HUB space. Housing for students with families would be provided in Building 6 in the southern portion of the site. Building 6 would be five to seven stories high and would include 140 units. The expanded childcare facility would be located on the ground floor of Building 6.

This alternative would provide up to approximately 364 parking spaces, comprised of approximately 98 on-site surface parking spaces and approximately 266 parking spaces in a decked capacity (either on-site by adding a one to two story parking deck on the proposed parking lot in the southwestern portion of the site or a one to two story deck off-site at the Rachel Carson parking lot).

As with the proposed project, the MBR wastewater treatment plant would be located in the southwestern corner of the site.

Because the Heller site is highly constrained in terms of development area, it would not be possible to construct the housing under this alternative without first relocating the student families living in the existing FSH complex and the existing childcare center to another location. Although phased demolition (and thereby phased relocation) of the student families was considered, it was determined that the phased demolition would be too disruptive for students with families, create safety issues related to the presence of children in close proximity to the project site, and further elongate the construction schedule and increase costs due to inefficient phasing. Therefore, the entire complex would be vacated and temporary housing for all the families would need to be provided elsewhere. The Campus conducted a review of potential sites on the campus where student families could be housed temporarily in trailers and considered the Ranch View Terrace Phase 2 site as a potential temporary site. However, as the Campus has begun planning for the development of new employee housing, potentially utilizing the Ranch View Terrace Phase 2 site, that site is not available. No other suitable sites have been identified on the campus. Therefore, under this alternative, student families would need to be relocated off campus into University-leased housing if such housing could be found in the surrounding community, with the childcare center being temporarily relocated to the Granary. The Campus's 2300 Delaware Avenue site, suggested for this use by commenters on the Draft EIR, would accommodate only about 25 units, at 15 units per acre, on the north parking lot, which is not currently used for parking. The Coastal Long Range Development Plan (CLRDP), which is the applicable land use plan for the UC Santa Cruz Coastal Science Campus, does not allow any residential development, with the exception of existing caretaker housing.

SOURCE: Capstone, 2018

FIGURE **5.0-4**

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Reduced Project Alternative

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Similar to the proposed project, this alternative would require the expansion of the Rachel Carson and Porter College dining facilities.

As this alternative would provide about 2,110 beds compared to about 3,072 beds under the proposed project, the amount of building space constructed under this alternative would be approximately 30 percent less than the space constructed under the proposed project. However, the alternative would involve the construction of decked parking, which is not needed under the proposed project.

Due to the reduced size of this alternative, the construction period would be slightly shorter than for the proposed project. However, construction start would be delayed due to the need for redesign and the need to find housing and relocate the student families.

Aesthetics

Under this alternative, the Heller site would be developed with the same number of buildings as the proposed project, and, at five to seven stories the building heights would be in the same range as the proposed project. As a result, the impact on the view from Porter Knoll and Empire Grade Road would be similar to or slightly reduced compared to the impact of the proposed project. However, this alternative would still result in a significant and unavoidable impact associated with changes in views from these two vantage points. As most buildings under this alternative would be five stories, there would be less building mass which would reduce the proposed project's less than significant impacts on visual character and light and glare at the Heller site.

As no housing would be constructed on the Hagar site, this alternative would avoid the significant and unavoidable impacts of the proposed project on scenic vistas, scenic resources, and visual character at the Hagar site, as well as the project's less than significant impact related to light and glare.

Air Quality

Due to the reduction in the amount of space to be built and the construction duration, this alternative would not result in a significant NOx and ROG impact due to construction emissions, and because no construction would take place at the Hagar site under this alternative, this alternative would also avoid exposing sensitive receptors to the potentially significant health risk impact from the construction-phase TAC emissions. All of the other less than significant construction-related air quality impacts of the proposed project would be further reduced under this alternative. However, as this alternative would only provide approximately 2,110 beds, as compared to approximately 3,072 beds under the proposed project, about 962 students would need to find housing in the region, and then would commute to the campus. As a result, this alternative would result in a small increase in mobile source emissions

compared to baseline conditions which would not occur under the proposed project. However, the emissions would not be substantial enough to result in a significant air quality impact.

Biological Resources

This alternative would result in the same potentially significant biological resource impacts associated with development at the Heller site under the proposed project because the same area would be disturbed under this alternative. Although the construction of decked parking on the Rachel Carson parking lot could occur off site, it would occur on a developed parking lot and no habitat would be directly disturbed. Mitigation measures identified for the proposed project would apply to this alternative to reduce impacts to less than significant levels. However, all potentially significant and less than significant biological resource impacts at the Hagar site would be avoided.

Cultural Resources

This alternative would result in the same potentially significant impacts associated with the disturbance of unknown archaeological resources and human remains at the Heller site as the same area and the same amount of soil would be disturbed under this alternative as under the proposed project. Although the construction of decked parking on the Rachel Carson parking lot would occur off site, it would occur on a developed parking lot and no previously undisturbed land would be disturbed. Mitigation measures identified for the proposed project would apply to this alternative to reduce impacts to less than significant levels. Similarly, the less than significant impacts of the proposed project associated with paleontological and unique geologic resources would occur under this alternative. However, all potentially significant and less than significant cultural resource impacts at the Hagar site would be avoided.

Geology and Soils

As with the proposed project, this alternative would have the potential for the same significant impact related to construction on karst at the Heller site. Implementation of the recommendation of the final geotechnical report per LRDP Mitigation GEO-1, and **SHW Mitigations GEO-3A** and **-3B** would similarly reduce the impact related to karst hazard to a less than significant level. Similar to the proposed project, all other impacts under this alternative related to geology and soils would be less than significant. All impacts at the Hagar site would be avoided.

Greenhouse Gas Emissions

Due to the reduction in the amount of space to be built and the construction duration, GHG emissions during the construction of this alternative would be reduced compared to the proposed project. Similarly, GHG emissions during operation would also be proportionally reduced under this alternative as this alternative would accommodate a smaller project population, which would result in proportionally lower emissions related to area sources, electricity use, water use, solid waste, and wastewater generation. However, as this alternative would provide approximately 2,110 beds, compared to approximately 3,072 beds under the proposed project, approximately 962 students who would otherwise be housed on campus would need to live off campus, and would then commute to the campus. As a result, this alternative would result in a small increase in mobile source GHG emissions compared to current conditions, which the project would avoid. However, for the same reasons discussed above regarding air quality impacts of this alternative, the increase in mobile GHG emissions would not be substantial enough for the alternative to result in a significant GHG impact.

Hydrology and Water Quality

Similar to the proposed project, the Reduced Project Alternative would not result in any significant impacts related to hydrology and water quality at the Heller site. Because no development would occur on the Hagar site, the project's potentially significant impact related to erosion and sedimentation in Jordan Gulch would be avoided under this alternative.

Land Use and Planning

Similar to the proposed project, the Reduced Project Alternative would not divide an existing community as development would be confined to the Heller site. Similar to the proposed project, this alternative would also not conflict with an applicable land use plan, policy, or regulations. No habitat conservation plan or natural community conservation plan is applicable to the site.

Noise

Due to the reduced duration of construction, the project's less than significant construction noise impacts at the Heller site would be further reduced, and no construction noise would occur at the Hagar site. As with the proposed project, the alternative would result in less than significant operational noise impacts. As noted above, this alternative would provide approximately 2,110 beds, as compared to approximately 3,072 beds under the proposed project, therefore approximately 962 students who would be housed on the campus under the proposed project would need to live off campus, and would then commute to the campus. As a result, this alternative would result in a small increase in vehicle trips compared to current

conditions, which the project would avoid. However the increase in vehicle trips would not be substantial enough to result in a significant noise impact.

As this alternative would also require an expansion of the Rachel Carson and Porter College dining facilities, it would, like the proposed project, indirectly result in a significant construction noise impact.

Transportation and Traffic

Because the Reduced Project Alternative would involve no construction on the Hagar site, both the construction-phase traffic impact and the less than significant LOS impact at the project driveways and Coolidge/Hagar Drive intersection would be avoided. As a result of the reduced amount of development at the Heller site, the project's construction duration would be shorter and the construction phase traffic congestion impact would be reduced but not fully avoided. The same mitigation measure would be needed to reduce the traffic impact.

As with the proposed project, this alternative would not conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit nor would it conflict with an applicable congestion management program because it would reduce the number of daily trips to the campus compared to existing conditions and the No Project Alternative. However, under this alternative, about 962 students would still live off campus, and would commute to the campus, and would add traffic to the roadways compared to existing conditions, but the increase would not be substantial enough to result in a significant traffic impact. As with the proposed project, this alternative would result in a substantial increase in pedestrian crossings across Heller Drive, and a significant impact on transit service. The same mitigation measure would be needed to mitigate the impact.

Tribal Cultural Resources

Similar to the proposed project, the Reduced Project Alternative would have the potential to affect TRCs at the Heller site, and the same cultural resources mitigation measure set forth for the project would need to be implemented to reduce the impact to a less than significant level.

Utilities and Service Systems

Under this alternative, all of the less than significant impacts of the proposed project associated with wastewater and solid waste disposal would be reduced due to less building space and fewer residents.

As with the proposed project, this alternative would increase the Campus' water demand compared to existing conditions and contribute to the need for the City to secure a new water source for prolonged

drought conditions. The magnitude of the on-campus water supply impact would be lower because fewer beds would be provided so the potable water demand of this alternative would be substantially lower than that of the proposed project. However, those students who would not be housed in on-campus housing due to the reduced number of beds under this alternative, would live in Santa Cruz and other communities and would place a demand for water in the study area, and the water demand of these students would likely be higher because the off-campus housing that the students would live in would, most likely, not use recycled water for indoor non-potable uses. Therefore, this alternative would have an impact on water supply that would be somewhat greater than that of the proposed project.

Energy

This alternative would involve petroleum-based fuel usage due to construction activities. However compared to the proposed project the amount of fuel usage would be less under this alternative because less building space would be constructed. Electricity and natural gas usage during operation would also be less than the proposed project. Thus, the alternative would reduce the project's less than significant energy impacts.

Other Resources

The same less than significant timberland conversion impact that would occur at the Heller site under the proposed project, would occur under this alternative.

Conclusion and Relationship to Project Objectives

The Reduced Project Alternative would reduce most of the proposed project's impacts related to development at the Heller site. However, the project's significant and unavoidable impact on scenic vistas from developing the Heller site and the significant and unavoidable impact on water supply would not be avoided. With respect to the Hagar site, this alternative would avoid all potentially significant or significant impacts of the proposed project, including the project's potentially significant construction TAC impact, significant traffic impact, and significant and unavoidable visual resource impacts.

By reducing the size of the proposed project, this alternative would not achieve the University's objectives of providing sufficient and affordable on-campus housing under the UC President's Housing Initiative; providing housing in a timely manner as related to the Settlement Agreement; relieving overcrowding; replacing housing that has deteriorated; and locating undergraduate housing on campus in order to facilitate convenient access to classrooms and other learning environments, student services, and campus amenities such as retail, restaurants and fitness facilities. This alternative would also not achieve the objective of developing new housing while minimizing displacement impacts on students

with families. Unlike the proposed project, the alternative would require the relocation of student families into temporary housing in the surrounding community. The provision of temporary housing for all of the student families at an off-campus location would result in disruption and inconvenience to student families. Furthermore, due to the limited housing supply in the Santa Cruz area, there is some uncertainty as to whether units would be available for the University to lease. Should the needed units be available, the leasing of the units by the University would temporarily reduce the amount of rental housing available for the general public. Lastly, the cost of implementing this alternative would be higher than that associated with the proposed project for three reasons: the cost of providing temporary off-campus housing for student families at market rates; redesign and construction of decked parking; and the loss of economies of scale with regard to site development costs (full development of the site is still necessary under this alternative yet fewer beds will generate less overall rental revenue to offset such costs). As a result of a higher per bed cost, it would not achieve the objective of developing affordable, on-campus student housing under the UC President's Housing Initiative.

5.6.3 Alternative 3: Heller Site Development Only Alternative

Under this alternative, only the Heller site would be utilized to provide the student housing, childcare, parking, and realated support facilities. The Heller site would be redeveloped to provide approximately 3,072 student beds, including 2,712 undergraduate student beds, 220 graduate student beds, the 140 units for student families, an expanded childcare facility, along with student support, dining, and amenity space. The Hagar site would not be developed as part of the alternative

The conceptual site plan under this alternative is similar to that under Alternative 2 above, in that all of the undergraduate student beds would be located in four buildings (Buildings 1 through 4) in the northern and central portions of the site, the graduate student beds would be located in Building 5, and family student housing and the childcare center would be located in Building 6 in the southern portion of the site (**Figure 5.0-5, Heller Site Development Only Alternative**). However, because this alternative would provide 2,712 undergraduate student beds, Buildings 1 through 4 would range in height from 7 to 10 stories, Building 5 with graduate student beds would be a five to seven story building, and Building 6, would be five to seven stories with the childcare center located on the ground floor.

This alternative would include an MBR plant at the Heller site to locally treat wastewater and generate recycled water for toilet flushing and irrigation.

This alternative would provide up to approximately 412 parking spaces, comprised of approximately 98 on-site surface parking spaces on site, and approximately 314 parking spaces in a decked capacity (either by adding a two- to three-story parking deck on the proposed parking lot in the southwestern portion of the site or a one- to two-story deck off-site at the Rachel Carson parking lot.

As noted above under Alternative 2, because the Heller site is highly constrained in terms of development area, it would not be possible to phase the demolition or construct improvements at the Heller site without first relocating student families living in the existing FSH complex and the existing childcare center to another location. Furthermore, no suitable sites to temporarily relocate student families have been identified on the campus. Therefore, as with Alternative 2, student families would be relocated to off campus housing if such housing could be found in the surrounding community, with the childcare center being temporarily relocated to the Granary.

Similar to the proposed project, this alternative would require the expansion of the Rachel Carson and Porter College dining facilities.

As this alternative would provide all the undergraduate beds in four instead of five buildings, the buildings would be taller and the total amount of building space constructed under this alternative would be greater than the total building space constructed under the proposed project at both the Heller and Hagar sites. Furthermore, the alternative would involve more expensive construction methodologies and materials due to the increased building height and the need to build decked parking. Additionally, working within such a constricted site could affect the efficiency of the project's delivery and re-design would be necessary. The construction duration would be three to four years.

Aesthetics

The Heller Site Development Only Alternative would increase the severity of the project's significant and unavoidable impact associated with construction of high-rise buildings, resulting in changes in views from Porter Knoll and the West Entrance. This alternative would involve buildings up to 10 stories high compared to the maximum building elevation of seven stories under the proposed project. It would also increase the proposed project's less than significant impacts on visual character and light and glare at the Heller site as several of the undergraduate housing buildings would be taller, compared to the proposed project, resulting in greater building mass, reflective surfaces. and glazing and thereby a greater change in the visual character of the site and more light and glare. However as no housing would be constructed on the Hagar site, this alternative would avoid the significant and unavoidable impacts of the proposed project on scenic vistas, scenic resources, and visual character/quality on the Hagar site.

Air Quality

Due to the increased building mass and addition of decked parking in this alternative, this alternative would involve more construction than the proposed project at both Heller and Hagar sites together. Therefore, this alternative would result in a slightly greater, potentially significant NOx and ROG impact due to construction emissions, which, like the impact of the proposed project, could be reduced to a less

SOURCE: Capstone, 2018

FIGURE **5.0-5**

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Heller Site Only Alternative

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than significant level through mitigation. All of the other less than significant air quality impacts of the proposed project would also occur under this alternative. However because no construction would take place at the Hagar site under this alternative, this alternative would avoid exposing existing receptors to the potentially significant health risk impact from the construction phase TAC emissions.

Biological Resources

This alternative would result in the same potentially significant biological resource impacts associated with development at the Heller site under the proposed project, as the same area would be disturbed under this alternative. Although under this alternative, the construction of decked parking on the Rachel Carson parking lot would occur off site, it would occur on a developed parking lot and no habitat would be directly disturbed. Mitigation measures identified for the proposed project would apply to this alternative to reduce impacts to less-than-significant levels. However, all potentially significant and less than significant biological resource impacts at the Hagar site would be avoided.

Cultural Resources

This alternative would result in the same potentially significant impacts associated with the disturbance of unknown archaeological resources and human remains at the Heller site as the same area and the same amount of soil would be disturbed under this alternative as under the proposed project. Although the construction of a parking deck on the Rachel Carson parking lot would occur off site, it would occur on a developed parking lot and no previously undisturbed land would be disturbed. Mitigation measures identified for the proposed project would apply to this alternative to reduce impacts to less-than-significant levels. Similarly, the less than significant impacts of the proposed project associated with paleontological and unique geologic resources would occur under this alternative. However, all potentially significant and less than significant cultural resource impacts at the Hagar site would be avoided.

Geology and Soils

Under this alternative, construction on the Hagar site would be avoided. Due to construction on the Heller site, as with the proposed project, this alternative would have the potential to result in the same significant impact related to construction on karst at the Heller site. Implementation of the recommendation of the final geotechnical report per LRDP Mitigation GEO-1, and **SHW Mitigations GEO-3A** and **-3B** would similarly reduce the impact related to karst hazard to a less than significant level. Similar to the proposed project, all other impacts under this alternative related to geology and soils would be less than significant.

Greenhouse Gas Emissions

Under this alternative, GHG emissions during operation would be slightly greater than the proposed project because this alternative would build more building space although it would provide the same number of student beds as the proposed project. Construction emissions would potentially be greater due to the more building space on the site as well as the development of decked parking under this alternative. However they would not be substantially greater and would not result in a significant impact.

Hydrology and Water Quality

Similar to the proposed project, the Heller Site Development Only Alternative would not result in any significant impacts related to hydrology and water quality at the Heller site. Because no development would occur on the Hagar site, the project's potentially significant impact related to erosion and sedimentation in Jordan Gulch would be avoided under this alternative.

Land Use and Planning

Similar to the proposed project, this alternative would not divide an existing community as development would be confined to the Heller site. Similar to the proposed project, this alternative would also not conflict with an applicable land use plan, policy, or regulations. No habitat conservation plan or natural community conservation plan is applicable to the site.

Noise

Due to the longer duration of construction at the Heller site, the project's less than significant construction noise impacts at the Heller site would be extended. However, no construction noise would occur at the Hagar site. As with the proposed project, the alternative would result in less than significant operational noise impacts.

As this alternative would also require an expansion of the Rachel Carson and Porter College dining facilities, it would, like the proposed project, indirectly result in a significant construction noise impact.

Transportation and Traffic

Because the Heller Site Development Only Alternative would involve no construction at the Hagar site, the construction-phase traffic impact at that site would be avoided. Because the entire development program would be located on the Heller site, the project's construction duration at that site would be

longer and the significant construction-phase traffic congestion impact would be extended. The same mitigation measure would be needed to reduce the construction traffic impact.

As with the proposed project, this alternative would not conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the transportation network because it would reduce the number of daily trips to the campus compared to existing conditions and the No Project Alternative. As with the proposed project, this alternative would result in a substantial increase in pedestrian crossings across Heller Drive, and the same significant impact related to transit delays. The same mitigation measure would be needed to mitigate the impact.

Tribal Cultural Resources

Similar to the proposed project, the Heller Site Development Only Alternative would have the potential to affect TRCs at the Heller site, and the same cultural resources mitigation measure set forth for the project would need to be implemented to reduce the impact to a less than significant level.

Utilities and Service Systems

Under this alternative, a MBR facility would be constructed to serve the Heller site that would provide recycled water for non-potable water uses including toilet flushing and irrigation. Therefore, this alternative's impact on water supply would be similar to that of the proposed project, as it would increase the Campus' water demand compared to existing conditions and contribute to the need for the City to secure a new water source for prolonged drought conditions. Similar to the proposed project, this alternative would result in a less than significant impact associated with solid waste disposal capacity.

Energy

This alternative would involve slightly greater construction-phase petroleum-based fuel usage as the proposed project due to the inclusion of the decked parking and an extended construction period for this alternative. Electricity and natural gas usage during operation would also be comparable. The alternative would result in comparable less than significant energy impacts.

Other Resources

As with the proposed project, the same less than significant timberland conversion impact at the Heller site would occur under this alternative.

Conclusion and Relationship to Project Objectives

The Heller Site Development Only Alternative would increase all of the proposed project's impacts related to development at the Heller site, and would increase the project's significant and unavoidable impact on scenic vistas at the Heller site by developing the site at a very high density. As the water demand would be comparable to that of the proposed project, this alternative would result in a significant and unavoidable water supply impact. With respect to the Hagar site, this alternative would avoid all impacts of the proposed project, including the project's potentially significant construction TAC impact, and significant and unavoidable visual resource impacts. By placing the entire proposed project on the Heller site, this alternative would achieve a number of the objectives of the proposed project as it would provide all of the needed housing. However, it would not meet the objectives of developing new housing while minimizing displacement impacts on students with families, providing sufficient and affordable on-campus housing under the UC President's Housing Initiative, or providing housing in a timely manner as related to the Settlement Agreement. Unlike the proposed project, the alternative would require the relocation of student families into temporary housing in the surrounding community. The provision of temporary housing for all of the student families at an off-campus location would result in disruption and inconvenience to student families. Furthermore, due to the limited housing supply in the Santa Cruz area, there is some uncertainty as to whether units would be available to lease. Should the needed units be available, the leasing of the units by the University would temporarily reduce the amount of rental housing available for the general public. The alternative would result in a higher per bed cost than the proposed project, thus impacting the ability to achieve the affordable housing objective. Higher per bed costs are primarily the result of the costs related to providing temporary off-campus housing for student families at market rates; need for re-design; required use of more expensive construction methodologies; and construction of decked parking.

5.6.4 Alternative 4: Heller Site and North Remote Site Development Alternative

Under this alternative, two sites would be utilized to provide the needed housing, expanded childcare, parking, and related support facilities. The Heller site would be redeveloped to provide a total of approximately 1,572 beds, including approximately 1,212 undergraduate student beds, 220 beds for graduate students, 140 units for students with families, an expanded childcare facility, along with student support, dining, and amenity space. Approximately 1,500 undergraduate beds would be provided in buildings constructed on the North Remote site, such that, similar to the proposed project, this alternative would provide a total of 3,072 beds. The Hagar site would not be developed as part of this alternative.

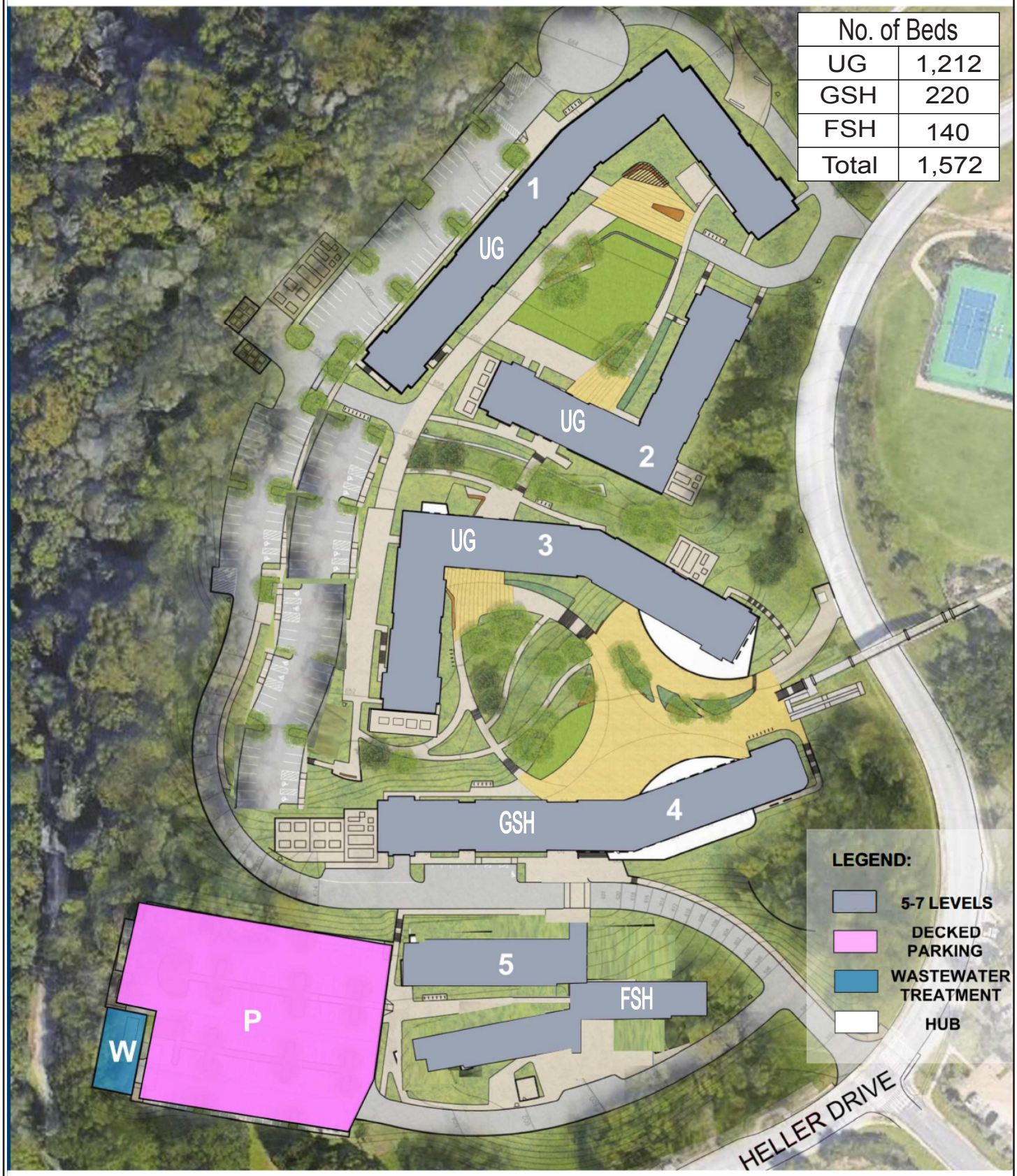
Figure 5.0-6, Heller Site Plan under Alternative 4, presents the conceptual site plan for the Heller site under this alternative. As shown, the site plan is similar to that under Alternatives 2 and 3 with respect to

the housing for graduate students and students with families on the Heller site. However, due to the reduction in the number of undergraduate student beds, this alternative includes three buildings to house undergraduate students (Buildings 1 through 3). All three buildings would be five to seven stories in height.

This alternative would provide up to approximately 336 parking spaces comprised of approximately 170 on site surface parking spaces and approximately 166 parking spaces in a decked capacity (either on site by adding a parking deck to the southwestern parking lot or off site at the Rachel Carson lot) for students with families, undergraduate students, graduate student the childcare center, and service vehicles.

With respect to the North Remote site, in 2004, UC Santa Cruz completed the 2004 Student Housing Site Options Study. This study looked at an 18.5 acre site near the Camper Park in the northwestern portion of the campus for the siting of Colleges 11 and 12, which would consist of residence halls and apartments as well as academic and other space. In 2015, UC Santa Cruz re-examined the Colleges 11-12 site as part of the Student Housing West Campus Housing Study. Under this study, the Campus analyzed a smaller 9.6 acre site for the SHW project. Although this site was not carried forward in the 2015 Housing Study because the Heller site and other areas were determined to be superior for siting the proposed project, the 9.6-acre site is still available for the development of student housing. Therefore, under this alternative the 9.6-acre North Remote site would be used to construct housing to provide about 1,500 undergraduate beds. Due to steep grades and other design considerations, only 6.45 acres of the 9.6-acre site can be used to develop housing. The undergraduate student beds would be accommodated in three buildings that would be six to eight stories in height. Due to its isolated location with respect to centralized student support services, development on the North Remote site would include support and amenity spaces similar to those that would be provided on the Heller site, including a café/market, fitness room, administrative and student services, study areas, social spaces for residents, laundry facilities and mail facilities. The North Remote site development would also include an on-site wastewater treatment facility to serve the proposed housing and approximately 100 surface parking spaces along with significant extensions of utility infrastructure and potential roadway development. **Figure 5.0-7, Alternative 4-North Remote Site Plan,** presents a conceptual site plan for the North Remote site housing development under this alternative.

As noted under Alternative 2, because the Heller site is highly constrained in terms of development area, it would not be possible to phase the demolition or construct improvements at the Heller site without first relocating student families living in the existing FSH complex and the existing childcare center to another location. Furthermore, no suitable sites to temporarily relocate student families have been identified on campus. The Campus also examined the feasibility of sequencing construction and constructing the North Remote housing first so that it could be used to temporarily house the student



SOURCE: Capstone, 2018

FIGURE **5.0-6**

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Heller Site Plan Under Alternative 4

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families. The Campus determined that because of the need for additional site evaluation and design work as well as potential delay due to the need for timberland conversion permits for both the Heller and North Remote sites, it is not possible to develop housing on the North Remote site in a timely manner so that housing can be used by student families temporarily and demolition and construction on the Heller site can commence. As a result, this alternative would also require that students with families be relocated into off campus housing if such housing could be found in the surrounding community, with the childcare center being temporarily relocated to the Granary.

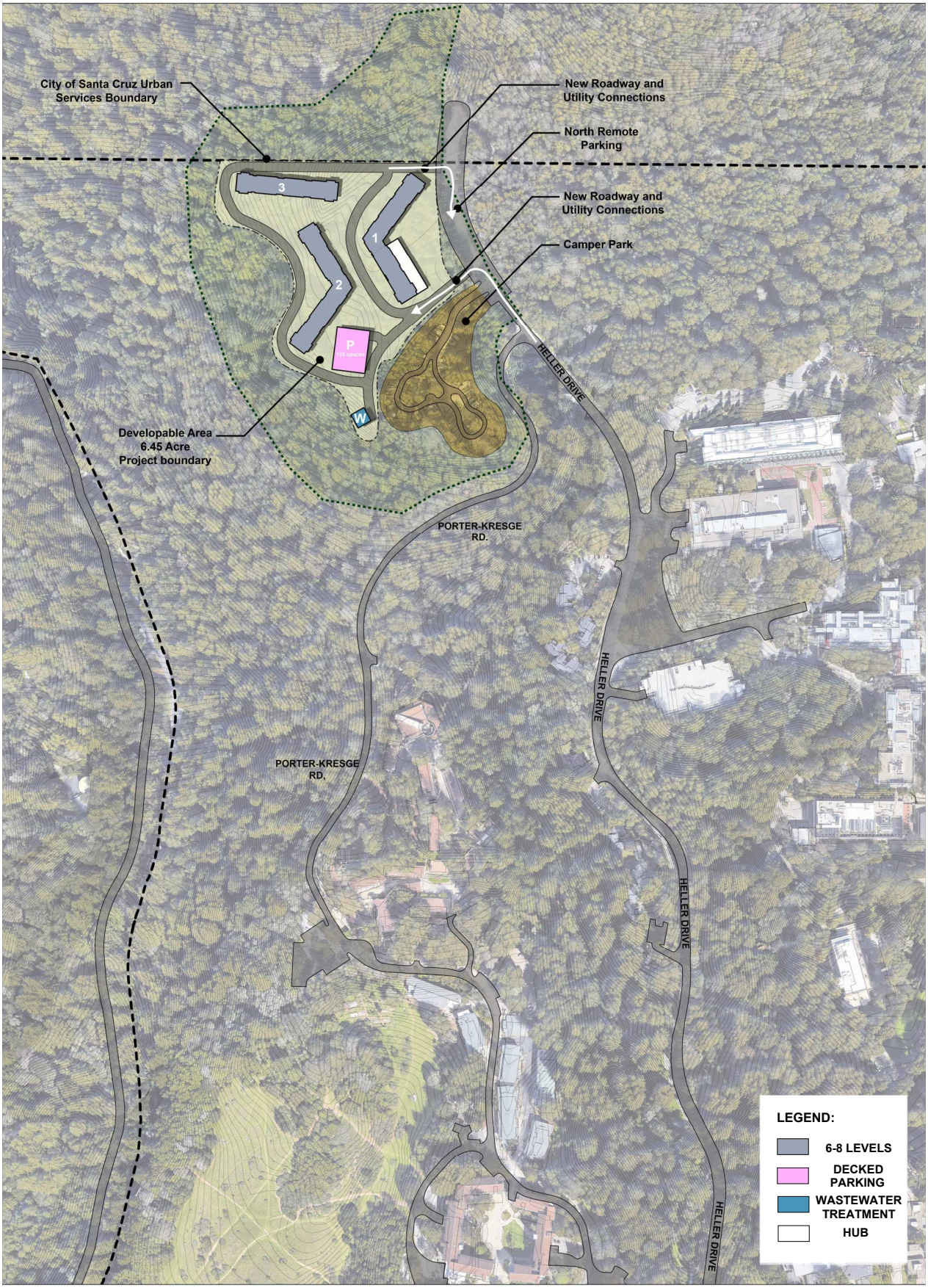
This alternative would also require the expansion of the dining facilities at Rachel Carson and Porter Colleges to serve the approximately 1,572 students who would live on the Heller site. Due to the distance of the North Remote site from the existing colleges, students living in the housing at that site would not have convenient access to existing dining facilities at any of the colleges, and dining facilities would need to be developed as part of the project on the North Remote site.

Although this alternative would be comparable to the proposed project in terms of the number of beds, more building space would be constructed under this alternative because the development at the North Remote site would include duplication of student support and amenity spaces. In addition, significant extension of infrastructure and potential roadway development would be required due to that site's isolated location. Therefore, total project duration would be three to five years if both sites were constructed concurrently. Due to the need for substantial site evaluation and additional design work needed for the North Remote site, the project would experience a delayed start of construction. The project would be completed by 2024-25.

Aesthetics

Compared to the proposed project, this alternative would result in a lower density of development on the Heller site, such that one fewer building would be constructed on the Heller site and all four buildings that would be built would be five to seven stories high. As a result, the proposed project's impact on scenic vistas from Porter Knoll and the West Entrance would be similar to that of the proposed project. The alternative would also have similar less than significant impacts on visual character and light and glare at the Heller site. As no housing would be constructed on the Hagar site, this alternative would avoid the significant and unavoidable impacts of the proposed project on scenic vistas, scenic resources, and scenic character/quality, as well as other less than significant visual impacts at the Hagar site.

Under this alternative, three undergraduate buildings would be located on the North Remote site which is within a forested area in the northwestern portion of the central campus. The project site does not offer on- or off-campus long-distance views. Because of its location and the forest surrounding the site, the



SOURCE: Capstone, 2018

FIGURE **5.0-7**

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Alternative 4 - North Remote Site Plan

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buildings would not be visible from off-campus locations, including locations along Empire Grade Road or from the Cave Gulch area. There would be no impact to scenic vistas. With regard to the impact of the alternative on the visual character of the project site, the alternative would change the site from a forested area to a developed area. However, the site is located at the end of Heller Drive which terminates at the North Remote parking lot and is not in close proximity to any campus roads or other existing development on and off campus and therefore the change in visual character would not be viewed by a substantial number of persons. The development would be subject to LRDP planning principles and would be required to implement LRDP Mitigations AES-5A through 5C, and AES-5F, especially to address visual impacts related to removal of trees. Therefore, the housing development on the North Remote site is expected to be similar to other colleges and facilities on the UC Santa Cruz campus that are also developed within forested areas and the change in visual character would not be considered adverse. Development on the North Remote site would increase sources of light and glare in the project area where light sources are currently limited to the Camper Park. Similar to the proposed project, under this alternative, buildings within the North Remote development would implement LRDP Mitigations AES-6B, -6C, and -6E to minimize potential impacts due to the increase in light and reflective surfaces at the site. A less than significant impact from light and glare would occur from the development of housing at the North Remote site.

In summary, impacts on visual resources would be reduced under this alternative compared to the proposed project, but the significant and unavoidable impact on scenic views from the Porter Knoll and the West Entrance would not be avoided.

Air Quality

Due to the larger amount of building space constructed under this alternative, this alternative would also result in a significant NOx and ROG impact due to construction emissions; as with the proposed project this impact would be reduced to a less than significant level with the same mitigation set forth for the proposed project. All of the other less than significant air quality impacts of the proposed project would occur under this alternative. Because no construction would take place at the Hagar site under this alternative, this alternative would avoid exposing existing receptors to the significant health risk impact from the construction phase TAC emissions. There are no existing sensitive receptors near the North Remote site who would be exposed to TAC emissions and no health risk impacts would occur under this alternative.

Biological Resources

This alternative would result in the same potentially significant biological resource impacts associated with development at the Heller site as the proposed project because the same area would be disturbed under this alternative. Mitigation measures identified for the proposed project would apply to this alternative to reduce impacts to less-than-significant levels. All potentially significant and less than significant biological resource impacts at the Hagar site would be avoided.

Development of housing on the North Remote site would result in additional biological resource impacts that would not occur under the proposed project. This is because sensitive biological resources are present on and adjacent to the North Remote site. The western portion of the North Remote site is under redwood forest and there is a mix of North maritime chaparral, dwarf redwood forest, and dwarf redwood chaparral on the eastern portion, and Santa Cruz manzanita is also likely to occur on the site. The California Department of Fish and Wildlife (CDFW) considers northern maritime chaparral to be a sensitive natural community. Impacts under this alternative to northern maritime chaparral would be significant, but would be reduced to a less than significant level with implementation of LRDP Mitigations BIO-1A and -1B.

Both the redwood forest and dwarf redwood forest on the North Remote site are second-growth forests. Development of the North Remote site would result in the conversion of these forests that could be classified as timberland to other developed uses. However, timberland conversion and tree removal activities would not be considered to be a significant impact to biological resources, since second-growth redwood forests are not protected as sensitive natural communities by CDFW (UCSC 2005).

Santa Cruz manzanita is a California Rare Plant Rank (CRPR) List 1B species that has been recorded on or immediately adjacent to the North Remote site. The impact related to removal of Santa Cruz manzanita would be significant. However, implementation of LRDP Mitigations BIO-1A and -1B would reduce the impact to a less than significant level.

Special-status plants also have a potential to occur at the North Remote site and the housing development would have the potential to affect special-status plants, should they be present on the site. Similar to the proposed project, this potentially significant impact would be reduced to a less than significant level with implementation of **SHW Mitigation BIO-2.**

Development under this alternative could result in impacts to California red-legged frog, California giant salamander, San Francisco dusky-footed woodrat, nesting birds, and special-status bats. Similar to the proposed project, same mitigation measures set forth for the proposed project (**SHW Mitigations 5A** and **5B**) would be implemented to reduce impacts on California red-legged frog, California giant salamander,

and San Francisco dusky-footed woodrat to a less than significant level and LRDP mitigation measures would be implemented to mitigate impacts on nesting birds and bat species.

The North Remote site includes redwood forest that provides potential foraging and roosting habitat for special-status birds and bats. This habitat represents a very small part of the total acreage of redwood forest habitat areas remaining on the campus. The Santa Cruz region includes substantial woodland area, including several parklands and preserves that will not be developed. The habitat lost on the North Remote site represents a very small fraction of a percent of total foraging habitat of these types in the region. Similar habitat is available in close proximity of the North Remote site. The impact with respect to loss of foraging and roosting habitat would be less than significant.

Construction on the North Remote site would involve removal of most of the trees on the project site. If construction begins during avian nesting season, tree removal could result in the direct take of nesting birds or active nests. In addition, noise and activity associated with project construction could result in the abandonment of nests or breeding failure among protected birds nesting off site in the project vicinity, which would be a potentially significant impact. Similar to the proposed project, this alternative would implement LRDP Mitigation BIO-11, which sets forth measures that all projects are required to implement during construction to avoid impacts to nesting birds, including preconstruction surveys of all suitable nesting habitats at and within 200 feet of the project work areas, and establishment of appropriately sized buffer zones in the event that active nests are observed in the survey area. Therefore, with the LRDP mitigation incorporated into the project, the impact under this alternative on nesting birds would be less than significant.

Development of the North Remote site would result in the loss of trees that could potentially serve as bat roosts, and thus would result in the loss of a small amount of roosting habitat. If any bat roosts are present in or very close to project impact areas during construction, their disturbance could result in roost abandonment and possibly the loss of individuals if a maternity roost is present. Similar to the proposed project, LRDP Mitigations BIO-13A and BIO-13B would be implemented to avoid and minimize impacts on special-status bat species and the impact would be reduced to less than significant.

The North Remote site and vicinity provides suitable San Francisco dusky-footed woodrat habitat. However the impact on woodrat habitat would be mitigated by implementing LRDP mitigation measures.

In summary, biological resource impacts at this site would be greater than those associated with the proposed project, although the impacts would be reduced to less than significant with LRDP mitigation.

Cultural Resources

This alternative would result in the same potentially significant impacts associated with the disturbance of unknown archaeological resources and human remains at the Heller site as the same area and the same amount of soil would be disturbed under this alternative. Mitigation measures identified for the proposed project would apply to this alternative to reduce impacts to less than significant levels. Similarly, the less than significant impacts of the proposed project associated with paleontological and unique geologic resources would occur under this alternative. However, all potentially significant and less than significant cultural resource impacts at the Hagar site would be avoided.

There are no existing structures or development on the North Remote site. Therefore, similar to the proposed project, this alternative would result in a less than significant impact to historical resources. There are no known archaeological resources on the North Remote site. The entire campus was subjected to an archaeological survey in the past (Edwards, Podzorski and Pryor 1978). That survey did not find any prehistoric resources in this portion of the campus. However, because the past survey was not intensive and the North Remote site may contain unrecorded historic landscape resources associated with the Cowell quarrying activities, development of the site would have the potential to affect cultural resources. As with all projects on the campus, and consistent with LRDP mitigation measures, the site would be subject to a systematic survey by a qualified archaeologist to determine presence or absence of cultural resources on the site. As with the proposed project, this alternative would have the potential to affect unknown archaeological resources and human remains during construction. Mitigation measures identified for the proposed project would apply to this alternative to reduce impacts to less than significant levels. Similar to the Heller site, the North Remote site is underlain by schist, which is not considered sensitive for paleontological resources and a less than significant impact would occur.

Geology and Soils

Under this alternative, no construction would occur on the Hagar site and the potentially significant impact related to construction on karst at that site would be avoided. Due to construction on the Heller site, as with the proposed project, this alternative would have the potential to result in the same significant impact related to construction on karst at the Heller site. Implementation of the recommendation of the final geotechnical report per LRDP Mitigation GEO-1, and **SHW Mitigations GEO-3A** and **-3B** would similarly reduce the impact related to karst hazard to a less than significant level. Similar to the proposed project, all other impacts under this alternative related to geology and soils would be less than significant.

The North Remote site is located in an area designated as Karst Hazard Level 2, and hence there would not be any significant impacts related to construction on karst at that site.

Greenhouse Gas Emissions

Under this alternative, GHG emissions during construction would be greater than those under the proposed project as the amount of building space constructed would be greater than that under the proposed project. Similarly, GHG emissions during operation would also be slightly greater because while this alternative would accommodate a similar project population, it would require separate dining facilities at the North Remote site which would result in slightly greater GHG emissions. The North Remote site is occupied by trees which would be removed, resulting in a reduction in carbon sequestration which would be partly offset by the planting of trees as part of the development on the site. Based on calculations for other projects involving development of wooded sites on the campus, it is likely that this impact would be less than significant.

Hydrology and Water Quality

Similar to the proposed project, this alternative would not result in any significant impacts related to hydrology and water quality at the Heller site. Because no development would occur on the Hagar site, the project's potentially significant impact related to erosion and sedimentation in Jordan Gulch would be avoided under this alternative.

The North Remote site is located partly within the Moore Creek watershed and partly within the Cave Gulch watershed. The site is underlain by schist and Santa Margarita sandstone which is suitable for on-site retention of runoff. Development of the North Remote site with the proposed housing would generate additional runoff. The project will be required to comply with the Post-Construction Requirements and therefore provide water quality, runoff reduction, and peak management. Therefore the alternative would not result in significant hydrology and water quality impacts.

Land Use and Planning

Similar to the proposed project, this alternative would not divide an existing community as development would be confined to the Heller site, and the North Remote site development would not divide or displace any residents of the Camper Park. Similar to the proposed project, this alternative would also not conflict with an applicable land use plan, policy, or regulations. No habitat conservation plan or natural community conservation plan is applicable to the site.

Noise

Due to the reduced duration of construction at the Heller site, the project's less than significant construction noise impacts at the Heller site would be further reduced, and no construction noise would occur at the Hagar site. Construction noise impacts would occur at the Camper Park due to its proximity to the North Remote site. However, LRDP mitigation measures would be implemented to mitigate the impact. As with the proposed project, the alternative would result in less than significant operational noise impacts.

Similar to the proposed project, this alternative would also require an expansion of the Rachel Carson and Porter College dining facilities. Therefore it would, like the proposed project, indirectly result in a significant construction noise impact.

Transportation and Traffic

Because this alternative would involve no construction at the Hagar site, the significant construction phase traffic impact at that site would be avoided. However, the development at the Heller and North Remote sites would be comparable. The alternative's construction duration would be longer and the significant construction-phase traffic congestion impact on Heller Drive would occur and could be more severe because construction trucks would travel a longer distance into the campus to reach the North Remote site, through the Heller Drive/Meyer Drive and Heller Drive/McLaughlin Drive intersections. The same mitigation measure would be needed to reduce the construction traffic impact.

As with the proposed project, this alternative would not conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit nor would it conflict with an applicable congestion management program because it would reduce the number of daily trips to the campus compared to existing conditions and the No Project Alternative. This alternative would also increase pedestrian crossings across Heller Drive and result in the same significant impact on transit and the same mitigation measure would be required to mitigate the impact. All other traffic impacts would be less than significant.

Tribal Cultural Resources

Similar to the proposed project, with mitigation, the Heller site development under this alternative would not result in any significant impacts related to TRCs. Although consultation pursuant to AB 52 with the Native American tribes has not been undertaken for the North Remote site, however, as noted under Cultural Resources, above, the site is not likely to be considered sensitive for prehistoric cultural

resources. Furthermore, surveys would be completed to ensure that any prehistoric resources are identified, and LRDP mitigation measures would be implemented to minimize impacts to known and unknown cultural resources. Therefore, the impacts on TRCs under this alternative would be comparable to those under the proposed project.

Utilities and Service Systems

Under this alternative, two MBR facilities would also be constructed, one at each site. The recycled water produced at each site would be utilized for non-potable water uses, including toilet flushing and irrigation. As there are no colleges near the North Remote site that could utilize the recycled water, excess water would be disposed via injection wells.

As a result of the inclusion of two wastewater treatment facilities in this alternative, the potable water demand associated with the undergraduate, graduate housing, and family student housing under this alternative would be comparable to that under the proposed project. However slightly more water would be used at the North Remote site due to the inclusion of a café/market at that site. As with the proposed project, the water supply impact under this alternative would also be significant and unavoidable.

Similar to the proposed project, wastewater would only be discharged to the Campus and City sanitary sewer systems in emergencies, when the MBR plant is not functioning. Therefore, this alternative would result in a less than significant impact associated with wastewater infrastructure. As this alternative would include the same number of beds as the proposed project, its solid waste impact would be comparable. All utility impacts at the Hagar site would be avoided.

Energy

This alternative would involve comparable petroleum-based fuel usage due to construction activities. Electricity and natural gas usage during operation would also be comparable to the proposed project. Thus, the alternative would result in comparable less than significant energy impacts.

Other Resources

As with the proposed project, the timberland conversion impact would occur at the Heller site. In addition, development of about half the proposed student housing on the North Remote site would result in the development of a forested site. The site is not zoned Timberland Production. The project site is wooded, primarily with second growth redwoods, which is a commercial species. Therefore, the site would likely be considered timberland as defined in Public Resources Code Section 4526.1. This would require a timberland conversion permit from CAL FIRE and the preparation of a timber harvest plan.

However, the acreage of timberland would be very small. Furthermore, the site is not zoned for any timber-related uses; the Campus does not use the site for growing timber; and commercial timber production would not be compatible with the 2005 LRDP land use designation or with the surrounding academic and residential land uses. Therefore, the alternative would not conflict with the existing zoning for, or cause the rezoning of, forest land or timberland. The alternative would convert approximately 6.45 acres of forest land at the North Remote site to non-forest use. The loss of forest land could result in adverse aesthetic, GHG, or biological resource impacts. These potential impacts of the alternative are discussed under Aesthetics, Biological Resources, and Greenhouse Gas Emissions. All of the potential impacts of the conversion of forest land to non-forest use would be less than significant with implementation of previously adopted LRDP EIR mitigation measures.

Conclusion and Relationship to Project Objectives

The Heller Site and North Remote Site Development Alternative would avoid all of the proposed project's impacts related to development at the Hagar site and would reduce the impacts at the Heller site. However, this alternative would have greater impacts on timberland and biological resources compared to the project, although the impacts would be mitigable to a less than significant level.

This alternative would achieve a number of the objectives of the proposed project. It would provide all the needed housing but would not meet the objectives of minimizing displacement impacts on student families, providing sufficient and affordable on-campus housing under the UC President's Housing Initiative, or providing housing in a timely manner as related to the Settlement Agreement. Unlike the proposed project, the alternative would require the relocation of student families into temporary housing in the surrounding community. The provision of temporary housing for all of the student families at an off-campus location would result in disruption and inconvenience to student families. Furthermore, due to the limited housing supply in the Santa Cruz area, there is some uncertainty as to whether units would be available for the University to lease. Should the needed units be available, the leasing of the units would temporarily reduce the amount of rental housing available for the general public. The alternative would result in a higher per bed cost than the proposed project thus impacting the ability to achieve the affordable housing objective. Higher per bed costs are primarily the result of increased costs related to providing temporary off-campus housing for student families at market rates; increased costs due to additional site investigation, regulatory compliance and design, construction cost escalation due to a delayed start; extension of infrastructure and roadways for the North Remote site; and the need to construction additional student support and amenity spaces at the North Remote site. Furthermore, due to the need to obtain approvals to remove timberland and the need for site evaluation and design work for the North Remote site, the commencement of construction of the North Remote site development would be delayed and the alternative would likely fail to develop additional housing in a timely manner.

5.6.5 Alternative 5: Heller Site and East Campus Infill Development Alternative

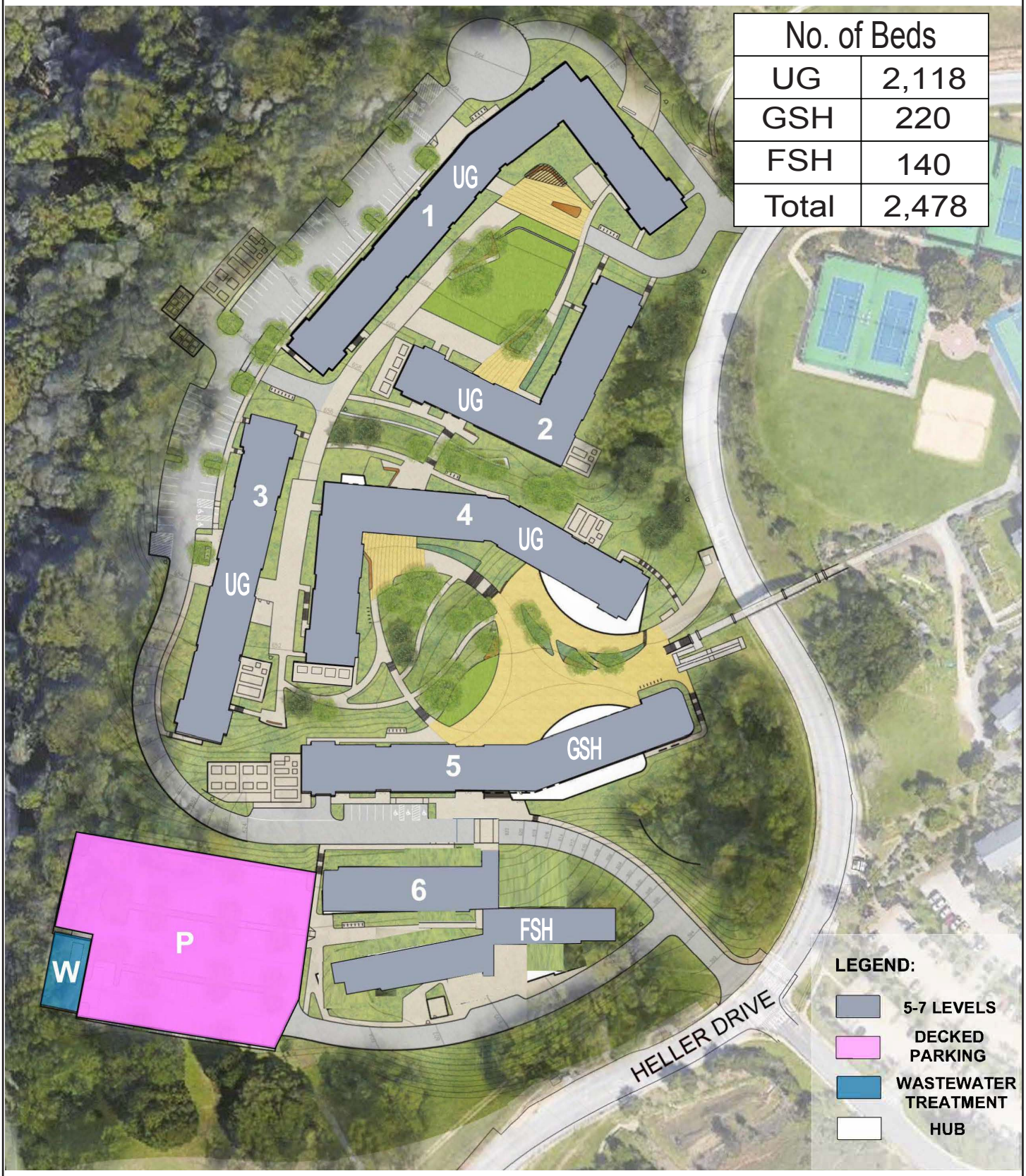
Under this alternative, two sites would be utilized to provide the needed housing, childcare, parking, and related support facilities. The Heller site would be redeveloped to provide approximately 2,420 student beds, including 2,060 undergraduate student beds, 220 beds for graduate students, 140 units for students with families, an expanded childcare facility, along with student support, dining, and amenity space. Approximately 594 undergraduate beds along with student support and amenity space would be provided in buildings constructed on a 3-acre site in the eastern portion of the campus off Chinquapin Road between Merrill College to the south and Crown/Merrill Apartments to the north, such that, similar to the proposed project, this alternative would provide a total of 3,072 beds. The Hagar site would not be developed under this alternative.

The Heller site plan (**Figure 5.0-8, Heller Site Plan under Alternative 5**) would be similar to the plans described under the preceding alternatives with undergraduate student beds provided in Buildings 1 through 4, which would be five to seven stories in height; graduate student beds in Building 5, which would be five to seven stories in height and would include student support and amenity space; and students with families housed in Building 6, which would be five to seven stories with the childcare facility located on the ground floor. This alternative would provide approximately 382 parking spaces, comprised of approximately 98 on-site surface parking spaces and approximately 284 spaces in a decked capacity either on-site by adding a two-story parking deck to the southwestern parking lot or off-site by adding a one-story deck to the Rachel Carson parking lot.

The 3-acre site that is part of this alternative is referred to as the East Campus Infill (ECI) site. Although the site is forested, a parking lot and paths are present on the site and it is surrounded by campus development. The proposed 594 undergraduate beds would be located in two seven to eight story buildings on the ECI site (**Figure 5.0-9, ECI Site Plan**). The ECI site would provide for 100 parking spaces utilizing a decked facility approach. The number of parking spaces necessary is based on planned ratios for the new undergraduate buildings combined with replacement of parking spaces impacted by the siting of new buildings.

Two MBR plants would be constructed, one each at the Heller and ECI sites under this alternative, and wastewater would be treated onsite and recycled water used for toilet flushing and irrigation.

As noted under Alternative 2, because the Heller site is highly constrained in terms of development area, it would not be possible to phase the demolition or construct improvement at the Heller site without first relocating student families living in the existing FSH complex and the existing childcare center to another location. Furthermore, no suitable sites to temporarily relocate student families have been identified on



SOURCE: Capstone, 2018

FIGURE **5.0-8**

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Heller Site Plan under Alternative 5

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campus. Due to the need for additional site evaluation and design work as well as potential delay associated with obtaining timberland conversion permits it is not possible to, in a timely manner, first develop the housing on the ECI site so that housing can be used by student families temporarily thereby also enabling demolition and construction on the Heller site to commence. The project schedule would be extended substantially if relocation of student families depends on the completion of ECI housing. As a result, to ensure the project would not be substantially delayed, this alternative would require that student families be relocated into off campus leased housing if such housing could be found in the surrounding community, with childcare center being temporarily re-located to the Granary.

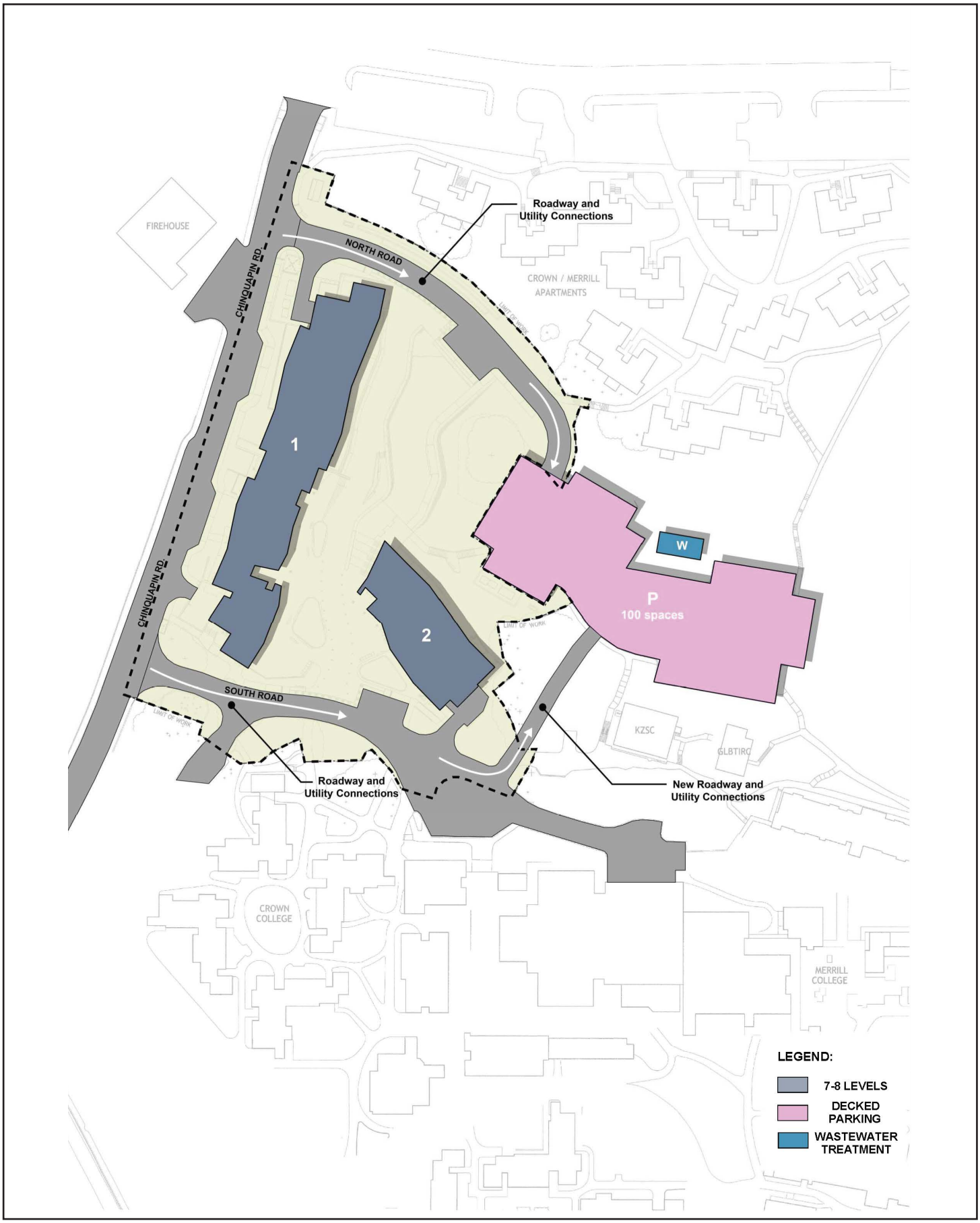
As this alternative would provide all 3,072 beds on two sites, the amount of building space constructed under this alternative would be comparable to the building space constructed under the proposed project.

Total construction duration of this alternative would be 3 to 4 years if both sites were constructed concurrently. Due to the additional design work and approvals needed for the ECI site, along with the need to temporarily relocate students families and the childcare center, the project could experience a delayed start of construction and the project completion could take up to 5 years. It is anticipated the overall project would be completed by 2024.

Aesthetics

The removal of about 600 student beds would slightly reduce the density at the Heller site under this alternative, although the same number of buildings and building heights would be developed on the Heller site. The FSH and graduate student beds would be in buildings that are five stories high and the undergraduate student beds would be provided in six to seven story buildings. As a result, the proposed project's impact on scenic vistas from Porter Knoll and the West Entrance would be similar to that of the proposed project. This alternative would also result in similar less than significant impacts on visual character and light and glare at the Heller site. As no housing would be constructed on the Hagar site, this alternative would avoid the significant and unavoidable impacts of the proposed project on scenic vistas, scenic resources, and visual character/quality as well as other less than significant visual impacts at the Hagar site.

Under this alternative, two buildings comprised of seven to eight stories and 594 undergraduate beds along with parking and student support and amenity space would be located on the ECI site which is a developed portion of the central campus. The ECI site does not offer on- or off-campus long-distance views, and existing development on the site and in the immediate vicinity is not visible from off campus vantage points or in long-range views from campus vantage points. There would be no impact to scenic



SOURCE: Capstone 2018

FIGURE **5.0-9**

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East Campus Infill Site Plan

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vistas. With regard to the impact of the alternative on the visual character of the project site, the alternative would alter the visual character of the ECI site by removing trees and constructing buildings that are taller and more massive than the existing buildings in the area. The development would be subject to LRDP planning principles and would be required to implement LRDP Mitigations AES-5A through 5C, and AES-5F, especially to address visual impacts related to removal of trees. Even with incorporation of the LRDP mitigation measures described above, the project would substantially alter the visual character of the area and the impact would be significant and unavoidable. Development on the ECI site would increase sources of light and glare in the project area. Although this lighting would not be visible from off-campus locations and there is already some lighting in the immediate vicinity of the project site, from existing roads, pathways and parking lots, the proposed project would increase the number of light sources in the area. Similar to the proposed project, under this alternative, the ECI development would implement LRDP Mitigations AES-6B, -6C, and -6E to minimize potential impacts due to the increase in light and reflective surfaces at the site. A less than significant impact from light and glare would occur from the development of housing at the ECI site (UCSC 2009).

In summary, under this alternative all visual impacts from the Hagar site would be avoided compared to the proposed project; however, the significant and unavoidable impact on scenic views from the Porter Knoll and the West Entrance would not be avoided and a new significant and unavoidable impact on visual character would occur as a result of constructing undergraduate student housing on the ECI site.

Air Quality

A comparable amount of building space would be constructed under this alternative, resulting in a comparable significant impact from emissions of NOx and ROG impact during construction. As with the proposed project this impact would be reduced to a less than significant level with the same mitigation set forth for the proposed project. All of the other less than significant air quality impacts of the proposed project would occur under this alternative. As with the Heller site, no sensitive receptors are located in the vicinity of the ECI site. Therefore, the construction-phase TAC emissions emitted at the ECI site would not result in a significant health risk impact. Because no construction would take place at the Hagar site under this alternative, this alternative would avoid exposing existing receptors to the significant health risk impact from the construction-phase TAC emissions.

Biological Resources

This alternative would result in the same potentially significant biological resource impacts associated with development at the Heller site as the proposed project because the same area would be disturbed under this alternative. Mitigation measures identified for the proposed project would apply to this

alternative to reduce impacts to less than significant levels. All potentially significant and less than significant biological resource impacts at the Hagar site would be avoided.

Development of housing on the ECI site would result in biological resource impacts that would be similar to those identified for the proposed project at the Heller site. Per botanical surveys performed in October 2008 and April 2009, no special-status plants were identified on or near the ECI site and the site does not appear to include suitable habitat for any of the special-status plant species known or considered likely to be present on the campus (UCSC 2009). The ECI site includes oak woodland and redwood/mixed evergreen forest that provides potential foraging and roosting habitat for special-status birds and bats. This habitat represents a very small part of the total acreage of oak woodland and redwood forest habitat areas remaining on the campus. The Santa Cruz region includes substantial woodland area, including several parklands and preserves that will not be developed. The habitat lost on the ECI site represents a very small fraction of a percent of total foraging habitat of these types in the region. Similar habitat is available in close proximity to the ECI site. The impact with respect to loss of foraging and roosting habitat would be less than significant (UCSC 2009).

Construction on the ECI site would involve removal of most of the trees on the project site. If construction begins during avian nesting season, tree removal could result in the direct take of nesting birds or active nests. In addition, noise and activity associated with project construction could result in the abandonment of nests or breeding failure among protected birds nesting off site in the project vicinity, which would be a potentially significant impact. Similar to the proposed project, this alternative would implement LRDP Mitigation BIO-11, which sets forth measures that all projects are required to implement during construction to avoid impacts to nesting birds, including preconstruction surveys of all potentially suitable nesting habitats at and within 200 feet of the project work areas, and establishment of appropriately sized buffer zones in the event that active nests are observed in the survey area. Therefore, with the LRDP mitigation incorporated into the project, the impact under this alternative on nesting birds would be less than significant (UCSC 2009).

Nine special-status bat species have the potential to forage over or roost near the ECI area: pallid bat, Townsend's big-eared bat, western red bat, long-eared myotis, fringed myotis, long-legged myotis, yuma myotis, big brown bat, and Mexican freetailed bat. Development of the ECI site would result in the loss of trees that could potentially serve as bat roosts, and thus would result in the loss of a small amount of roosting habitat. If any bat roosts are present in or very close to project impact areas during construction, their disturbance could result in roost abandonment and possibly the loss of individuals if a maternity roost is present. Similar to the proposed project, LRDP Mitigations BIO-13A and BIO-13B and mitigation measures put forth for the prior ECI project would be implemented to avoid and minimize impacts on special-status bat species and the impact would be reduced to less than significant (UCSC 2009).

The ECI site and vicinity provides suitable San Francisco dusky-footed woodrat habitat. The habitat within the footprint of the proposed ECI site is fragmented by existing roads, trails, parking lots, and structures, and understory is mostly sparse. As a result, the existing habitat on the footprint portion of the ECI site is of relatively low quality for woodrats. Development on the ECI site would result in the loss of a relatively limited amount of San Francisco dusky-footed woodrat habitat and could potentially result in the loss of individuals and nests during construction. Similar to the proposed project, LRDP Mitigation BIO-14 would be implemented to avoid and minimize impacts on this species (UCSC 2009).

In summary, this alternative would result in biological resource impacts that would be similar to the impacts of the proposed Heller site development and would be mitigated to a less than significant level with LRDP mitigation measures.

Cultural Resources

This alternative would result in the same potentially significant impacts associated with the disturbance of unknown archaeological resources and human remains at the Heller site as the same area and the same amount of soil would be disturbed under this alternative. Mitigation measures identified for the proposed project would apply to this alternative to reduce impacts to less than significant levels. Similarly, the less than significant impacts of the proposed project associated with paleontological and unique geologic resources would occur under this alternative. However, all potentially significant and less than significant cultural resource impacts at the Hagar site would be avoided.

None of the buildings on the ECI site has reached 50 years of age. The historic-period lime kiln is located about 250 feet distant from the margin of the project site. Development on the ECI site would not affect the integrity of setting of the kiln. Therefore, similar to the proposed project, this alternative would result in a less than significant impact on historical resources. There are no known archaeological resources on the ECI site and the potential for the presence of undiscovered resources appears to be low. Prehistoric archaeological site CA SCR-160 is 0.5 mile distant from the project site and would not be affected by project activity in any way. However, the earthmoving activities associated with the proposed project could expose previously undiscovered buried archaeological resources, including human remains. As with all projects on the campus, LRDP mitigation measures would apply to this alternative to reduce impacts to resources encountered during construction to less than significant levels. Doline deposits such as those that are present on the ECI site have the potential to yield significant fossils. However, substantial prior excavation in doline deposits on the campus, including on and around the ECI site, has not uncovered any fossils. Therefore, the potential for fossils to be uncovered on the ECI site appears to be relatively low. Nonetheless, the proposed project would require some deep excavation and cutting, which carries some potential to uncover and disturb or destroy undiscovered fossils. LRDP Mitigations

CULT-5C and -5D would be implemented which require that projects that include excavation in potentially significant paleontological formations incorporate provisions to protect significant resources in the event of a discovery during construction, including construction crew information, stop-work provisions, significance assessment, and data recovery if warranted. With the incorporation of these mitigations under this alternative, the potential to result in adverse impacts to paleontological resources would be less than significant (UCSC 2009).

Geology and Soils

Under this alternative, no construction would occur on the Hagar site and the potentially significant impact related to construction on karst at that site would be avoided. As with the proposed project, this alternative would have the potential to result in the same significant impact related to construction on karst at the Heller site. Implementation of the recommendation of the final geotechnical report per LRDP Mitigation GEO-1, and **SHW Mitigations GEO-3A** and **-3B** would similarly reduce the impact related to karst hazard to a less than significant level. Similar to the proposed project, all other impacts at the Heller site under this alternative related to geology and soils would be less than significant.

The ECI site is located in an area designated as Karst Hazard Level 4, and hence there would be high potential for hazards due to karst condition (UCSC 2009). Therefore, similar to the proposed project, implementation of LRDP Mitigation GEO-1, which requires characterization of the ECI site conditions and implementation of the recommendations of the geotechnical investigation, and **SHW Mitigations GEO-3A** and **-3B** would reduce the impact to a less than significant level.

Greenhouse Gas Emissions

Under this alternative, GHG emissions during construction would be comparable to those under the proposed project as the amount of building space constructed would be comparable to that for the proposed project. Similarly, GHG emissions during operation would also be comparable as this alternative would accommodate a similar project population, which would result in comparable emissions related to area sources, electricity use, water use, solid waste and wastewater generation.

Development of the ECI site would require the removal of trees, resulting in a reduction in carbon sequestration which would be partly offset by the planting of trees as part of the development on the site. Based on calculations for other projects involving development of wooded sites on campus, it is likely that this impact would be less than significant.

Hydrology and Water Quality

Similar to the proposed project, this alternative would not result in any significant impacts related to hydrology and water quality at the Heller site. Because no development would occur on the Hagar site, the project's potentially significant impact related to erosion and sedimentation in Jordan Gulch would be avoided under this alternative.

Construction activities on the ECI site could cause erosion during storm events that would discharge sediment into Gully H or Jordan Gulch. Development of the ECI site with the proposed housing would generate additional runoff. Similar to the proposed project, this alternative would be required to implement a SWPPP and LRDP Mitigation HYD-2B during construction and a storm water control plan to manage storm water during project operations (UCSC 2009). Therefore, the alternative would not result in significant hydrology and water quality impacts.

Land Use and Planning

Similar to the proposed project, this alternative would not divide an existing community as development would be confined to the Heller and the ECI sites, and the alternative would not include any physical barriers such as roads or other infrastructure that would divide an established community. Similar to the proposed project, this alternative would also not conflict with an applicable land use plan, policy, or regulations. No habitat conservation plan or natural community conservation plan is applicable to the Heller or the ECI site.

Noise

Due to the reduced duration of construction at the Heller site, the project's less than significant construction noise impacts at the Heller site would be further reduced, and no construction noise would occur at the Hagar site.

Sensitive receptors within 50 feet of the ECI site, including some residents of the western buildings of Crown/Merrill Apartments and of the northernmost residence hall at Crown College, could be exposed to noise levels exceeding 86 dBA. Similar to the proposed project, LRDP Mitigation NOIS-1, which requires the use of noise controls on construction equipment, operational procedures to minimize noise levels, notification of residents of nearby buildings, and adjustment of construction schedules to minimize disturbance to residents, would be incorporated into this alternative. Furthermore, ECI Mitigation NOIS-1, which specifies particular measures to ensure that residents are adequately informed of planned construction schedules, would also be required. However, this mitigation would not reduce the actual

noise levels to which residents are exposed. The residual impact, although temporary, would be significant and unavoidable (UCSC 2009).

As with the proposed project, the alternative would result in less than significant operational noise impacts at both sites.

Similar to the proposed project, this alternative would also require an expansion of the Rachel Carson and Porter College dining facilities. Therefore it would, like the proposed project, indirectly result in a significant construction noise impact.

Transportation and Traffic

Because this alternative would involve no construction at the Hagar site, the significant construction phase traffic impact would be avoided. However, construction would still occur at two sites: Heller and ECI sites, and the overall amount of construction would be comparable. The alternative's construction duration would, however, be longer and the significant construction-phase traffic congestion impact on Heller Drive as well as on Glenn Coolidge and McLaughlin Drive would occur under this alternative. The construction traffic congestion could be a greater concern at the ECI site due to its proximity to other campus buildings and pedestrian corridors. The same mitigation measure would be needed to reduce the construction traffic impact.

As with the proposed project, this alternative would not conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit nor would it conflict with an applicable congestion management program because it would reduce the number of daily trips to the campus compared to existing conditions and the No Project Alternative. It would also increase pedestrian crossings across Heller Drive and result in the same significant impact on transit and the same mitigation measure would be required to mitigate the impact. All other traffic impacts would be less than significant.

Tribal Cultural Resources

Similar to the proposed project, with mitigation, the Heller site development under this alternative would not result in any significant impacts related to TRCs. Although consultation pursuant to AB 52 with the Native American tribes has not been undertaken for the ECI site. however, as noted under Cultural Resources, above, the site is not considered sensitive for prehistoric cultural resources. Furthermore, LRDP mitigation measures would be implemented to minimize impacts to known and unknown cultural

resources. Therefore, the impacts on TRCs under this alternative would be comparable to those under the proposed project.

Utilities and Service Systems

Under this alternative, a MBR facility would be constructed at both the Heller and the ECI site. Similar to the proposed project, the recycled water produced at the two sites would be utilized for non-potable water uses, including toilet flushing and irrigation. As a result of constructing the MBR facilities, the potable water demand under this alternative would be similar to that under the proposed project. The water supply impact under this alternative would be comparable to that of the proposed project and would also be significant and unavoidable.

Similar to the proposed project, this alternative would result in a less than significant impact associated with wastewater infrastructure as no off-site improvements would be required. As this alternative would include the same number of beds as the proposed project, its solid waste impact would be comparable. All utility impacts at the Hagar site would be avoided.

Energy

This alternative would involve comparable petroleum-based fuel usage due to construction activities. Electricity and natural gas usage during operation would also be comparable to the proposed project. Thus, the alternative would result in comparable less than significant energy impacts.

Other Resources

As with the proposed project, the timberland conversion impact would occur at the Heller site. The majority of the ECI site could be classified as timberland; however, no part of the site is zoned as a Timberland Protection Zone. Development of the ECI site would require a timberland conversion permit from CAL FIRE and the preparation of a timber harvest plan. The site is not zoned for timber-related uses; is not used for growing timber; and commercial timber production would not be compatible with the 2005 LRDP land use designation or with the surrounding student housing and campus support land uses. Therefore, the alternative would not conflict with the existing zoning for, or cause the rezoning of, forest land or timberland. The alternative would convert approximately 3 acres of forest land to non-forest use. The loss of forest land could result in adverse aesthetic, GHG, or biological resource impacts. These potential impacts of the alternative are discussed under subheadings Aesthetics, Biological Resources, and Greenhouse Gas Emissions, above. All of the potential impacts of the conversion of forest land to non-forest use would be less than significant with implementation of previously adopted LRDP mitigation measures.

Conclusion and Relationship to Project Objectives

The Heller Site and ECI Site Development Alternative would avoid all of the proposed project's impacts related to development at the Hagar site and would have comparable impacts at the Heller site. However, this alternative would have greater impacts to timberland compared to the proposed project, although the impacts would be mitigable to a less than significant level. New significant and unavoidable impacts to visual character and from construction noise at the ECI site would occur under this alternative.

This alternative would achieve a number of the objectives of the proposed project as it would provide all the needed housing but it would not meet the objectives of minimizing displacement impacts on student families, and providing sufficient and affordable on-campus housing under the UC President's Housing Initiative, or provide housing in a timely manner as related to the Settlement Agreement. Unlike the proposed project, the alternative would require the relocation of student families into temporary housing in the surrounding community. The provision of temporary housing for the student families at an off-campus location would result in disruption and inconvenience to student families. Furthermore, due to the limited housing supply in the Santa Cruz area, there is some uncertainty as to whether units would be available to lease. Should the needed units be available, the leasing of the units would temporarily reduce the amount of rental housing available for the general public, thus impacting the ability to achieve the affordable housing objective. Higher per bed costs are primarily the result of the cost of providing temporary off-campus housing for student families at market rates; increased costs due to additional site investigation, regulatory compliance and design, construction cost escalation due to a delayed start; increased site and foundation costs associated with the unique topography and geology of the ECI site; the need to construct additional student support and amenity spaces at the ECI site; and the cost associated with constructing a parking deck for both the Heller and ECI sites. Furthermore, due to the need to obtain approvals to remove timberland and the need for site evaluation and design work for the ECI site development, the commencement of construction would be delayed and the alternative would likely fail to develop all the needed housing in a timely manner.

5.6.6 Alternative 6: Heller, East Campus Infill, and Delaware Site Development Alternative

Under this alternative, three sites would be utilized to provide the needed housing, childcare, parking, and related support facilities. The Heller site would be redeveloped to provide about 2,200 student beds, including 2,060 undergraduate student beds, 140 units for students with families, an expanded childcare facility, along with student support, dining, and amenity space. Approximately 594 undergraduate beds along with student support and amenity spacewould be provided in buildings constructed on the 3-acre ECI site. The 220 graduate student beds, along with appropriate support and amenity space, would be

provided on a portion of the University-owned 2300 Delaware Avenue property (Delaware site) located in the western portion of Santa Cruz. The Hagar site would not developed under this alternative.

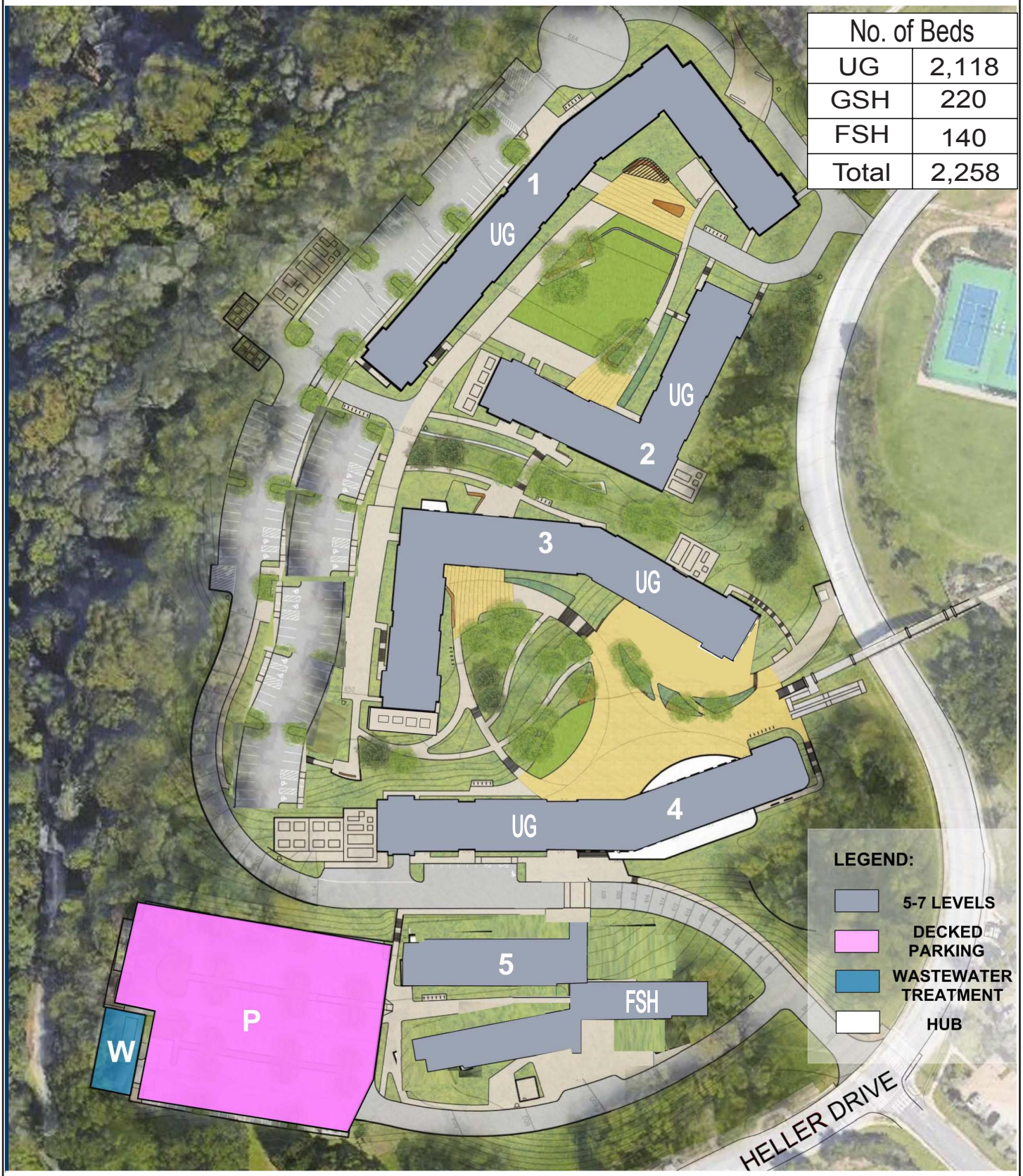
Figure 5.0-10, Heller Site Plan under Alternative 6, presents the conceptual site plan for the Heller site under this alternative. The Heller site plan would be similar to the plans described above for the preceding alternatives. Undergraduate student housing on the Heller site would be located in Buildings 1 through 4, which would be five to seven stories in height. Students with families would be housed in Building 5, which would be five to seven stories with the childcare center located on the ground floor. Elimination of one of the buildings included in the proposed project would allow for better spacing for these two distinct student communities. This alternative would provide approximately 338 surface parking spaces comprised of approximately 170 on-site surface parking spaces and approximately 168 parking spaces in a decked capacity (either on-site by adding a one-story parking deck to the southwestern parking lot or off-site at the Rachel Carson parking lot) for students with families, undergraduate students, the childcare center, and service vehicles.

As with Alternative 5, about 594 undergraduate beds would be located within two seven to eight story buildings along with additional student support and amenity space on the ECI site. The ECI site would provide for 100 parking spaces utilizing a decked facility approach. The number of parking spaces necessary is based on planned ratios for the new undergraduate buildings combined with replacement of parking spaces impacted by the siting of new buildings. For the ECI site plan, see **Figure 5.0-9**.

The Delaware site is an approximately 18-acre property developed with a large industrial/office building, two mechanical yards, tennis courts, and two large parking lots. The proposed graduate housing building would be located on the parking lot and tennis courts at the northern end of the site, between Natural Bridges Drive to the east and Antonelli Pond to the west (**Figure 5.0-11, Delaware Site Plan**). The building would be similar to the proposed project's graduate student housing building at the Heller site and would be about four to five stories in height. There is ample space at the Delaware site to add replacement surface parking to serve the proposed housing.

MBR plants to locally treat wastewater and generate recycled water for toilet flushing and irrigation would be constructed at the Heller and ECI sites under this alternative.

As noted under Alternative 2, because the Heller site is highly constrained in terms of development area, it would not be possible to phase the demolition or construct the improvements at the Heller site without first relocating student families living in the existing FSH complex and the existing childcare center to another location. Furthermore, no suitable sites to temporarily relocate student families have been identified on campus. As discussed above under Alternatives 4 and 5, due to the need for additional site



SOURCE: Capstone, 2018

FIGURE **5.0-10**

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Heller Site Plan under Alternative 6

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evaluation and design work as well as potential delay due to the need for timberland conversion permits and other issues related to feasibility, it is not possible to develop the housing on the ECI site in a timely manner to be used by student families temporarily thereby enabling demolition and construction on the Heller site to commence. The Campus also considered sequencing construction so that graduate housing at the Delaware site would be completed first and could be used temporarily by student families while their permanent homes were completed on the Heller site. Based on the additional site evaluation,design work, and coastal development permit requirements for the Delaware site, it is also not possible to develop temporary housing on the Delaware site in a timely manner to be used by student families thereby enabling demolition and construction on the Heller site to commence. As a result, to ensure completion of the project would not be substantially delayed, this alternative would require student families to be relocated into off-campus leased housing if such housing could be found in the surrounding community, with the childcare center being temporarily re-located to the Granary.

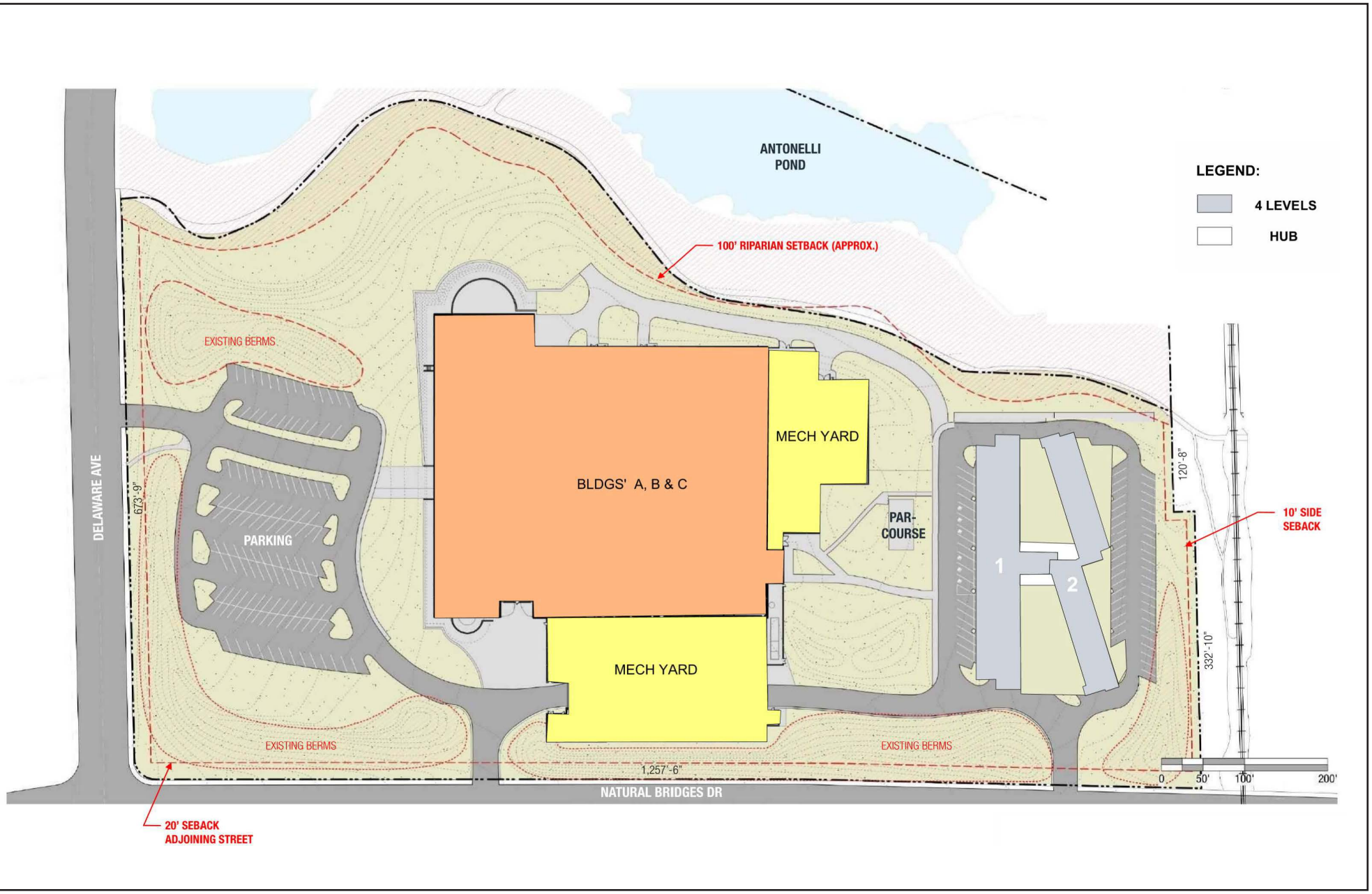
Total construction duration of this alternative would be 3 to 5 years if all three sites were constructed concurrently. Due to the additional design work and jurisdictional approvals needed for the ECI and Delaware sites, those sites would experience a delayed start of construction and the project completion could occur by 2024-25.

Aesthetics

Compared to the proposed project, this alternative would result in a lower density of development on the Heller site, with a reduction in the size of one building and all buildings seven stories or less in height. As a result, the alternative would have a comparable or slightly reduced visual impact on scenic vistas as the proposed project. It would also result in similar or slightly reduced less than significant impacts on visual character and light and glare at the Heller site due to the reduction in the scale of development. As no housing would be constructed on the Hagar site, this alternative would avoid the significant and unavoidable impacts of the proposed project on scenic vistas and scenic resources as well as other less than significant visual impacts at the Hagar site.

As under Alternative 5, this alternative would construct two undergraduate buildings with approximately 594 beds along with parking and student support and amenity space at the ECI site. As discussed under **Alternative 5, Aesthetics**, the ECI development would result in a significant and unavoidable impact on the visual character of the area. All other impacts would be less than significant.

Under this alternative, two buildings with 220 graduate student beds would be located on the northeastern side of the Delaware site which is currently developed with a surface parking lot, an outdoor storage area, and two tennis courts. The site is on the flatlands in a developed light industrial



SOURCE: Capstone, 2018

FIGURE **5.0-11**

IMPACT SCIENCES

Delaware Site Plan

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area and does not provide scenic views, nor is it prominent in any scenic vista. The visual character of the surrounding area is varied. The site is located in the Natural Bridges Industrial Park. The industrial park, which extends to the east and north of the site, is characterized by low-density warehouse and light industrial buildings. The Campus-owned buildings located on the property and just to the south of the site is two stories in height. Although this alternative would place student housing in an industrial park area, the impact to the visual character of the area would not be significant. Development on the Delaware site would not require the removal of any trees. Development on the Delware site would increase sources of light and glare in the project area. However, the site is in an urbanized area and the impact would be less than significant.

In summary, under this alternative all visual impacts from the Hagar site would be avoided compared to the proposed project, but the significant and unavoidable impact of Heller site development on scenic views from the Porter Knoll and the West Entrance would not be avoided and a new significant and unavoidable impact on visual character would arise as a result of constructing undergraduate student housing on the ECI site. All visual impacts from the Delaware site development would be less than significant.

Air Quality

Due to slightly more overall building space constructed under this alternative, this alternative would also result in a significant NOx and ROG impact due to construction emissions; as with the proposed project this impact would be reduced to a less than significant level with the same mitigation set forth for the proposed project. All of the other less than significant air quality impacts of the proposed project would occur under this alternative. As with the Heller site, no sensitive receptors are located in the vicinity of the ECI site. Therefore, the construction-phase TAC emissions emitted at the ECI site would not result in a significant health risk impact. Because no construction would take place at the Hagar site under this alternative, this alternative would avoid exposing existing receptors to the significant health risk impact from the construction phase TAC emissions.

With the exception of the Shaffer Road Apartments, which are about 350 feet to the northwest of the Delaware site, there are no other knownsensitive receptors in the immediate vicinity of the Delaware site. Santa Cruz DeAnza residential community is located about 1,330 feet to the southwest of the site, while parcels to the east are zoned industrial, and are separated from the project site by a landscaped earthen berm and two-lane street. To the north, the existing land uses are industrial/commercial and, therefore, would not have sensitive receptors. Although the site is separated from the Shaffer Road Apartments by the Antonelli Pond/Moore Creek corridor, nonetheless construction TACs at the project site would have the potential to result in a significant health risk impact. This impact is similar to the impact of Hagar site

construction TACs on nearby sensitive receptors and the same mitigation measure would reduce this impact to a less than significant level.

Biological Resources

This alternative would result in the same potentially significant biological resource impacts associated with development at the Heller site as the proposed project because the same area would be disturbed under this alternative. Mitigation measures identified for the proposed project would apply to this alternative to reduce impacts to less-than-significant levels. All potentially significant and less than significant biological resource impacts at the Hagar site would be avoided.

See **Alternative 5, Biological Resources**, for a discussion of impacts on biological resources at the ECI site, which would be reduced to less than significant with LRDP mitigation.

The Delaware site is currently developed with existing buildings and parking lots and does not contain any areas that are in a natural state, and existing development would preclude the use of the site as a wildlife corridor. Therefore, Delaware site development would not result in direct impacts on habitat for special-status plant species or wildlife, wetlands, or wildlife movement. The Delaware site is adjacent to Antonelli Pond, a natural open area preserve, which supports a variety of wildlife (including migrating birds) and some native vegetation, and Natural Bridges State Beach, which includes a State of California designated Monarch Butterfly Natural Preserve. Development at the Delaware site would not directly affect the pond or the state beach. Increased operational noise associated with the project under this alternative would not be loud enough to affect wildlife in these natural areas, due to the intervening distances. There are no habitat conservation plans or natural community conservation plans applicable to the Delaware site vicinity and therefore the project under this alternative would not conflict with the provisions of such plans.

Cultural Resources

This alternative would result in the same potentially significant impacts associated with the disturbance of unknown archaeological resources and human remains at the Heller site as the same area and the same amount of soil would be disturbed under this alternative. Mitigation measures identified for the proposed project would apply to this alternative to reduce impacts to less than significant levels. Similarly, the less than significant impacts of the proposed project associated with paleontological and unique geologic resources would occur under this alternative. However, all potentially significant and less than significant cultural resource impacts at the Hagar site would be avoided.

See **Alternative 5, Cultural Resources**, for impacts on cultural resources at the ECI site, which would be less than significant with LRDP mitigation.

The Delaware site has been previously disturbed during the construction of the existing buildings, parking lots and tennis courts. However, the earthmoving activities associated with the the development of this alternative could expose previously undiscovered buried archaeological resources, including human remains. As with all projects on the campus, LRDP mitigation measures would apply to this alternative to reduce impacts to less than significant levels. The Delaware site is underlain at depth by Santa Cruz mudstone, a paleontologically sensitive formation. However LRDP Mitigation CULT-5C and -5D are applicable to the site and would require that the project include provisions to protect significant resources in the event of a discovery during construction, including construction crew information, stop-work provisions, significance assessment, and data recovery if warranted. With the incorporation of these mitigation measures, the potential to result in adverse impacts on paleontological resources would be reduced to less than significant. There are no buildings on the Delaware site where the housing would be located. Therefore, there would be no impacts to any potential historic structures.

Geology and Soils

Under this alternative, no construction would occur on the Hagar site and the potentially significant impact related to construction on karst at that site would be avoided. Construction on the Heller site, as with the proposed project, would have the potential to result in the same significant impact related to construction on karst in the southern portion of the Heller site for this alternative. Implementation of the recommendation of the final geotechnical report per LRDP Mitigation GEO-1, and **SHW Mitigations GEO-3A** and -**3B** would similarly reduce the impact related to karst hazard to a less than significant level. As with the proposed project, all other impacts under this alternative related to geology and soils would be less than significant.

See **Alternative 5, Geology and Soils,** for a detailed analysis of geology and soils impacts at the ECI site.

With regard to Delaware site development, the potential for erosion is slight because of the level topography and because no grading or significant ground disturbance would be required. There are no natural watercourses on the Delaware site and no rock outcrops. Landslides are of no concern due to the level topography at the site. The site is not within an area of potential inundation by tidal waves. The City of Santa Cruz General Plan Tsunami Inundation Zone map shows that the Delaware site is nearby but not within a potential tsunami-inundation area. As the majority of the site is currently impervious, implementation of this alternative would likely not increase impervious areas.

Greenhouse Gas Emissions

Under this alternative, GHG emissions during construction would be comparable to those under the proposed project as the amount of building space constructed would be the same as that for the proposed project although spread out over three different sites. Similarly, GHG emissions during operation would also be comparable as this alternative would accommodate a similar project population, which would result in comparable emissions related to area sources, electricity use, and solid waste. The development at the Delaware site would not include a wastewater treatment plant. Therefore, this alternative would result in greater potable water use and discharge or wastewater to the City's sanitary sewer system, resulting in slightly higher GHG emisssions from potable water treatment and pumping and wastewater treatment.

Development of the ECI site would require the removal of trees, resulting in a reduction in carbon sequestration which could be partly offset by the planting of trees as part of the development on the site. Based on calculations for other projects involving development of wooded sites on the campus, it is likely that this impact would be less than significant.

There are no trees that would be removed at the Delaware site. Thus, no reduction in carbon sequestration would occur.

Hydrology and Water Quality

Similar to the proposed project, this alternative would not result in any significant impacts related to hydrology and water quality at the Heller site. Because no development would occur on the Hagar site, the project's potentially significant impact related to erosion and sedimentation in Jordan Gulch would be avoided under this alternative.

As with Alternative 5, this alternative would construct two undergraduate buildings with approximately 594 beds along with parking and student support and amenity space at the ECI site. See **Alternative 5, Hydrology and Water Quality,** for a discussion of hydrology and water quality impacts of ECI site development, which would be less than significant.

Water bodies near the Delaware site include lower Moore Creek to the west and Monterey Bay to the south. The site is not located within the 100-year flood hazard area of Moore Creek. This alternative would not increase the extent of impervious surfaces at the Delaware site and no groundwater extraction would occur at the site. Groundwater resources would not be affected by the Delaware site development. Similar to the proposed project, the Delaware site development under this alternative would be required to implement a SWPPP and LRDP Mitigation HYD-2B. Therefore the alternative would not result in

significant hydrology and water quality impacts.

Land Use and Planning

Similar to the proposed project, this alternative would not divide an existing community as development would be confined to the Heller site, and development on both the ECI and Delaware sites would not divide or displace any residents. Similar to the proposed project, this alternative would also not conflict with an applicable land use plan, policy, or regulations, although an LRDP amendment would be needed to change the designation of a portion of the Delaware site from Academic Core to Colleges and Student Housing, and the Campus would have to obtain a Coastal Development Permit from the Coastal Commission for the development of housing at the Delaware site. No habitat conservation plan or natural community conservation plan is applicable to either site.

Noise

Due to the reduced duration of construction at the Heller site, the project's less than significant construction noise impacts at the Heller site would be further reduced, and no construction noise would occur at the Hagar site.

As with Alternative 5, this alternative would construct two undergraduate buildings with approximately 594 beds along with parking and student support and amenity space at the ECI site. See **Alternative 5, Noise,** for a discussion of noise impacts from the development of the ECI site. There would be a significant and unavoidable construction noise impact due to the presence of campus receptors in close proximity of the ECI site.

With respect to noise impacts at the Delaware site, construction activities would be of short duration and only during daylight hours. Nearby receptors would be buffered from noise generated by these activities by the intervening distance, buildings, and earthen berms separating the site from nearby sensitive receptors located in the Shaffer Road Apartments and the Santa Cruz DeAnza residential community. Similar to the proposed project, LRDP Mitigation NOIS-1, which requires the use of noise controls on construction equipment, operational procedures to minimize noise levels, notification of residents of nearby buildings, and adjustment of construction schedules to minimize disturbance to residents, would be incorporated to ensure a less than significant impact. Future operations at the site are not expected to generate significant amounts of noise. Traffic noise associated with occupation of the site would be expected to be higher than under existing conditions, but would be substantially greater due to the small number of housing units that would be constructed at the Delaware site. The Delaware site is not located within an airport land use plan or within two miles of public airport or public use airport and it therefore, would not expose people working in the area to excessive noise levels. The site is not located within two

miles of a private airstrip and no impact would occur.

As this alternative would also require an expansion of the Rachel Carson and Porter College dining facilities, it would, like the proposed project, indirectly result in a significant construction noise impact.

Transportation and Traffic

Because this alternative would involve no construction at the Hagar site, the significant construction phase traffic impact would be avoided. However, the on-campus development under this alternative would be comparable to the proposed project and only about 220 graduate student beds would be located off campus at the Delaware site. Similar to the Hagar site development under the proposed project, Glenn Coolidge Drive would provide access to the ECI site under this alternative, and the alternative's construction duration would be comparable. Therefore, similar significant construction-phase traffic impact on Heller Drive and Glenn Coolidge Drive would still occur. The same mitigation measure would be needed to reduce the construction traffic impact.

As with the proposed project, this alternative would not conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit nor would it conflict with an applicable congestion management program because it would reduce the number of daily trips to the campus compared to existing conditions and the No Project Alternative. This alternative would also increase pedestrian crossings across Heller Drive and result in the same significant impact on transit and the same mitigation measure would be required to mitigate the impact. All other traffic impacts would be less than significant.

The alternative would place about 220 graduate students at the Delaware site which would generate some additional traffic between the site and the main campus, which could contribute to traffic impacts at intersections along Mission Street.

Tribal Cultural Resources

Similar to the proposed project, with mitigation, the Heller site development under this alternative would not result in any significant impacts related to TRCs. Although consultation pursuant to AB 52 with the Native American tribes has not been undertaken for the ECI site or the Delaware site, both sites do not contain any known cultural resources and are not sensitive for cultural resources. Furthermore, LRDP mitigation measures would be implemented to minimize impacts to unknown cultural resources encountered during construction. Therefore, the impacts on TRCs under this alternative would be comparable to those under the proposed project.

Utilities and Service Systems

Under this alternative, MBR plants would be constructed at two of the three sites (Heller and ECI sites). Similar to the proposed project, the recycled water produced at these two sites would be utilized for non-potable water uses, including toilet flushing and irrigation. The new housing at the Delaware Avenue site would utilize potable water supplied by the Santa Cruz Water Department and would not utilized recycled water for non-potable uses. As a result, the water supply impact under this alternative would be greater than that of the proposed project and would also be significant and unavoidable.

Similar to the proposed project, development at the Heller and ECI sites would discharge wastewater to the City sanitary sewer system only in an emergency. Therefore, with the exception of extension of the Campus sewer system to the project sites and the water line to the Heller site, no off-site improvements would be required. Under this alternative, however, wastewater from the housing at the Delaware Avenue site would be discharged to the City sanitary sewer, but infrastructure improvements would likely not be required and there would be no environmental impacts. As this alternative would include a similar number of beds as the proposed project, its solid waste impact would be comparable. All utility impacts at the Hagar site would be avoided.

Energy

This alternative would involve comparable petroleum-based fuel usage due to construction activities. Electricity and natural gas usage during operation would also be comparable to the proposed project. Thus, the alternative would result in comparable less than significant energy impacts.

Other Resources

As with the proposed project, the timberland conversion impact would occur at the Heller site. See **Alternative 5, Other Resources**, for a discussion of impacts on timberland at the ECI site. The Delaware site is already developed with urban uses and no agricultural use or timberland is present at or adjacent to the site.

Conclusion and Relationship to Project Objectives

The Heller, East Campus Infill, and Delaware Site Development Alternative would avoid all of the proposed project's impacts related to development at the Hagar site and would reduce the impacts at the Heller site. However, this alternative would have greater impacts on timberland, compared to the proposed project, although the impacts would be mitigable to a less than significant level. New significant and unavoidable impacts to visual character and from construction noise would occur at the

ECI site under this alternative, and potentially greater traffic impacts would occur from the development of housing on the Delaware site.

This alternative would achieve a number of the objectives of the proposed project. It would provide all the needed housing but would not meet the objectives of minimizing displacement impacts on student families, providing sufficient and affordable on-campus housing under the UC President's Housing Initiative, or provide housing in a timely manner as related to the Settlement Agreement. Unlike the proposed project, the alternative would require the relocation of student families into temporary housing in the surrounding community. The provision of temporary housing for the student families at an off-campus location would result in disruption and inconvenience to student families. Furthermore, due to the limited housing supply in the Santa Cruz area, there is some uncertainty as to whether units would be available to lease. Should the needed units be available, the leasing of the units would temporarily reduce the amount of rental housing available for the general public. The alternative would result in a higher per bed cost than the proposed project, thus impacting the ability of the University to achieve the affordable housing objective. Higher per bed costs are primarily the result of the cost of providing temporary off-campus housing for student families at market rates; increased costs due to additional site investigation, regulatory compliance and design; construction cost escalation due to a delayed start; increased site and foundation costs associated with the unique topography and geology of the ECI site; and the need to construct additional student support and amenity spaces at the ECI and Delaware sites. Furthermore, due to the need to obtain jurisdictional approvals as well as for the removal of timberland, and the need for site evaluation and design work for the ECI and Delaware site housing, the commencement of construction would be delayed and the alternative would likely fail to develop all the needed housing in a timely manner.

5.6.7 Alternative 7: Heller, East Campus Infill, and North Remote Site Development Alternative

Under this alternative, three sites would be utilized to provide the needed housing, childcare, parking, and related support facilities. The Heller site would be redeveloped to provide approximately 1,510 student beds, including 1,150 undergraduate student beds, 220 graduate student beds, and 140 units for students with families an expanded childcare facility, along with student support, dining, and amenity space. About 594 undergraduate beds along with additional student support and amenity space would be provided in apartment buildings constructed on the 3-acre ECI site. Approximately 906 undergraduate beds along with additional student support, dining, and amenity space would be provided on the North Remote site. The Hagar site would not be developed as part of this alternative.

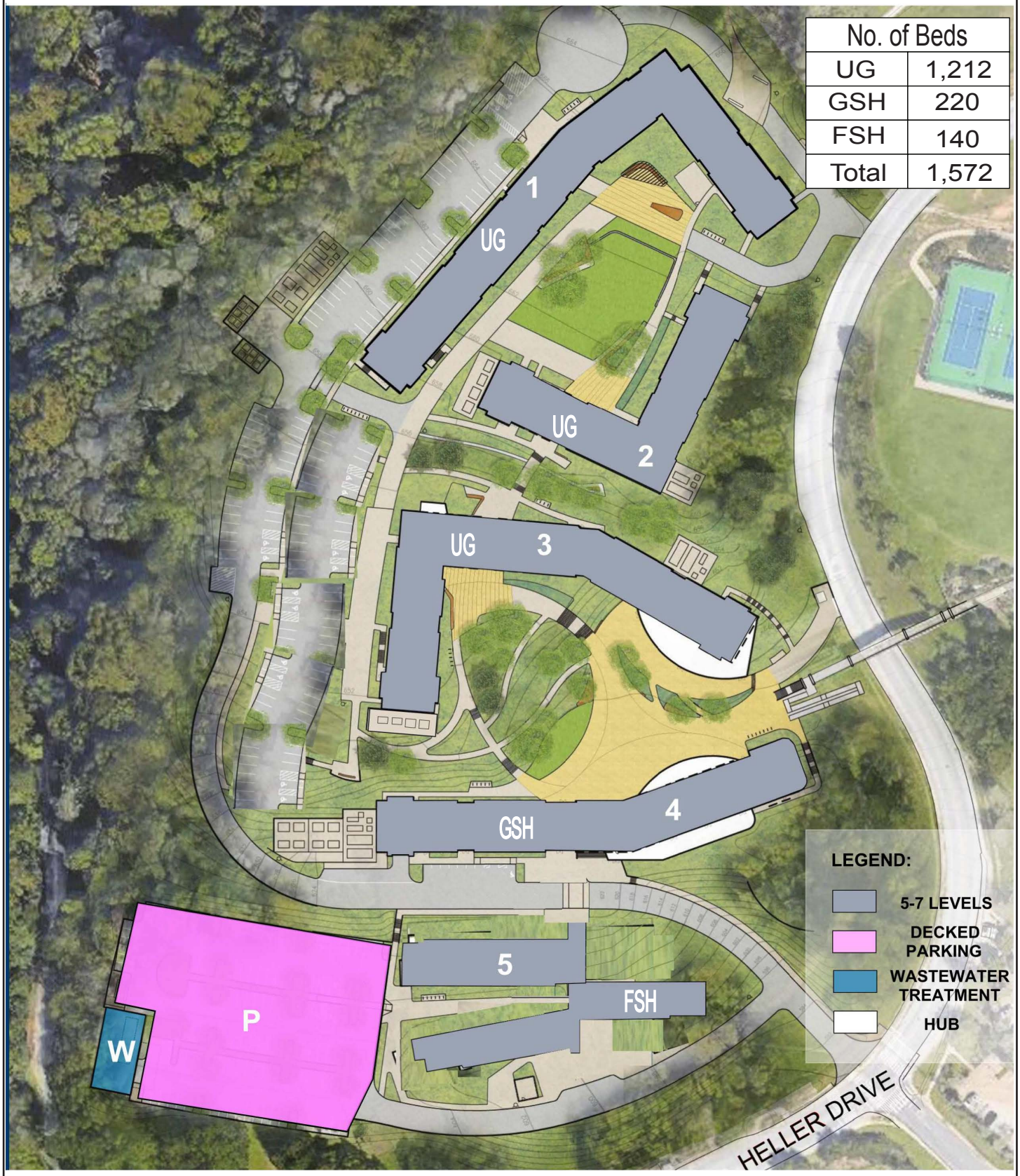
Figure 5.0-12, Heller Site Plan under Alternative 7, presents the conceptual site plan for the Heller site under this alternative. As shown, the Heller site plan would be similar to the plans described above for the preceding alternatives. Undergraduate student housing on the Heller site would be provided in Buildings 1 through 3, which would be five to seven stories in height. Graduate student housing would be located south of the undergraduate housing buildings in Building 4, a five to seven story building, and housing for students with families would be located in Building 5, which would be five to seven stories with the childcare facility located on the ground floor. This alternative would provide approximately 359 parking spaces, comprised of approximately 170 on site surface parking spaces and approximately 189 parking spaces in a decked capacity (either on-site by adding a one-story parking deck to the southwestern parking lot or off-site at the Rachel Carson parking lot) for students with families, undergraduate students, graduate students, family student housing, the childcare facility, and service vehicles.

As under Alternatives 5 and 6 above, the proposed 594 undergraduate beds and additional student support and amenity space would be located within two seven- to –eight-story buildings on the ECI site. The ECI site would provide for 100 parking spaces utilizing a decked facility approach. The number of parking spaces necessary is based on planned ratios for the new undergraduate buildings combined with replacement of all parking spaces impacted by the siting of new buildings. For the ECI site plan, see **Figure 5.0-9**.

At the North Remote site, two five- to seven-story buildings containing 906 undergraduate student beds and student support, dining, and amenity space would be constructed (**Figure 5.0-13, Alternative 7 - North Remote Site**). The site development would also include approximately 70 surface parking spaces along with significant extensions of utility infrastructure and potential roadway development.

This alternative would include an MBR plant at each of the three sites to locally treat wastewater and generate recycled water for toilet flushing and irrigation.

As noted under Alternative 2, because the Heller site is highly constrained in terms of development area, it would not be possible to phase the demolition or construct improvements at the Heller site without first relocating student families living in the existing FSH complex and the existing childcare center to another location. Furthermore, no suitable sites to temporarily relocate student families have been identified on the campus. As discussed above under Alternatives 4 and 5, due to the need for additional site evaluation and design work as well as potential delay due to the need for timberland conversion permits and other issues related to feasibility, it is not possible to develop housing on the North Remote site or the ECI site in a timely manner so that housing can be used by student families temporarily and demolition and construction on the Heller site can be commenced. As a result, to ensure completion of



SOURCE: Capstone, 2018

FIGURE **5.0-12**

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Heller Site Plan under Alternative 7

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the project would not be substantially delayed, this alternative would also require that students with families be relocated into off-campus housing if such housing could be found in the surrounding community, with the childcare center being temporarily re-located to the Granary.

Total project duration of this alternative would be about 3 to 5 years if all three sites were constructed concurrently. Due to the additional design work and approvals needed for the North Remote and ECI sites, those sites would experience a delayed start of construction and the project completion would occur by 2024-25.

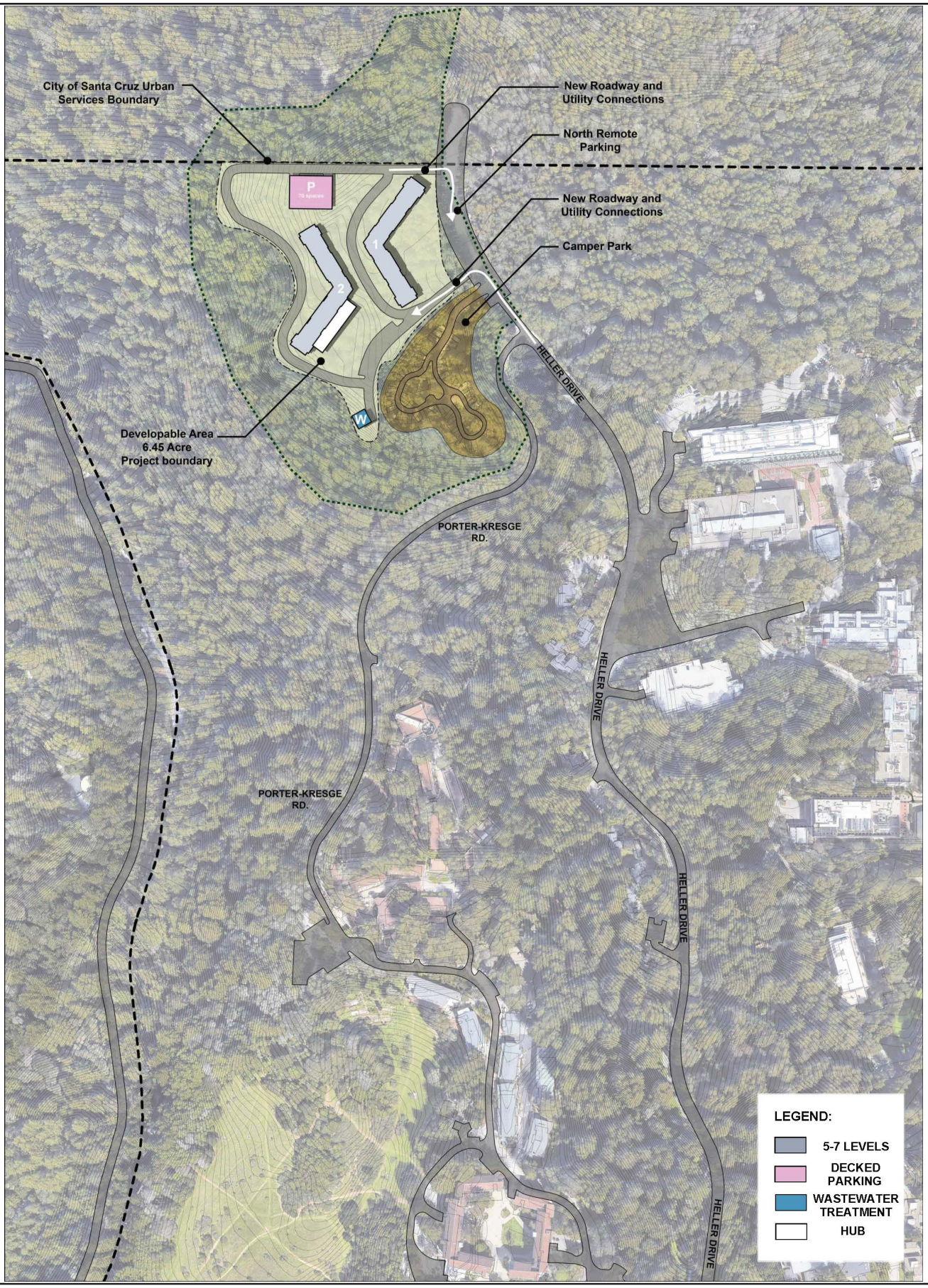
Aesthetics

Compared to the proposed project, this alternative would result in a lower density of development on the Heller site, as it would involve the development of five buildings and all buildings would be five to seven stories high. As a result, the proposed project's impact on scenic vistas from Porter Knoll and the West Entrance would be reduced but it would not be fully avoided. It would also reduce the proposed project's less than significant impacts on visual character and light and glare at the Heller site due to the reduction in the scale of development. As no housing would be constructed on the Hagar site, this alternative would avoid the significant and unavoidable impacts of the proposed project on scenic vistas and scenic resources as well as other less than significant visual impacts at the Hagar site.

As with Alternative 5, this alternative would construct two undergraduate buildings with approximately 594 beds along with parking and student support and amenity space at the ECI site. See **Alternative 5, Aesthetics,** for a discussion of the visual impacts of the ECI development, including the significant and unavoidable impact on visual character.

Under this alternative, two undergraduate housing buildings containing 906 beds and HUB space would be located on the North Remote site. This alternative would construct one less building and also reduce the height of the remaining two buildings (by up to two stories) on the North Remote site compared to Alternative 4. Thus, there would be a less than significant visual impact of placing housing on the North Remote site under this alternative.

Overall, the impacts on visual resources would be reduced under this alternative compared to the proposed project, but the significant and unavoidable impact of Heller site development on scenic views from the Porter Knoll and the West Entrance would not be avoided.



SOURCE: Capstone, 2018

FIGURE **5.0-13**

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Alternative 7 - North Remote Site

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Air Quality

Due to a moderate increase in building space constructed under this alternative, this alternative would also result in a significant NOx and ROG impact due to construction emissions; as with the proposed project this impact would be reduced to a less than significant level with the same mitigation set forth for the proposed project. All of the other less than significant air quality impacts of the proposed project would occur under this alternative. Because no construction would take place at the Hagar site under this alternative, this alternative would avoid exposing existing receptors to the significant health risk impact from the construction phase TAC emissions. There are no existing sensitive receptors near the ECI site and the North Remote site who would be exposed to TAC emissions and no health risk impacts would occur under this alternative.

Biological Resources

This alternative would result in the same potentially significant biological resource impacts associated with development at the Heller site as the proposed project because the same area would be disturbed under this alternative. Mitigation measures identified for the proposed project would apply to this alternative to reduce impacts to less than significant levels. All potentially significant and less than significant biological resource impacts at the Hagar site would be avoided.

See **Alternative 5, Biological Resources,** for a discussion of biological resource impacts at the ECI site, which would be less than significant with LRDP mitigation.

This alternative would construct one less building on the North Remote site than Alternative 4. Thus, there would be slightly reduced biological resource impacts under this alternative than under Alternative 4. See **Alternative 4, Biological Resources,** for a discussion of biological resource impacts at the North Remote site. As noted there, biological resource impacts at the North Remote site would be greater than those on the project sites, but would be reduced to less than significant with LRDP mitigation.

Cultural Resources

This alternative would result in the same potentially significant impacts associated with the disturbance of unknown archaeological resources and human remains at the Heller site as the same area and the same amount of soil would be disturbed under this alternative. Mitigation measures identified for the proposed project would apply to this alternative to reduce impacts to less than significant levels. Similarly, the less than significant impacts of the proposed project associated with paleontological and unique geologic resources would occur under this alternative. However, all potentially significant and less than significant cultural resource impacts at the Hagar site would be avoided.

See **Alternative 5, Cultural Resources**, for a discussion of cultural resource impacts at the ECI site, which would be less than significant with LRDP mitigation.

This alternative would construct one less building on the North Remote site than under Alternative 4. Thus, there would be slightly reduced cultural resource impacts under this alternative than under Alternative 4. See **Alternative 4, Cultural Resources,** for a discussion of cultural resource impacts at the North Remote site, which would be less than significant with LRDP mitigation.

Geology and Soils

Under this alternative, no construction would occur on the Hagar site and the potentially significant impact related to construction on karst at that site would be avoided. Due to construction on the Heller site, as with the proposed project, this alternative would have the potential to result in the same significant impact related to construction on karst on the Heller site. Implementation of the recommendation of the final geotechnical report per LRDP Mitigation GEO-1, and **SHW Mitigations GEO-3A** and **-3B** would similarly reduce the impact related to karst hazard to a less than significant level. Similar to the proposed project, all other impacts at the Heller site under this alternative related to geology and soils would be less than significant.

See **Alternative 5, Geology and Soils**, for a discussion of geology and soils impacts at the ECI site.

This alternative would construct one less building on the North Remote site than Alternative 4. Thus, there would be slightly reduced geology and soils impacts under this alternative than under Alternative 4. See **Alternative 4, Geology and Soils,** for a discussion of less than significant geology and soils impacts at the North Remote site.

Greenhouse Gas Emissions

Under this alternative, GHG emissions during construction would be slightly more than those under the proposed project as the amount of building space constructed would slightly increase and housing would be developed on three different sites. However, GHG emissions during operation would be comparable as this alternative would accommodate a similar project population, which would result in comparable emissions related to area sources, electricity use, water use, solid waste and wastewater generation.

Both the North Remote and ECI sites are occupied by trees which would be removed, resulting in a reduction in carbon sequestration which could be partly offset by the planting of trees as part of the development on the sites. Based on calculations for other projects involving development of wooded sites on the campus, it is likely that this impact would be less than significant.

Hydrology and Water Quality

Similar to the proposed project, this alternative would not result in any significant impacts related to hydrology and water quality at the Heller site. Because no development would occur on the Hagar site, the project's potentially significant impact related to erosion and sedimentation in Jordan Gulch would be avoided under this alternative.

Similar to Alternative 5, this alternative would construct two undergraduate buildings with approximately 594 beds along with parking and student support and amenity space at the ECI site. See **Alternative 5, Hydrology and Water Quality,** for a discussion of the less than significant hydrology and water quality impacts from the development of the ECI site.

This alternative would construct one less building on the North Remote site than Alternative 4. Thus, there would be slightly reduced impervious area and the hydrology and water quality impacts under this alternative would be reduced compared to those under Alternative 4. See **Alternative 4, Hydrology and Water Quality,** for a discussion of the less than significant hydrology and water quality impacts from the development of the North Remote site.

Land Use and Planning

Similar to the proposed project, this alternative would not divide an existing community as development would be confined to the Heller site, and development on both the North Remote and ECI sites would not divide or displace any residents. Similar to the proposed project, this alternative would also not conflict with an applicable land use plan, policy, or regulations. No habitat conservation plan or natural community conservation plan is applicable to either site.

Noise

Due to the reduced duration of construction at the Heller site, the project's less than significant construction noise impacts at the Heller site would be further reduced, and no construction noise would occur at the Hagar site.

Similar to Alternative 5, this alternative would construct two undergraduate buildings with approximately 594 beds at the ECI site. See **Alternative 5, Noise,** for a discussion of noise impacts from the development of the ECI site. There would be a significant and unavoidable construction noise impact during the construction of housing at this site.

This alternative would construct one less building on the North Remote site than Alternative 4. Thus, there would be a reduction in the duration of construction noise impacts under this alternative compared

to Alternative 4. See **Alternative 4, Noise,** for a discussion of noise impacts from the development of the North Remote site.

As this alternative would also require an expansion of the Rachel Carson and Porter College dining facilities, it would, like the proposed project, indirectly result in a significant construction noise impact.

Transportation and Traffic

Because this alternative would involve no construction at the Hagar site, the significant construction phase traffic impact would be avoided. However, construction would occur at three sites and both Heller Drive and Glenn Coolidge Drive would be used by construction traffic to access the work sites. The alternative's construction duration would be greater than the proposed project. The construction traffic would cause greater delays on the campus than the proposed project because the trucks would have to travel through and beyond the central campus to reach two of the three project sites. Therefore, the significant construction-phase traffic congestion impact on Heller Drive would be more severe than under the proposed project. This alternative would likely also result in a significant construction traffic impacts on Glenn Coolidge and McLaughlin Drives.The same mitigation measure would be needed to reduce the construction traffic impact.

As with the proposed project, this alternative would not conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit nor would it conflict with an applicable congestion management program because it would reduce the number of daily trips to the campus compared to existing conditions and the No Project Alternative. This alternative would also increase pedestrian crossings across Heller Drive and result in the same significant impact on transit and the same mitigation measure would be required to mitigate the impact. All other traffic impacts would be less than significant.

Tribal Cultural Resources

Similar to the proposed project, with mitigation, the Heller site development under this alternative would not result in any significant impacts related to TRCs. Although consultation pursuant to AB 52 with the Native American tribes has not been undertaken for the North Remote site or ECI site, both sites are not considered sensitive for prehistoric cultural resources. Furthermore, LRDP mitigation measures would be implemented to minimize impacts to unknown cultural resources. Therefore, the impacts on TRCs under this alternative would be comparable to those under the proposed project.

Utilities and Service Systems

Under this alternative, an MBR facility would be constructed at each of the three sites. The recycled water produced at each site would be utilized for non-potable water uses, including toilet flushing and irrigation. As there are no colleges near the North Remote site that could utilize excess recycled water, thus excess water, if any, would be disposed via injection wells.

Due to the inclusion of MBR plants at each site, the potable water demand associated this alternative would be comparable to that under the proposed project. Slightly more water would be used at the North Remote site due to the inclusion of dining facilities at that site. As with the proposed project, the water supply impact under this alternative would also be significant and unavoidable.

Similar to the proposed project, a connection to the Campus's sanitary sewer infrastructure would be required, and wastewater would be discharged to the sanitary sewer only in an emergency. Therefore, alternative would result in a less than significant impact associated with the expansion of the City's wastewater conveyance and treatment infrastructure. As this alternative would include a similar number of beds as the proposed project, its solid waste impact would be comparable. All utility impacts at the Hagar site would be avoided.

Energy

This alternative would involve slightly more petroleum-based fuel usage due to construction activities. Electricity and natural gas usage during operation would also be comparable to the proposed project. Thus, the alternative would result in comparable less than significant energy impacts.

Other Resources

As with the proposed project, the timberland conversion impact would occur at the Heller site. See **Alternative 5, Other Resources**, regarding timberland conversion impact at the ECI site and **Alternative 4, Other Resources**, regarding timberland conversion impact at the North Remote site.

Conclusion and Relationship to Project Objectives

The Heller, East Campus Infill, and North Remote Site Development Alternative would avoid all of the proposed project's impacts related to development at the Hagar site and would reduce the impacts at the Heller site. However, this alternative would have greater impacts on timberland and biological resources compared to the project, although the impacts would be mitigable to a less than significant level. New significant and unavoidable impacts to visual character and from construction noise at the ECI site would occur under this alternative.

This alternative would achieve a number of the objectives of the proposed project as it would provide all the needed housing, but it would not meet the objectives of minimizing displacement impacts on student families, providing sufficient and affordable on-campus housing under the UC President's Housing Initiative, or provide housing in a timely manner as related to the Settlement Agreement. Unlike the proposed project, the alternative would require the relocation of student families into temporary housing in the surrounding community. The provision of temporary housing for the student families at an off-campus location would result in disruption and inconvenience to student families. Furthermore, due to the limited housing supply in the Santa Cruz area, there is some uncertainty as to whether units would be available for the University to lease. Should the needed units be available, the leasing of the units would temporarily reduce the amount of rental housing available for the general public. The alternative would result in a higher per bed cost than the proposed project thus impacting the ability of the University to achieve the affordable hosuing objective. Higher per-bed costs are primarily the result of the costs related to providing temporary off-campus housing for student families at market rates; increased costs due to additional site investigation, regulatory compliance and design; construction cost escalation due to a delayed start; increased site and foundation costs associated with the unique topography and geology of the ECI site; extension of infrastructure and roadways for the North Remote site; and the need to construct additional student support and amenity spaces at the ECI and North Remote sites. Furthermore, due to the need to obtain approvals to remove timberland and the need for site evaluation and design work for the housing at both North Remote and ECI sites, the commencement of construction at all three sites would be delayed and the alternative would likely fail to develop all the needed housing in a timely manner.

5.7 ENVIRONMENTALLY SUPERIOR ALTERNATIVE

CEQA requires the identification of the environmentally superior alternative among the alternatives to the proposed project. The environmentally superior alternative must be an alternative to the proposed project that reduces some of the environmental impacts of the proposed project, regardless of the financial costs associated with this alternative. Identification of the environmentally superior alternative is an informational procedure and the alternative identified as the environmentally superior alternative may not be that which best meets the goals or needs of the proposed project.

Based on the analysis above, the No Project Alternative would be the environmentally superior alternative as it would avoid all significant and significant and unavoidable impacts of the proposed project. If the No Project Alternative is determined to reduce most impacts, CEQA requires that the EIR identify an environmentally superior alternative among the other alternatives (State CEQA Guidelines Section 15126.6(e)). Of the other alternatives evaluated in this EIR, Alternative 3 (Heller Site Development only) would have greater visual impacts than the proposed project. Alternative 4 (Heller Site and North

Remote Site Development), Alternative 5 (Heller Site and East Campus Infill Development), Alternative 6 (Heller, East Campus Infill, and Delaware Site Development), and Alternative 7 (Heller, East Campus Infill, and North Campus Remote Site Development) would have greater impacts on timberland and/or biological resources which would not occur under the proposed project. Alternative 5, 6, and 7 would also have a significant and unavoidable impact due to construction noise and a significant and unavoidable impact on visual character from the development of the ECI site. Alternative 2, the Reduced Project Alternative, would avoid all of the proposed project's impacts at the Hagar site and reduce the project's impacts at the Heller site, and not result in any additional significant impacts. For this reason, the Reduced Project Alternative 2 is considered the environmentally superior alternative.

5.6 REFERENCES

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UC Santa Cruz (UCSC). 2009. East Campus Infill Project Final Environmental Impact Report. July.

Table 5.0-1
Summary Comparison of Project Alternatives[a]

Project Impact	Proposed Project (Before and After Mitigation)	Alternative 1: No Project	Alternative 2: Reduced Project	Alternative 3: Heller Site Development Only	Alternative 4: Heller Site and North Remote Site Development Alternative	Alternative 5: Heller Site and East Campus Infill Development Alternative	Alternative 6: Heller Site, East Campus Infill, and Delaware Site Development Alternative	Alternative 7: Heller Site, East Campus Infill, and North Remote Site Development Alternative
Aesthetics								
SHW Impact AES-1: Implementation of the proposed project would have a substantial adverse effect on a scenic vista.	*S/SU*	Avoided; *NI*	Reduced; *S/SU*	Greater; *S/SU*	Reduced; *S/SU*	Reduced; *S/SU*	Reduced; *S/SU*	Reduced; *S/SU*
SHW Impact AES-2: Implementation of the proposed project would substantially damage scenic resources.	*S/SU*	Avoided; *NI*	Avoided; *NI*	Avoided; *NI*	Avoided; *NI*	Avoided; *NI*	Avoided; *NI*	Avoided; *NI*
SWH Impact AES-3: Implementation of the proposed project would substantially degrade the visual character or quality	*PS/SU*	Avoided; *NI*	Avoided; *NI*	Avoided; *NI*	Avoided; *NI*	Similar; S/*SU*	Similar; S/*SU*	Similar; S/*SU*
SHW Impact AES-4: Implementation of the proposed project would not result in a substantial adverse effect related to light and glare.	*PS/LTS*	Avoided; *NI*	Reduced; *PS/LTS*	Reduced; *PS/LTS*	Reduced; *PS/LTS*	Reduced; *PS/LTS*	Reduced; *PS/LTS*	Reduced; *PS/LTS*
Air Quality								
SHW Impact AIR-1: Construction of the proposed project could result in construction emissions that violate an air quality standard or contribute substantially to an existing or projected air quality violation.	*S/LTS*	Avoided; *NI*	Reduced; LTS	Similar; *S/LTS*	Greater; *S/LTS*	Greater; *S/LTS*	Greater; *S/LTS*	Greater; *S/LTS*
SHW Impact AIR-3: Implementation of the proposed project would expose sensitive receptors to substantial concentrations of toxic air contaminants.	*S/LTS*	Avoided; *NI*	Avoided; *NI*	Avoided; *NI*	Avoided; *NI*	Avoided; *NI*	Avoided; *NI*	Avoided; *NI*

Project Impact	Proposed Project (Before and After Mitigation)	Alternative 1: No Project	Alternative 2: Reduced Project	Alternative 3: Heller Site Development Only	Alternative 4: Heller Site and North Remote Site Development Alternative	Alternative 5: Heller Site and East Campus Infill Development Alternative	Alternative 6: Heller Site, East Campus Infill, and Delaware Site Development Alternative	Alternative 7: Heller Site, East Campus Infill, and North Remote Site Development Alternative
Biological Resources								
SHW Impact BIO-1: Development of the proposed project would result in a substantial adverse impact on four sensitive natural communities.	*PS/LTS*	Avoided; *NI*	Reduced; *PS/LTS*	Similar; *PS/LTS*	Greater; *PS/LTS*	Similar; *PS/LTS*	Similar; *PS/LTS*	Greater; *PS/LTS*
SHW Impact BIO-4: The proposed project could result in a substantial adverse impact (i.e., loss or degradation of habitat) on cave invertebrates..	*S/LTS*	Avoided; *NI*	Reduced; *S/LTS*	Similar; *S/LTS*	Similar; *S/LTS*	Reduced; *S/LTS*	Reduced; *S/LTS*	Reduced; *S/LTS*
SHW Impact BIO-5: The proposed project could result in a substantial adverse effect on important movement habitat and direct impacts to California red-legged frog.	*PS/LTS*	Avoided; *NI*	Similar; *PS/LTS*	Similar; *PS/LTS*	Similar; *PS/LTS*	Similar; *PS/LTS*	Similar; *PS/LTS*	Similar; *PS/LTS*
SHW Impact BIO-6: The proposed project could result in direct impacts to California giant salamanders.	*PS/LTS*	Avoided; *NI*	Similar; *PS/LTS*	Similar; *PS/LTS*	Similar; *PS/LTS*	Similar; *PS/LTS*	Similar; *PS/LTS*	Similar; *PS/LTS*
SHW Impact BIO-11: The proposed project could interfere with the movement of wildlife species or with established native resident or migratory wildlife corridors.	*PS/LTS*	Avoided; *NI*	Similar; *PS/LTS*	Similar; *PS/LTS*	Similar; *PS/LTS*	Similar; *PS/LTS*	Similar; *PS/LTS*	Similar; *PS/LTS*
SHW Impact BIO-12: Outdoor lighting associated with the proposed project could impact wildlife behavior adjacent to the project sites.	*PS/LTS*	Avoided; *NI*	Similar; *PS/LTS*	Similar; *PS/LTS*	Similar; *PS/LTS*	Similar; *PS/LTS*	Similar; *PS/LTS*	Similar; *PS/LTS*
Cultural Resources								
SHW Impact CULT-2: The proposed project could cause a substantial adverse change in the significance of a previously unknown historical or archaeological resource, or to human remains.	*PS/LTS*	Avoided; *NI*	Similar; *PS/LTS*	Similar; *PS/LTS*	Similar; *PS/LTS*	Similar; *PS/LTS*	Similar; *PS/LTS*	Similar; *PS/LTS*

Project Impact	Proposed Project (Before and After Mitigation)	Alternative 1: No Project	Alternative 2: Reduced Project	Alternative 3: Heller Site Development Only	Alternative 4: Heller Site and North Remote Site Development Alternative	Alternative 5: Heller Site and East Campus Infill Development Alternative	Alternative 6: Heller Site, East Campus Infill, and Delaware Site Development Alternative	Alternative 7: Heller Site, East Campus Infill, and North Remote Site Development Alternative
Geology and Soils								
SHW Impact GEO-3: The proposed project would result in construction of facilities in an area underlain by karst features, which could lead to settlement or collapse beneath the structures.	*PS/LTS*	Avoided; *LTS*	Reduced; *PS/LTS*	Reduced; *PS/LTS*	Reduced; *PS/LTS*	Similar; *PS/LTS*	Similar; *PS/LTS*	Similar; *PS/LTS*
Noise								
SHW Impact NOI-3: Construction associated with the proposed project would not cause a substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project.	*LTS*	Similar; *LTS*	Similar; *LTS*	Similar; *LTS*	Similar; *LTS*	Greater; S/*SU*	Greater; S/*SU*	Greater; S/*SU*
Hydrology and Water Quality								
SHW Impact HYD-3: Hagar site development and operations would not substantially degrade surface or groundwater quality; interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level or cause substantial changes in spring flows; but could result in erosion and sedimentation in Jordan Gulch.	*PS/LTS*	Avoided; *NI*	Avoided; *NI*	Avoided; *NI*	Avoided; *NI*	Avoided; *NI*	Avoided; *NI*	Avoided; *NI*

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Transportation and Traffic								
SHW Impact TRA-3: Construction period traffic could temporarily impact traffic conditions along roadways serving the project sites, including potential effect on emergency vehicle access.	*PS/LTS*	Avoided; *NI*	Reduced; *PS/LTS*	Similar; *PS/LTS*	Greater; *PS/LTS*	Greater; *PS/LTS*	Greater; *PS/LTS*	Greater; *PS/LTS*
SHW Impact TRA-6: The proposed project would conflict with UC Santa Cruz policies related to alternative transportation.	*PS/LTS*	Avoided; *NI*	Reduced; *PS/LTS*	Similar; *PS/LTS*	Reduced *PS/LTS*	Reduced *PS/LTS*	Reduced *PS/LTS*	Reduced *PS/LTS*
Tribal Cultural Resources								
SHW Impact TCR-1: The proposed project could cause a substantial adverse change in the significance of a Tribal Cultural Resource as defined in Section 21074.	*PS/LTS*	Avoided; *NI*	Reduced; *PS/LTS*	Reduced; *PS/LTS*	Similar; *PS/LTS*	Similar; *PS/LTS*	Similar; *PS/LTS*	Similar; *PS/LTS*
Utilities and Service Systems								
SHW Impact UTIL-1: The proposed project would not cause an exceedance of applicable wastewater treatment requirements but would entail the construction of new wastewater treatment facilities, the construction of which could result in cause significant environmental effects.	*PS/LTS*	Avoided; *NI*	Reduced; *PS/LTS*	Reduced; *PS/LTS*	Similar; *PS/LTS*	Similar; *PS/LTS*	Similar; *PS/LTS*	Similar; *PS/LTS*
SHW Impact UTIL-3: The proposed project would require the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects.	*PS/LTS*	Avoided; *NI*	Similar; *PS/LTS*	Similar; *PS/LTS*	Similar; *PS/LTS*	Similar; *PS/LTS*	Similar; *PS/LTS*	Similar; *PS/LTS*

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SHW Impact UTIL-4: The proposed project would increase the amount of water used on the project site, and would be adequately served by existing entitlements and water resources under normal water years but not under multiple dry year conditions.	*S/SU*	Greater; *S/SU*	Similar; *S/SU*	Similar; *S/SU*	Similar; *S/SU*	Similar; *S/SU*	Greater; *S/SU*	Similar; *S/SU*
SHW Impact C-UTIL-1: The proposed project, in conjunction with other past, present and reasonably foreseeable future development, would result in a significant cumulative impact on utilities.	*S/SU*	Greater; *S/SU*	Similar; *S/SU*	Similar; *S/SU*	Similar; *S/SU*	Similar; *S/SU*	Greater; *S/SU*	Similar; *S/SU*
Other Resources								
SHW Impact AG-1: The proposed SHW project and the related dining facilities expansion project would not convert farmland to non-agricultural use, conflict with existing zoning for agricultural use or a Williamson Act contract, or conflict with existing zoning for, or cause rezoning of, forestland or timberland. In addition, the proposed SHW project and the related dining facilities expansion project would not result in the loss of forestland or conversion of forestland to non-forest use, or involve other changes in the existing environment that could result in conversion of Farmland to non-agricultural use.	*LTS*	Avoided; *NI*	Similar; *LTS*	Similar; *LTS*	Greater; *LTS*	Greater; *LTS*	Greater; *LTS*	Greater; *LTS*

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a. This table lists only the significant or potentially significant environmental impacts of the proposed project. A less than significant impact of the project is listed only if an alternative would worsen that impact of the project.

KEY
SU Significant and unavoidable
S Significant impact
PS Potentially significant impact
LTS Less than significant impact
NI No Impact
Avoided Proposed project's impact avoided
Similar Impact similar to proposed project
Reduced Impact less than proposed project
Greater Impact greater than proposed project